Service

Electrical Wiring Diagrams

90
USA/Canada m.y. 1993

Technical Service Communications

This publication contains electrical wiring diagrams for the Audi 90, model year 1993, sold in the USA and Canada. Whenever working on Audi vehicles, follow the procedures described on the appropriate Repair Manual Microfiche. Use of tools or procedures other than those recommended may be detrimental to the safe operation of the vehicle as well as the safety of the person doing the repair.

Before working on any car, read Warnings and Cautions.

Technical Service Communications
Printed 9/94
W42 WD BOOK AU 04

General

90-All Models (Up to VIN: 8 CPA 000100) USA/Canada

90-All Models (Up to VIN: 8 CPA 000100) USA/Canada (Continued)

90-All Models (From VIN: 8 CPA 000100) USA/Canada

90-All Models (From VIN: 8 CPA 000100) USA/Canada (Continued)

Please read these WARNINGS and CAUTIONS before proceeding with maintenance and repair work.

- If you lack the skills, tools and equipment, or a suitable workshop for any procedure described in this manual, we suggest you leave such repairs to an authorized Audi dealer or other qualified shop. We especially urge you to consult an authorized Audi dealer before beginning repairs on any car that may still be covered wholly or in part by any of the extensive warranties issued by Audi.

- Audi is constantly improving its cars and sometimes these changes, both in parts and specifications, are made applicable to earlier models. Therefore, part numbers listed in this manual are for reference only. Always check with your authorized Audi dealer parts department for the latest information.

- Never work under a lifted car unless it is solidly supported on stands designed for this purpose. Do not support a car on cinder blocks, hollow tiles or other props that may crumble under continuous load. Never work under a car that is supported solely by a jack. Never work under the car while the engine is running.

- If you are going to work under a car on the ground, make sure that the ground is level. Block the wheels to keep the car from rolling. Disconnect the battery Ground (GND) strap to prevent others from starting the car while you are under it.

- Never run the engine unless the work area is well ventilated. Carbon monoxide kills.

- Tie long hair behind your head. Do not wear a necktie, a scarf, loose clothing, or a necklace when you work near machine tools or running engines. If your hair, clothing, or jewelry were to get caught in the machinery, severe injury could result.

- Illuminate the work area adequately but safely. Use a portable safety light for working inside or under the car. Make sure the bulb is enclosed by a wire cage. The hot filament of an accidentally broken bulb can ignite spilled fuel or oil.

- Finger rings should be removed so that they cannot cause electrical shorts, get caught in running machinery, or be crushed by heavy parts.

- Disconnect the battery Ground (GND) strap whenever you work on the fuel system or the electrical system. Do not smoke or work near heaters or other fire hazards. Keep an approved fire extinguisher handy.

- Any time the battery has been disconnected it will be necessary to reestablish Basic Settings for the Engine Control Module (ECM) and, on vehicles with automatic transmissions, the Transmission Control Module (TCM), using the VAG 1551 Scan Tool (ST).

- On cars equipped with anti-theft radios, make sure you know the correct radio activation code before disconnecting the battery or removing the radio. If the wrong code is entered into the radio when power is restored, that radio may lock up and be rendered inoperable, even if the correct code is then entered.

- Do not attempt to work on your vehicle if you do not feel well. You increase the danger of injury to yourself and others if you are tired, upset or have taken medicine or any other substance that may impair you from being fully alert.

- Always observe good workshop practices. Wear goggles when you operate machine tools or work with battery acid. Gloves or other protective clothing should be worn whenever the job requires working with harmful substances.

- Do not re-use any fasteners that are worn or deformed in normal use. Many fasteners are designed to be used only once and become unreliable and may fail when used a second time. This includes, but is not limited to, nuts, bolts, washers, self-locking nuts or bolts, circlips, cotter pins. Always follow recommendations given in this publication. Always replace these fasteners with new parts.

- Friction materials such as brake pads and clutch discs may contain asbestos fibers. Do not create dust by grinding, sanding, or by cleaning with compressed air. Avoid breathing asbestos fibers and asbestos dust. Breathing asbestos can cause serious diseases such as asbestosis or cancer, and may result in death.

Please read these WARNINGS and CAUTIONS before proceeding with maintenance and repair work.

• Catch draining fuel, oil or brake fluid in suitable containers. Do not use empty food or beverage containers that might mislead someone into drinking from them. Store flammable fluids away from fire hazards. Wipe up spills at once, but do not store the oily rags, which can ignite and burn spontaneously.

• Keep sparks, lighted matches, and open flame away from the top of the battery. If escaping hydrogen gas is ignited, it will ignite gas trapped in the cells and cause the battery to explode.

• The air-conditioning (A/C) system is filled with a chemical refrigerant that is hazardous. The A/C system should be serviced only by trained technicians using approved refrigerant recovery/recycling equipment, trained in related safety precautions, and familiar with regulations governing the discharging and disposal of automotive chemical refrigerants.

• Do not expose any part of the A/C system to high temperatures such as open flame. Excessive heat will increase system pressure and may cause the system to burst.

• Some of the vehicles covered by this manual are equipped with a supplemental restraint system (SRS), that automatically deploys an airbag in the event of a frontal impact. The airbag is operated by an explosive device. Handled improperly or without adequate safeguards, it can be accidently activated and cause serious personal injury. To guard against personal injury or airbag system failure, only trained Audi Service technicians should test, disassemble or service the airbag system.

• Never use a test light to conduct electrical tests on the airbag system. The system must only be tested by trained Audi Service technicians using the Audi VAG 1551 Scan Tool (ST) or an approved equivalent. The airbag unit must never be electrically tested while it is not installed in the vehicle.

• Before starting a job, make certain that you have all the necessary tools and parts on hand. Read all the instructions thoroughly, do not attempt shortcuts. Use tools appropriate to the work and use only replacement parts meeting Audi specifications. Makeshift tools, parts and procedures will not make good repairs.

• Use pneumatic and electric tools only to loosen threaded parts and fasteners, especially on light alloy parts. Always use a torque wrench to tighten fasteners to the tightening torque listed.

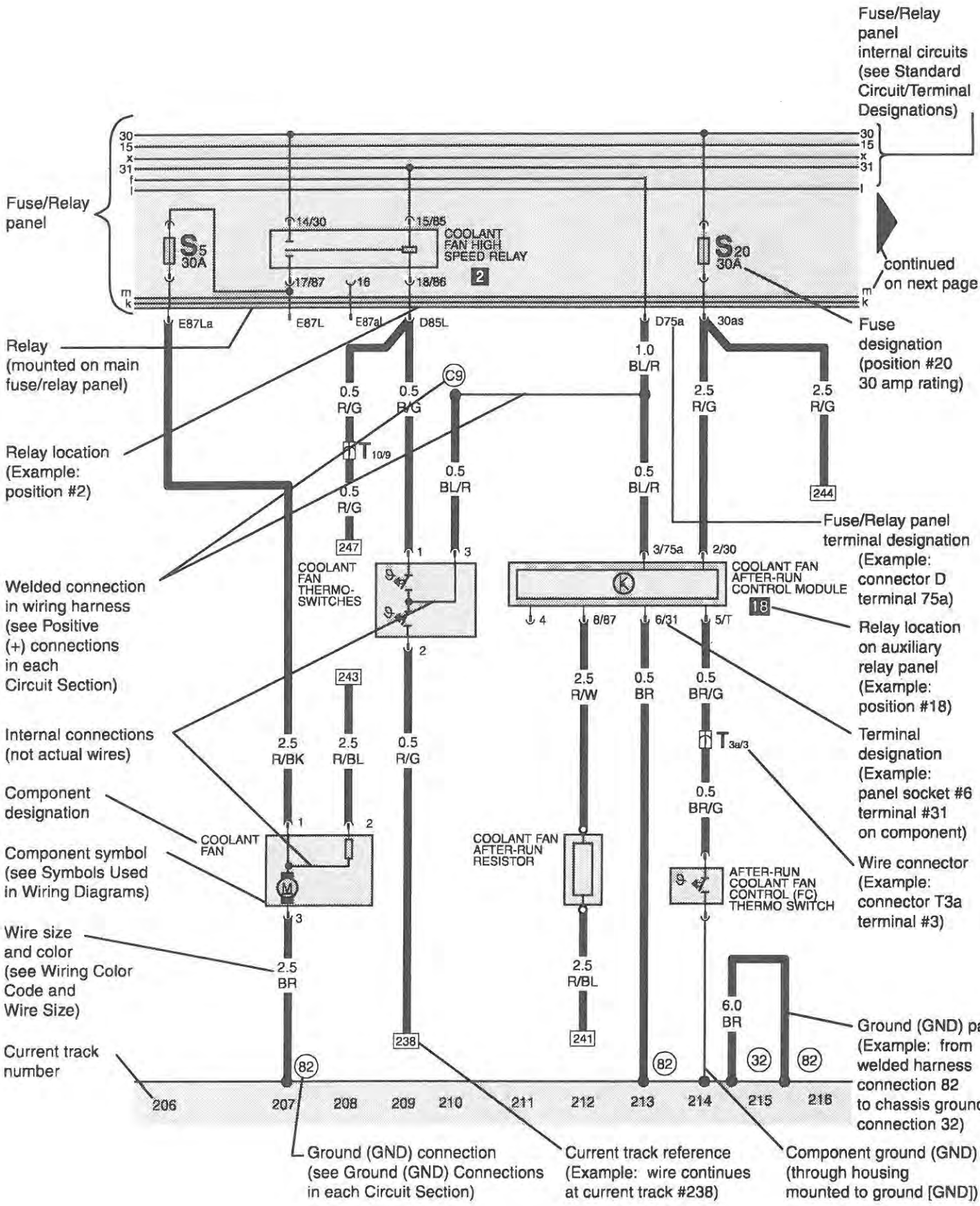
• Be mindful of the environment and ecology. Before you drain the crankcase, find out the proper way to dispose of the oil. Do not pour oil onto the ground, down a drain, or into a stream, pond or lake. Consult local ordinances that govern the disposal of wastes.

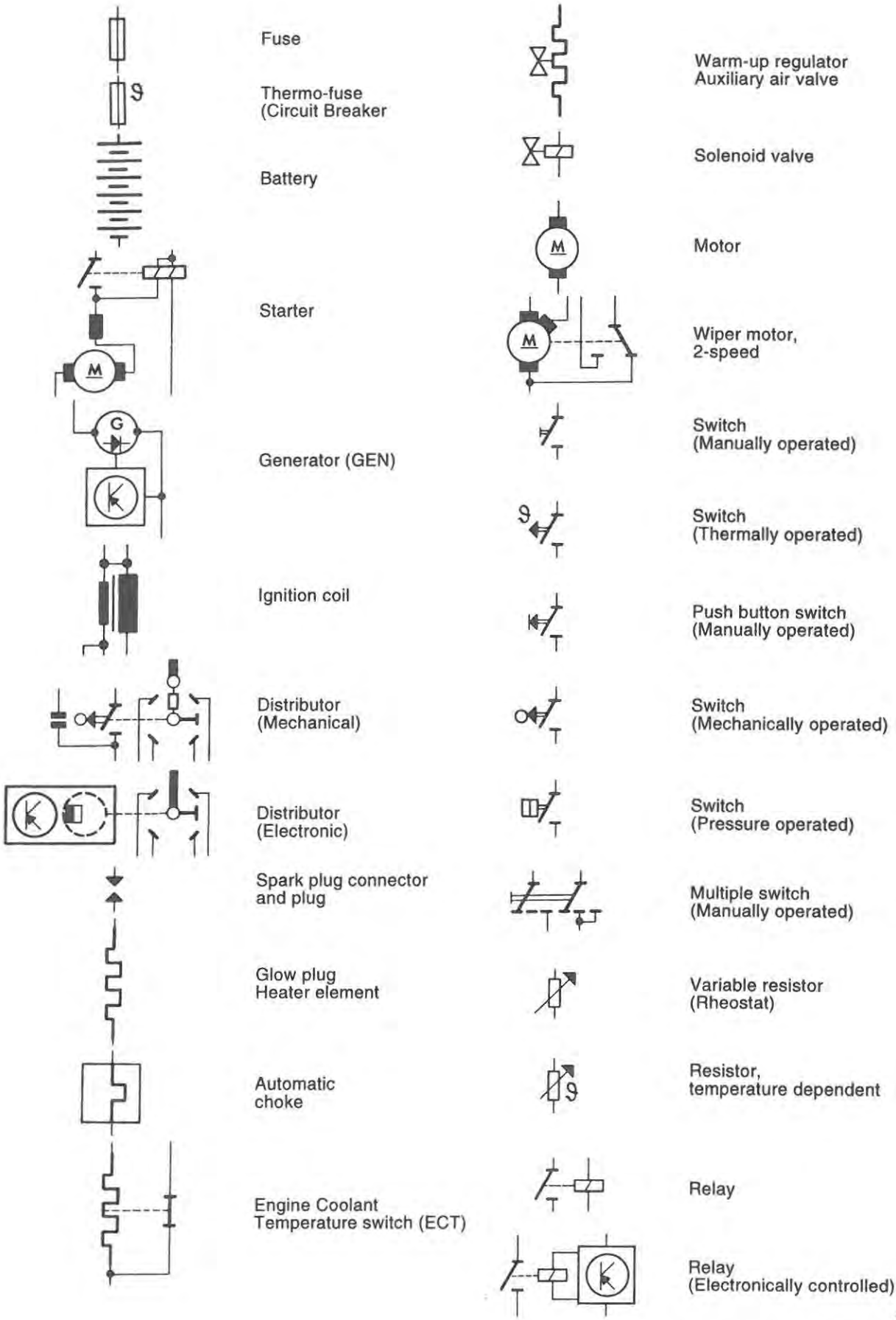
• Before doing any electrical welding on vehicles equipped with ABS, disconnect the battery Ground (GND) strap and the ABS Control Module connector.

• When boost charging the battery, first remove the fuses for the Engine Control Module (ECM), Transmission Control Module (TCM), ABS Control Module, and the On-Board computer. In cases where one or more of these components is not separately fused, disconnect the Control Module connector(s).

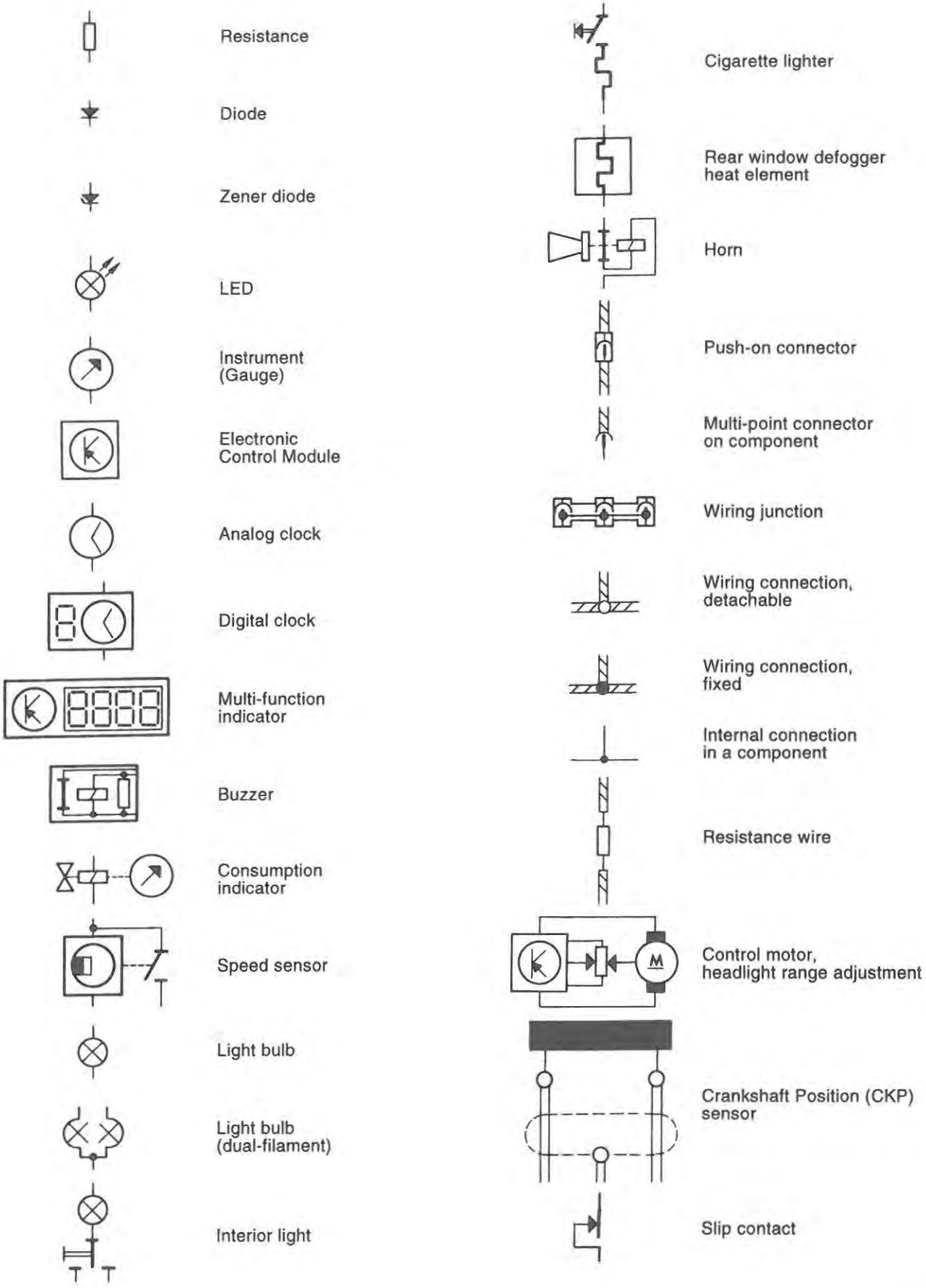
• Do not quick-charge the battery (for boost starting) for longer than one minute, and do not exceed 16.5 Volts at the battery with the boosting cables attached. Wait at least one minute before boosting the battery a second time.

• Some aerosol tire inflators are highly flammable. Be extremely cautious when repairing a tire that may have been inflated using an aerosol tire inflator. Keep sparks, open flame or other sources of ignition away from the tire repair area. Inflate and deflate the tire at least four times before breaking the bead from the rim. Completely remove the tire from the rim before attempting any repair.


Fuse/Relay panel internal circuits (see Standard Circuit/Terminal Designations)
Fuse/Relay panel
30
15
x
31
f
l
m
k
S5 30A
S20 30A
14/30
15/85
COOLANT FAN HIGH SPEED RELAY
2
17/87
16
18/86
continued on next page
E87La
E87L
E87aL
D85L
D75a
30as
Relay (mounted on main fuse/relay panel)
Fuse designation (position #20 30 amp rating)
1.0 BL/R
0.5 R/G
0.5 R/G
2.5 R/G
2.5 R/G
C9
Relay location (Example: position #2)
T10/9
0.5 R/G
0.5 BL/R
0.5 BL/R
244
247
Fuse/Relay panel terminal designation (Example: connector D terminal 75a)
3/75a
2/30
COOLANT FAN THERMO-SWITCHES
COOLANT FAN AFTER-RUN CONTROL MODULE
18
Welded connection in wiring harness (see Positive (+) connections in each Circuit Section)
4
8/87
6/31
5/T
Relay location on auxiliary relay panel (Example: position #18)
243
2.5 R/W
0.5 BR
0.5 BR/G
Internal connections (not actual wires)
2.5 R/BK
2.5 R/BL
0.5 R/G
T3a/3
Terminal designation (Example: panel socket #6 terminal #31 on component)
Component designation
0.5 BR/G
COOLANT FAN
COOLANT FAN AFTER-RUN RESISTOR
Component symbol (see Symbols Used in Wiring Diagrams)
AFTER-RUN COOLANT FAN CONTROL (FC) THERMO SWITCH
Wire connector (Example: connector T3a terminal #3)
Wire size and color (see Wiring Color Code and Wire Size)
2.5 BR
2.5 R/BL
6.0 BR
Ground (GND) path (Example: from welded harness connection 82 to chassis ground connection 32)
Current track number
238
241
82
82
32
82
206
207
208
209
210
211
212
213
214
215
216
Ground (GND) connection (see Ground (GND) Connections in each Circuit Section)
Current track reference (Example: wire continues at current track #238)
Component ground (GND) (through housing mounted to ground [GND])


Fuse
Thermo-fuse
(Circuit Breaker
Battery
Starter
Generator (GEN)
Ignition coil
Distributor
(Mechanical)
Distributor
(Electronic)
Spark plug connector
and plug
Glow plug
Heater element
Automatic
choke
Engine Coolant
Temperature switch (ECT)
Warm-up regulator
Auxiliary air valve
Solenoid valve
Motor
Wiper motor,
2-speed
Switch
(Manually operated)
Switch
(Thermally operated)
Push button switch
(Manually operated)
Switch
(Mechanically operated)
Switch
(Pressure operated)
Multiple switch
(Manually operated)
Variable resistor
(Rheostat)
Resistor,
temperature dependent
Relay
Relay
(Electronically controlled)

97-2429


Resistance
Diode
Zener diode
LED
Instrument (Gauge)
Electronic Control Module
Analog clock
Digital clock
Multi-function indicator
Buzzer
Consumption indicator
Speed sensor
Light bulb
Light bulb (dual-filament)
Interior light
Cigarette lighter
Rear window defogger heat element
Horn
Push-on connector
Multi-point connector on component
Wiring junction
Wiring connection, detachable
Wiring connection, fixed
Internal connection in a component
Resistance wire
M
Control motor, headlight range adjustment
Crankshaft Position (CKP) sensor
Slip contact

97-2429

Standard Circuit/terminal Designations

Circuit Number	Circuit Description	Most Common Wire Color
15	Powered when ignition switch is in "On" or "Start" positions	Black (BK)
x	Load-reduction circuit Powered by load-reduction relay when ignition switch in in "On" position (Not powered in "Start" position)	Black/Yellow (BK/Y)
30	Battery positive (+) Voltage Powered whenever battery is connected	Red (R)
31	Ground (GND) or battery negative (–)	Brown (BR)
50	Powered only when ignition switch is in "Start" position	Red/Black (R/BK)
B+	From generator (GEN) Charging Voltage to battery	Red (R)
D+	Generator (GEN) warning light and field energizing circuit	—
85	Ground (GND) (–) side of switching relay	Brown (BR)
86	Power-input (+) side of switching relay	—
87	Relay change-over contact	—

Wire Color-Code

BK	Black
BL	Blue
BR	Brown
CL	Clear
G	Green
GY	Gray
LT.G	Light Green
OR	Orange
R	Red
V	Violet
W	White
Y	Yellow

Combined codes indicate a multi-colored wire.

Example: The code R/G indicates a red wire with a green tracer stripe.

> ***Note***
>
> *Sometimes the wire color on the car may be different than the one on the wiring diagram. Don't be concerned, just be sure to confirm that the wires connect to the proper terminals.*

Wire Size

The wiring diagrams in this manual identify wires by their metric wire size. Metric wire sizes indicate cross-sectional area in square millimeters (mm^2). The table below lists metric wire sizes and their equivalents in American Wire Gauge (AWG) sizes.

Metric size (Cross-sectional area-mm^2)	**American Wire Gauge** (AWG)
0.35	22
0.5	20
0.75	18
1.0	16
1.5	14
2.5	12
4.0	10
6.0	8
16.0	4
25.0	2
35.0	2

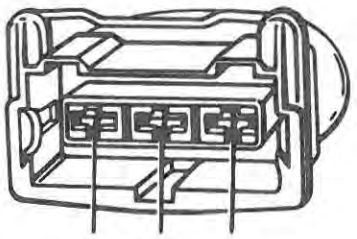
Connectors

T1 ..... Single-point
T2 ..... 2-point
T3 ..... 3-point
T4 ..... 4-point
T6 ..... 6-point
T8 ..... 8-point
T10 ..... 10-point
T12 ..... 12-point
T26 ..... 26-point

Each connector has a unique number. Example: T6, T6a and T6b are three different 6-point connectors.

Wiring diagrams usually also identify a particular connector terminal. Example: T3a/2 is terminal two of connector T3a.

T3a



(T3a/2)

96-902

2. Test Equipment

Special Tools

The most basic electrical troubleshooting calls for specialized electrical test equipment. Dealer Service Department technicians do this work using Special Tools, many of which are designed specifically for working on electrical systems. Proper tools are essential to ensure accurate test results and to prevent damage to sensitive components.

The Special Tools shown in this manual are identified by the order numbers that can be used to special-order the tools through your authorized dealer Parts Department.

2.1 LED Test Light

A test light is an inexpensive tool used to perform many simple electrical tests that would otherwise require a multimeter. It lights to indicate when there is Voltage potential between any two test-points in a circuit.

With one probe contacting the battery negative (–) terminal or a known ground (GND) connection, the other probe can be used to check for Voltage at other points in the circuit. The test light will light when the test probe contacts a Voltage source, and current flows from the Voltage source to ground (GND).

With one probe contacting a known source of Voltage, the other probe can be used to check for continuity to ground (GND) at other points in the circuit. Current will flow and the test light will light when the test-point provides the known Voltage source with a path to ground (GND).

> ***Caution***
>
> *A common test light (with incandescent bulb) may no longer be used. The bulb's high current draw will damage sensitive electronic components.*

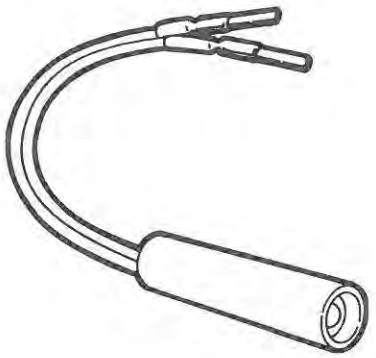
LED Test Light (US 1115)

Used to check for Voltage reaching components or when searching for malfunctions in a circuit.

Voltage range: 3 to 48 VDC

CAUTION

A common test light (with incandescent bulb) may no longer be used. The bulb's high current draw will damage sensitive electronic components.



Note

This tool has been superseded by Special Tool VAG 1527B, LED Tester. (US 1115 is still considered an acceptable equivalent to VAG 1527B).

LED Tester (VAG 1527B)
Order Number: TAG 152 7B0 28 ZEL

Two-pole Voltage tester with two LEDs (light emitting diodes), suitable for measuring from 3 to 48 Volts DC or AC.

When used to test DC circuits, the positive (+) or negative (–) LED will light, depending on polarity. When used to test AC circuits, both LEDs will light.

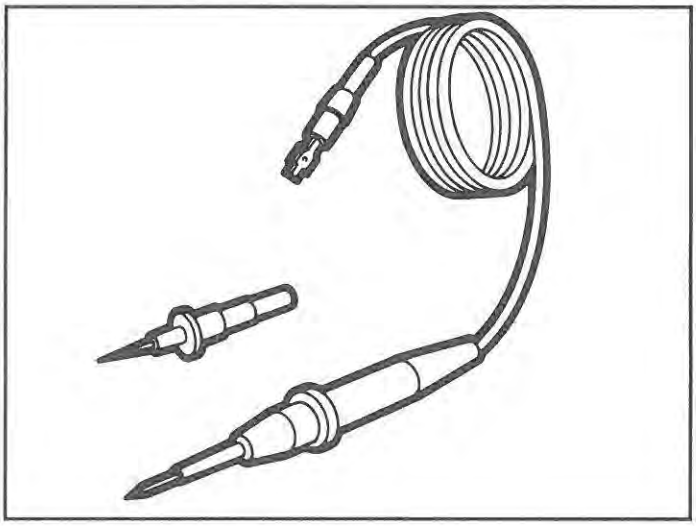
Supplied with banana clip and detachable probe-can be used directly with VAG 1598 Test Box.

For troubleshooting all common electrical and electronic components in automobiles. Safe for testing electronic components and circuits because of extremely low current consumption (1.5 mA maximum).

Voltage range: 3 to 48 Volts (AC or DC)

CAUTION

A common test light (with incandescent bulb) may no longer be used. The bulb's high current draw will damage sensitive electronic components.



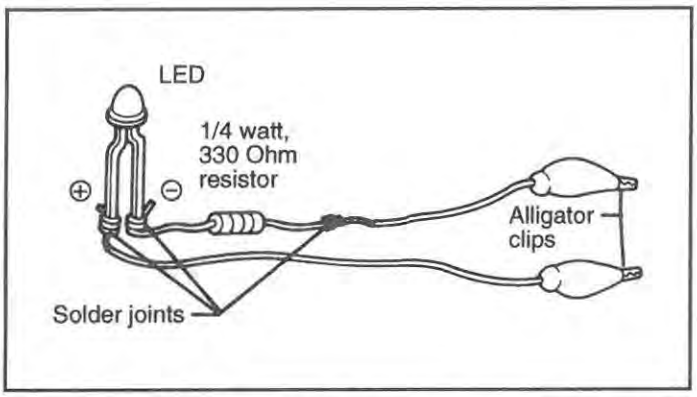
Note

This tool supersedes Special Tool US 1115 LED Test Light.

Making an LED Test Light

A lower-cost alternative to buying an LED Test Light such as US 1115 or VAG 1527B is to make one, using parts available from most any electronics supply outlet.

Assemble the components as shown. Use needle nose pliers to hold the parts and to act as a heat dam while soldering. Insulate the connections with heat-shrinkable tubing or electrical tape.



Do-it-yourself LED Test Light for safely testing sensitive solid-state circuits.

Parts:

1. LED (1)
2. 1/4 watt, 330 Ω resistor (1)
3. Alligator clips (2)
4. Wire, Solder and Soldering Iron
5. Heat-shrinkable tubing or electrical tape

2.2 Multimeter or Volt/Ohm Meter (VOM)

A multimeter or Volt-Ohm meter (VOM) is used to measure Voltage, resistance (Ohms) or current (amps or millamps). Two types of meters are in common use. The analog or swing-needle Volt-Ohm meter displays test values according to the position of a needle on the meter face. A digital multimeter displays test values as numbers. The meters shown here and recommended are digital multimeters.

Accuracy is an important consideration when choosing a meter. Analog or swing-needle Voltmeters are generally rated for accuracy as a percentage of full-scale on the meter face. A typical analog meter may be rated as accurate to ± 3% of full scale. Some analog meters offer 10-Volt and 50-Volt scales, with no range in between. For 12-Volt automotive electrical systems, this means testing on the 50-Volt scale, with a corresponding decrease in accuracy. On a 50-Volt scale, ± 3% accuracy is equal to ± 1.5 Volts. While still useful for testing circuits such as lights and horns, analog meters may not be accurate enough for use where precise measurements are required.

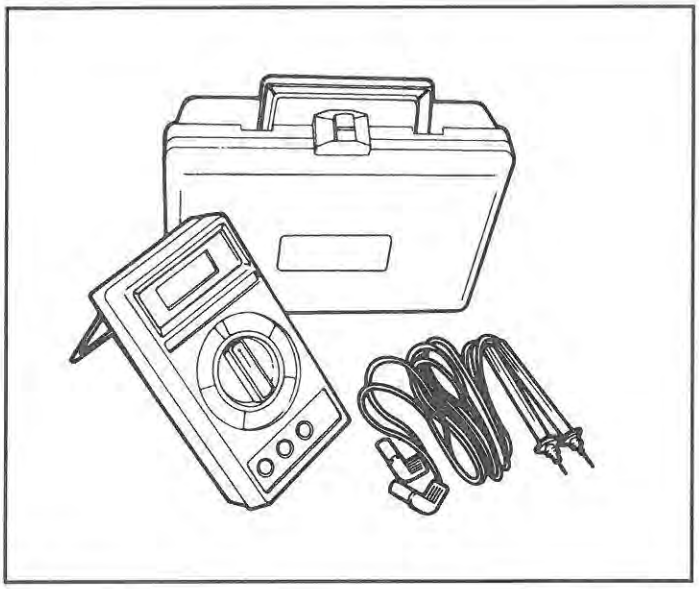
Digital multimeters are preferred for precise measurement and for electronics work because most digital multimeters are more accurate then most analog meters. Another advantage of digital multimeters is that they are less likely to be misread, since there is no needle position to be misinterpreted or distorted by reading at an angle.

Perhaps the most important consideration is input impedance-how much of a load the meter places on the circuit being tested. Meters with low input impedance place a greater load on the circuit because they allow more current flow through the meter. This can exceed design limits and be damaging to sensitive electronic components.

Most digital multimeters have very high input impedance-10 megohms (10,000,000 Ω) or higher-and make their measurements while allowing very little current flow through the meter. The meter itself is not a load in the circuit, and does not induce damaging current flow.

Multimeter Kit - digital (US 1119, VAG 1526)
Order Number: TU1 119 000 00 KTM

Used for monitoring electronic engine controls (Example: setting/checking the idle speed control system) and for general electrical troubleshooting.



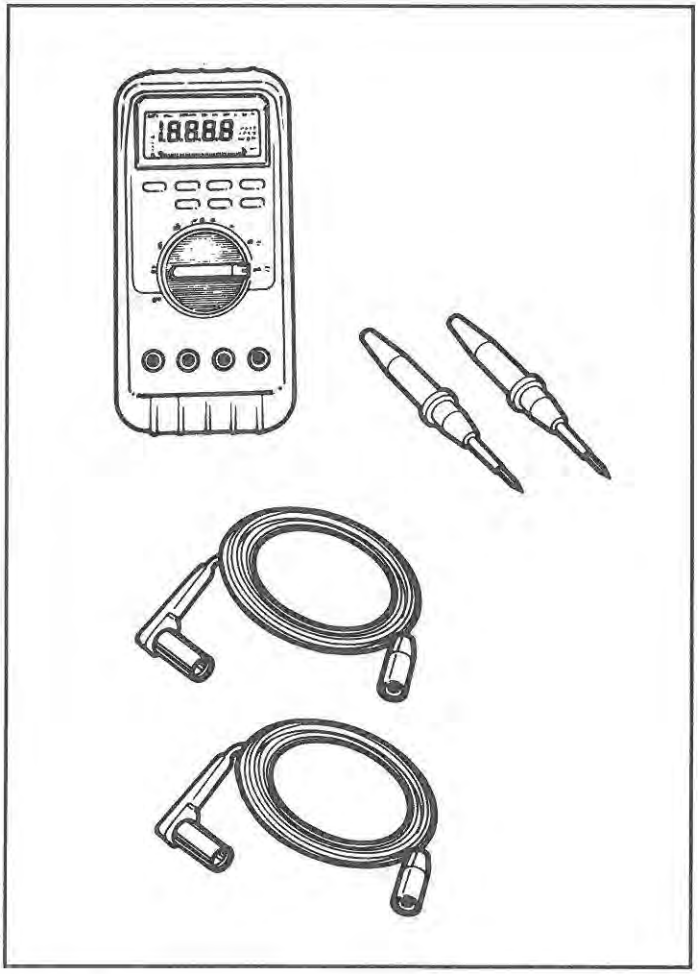
Note

This tool has been superseded by the Fluke 83® Digital Multimeter. (US 1119 or VAG 1526 are still considered acceptable equivalents).

Fluke 83® Digital Multimeter
Order Number: TFL UKE 830 00 RSE

Used for monitoring electronic engine controls (Example: setting/checking the idle speed control system) and for general electrical troubleshooting.

- 10 Megohm input impedance
- ± 0.3% DC Voltage accuracy
- fully overload-protected



Note

This tool supersedes Special Tool US 1119 Digital Multimeter Kit.

2.3 Test Kits

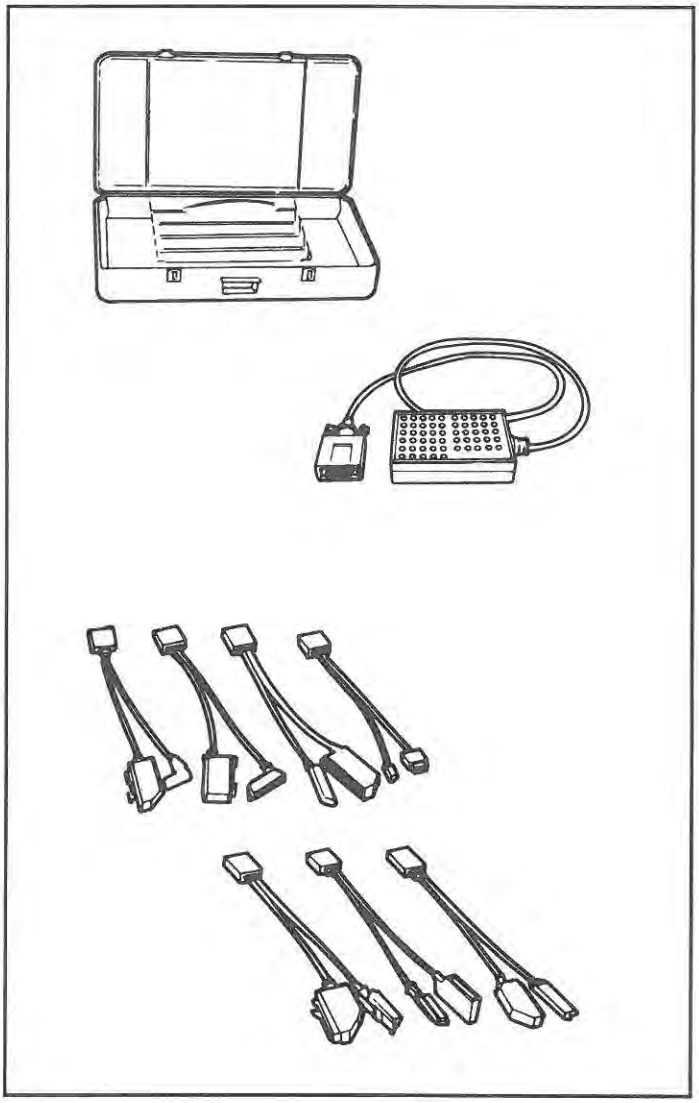
Adaptor Kit (VW 1594)
Order Number: TV1 594 400 97 KTM

Used to connect electrical measuring equipment to various harness connectors in the electrical system.

> ***CAUTION***
>
> *Test connections made carelessly or without proper tools can damage harness connectors, causing poor connections and future problems.*

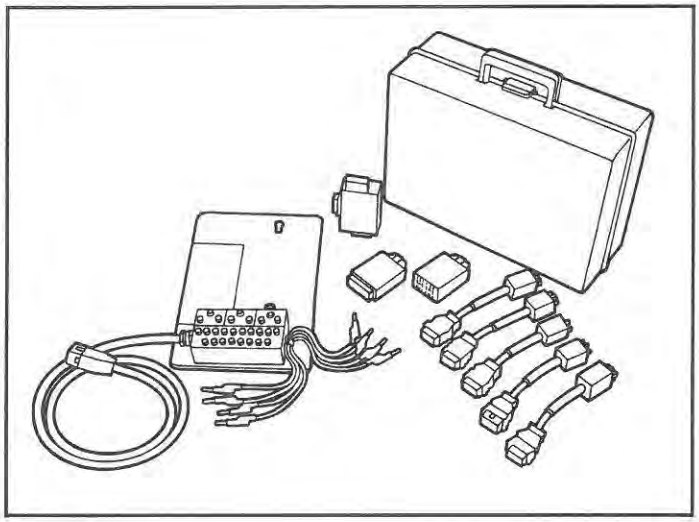
Test Box (VAG 1598)
Order Number: WAG 159 800 00 VOA

Used to perform static and dynamic tests of electrical and electronic systems without damaging miniature contacts, especially where limited access to connectors makes testing difficult.



Tester (VAG 1466)

Used to systematically troubleshoot electrical circuits.

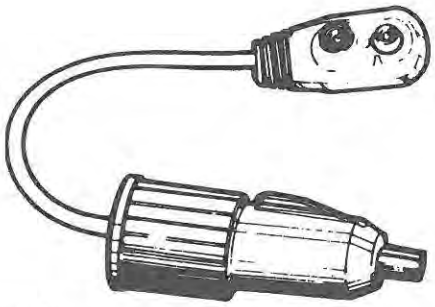


2.4 Computer Memory Saver

Used on vehicles with theft-protected radios to prevent the radio from electronically locking when battery power is disconnected. Use of this tool eliminates the need to re-activate the radio (reenter the correct code) after reconnecting battery power.

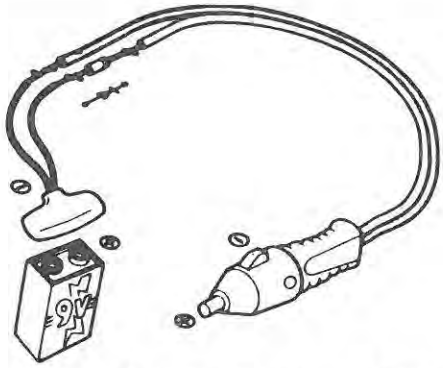
WARNING

Always separate the airbag Voltage supply connector before using a computer memory saver. Failure to do so may result in accidental activation of the airbag. For more information, see the Circuit Section in this manual entitled Airbag, or see the Repair Manual.



Snap-On
Computer Memory Saver
Part No. YA960

91-A051



Home-made computer memory saver

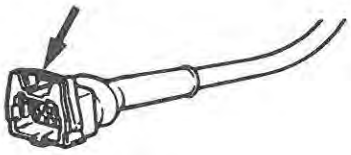
91-A052

3. Handling Components and Connectors

Harness Connectors

The harness connectors used throughout the vehicle are designed to positively lock into place. Press on wire lock as shown to release the connector.

> ***CAUTION***
>
> *To disconnect, pull only on the connector body. Never pull on the wires themselves.*



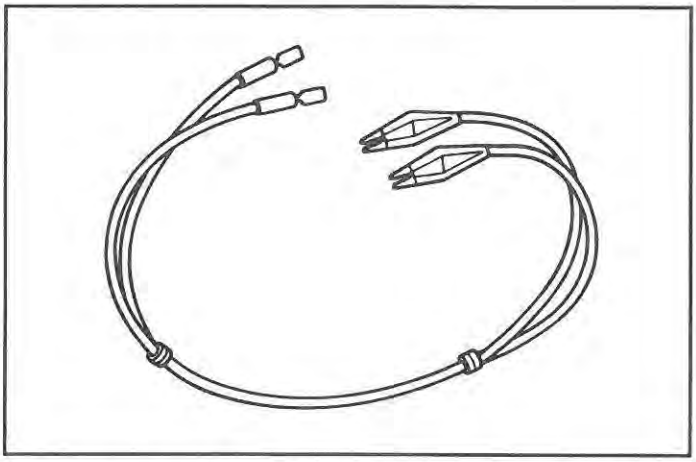
Typical wiring harness connector. Push on wire lock (arrow) and gently pull on connector to release.

Making Test Connections

Many electrical troubleshooting tests will require hooking up to wiring harness connectors, or socket connectors on electrical components. Test connections made carelessly or without proper tools can easily damage the connectors, causing poor connections and future problems.

To avoid connector damage, test connections to wiring harness connectors must be made using small, flat-blade terminals which will mate properly with the connectors. The Special Tools recommended include special adapters which can be used to make test connections safely and prevent connector damage. See **2. Test Equipment.**

All test connections to harness connectors should be made using the proper adapter or correct size flat connectors that will not deform the connector cavities.

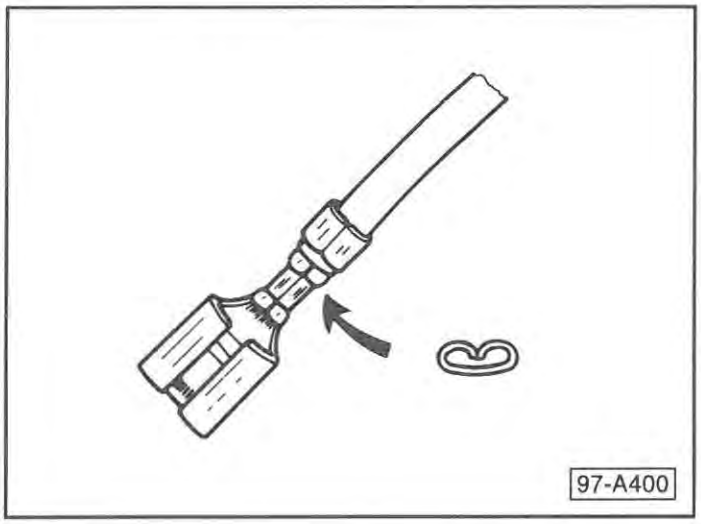


Alligator-clip test leads with flat connectors (Part Number: N 17 457 2)

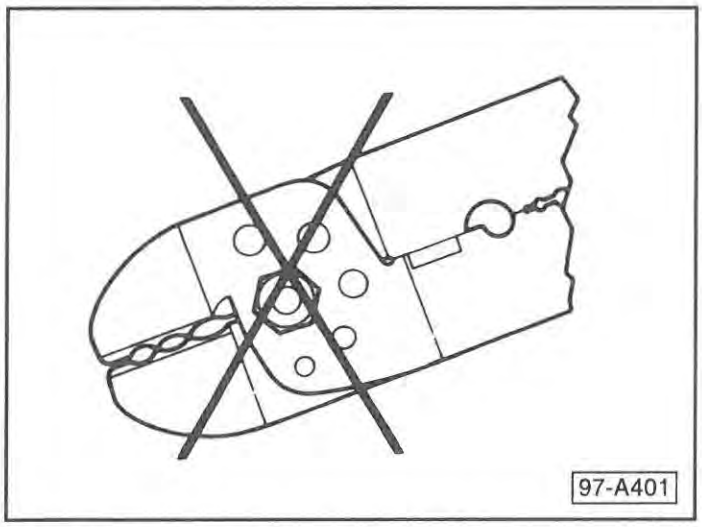
Wiring Harness Repairs

When repairing wiring harnesses, use only high-quality electrical connectors suitable for use with electronic components.

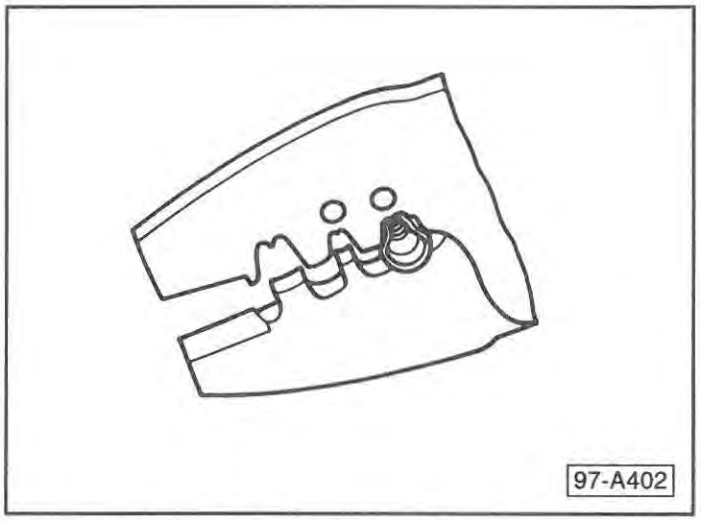
To make connections, use crimping pliers that make a "W"-type crimp. Only this type of crimp provides the necessary mechanical strength.



Typical "W"-type crimp connection



Typical wire crimping pliers, not suitable for making "W"-type crimps.



Wire crimping pliers, used to make "W"-type crimps.

Connector repair kits, connectors and the correct crimping pliers are available through your authorized dealer Parts Department.

4. Troubleshooting

4.1 Basic Electricity

Electricity is defined by three basic elements: Voltage, Current and Resistance.

Voltage

Voltage is a measure of electromotive force, sometimes referred to as electrical "pressure". It can be described as the difference in potential (potential for the flow of electricity) between any two points in a circuit.

A typical automobile battery, for example, has a difference in potential of about 12 Volts between the positive (+) terminal and the negative (–) terminal.

The basic units of electrical potential are **Volts** (V). Very low Voltages are expressed as **millivolts** (mV).
1 V = 1000 mV; 1 mV = .001 V

Current

Current is the term describing the flow of electricity through a conductor. In a complete circuit, potential (Voltage) will cause current to flow from positive (+) to negative (–).

The basic units of current flow are amperes or **amps** (A). Small amounts of current flow are often measured in **millamps** (mA).
1 A = 1000 mA; 1 mA = .001 A

Resistance

Resistance resists or opposes the flow of electricity. Conductors are made from materials of low resistance that allow electricity to flow easily. Insulators are materials of very high resistance that inhibit the low of electricity.

The basic unit of resistance is the **Ohm** Ω. High resistance values are often expressed as Kilohms (KΩ).
1 KΩ = 1000Ω

Resistance vs. Current Flow

The basic rule of electricity (Ohm's Law) states that one unit of force (1 Volt) is required for one unit of current (1 am) to flow against one unit of resistance (1 Ohm). From Ohm's Law, we also know that:

Voltage = Current x Resistance

When Voltage is approximately constant, as in an automobile electrical system, current and resistance affect each other. As resistance increases, there will be less current flow. And lower resistance will permit higher current flow.

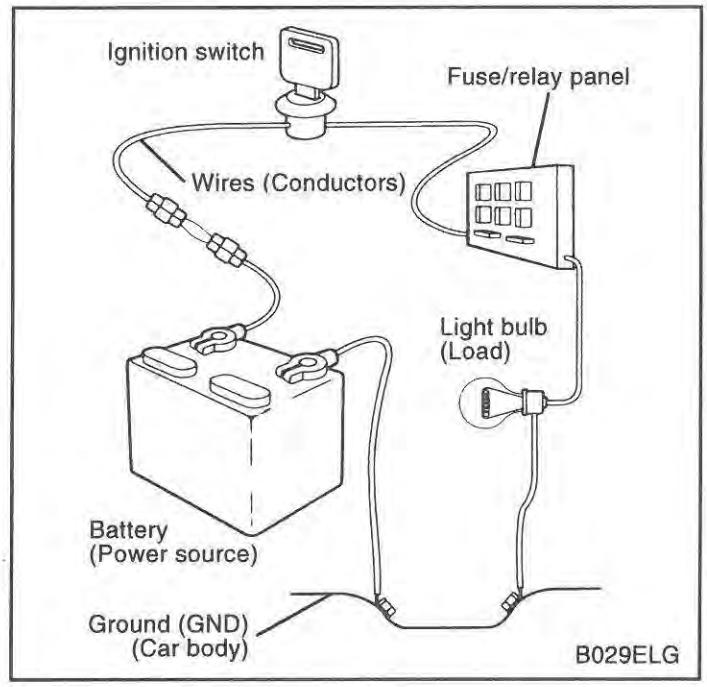
Higher resistance = lower current flow
Example: Corrosion on a headlight connector (higher resistance) causes the light to be dim (lower current flow).

Lower resistance = higher current flow
Example: A damaged wire shorted to ground (GND) (lower resistance) overloads circuit capacity (higher current flow) and blows a fuse.

Definition of a Circuit

Four things are required for current to flow in any electrical circuit, and for that circuit, and for that circuit to function as intended:

- **Power Source** (Voltage)
- **Conductors** (wires, printed circuits, etc.)
- **Load or Consumer** (a user of electrical power)
- **Complete Circuit** (a connection to ground [GND])



A complete circuit

Open Circuits

An open circuit is an incomplete circuit. An open circuit occurs when some kind of malfunction interrupts the circuit path and prevents current flow. Some common causes of open circuits are:

- broken wire
- loose or disconnected connector
- loose or damaged connector terminal
- corrosion
- malfunctioning fuse or component

Test for an open circuit by checking continuity using an Ohmmeter (multimeter), or by checking for Voltage at various points of the circuit using a test light or Voltmeter (multimeter). See **4.4 Checking Wiring and Components.**

Short Circuits

A short circuit is an unintended complete circuit. A short circuit occurs when some kind of malfunction causes current flow to follow the wrong path.

A short circuit to ground (GND) (grounded circuit) may prevent Voltage from reaching a component. If Voltage is shorted directly to ground (GND), bypassing any load, the unrestricted current flow will damage fuses wires or components. Some common causes of short circuits are:

- damaged wire or wiring harness
- malfunctioning insulation
- internally damaged component
- incorrect connection

Test for a short circuit to ground (GND) using a multimeter or a test light to indicate circuit malfunctions and abnormal current flow paths. See **4.5 Checking for Short Circuit to Ground (GND).**

Troubleshooting Procedure

Verify the complaint – Check the complaint. Try to understand the problem. If possible, let the driver show you what happens. Check all functions of the system and note the symptoms before starting any testing or disassembly.

Analyze the problem – Identify the part of the electrical system that is most likely to be causing the problem. Find the Circuit Section in the manual that applies to that part of the system. Find the wiring diagram that applies to the vehicle. By following the circuit from a ground (GND) back to the power source, get an understanding of how the circuit works.

Find the problem – You will find the problem if you follow a simple and logical step-by-step procedure. Test portions of the circuit one at a time, starting with he area or component most likely to be malfunctioning. Test first at points that you can reach most easily.

Repair the problem – When you find the cause of the problem, make the repair. Use appropriate tools and procedures.

Check the results – Be sure it works. Check the functions of all parts of the circuit that you worked on.

Working on the Electrical System

A test light or a multimeter can be very helpful for testing circuits. See **2. Test Equipment** for more information on test equipment.

Current flow is logical, always moving from the highest potential at the Voltage source (+) toward the lowest potential at ground (–). Using a wiring diagram to trace a circuit, you should start with the ground (GND) and then follow the wires back to the source of power.

To troubleshoot a circuit:

1. Inspect all connections, especially grounds (GND). Make sure they are clean, tight and corrosion-free.
2. Check the fuses.

> ***Note***
>
> *Repeated fuse failures are the sign of a malfunctioning wire, a failed component, or a short to ground (GND) somewhere in the circuit.*

3. Check for Voltage reaching particular components or points in the circuit.
4. Check continuity between points to look for breaks in the circuit (open circuit).
5. Check Voltage drop at connections, especially ground (GND) connections.

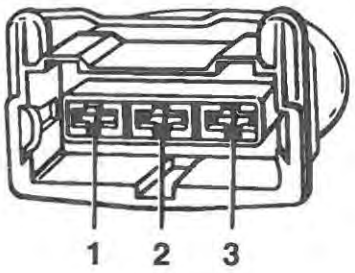
4.2 Checking for voltage

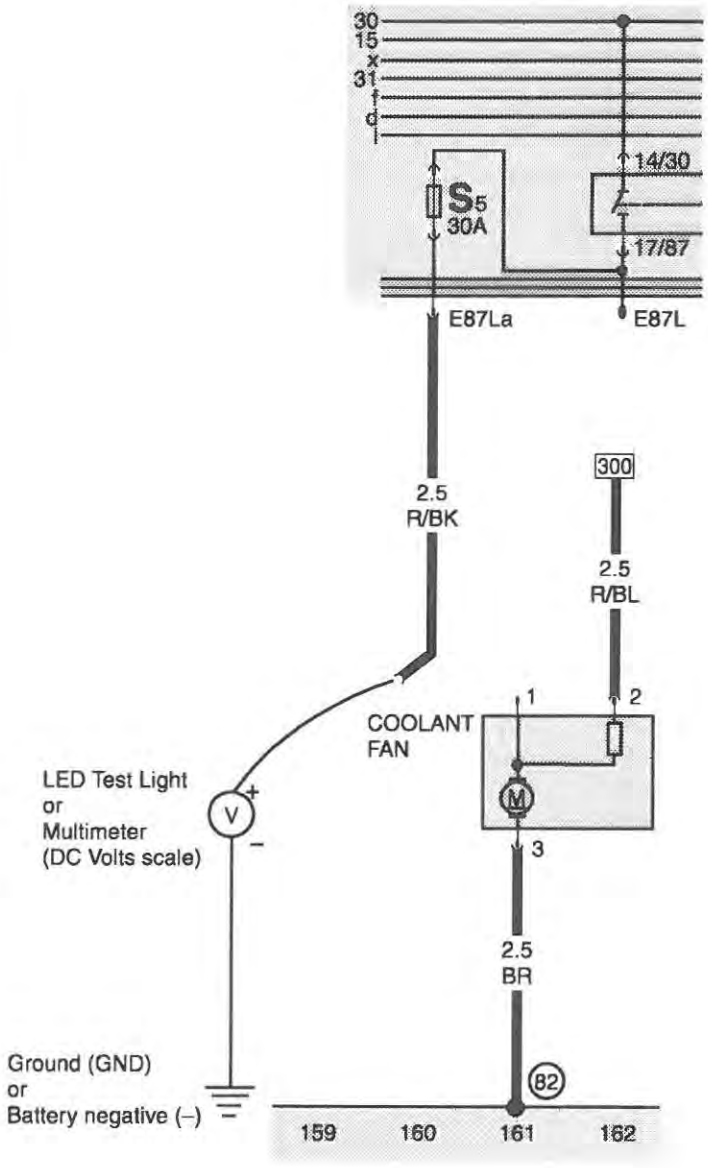
Checking for Voltage confirms that the circuit is uninterrupted between the Voltage source and the test point. The example illustrates troubleshooting the high-speed circuit for the radiator cooling fan.

Voltage: If the test light or multimeter indicates Voltage potential, then the circuit between the Voltage source and terminal 1 of the fan connector is OK.

NO Voltage: Power is not reaching the fan connector. The fan is probably OK. Look for a malfunction somewhere between the Voltage source and the fan connector. (Example: Check for Voltage reaching terminal E87La of the fuse/relay panel)

> ***CAUTION***
>
> *Direct contact with meter probes at the connector terminals can easily damage the small contacts, causing poor connections and risking future intermittent malfunctions.*
>
> *Special Tools include adapters for making test connections safely and preventing connector damage. See* ***2. Test Equipment.***



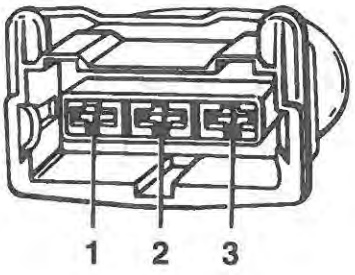


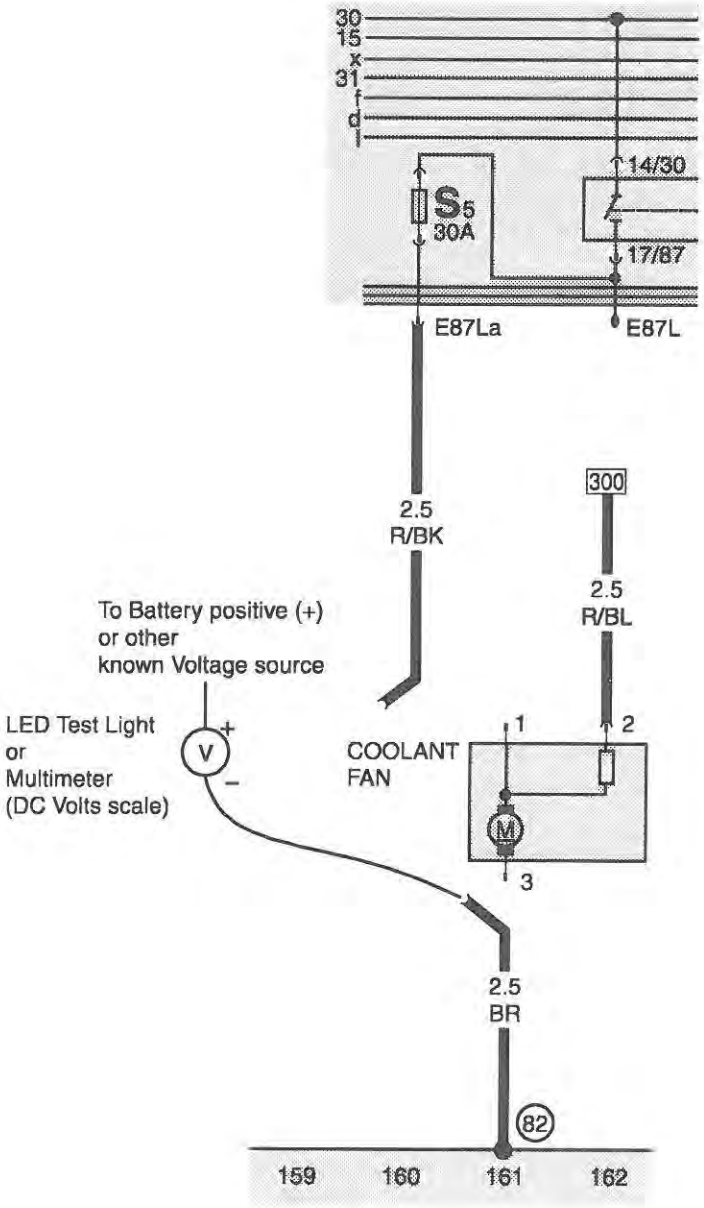
4.3 Checking Ground (GND) Connections

Checking ground (GND) connections as shown confirms that the circuit is complete - that the necessary path to ground (GND) is uninterrupted and current can flow in the circuit. The example illustrates troubleshooting the high-speed circuit for the radiator cooling fan.

Voltage: If the test light or multimeter indicates Voltage, then there is potential for current flow between the known Voltage source and ground (GND) at the test point. The ground (GND) side of the circuit, between terminal 3 of the fan connector and battery negative (–), is OK.

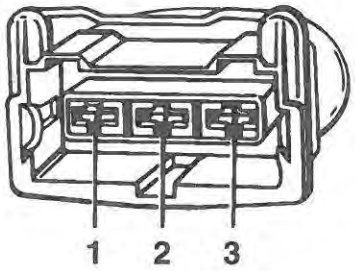
NO Voltage: The test point is not providing a path that completes the circuit to ground (GND). The fan is probably OK. Look for a malfunction somewhere in the wiring between the fan connector and chassis ground (GND). Also check the mechanical ground connection at the chassis (body).





Continuity (approximately 0 Ω): Little or no resistance indicates that there is a continuous conductive path between the two test points - the circuit's ground (GND) path between terminal 3 and battery negative (–) is OK.

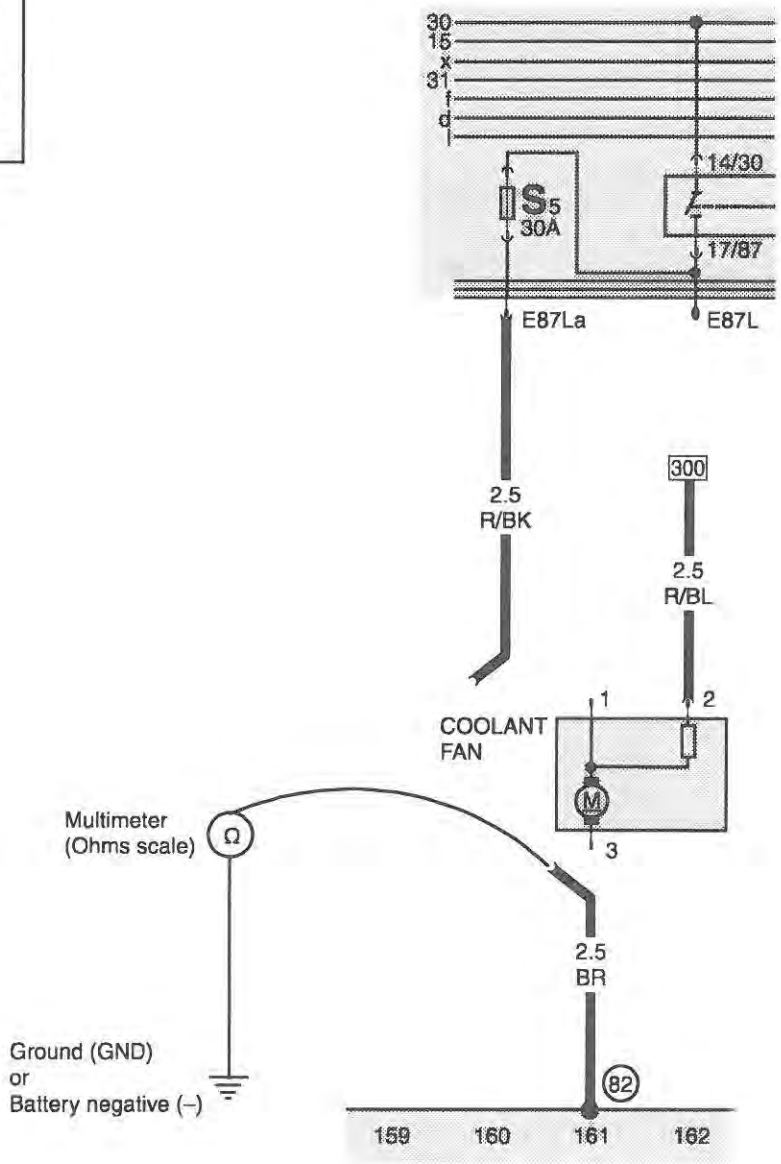
No Continuity: There is resistance to current flow in the ground (GND) side of the circuit. The fan is probably OK. Look for a malfunction somewhere in the wiring between the fan connector and chassis ground (GND). Also check the mechanical ground (GND) connection at the chassis (body).



CAUTION

direct contact with meter probes at the connector terminals can easily damage the small contacts, causing poor connections and risking future intermittent malfunctions.

Special Tools include adapters for making test connections safely and preventing connector damage. See ***2. Test Equipment.***



4.4 Checking Wiring and Components

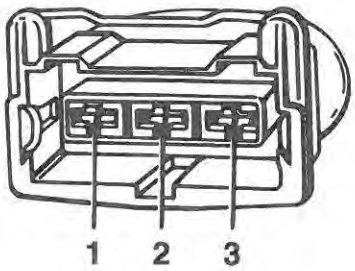
Resistance or Continuity

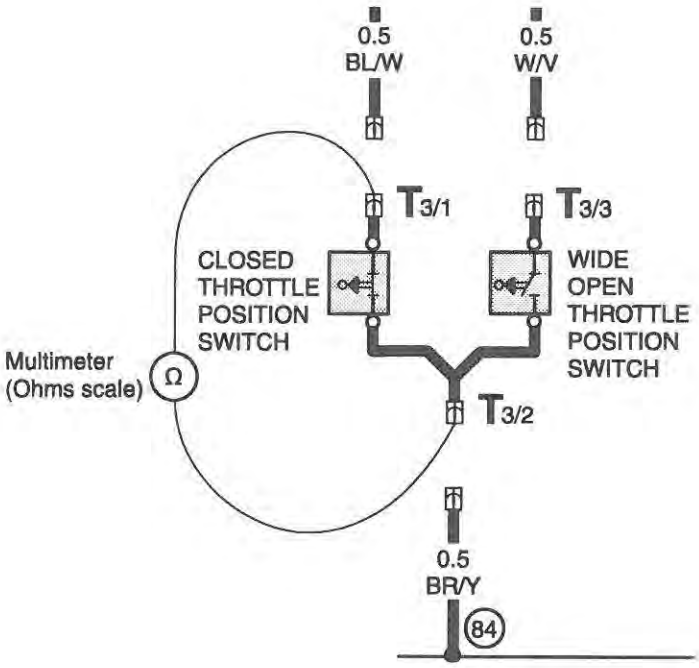
Checking a portion of the wiring harness or a component as shown indicates whether or not there is a continuous conductive path - whether current can flow between the two test points. The example illustrates troubleshooting the Close Throttle Position switch and the Wide Open Throttle Position switch in the fuel injection system.

> ***CAUTION***
>
> *Resistance measurements and continuity checks must always be made with all power to the circuit or component switched OFF. When testing continuity in a circuit that is always powered (fuse/relay panel "30" circuit for example) disconnect the battery before testing.*
>
> *Always use a digital (low current) meter. An ohmmeter, or the Ohms scale of a multimeter, measures resistance by passing a small amount of current through the circuit or component being checked.*
>
> *Improper testing may damage sensitive electronic components.*

Continuity (approximately 0 Ω): Little or no resistance indicates that there is a continuous conductive path between the two test points. As shown, this is correct for the normally Closed Throttle Position switch in the Closed Throttle Position (switch not actuated). Also check that the switch opens (no continuity) when actuated by the throttle.

No Continuity: There is resistance to current flow through the switch. In the example, this indicates that the normally Closed Throttle Position switch or the wires between it and the connector (t3) are malfunctioning.





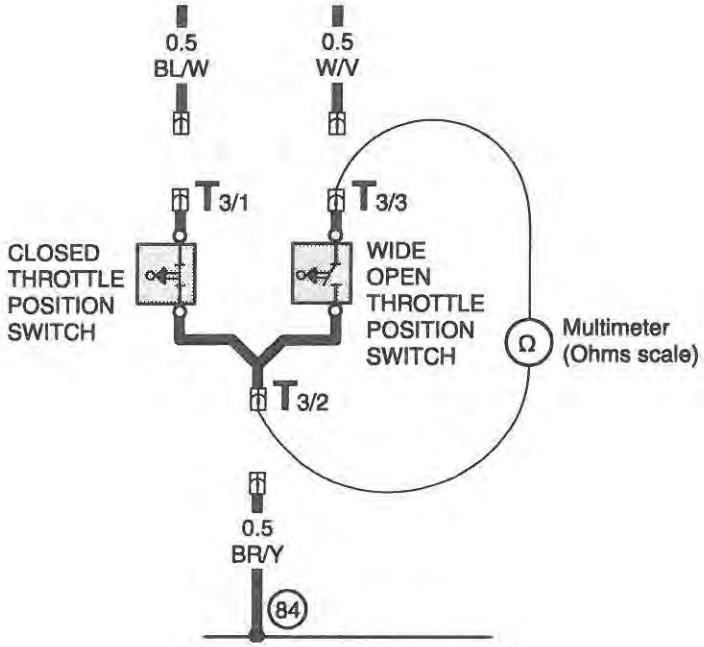
CAUTION

Direct contact with meter probes at the connector terminals can easily damage the small contacts, causing poor connections and risking future intermittent malfunctions.

Special Tools include adapters for making test connections safely and preventing connector damage. See ***2. Test Equipment.***

Continuity (approximately 0 Ω): Little or no resistance indicates that there is a continuous conductive path between the two test points. In the example, this indicates that the normally Wide Open Throttle Position switch is malfunctioning.

No Continuity: There is no connection-an open circuit. As shown, this is correct for the normally Wide Open Throttle Position switch. Also check that the switch closes, completing the circuit, when actuated by the Wide Open Throttle Postion switch.



Voltage Drop

Checking Voltage drop across connections or components as shown will indicate whether there is abnormal resistance creating an additional load in the circuit - consuming power and dropping the Voltage available to other parts of the circuit.

> ***Note***
>
> *Voltage drop measurements can only be made when the circuit is powered and there is normal current flow.*

The example illustrates troubleshooting the back-up light switch. The switch is in the circuit to switch power to the back-up lights On and Off. When Reverse gear is selected and the switch is closed, it should have very little resistance and not be a consumer.

If dirt or corrosion on the switch contacts creates resistance, some of the available battery Voltage goes into overcoming that resistance. Less Voltage is available to light the back-up lights, and they will not be as bright.

> ***Note***
>
> *An ohmmeter can measure resistance (or check continuity) only when the circuit is not powered, i.e. when there is almost no load.*

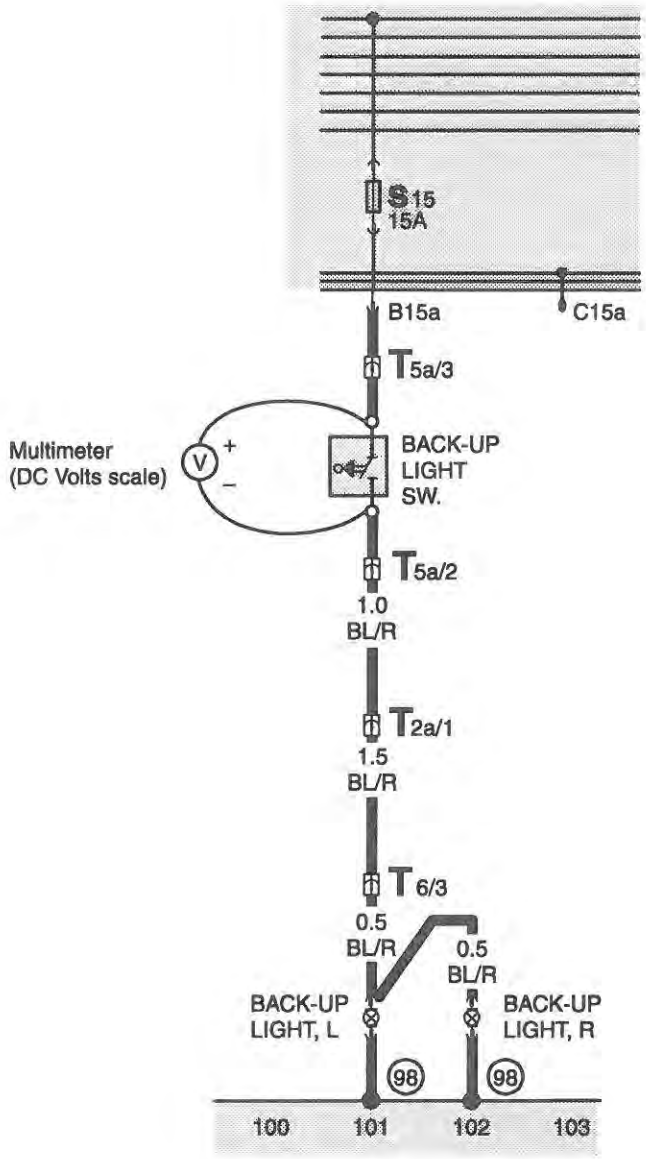
> ***CAUTION***
>
> *Direct contact with meter probes at the connector terminals can easily damage the small contacts, causing poor connections and risking future intermittent malfunctions.*
>
> *Special Tools include adapters for making test connections safely and preventing connector damage. See* ***2. Test Equipment.***

Low Voltage: A low Voltage reading across the two switch contacts indicates almost no difference in potential. Resistance across the switch is low - most of the battery Voltage is passing through the switch and is still available to power the lights.

High Voltage: Any significant Voltage reading indicates a difference in potential across the switch contacts. Excessive resistance is loading the circuit, causing a Voltage drop - Voltage is consumed overcoming the resistance of the switch, and less is left to power the lights.

Maximum allowable Voltage drops recommended by the Society of Automotive Engineers are:

- 0.0 Volt for small wire connections
- 0.1 Volt for high current connections (example: fuel pump, headlights)
- 0.1 Volt for ground (GND) connections
- 0.2 Volt for high-current cables (example: battery/starter cable)
- 0.3 Volt for switch or relay contacts



4.5 Checking for Short Circuit to Ground (GND)

Checking the circuit as shown will detect circuit malfunctions that are providing an unintended current flow path to ground (GND). The examples illustrate two methods of troubleshooting a short to ground (GND) that is causing a blown fuse in the circuit powering the license plate lights and the glove compartment light.

Using an Ohmmeter (Multimeter)

Step 1 - Remove the fuse

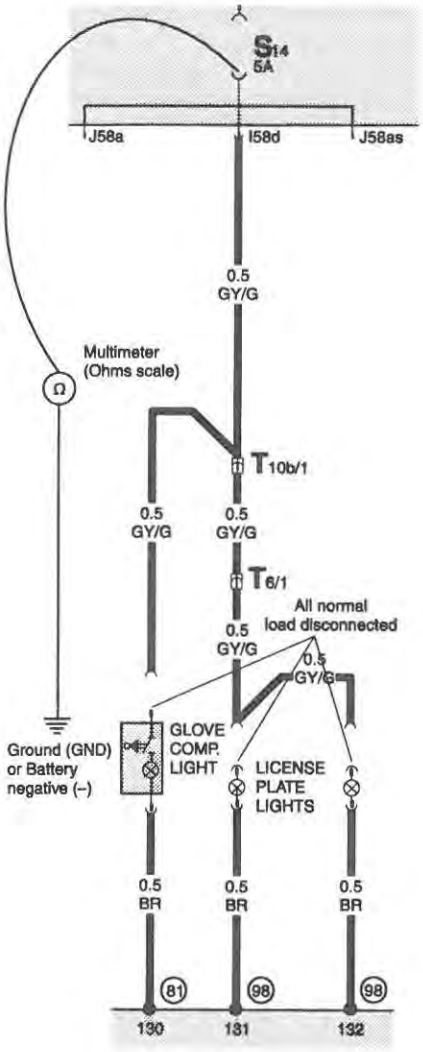
Step 2 - Disconnect the load (powered components) to eliminate the circuit's normal path to ground (GND)

> ***CAUTION***
>
> *Always use a digital (low current) meter. An ohmmeter, or the Ohms scale of a multimeter, measures resistance by passing a small amount of current through the circuit or component being checked. Improper testing may damage sensitive electronic components.*

Continuity (approximately 0 Ω): Little or no resistance indicates that there is a continuous conductive path between the isolated circuit and ground (GND), even though all the circuit's normal ground (GND) paths are eliminated. There is a short - an unintentional connection to ground (GND) - somewhere in the circuit.

No Continuity: The circuit's normal ground (GND) paths have been disconnected, and there is no other connection between the isolated circuit and ground (GND) - no short has been detected.

> ***CAUTION***
>
> *Direct contact with meter probes at the connector terminals can easily damage the small contacts, causing poor connections and risking future intermittent malfunctions.*
>
> *Special Tools include adapters for making test connections safely and preventing connector damage. See* ***2. Test Equipment.***



Using an LED Test Light or Voltmeter (Multimeter)

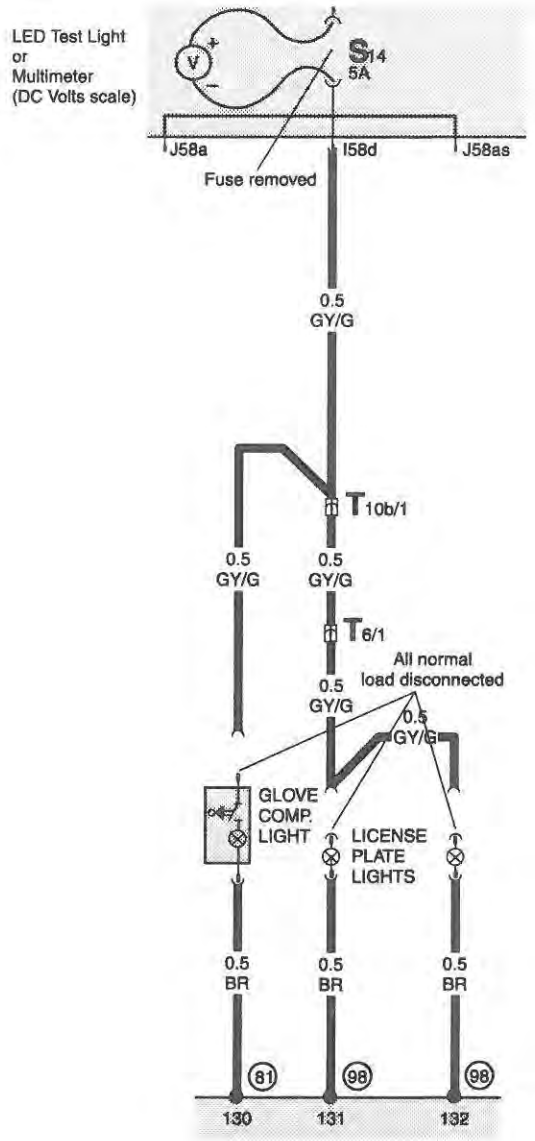
Step 1 - Remove the fuse

Step 2 - Disconnect the load (powered components) to eliminate the circuit's normal path to ground (GND)

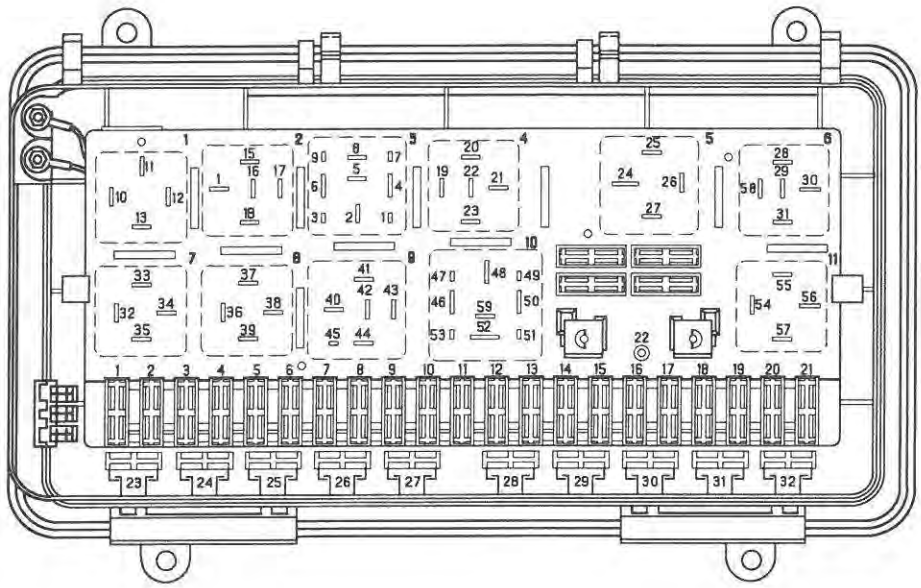
Voltage: If the test light or multimeter indicates Voltage, then there is a complete circuit - a connection to ground (GND) even though all the circuit's Normal ground (GND) paths are eliminated. There is a short - an unintentional connection to ground (GND) - somewhere in the circuit.

NO Voltage: There is not a complete circuit. The circuit's normal ground (GND) paths have been disconnected, and there is no other connection between the isolated circuit and ground (GND) - no short has been detected.

> ***CAUTION***
>
> *Direct contact with meter probes at the connector terminals can easily damage the small contacts, causing poor connections and risking future intermittent malfunctions.*
>
> *Special Tools include adapters for making test connections safely and preventing connector damage. See* ***2. Test Equipment.***



Fuse/Relay Panel (Left Side Plenum Tray)



Fuse Colors

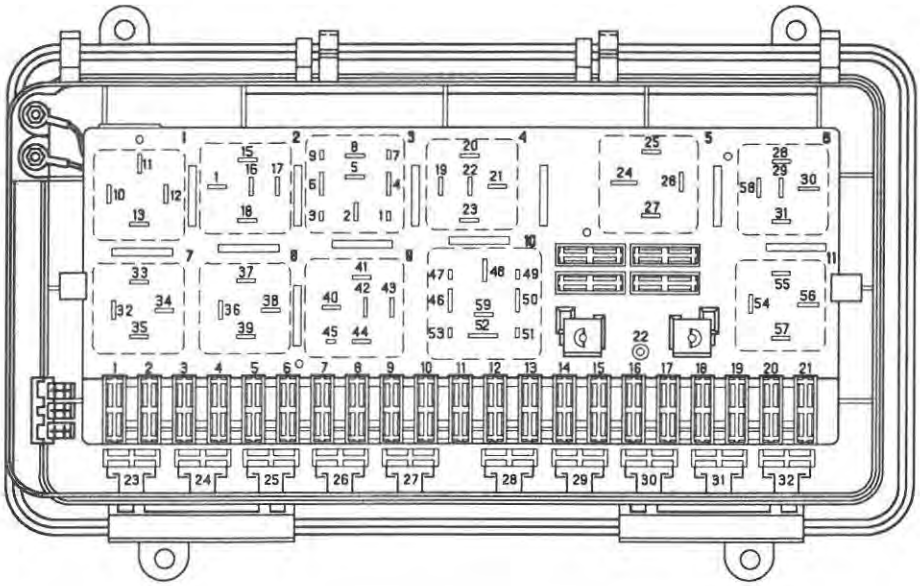
30A – Green
25A – Clear (White)
20A – Yellow
15A – Blue
10A – Red
5A – Light Brown

97-7025

Fuse arrangement

		Amp.	Current track
1	Fog Lights/Rear Fog Lights	15A	216
2	Emergency Flashers	15A	262
3	Dual Horns/Heated Seats	30A	281
4	Digital Clock/Luggage Compartment Light/Interior Light, Front/ Make-Up Mirror Lights/Reading Lights/Cigarette Lighters/Board-computer/Automatic Climate Control/Radio/Auto Check System	15A	419
5	Coolant Fan	30A	253
6	Parking Lights, Side Marker and Tail Lights, Right	5A	195
7	Parking Lights, Side Marker and Tail Lights, Left	5A	193
8	High Beam Headlight, Right/ Headlight High Beam Indicator Light	10A	187
9	High Beam Headlight, Left	10A	188
10	Lowbeam Headlight, Right	10A	189
11	Lowbeam Headlight, Left	10A	190

Fuse/Relay Panel (Left Side Plenum Tray)



Fuse Colors

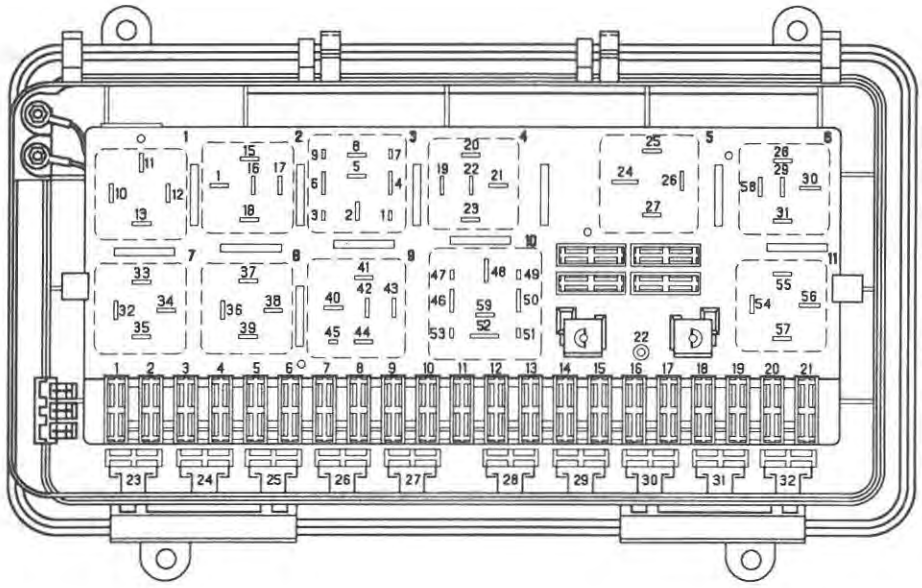
30A - Green
25A - Clear (White)
20A - Yellow
15A - Blue
10A - Red
5A - Light Brown

97-7025

Fuse arrangement

		Amp.	Current track
12	Cruise Control/ElectronicThermo-switch/Auto Check System/Instrument Cluster/Interior Light With Delay/Back-Up Lights/Servotronic/ Automatic Transmission/Airbag Control Light/Coolant Fan Afterrun/ Differential Lock/Board Computer	15A	297
13	Injectors/FP (Fuel Pump)	15A	96
14	License Plate Light/Glove Compartment Light/Engine Compartment Light	5A	225
15	Windshield Wiper And Washer/ Washer Nozzle Heaters/Turn Signal Lights/Coolant Fan/Air Conditioning	25A	258
16	Rear Window Defogger/Heated Mirrors	30A	289
17	Automatic Climate Control/ Fresh Air Blower	30A	304
18	Power Mirrors	5A	499
19	Central Locking/Alarm System Heated Door Locks	10A	366
20	First Speed Coolant Fan/ Coolant Fan Afterrun	30A	239
21	On-Board Diagnostics (OBD)	10A	82
22	Open		97

Fuse/Relay Panel (Left Side Plenum Tray)



Fuse Colors

30A – Green
25A – Clear (White)
20A – Yellow
15A – Blue
10A – Red
5A – Light Brown

97-7025

Auxiliary fuse arrangement

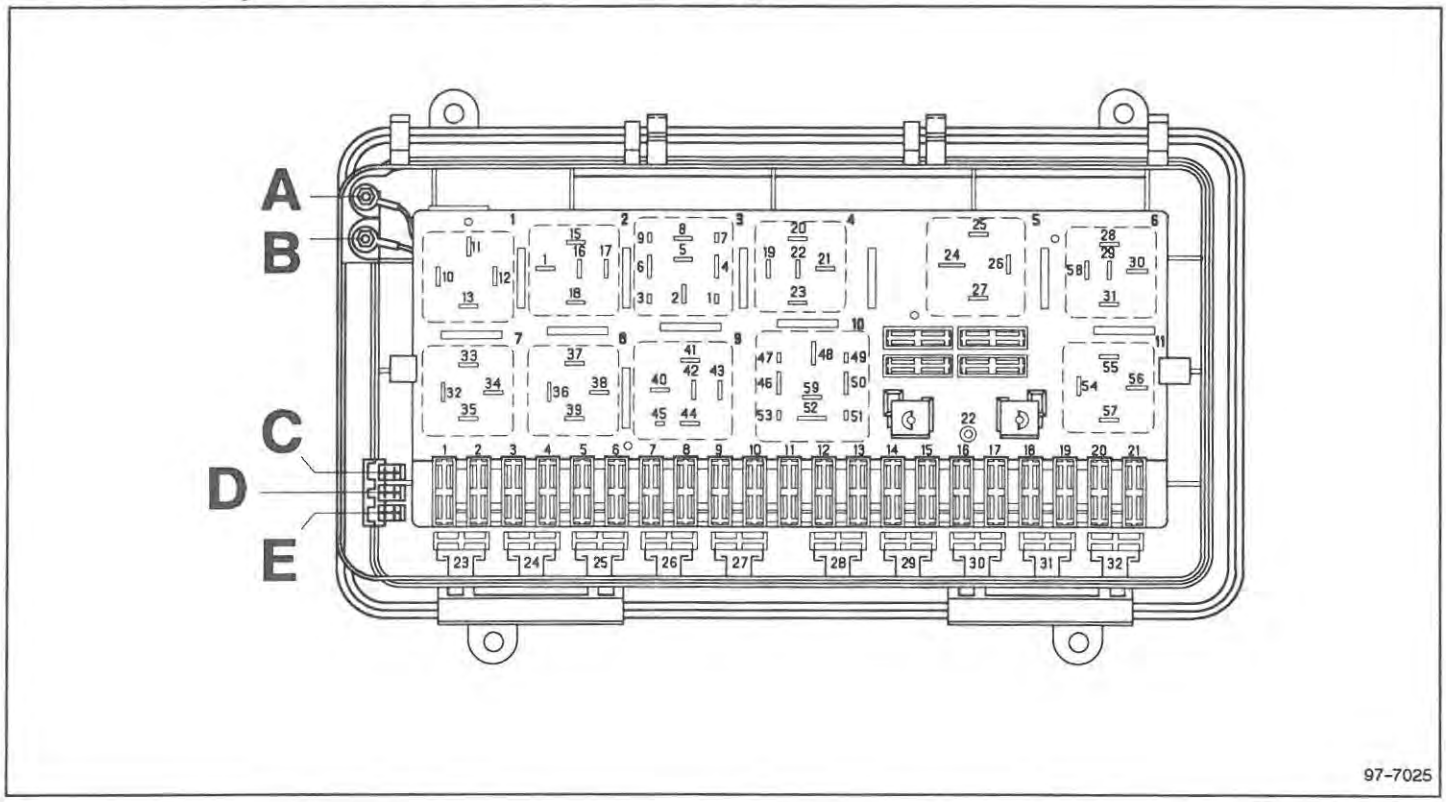
		Amp.	Current track
23	License Plate Light With Daytime Running Lights (Canada Only)	5A	
24	Not Used	20A	
25	Heated Oxygen Sensor (HO2S)	5A	
26	Trailer Connector	30A	
27	Engine Control I	10A	15
28	Engine Control II (Injectors)	15A	51
29	Brake Lights	10A	307
30	Cruise Control (Automatic Transmission)	5A	
31	ABS/Differential Lock	15A	349
32	Engine Control III (Ignition Coil Power Output Stages)	20A	17

Auxiliary fuse holder colors

S23 – Black
S24 – Blue
S25 – Red
S26 – Yellow
S27 – Brown
S28 – White
S29 – Green
S30 – Gray
S31 – Orange
S32 – Violet

Note: Auxiliary Fuses 27 and 28 are covered with a red cap marked with the words "Motor Moteur" to prevent accidental fuse removal.

Fuse/Relay Panel (Left Side Plenum Tray)



On-Board Diagnostic (OBD)

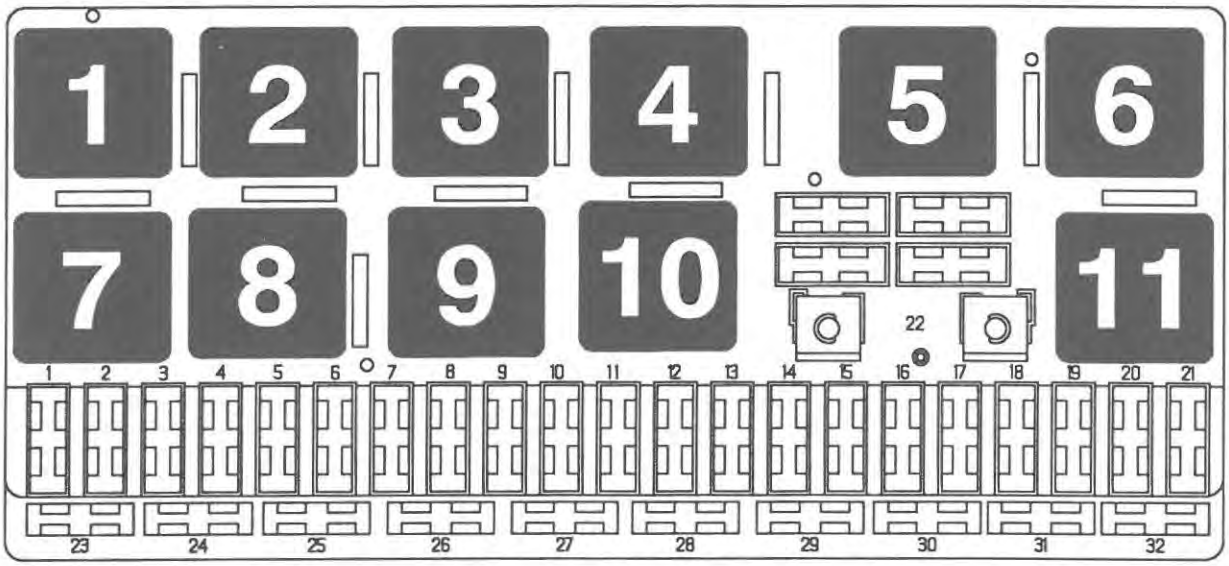
- **A** – Wire Distributor For DLC (Data Link Connector); Terminal K
- **B** – Wire Distributor For DLC (Data Link Connector); Terminal L

Note: All vehicle systems equipped with On-Board Diagnostics (OBD) are connected to the Data Link Connectors via wire distributors K and L.

Data Link Connector (DLC)

- **C** – Black
  - Terminal 1 – Ground (GND)
  - Terminal 2 – Battery Positive Voltage (B+, Terminal 30, Via Fuse)
- **D** – White – Data Transfer (For All Systems With OBD)
- **E** – Blue – Blink Code Output (Not For All Systems With OBD)

Fuse/Relay Panel (Left Side Plenum Tray)

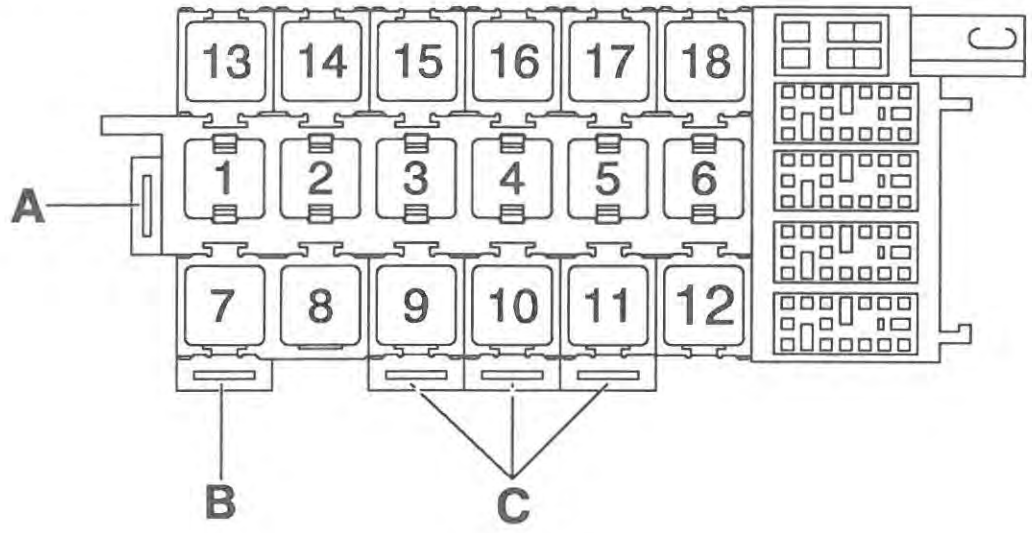


97-7023

Relay location

1. Fog Light Relay, J5
2. Second Speed Coolant FC (Fan Control) Relay, J101
3. After-Run Coolant FC (Fan Control) Control Module, J138
4. Headlight Washer System Relay, J39
5. Load Reduction Relay, J59
6. Heater Fan Relay, J11 (Manual Air-Conditioning Only)
   Second Speed Coolant FC (Fan Control) Relay, J101 (Automatic Climate Control)
7. Dual Horn Relay, J4
8. Alarm System Relay (Starter Interlock), J60 (Manual Transmission Only)
   Bridge Connection (Manual Transmission Without Alarm System)
   Open (Automatic Transmission)
9. Washer /Wiper Intermittent Relay, J31
10. FP (Fuel Pump) Relay, J17
11. Coolant FC (Fan Control) Relay, J26

Auxiliary Relay Panel With Connector Station



A – Not Used B – Fuse Adapter For Coolant Fan C – Fuse Adaptor For Circuit Breakers 97-7024

Relay location

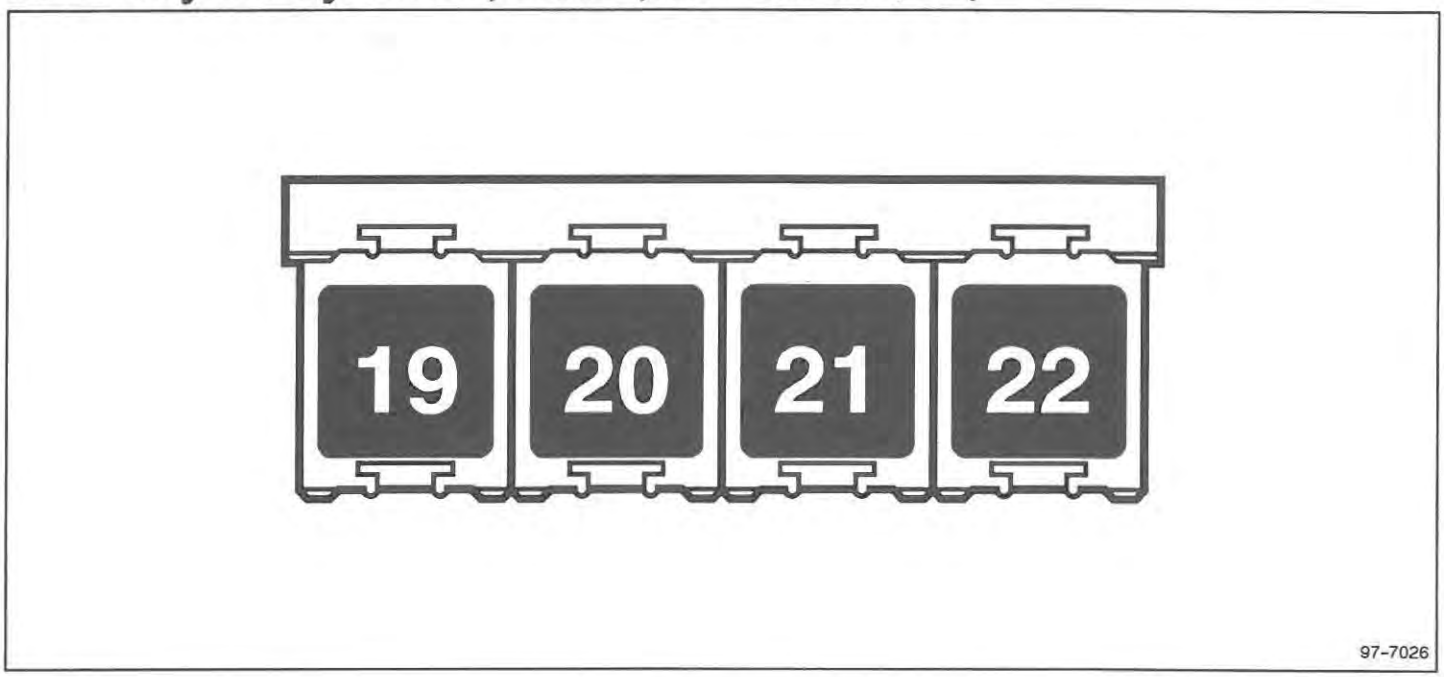
1. Shift Lock Control Module, J221 (Automatic Transmission Only)
2. PNP (Park/Neutral Position) Relay, J226
3. 4
   A/C Compressor Clutch Control Module, J153 (Manual Air-Conditioning Only)
4. A/C Compressor Clutch Relay, J44 (Automatic Climate Control Only)
5. Power Window And Sunroof Control Module, J139
6. Power Window And Sunroof Control Module, J139
7. Fuel Gauge Damper Control Module, J273 (Quattro Only)
8. Automatic Transmission Console Light Switch-Over Relay, J307 (USA And Canada Only)
9. Overload Protection For Airbag
10. Daytime Running Lights Relay (Switch-On), J90
11. Program Switch Light Relay (Automatic Transmission Only), J300
12. Seat Belt Warning Control Module, J34 (Auto Check System/USA Only)
13. Open
14. Open
15. Lamp Control Module, Front, J123 (With Auto Check System Only)
16. Open
17. Open
18. Third Speed Coolant FC (Fan Control) Relay, J135 (Manual Air-Conditioning Only)
    Second Speed Coolant FC (Fan Control) Relay, J101 (Automatic Climate Control Only)

Fuse Arrangement For Fuse Adapters A – B – C

- Fuse For Coolant Fan In Adapter B, S42 (60A)
- Power Window Circuit Breaker In Adapter C, S43 (20A)
- Memory Seat Adjusting Circuit Breaker In Adapter C, S44 (30A)
- Power Seat Circuit Breaker In Adapter C, S80 (20A)
- Sunroof Circuit Breaker In Adapter C, S83 (20A)

Note: Fuses in Fuse Adapter C are installed in any free position and are not allocated any specific position

Auxiliary Relay Panel, Rear (Below Rear Seat, Left)

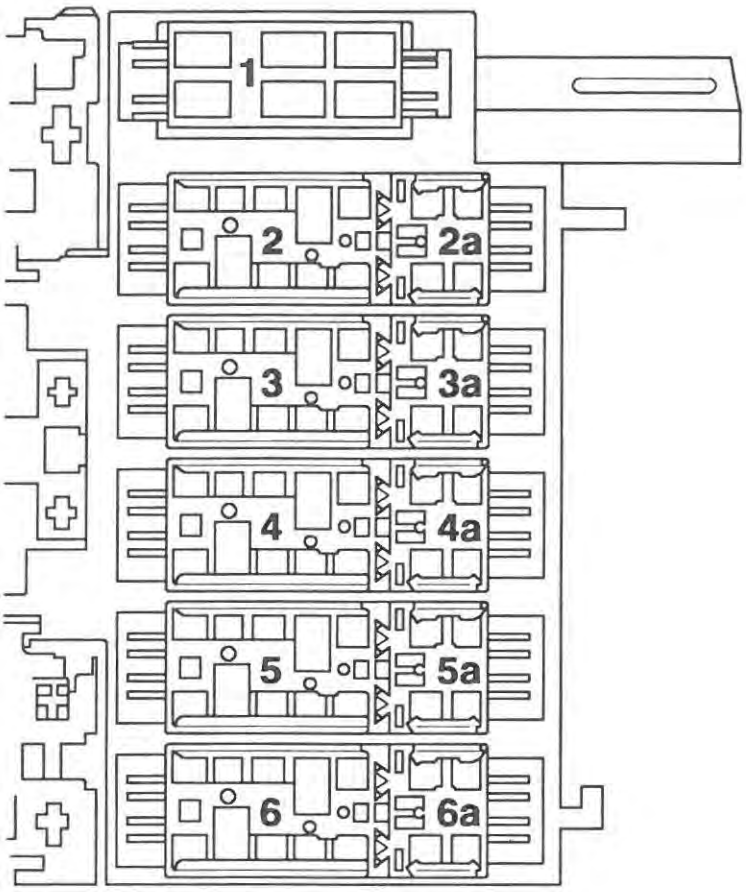


Relay location

- 19 Open
- 20 Open
- 21 Open
- 22 ABS Combi Relay, J156
  Overload Protection For Airbag

90 (All models)-USA/Canada
Up to VIN: 8CPA 000100

Connector Identification On Connector Station

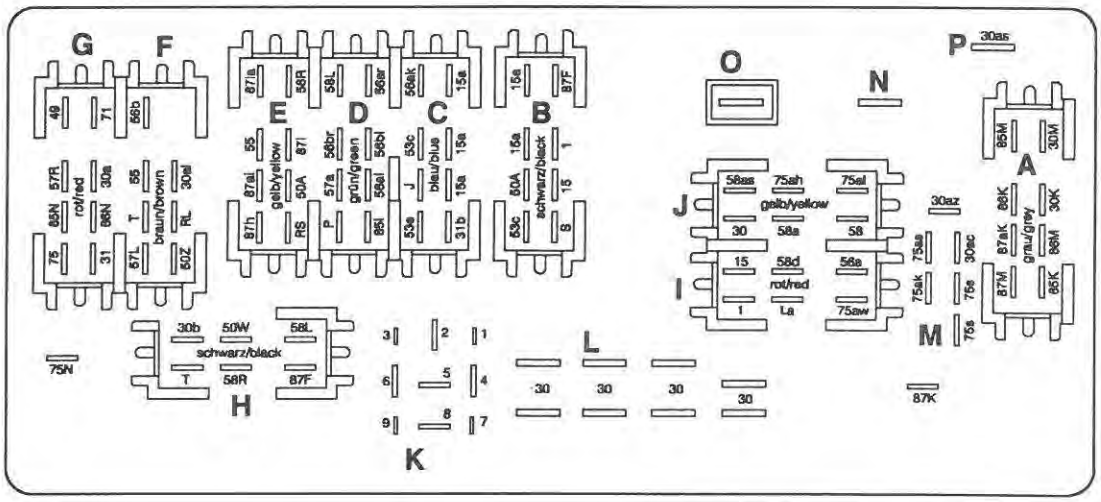


97-4191

1 – Windshield Wiper Motor Wiring Harness (Black)
2 – Automatic Transmission Wiring Harness (Green)
2a – AC Wiring Harness (Green)
3 – Left Front Wiring Harness (Yellow)
3a – Heated Seats Wiring Harness (Yellow)
4 – ABS Wiring Harness (Blue)
4a – Cruise Control Wiring Harness (Blue)
5 – Rear Wiring Harness (Brown)
5a – Door Contact Switch Wiring Harness (Brown)
6 – Right Front Wiring Harness (Black)
6a – Right Front Wiring Harness (Black)

Note: If there is no harness for a particular option, an empty connector housing will occupy its place.

Connections And Plugs On Fuse/Relay Panel, Rear (Back Side)



97-5083

- A – Airconditioning wiring harness (gray), eight point
- B – Right front wiring harness (black), eight point
- C – Instrument panel wiring harness (blue), eight point
- D – Left front wiring harness (green), eight point
- E – Left front wiring harness (yellow), eight point
- F – Instrument panel wiring harness (brown), eight point
- G – Instrument panel wiring harness (red), eight point
- H – Rear wiring harness (black), six point
- I – Instrument panel wiring harness (red), six point
- J – Instrument panel wiring harness (yellow), six point
- K – Connected to relay location 3 (black)
- L – Single connector, terminal 30 (B+)
- M – Single connectors for optional equipment
- N – Not used
- O – Not used
- P – Single connector, fuse 20

Wire connectors

T1a – single, in engine compartment, right
T1b – single, black, near horn button
T1d – single, brown, on Radio (Alarm System Contact)
T1e – single, green, behind instrument panel, left
T1f – single, black, behind instrument panel, left
T1i – single, white, behind instrument panel, left
T1k – single, blue, behind instrument panel
T1l – single, red, behind instrument panel, left
T1r – single, in engine compartment, right
T1s – single, red, behind instrument panel, left
T1v – single, black, below back seat, center
T1y – single, in driver's door
T1z – single, in passenger's door
T2 – double, black, on High-Mount Brake Light
T2a – double, below back seat, right
T2aa – double, on Window Motor, Left Front Door
T2ab – double, grey, near starter
T2ap – double, in driver's door
T2aq – double, in passenger's door
T2b – double, in engine compartment, right
T2c – double, below back seat, left
T2d – double, in engine compartment, left
T2e – double, near interior light
T2f – double, near washer nozzle heater, left
T2g – double, near washer nozzle heater, right
T2i – double, white, for door contact switch, driver's door
T2l – double, black, in engine compartment, left
T2m – double, black, in engine compartment, right
T2o – double, red, behind instrument panel
T2p – double, yellow, behind instrument panel, left
T2r – double, red, on Seat Belt Switch, Left
T2s – double, brown, behind console
T2v – double, white, behind instrument panel
T2w – double, grey, in trunk lid
T2x – double, black, in left plenum, on fuse/relay panel, DLC (Data Link Connector)
T2z – double, white, in left plenum, on fuse/relay panel, DLC (Data Link Connector)
T3 – three point, black, behind instrument panel, left
T3b – three point, green, behind instrument panel, left
T3f – three point, green, behind instrument panel, left
T3i – three point, black, in trunk lid
T3k – three point, white, on Ignition Coils, connector 15
T3l – three point, black, on CKP (Crankshaft Position) Sensor
T3m – three point, grey, on RPM (Engine Speed) Sensor
T3n – three point, green, on KS (Knock Sensor)
T3o – three point, blue, on KS (Knock Sensor) 1
T3p – three point, white, on Power Output Stage
T3u – three point, black, in luggage compartment, left
T4g – four point, blue, on Power Output Stage
T4h – four point, black, in engine compartment, left
T4i – four point, green, behind instrument panel
T5 – five point, black, connector station in auxiliary relay panel
T5a – five point, brown, connector station in auxiliary relay panel
T5c – five point, in Instrument Cluster
T5d – five point, on heated mirror, right
T5e – five point, on heated mirror, left
T5f – five point, blue, behind instrument panel
T5h – five point, red, behind instrument panel, left
T6 – six point, connector station on auxiliary relay panel
T6ae – six point, black, connector B on V94, below back seat, right
T6b – six point, black, In luggage compartment, left rear
T6c – six point, black, behind instrument panel, left
T6g – six point, in Instrument Cluster
T6h – six point, black, behind instrument panel
T6k – six point, black, behind console
T10 – ten point, black, connector station in auxiliary relay panel
T10a – ten point, yellow, connector station in auxiliary relay panel
T10b – ten point, brown, connector station in auxiliary relay panel
T10d – ten point, blue, connector station in auxiliary relay panel
T12 – twelve point, on ECM (Engine Control Module)
T12a – twelve point, brown, on Cruise Control, Control Module
T12b – twelve point, connector A on V94, below back seat, right
T13 – thirteen point, brown, on Turn Signal Switch/ Windshield Wiper Intermittent Switch
T13a – thirteen point, black, on Light Switch/Headlight Dimmer/Flasher Switch
T16 – sixteen point, connector C on V94, below back seat, right
T16a – sixteen point, on ECM (Engine Control Module)
T16b – sixteen point, on ECM (Engine Control Module)
T20 – twenty point, on ECM (Engine Control Module)
T26 – twenty-six point, yellow, on Instrument Cluster
T26a – twenty-six point, blue, on Instrument Cluster
T26b – twenty-six point, white, on Instrument Cluster (Auto Check System With Display)
T35 – thirty-five point, on ABS Control Module

Welded wiring harness points

(A2) – plus connection (15), in instrument panel wiring harness

(A3) – plus connection (58), in instrument panel wiring harness

(A5) – plus connection (right turn signal), in instrument panel wiring harness

(A6) – plus connection (left turn signal), in instrument panel wiring harness

(A7) – plus connection (58 D1), in instrument panel wiring harness

(A9) – plus connection (56 b), in instrument panel wiring harness

(A17) – wire connection (61), in instrument panel wiring harness

(A18) – wire connection (54), in instrument panel wiring harness

(A19) – wire connection (58d), in instrument panel wiring harness

(A20) – wire connection (15a), in instrument panel wiring harness

(A21) – wire connection (86s), in instrument panel wiring harness

(A23) – wire connection (30al), in instrument panel wiring harness

(A27) – wire connection (speed signal), in instrument panel wiring harness

(A32) – plus connection (30), in instrument panel wiring harness

(A33) – wire connection (75), in instrument panel wiring harness

(A41) – plus connection (50), in instrument panel wiring harness

(A42) – plus connection (fuel gauge), in instrument panel wiring harness

(A43) – wire connection (57l), in instrument panel wiring harness

(A44) – wire connection (57r), in instrument panel wiring harness

(A45) – wire connection (RPM signal), in instrument panel wiring harness

(A46) – plus connection (30-from radio), in instrument panel wiring harness

(D9) – plus connection (15, via fuse 24), in right front wiring harness

(D10) – plus connection (30), in right front wiring harness

(D11) – plus connection (15, via fuse 28), in right front wiring harness

(D14) – wire connection (ignition coil – control module), in right front wiring harness

(D95) – wire connection (injectors), in engine compartment wiring harness

(J1) – plus connection (30), in ABS wiring harness

(Q10) – plus connection (87), in power windows, power locks and door contact switch wiring harness

(Q11) – plus connection (30az), in power windows, power locks and door contact switch wiring harness

(Q14) – wire connection (lock-switch), in power windows/ power door lock and door contact switch wiring harness

(Q20) – wire connection -1- (door contact switch), in power window wiring harness

(Q22) – wire connection, in rear lid wiring harness

(Q42) – wire connection (door lock open), in power window wiring harness

(Q43) – wire connection (door lock locked), in power window wiring harness

(T1) – plus connection -1-, in airbag wiring harness

(T2) – plus connection -2-, in airbag wiring harness

Ground connections

(6) – ground strap, engine to generator

(11) – ground connection, in battery box

(17) – ground connection, on intake manifold

(22) – ground connection, on hydraulic unit

(32) – ground connection, behind instrument panel, left

(50) – ground connection, in luggage compartment, left

(81) – ground connection -1-, in instrument panel wiring harness

(83) – ground connection -1-, in right front wiring harness

(84) – ground connection, engine block, in right front wiring harness

(85) – ground connection -1-, in engine compartment wiring harness

(89) – ground connection -1-, in power window wiring harness

(98) – ground connection, in rear lid wiring harness

(100) – ground connection -1-, in ABS wiring harness

(105) – ground connection -1-, in central locking system wiring harness

(107) – ground connection, in outside mirrors wiring harness

(109) – ground connection, in airbag wiring harness

(119) – ground connection -1-, in headlight wiring harness

(124) – ground connection, in engine compartment right wiring harness

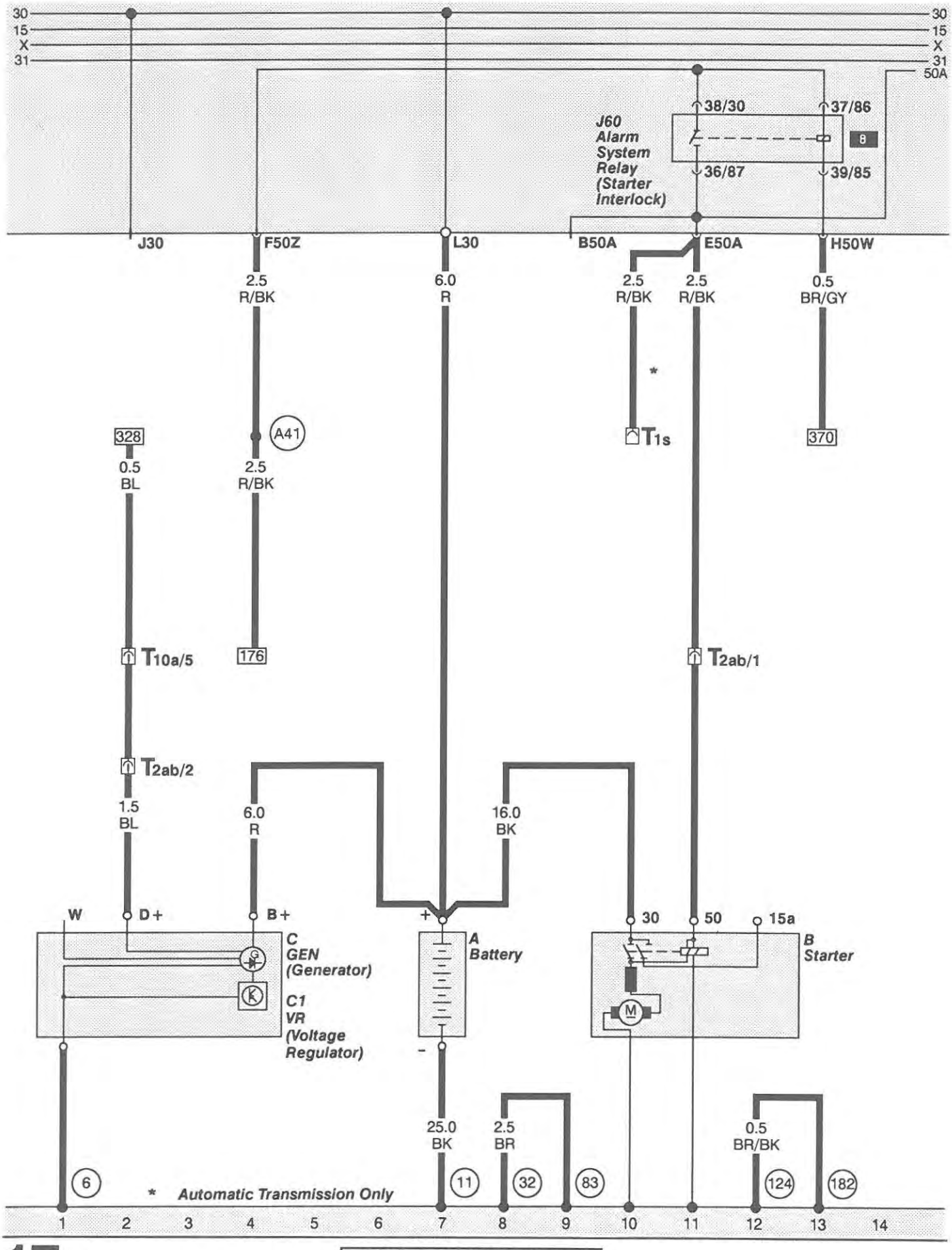
(182) – ground connection -1-, in engine compartment wiring harness (6 Cylinder)

Wiring Color Code	
BK	BLACK
BR	BROWN
CL	CLEAR
R	RED
Y	YELLOW
G	GREEN
LT. G	LIGHT GREEN
BL	BLUE
V	VIOLET
GY	GRAY
W	WHITE
OR	ORANGE

Wire Size

Wiring Diagrams identify wires by the metric wire size. Metric wire sizes indicate cross-sectional area in square millimeters (mm^2). The chart below lists metric wire sizes and their approximate equivalents in American Wire Gauge (AWG) sizes.

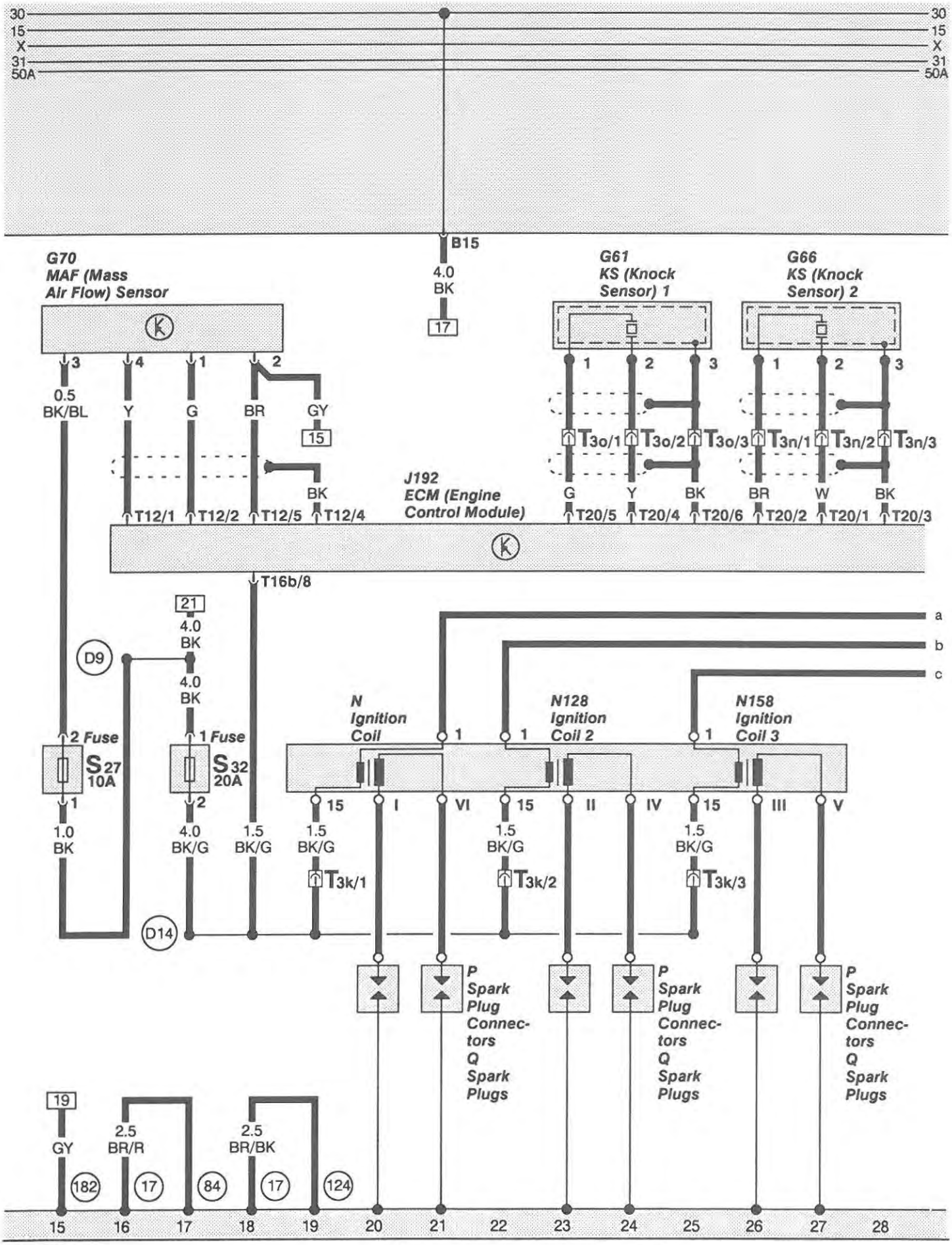
Metric Size Cross-Section (mm^2)	American Wire Gauge Size (AWG)
0.35	22
0.50	20
0.75	18
1.00	16
1.50	14
2.50	12
4.00	10
6.00	8
16.00	4
25.00	2
35.00	2



17 Generator (GEN)/Starter

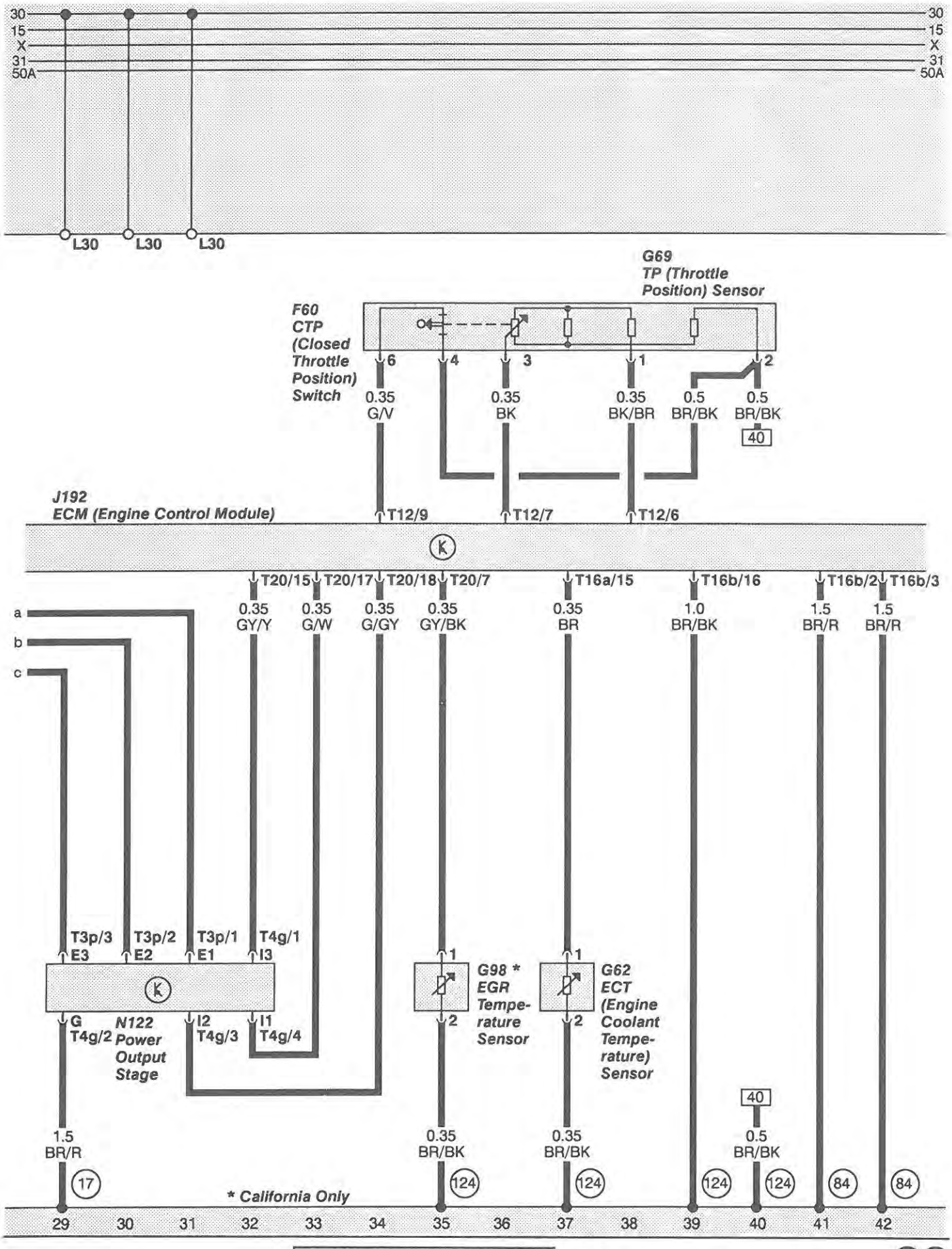
90 (All models)-USA/Canada
Up to VIN: 8CPA 000100

This page
intentionally
left blank

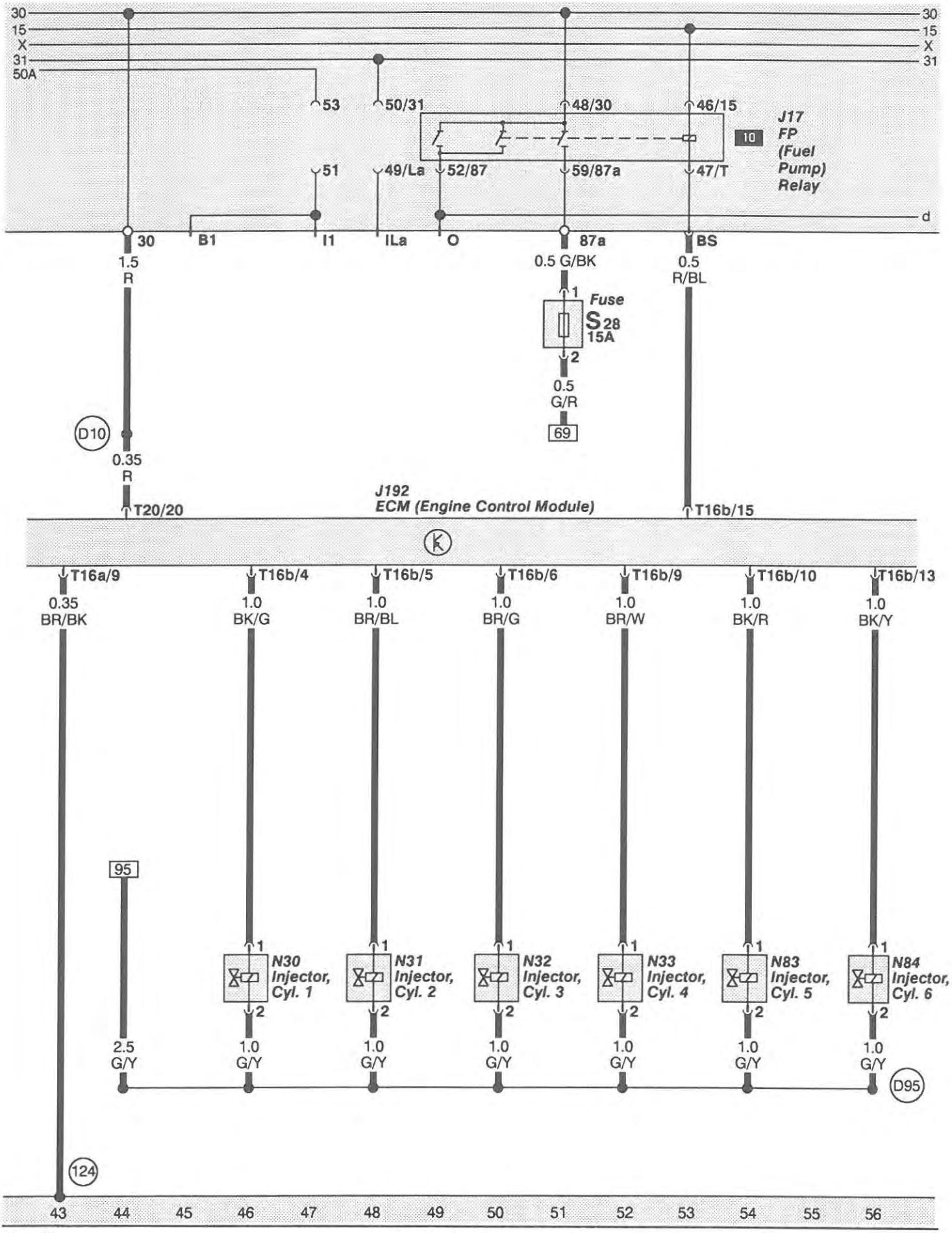


19 ECM (Engine Control Module)

90 (All models)-USA/Canada
Up to VIN: 8CPA 000100

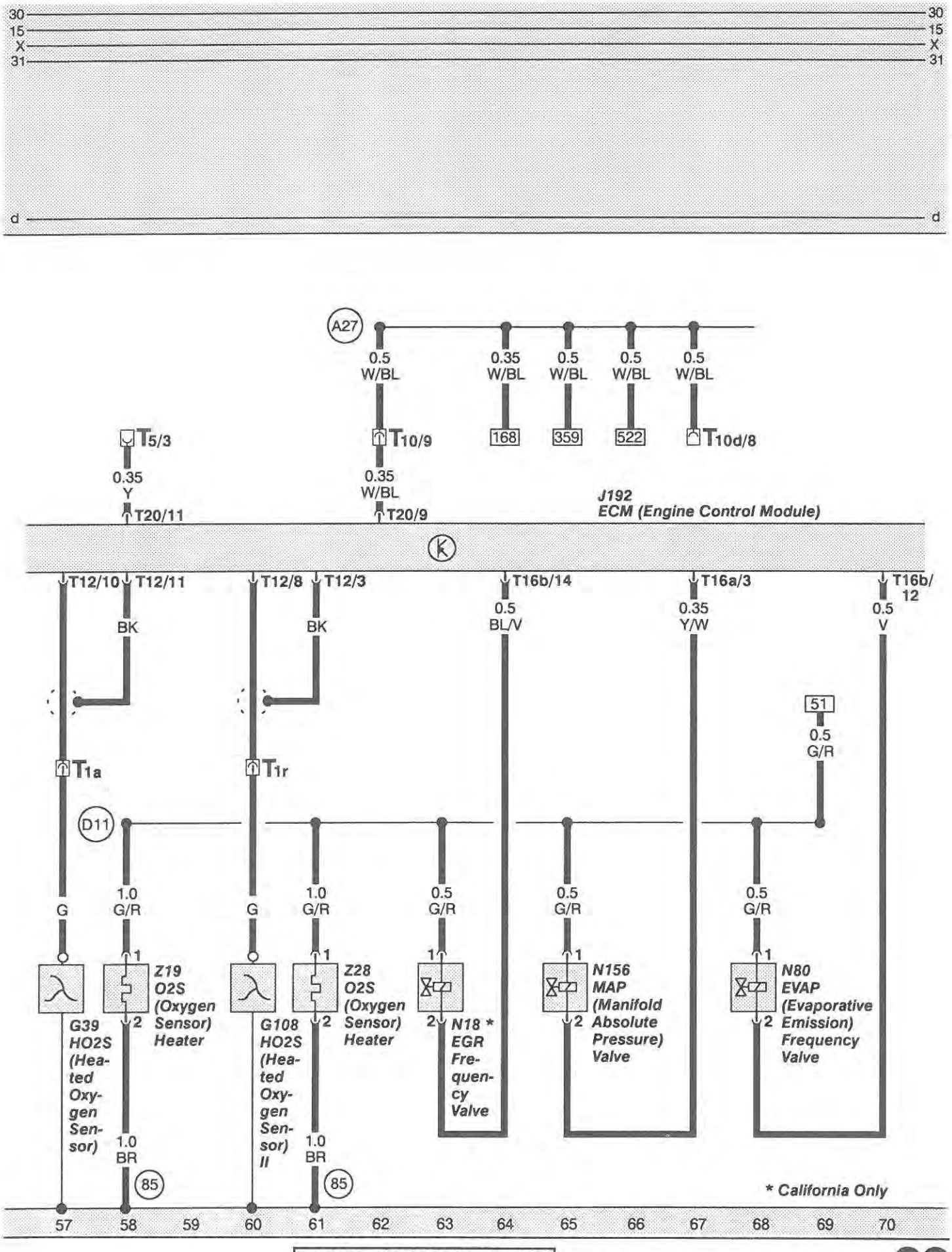


90 (All models)-USA/Canada
Up to VIN: 8CPA 000100



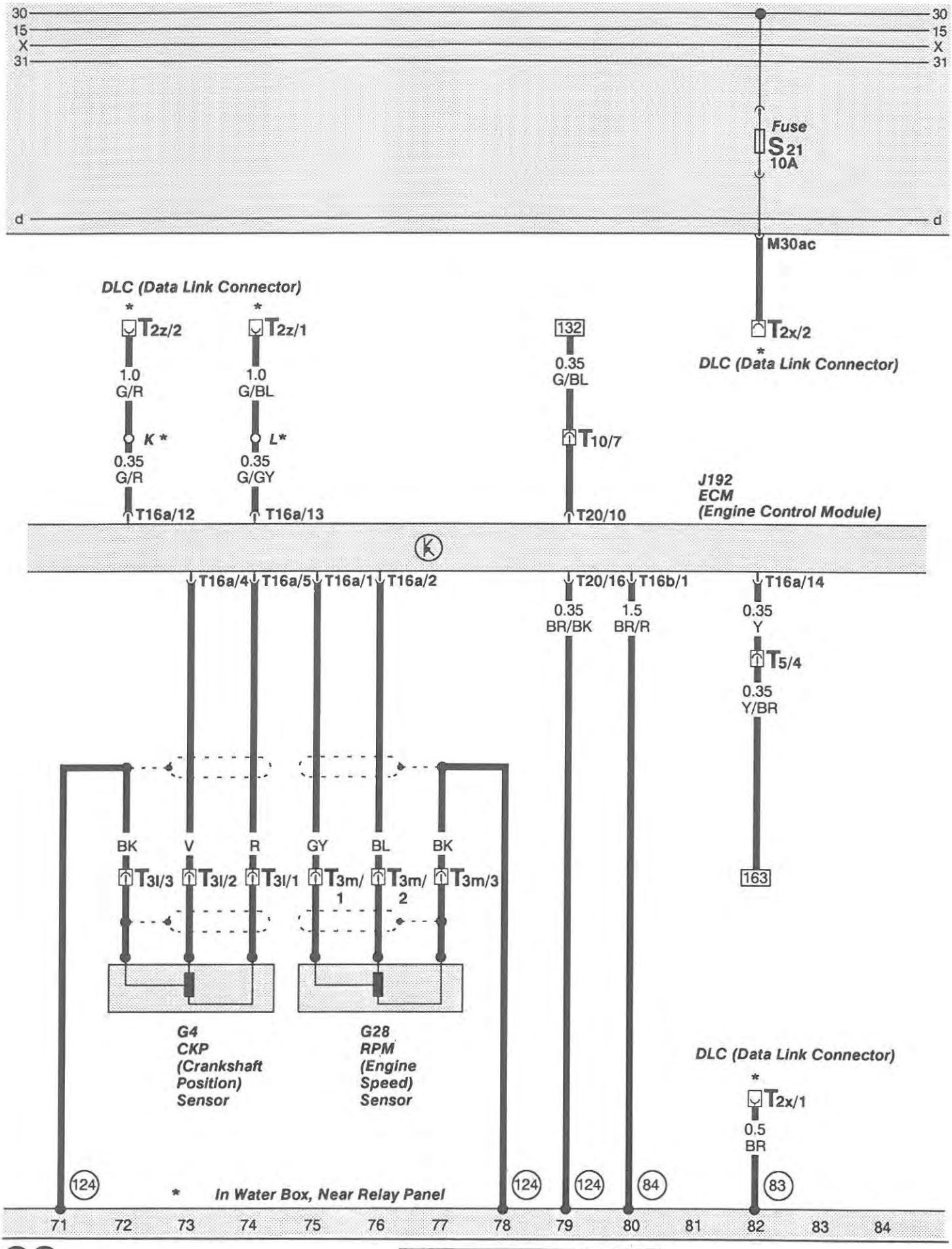
21 ECM (Engine Control Module)

90 (All models)-USA/Canada
Up to VIN: 8CPA 000100



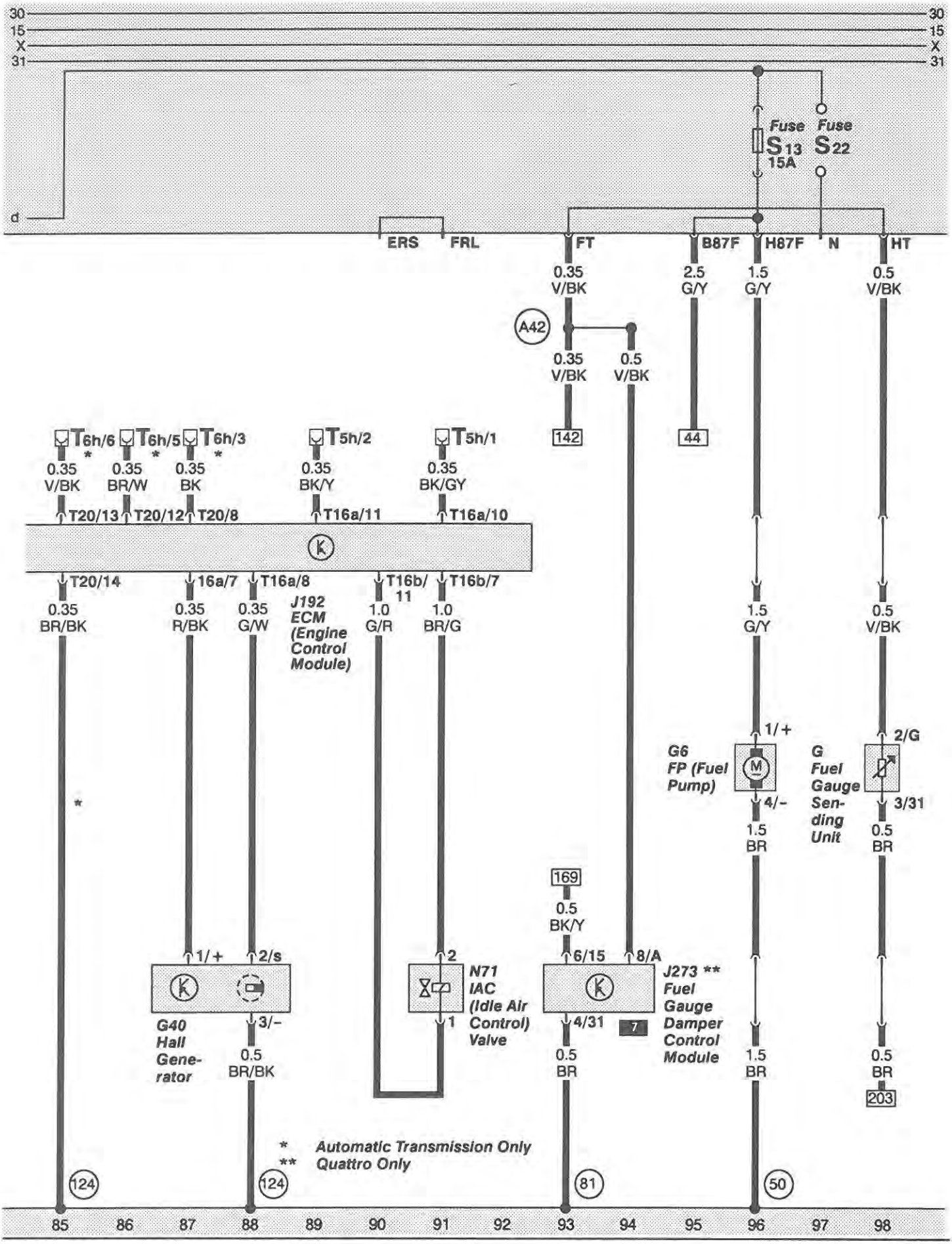
90 (All models)-USA/Canada
Up to VIN: 8CPA 000100

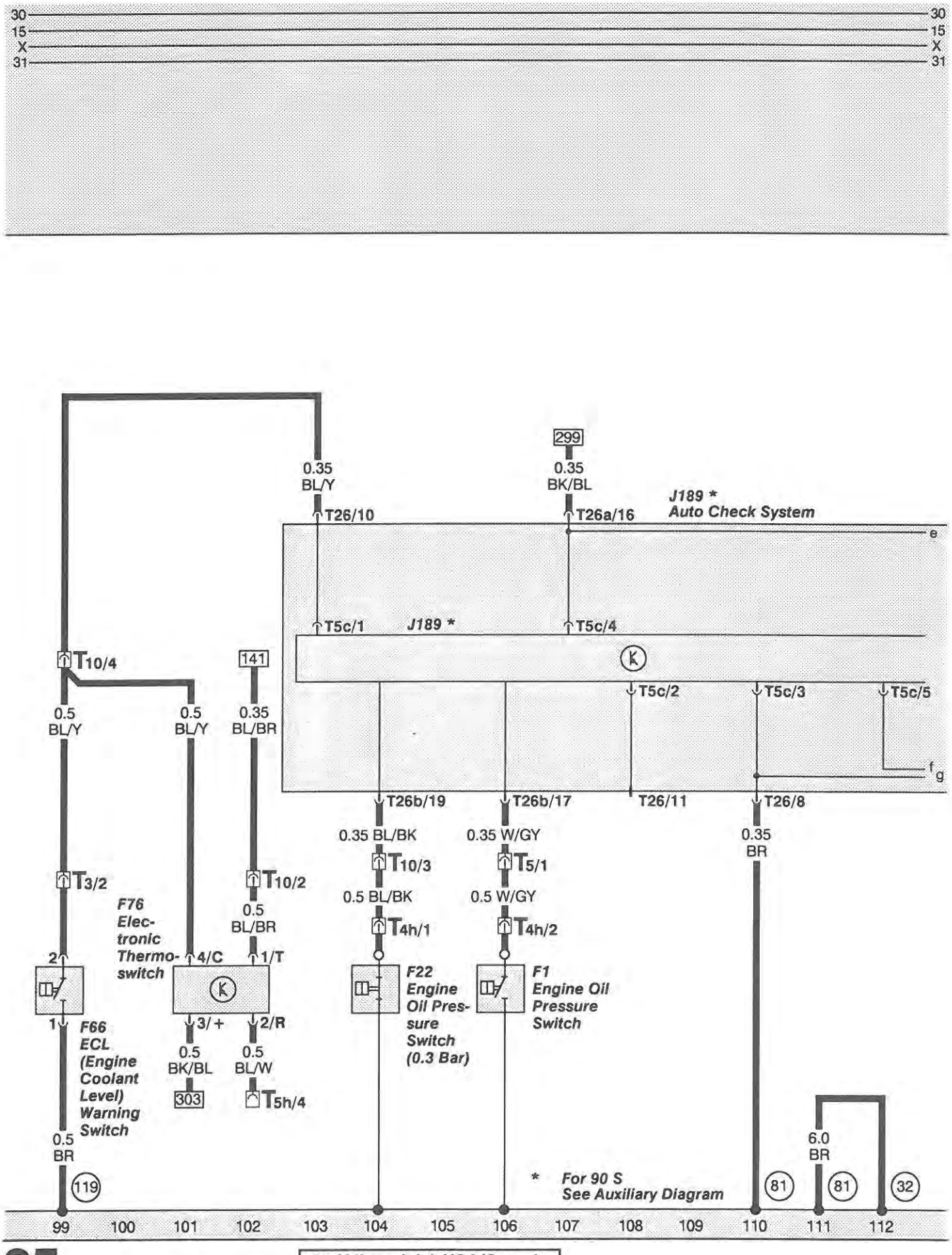
ECM (Engine Control Module) 22



23 ECM (Engine Control Module)

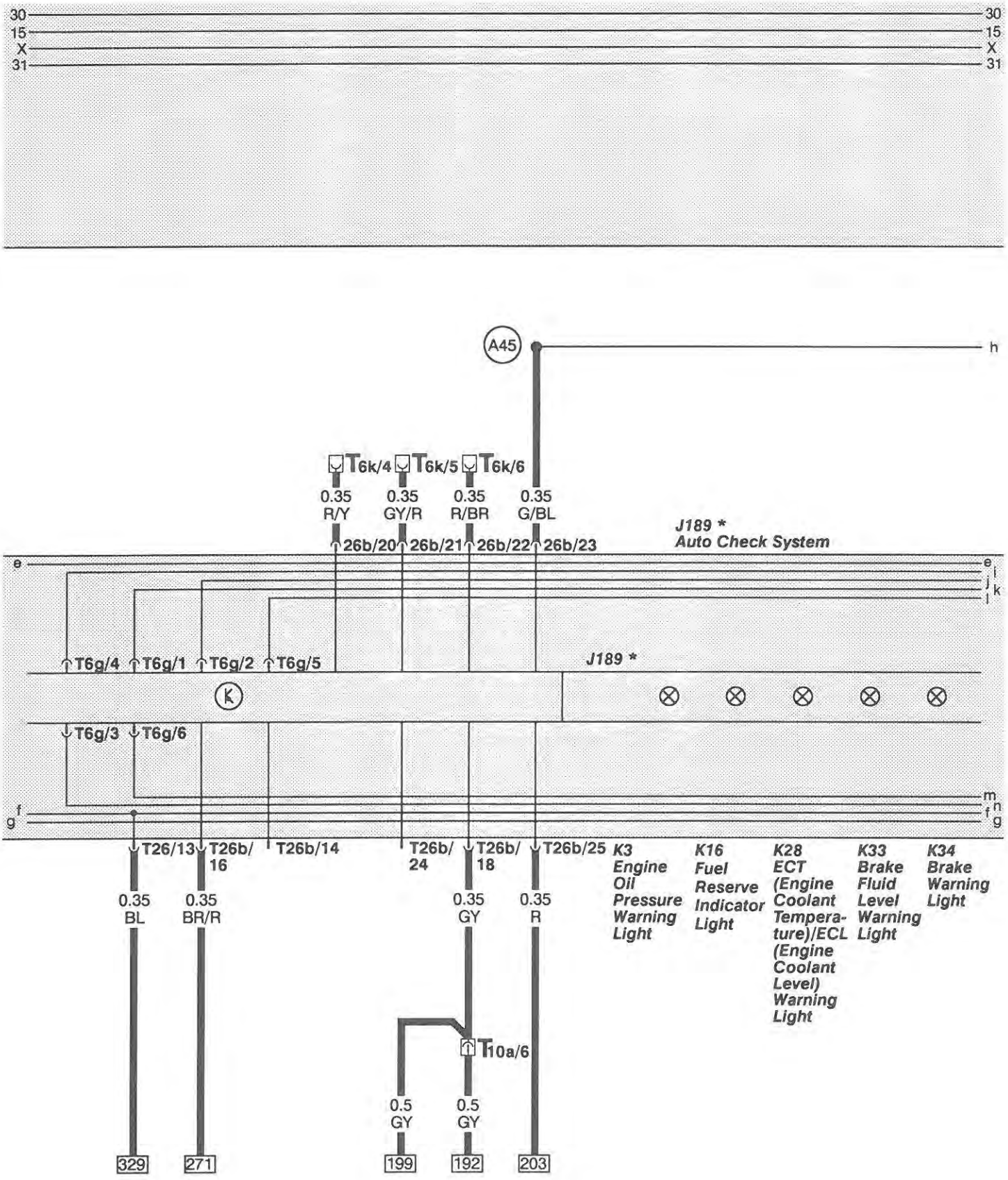
90 (All models)-USA/Canada
Up to VIN: 8CPA 000100


30
15
X
31
d
Fuse S13 15A
Fuse S22
ERS
FRL
FT
B87F
H87F
N
HT
0.35 V/BK
2.5 G/Y
1.5 G/Y
0.5 V/BK
A42
0.35 V/BK
0.5 V/BK
142
44
T6h/6 *
T6h/5 *
T6h/3 *
T5h/2
T5h/1
0.35 V/BK
0.35 BR/W
0.35 BK
0.35 BK/Y
0.35 BK/GY
T20/13
T20/12
T20/8
T16a/11
T16a/10
T20/14
16a/7
T16a/8
T16b/ 11
T16b/7
0.35 BR/BK
0.35 R/BK
0.35 G/W
1.0 G/R
1.0 BR/G
J192 ECM (Engine Control Module)
1.5 G/Y
0.5 V/BK
1/+
2/G
G6 FP (Fuel Pump)
4/-
G Fuel Gauge Sen- ding Unit
3/31
1.5 BR
0.5 BR
169
0.5 BK/Y
1/+
2/s
2
6/15
8/A
J273 ** Fuel Gauge Damper Control Module
N71 IAC (Idle Air Control) Valve
G40 Hall Gene- rator
3/-
1
4/31
7
0.5 BR/BK
0.5 BR
1.5 BR
0.5 BR
203
* Automatic Transmission Only
** Quattro Only
124
124
81
50
85
86
87
88
89
90
91
92
93
94
95
96
97
98



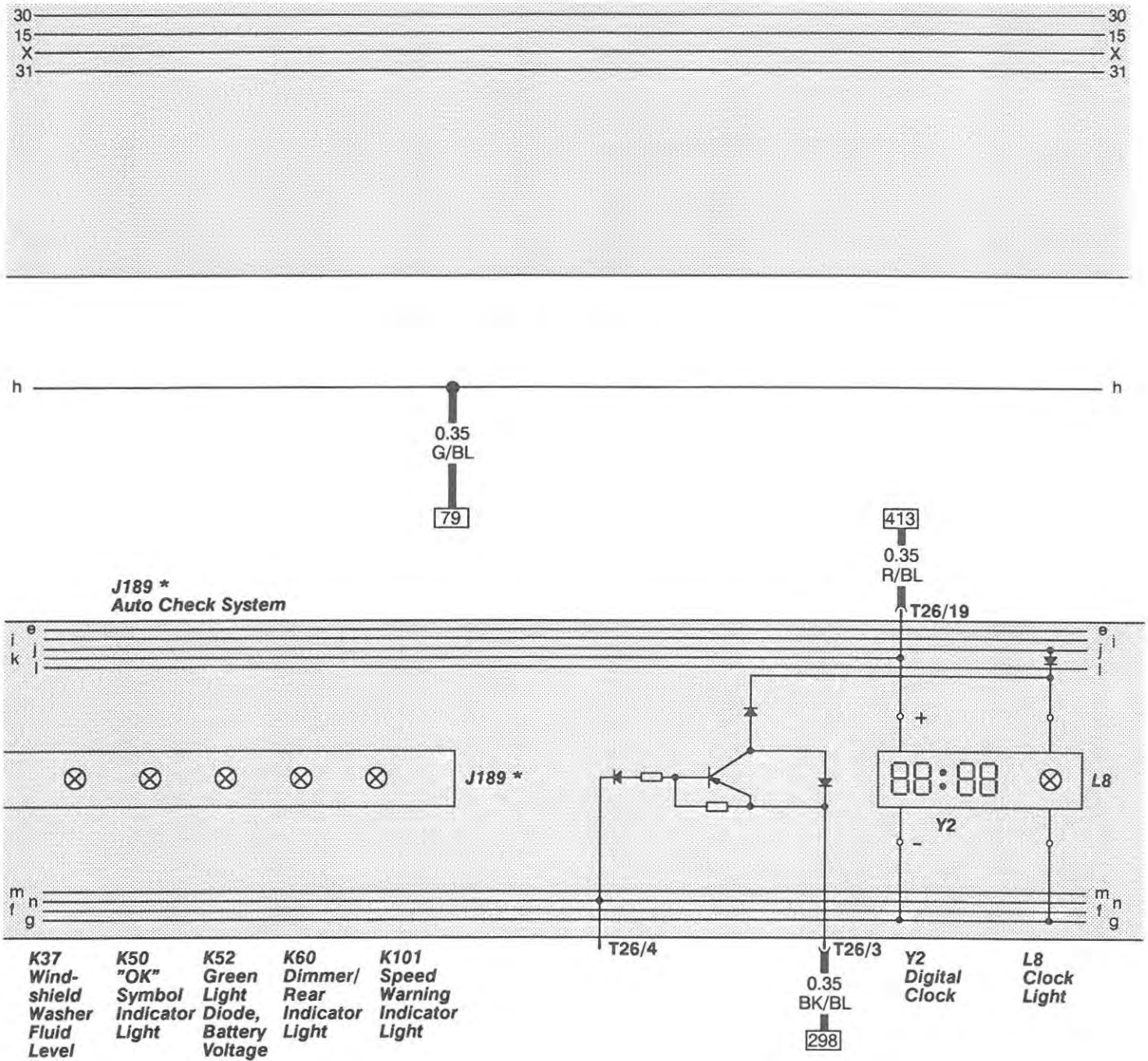
25 Auto Check System

90 (All models)-USA/Canada
Up to VIN: 8CPA 000100



* For 90 S
See Auxiliary Diagram

113 114 115 116 117 118 119 120 121 122 123 124 125 126



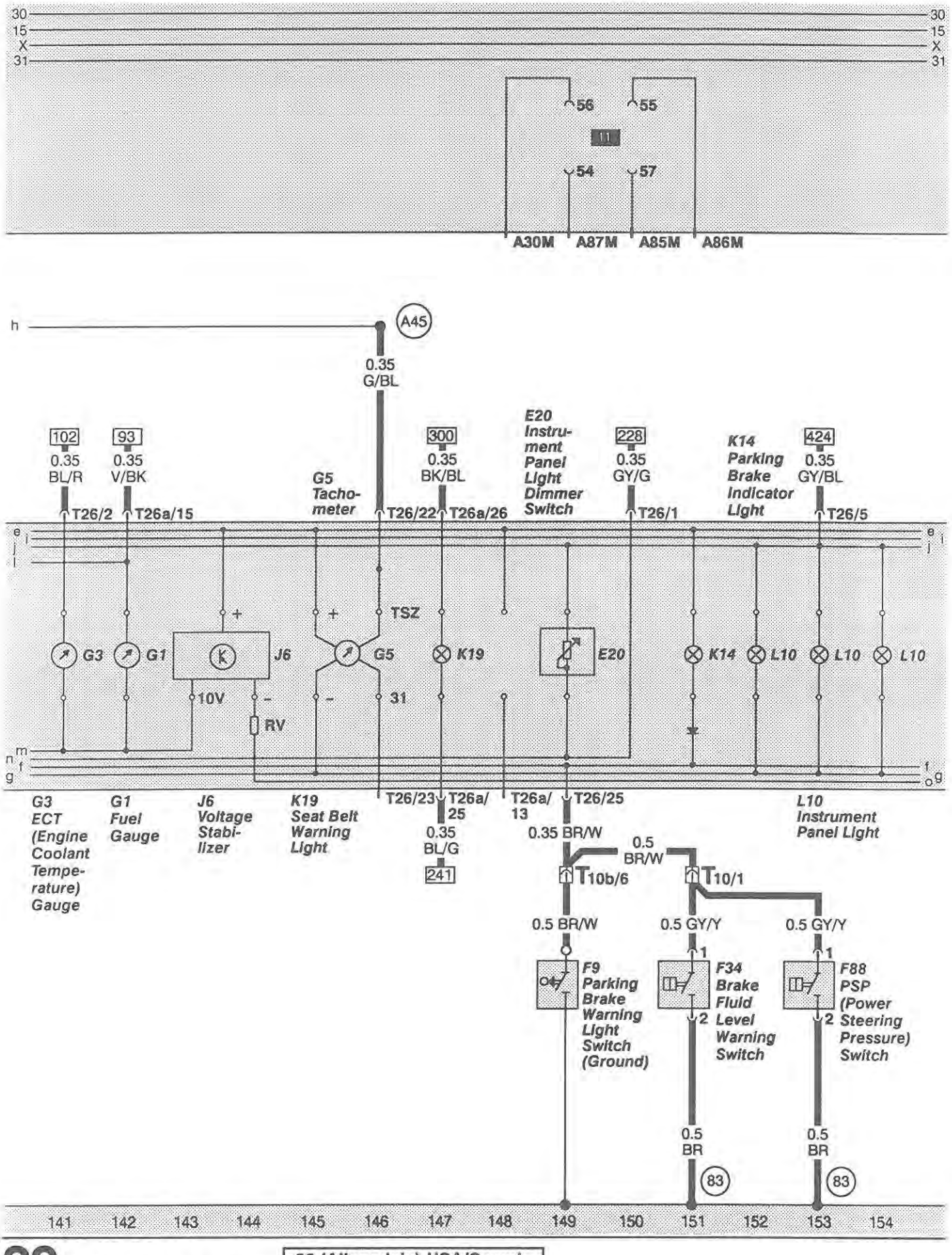
* *For 90 S*
See Auxiliary Diagram

127 128 129 130 131 132 133 134 135 136 137 138 139 140

27 Auto check system Digital clock

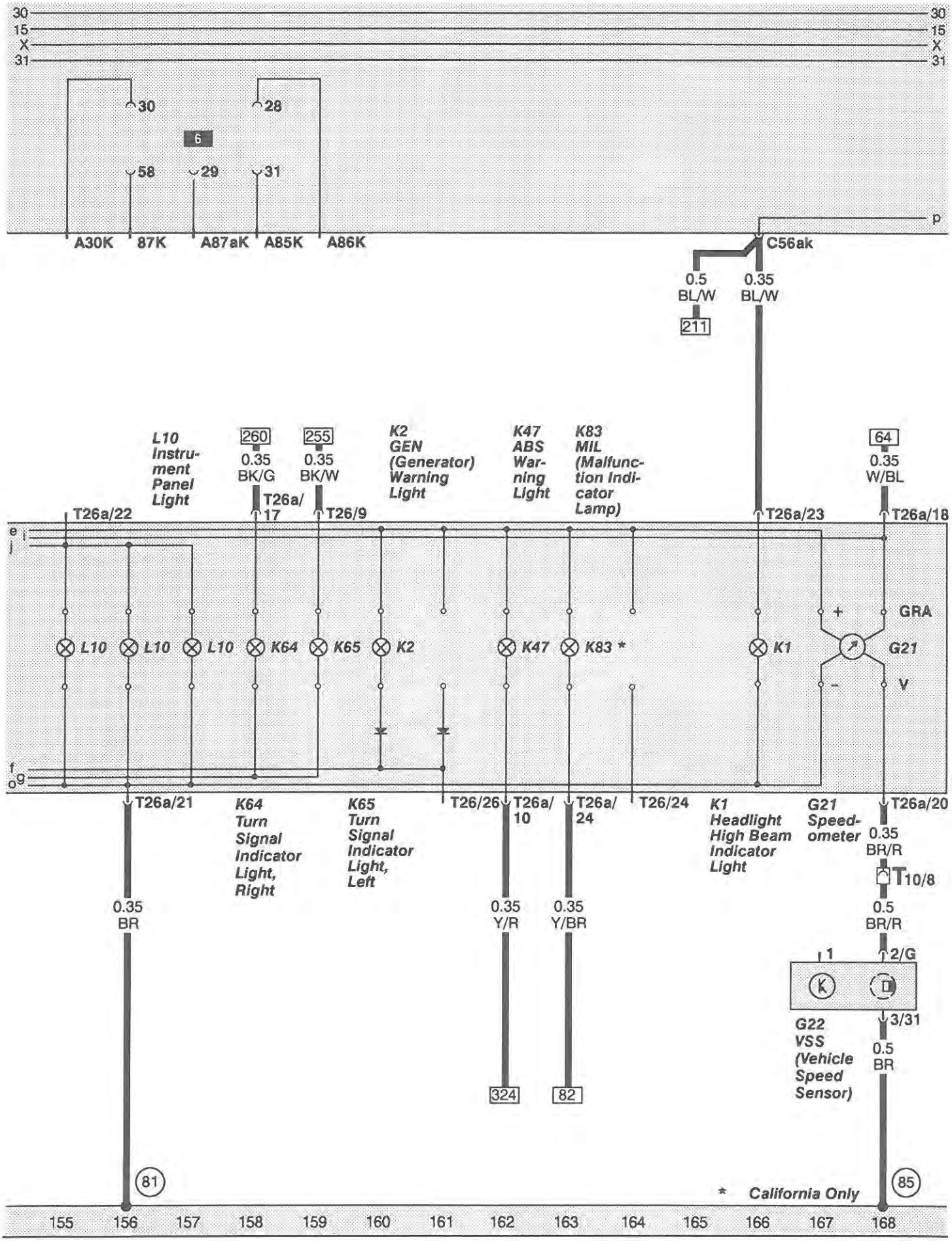
90 (All models)-USA/Canada
Up to VIN: 8CPA 000100

This page
intentionally
left blank

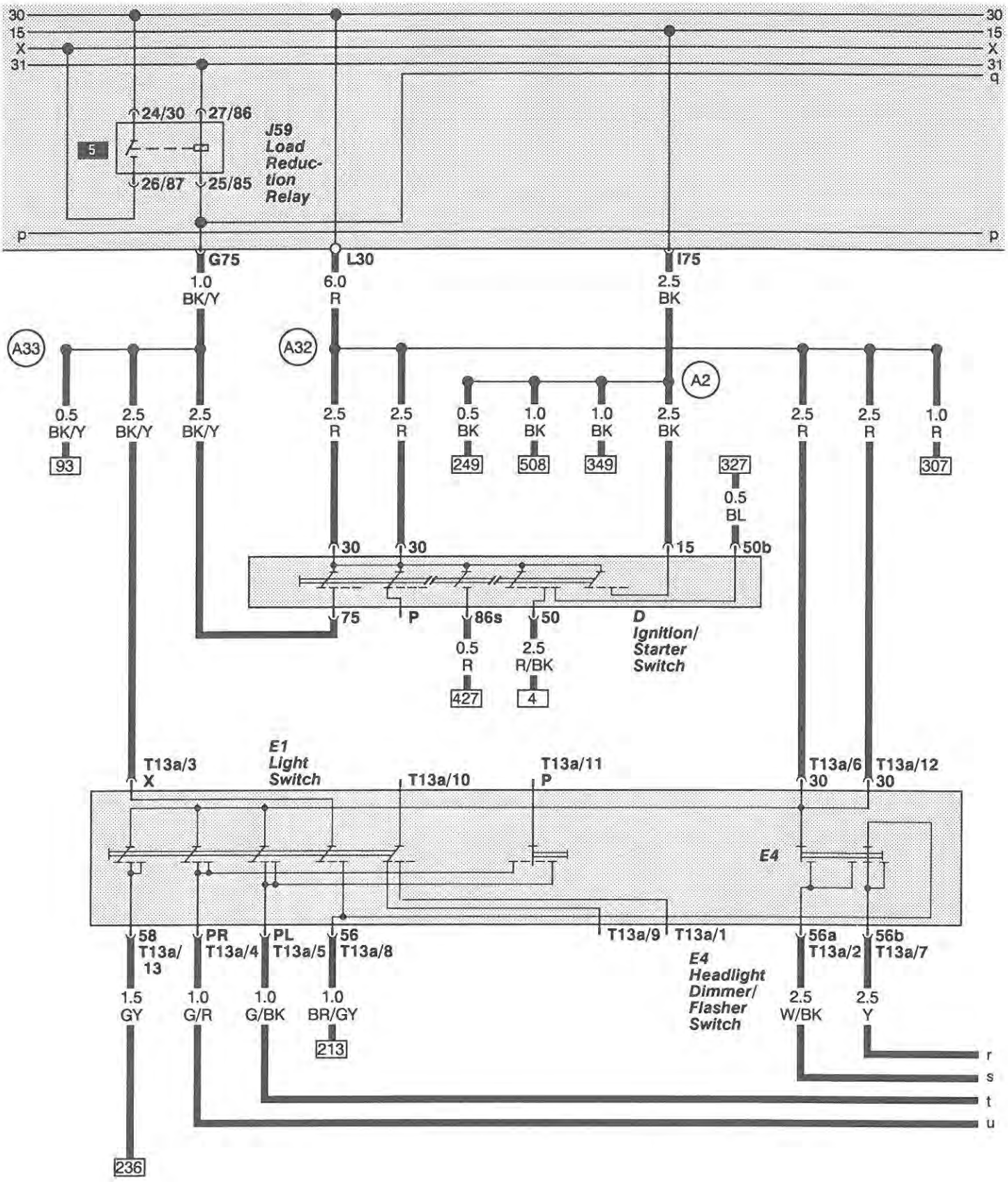


29 Instrument cluster

90 (All models)-USA/Canada
Up to VIN: 8CPA 000100

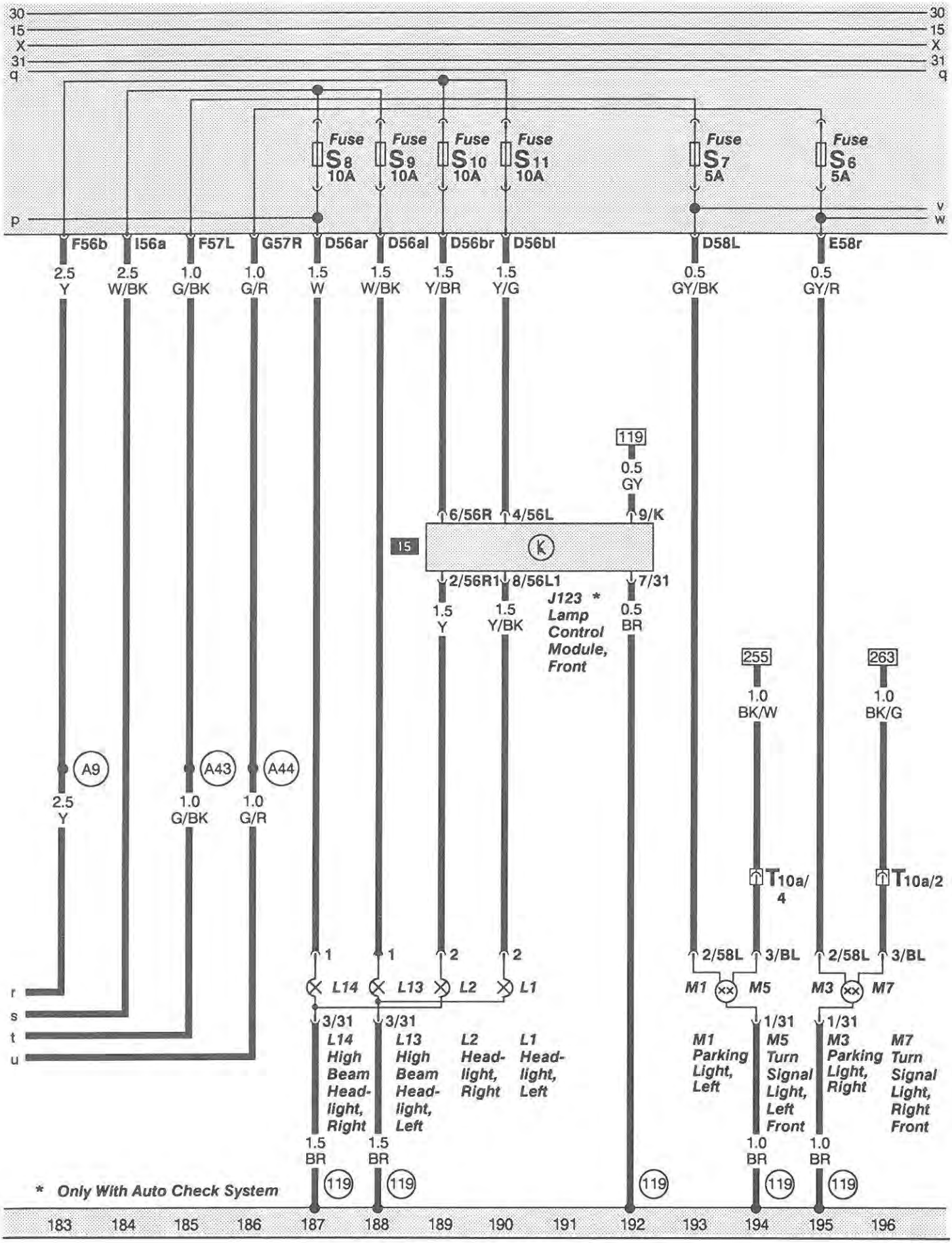


90 (All models)-USA/Canada
Up to VIN: 8CPA 000100



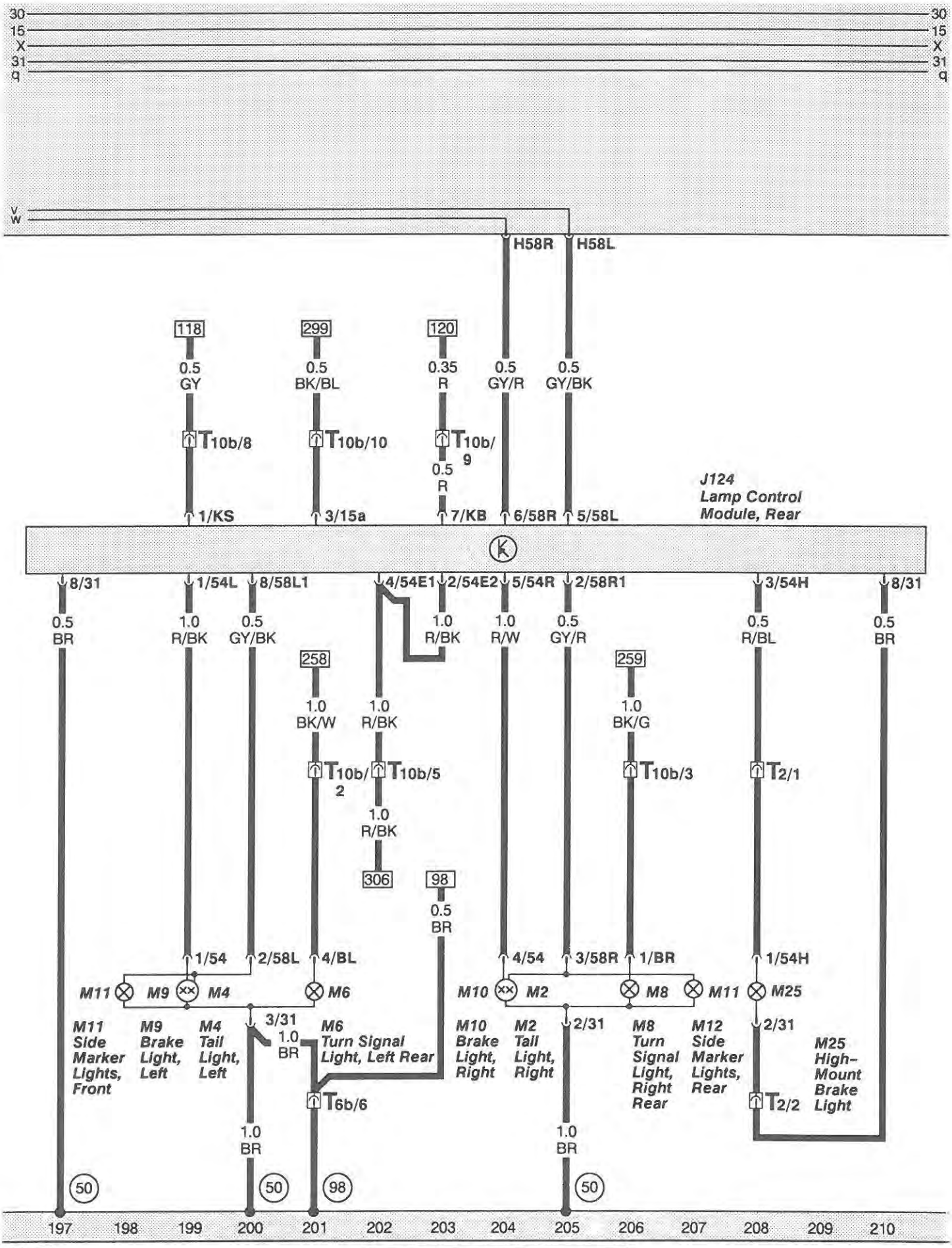
31 Ignition/starter switch

90 (All models)-USA/Canada
Up to VIN: 8CPA 000100



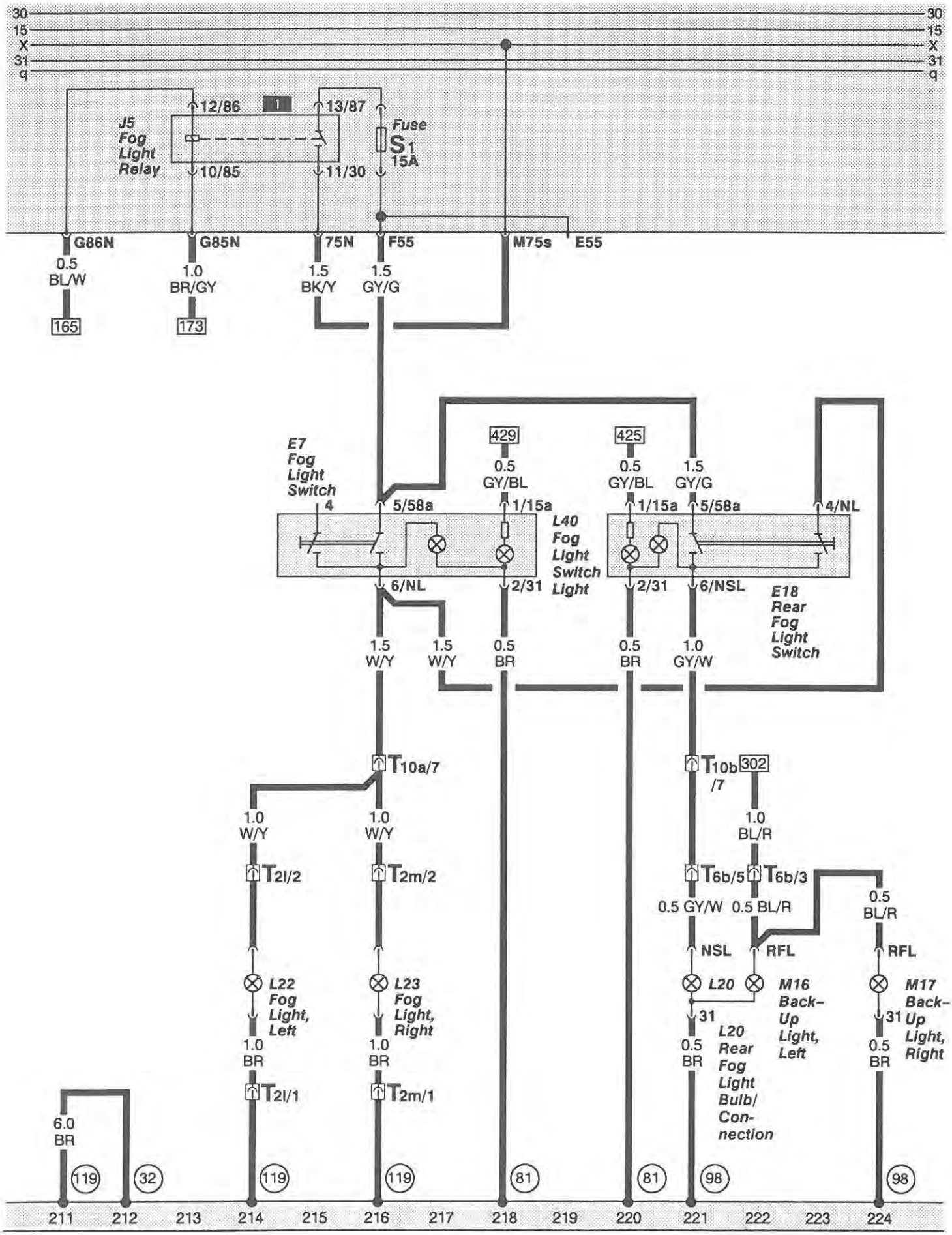
90 (All models)-USA/Canada
Up to VIN: 8CPA 000100

Lamp Control Module, front

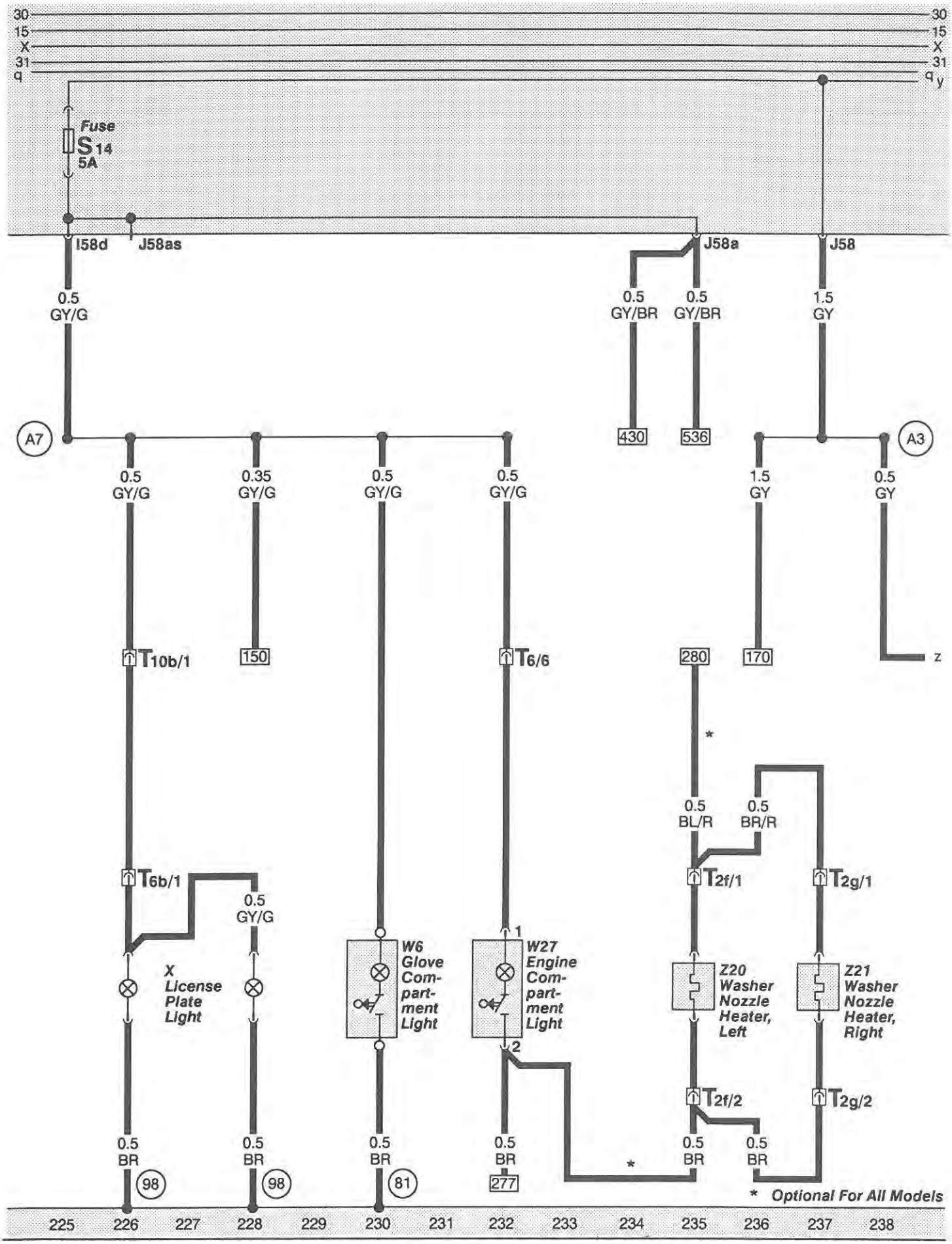


33 Lamp Control Module, rear

90 (All models)-USA/Canada
Up to VIN: 8CPA 000100

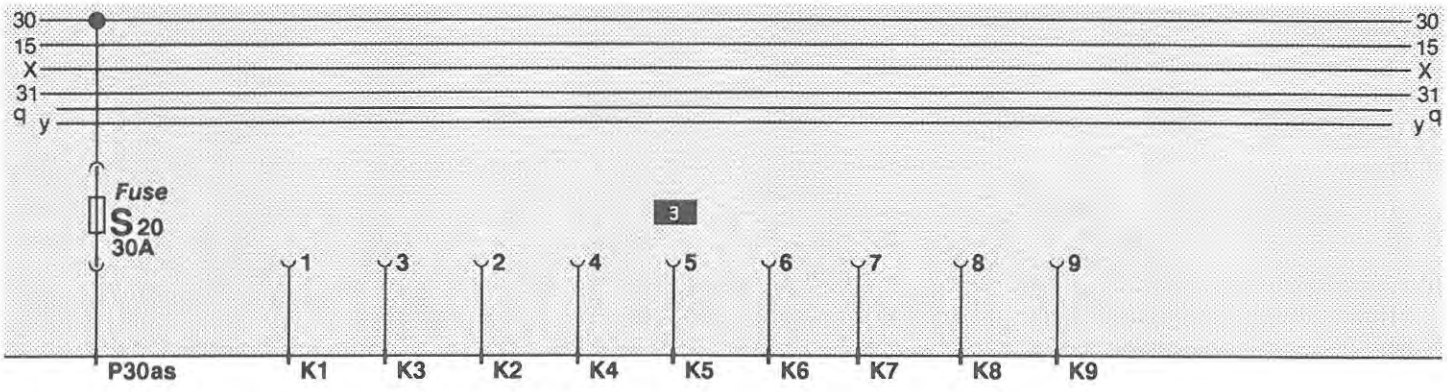


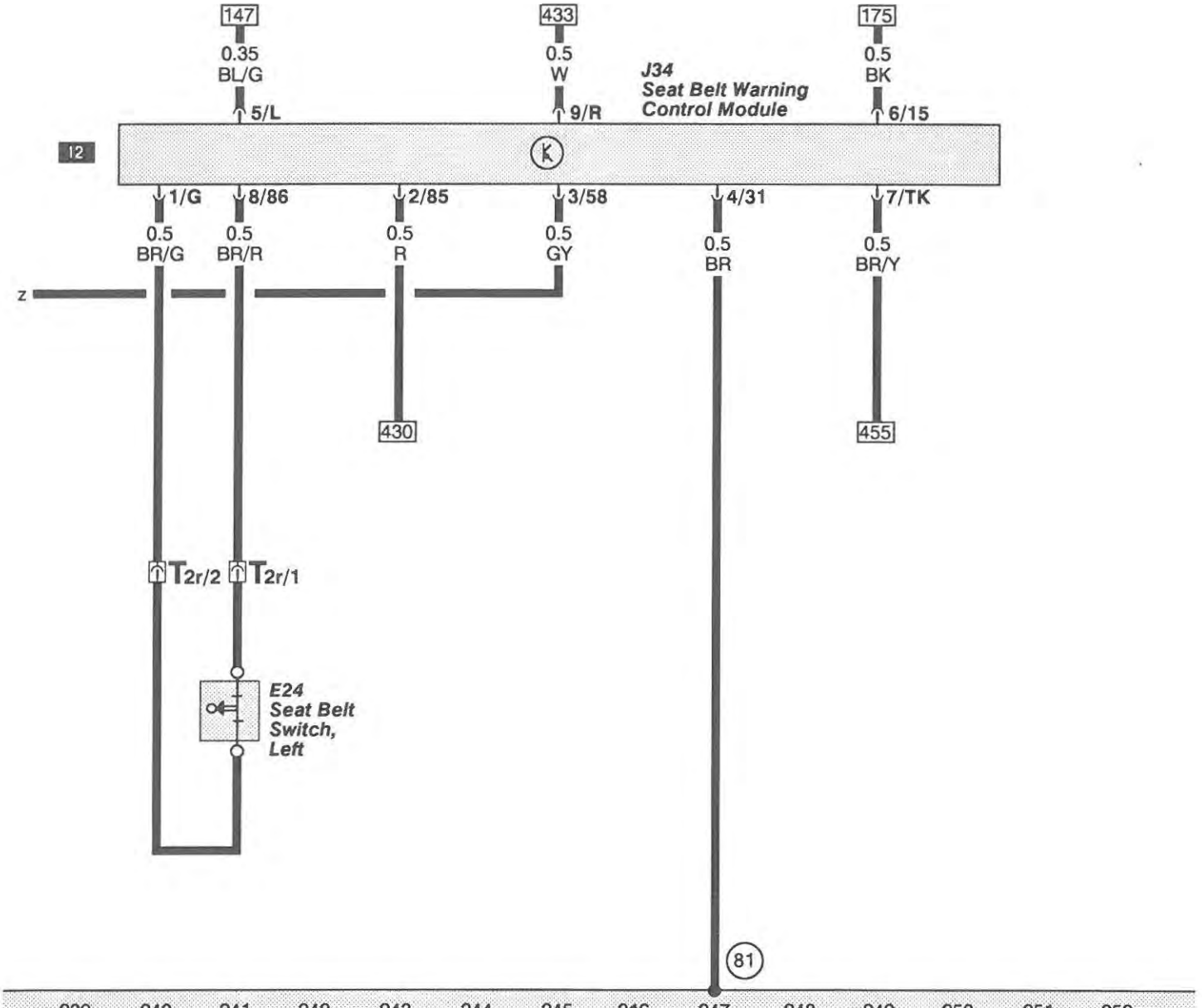
90 (All models)-USA/Canada
Up to VIN: 8CPA 000100

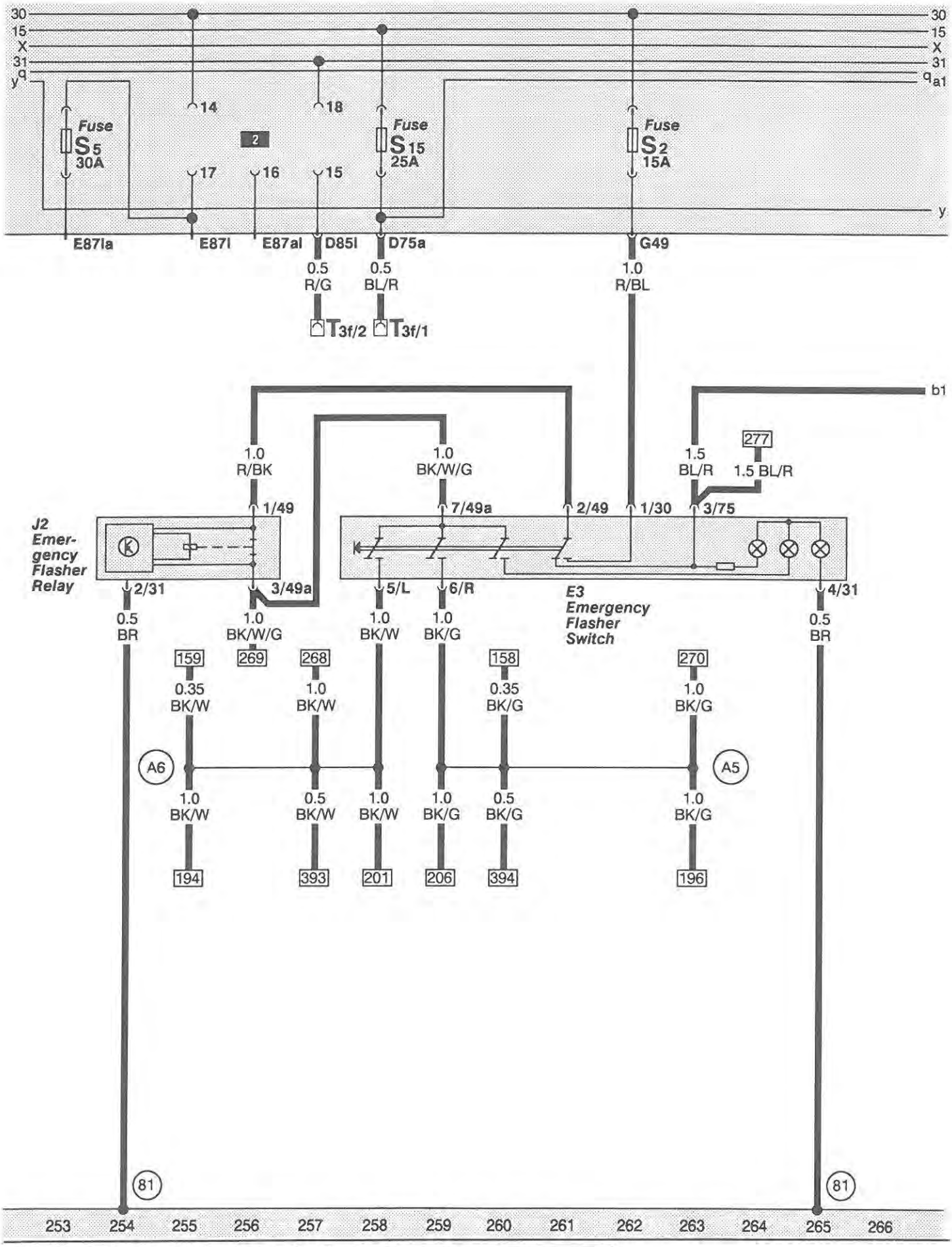


35 Engine/glove compartment light

90 (All models)-USA/Canada
Up to VIN: 8CPA 000100

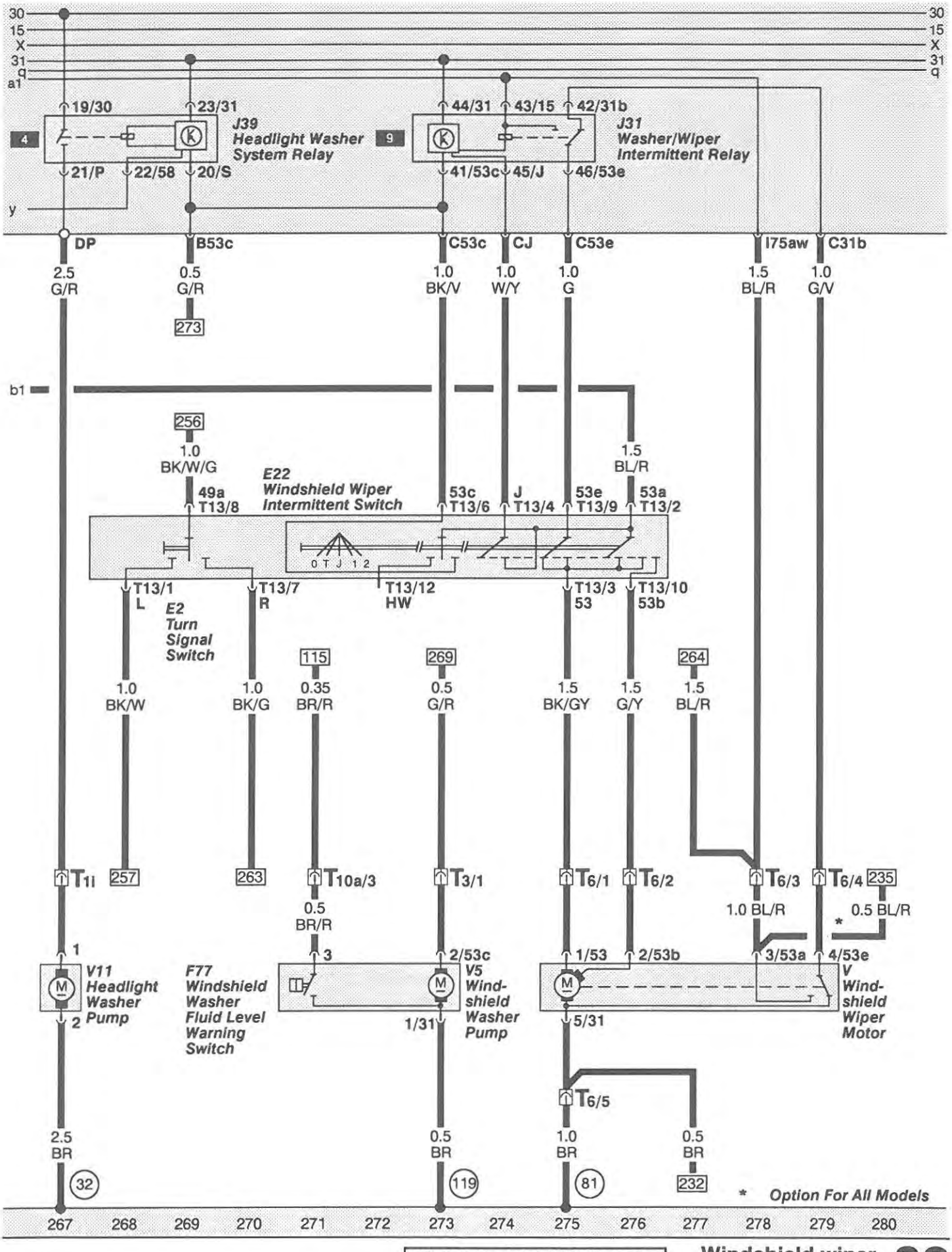

30
15
X
31
q
y
Fuse
S 20
30A
3
1
3
2
4
5
6
7
8
9
P30as
K1
K3
K2
K4
K5
K6
K7
K8
K9


147
433
175
0.35
BL/G
0.5
W
0.5
BK
J34
Seat Belt Warning
Control Module
5/L
9/R
6/15
12
K
1/G
8/86
2/85
3/58
4/31
7/TK
0.5
BR/G
0.5
BR/R
0.5
R
0.5
GY
0.5
BR
0.5
BR/Y
z
430
455
T2r/2
T2r/1
E24
Seat Belt
Switch,
Left
81
239
240
241
242
243
244
245
246
247
248
249
250
251
252



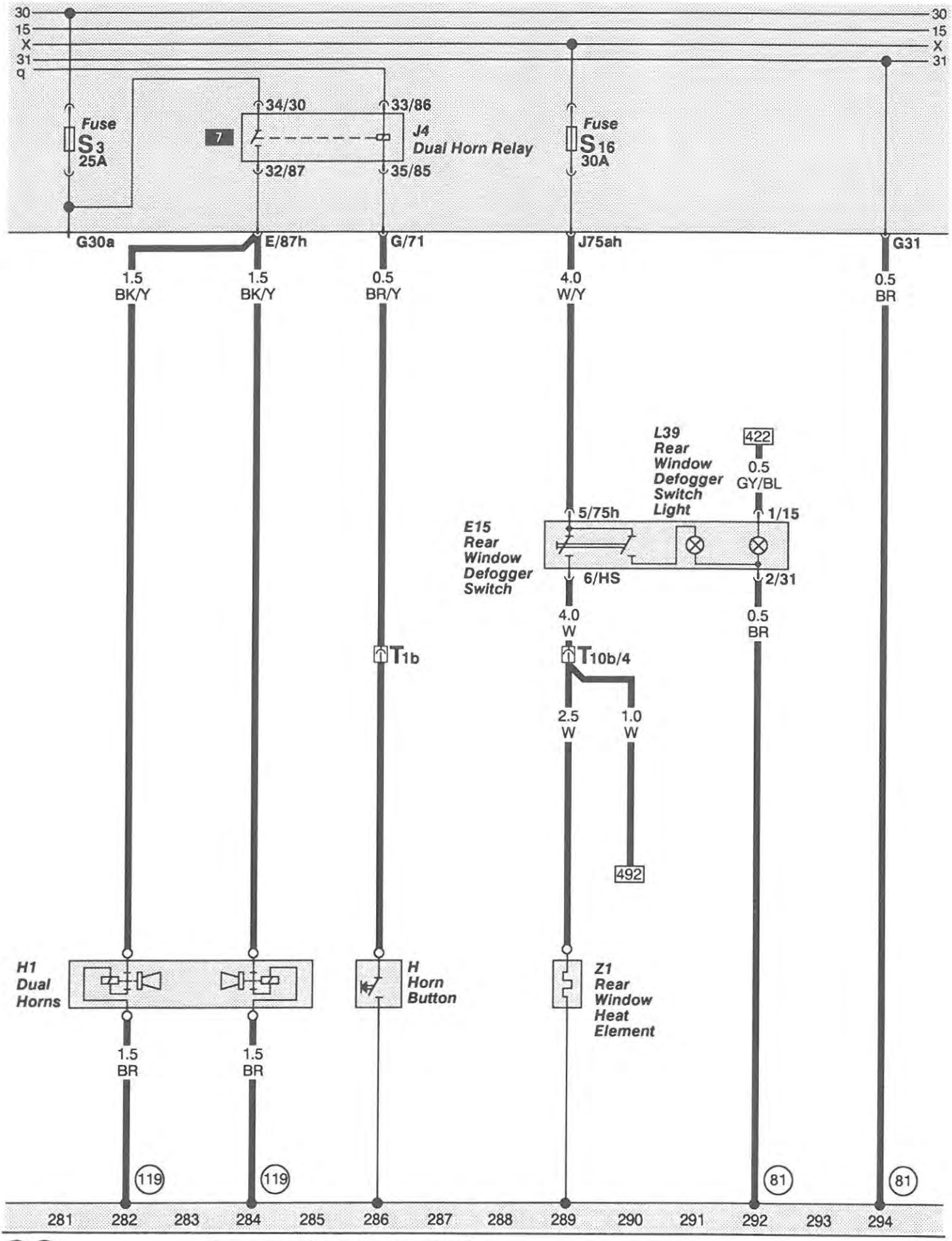
37 Emergency flasher relay/ Emergency switch

90 (All models)-USA/Canada
Up to VIN: 8CPA 000100



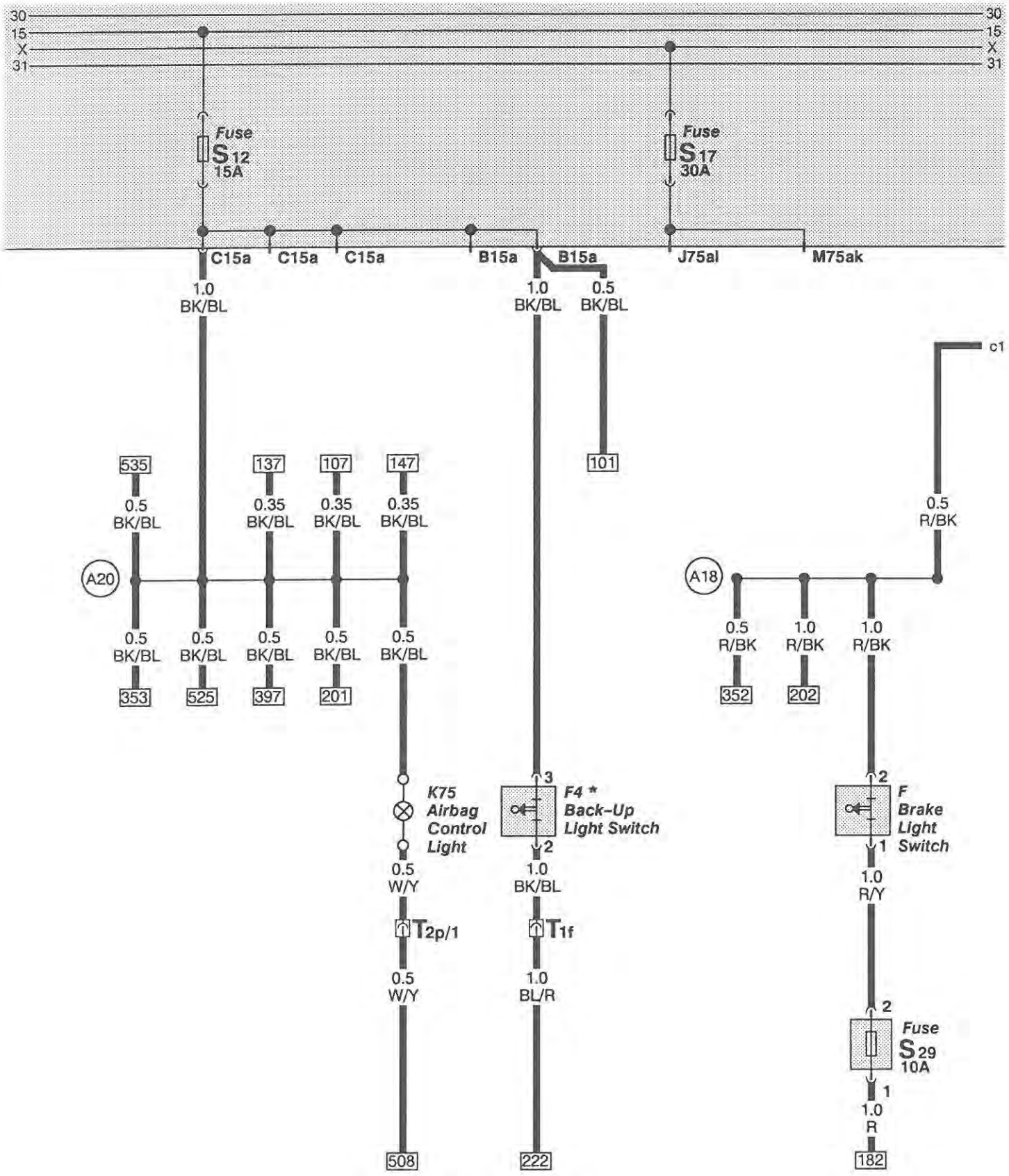
90 (All models)-USA/Canada
Up to VIN: 8CPA 000100

Windshield wiper intermittent switch **38**



39 **Dual horns**

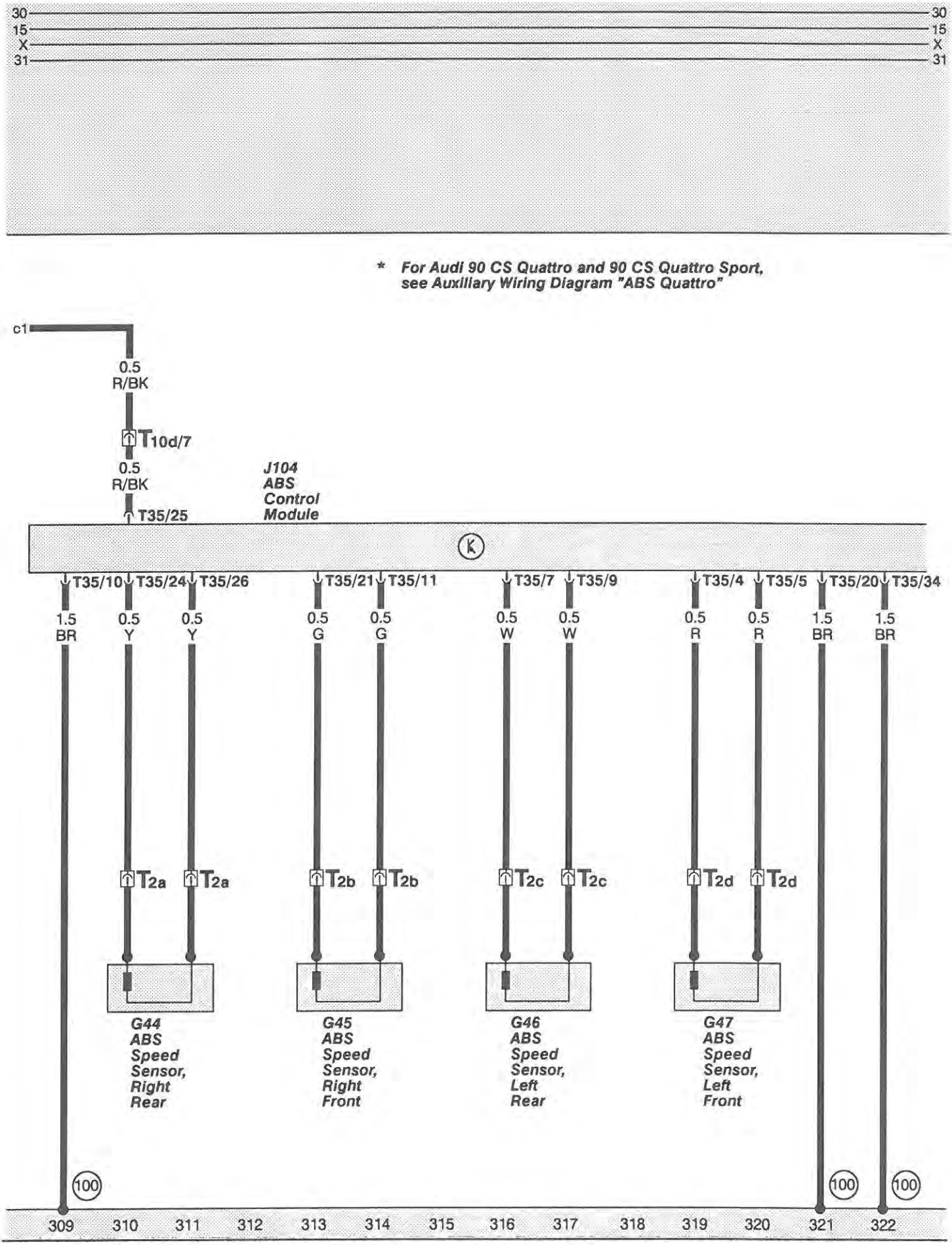
90 (All models)-USA/Canada
Up to VIN: 8CPA 000100



* *Manual Transmission Only*
90 CS Quattro (Automatic Transmission Only)

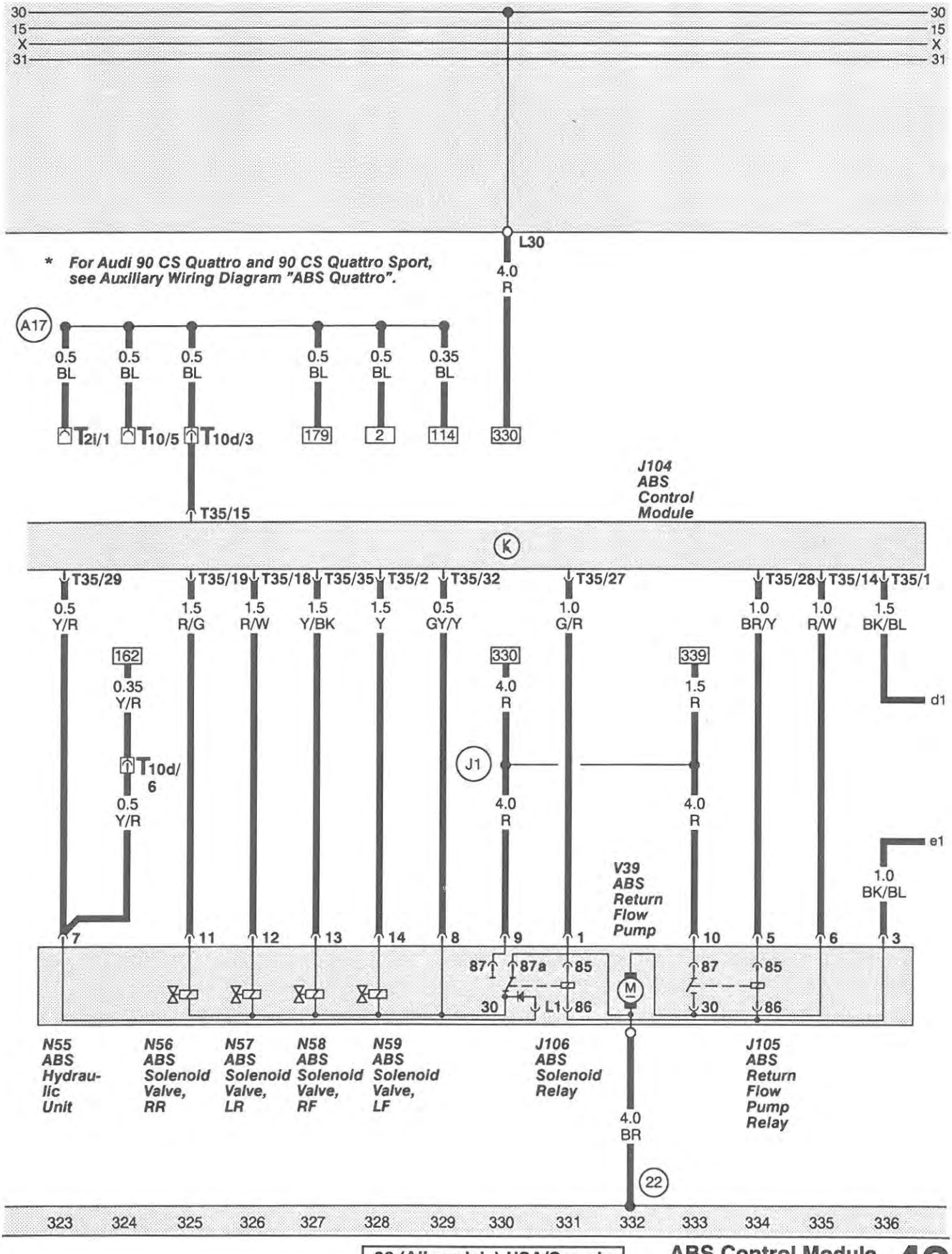
90 (All models)-USA/Canada
Up to VIN: 8CPA 000100

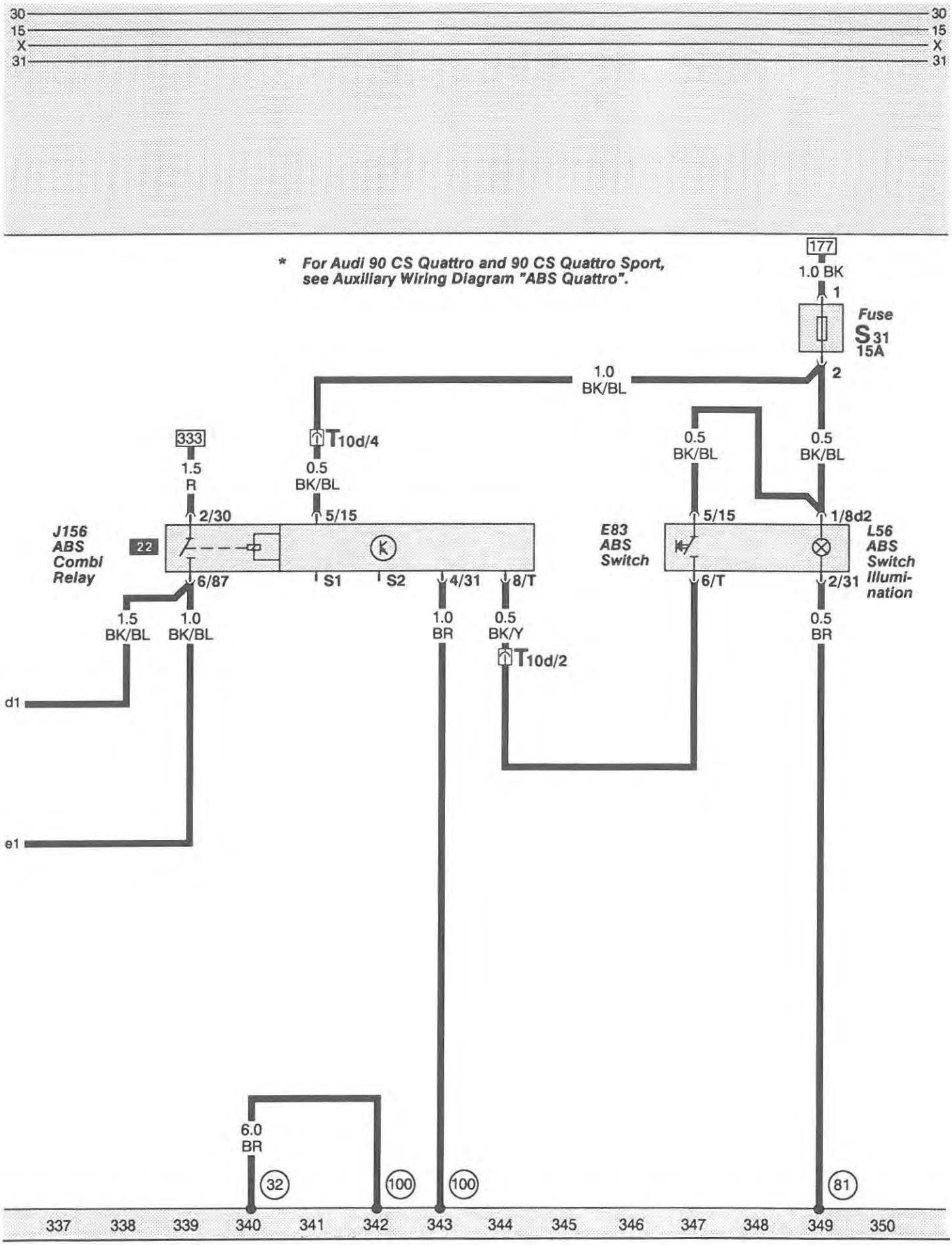
Brake light switch
Back-up light switch



41 ABS Control Module (2-Wheel drive system)

90 (All models)-USA/Canada
Up to VIN: 8CPA 000100

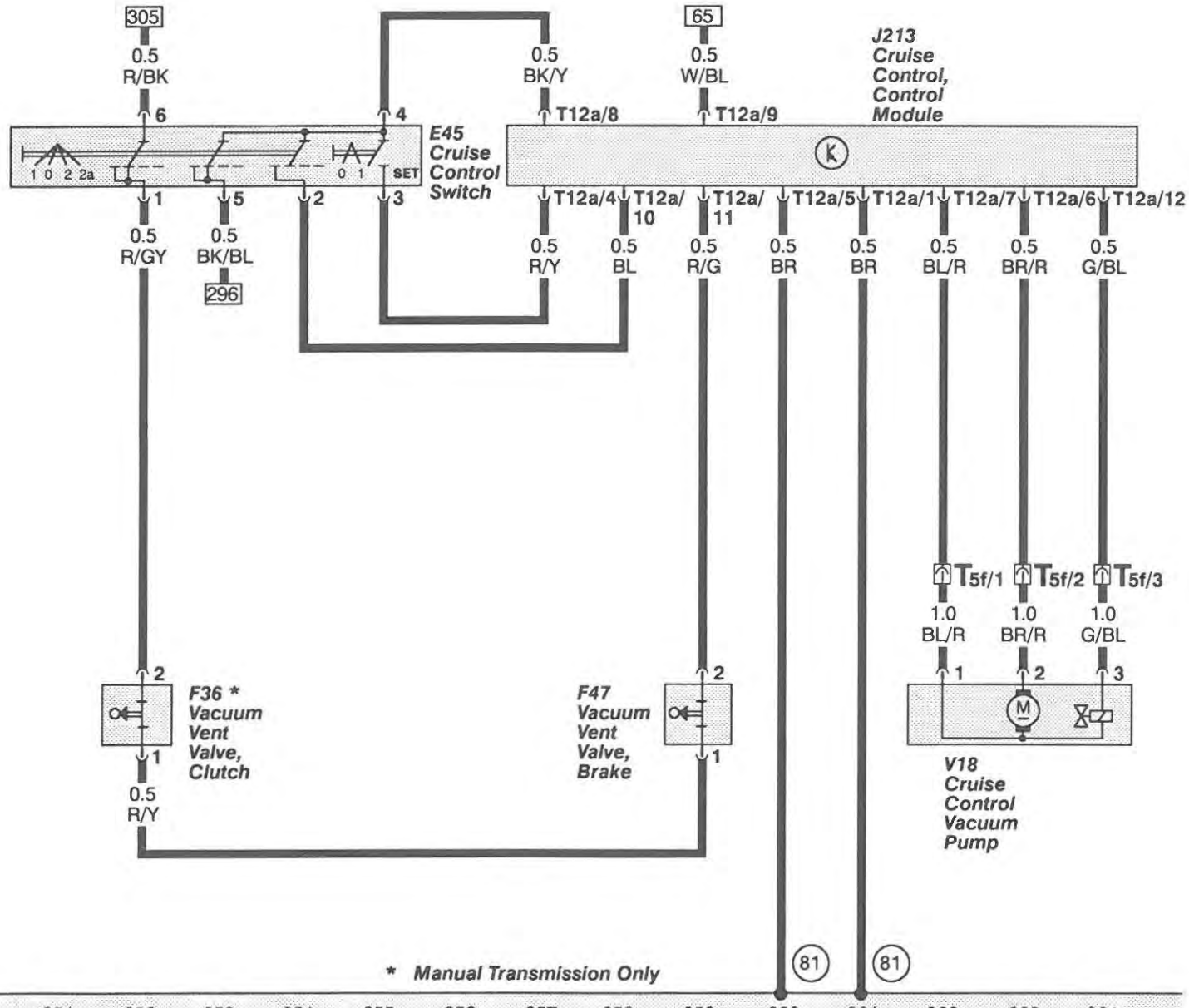

30
15
X
31
L30
4.0
R
* For Audi 90 CS Quattro and 90 CS Quattro Sport, see Auxiliary Wiring Diagram "ABS Quattro".
A17
0.5 BL
0.5 BL
0.5 BL
0.5 BL
0.5 BL
0.35 BL
T2i/1
T10/5
T10d/3
179
2
114
330
T35/15
J104 ABS Control Module
K
T35/29
T35/19
T35/18
T35/35
T35/2
T35/32
T35/27
T35/28
T35/14
T35/1
0.5 Y/R
1.5 R/G
1.5 R/W
1.5 Y/BK
1.5 Y
0.5 GY/Y
1.0 G/R
1.0 BR/Y
1.0 R/W
1.5 BK/BL
d1
162
0.35 Y/R
T10d/6
0.5 Y/R
330
4.0 R
339
1.5 R
J1
4.0 R
4.0 R
e1
1.0 BK/BL
V39 ABS Return Flow Pump
7
11
12
13
14
8
9
1
10
5
6
3
87
87a
85
30
L1
86
M
N55 ABS Hydraulic Unit
N56 ABS Solenoid Valve, RR
N57 ABS Solenoid Valve, LR
N58 ABS Solenoid Valve, RF
N59 ABS Solenoid Valve, LF
J106 ABS Solenoid Relay
J105 ABS Return Flow Pump Relay
4.0 BR
22
323
324
325
326
327
328
329
330
331
332
333
334
335
336

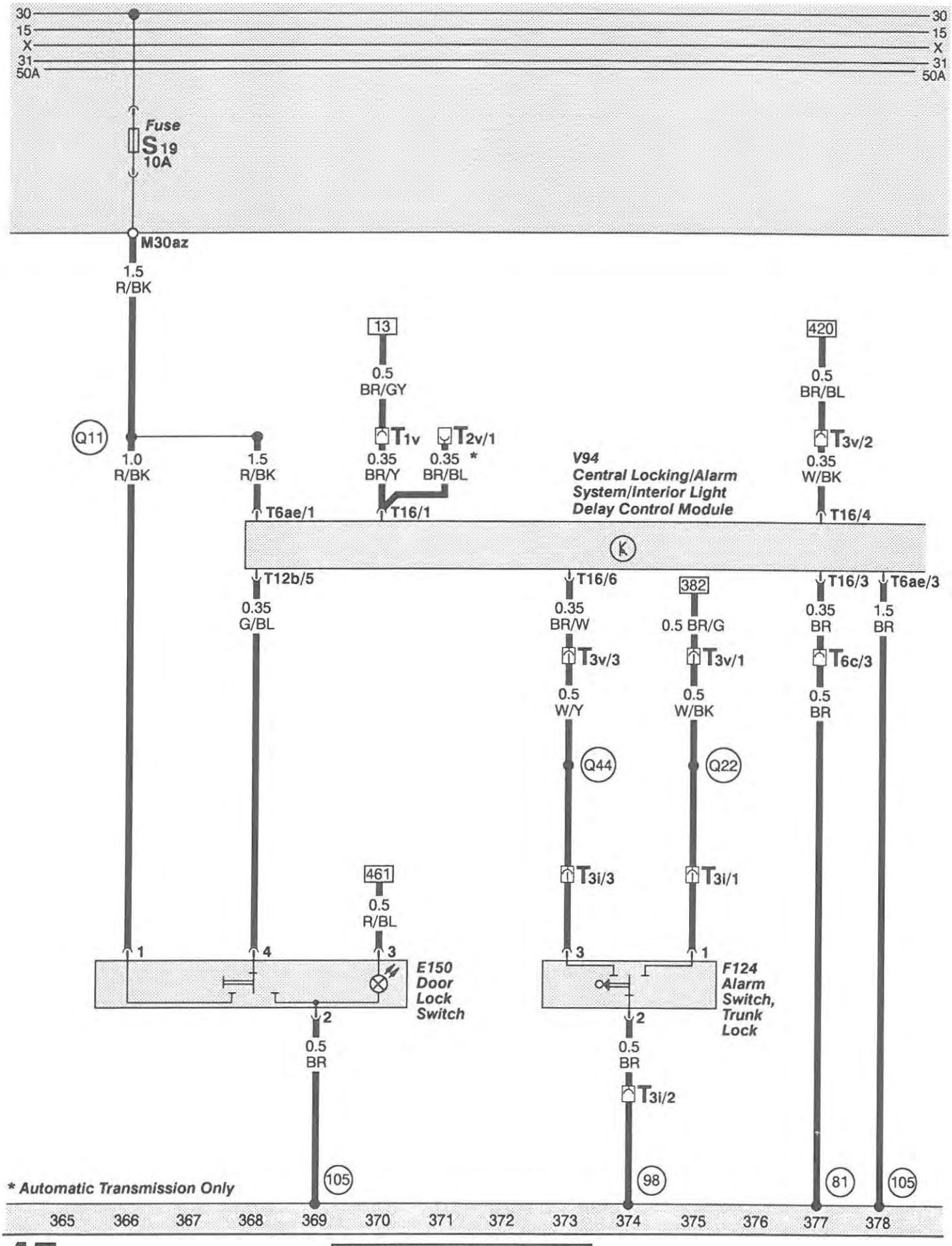


43 ABS Combi relay (2-Wheel drive system)

90 (All models)-USA/Canada
Up to VIN: 8CPA 000100

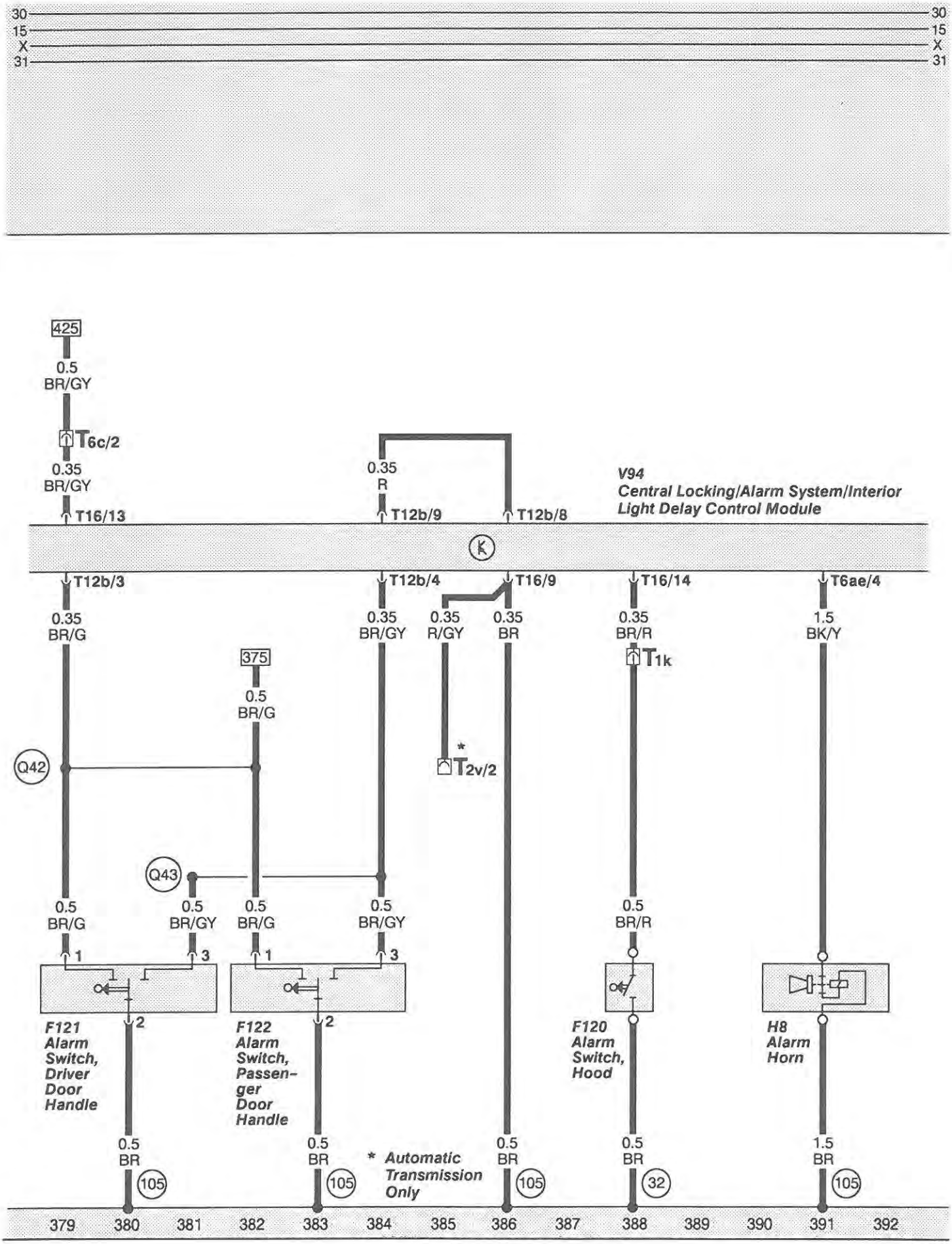
30
15
X
31

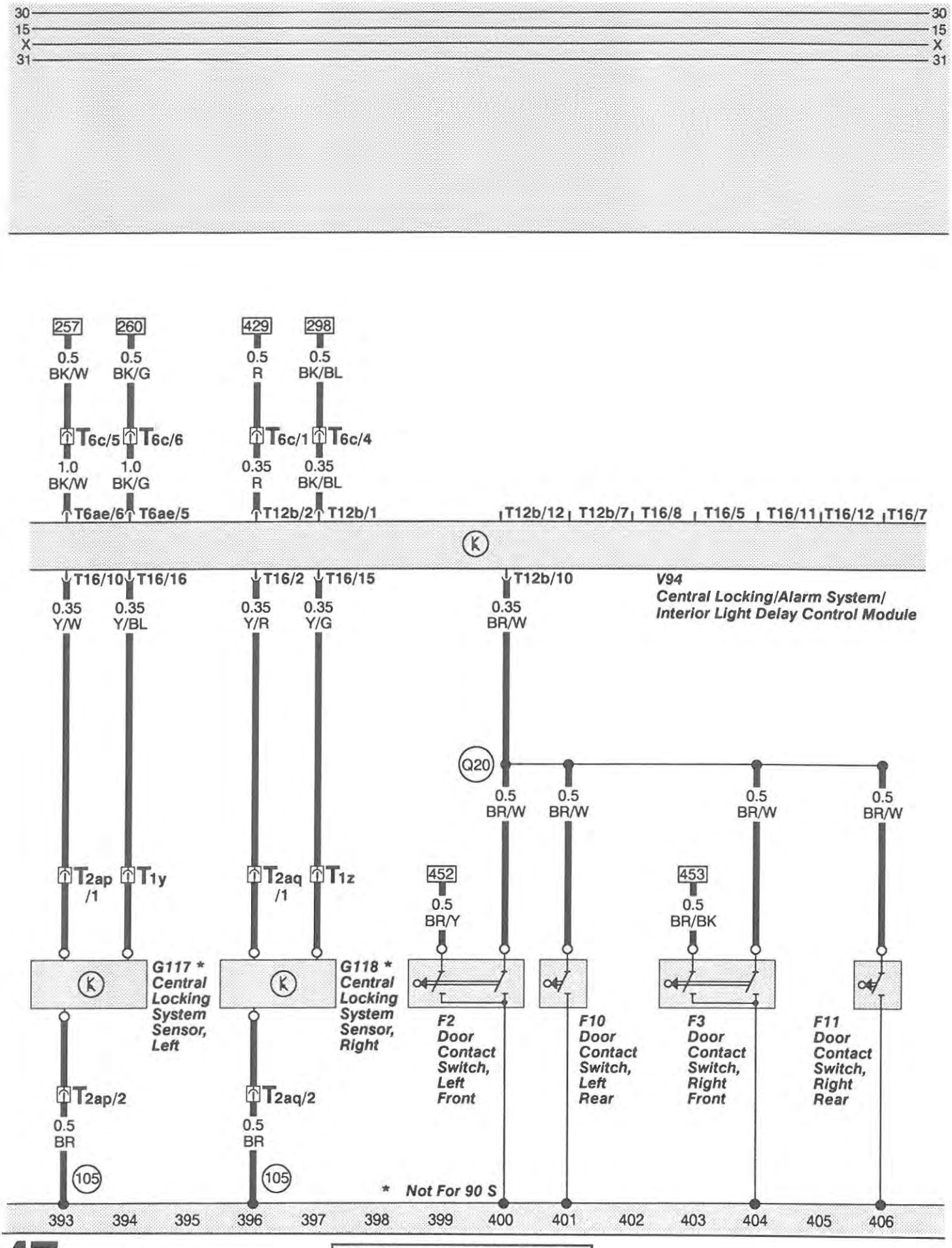

305
0.5
R/BK
6
4
0.5
BK/Y
65
0.5
W/BL
J213
Cruise
Control,
Control
Module
T12a/8
T12a/9
E45
Cruise
Control
Switch
1 0 2 2a
0 1
SET
1
5
2
3
T12a/4
T12a/
10
T12a/
11
T12a/5
T12a/1
T12a/7
T12a/6
T12a/12
0.5
R/GY
0.5
BK/BL
296
0.5
R/Y
0.5
BL
0.5
R/G
0.5
BR
0.5
BR
0.5
BL/R
0.5
BR/R
0.5
G/BL
T5f/1
T5f/2
T5f/3
1.0
BL/R
1.0
BR/R
1.0
G/BL
2
1
F36 *
Vacuum
Vent
Valve,
Clutch
0.5
R/Y
F47
Vacuum
Vent
Valve,
Brake
M
V18
Cruise
Control
Vacuum
Pump
81
81
* Manual Transmission Only
351
352
353
354
355
356
357
358
359
360
361
362
363
364



45 Central locking system

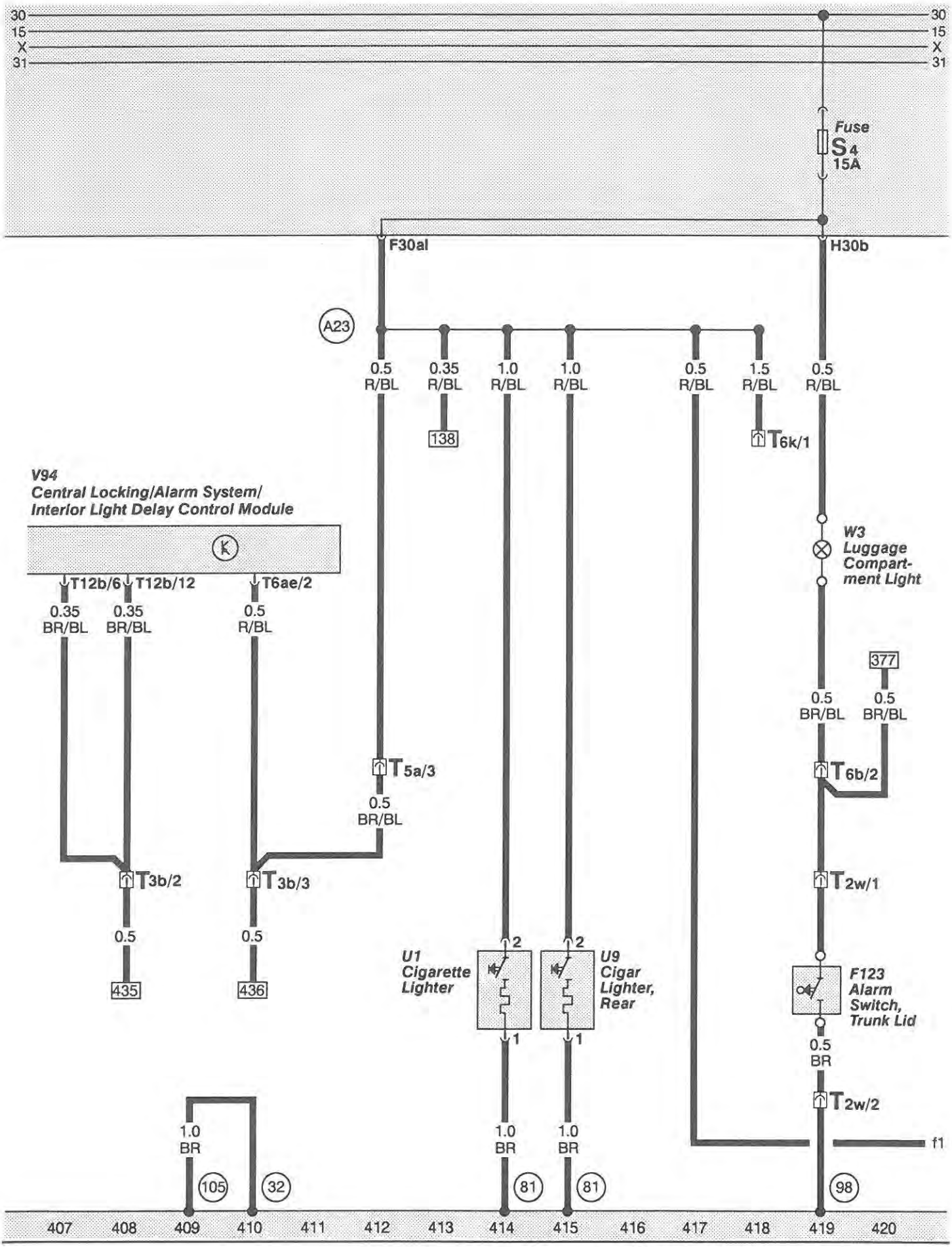
90 (All models)-USA/Canada
Up to VIN: 8CPA 000100


30
15
X
31
425
0.5
BR/GY
T6c/2
0.35
BR/GY
T16/13
0.35
R
T12b/9
T12b/8
V94
Central Locking/Alarm System/Interior Light Delay Control Module
K
T12b/3
T12b/4
T16/9
T16/14
T6ae/4
0.35
BR/G
0.35
BR/GY
0.35
R/GY
0.35
BR
0.35
BR/R
1.5
BK/Y
375
0.5
BR/G
T1k
Q42
*
T2v/2
Q43
0.5
BR/G
0.5
BR/GY
0.5
BR/G
0.5
BR/GY
0.5
BR/R
1
3
1
3
2
2
F121
Alarm
Switch,
Driver
Door
Handle
F122
Alarm
Switch,
Passen-
ger
Door
Handle
F120
Alarm
Switch,
Hood
H8
Alarm
Horn
0.5
BR
0.5
BR
0.5
BR
0.5
BR
1.5
BR
105
105
105
32
105
* Automatic Transmission Only
379
380
381
382
383
384
385
386
387
388
389
390
391
392

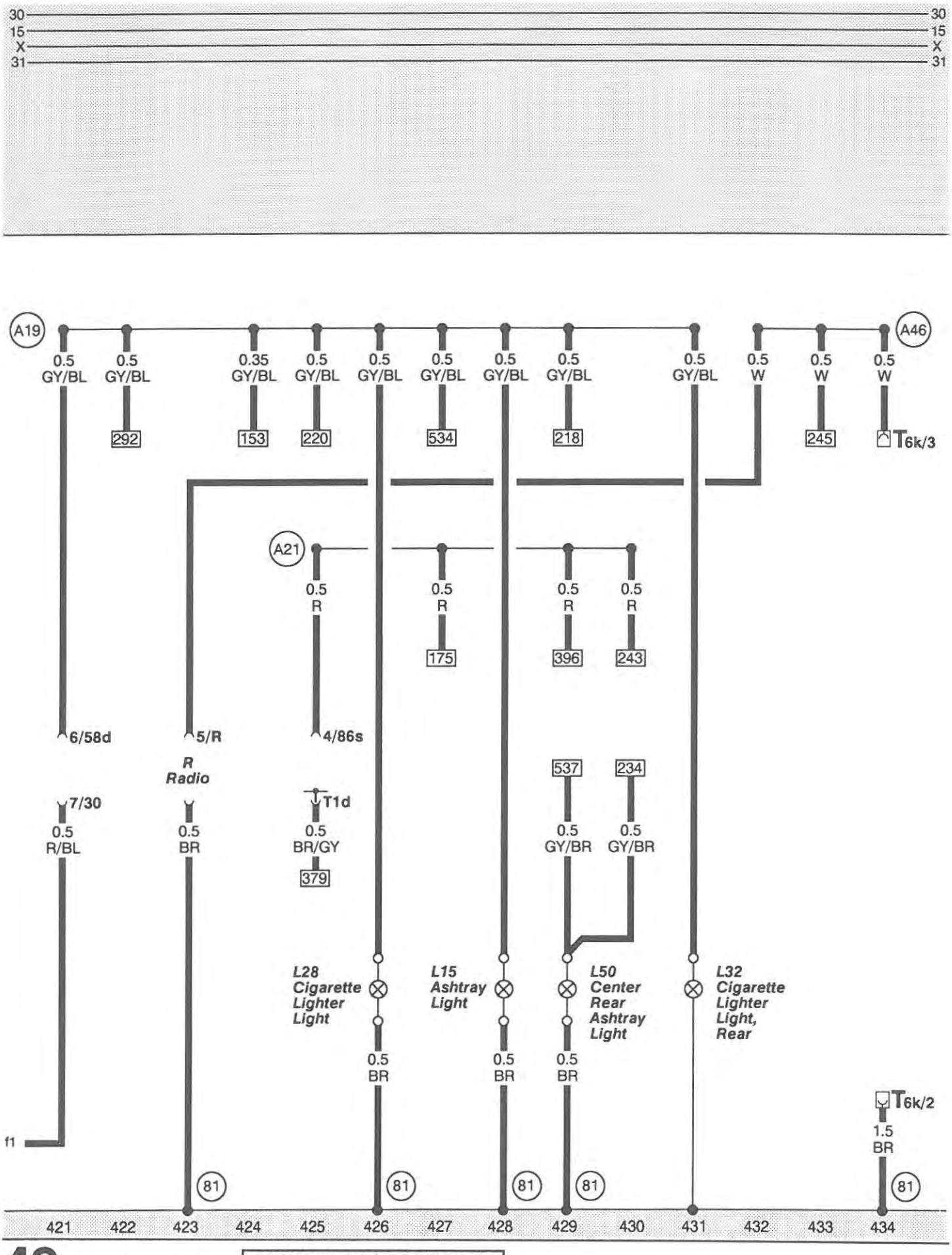


47 Central locking system

90 (All models)-USA/Canada
Up to VIN: 8CPA 000100

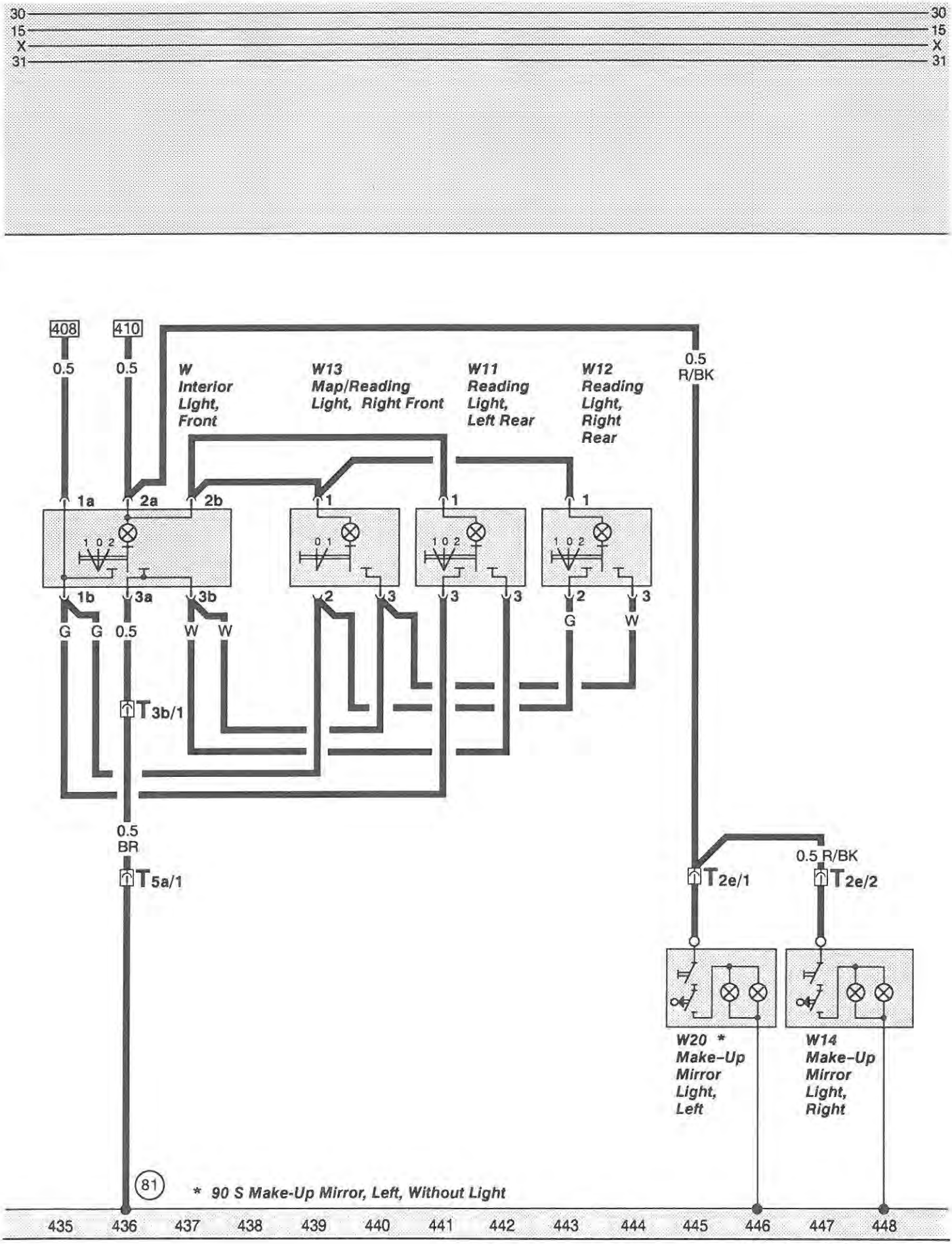


90 (All models)-USA/Canada
Up to VIN: 8CPA 000100

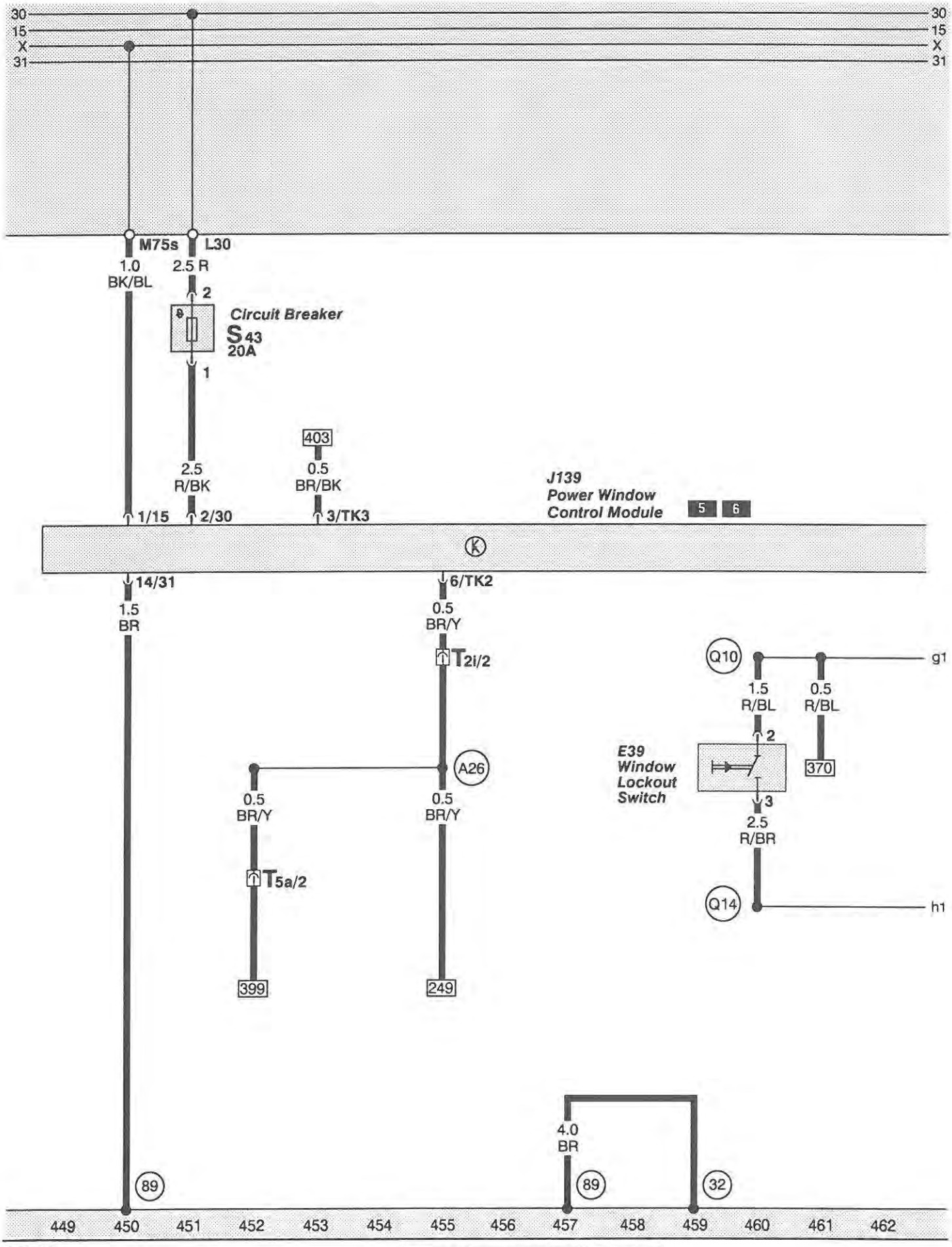


49 Ashtray lights

90 (All models)-USA/Canada
Up to VIN: 8CPA 000100

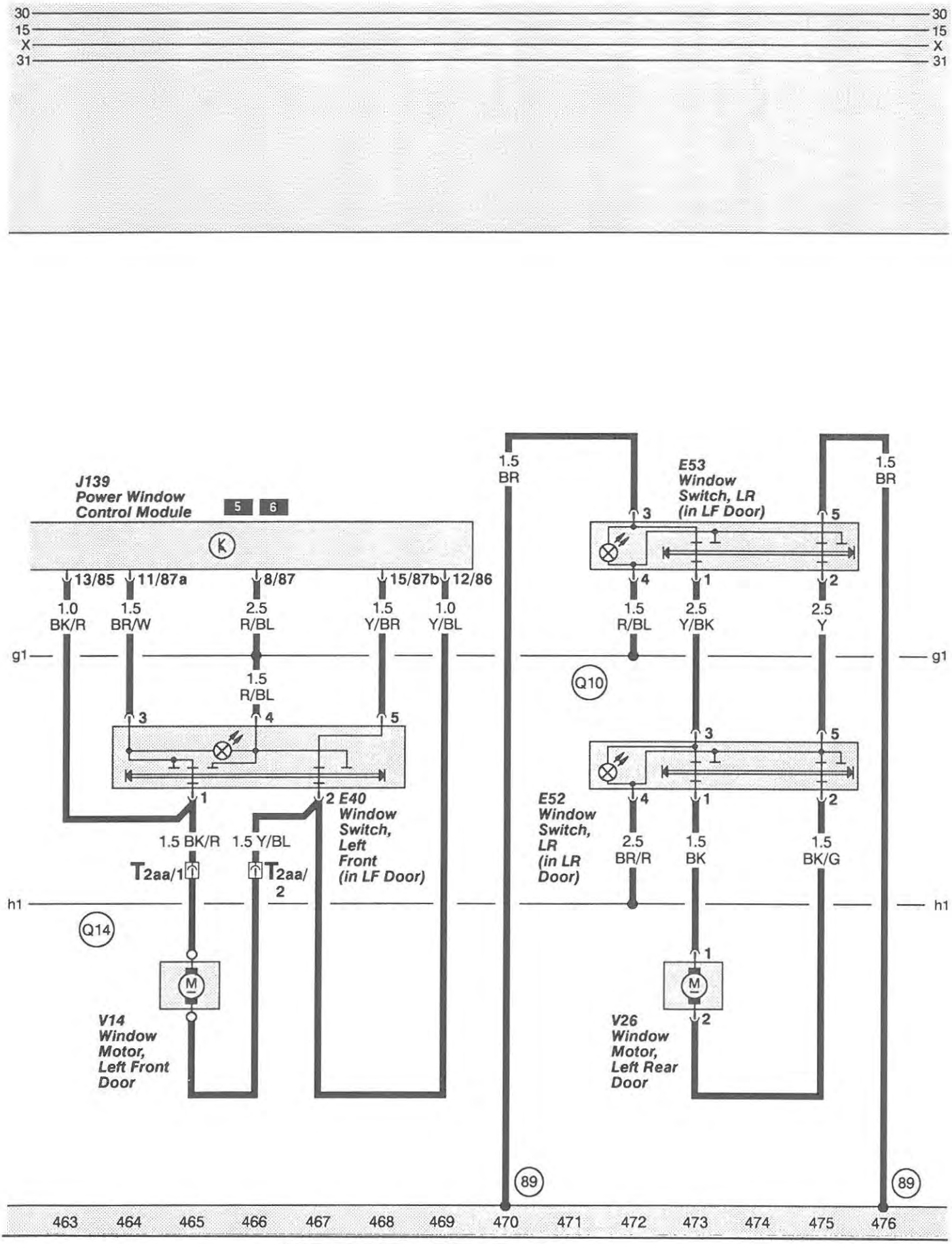


90 (All models)-USA/Canada
Up to VIN: 8CPA 000100

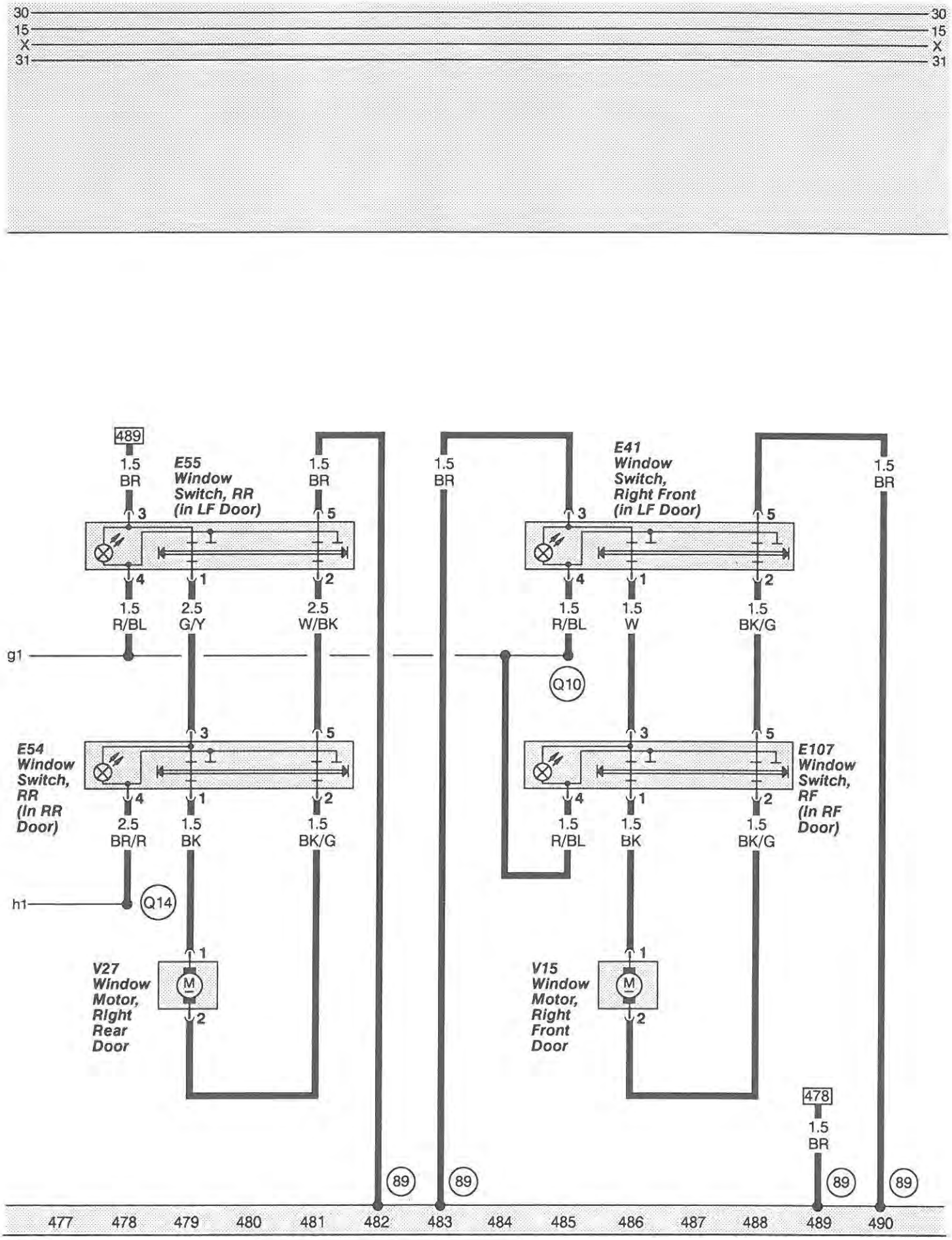


51 Power window Control Module

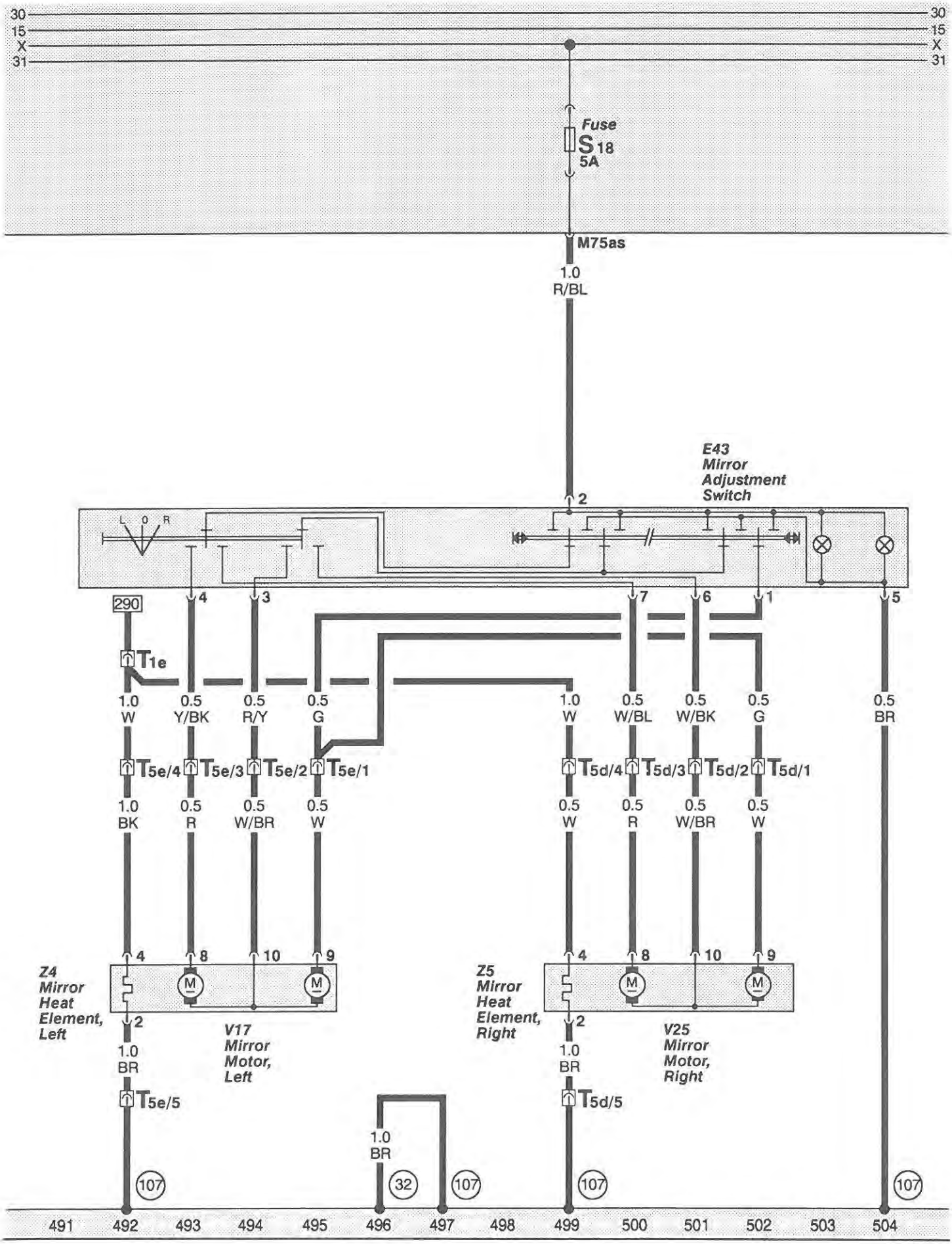
90 (All models)-USA/Canada
Up to VIN: 8CPA 000100



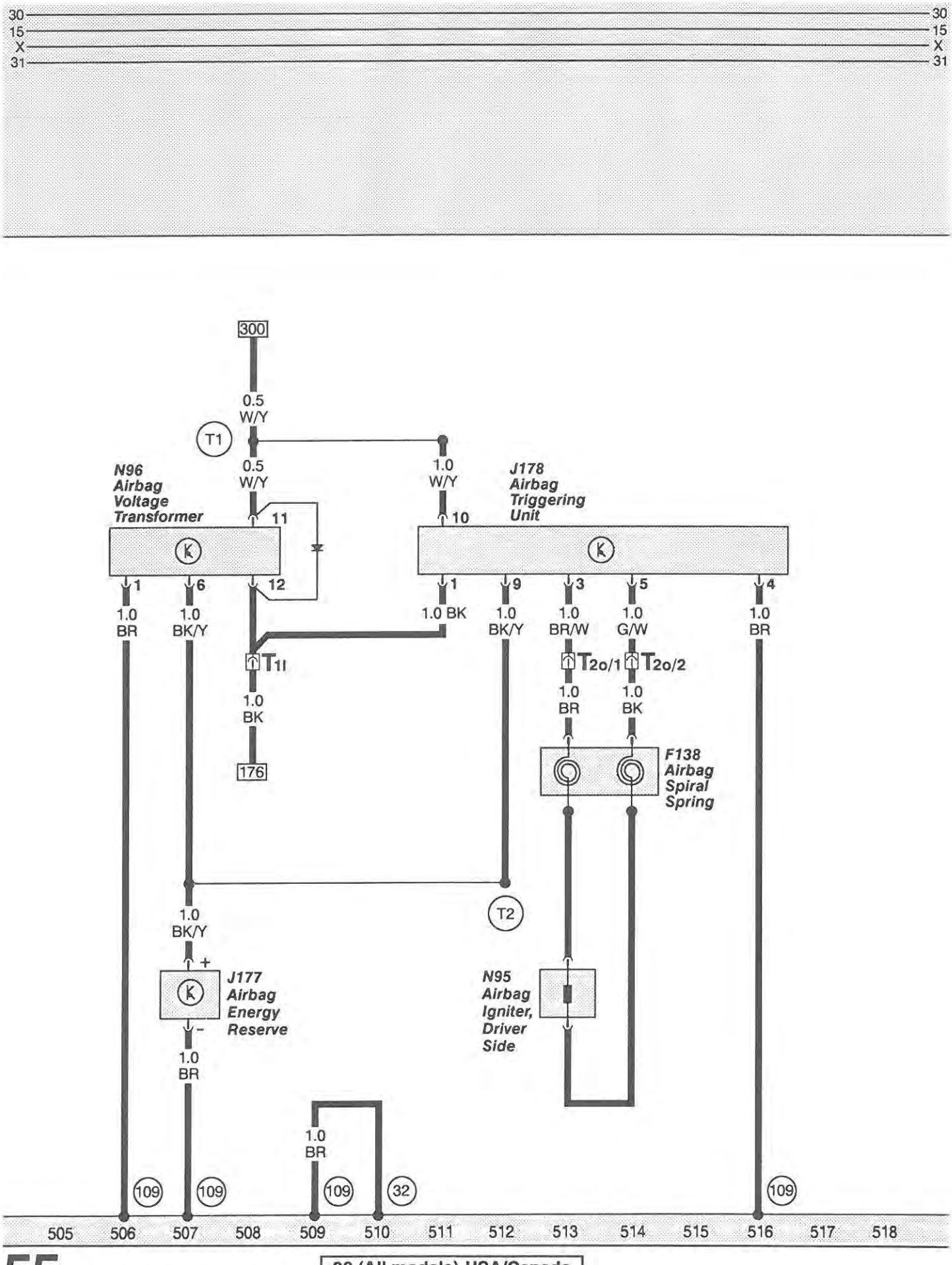
90 (All models)-USA/Canada
Up to VIN: 8CPA 000100



90 (All models)-USA/Canada
Up to VIN: 8CPA 000100



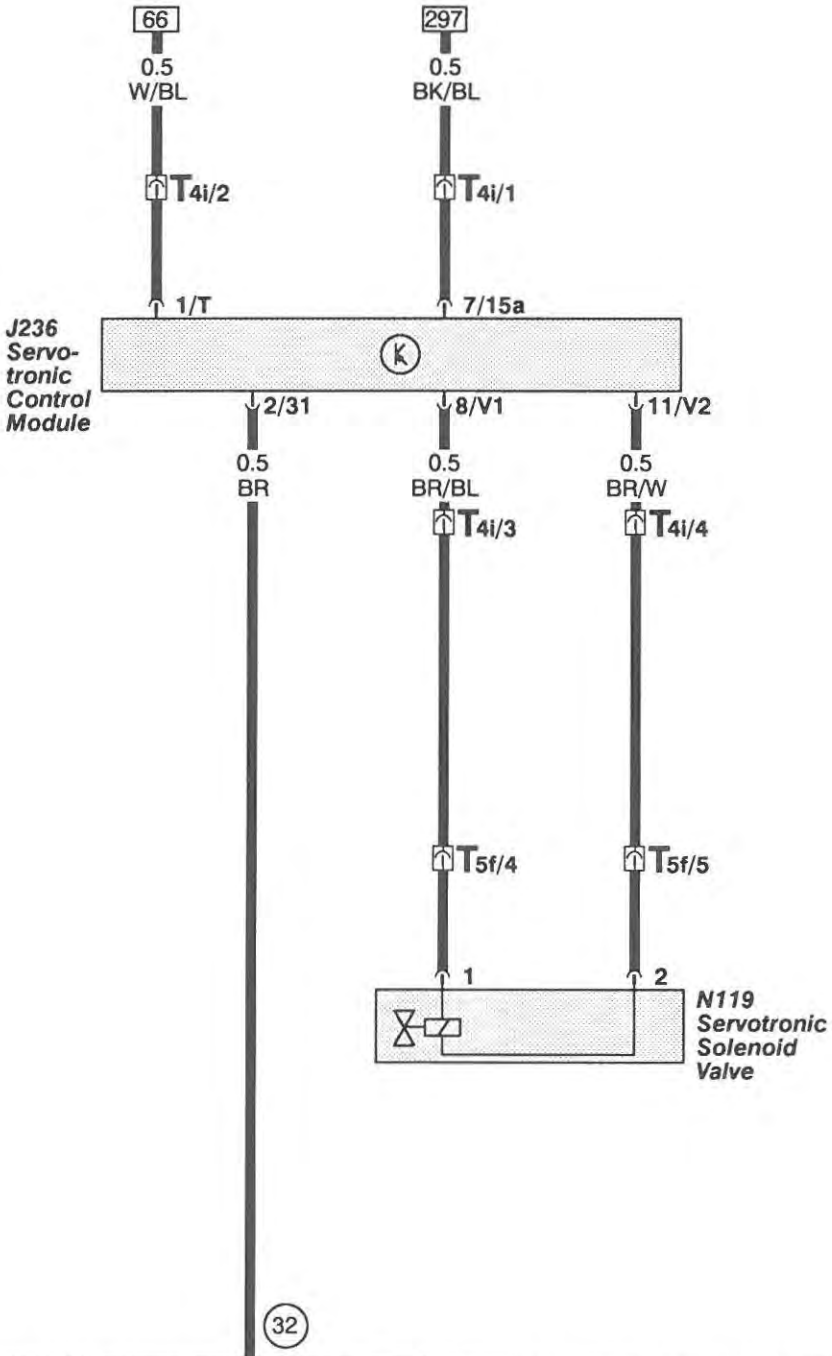
90 (All models)-USA/Canada
Up to VIN: 8CPA 000100



55 Airbag triggering unit

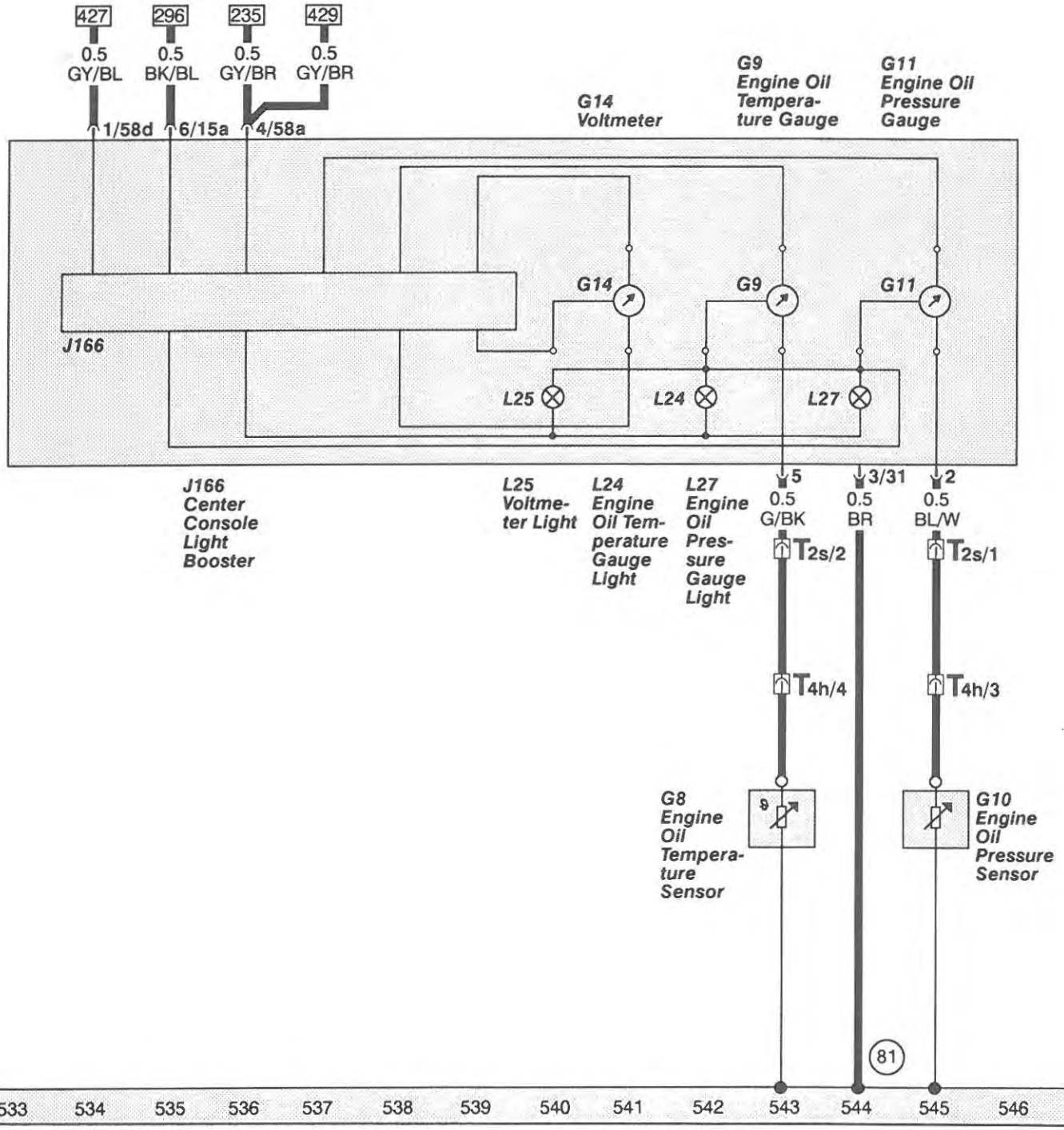
90 (All models)-USA/Canada
Up to VIN: 8CPA 000100

30
15
X
31



519 520 521 522 523 524 525 526 527 528 529 530 531 532

30
15
X
31



57 Engine oil temperature sensor Engine oil pressure sensor

90 (All models)-USA/Canada
Up to VIN: 8CPA 000100

This page
intentionally
left blank

Description	Current track
Driver Backrest Adjusting Motor, V45	25–27
Driver Backrest Adjustment Switch, E96	25–27
Driver Seat Fore/Aft Adjusting Motor, V28	16–18
Driver Seat Fore/Aft Adjusting Switch, E61	16–23
Driver Seat Front Height Adjusting Motor, V29	2–4
Driver Seat Front Height Adjusting Switch, E62	2–4
Driver Seat Rear Height Adjusting Motor, V30	11–13
Driver Seat Rear Height Adjusting Switch, E63	11–13
Power Seat Circuit Breaker, S80, 30A	24
Seat Adjusting Circuit Breaker, S44, 30A	19

Switch positions - Seat	
Adjust to	**Adjustment**
X1	Seat forward
X2	Seat backward
Y1	Seat down
Y2	Seat up
Y3	Seat rear down
Y4	Seat rear up
Y5	Seat front down
Y6	Seat front up
X3	Backrest forward
X4	Backrest backward

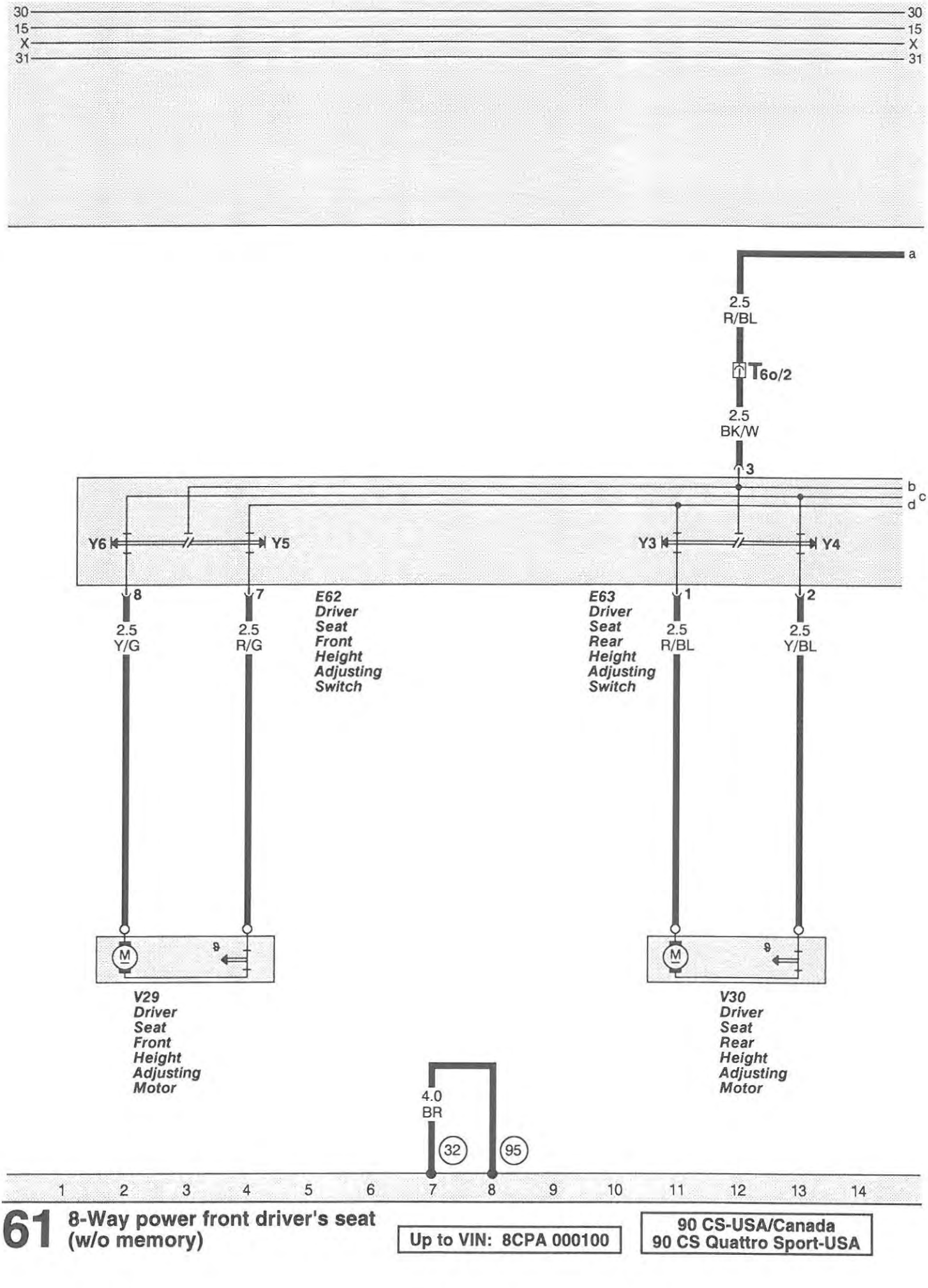
Wire connectors

T6o – six point, brown, below driver's seat

Ground connections

(32) – ground connection, behind instrument panel, left

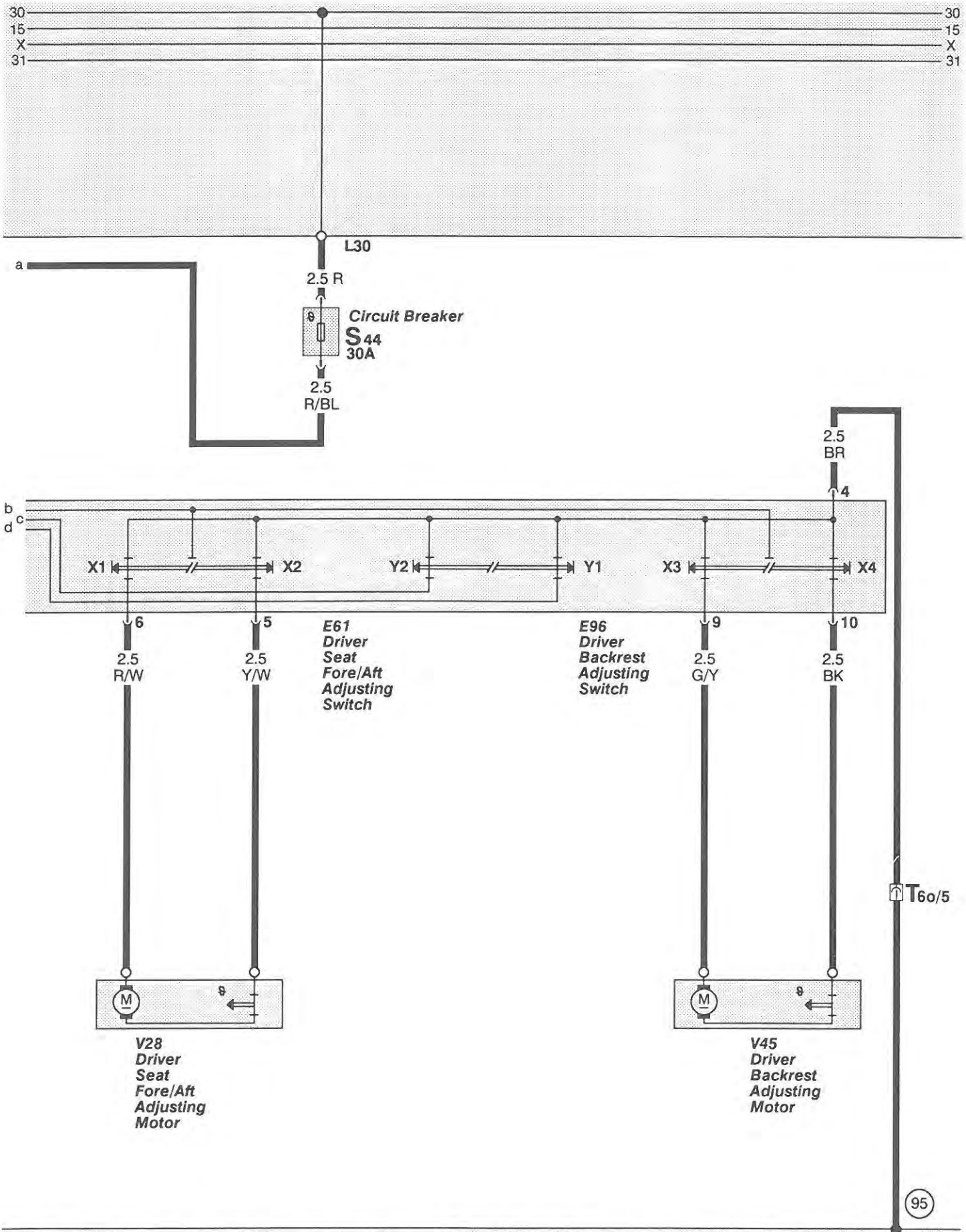
(95) – ground connection -1-, in seat adjuster wiring harness



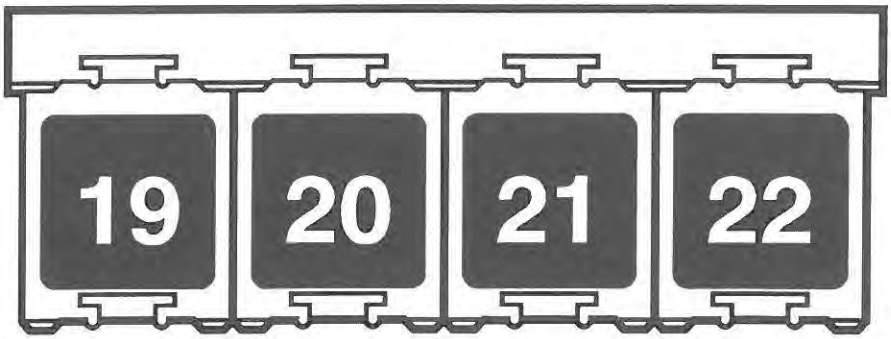
61 8-Way power front driver's seat (w/o memory)

Up to VIN: 8CPA 000100

90 CS-USA/Canada
90 CS Quattro Sport-USA


30
15
X
31
30
15
X
31
L30
a
2.5 R
Circuit Breaker
S44
30A
2.5
R/BL
2.5
BR
4
b
c
d
X1
X2
Y2
Y1
X3
X4
6
5
9
10
2.5
R/W
2.5
Y/W
E61
Driver
Seat
Fore/Aft
Adjusting
Switch
E96
Driver
Backrest
Adjusting
Switch
2.5
G/Y
2.5
BK
T6o/5
M
V28
Driver
Seat
Fore/Aft
Adjusting
Motor
M
V45
Driver
Backrest
Adjusting
Motor
95
15
16
17
18
19
20
21
22
23
24
25
26
27
28

Auxiliary Relay Panel, Rear (Below Rear Seat, Left)



97-7026

Relay location

22 ABS Control Relay, J156
Overload Protection For Airbag

Description	Current track
ABS Acceleration Switch, F113	26–27
ABS Combi Relay, J156	31–36
ABS Control Module, J104	1–28
ABS Hydraulic Unit, N55	15–28
ABS Magnetic Valve, Rear, N77	18
ABS Return Flow Pump, V39	24
ABS Solenoid Relay, J106	22–23
ABS Solenoid Relay, J106	25–26
ABS Solenoid Valve, LF, N59	20
ABS Solenoid Valve, RF, N58	19
ABS Speed Sensor, Left Front, G47	11–12
ABS Speed Sensor, Left Rear, G46	8–9
ABS Speed Sensor, Right Front, G45	5–6
ABS Speed Sensor, Right Rear, G44	2–3
ABS Switch Illumination, L56	41
ABS Switch, E83	39
Brake Light Switch, F	8
Differential Lock Control Module, J187	51–54
Differential Lock Indicator Light, K81	49
Differential Lock Switch Illumination, L55	47–48
Differential Lock Switch Illumination, L61	52
Differential Lock Switch, Rear, F100	33
Fuse, S29, 10A	10
Fuse, S31, 15A	41
Rear Differential Lock Indicator Light, K46	44
Rear Differential Lock Switch, E121	51

Wire connectors

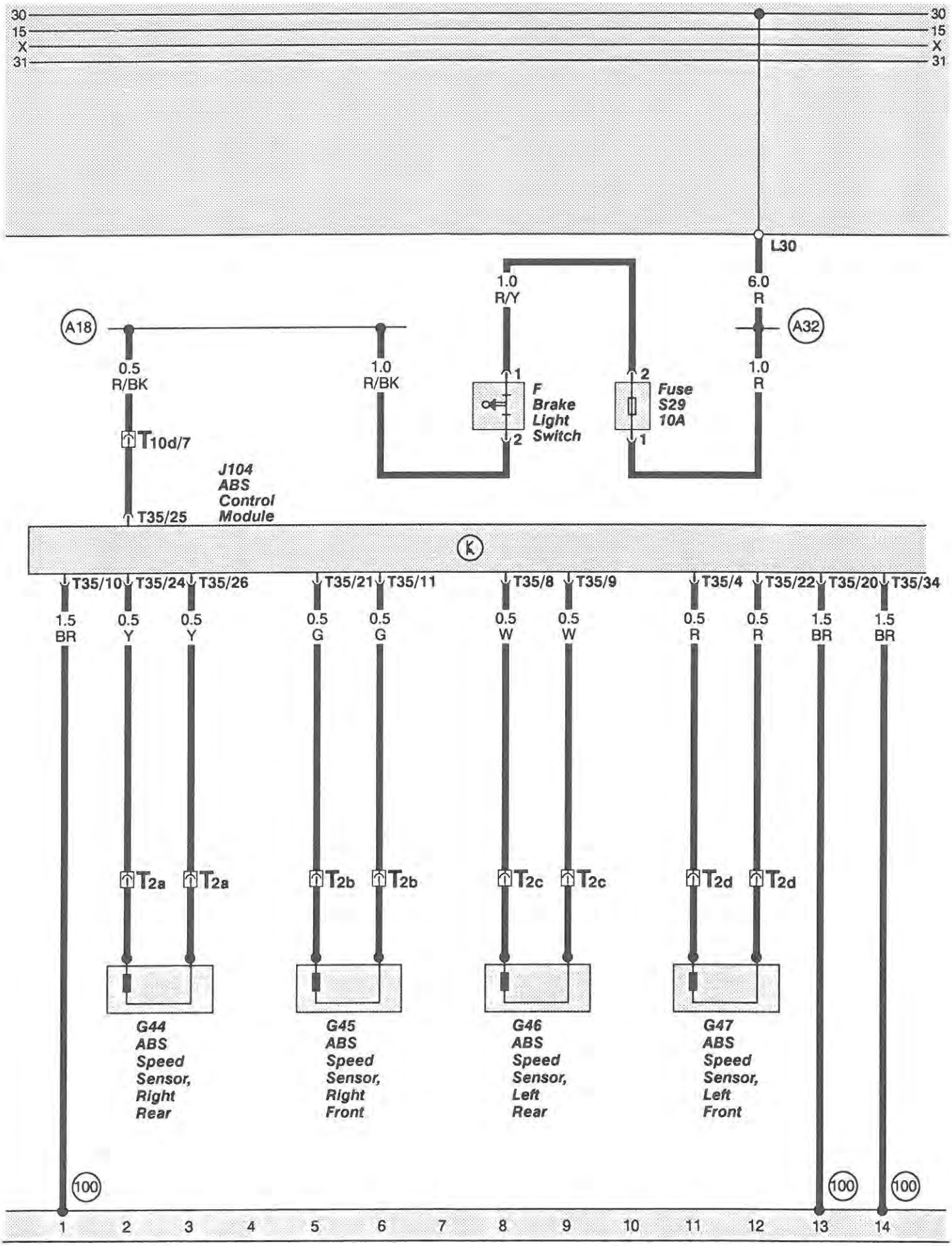
T2a – double, below back seat, right
T2ab – double, grey, near starter
T2al – double, white, below back seat, left
T2b – double, in engine compartment, right
T2c – double, below back seat, left
T2d – double, in engine compartment, left
T8b – eight point, connector 3, on Radio
T10a – ten point, yellow, connector station in auxiliary relay panel
T10d – ten point, blue, connector station in auxiliary relay panel
T12a – twelve point, brown, on Cruise Control, Control Module
T26 – twenty- six point, yellow, on Instrument Cluster
T26a – twenty-six point, blue, on Instrument Cluster
T35 – thirty-five point, on ABS Control Module

Welded wiring harness points

(A2) – plus connection (15), in instrument panel wiring harness
(A17) – wire connection (61), in instrument panel wiring harness
(A18) – wire connection (54), in instrument panel wiring harness
(A19) – wire connection (58d), in instrument panel wiring harness
(A27) – wire connection (speed signal), in instrument panel wiring harness
(A32) – plus connection (30), in instrument panel wiring harness
(J1) – plus connection (30), in ABS wiring harness

Ground connections

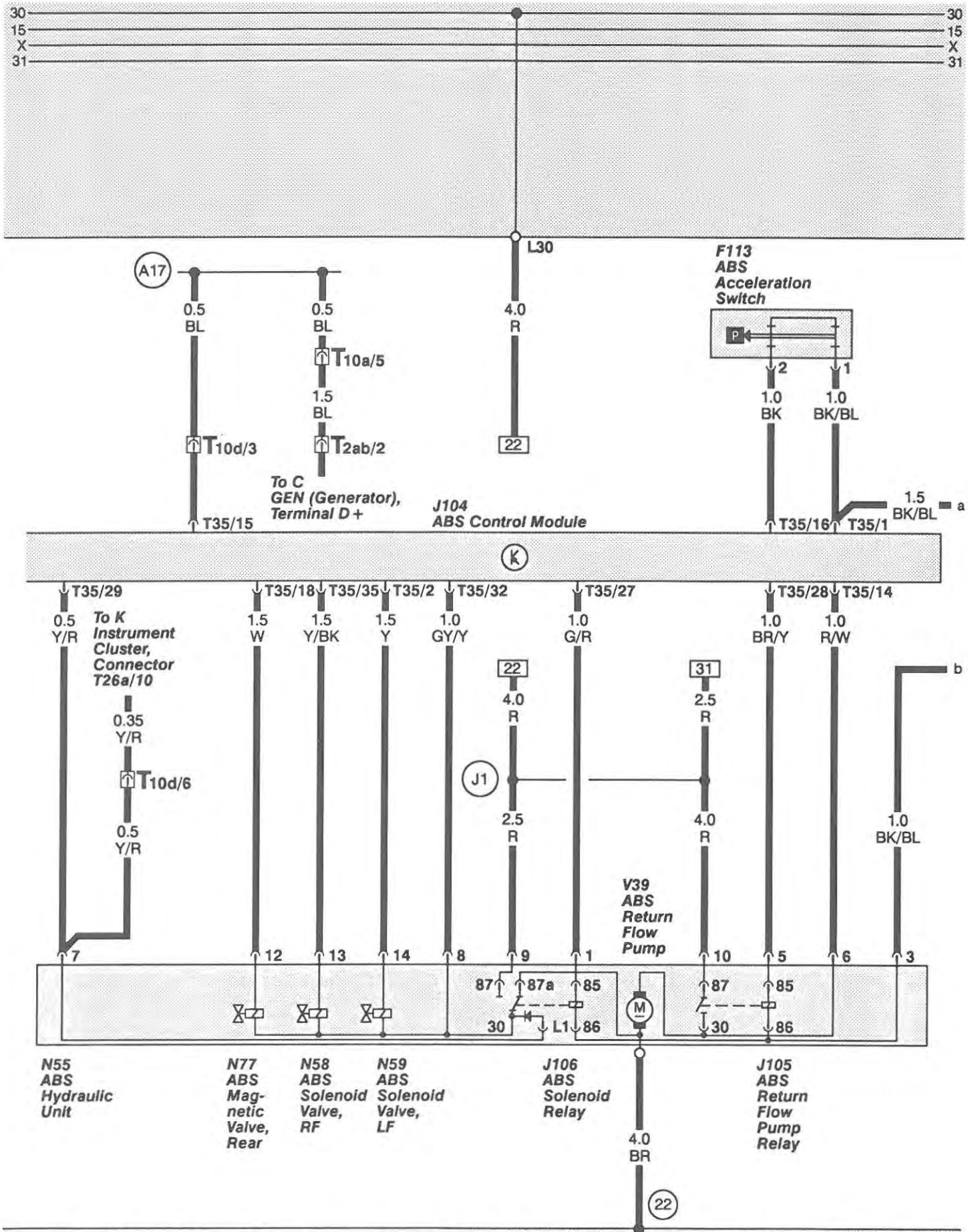
(22) – ground connection, on hydraulic unit
(32) – ground connection, behind instrument panel, left
(81) – ground connection -1-, in instrument panel wiring harness
(100) – ground connection -1-, in ABS wiring harness



65 ABS Quattro (With rear differential lock)

Up to VIN: 8CPA 000100

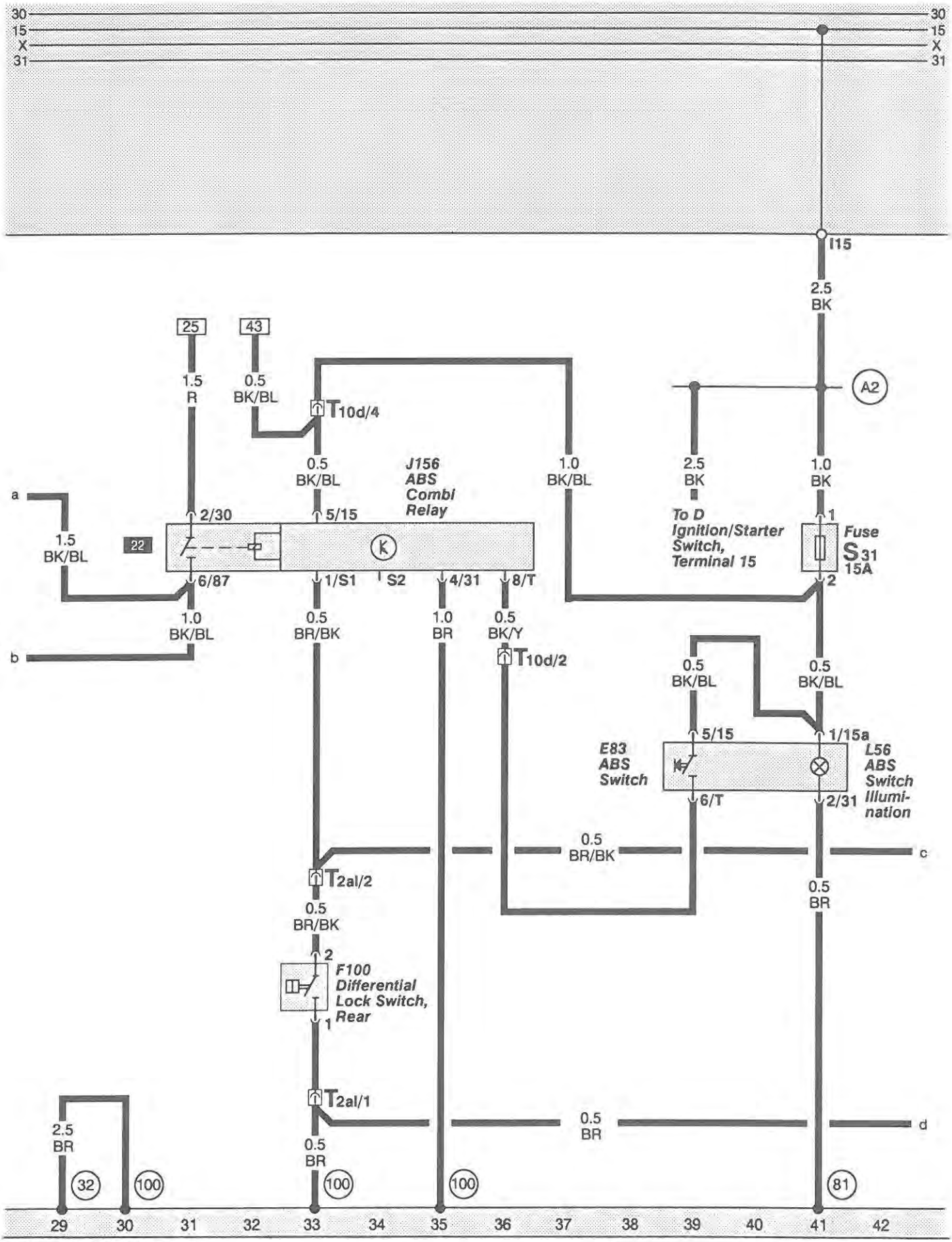
90 CS Quattro Sport-USA
90 S Quattro-Canada



90 CS Quattro Sport-USA
90 S Quattro-Canada

Up to VIN: 8CPA 000100

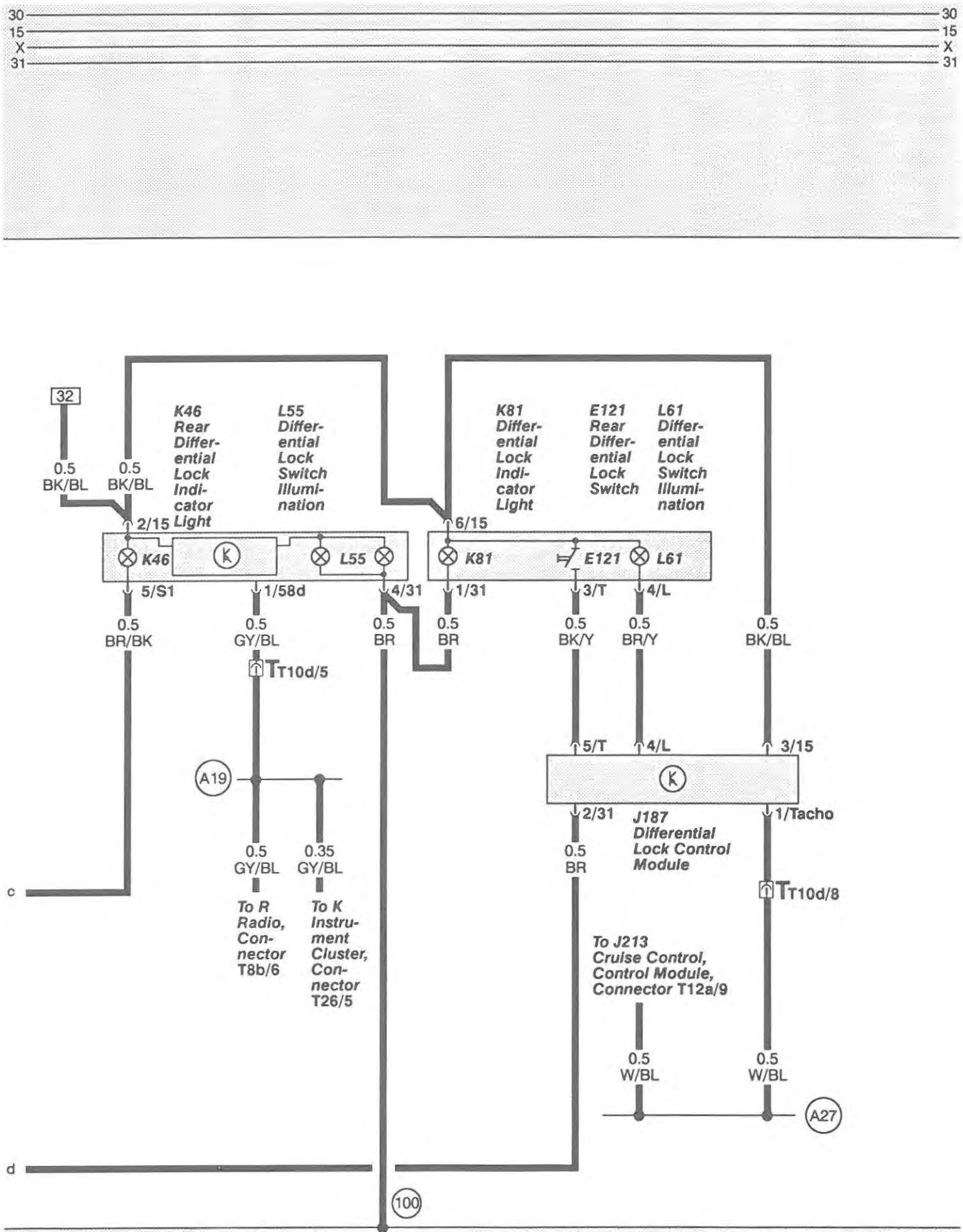
ABS Quattro (With rear differential lock)



67 ABS Quattro (With rear differential lock)

Up to VIN: 8CPA 000100

90 CS Quattro Sport-USA
90 S Quattro-Canada


30
15
X
31
32
0.5 BK/BL
0.5 BK/BL
K46 Rear Differential Lock Indicator Light
L55 Differential Lock Switch Illumination
K81 Differential Lock Indicator Light
E121 Rear Differential Lock Switch
L61 Differential Lock Switch Illumination
2/15
6/15
K46
L55
K81
E121
L61
5/S1
1/58d
4/31
1/31
3/T
4/L
0.5 BR/BK
0.5 GY/BL
0.5 BR
0.5 BR
0.5 BK/Y
0.5 BR/Y
0.5 BK/BL
T10d/5
A19
5/T
4/L
3/15
2/31
1/Tacho
J187 Differential Lock Control Module
0.5 GY/BL
0.35 GY/BL
0.5 BR
T10d/8
To R Radio, Connector T8b/6
To K Instrument Cluster, Connector T26/5
To J213 Cruise Control, Control Module, Connector T12a/9
0.5 W/BL
0.5 W/BL
A27
c
d
100
43 44 45 46 47 48 49 50 51 52 53 54 55 56

Description	Current track
Antenna Booster, R24 (AM, FM)	32-39
Antenna Booster, R24 (FM)	25-28
Antenna, R11 (AM, FM)	35
Antenna, R11 (FM)	27
Auto Check System, J189	19-21
Fuse, S4, 15A	1
Fuse, S16, 30A	39
Radio, R	3-36
Rear Window Defogger Switch Light, L39	41-42
Rear Window Defogger Switch, E15	39-40
Rear Window Heat Element, Z1	37
Speaker, Left Front, R2	16
Speaker, Right Front, R3	21
Tweeter, Left Rear, R14	4
Tweeter, Right Rear, R16	14
Woofer, Left Rear, R15	5-8
Woofer, Right Rear, R17	10-13

Wire connectors

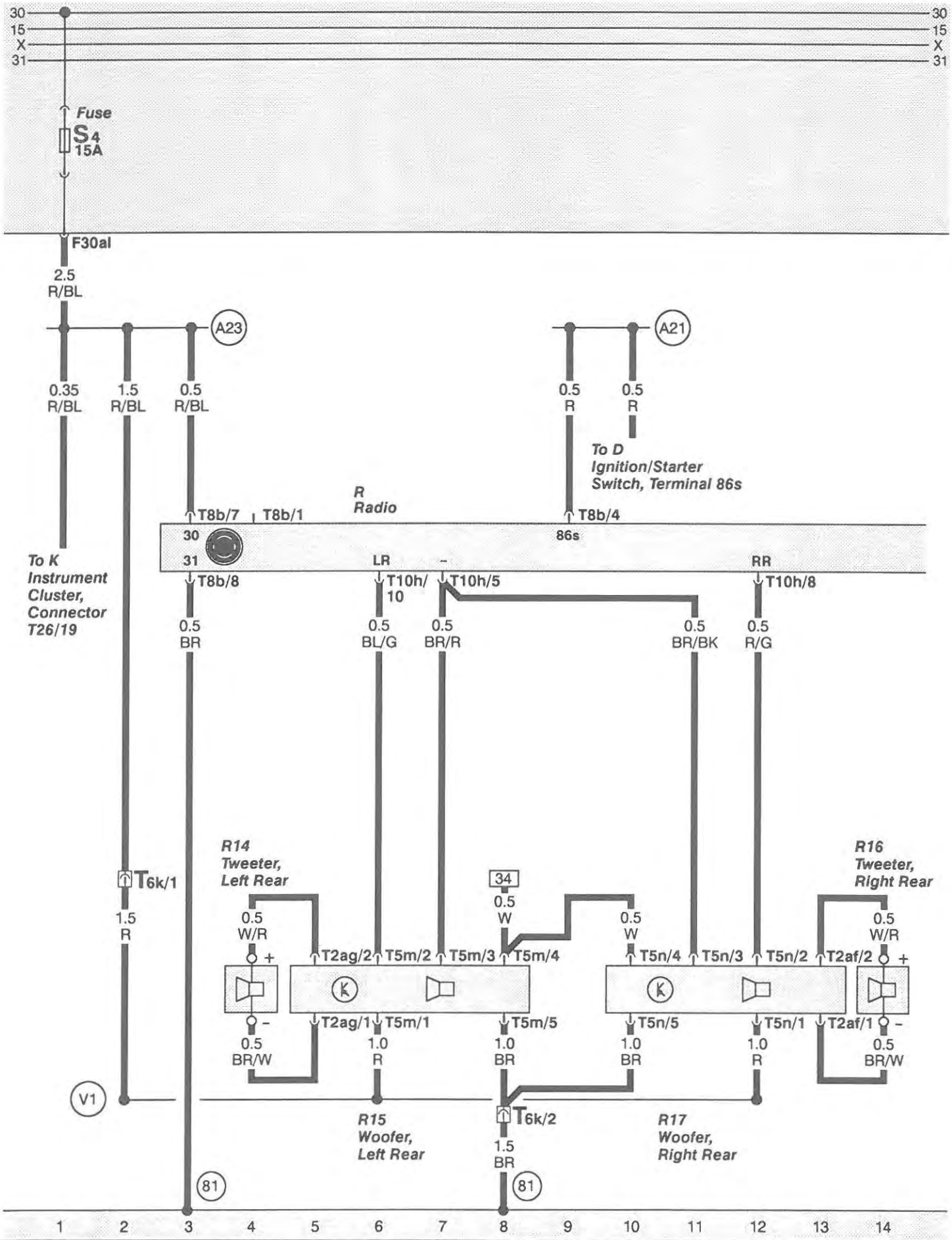
T1d - single, brown, on Radio (Alarm System Contact)
T1e - single, green, behind instrument panel, left
T1k - single, red, in luggage compartment, left
T2af - double, on Tweeter, Right Rear
T2ag - double, on Tweeter, Left Rear
T5m - five point, on Woofer, Left Rear
T5n - five point, on Woofer, Right Rear
T6c - six point, black, behind instrument panel, left
T6k - six point, black, behind console
T8b - eight point, connector 3, on Radio
T8c - eight point, connector 2, on Radio
T10b - ten point, brown, connector station in auxiliary relay panel
T10h - ten point, connector 1, on Radio
T26 - twenty-six point, yellow, on Instrument Cluster
T26b - twenty-six point, white, on Instrument Cluster (Auto Check System With Display)

Weded wiring harness points

(A19) - wire connection (58d), in instrument panel wiring harness
(A21) - wire connection (86s), in instrument panel wiring harness
(A23) - wire connection (30al), in instrument panel wiring harness
(A46) - plus connection (30-from radio), in instrument panel wiring harness
(V1) - plus connection (30), in rear speaker wiring harness

Ground connections

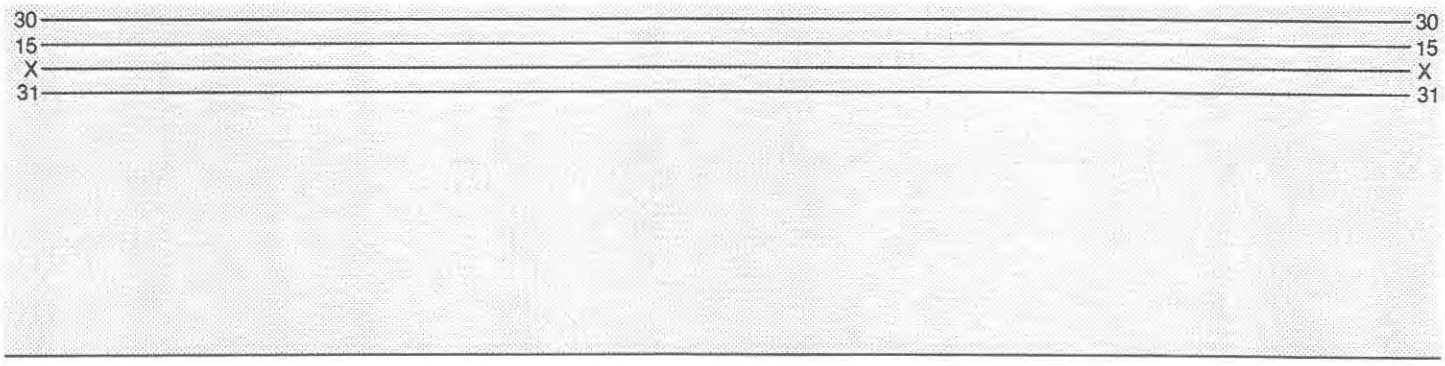
(81) - ground connection -1-, in instrument panel wiring harness

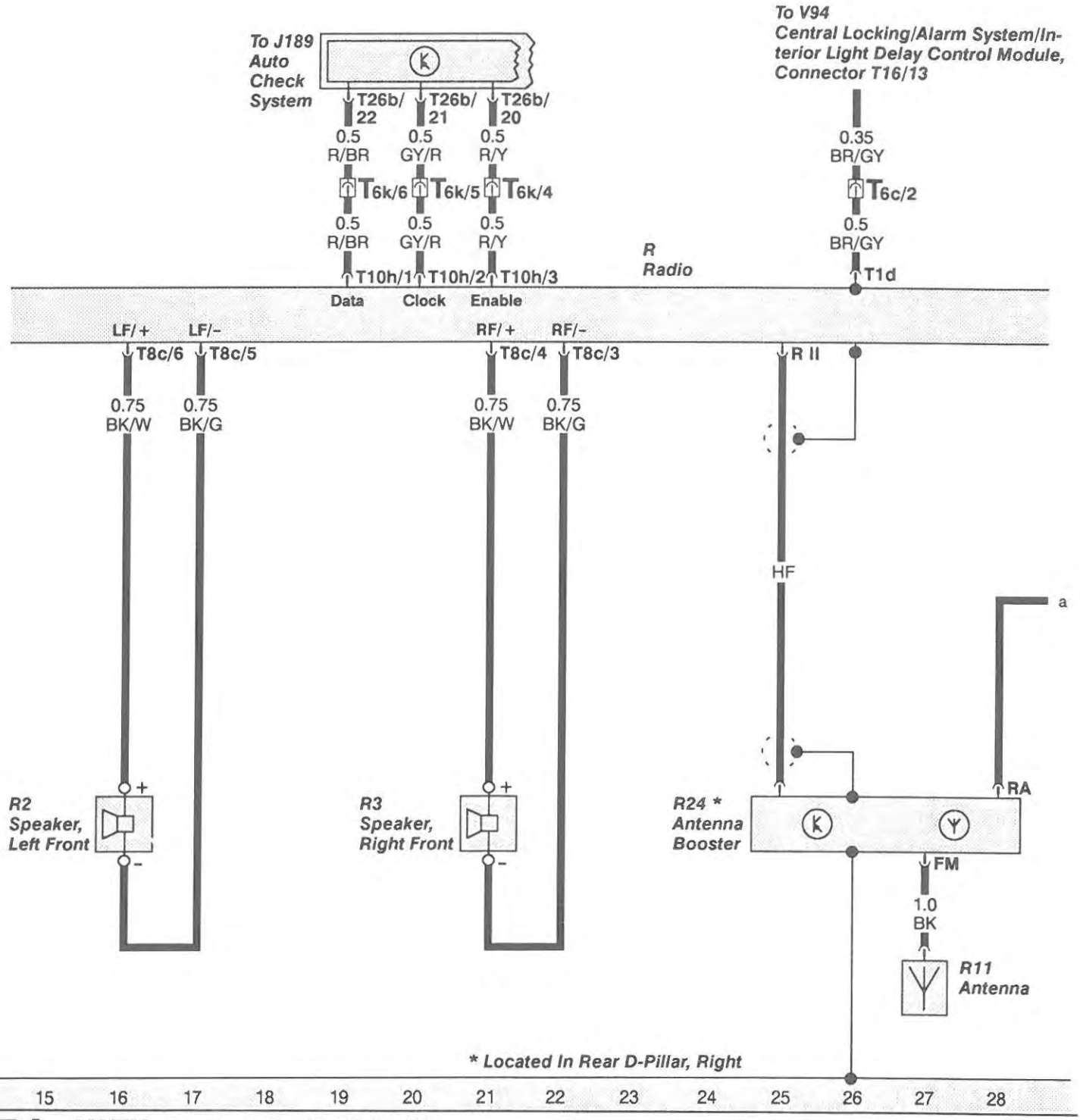


90S,90 CS–USA/Canada
90 CS Quattro Sport–USA

Up to VIN: 8CPA 000100

AM/FM stereo radio (Anti-theft) with 6 speakers **70**

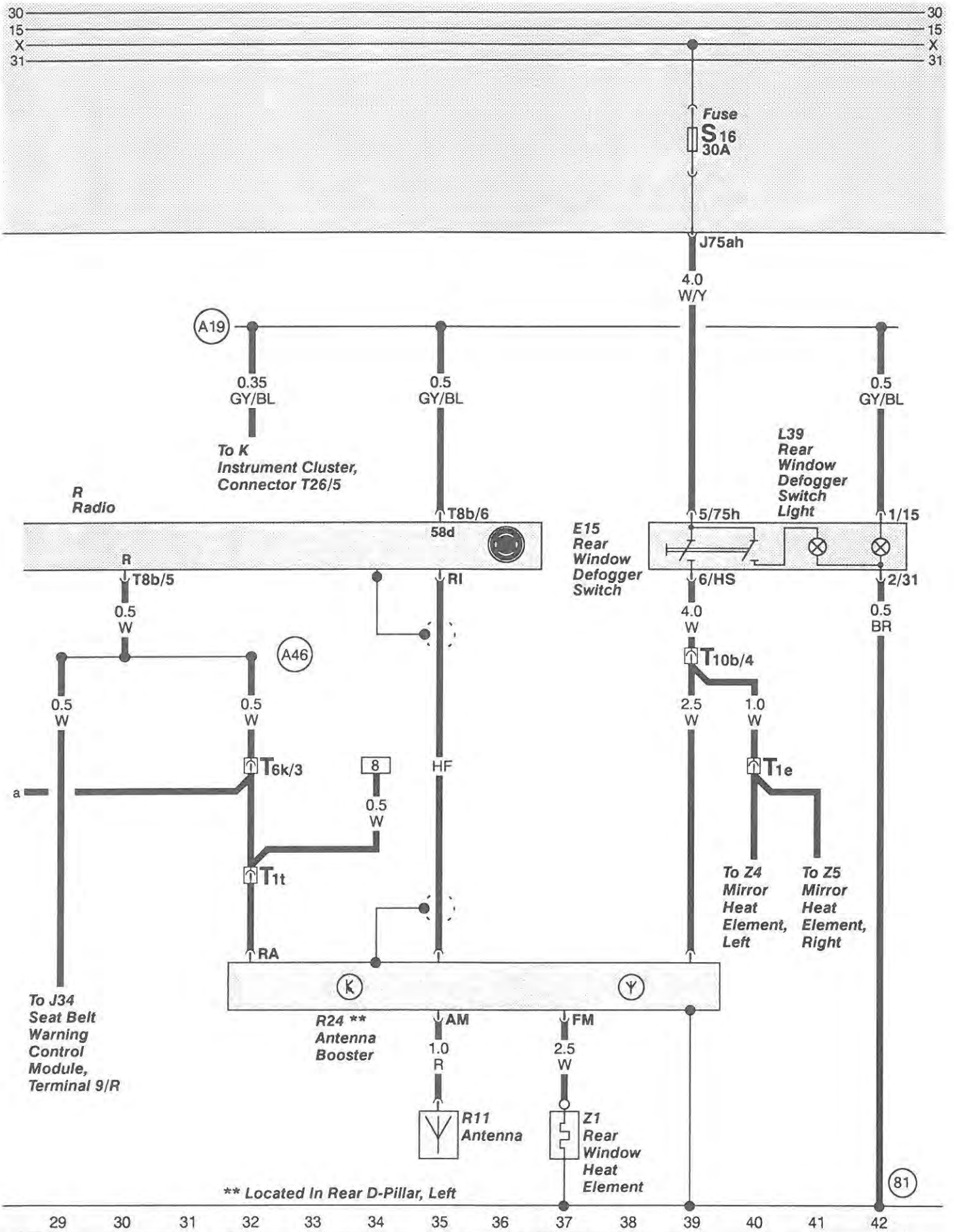




71 AM/FM stereo radio (Anti-theft) with 6 speakers

Up to VIN: 8CPA 000100

90S,90 CS–USA/Canada
90 CS Quattro Sport–USA

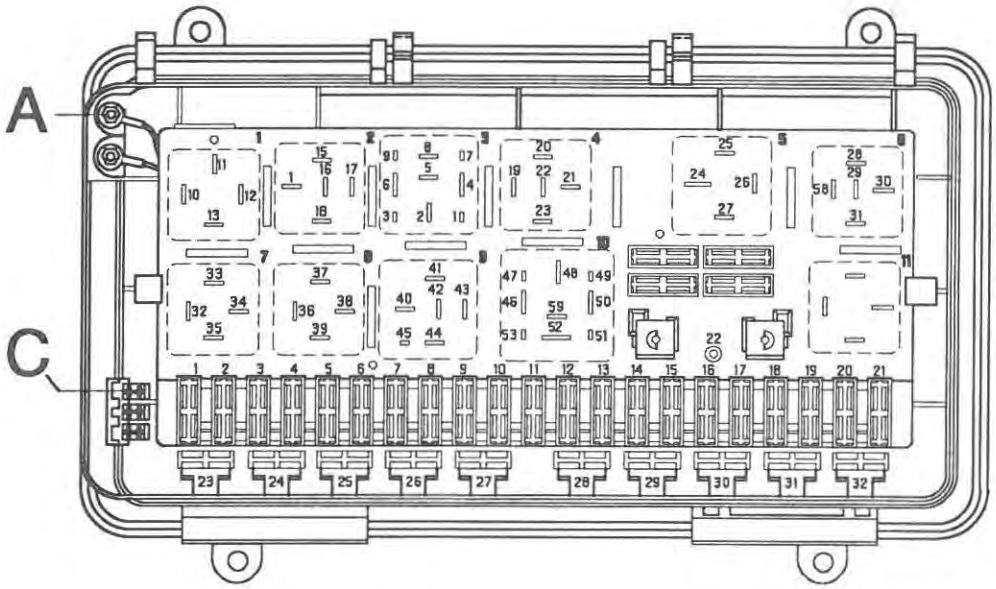


90S,90 CS–USA/Canada
90 CS Quattro Sport–USA

Up to VIN: 8CPA 000100

AM/FM stereo radio (Anti-theft) with 6 speakers **72**

Fuse/Relay Panel (Left Side Plenum Tray)



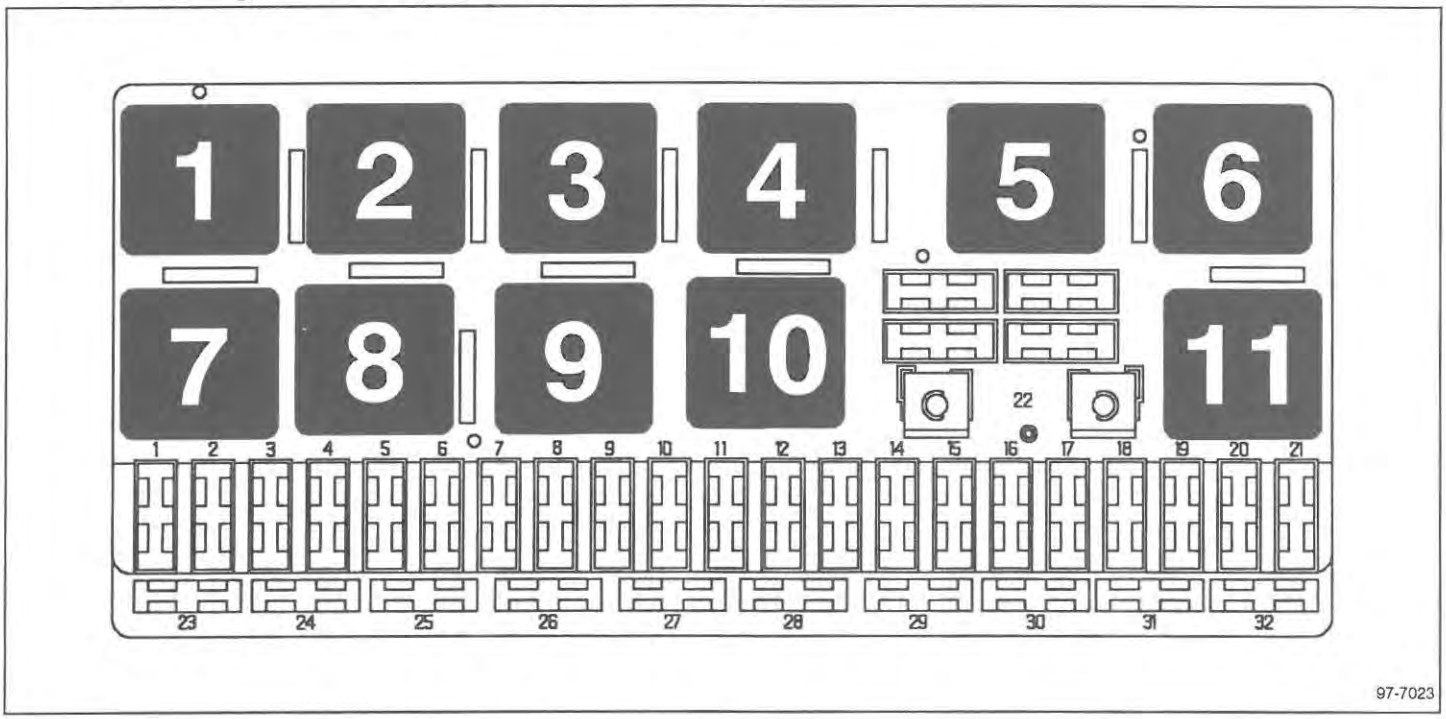
On-Board Diagnostic (OBD)

A – Wire Distributor For DLC (Data Link Connector); Terminal K

Data Link Connector (DLC)

C – Black
- Terminal 1 – Ground (GND)
- Terminal 2 – Battery Positive Voltage (B+, Terminal 30, Via Fuse)

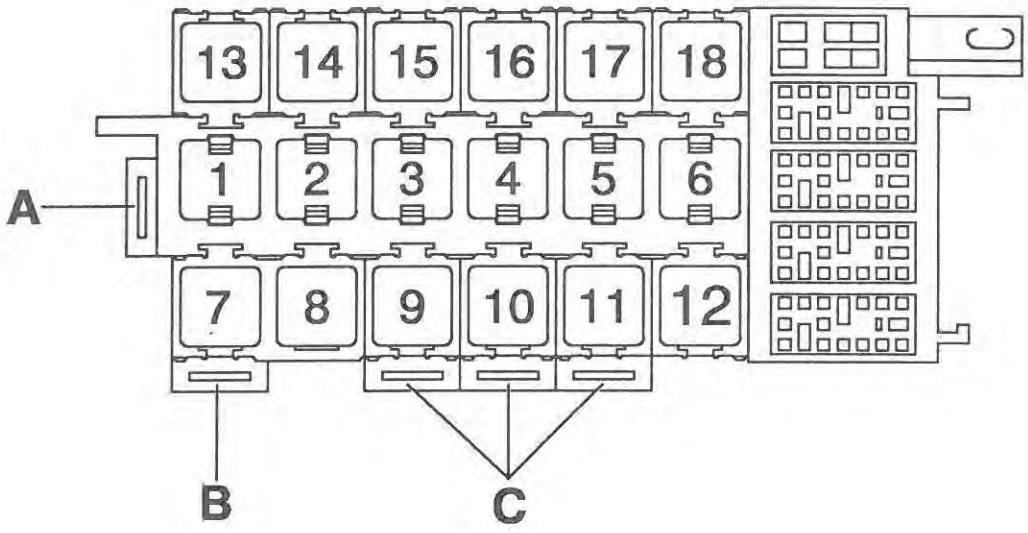
Fuse/Relay Panel (Left Side Plenum Tray)



Relay location

11 Coolant FC (Fan Control) Relay, J26

Auxiliary Relay Panel With Connector Station



A – Not Used B – Fuse Adapter For Coolant Fan C – Fuse Adapter For Circuit Breakers 97-7024

Relay location

- 4 A/C Compressor Clutch Relay, J44 (Automatic Climate Control Only)
- 16 Second Speed Coolant FC (Fan Control) Relay, J101 (Automatic Climate Control Only)

Fuse Arrangement For Fuse Adapter

- Fuse For Coolant Fan In Adapter B, S42 (60A)

Description	Current track
A/C Compressor Clutch Relay, J44	15–18
A/C Compressor Clutch, N25	28
A/C Compressor Speed Sensor, G111	53–54
A/C Control Head, E87	1–70
A/C Refrigerant High Pressure Switch, F23	83
A/C Refrigerant High Pressure Switch, F118	50
A/C Refrigerant Low Pressure Switch, F73	14
Central Flap Motor Potentiometer, G112	69–70
Central Flap Motor, V70	67–68
Coolant Fan, V7	71–72, 73–74
Coolant FC (Fan Control) Relay, J26	75–77
Coolant FC (Fan Control) Series Resistance, N39	73–75
Coolant FC (Fan Control) Thermo-switch, F18	77
Coolant FC (Fan Control) Thermo-switch, F54	81
DLC (Data Link Connector)	24
DLC (Data Link Connector), K	44
ECM (Engine Control Module), J192	40–41
Fan For Interior Temperature Sensor, V42	21
Footwell/Defrost Flap Motor Potentio-meter, G114	63–64
Footwell/Defroster Flap Motor, V85	61–62
Fresh Air Blower Control Module, J126	1–2
Fresh Air Blower, V2	4
Fresh Air Intake Duct Temperature Sensor, G89	30
Fresh Air/Recirculating Flap Two-Way Valve, N63	8
Fuse, S4, 15A	38
Fuse, S12, 15A	57
Fuse, S14, 5A	32
Fuse, S15, 25A	72
Fuse, S17, 30A	20
Fuse, S21, 10A	24
Fuse, S42, 60A	84
Interior Temperature Sensor, Headliner, G86	33
Interior Temperature Sensor, Instrument Panel, G56	44
Outside Air (Ambient) Temperature Sensor, G17	47
Outside Air Temperature Display, G106	62–64

Description	Current track
Protection Diode, J201	27
Second Speed Coolant FC (Fan Control) Relay, J101	79–81
Temperature Regulator Flap Motor Potentiometer, G92	59–60
Temperature Regulator Flap Motor, V68	57–58

Wire connectors

- T1m – single, red, behind instrument panel, left
- T1n – single, green, near compressor
- T2am – double, green, near compressor
- T2t – double, brown, behind instrument panel, left
- T2u – double, red, behind instrument panel, center
- T2x – double, black, in left plenum, on fuse/relay panel, DLC (Data Link Connector)
- T2z – double, black, in left plenum, on fuse/relay panel, DLC (Data Link Connector)
- T3c – three point, brown, behind instrument panel, center
- T3f – three point, green, behind instrument panel, left
- T5g – five point, green, connector station in auxiliary relay panel
- T5h – five point, red, behind instrument panel, left
- T5l – five point, yellow, on Outside Air Temperature Display
- T5o – five point, red, behind instrument panel, center
- T6q – six point, red, behind instrument panel, left
- T10e – ten point, red, behind instrument panel, center
- A – twelve point, on A/C Control Head
- T13a – thirteen point, black, on Light Switch/Headlight Dimmer/Flasher Switch
- T16a – sixteen point, on ECM (Engine Control Module)
- C – sixteen point, on A/C Control Head
- D – sixteen point, on A/C Control Head
- B – twenty point, on A/C Control Head
- T26 – twenty-six point, yellow, on Instrument Cluster
- T38 – thirty-eight point, on TCM (Transmission Control Module)

Welded wiring harness points

(A3) – plus connection (58), in instrument panel wiring harness

(A19) – wire connection (58d), in instrument panel wiring harness

(A20) – wire connection (15a), in instrument panel wiring harness

(A23) – wire connection (30al), in instrument panel wiring harness

(A27) – wire connection (speed signal), in instrument panel wiring harness

(A34) – wire connection (75x), in instrument panel wiring harness

(A45) – wire connection (RPM signal), in instrument panel wiring harness

(L1) – plus connection (75), in A/C wiring harness

(L2) – wire connection, in A/C wiring harness

(L4) – wire connection (75 al), in A/C wiring harness

(L5) – wire connection -1-, in evaporator housing wiring harness

(L9) – wire connection -1-, in A/C wiring harness

(L31) – wire connection (5 Volts), in A/C wiring harness

Ground connections

(11) – ground connection, in battery box

(29) – ground connection, near compressor

(32) – ground connection, behind instrument panel, left

(81) – ground connection -1-, in instrument panel wiring harness

Ground connections

(83) - ground connection -1-, in right front wiring harness

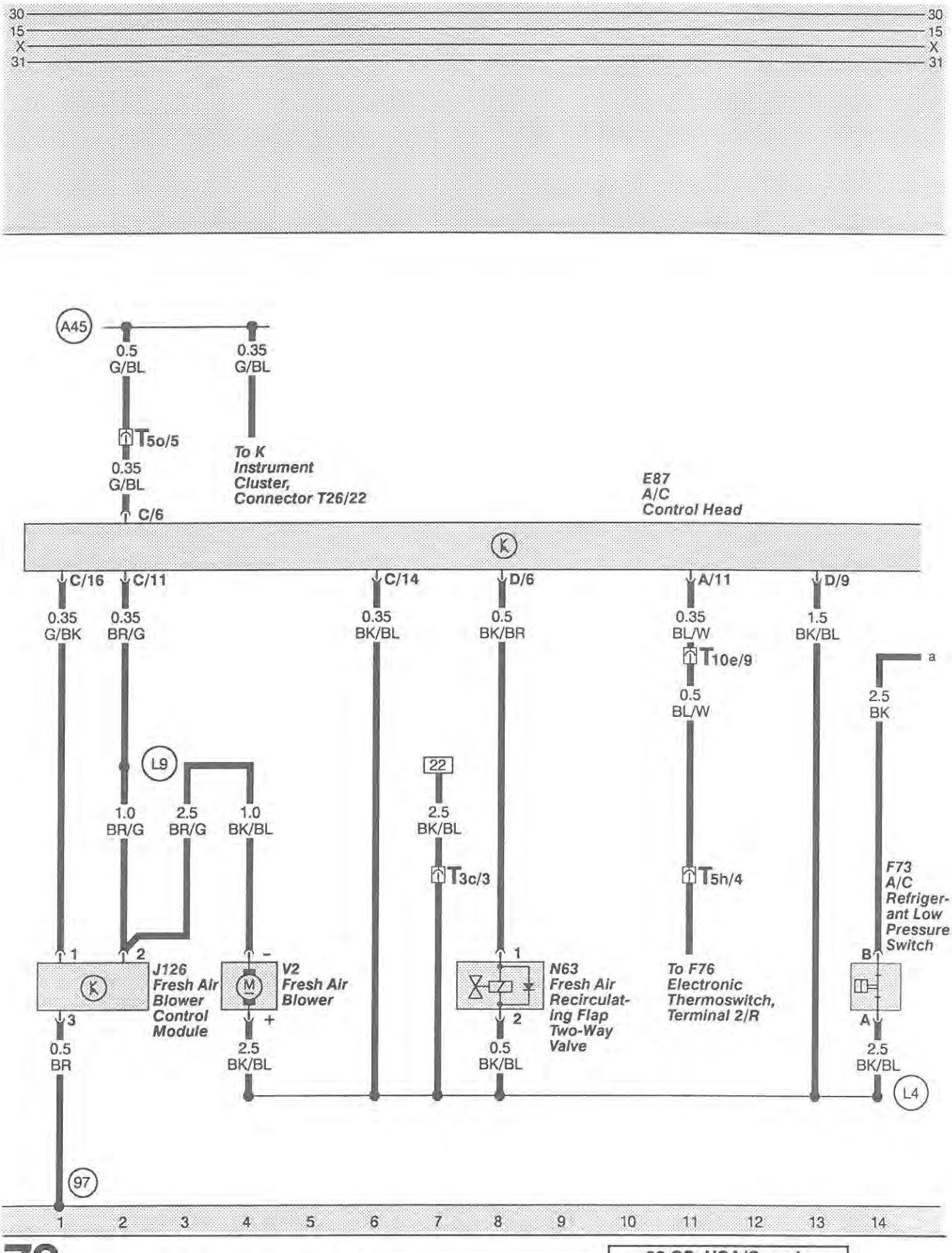
(97) - ground connection -1-, in A/C wiring harness

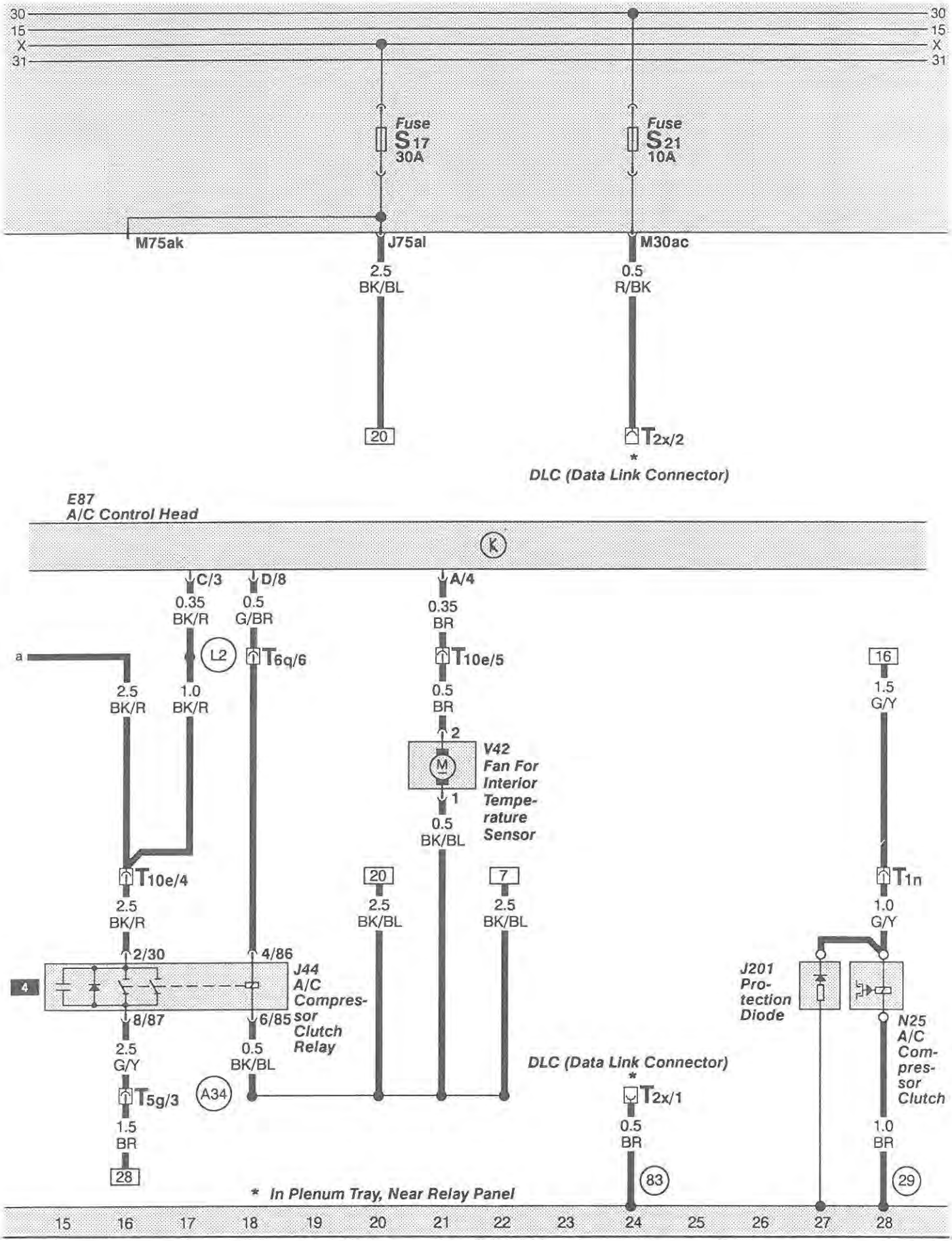
(112) - ground connection -2-, in A/C wiring harness

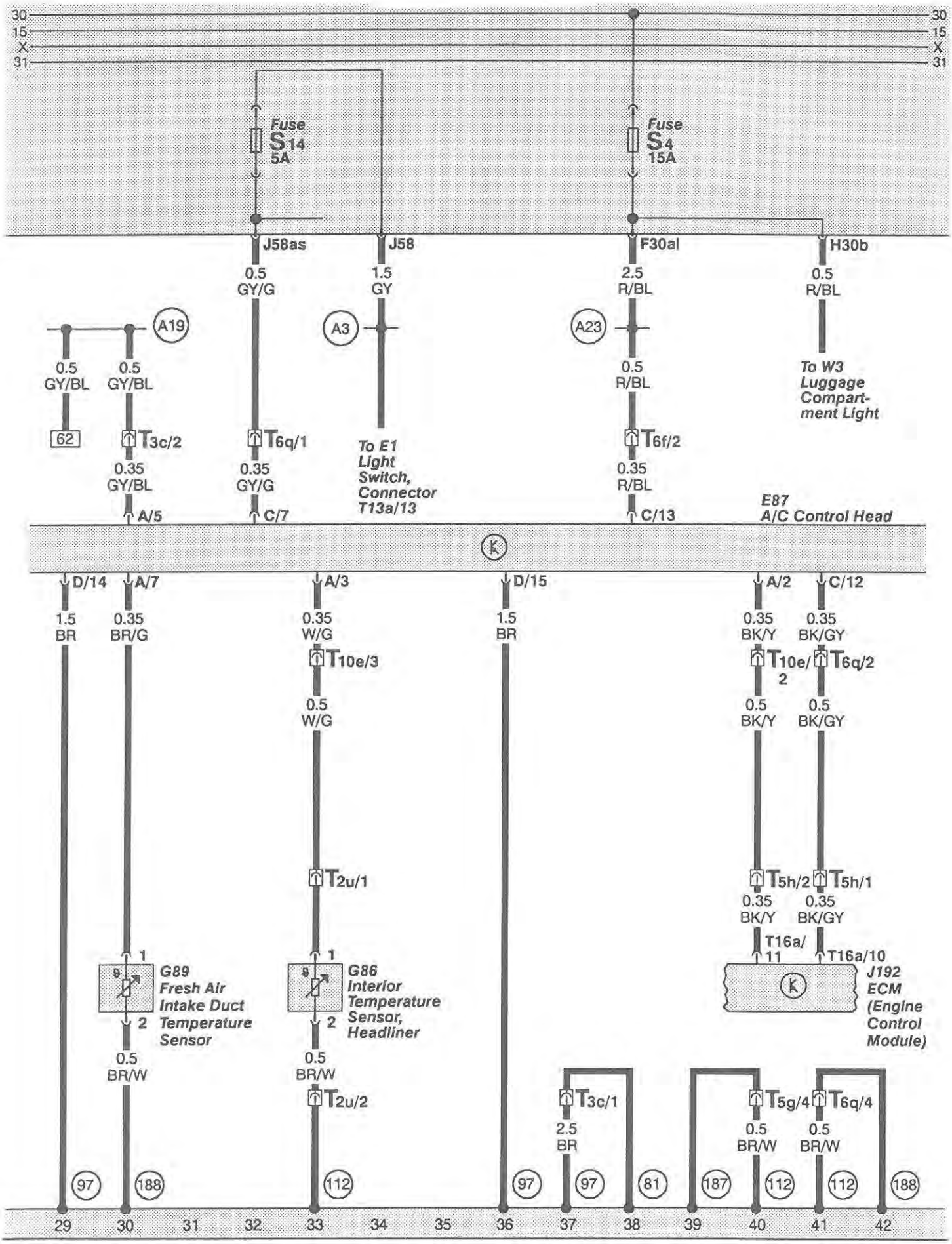
(127) - ground connection -1-, in A/C compressor wiring harness

(187) - ground connection -2-, in A/C compressor wiring harness

(188) - ground connection -3-, in A/C wiring harness


30
15
X
31
A45
0.5
G/BL
0.35
G/BL
T5o/5
0.35
G/BL
C/6
To K
Instrument
Cluster,
Connector T26/22
E87
A/C
Control Head
K
C/16
C/11
C/14
D/6
A/11
D/9
0.35
G/BK
0.35
BR/G
0.35
BK/BL
0.5
BK/BR
0.35
BL/W
1.5
BK/BL
T10e/9
0.5
BL/W
a
2.5
BK
L9
1.0
BR/G
2.5
BR/G
1.0
BK/BL
22
2.5
BK/BL
T3c/3
T5h/4
F73
A/C
Refriger-
ant Low
Pressure
Switch
1
2
J126
Fresh Air
Blower
Control
Module
3
0.5
BR
–
+
V2
Fresh Air
Blower
2.5
BK/BL
1
2
N63
Fresh Air
Recirculat-
ing Flap
Two-Way
Valve
0.5
BK/BL
To F76
Electronic
Thermoswitch,
Terminal 2/R
B
A
2.5
BK/BL
L4
97
1
2
3
4
5
6
7
8
9
10
11
12
13
14

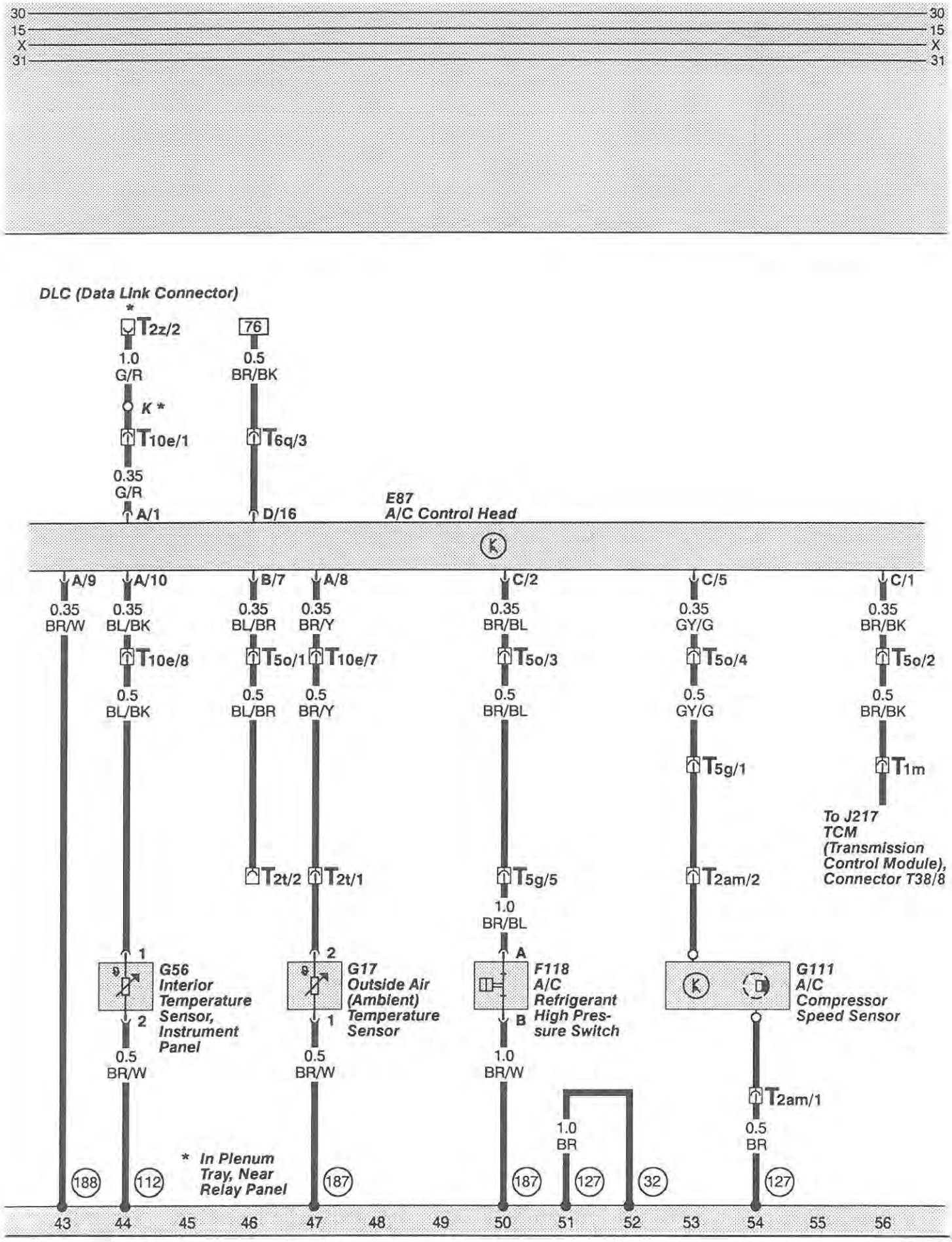

30
15
X
31
Fuse
S17
30A
Fuse
S21
10A
M75ak
J75al
M30ac
2.5
BK/BL
0.5
R/BK
20
T2x/2
*
DLC (Data Link Connector)
E87
A/C Control Head
K
C/3
D/8
A/4
0.35
BK/R
0.5
G/BR
0.35
BR
a
L2
T6q/6
T10e/5
2.5
BK/R
1.0
BK/R
0.5
BR
2
V42
Fan For
Interior
Tempe-
rature
Sensor
M
1
0.5
BK/BL
16
1.5
G/Y
T10e/4
20
7
T1n
2.5
BK/R
2.5
BK/BL
2.5
BK/BL
1.0
G/Y
2/30
4/86
4
J44
A/C
Compres-
sor
Clutch
Relay
J201
Pro-
tection
Diode
8/87
6/85
N25
A/C
Com-
pres-
sor
Clutch
2.5
G/Y
0.5
BK/BL
DLC (Data Link Connector)
*
T5g/3
A34
T2x/1
1.5
BR
0.5
BR
1.0
BR
28
83
29
* In Plenum Tray, Near Relay Panel
15
16
17
18
19
20
21
22
23
24
25
26
27
28

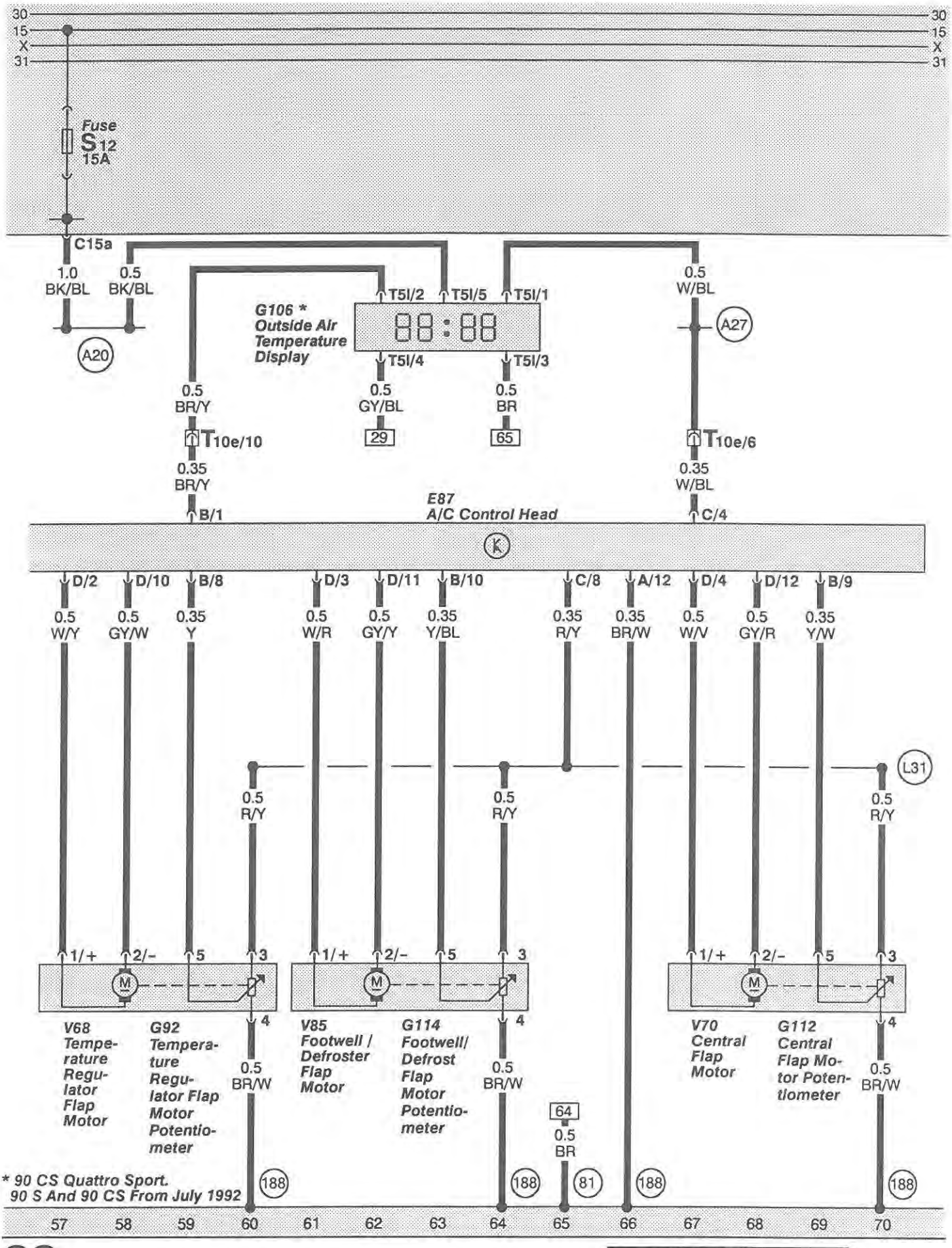


81 Automatic climate control

Up to VIN: 8CPA 000100

90 CS–USA/Canada
90 CS Quattro Sport–USA

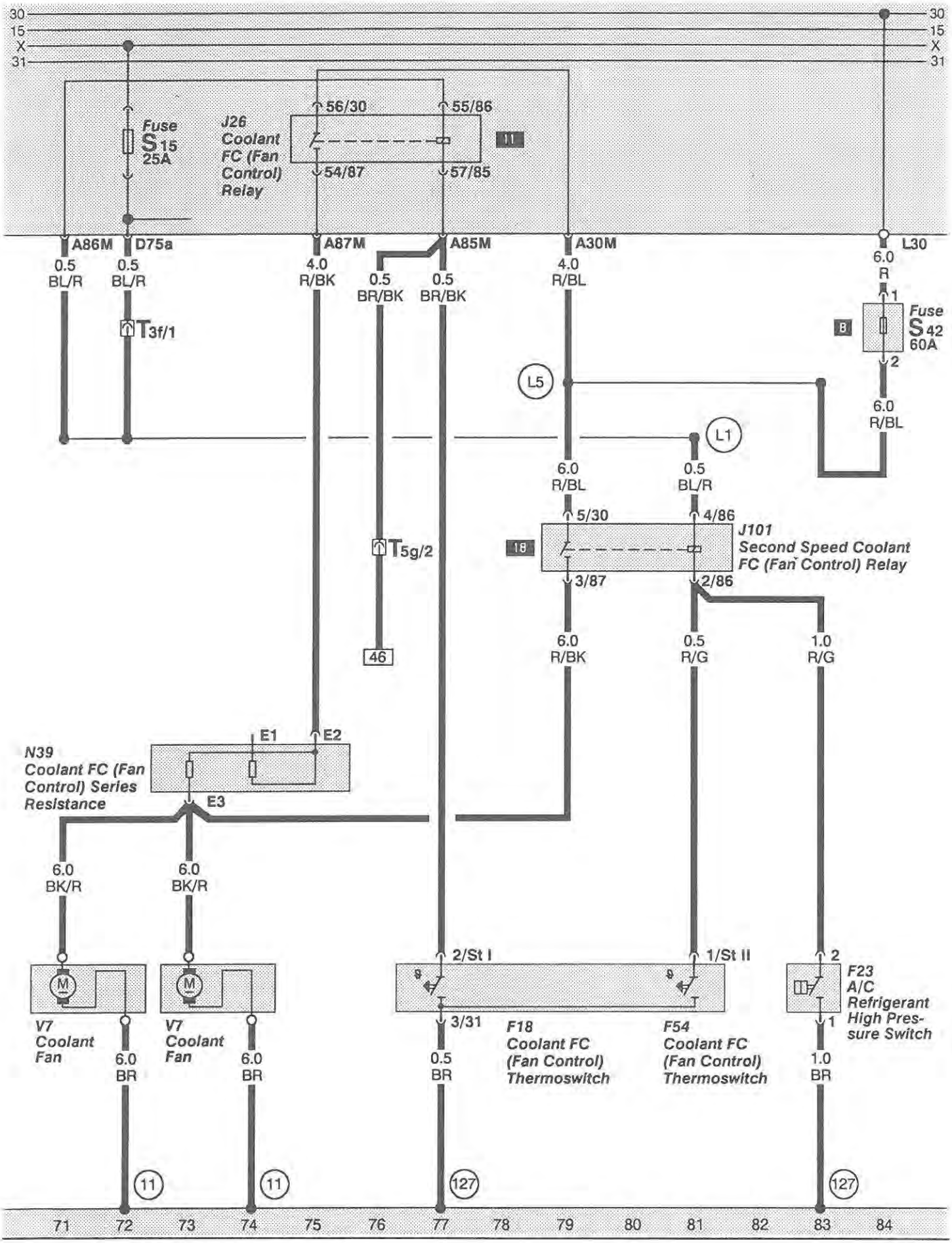

30
15
X
31
DLC (Data Link Connector)
*
T2z/2
1.0
G/R
K *
T10e/1
0.35
G/R
A/1
76
0.5
BR/BK
T6q/3
D/16
E87
A/C Control Head
A/9
0.35
BR/W
A/10
0.35
BL/BK
T10e/8
0.5
BL/BK
B/7
0.35
BL/BR
T5o/1
0.5
BL/BR
T2t/2
A/8
0.35
BR/Y
T10e/7
0.5
BR/Y
T2t/1
C/2
0.35
BR/BL
T5o/3
0.5
BR/BL
T5g/5
1.0
BR/BL
C/5
0.35
GY/G
T5o/4
0.5
GY/G
T5g/1
T2am/2
C/1
0.35
BR/BK
T5o/2
0.5
BR/BK
T1m
To J217
TCM
(Transmission
Control Module),
Connector T38/8
1
2
G56
Interior
Temperature
Sensor,
Instrument
Panel
0.5
BR/W
2
1
G17
Outside Air
(Ambient)
Temperature
Sensor
0.5
BR/W
A
B
F118
A/C
Refrigerant
High Pres-
sure Switch
1.0
BR/W
G111
A/C
Compressor
Speed Sensor
T2am/1
0.5
BR
1.0
BR
* In Plenum
Tray, Near
Relay Panel
188
112
187
187
127
32
127
43
44
45
46
47
48
49
50
51
52
53
54
55
56



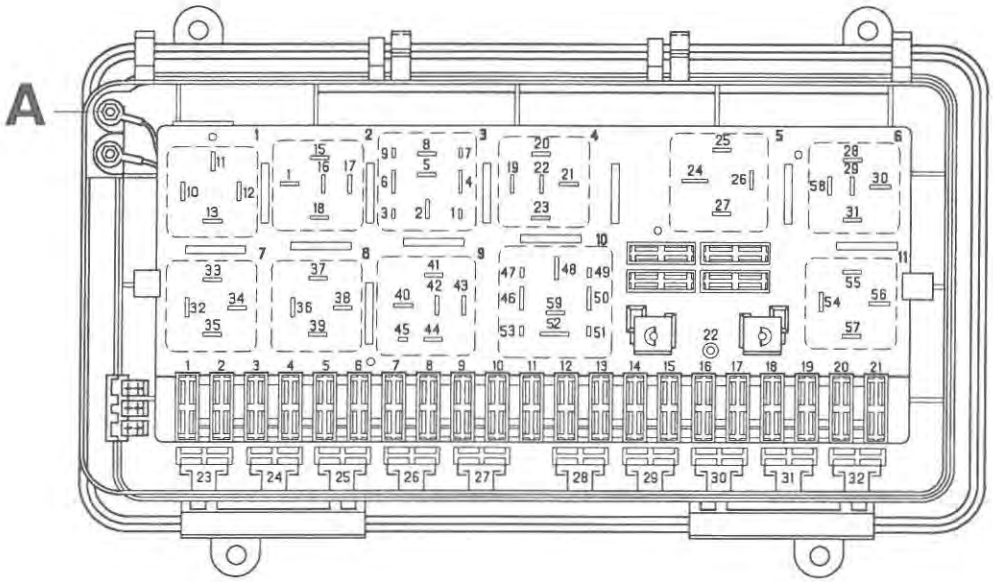
83 Automatic climate control

Up to VIN: 8CPA 000100

90 CS–USA/Canada
90 CS Quattro Sport–USA


30
15
X
31
Fuse
S 15
25A
J26
Coolant
FC (Fan
Control)
Relay
56/30
55/86
54/87
57/85
11
A86M
D75a
A87M
A85M
A30M
L30
0.5
BL/R
0.5
BL/R
4.0
R/BK
0.5
BR/BK
0.5
BR/BK
4.0
R/BL
6.0
R
T3f/1
Fuse
S 42
60A
8
L5
L1
6.0
R/BL
6.0
R/BL
0.5
BL/R
5/30
4/86
J101
Second Speed Coolant
FC (Fan Control) Relay
18
3/87
2/86
T5g/2
46
6.0
R/BK
0.5
R/G
1.0
R/G
E1
E2
E3
N39
Coolant FC (Fan
Control) Series
Resistance
6.0
BK/R
6.0
BK/R
2/St I
1/St II
2
V7
Coolant
Fan
V7
Coolant
Fan
6.0
BR
6.0
BR
3/31
0.5
BR
F18
Coolant FC
(Fan Control)
Thermoswitch
F54
Coolant FC
(Fan Control)
Thermoswitch
F23
A/C
Refrigerant
High Pres-
sure Switch
1
1.0
BR
11
11
127
127
71
72
73
74
75
76
77
78
79
80
81
82
83
84

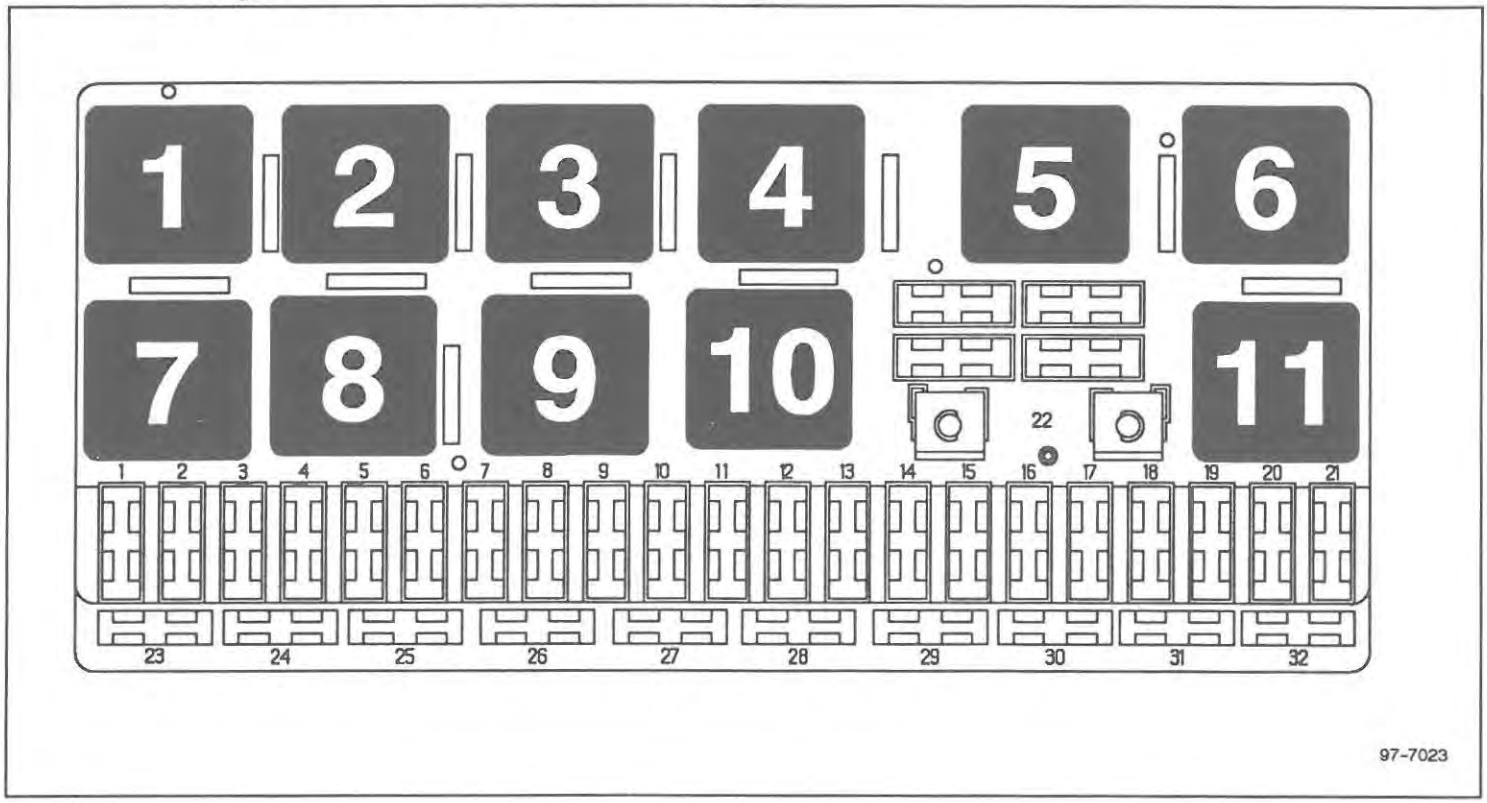
Fuse/Relay Panel (Left Side Plenum Tray)



On-Board Diagnostic (OBD)

A – Wire Distributor For DLC (Data Link Connector); Terminal K

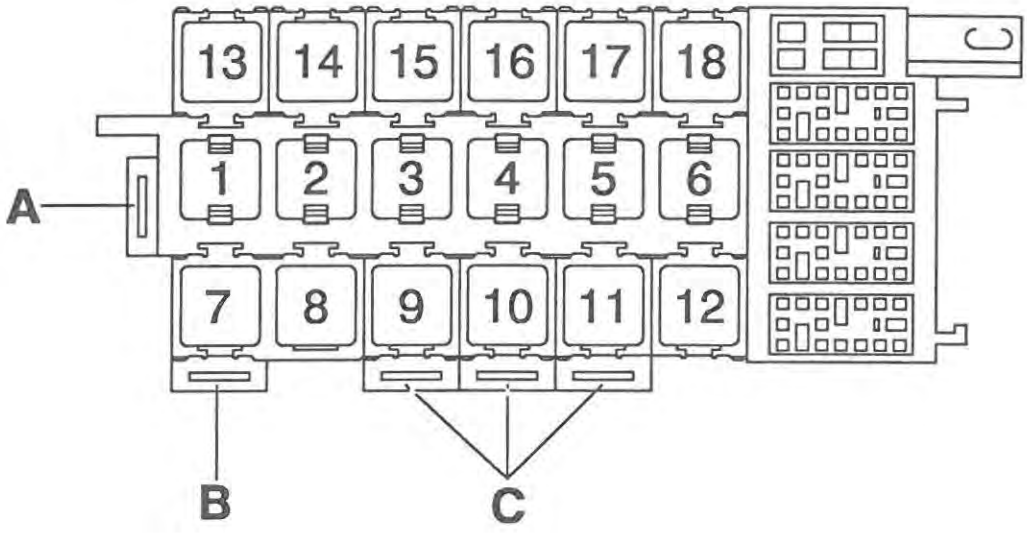
Fuse/Relay Panel (Left Side Plenum Tray)



Relay location

- B Open (Automatic Transmission)

Auxiliary Relay Panel With Connector Station



A – Not Used B – Fuse Adapter For Coolant Fan C – Fuse Adapter For Circuit Breakers 97-7024

Relay location

1. Shift Lock Control Module, J221 (Automatic Transmission Only)
2. PNP (Park/Neutral Position) Relay, J226
8. Automatic Transmission Console Light Switch-Over Relay, J307 (USA And Canada Only)
11. Program Switch Light Relay, J300 (Automatic Transmission Only)

Description	Current track
Automatic Transmission Console Light Switch-Over Relay, J307	65–68
Automatic Transmission Console Light, L19	65
Back-Up Light, Left, M16	40
Back-Up Light, Right, M17	42
Central Locking/Alarm System/Interior Light Delay Control Module, V96	36
Cruise Control Switch, E45	71–75
Cruise Control Vacuum Pump, V18	82–84
Cruise Control, Control Module, J213	77–84
DLC (Data Link Connector), K	2
ECM (Engine Control Module), J192	8–14
Fuse, S4, 15A	65
Fuse, S12, 15A	59
Fuse, S14, 5A	61
Fuse, S30, 5A	15
Gear Selection Indicator, G96	61–62
Kick-Down Switch, F8	16
Multi-Function Switch (Digimat), F125	43–56
PNP (Park/Neutral Position) Relay, J226	49–56
Program Switch Illumination, L70	31–32
Program Switch Light Relay, J300	57–59
Protection Diode, J201	68
Shift Lock Control Module, J221	19–24
Shift Lock Solenoid, N110	20
Solenoid Valve 1, N88	7
Solenoid Valve 2, N89	8
Solenoid Valve 3, N90	9
Solenoid Valve 4, N91	10
Solenoid Valve 5, N92	11
Solenoid Valve 6, N93	12
Solenoid Valve 7, N94	13
TCM (Transmission Control Module), J217	1–47
TR (Transmission Range) Program Switch (Auto. Trans.), E122	30–33
Transmission Fluid Temperature Sensor, G93	14
Vacuum Vent Valve, Brake, F47	79
VSS (Vehicle Speed Sensor), G38	1–2

Wire connectors

T1f – single, black, behind instrument panel, left
T1m – single, red, behind instrument panel, left
T1s – single, red, behind instrument panel, left
T1v – single, black, below back seat, center
T2ab – double, grey, near starter
T2v – double, white, behind instrument panel
T2z – double, white, in left plenum, on fuse/relay panel, DLC (Data Link Connector)
T4e – four point, black, behind instrument panel
T4d – four point, black, behind instrument panel
T5 – five point, black, connector station in auxiliary relay panel
T5f – five point, blue, behind instrument panel
T5i – five point, black, behind instrument panel
T5o – five point, red, behind instrument panel, center
T6b – six point, black, in luggage compartment, left rear
T6h – six point, black, behind instrument panel
T10a – ten point, yellow, connector station in auxiliary relay panel
T10c – ten point, green, connector station in auxiliary relay panel
T10d – ten point, blue, connector station in auxiliary relay panel
T12a – twelve point, brown, on Cruise Control, Control Module
T16 – sixteen point, connector C on V94, below back seat, right
T16d – sixteen point, on A/C Control Head
T20 – twenty point, on ECM (Engine Control Module)
T26 – twenty-six point, yellow, on Instrument Cluster
T38 – thirty-eight point, on TCM (Transmission Control Module)

Welded wiring harness points

(A3) – plus connection (58), in instrument panel wiring harness
(A7) – plus connection (58 D1), in instrument panel wiring harness
(A17) – wire connection (61), in instrument panel wiring harness
(A18) – wire connection (54), in instrument panel wiring harness
(A19) – wire connection (58d), in instrument panel wiring harness
(A20) – wire connection (15a), in instrument panel wiring harness
(A23) – wire connection (30al), in instrument panel wiring harness

(A27) – wire connection (speed signal), in instrument panel wiring harness

(A41) – plus connection (50), in instrument panel wiring harness

(A45) – wire connection (RPM signal), in instrument panel wiring harness

(U2) – wire connection -1- (15), in automatic transmission wiring harness

Ground connections

(17) – ground connection, on intake manifold

(32) – ground connection, behind instrument panel, left

(81) – ground connection -1-, in instrument panel wiring harness

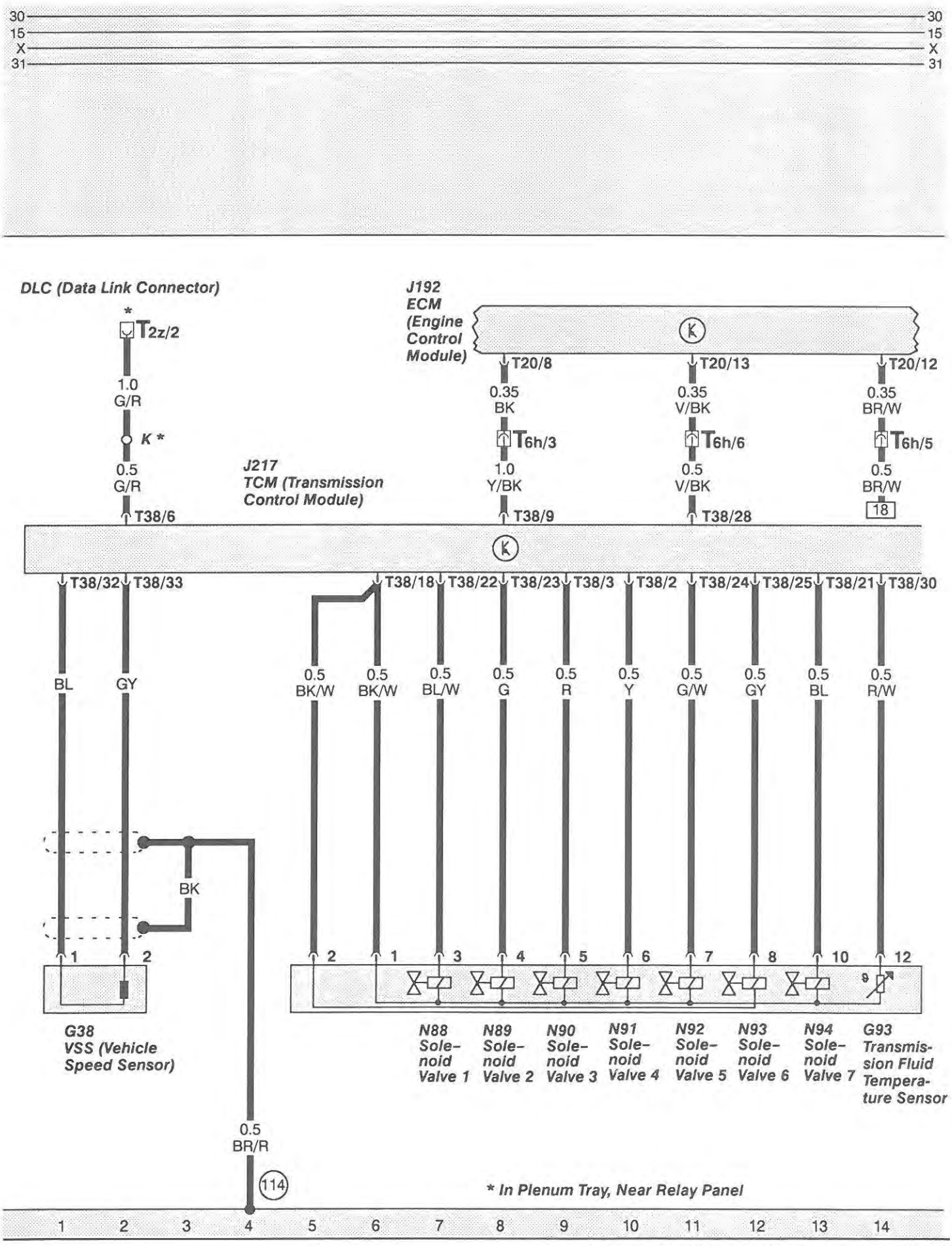
(83) – ground connection -1-, in right front wiring harness

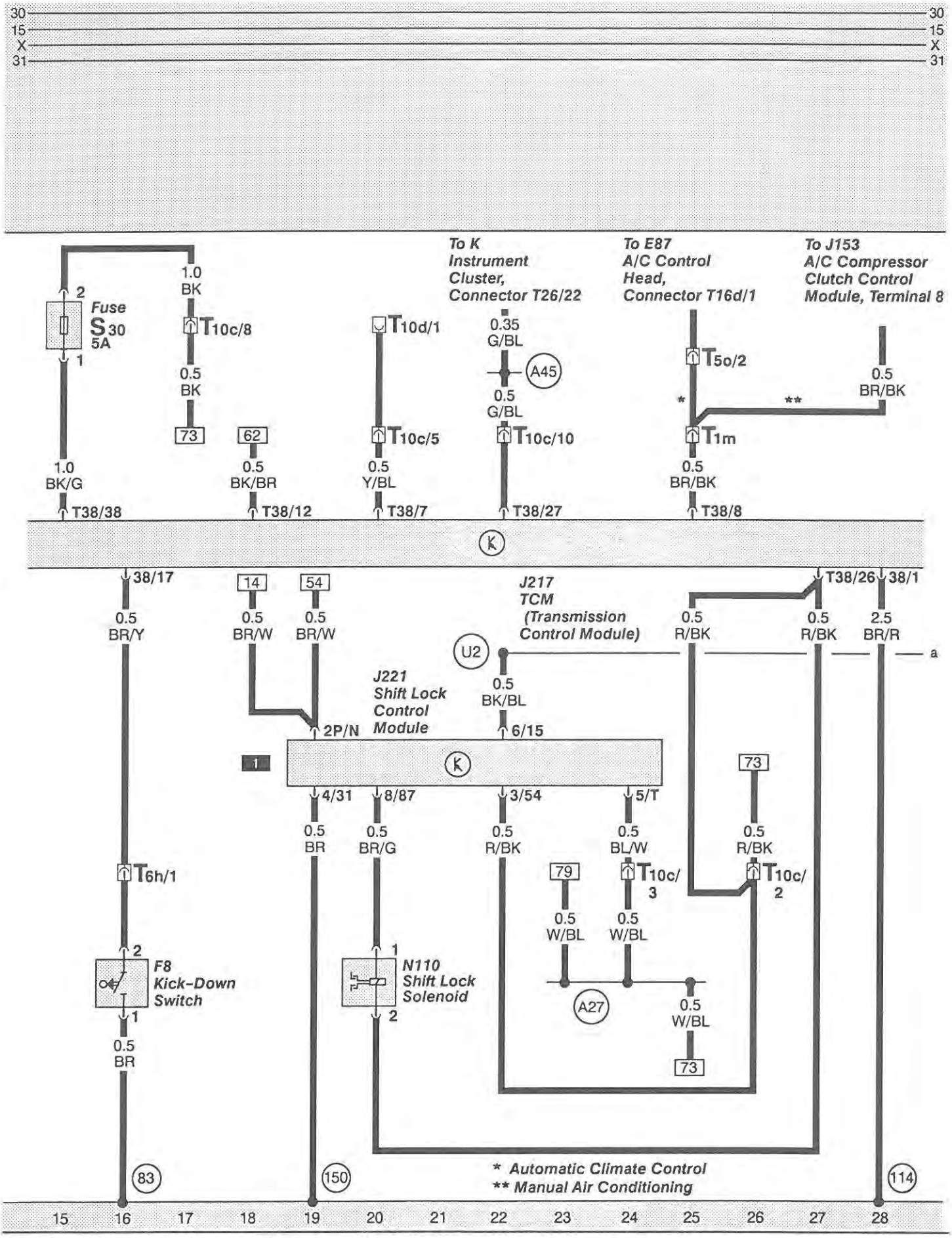
(98) – ground connection, in rear lid wiring harness

(105) – ground connection -1-, in central locking system wiring harness

(114) – ground connection, in automatic transmission wiring harness

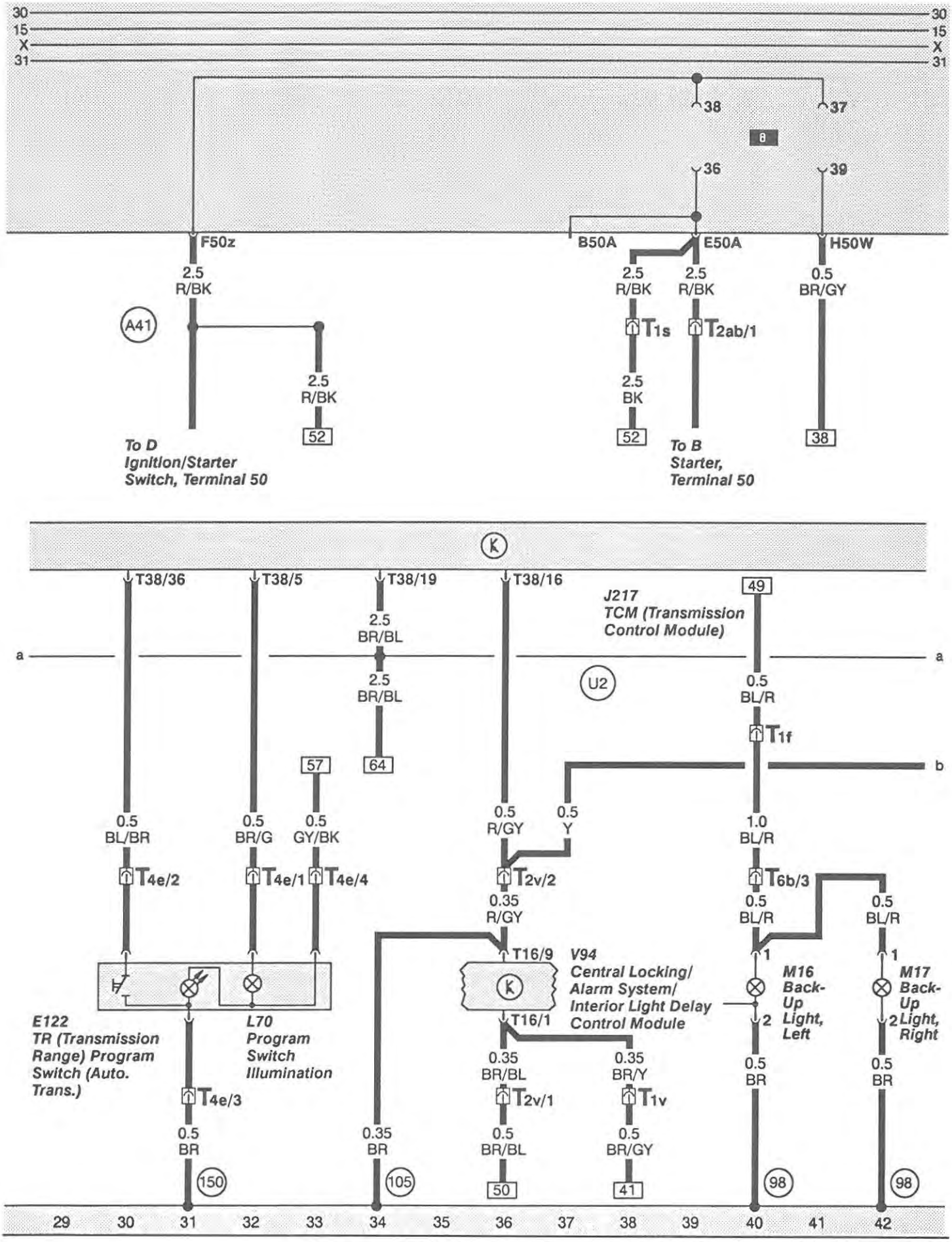
(150) – ground connection, in Automatic Transmission (Digimat/AG4) wiring harness

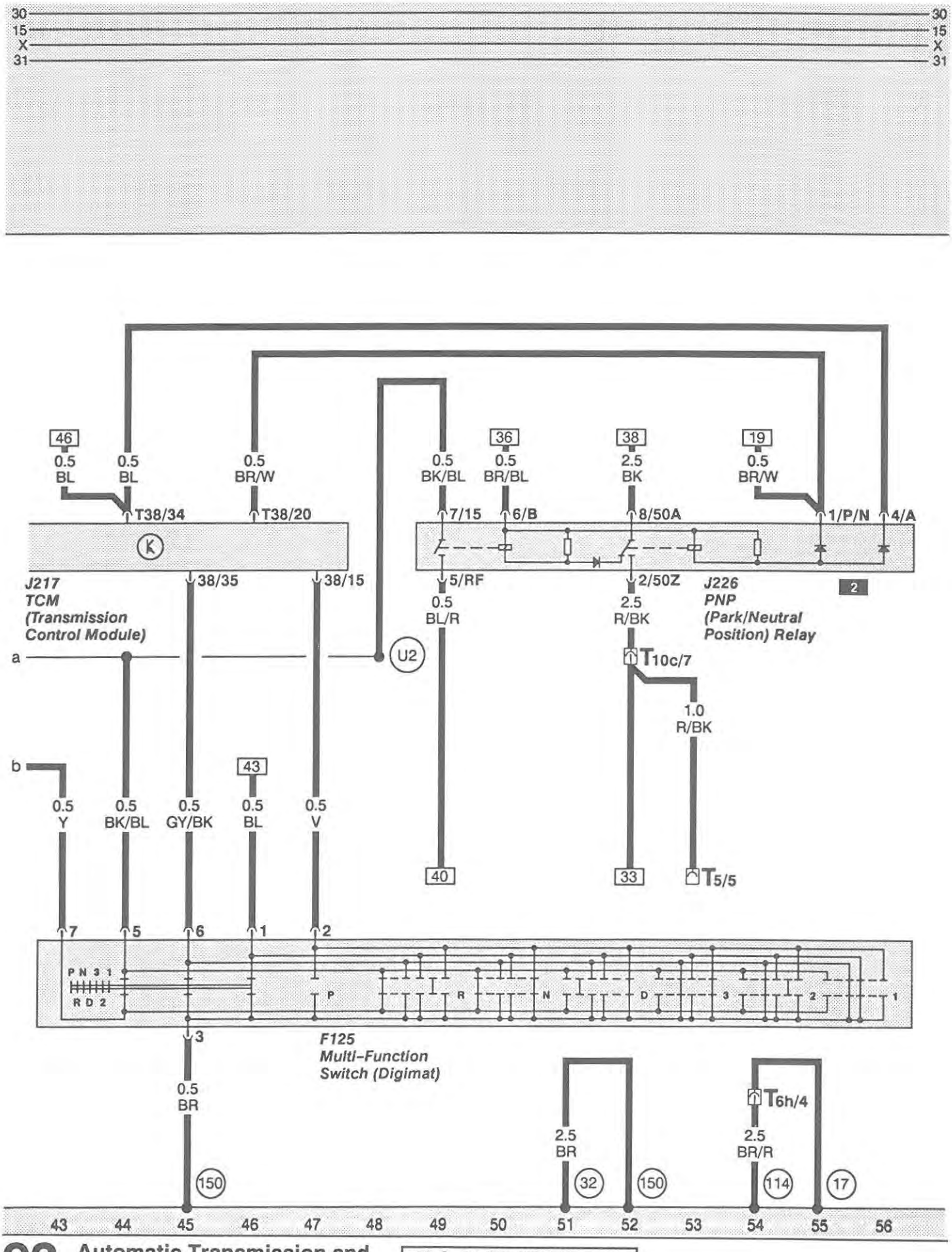

30
15
X
31
DLC (Data Link Connector)
*
T2z/2
1.0
G/R
K *
0.5
G/R
T38/6
J192
ECM
(Engine
Control
Module)
T20/8
T20/13
T20/12
0.35
BK
0.35
V/BK
0.35
BR/W
T6h/3
T6h/6
T6h/5
1.0
Y/BK
0.5
V/BK
0.5
BR/W
18
J217
TCM (Transmission
Control Module)
T38/9
T38/28
T38/32
T38/33
T38/18
T38/22
T38/23
T38/3
T38/2
T38/24
T38/25
T38/21
T38/30
BL
GY
0.5
BK/W
0.5
BK/W
0.5
BL/W
0.5
G
0.5
R
0.5
Y
0.5
G/W
0.5
GY
0.5
BL
0.5
R/W
BK
1
2
2
1
3
4
5
6
7
8
10
12
9
G38
VSS (Vehicle
Speed Sensor)
N88
Sole-
noid
Valve 1
N89
Sole-
noid
Valve 2
N90
Sole-
noid
Valve 3
N91
Sole-
noid
Valve 4
N92
Sole-
noid
Valve 5
N93
Sole-
noid
Valve 6
N94
Sole-
noid
Valve 7
G93
Transmis-
sion Fluid
Tempera-
ture Sensor
0.5
BR/R
114
* In Plenum Tray, Near Relay Panel
1
2
3
4
5
6
7
8
9
10
11
12
13
14



91 Automatic Transmission and Cruise control (2-Wheel drive)

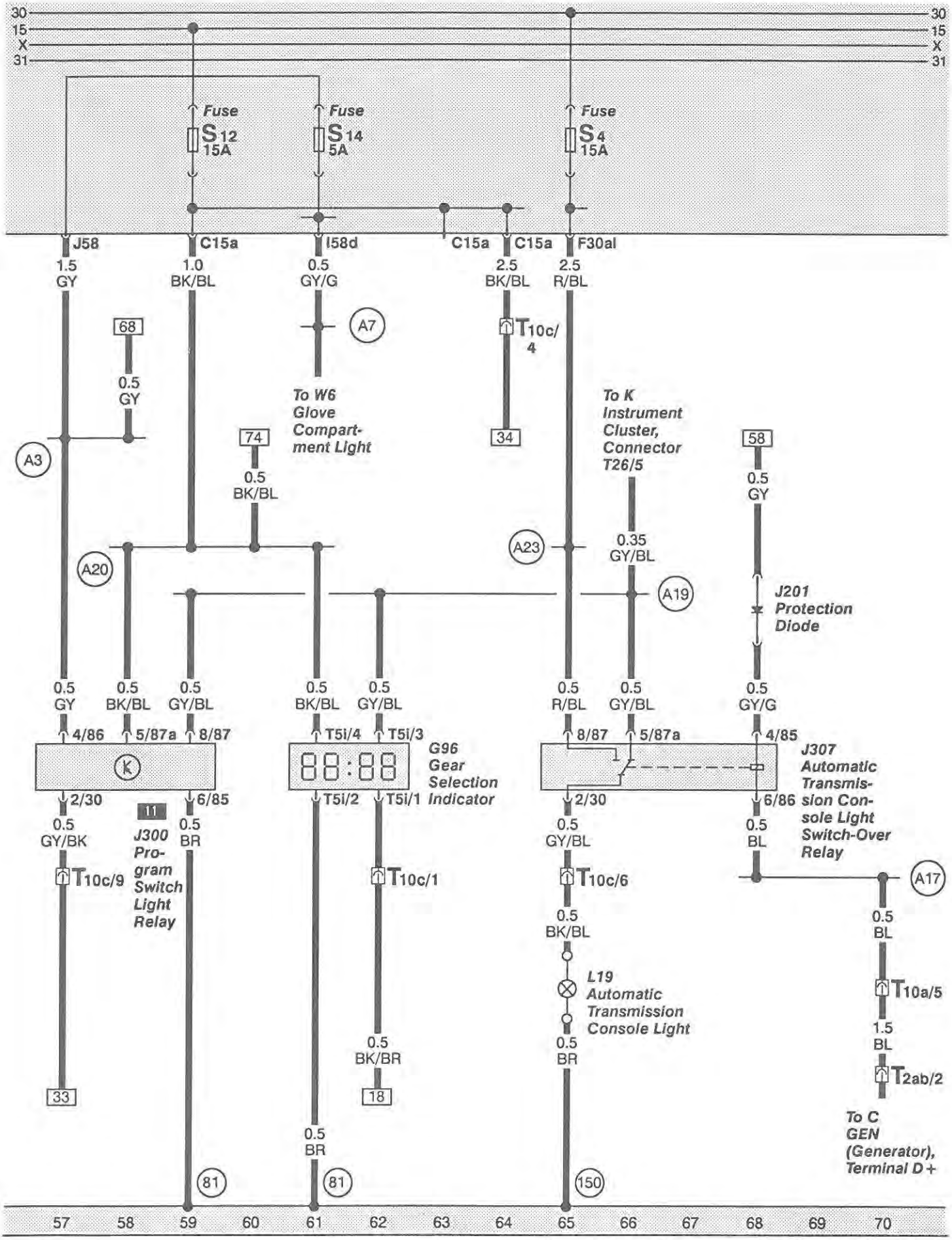
90 S, 90 CS–USA/Canada
Up to VIN: 8CPA 000100


30
15
X
31
38
37
8
36
39
F50z
B50A
E50A
H50W
2.5 R/BK
2.5 R/BK
2.5 R/BK
0.5 BR/GY
A41
T1s
T2ab/1
2.5 R/BK
2.5 BK
52
52
38
To D Ignition/Starter Switch, Terminal 50
To B Starter, Terminal 50
K
T38/36
T38/5
T38/19
T38/16
J217 TCM (Transmission Control Module)
49
2.5 BR/BL
a
a
U2
2.5 BR/BL
0.5 BL/R
T1f
b
57
64
0.5 BL/BR
0.5 BR/G
0.5 GY/BK
0.5 R/GY
0.5 Y
1.0 BL/R
T4e/2
T4e/1
T4e/4
T2v/2
T6b/3
0.35 R/GY
0.5 BL/R
0.5 BL/R
T16/9
V94 Central Locking/ Alarm System/ Interior Light Delay Control Module
M16 Back-Up Light, Left
M17 Back-Up Light, Right
E122 TR (Transmission Range) Program Switch (Auto. Trans.)
L70 Program Switch Illumination
T16/1
0.35 BR/BL
0.35 BR/Y
0.5 BR
0.5 BR
T4e/3
T2v/1
T1v
0.5 BR
0.35 BR
0.5 BR/BL
0.5 BR/GY
150
105
50
41
98
98
29 30 31 32 33 34 35 36 37 38 39 40 41 42



93 Automatic Transmission and Cruise control (2-Wheel drive)

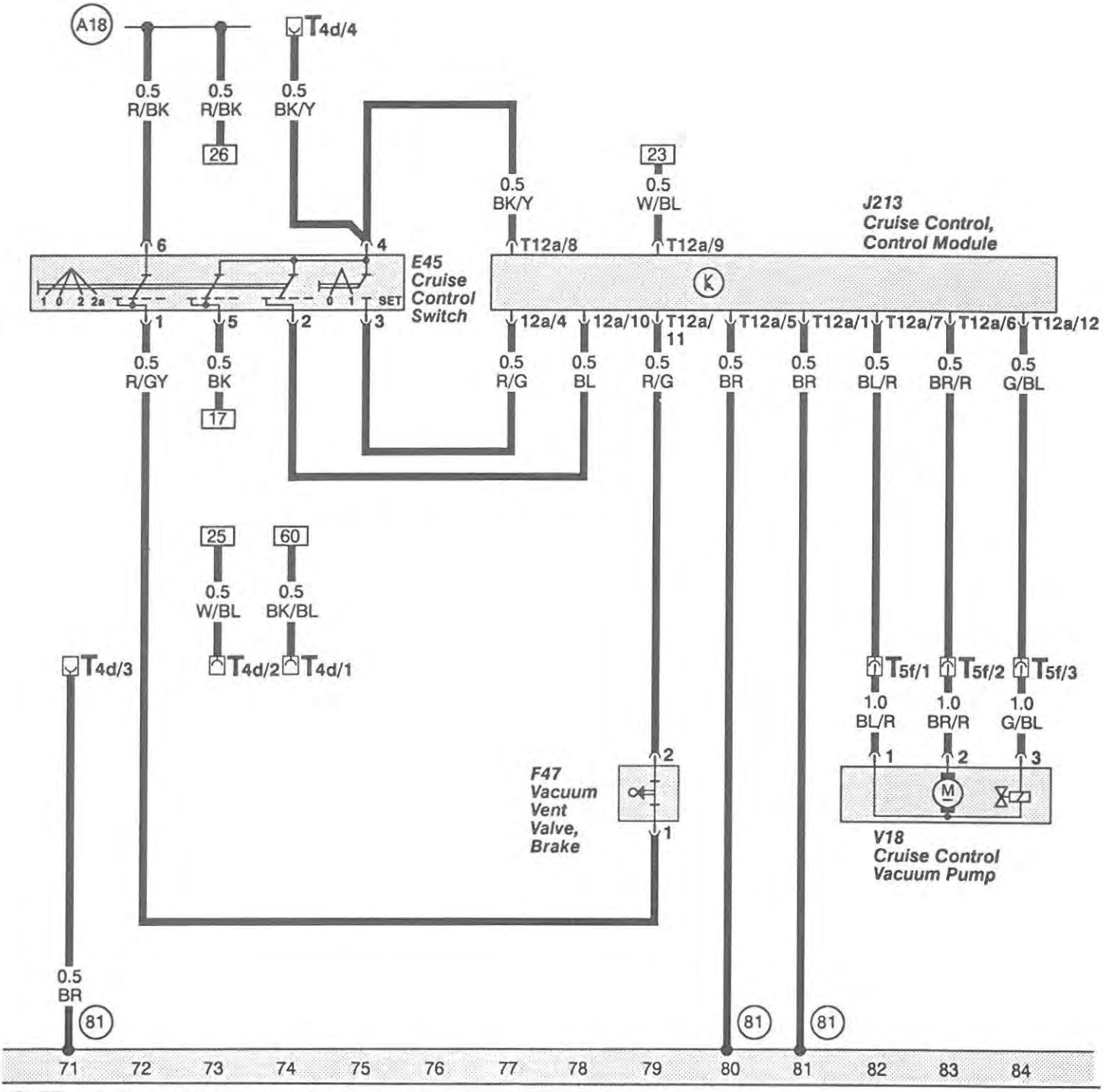
90 S, 90 CS–USA/Canada
Up to VIN: 8CPA 000100



90 S, 90 CS–USA/Canada
Up to VIN: 8CPA 000100

Automatic Transmission and Cruise control (2-Wheel drive) **94**

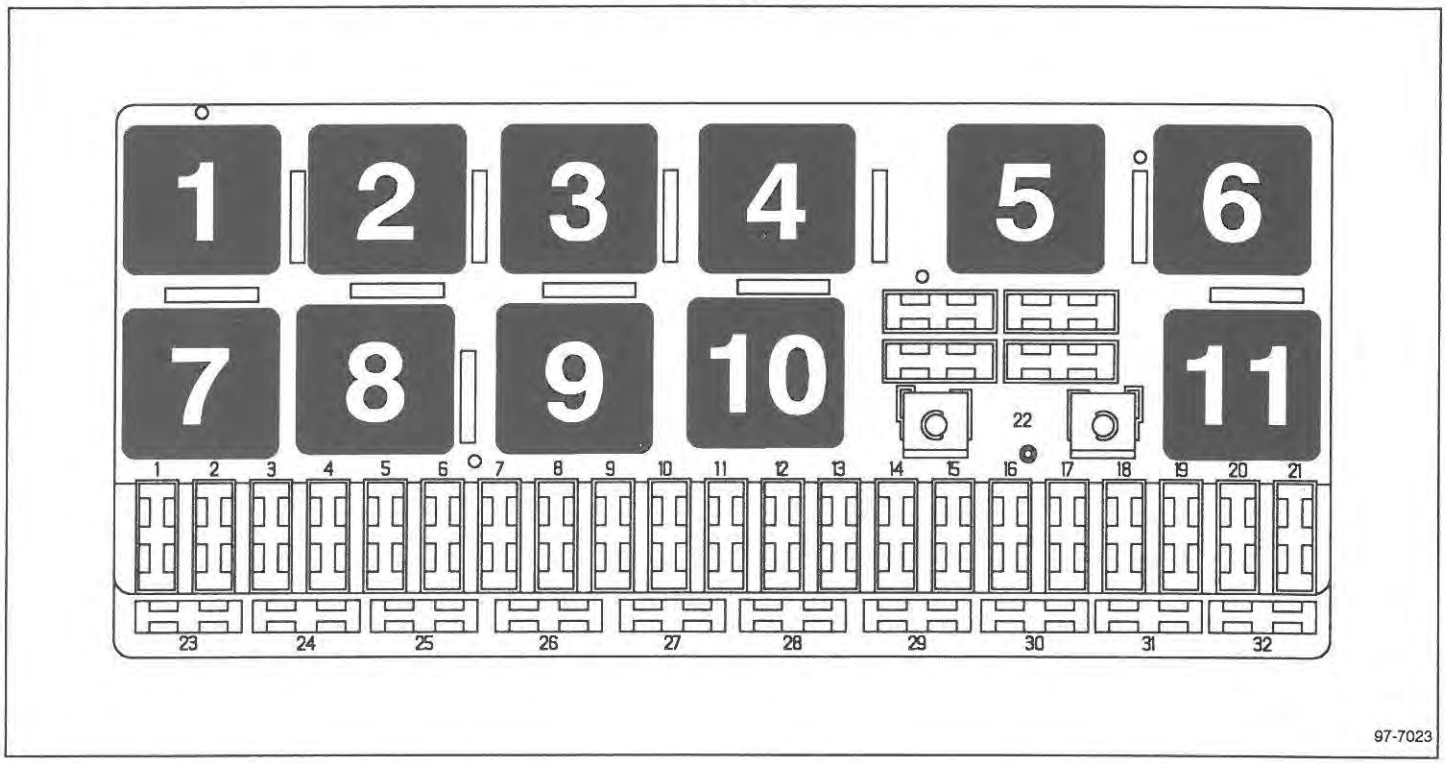
30
15
X
31



95 Automatic Transmission and Cruise control (2-Wheel drive)

90 S, 90 CS–USA/Canada
Up to VIN: 8CPA 000100

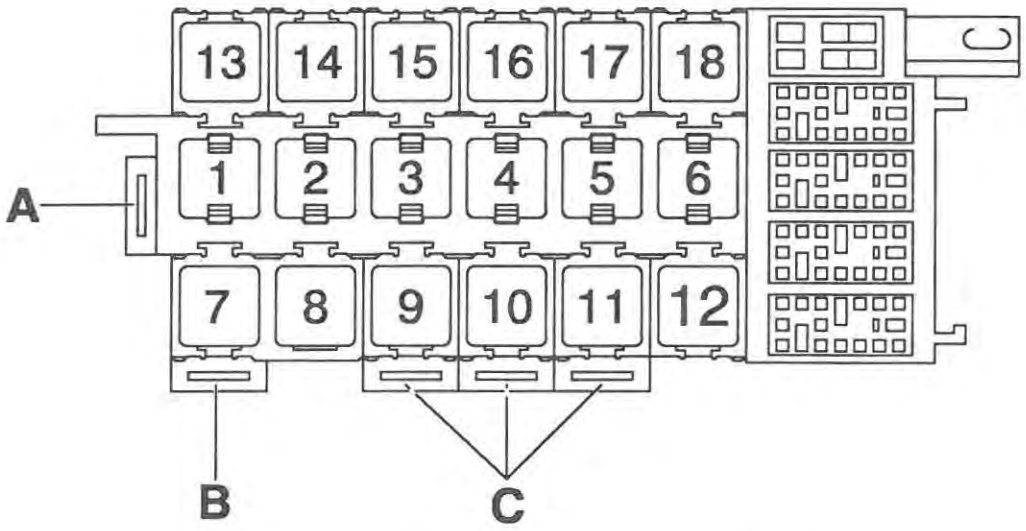
Fuse/Relay Panel (Left Side Plenum Tray)



Relay location

- 1 Fog Light Relay, J5
- S Load Reduction Relay, J59
- 7 Dual Horn Relay, J4

Auxiliary Relay Panel With Connector Station



A – Not Used B – Fuse Adapter For Coolant Fan C – Fuse Adapter For Circuit Breakers 97-7024

Relay location

- 7 Fuel Gauge Damper Control Module, J273 (Quattro Only)
- 10 Daytime Running Lights Relay (Switch-On), J90 (Canada Only)
- 15 Lamp Control Module, Front, J123 (Auto Check System Only)

Description	Current track
Back-Up Light, Left, M16	54
Back-Up Light, Right, M17	56
Brake Light, Left, M9	31
Brake Light, Right, M10	36
Daytime Running Lights Relay (Switch-On), J90	44-45
Fog Light Relay, J5	45-47
Fog Light Switch Light, L40	48-50, 52-53
Fog Light Switch, E7	47-48
Fog Light, Left, L22	46
Fog Light, Right, L23	48
Fuse, S1, 15A	48
Fuse, S6, 5A	27
Fuse, S7, 5A	25
Fuse, S8, 10A	19
Fuse, S9, 10A	20
Fuse, S10, 10A	21
Fuse, S11, 10A	22
Fuse, S12, 15A	33
Fuse, S23, 5A	7
Fuse, S29, 10A	14
Headlight Dimmer/Flasher Switch, E4	12-13
Headlight, Left, L1	22
Headlight, Right, L2	21
High Beam Headlight, Left, L13	20
High Beam Headlight, Right, L14	19
High-mount Brake Light, M25	40
Ignition/Starter Switch, D	5-11
Lamp Control Module, Front, J123	21-24
Lamp Control Module, Rear, J124	29-42
License Plate Light, X	43,44
Light Switch, E1	2-8
Load Reduction Relay, J59	2-3
Parking Light, Left, M1	25
Parking Light, Right, M3	27
Rear Fog Light Bulb/Connection, L20	53
Rear Fog Light Switch, E18	53-55
Series Resistance Wire, N74	10
Side Marker Lights, Front, M11	30, 39
Tail Light, Left, M4	31
Tail Light, Right, M2	36
Turn Signal Light, Left Front, M5	26
Turn Signal Light, Left Rear, M6	33
Turn Signal Light, Right Front, M7	28
Turn Signal Light, Right Rear, M8	38

Wire connectors

- T1f – single, behind instrument panel, left
- T2 – double, black, on High-Mount Brake Light
- T2l – double, black, in engine compartment, left
- T2m – double, black, in engine compartment, right
- T2n – double, brown, behind instrument panel, left
- T6b – six point, black, in luggage compartment, left rear
- T10a – ten point, yellow, connector station in auxiliary relay panel
- T10b – ten point, brown, connector station in auxiliary relay panel
- T13a – thirteen point, black, on Light Switch/Headlight Dimmer/Flasher Switch
- T26a – twenty-six point, blue, om Instrument Cluster
- T26b – twenty-six point, white, on Instrument Cluster (Auto Check System With Display)

Welded wiring harness points

- (A2) – plus connection (15), in instrument panel wiring harness
- (A3) – plus connection (58), in instrument panel wiring harness
- (A5) – plus connection (right turn signal), in instrument panel wiring harness
- (A6) – plus connection (left turn signal), in instrument panel wiring harness
- (A9) – plus connection (56 b), in instrument panel wiring harness
- (A17) – wire connection (61), in instrument panel wiring harness
- (A18) – wire connection (54), in instrument panel wiring harness
- (A19) – wire connection (58d), in instrument panel wiring harness
- (A20) – wire connection (15a), in instrument panel wiring harness
- (A21) – wire connection (86s), in instrument panel wiring harness

(A32) - plus connection (30), in instrument panel wiring harness

(A33) - wire connection (75), in instrument panel wiring harness

(A41) - plus connection (50), in instrument panel wiring harness

(A43) - wire connection (57l), in instrument panel wiring harness

(A44) - wire connection (57r), in instrument panel wiring harness

Ground connections

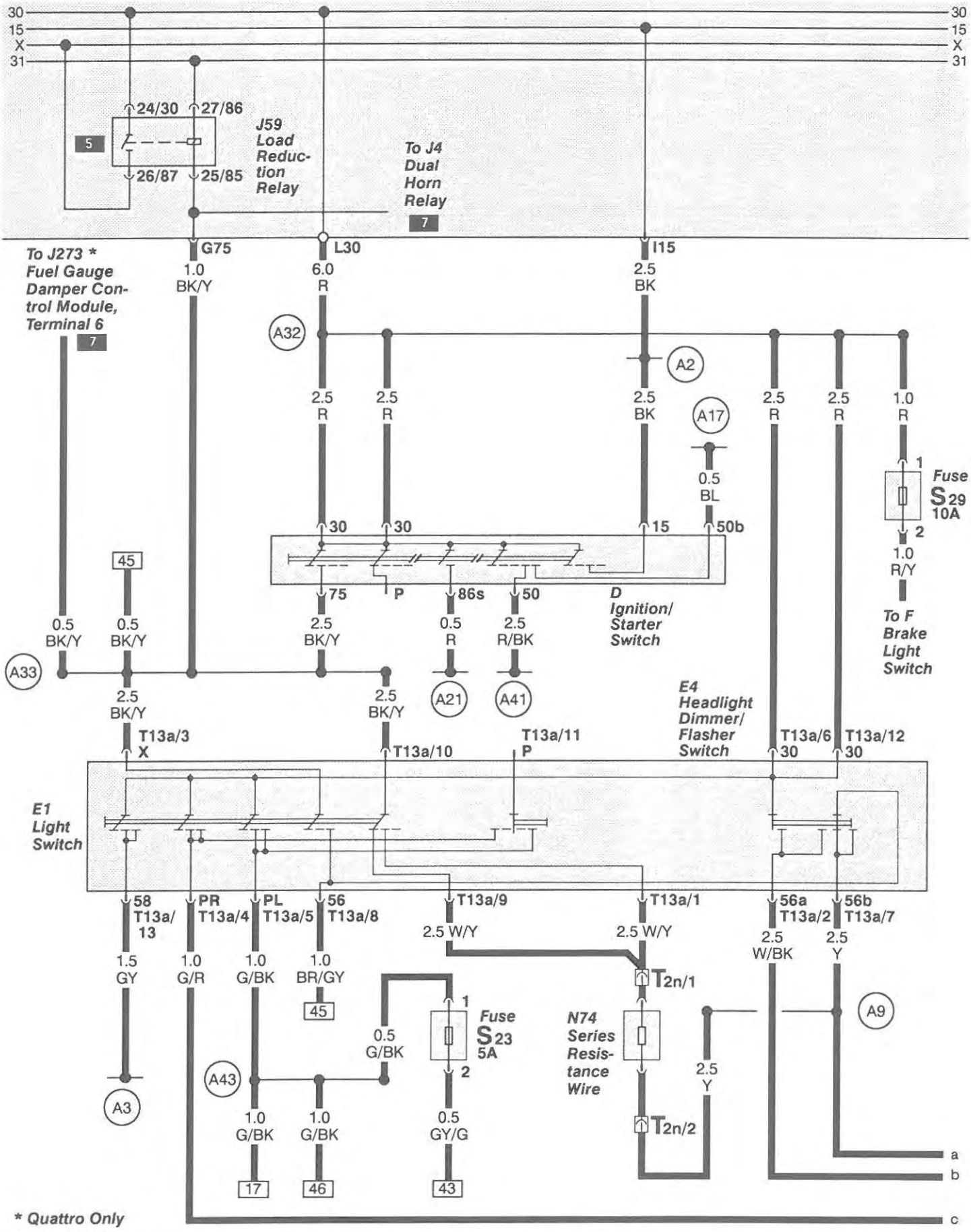
(32) - ground connection, behind instrument panel, left

(50) - ground connection, in luggage compartment, left

(81) - ground connection -1-, in instrument panel wiring harness

(98) - ground connection, in rear lid wiring harness

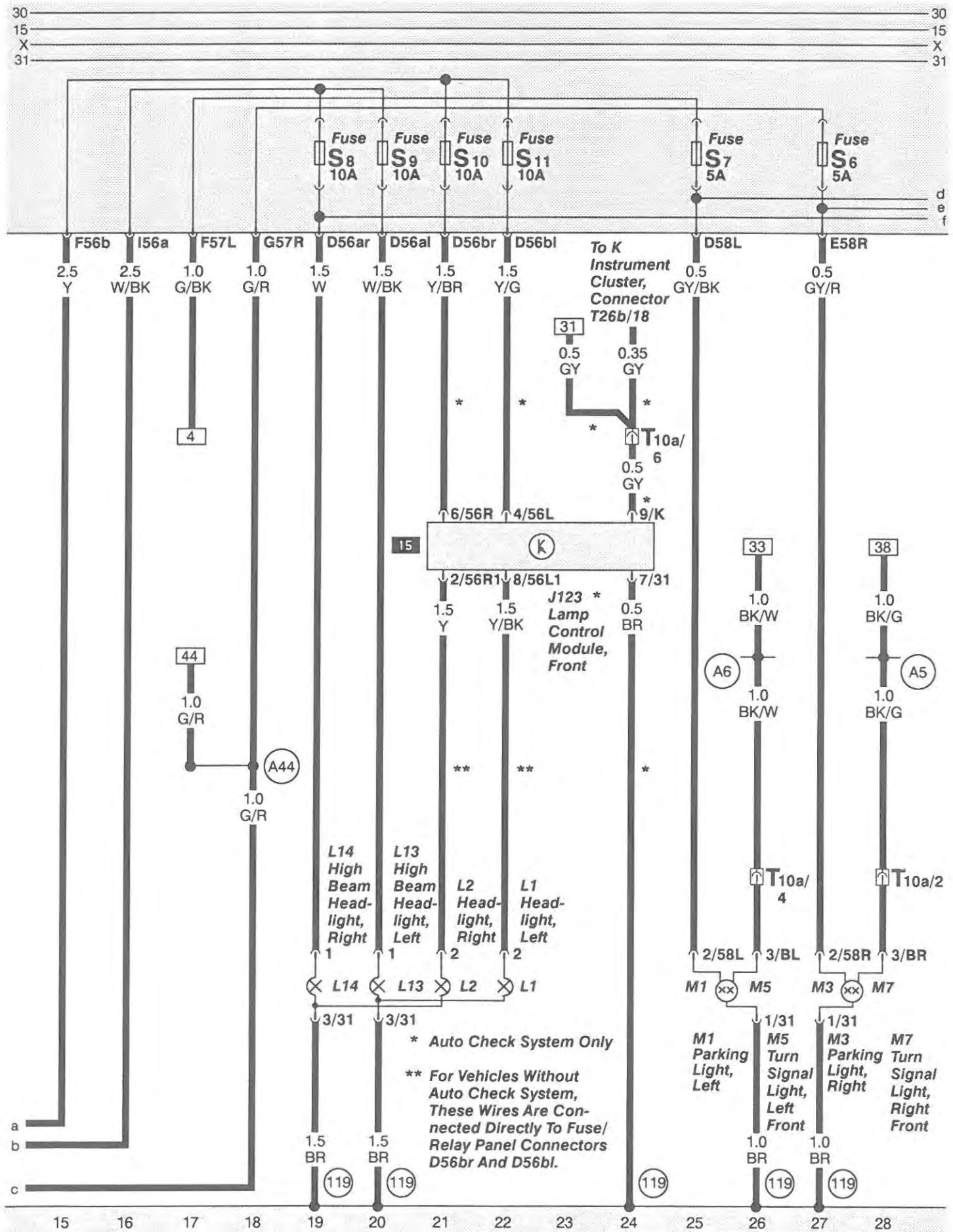
(119) - ground connection -1-, in headlight wiring harness



101 Daytime running lights

Up to VIN: 8CPA 000100

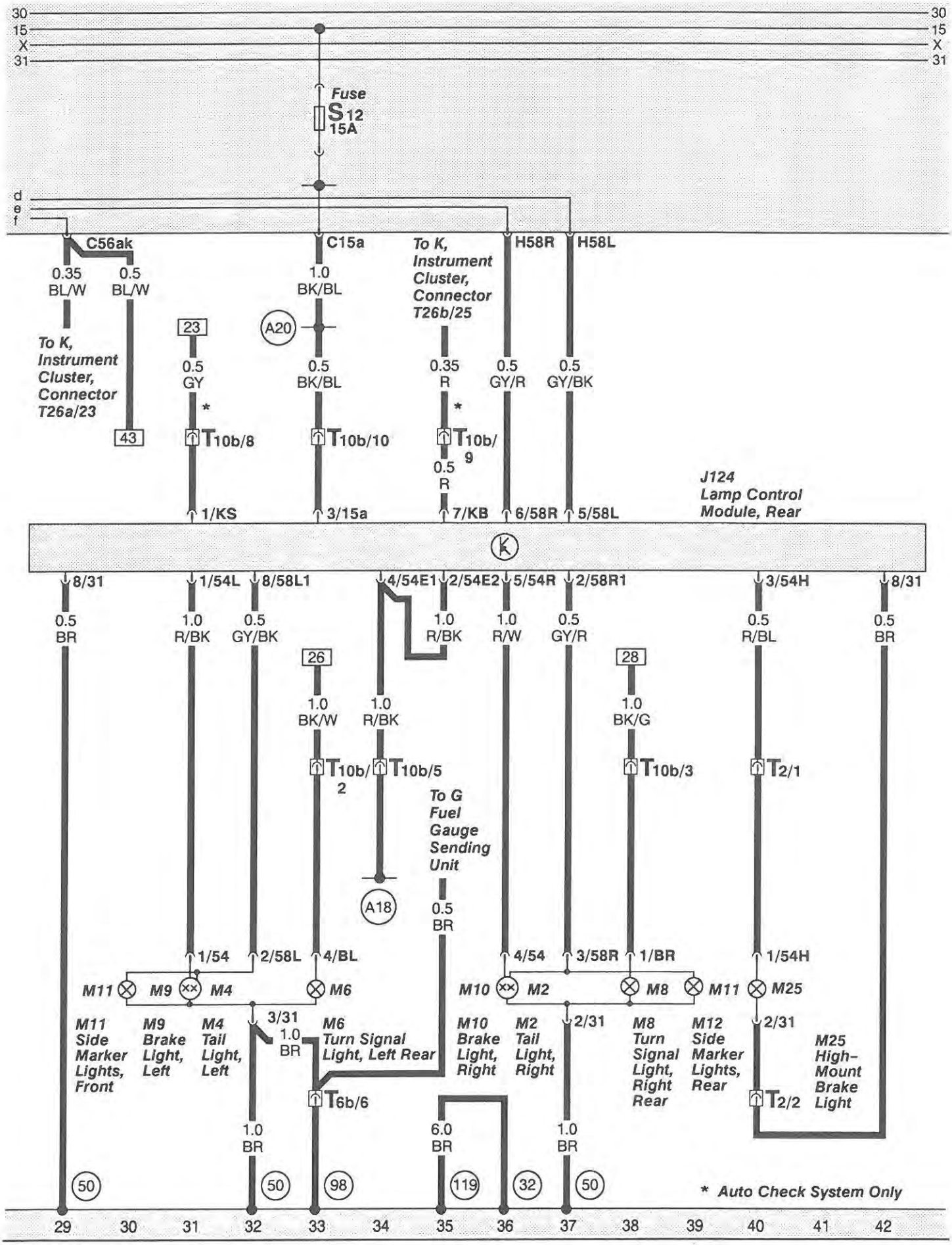
90 S, 90 S Quattro, 90 CS Canada only



90 S, 90 S Quattro, 90 CS Canada only

Up to VIN: 8CPA 000100

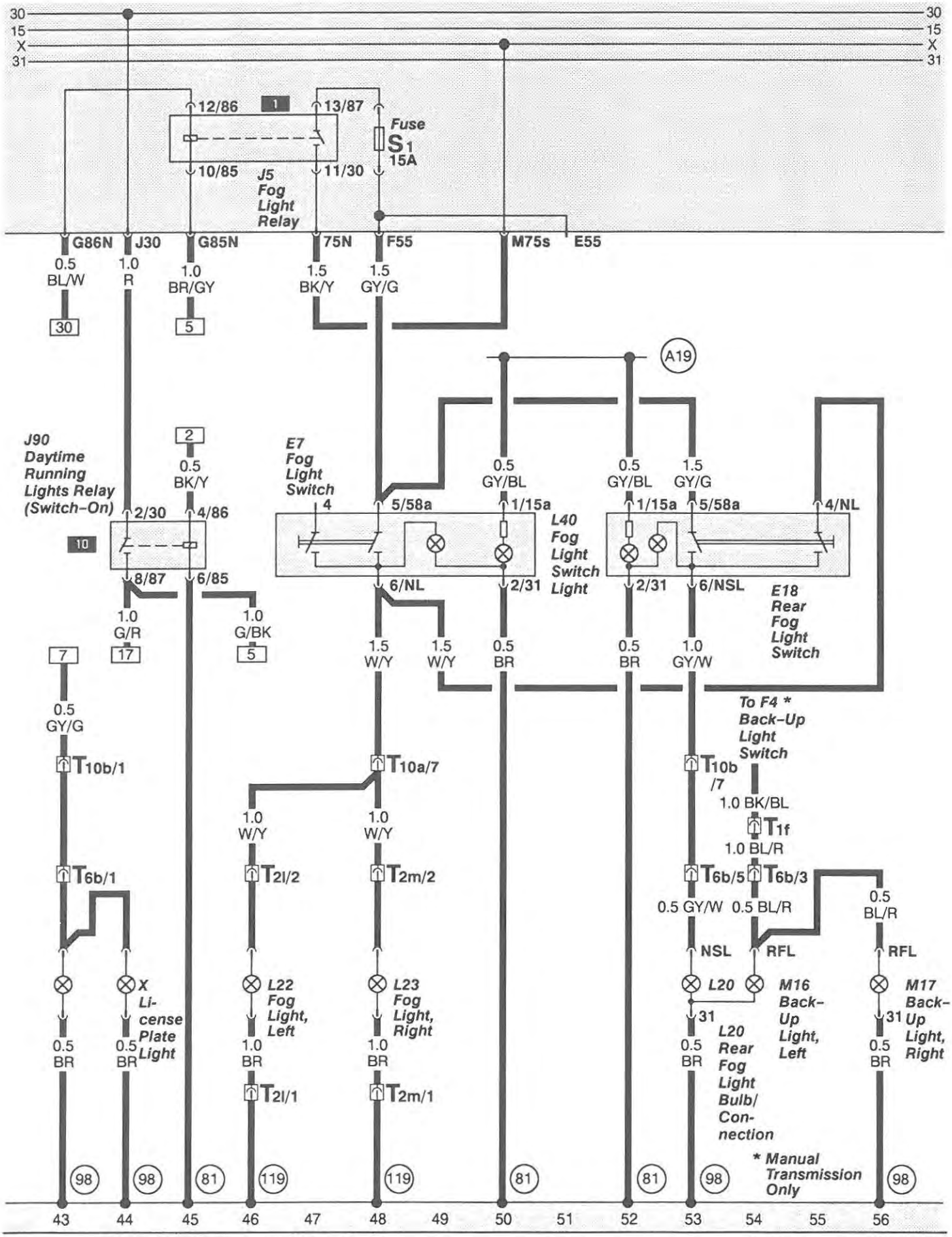
Daytime running lights



103 Daytime running lights

Up to VIN: 8CPA 000100

90 S, 90 S Quattro, 90 CS
Canada only



90 S, 90 S Quattro, 90 CS
Canada only

Up to VIN: 8CPA 000100

Daytime running lights

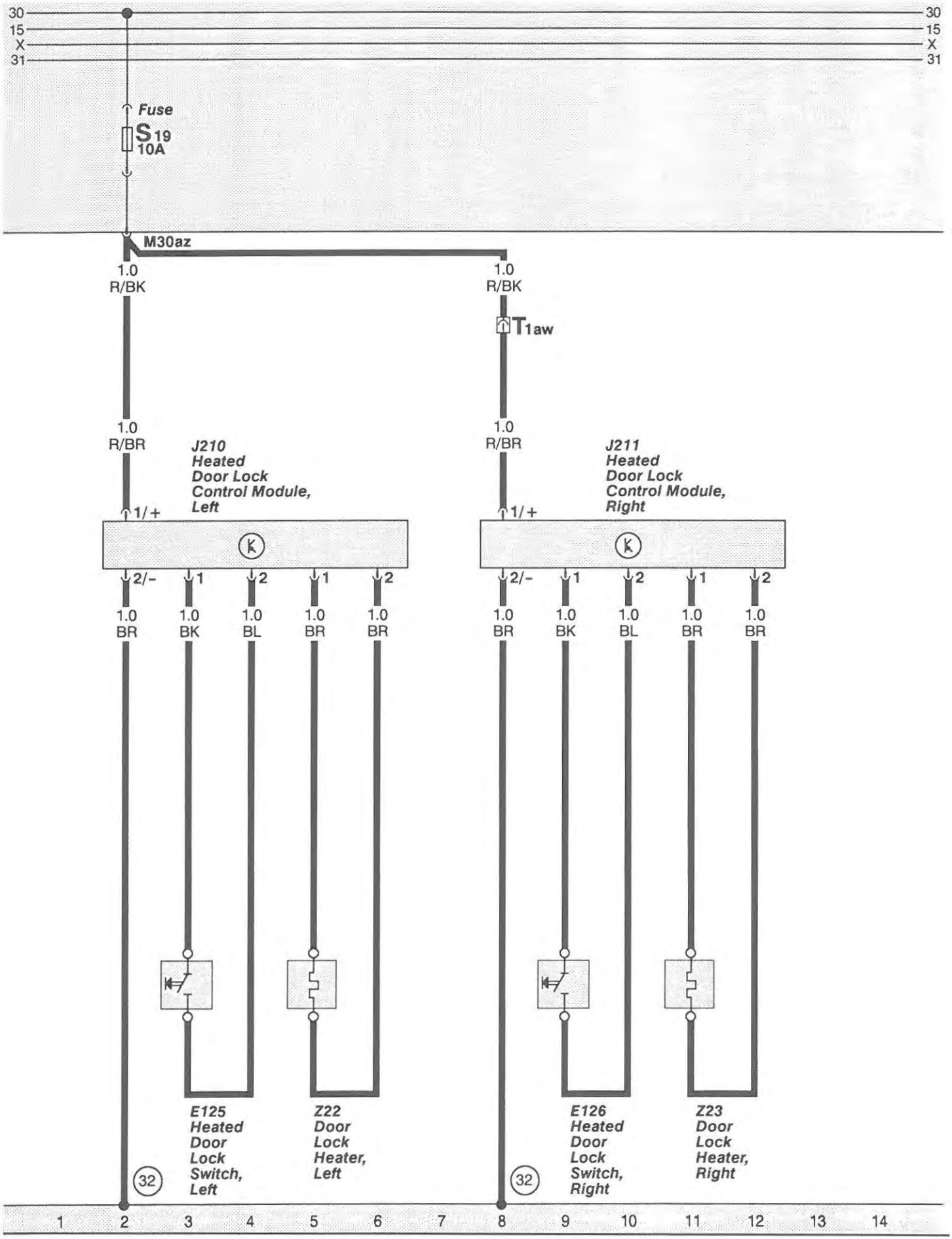
Description	Current track
Door Lock Heater, Left, Z22	5
Door Lock Heater, Right, Z23	11
Fuse, S19,10A	2
Heated Door Lock Control Module, Left, J210	2-6
Heated Door Lock Control Module, Right, J211	8-12
Heated Door Control Switch, Left, E125	3
Heated Door Lock Switch, Right, E126	9

Wire connectors

T1aw - single, brown, in heated door locks harness

Ground connections

(32) - ground connection, behind instrument panel, left


30
15
X
31
Fuse
S 19
10A
M30az
1.0
R/BK
1.0
R/BR
J210
Heated
Door Lock
Control Module,
Left
1/+
2/-
1
2
1
2
1.0
BR
1.0
BK
1.0
BL
1.0
BR
1.0
BR
E125
Heated
Door
Lock
Switch,
Left
Z22
Door
Lock
Heater,
Left
32
T1aw
J211
Heated
Door Lock
Control Module,
Right
E126
Heated
Door
Lock
Switch,
Right
Z23
Door
Lock
Heater,
Right
1 2 3 4 5 6 7 8 9 10 11 12 13 14

Description	Current track
Driver Seat Heater Temperature Sensor, G59	4
Fuse, S3, 30A	5
Fuse, S12, 15A	2
Heat Element, Driver Backrest, Z7	5
Heat Element, Driver Seat, Z6	5
Heat Element, Passenger Backrest, Z9,	13
Heat Element, Passenger Seat, Z8	13
Heat Regulating Switch, Driver Seat, E94	2-5
Heat Regulating Switch, Passenger Seat, E95	10-13
Passenger Seat Heater Control Switch, G60	12

Wire connectors

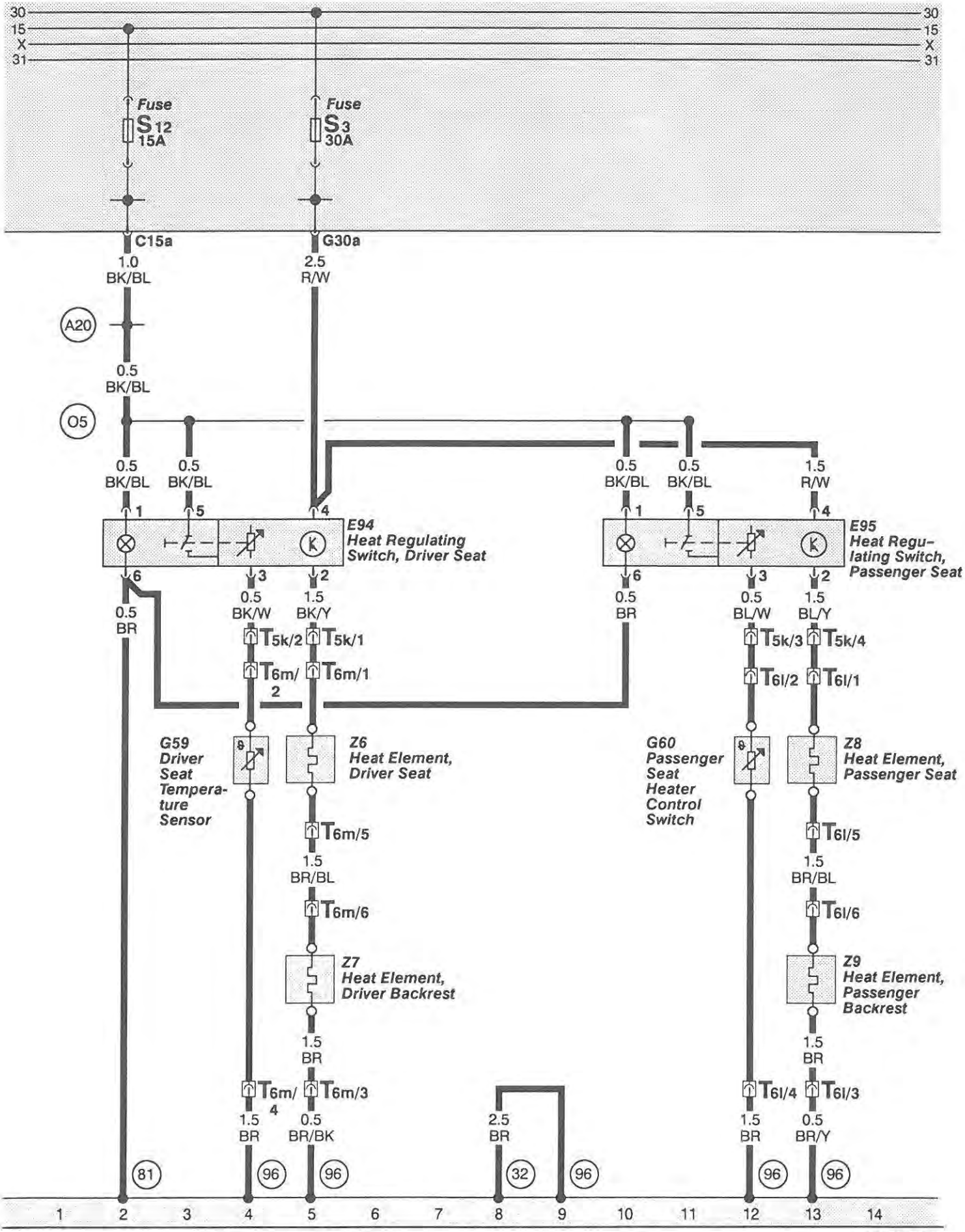
T5k - five point, yellow, connector station in auxiliary relay panel
T6l - six point, under passenger's seat
T6m - six point, under driver's seat

Welded wiring harness points

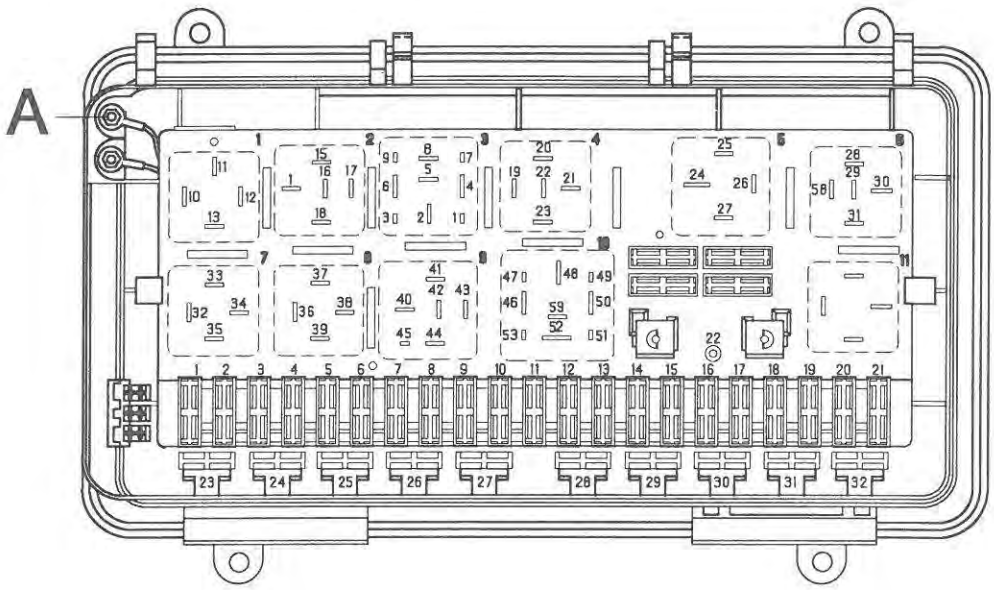
(A20) - wire connection (15a), in instrument panel wiring harness
(O5) - wire connection -1- (15a), in heated seats wiring harness

Ground connections

(32) - ground connection, behind instrument panel, left
(81) - ground connection -1-, in instrument panel wiring harness
(96) - ground connection -1-, in heated seats wiring harness


30
15
X
31
Fuse
S12
15A
Fuse
S3
30A
C15a
1.0
BK/BL
G30a
2.5
R/W
A20
0.5
BK/BL
O5
0.5
BK/BL
0.5
BK/BL
E94
Heat Regulating Switch, Driver Seat
0.5
BR
0.5
BK/W
1.5
BK/Y
T5k/2
T5k/1
T6m/2
T6m/1
G59
Driver Seat Temperature Sensor
Z6
Heat Element, Driver Seat
T6m/5
1.5
BR/BL
T6m/6
Z7
Heat Element, Driver Backrest
1.5
BR
T6m/4
T6m/3
1.5
BR
0.5
BR/BK
0.5
BK/BL
0.5
BK/BL
1.5
R/W
E95
Heat Regulating Switch, Passenger Seat
0.5
BR
0.5
BL/W
1.5
BL/Y
T5k/3
T5k/4
T6l/2
T6l/1
G60
Passenger Seat Heater Control Switch
Z8
Heat Element, Passenger Seat
T6l/5
1.5
BR/BL
T6l/6
Z9
Heat Element, Passenger Backrest
1.5
BR
T6l/4
T6l/3
1.5
BR
0.5
BR/Y
2.5
BR
81
96
96
32
96
96
96
1
2
3
4
5
6
7
8
9
10
11
12
13
14

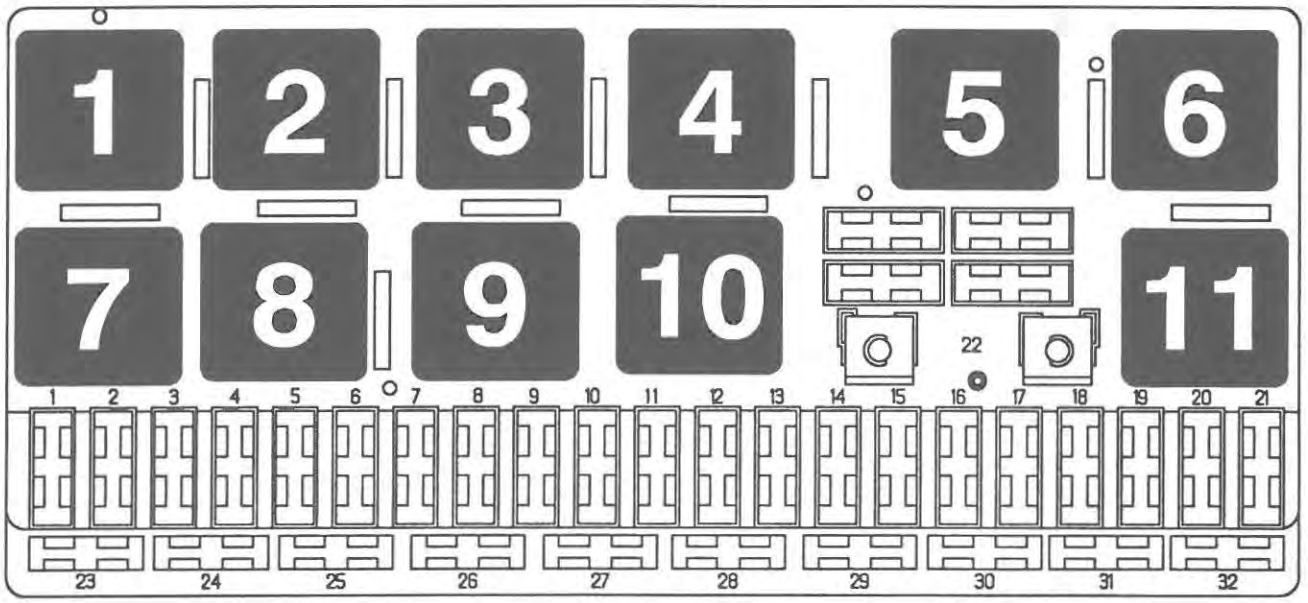
Fuse/Relay Panel (Left Side Plenum Tray)



On Board Diagnostic (OBD)

A – Wire Distributor For DLC (Data Link Connector); Terminal K

Fuse/Relay Panel (Left Side Plenum Tray)

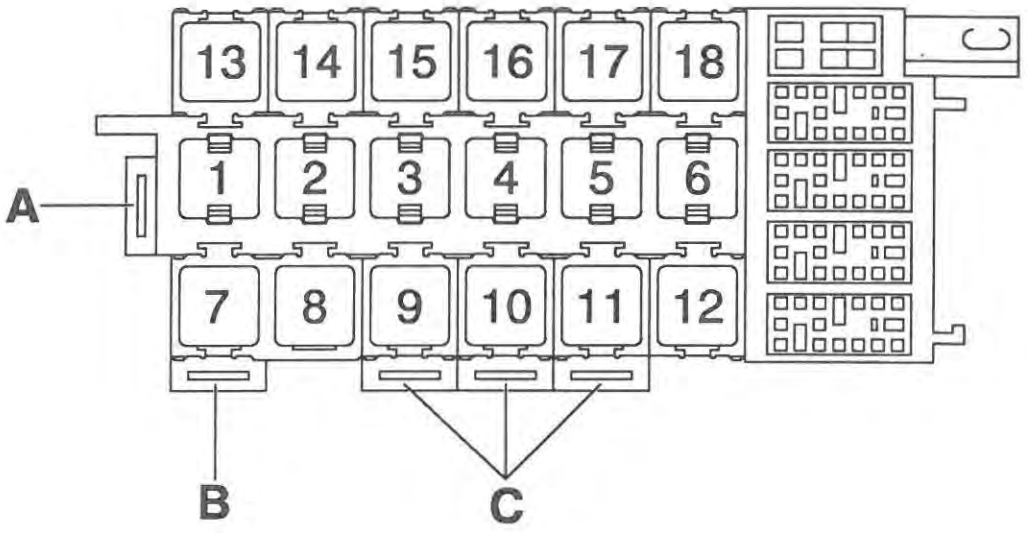


Relay location

6 Heater Fan Relay, J11 (Manual Air Conditioning Only)

11 Coolant FC (Fan Control) Relay, J26

Auxiliary Relay Panel With Connector Station



A - Not Used B - Fuse Adapter For Coolant Fan C - Fuse Adapter For Circuit Breakers 97-7024

Relay location

3 4 A/C Compressor Clutch Control Module, J153 (Manual Air Conditioning Only)

18 Third Speed Coolant FC (Fan Control) Relay, J135 (Manual Air Conditioning Only)

Fuse Arrangement For Fuse Adapter

- Fuse For Coolant Fan In Adapter B, S42 (60A)

Description	Current track
A/C Compressor Clutch Control Module, J153	9–22
A/C Compressor Clutch, N25	19
A/C Compressor Speed Sensor, G111	15–16
A/C Diode, J28	46
A/C Refrigerant High Pressure Switch, F23	55
A/C Refrigerant High Pressure Switch, F118	21
A/C Refrigerant Low Pressure Switch, F73	13
A/C Switch, E30	31–39
Ambient Temperature Switch, F38	38
Coolant Fan, V7	44,45
Coolant FC (Fan Control) Relay, J26	45–48
Coolant FC (Fan Control) Series Resistance, N39	44–45
Coolant FC (Fan Control) Thermo-switch, F18	48
Coolant FC (Fan Control) Thermo-switch, F54	51
DLC (Data Link Connector), K	16
ECM (Engine Control Module), J192	26–28
Fresh Air Blower Deries Resistance With Fuse, N24	3–8
Fresh Air Blower Switch, E9	1–7
Fresh Air Blower, V2	10
Fresh Air Control Lever Light, L16	1–2
Fresh Air/Recirculating Flap Two-Way Valve, N63	29
Fuse, S15, 25A	56
Fuse, S17, 30A	41
Fuse, S42, 60A	50
Heater Fan Relay, J11	25–27
Protection Diode, J201	18
Third Speed Coolant FC (Fan Control) Relay, J135	51–53

Wire connectors

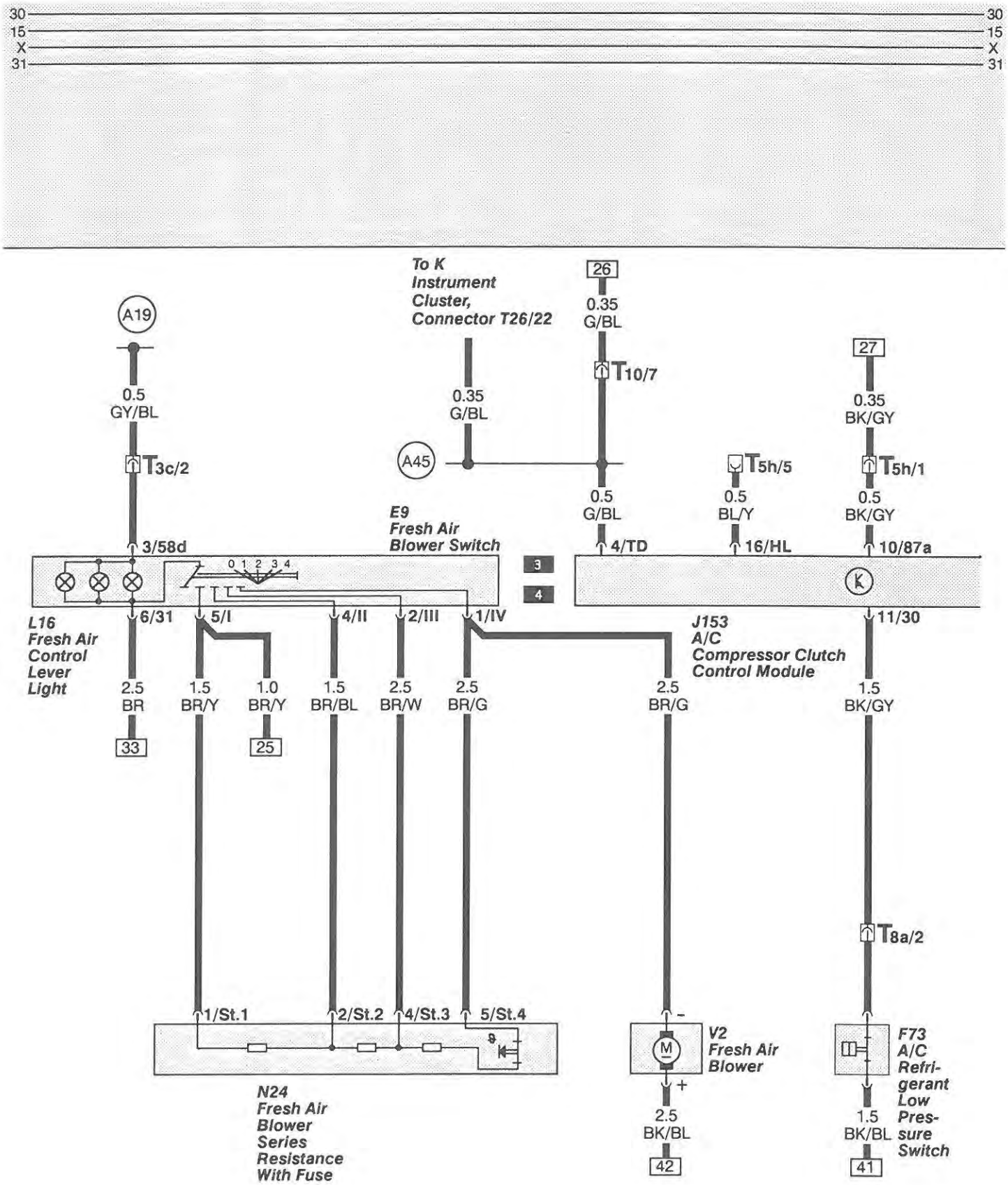
T1m – single, red, behind instrument panel, left
T1n – single, green, near compressor
T2am – double, green, near compressor
T2q – double, behind instrument panel, center
T2z – double, white, in left plenum, on fuse/relay panel, DLC (Data Link Connector)
T3c – three point, brown, behind instrument panel, center
T3f – three point, green, behind instrument panel, left
T5g – five point, green, connector station in auxiliary relay panel
T5h – five point, red, behind instrument panel, left
T8a – eight point, red, behind instrument panel, center
T10 – ten point, black, connector station in auxiliary relay panel
T16a – sixteen point, on ECM (Engine Control Module)
T20 – twenty point, on ECM (Engine Control Module)
T26 – twenty-six point, yellow, on Instrument Cluster
T38 – thirty-eight point, on TCM (Transmission Control Module)

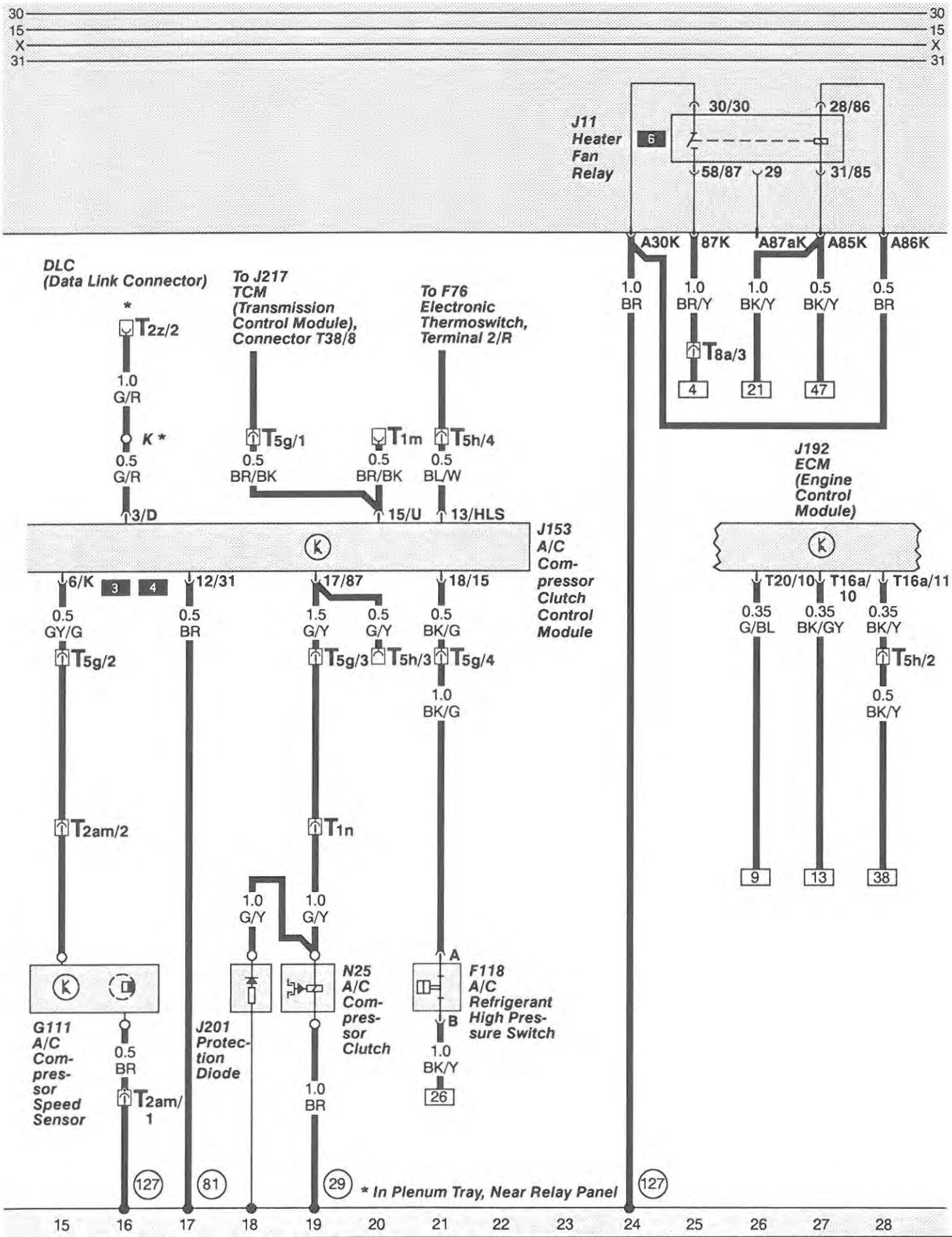
Welded wiring harness points

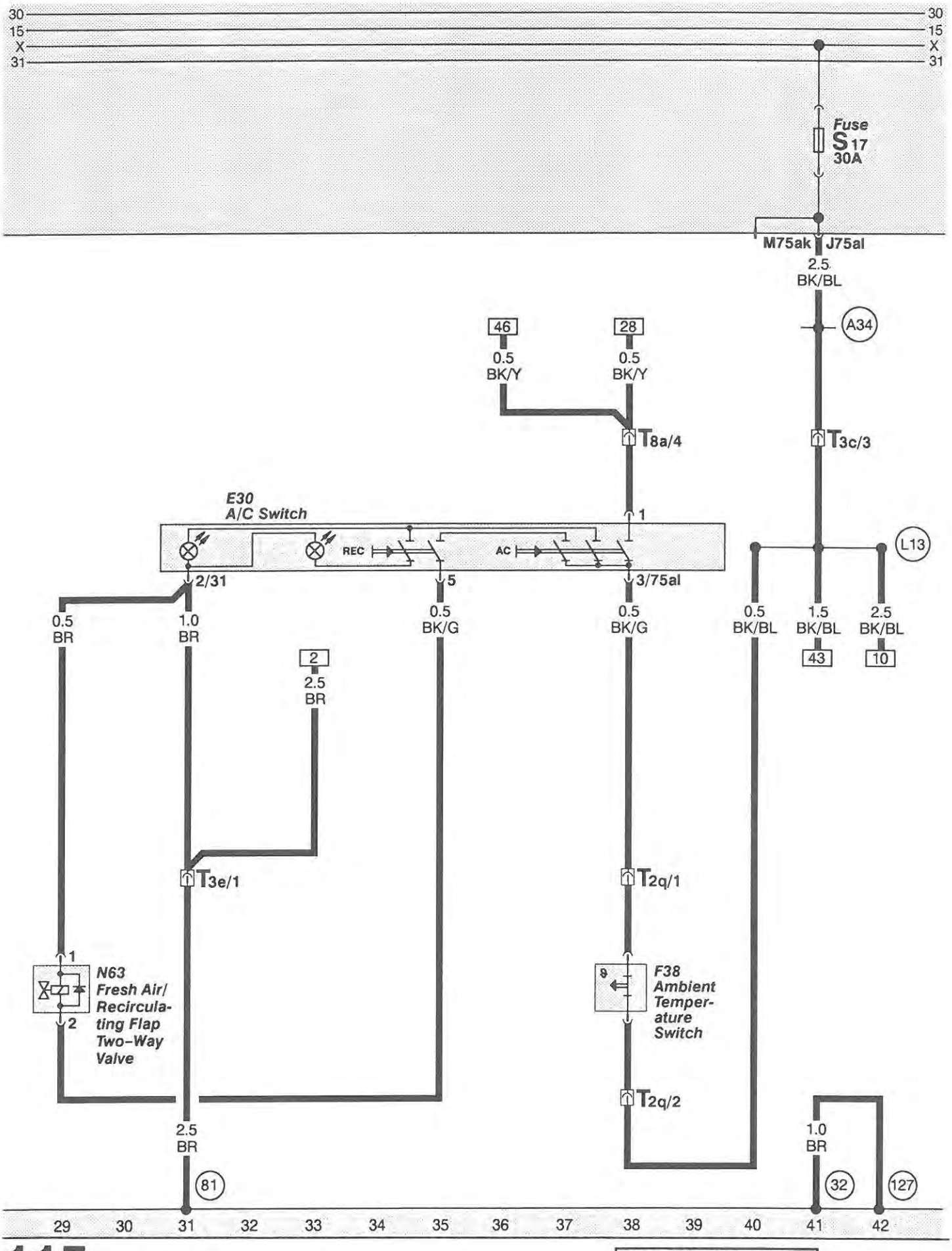
(A19) – wire connection (58d), in instrument panel wiring harness
(A34) – wire connection (75x), in instrument panel wiring harness
(A45) – wire connection (RPM signal), in instrument panel wiring harness
(L1) – plus connection (75), in A/C wiring harness
(L13) – plus connection (75 al), in fresh air blower wiring harness

Ground connections

(11) – ground connection, in battery box
(29) – ground connection, near compressor
(32) – ground connection, behind instrument panel, left
(81) – ground connection -1-, in instrument panel wiring harness
(127) – ground connection -1-, in A/C compressor wiring harness


30
15
X
31
To K Instrument Cluster, Connector T26/22
26
0.35 G/BL
T10/7
27
0.35 BK/GY
A19
0.5 GY/BL
T3c/2
0.35 G/BL
A45
T5h/5
T5h/1
0.5 G/BL
0.5 BL/Y
0.5 BK/GY
E9 Fresh Air Blower Switch
3/58d
0 1 2 3 4
3
4
4/TD
16/HL
10/87a
L16 Fresh Air Control Lever Light
6/31
5/I
4/II
2/III
1/IV
J153 A/C Compressor Clutch Control Module
11/30
2.5 BR
1.5 BR/Y
1.0 BR/Y
1.5 BR/BL
2.5 BR/W
2.5 BR/G
2.5 BR/G
1.5 BK/GY
33
25
T8a/2
1/St.1
2/St.2
4/St.3
5/St.4
N24 Fresh Air Blower Series Resistance With Fuse
V2 Fresh Air Blower
F73 A/C Refrigerant Low Pressure Switch
2.5 BK/BL
1.5 BK/BL
42
41

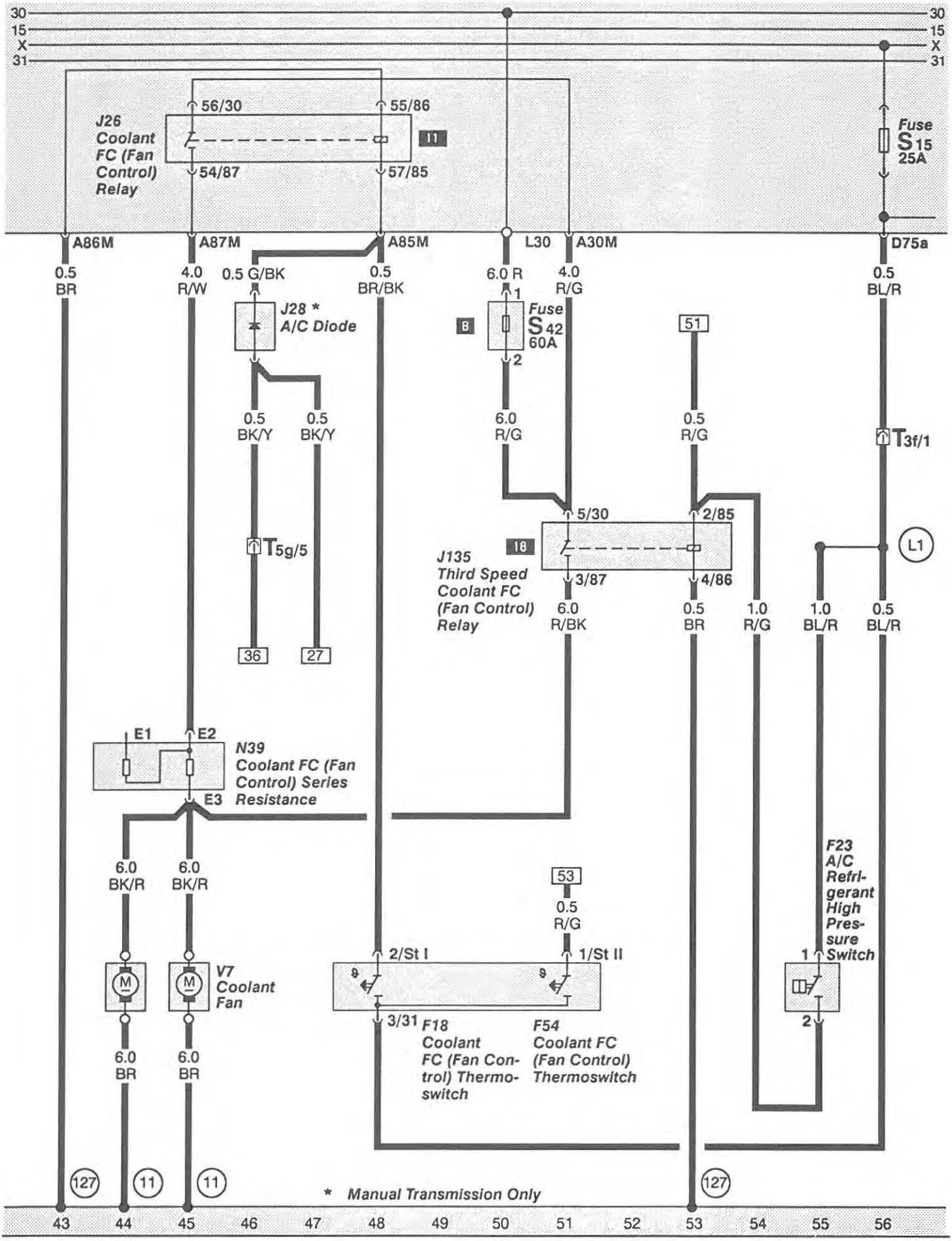

30
15
X
31
J11 Heater Fan Relay
6
30/30
28/86
58/87
29
31/85
A30K
87K
A87aK
A85K
A86K
1.0 BR
1.0 BR/Y
1.0 BK/Y
0.5 BK/Y
0.5 BR
T8a/3
4
21
47
DLC (Data Link Connector)
*
T2z/2
1.0 G/R
K *
0.5 G/R
3/D
To J217 TCM (Transmission Control Module), Connector T38/8
T5g/1
0.5 BR/BK
T1m
0.5 BR/BK
15/U
To F76 Electronic Thermoswitch, Terminal 2/R
T5h/4
0.5 BL/W
13/HLS
J153 A/C Compressor Clutch Control Module
6/K
3
4
0.5 GY/G
T5g/2
12/31
0.5 BR
17/87
1.5 G/Y
0.5 G/Y
T5g/3
T5h/3
18/15
0.5 BK/G
T5g/4
1.0 BK/G
J192 ECM (Engine Control Module)
T20/10
T16a/10
T16a/11
0.35 G/BL
0.35 BK/GY
0.35 BK/Y
T5h/2
0.5 BK/Y
9
13
38
T2am/2
T1n
1.0 G/Y
1.0 G/Y
A
B
F118 A/C Refrigerant High Pressure Switch
1.0 BK/Y
26
N25 A/C Compressor Clutch
1.0 BR
G111 A/C Compressor Speed Sensor
0.5 BR
T2am/1
J201 Protection Diode
127
81
29
* In Plenum Tray, Near Relay Panel
127
15
16
17
18
19
20
21
22
23
24
25
26
27
28



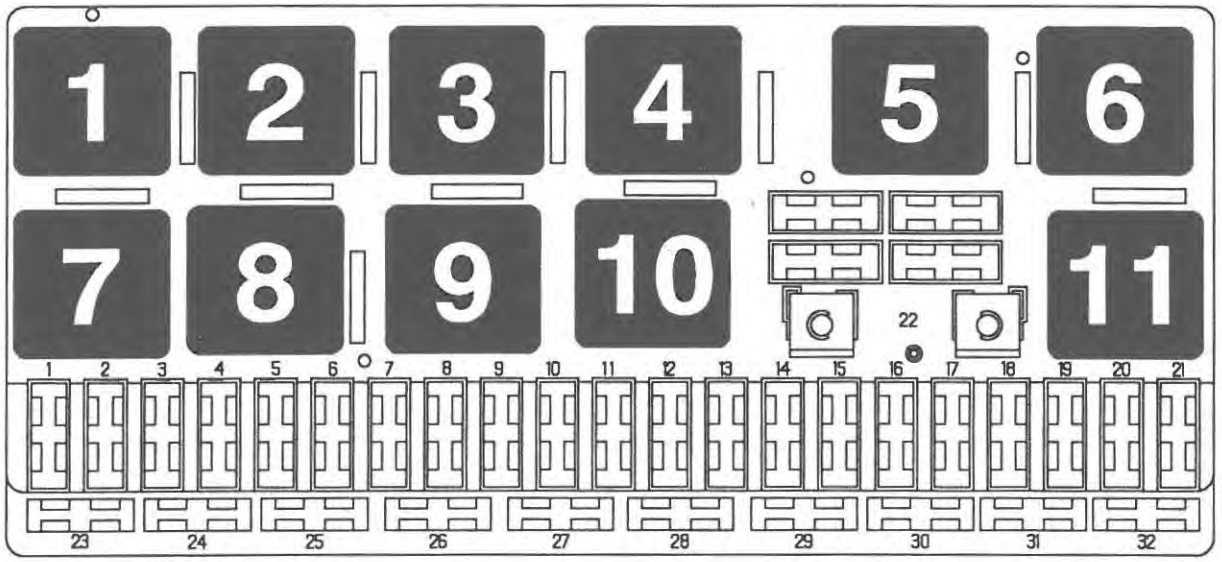
115 Manual air conditioning

Up to VIN: 8CPA 000100

90 S–USA/Canada
90 S Quattro–Canada


30
15
X
31
J26 Coolant FC (Fan Control) Relay
56/30
55/86
54/87
57/85
11
Fuse S15 25A
A86M
A87M
A85M
L30
A30M
D75a
0.5 BR
4.0 R/W
0.5 G/BK
0.5 BR/BK
6.0 R
4.0 R/G
0.5 BL/R
J28 * A/C Diode
Fuse S42 60A
B
1
2
51
0.5 BK/Y
0.5 BK/Y
6.0 R/G
0.5 R/G
T3f/1
T5g/5
5/30
2/85
18
J135 Third Speed Coolant FC (Fan Control) Relay
3/87
4/86
L1
36
27
6.0 R/BK
0.5 BR
1.0 R/G
1.0 BL/R
0.5 BL/R
E1
E2
E3
N39 Coolant FC (Fan Control) Series Resistance
6.0 BK/R
6.0 BK/R
53
0.5 R/G
F23 A/C Refrigerant High Pressure Switch
2/St I
1/St II
V7 Coolant Fan
3/31
F18 Coolant FC (Fan Control) Thermoswitch
F54 Coolant FC (Fan Control) Thermoswitch
6.0 BR
6.0 BR
127
11
11
127
* Manual Transmission Only
43
44
45
46
47
48
49
50
51
52
53
54
55
56

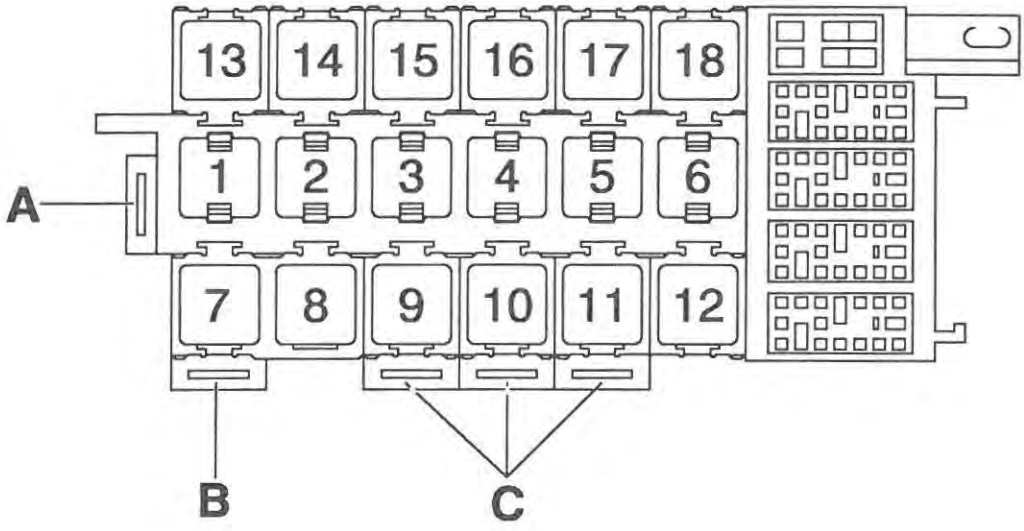
Fuse/Relay Panel (Left Side Plenum Tray)



Relay location

4 Headlight Washer System Relay, J39

Auxiliary Relay Panel With Connector Station



A - Not Used B - Fuse Adapter For Coolant Fan C - Fuse Adapter For Circuit Breaker 97-7024

Relay location

12 Seat Belt Warning Control Module, J34 (USA Only)

Description	Current track
ABS Warning Light, K47	64
Brake Fluid Level Warning Light, K33	33
Brake Fluid Level Warning Switch, F34	53
Clock Light, L8	42
Digital Clock, Y2	40–42
ECL (Engine Coolant Level) Warning Switch, F66	1
ECM (Engine Control Module), J192	65–66
ECT (Engine Coolant Temperature) Gauge, G3	43
ECT (Engine Coolant Temperature)/ ECL (Engine Coolant Level) Warning Light, K28	32
Electronic Thermoswitch, F76	3–4
Engine Oil Pressure Switch (0.3 Bar), F22	6
Engine Oil Pressure Switch, F1	8
Engine Oil Pressure Warning Light, K3	31
Fuel Gauge, G1	44
Fuse, S4, 15A	40
Fuse, S8, 10A	67
Fuse, S9, 10A	66
Fuse, S12, 15A	9
Fuse, S14, 5A	52
GEN (Generator) Warning Light, K2	62
Headlight High Beam Indicator Light, K1	68
Instrument Panel Light Dimmer Switch, E20	51
Instrument Panel Light, L10	54–59
MIL (Malfunction Indicator Lamp), K83	65
Mini Check System Control Module, J268	5–34
Parking Brake Indicator Light, K14	53
Parking Brake Warning Light Switch (Ground), F9	51
PSP (Power Steering Pressure) Switch, F88	55
Seat Belt Switch, Left, E24	24
Seat Belt Warning Control Module, J34	17–22
Seat Belt Warning Light, K19	49
Speedometer, G21	69–70
Tachometer, G5	47–48
Turn Signal Indicator Light, Left, K65	61
Turn Signal Indicator Light, Right, K64	60
Voltage Stabilizer, J6	45–46
VSS (Vehicle Speed Sensor), G22	69–70
Windshield Wiper Intermittent Switch, E22	58–61

Wire connectors

- T2r – double, red, on Seat Belt Switch, Left
- T3 – three point, behind instrument panel, left
- T4h – four point, black, in engine compartment, left
- T5 – five point, black, connector station in auxiliary relay panel
- T5c – five point, in Instrument Cluster
- T5h – five point, red, behind instrument panel, left
- T6g – six point, in Instrument Cluster
- T10 – ten point, black, connector station in auxiliary relay panel
- T10b – ten point, brown, connector station in auxiliary relay panel
- T10d – ten point, blue, connector station in auxiliary relay panel
- T12a – twelve point, brown, on Cruise Control, Control Module
- T13 – thirteen point, brown, on Turn Signal Switch/ Windshield Wiper Intermittent Switch
- T13a – thirteen point, black, on Light Switch/Headlight Dimmer/Flasher Switch
- T14 – fourteen point, on Mini Check System Control Module
- T26 – twenty-six point, yellow, on Instrument Cluster
- T26a – twenty-six, blue, on Instrument Cluster
- T35 – thirty-five point, on ABS Control Module

Welded wiring harness points

- (A2) – plus connection (15), in instrument panel wiring harness
- (A3) – plus connection (58), in instrument panel wiring harness
- (A5) – plus connection (right turn signal), in instrument panel wiring harness
- (A6) – plus connection (left turn signal), in instrument panel wiring harness
- (A7) – plus connection (58 D1), in instrument panel wiring harness
- (A17) – wire connection (61), in instrument panel wiring harness
- (A20) – wire connection (15a), in instrument panel wiring harness

(A21) – wire connection (86s), in instrument panel wiring harness

(A23) – wire connection (30al), in instrument panel wiring harness

(A26) – wire connection (driver's door contact switch), in instrument panel wiring harness

(A27) – wire connection (speed signal), in instrument panel wiring harness

(A42) – plus connection (fuel gauge), in instrument panel wiring harness

(A43) – wire connection (57l), in instrument panel wiring harness

(A44) – wire connection (57r), in instrument panel wiring harness

(A45) – wire connection (RPM signal), in instrument panel wiring harness

(A46) – plus connection (30-from radio), in instrument panel wiring harness

Ground connections

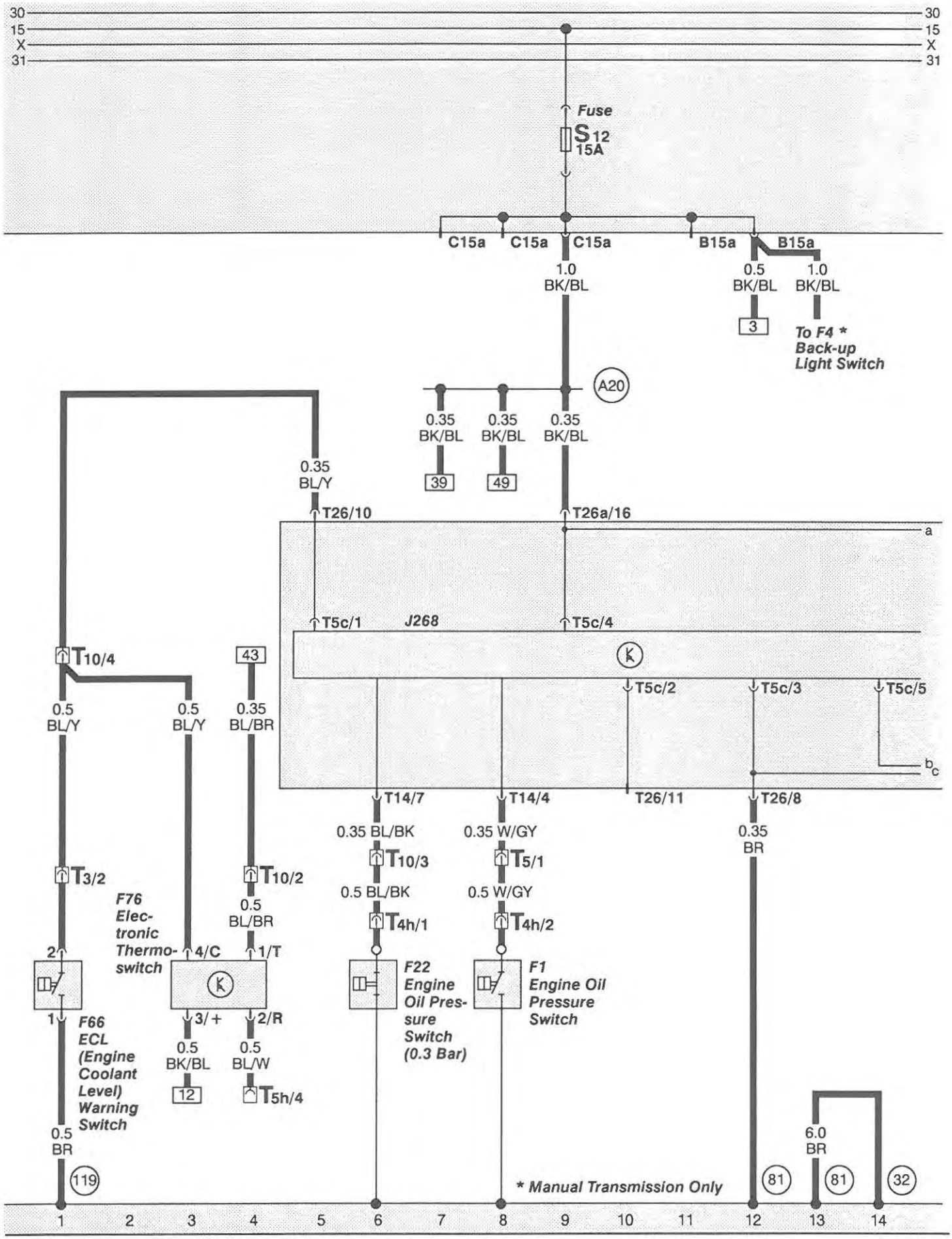
(32) – ground connection, behind instrument panel, left

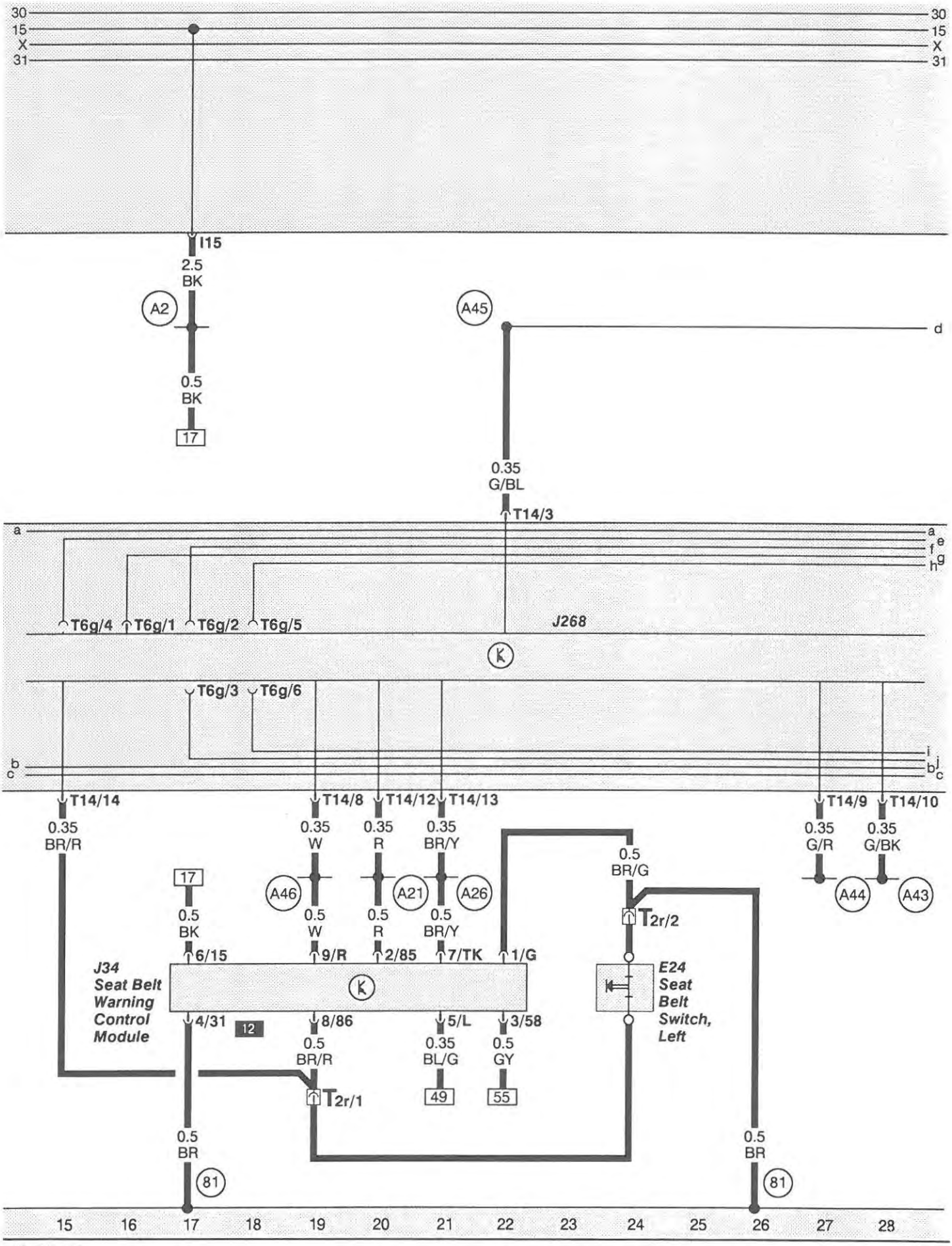
(81) – ground connection -1-, in instrument panel wiring harness

(83) – ground connection -1-, in right front wiring harness

(85) – ground connection -1-, in engine compartment wiring harness

(119) – ground connection -1-, in headlight wiring harness

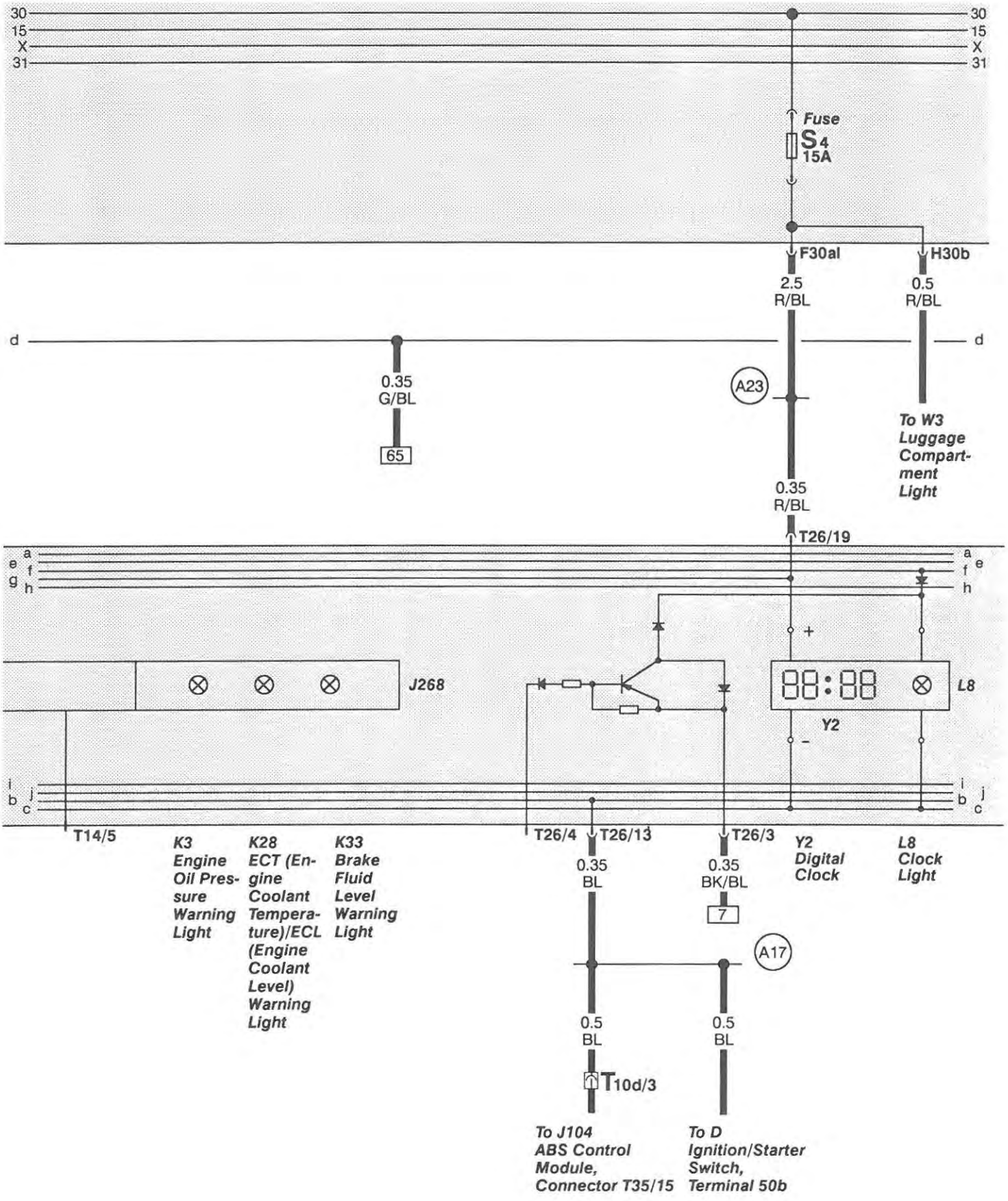

30
15
X
31
Fuse
S 12
15A
C15a
C15a
C15a
B15a
B15a
1.0
BK/BL
0.5
BK/BL
1.0
BK/BL
3
To F4 *
Back-up
Light Switch
A20
0.35
BK/BL
0.35
BK/BL
0.35
BK/BL
39
49
0.35
BL/Y
T26/10
T26a/16
a
T5c/1
J268
T5c/4
T5c/2
T5c/3
T5c/5
b
c
T10/4
43
0.5
BL/Y
0.5
BL/Y
0.35
BL/BR
T14/7
T14/4
T26/11
T26/8
0.35 BL/BK
0.35 W/GY
0.35
BR
T10/3
T5/1
T3/2
T10/2
0.5 BL/BK
0.5 W/GY
0.5
BL/BR
T4h/1
T4h/2
F76
Electronic
Thermo-
switch
2
4/C
1/T
F22
Engine
Oil Pressure
Switch
(0.3 Bar)
F1
Engine Oil
Pressure
Switch
1
3/+
2/R
F66
ECL
(Engine
Coolant
Level)
Warning
Switch
0.5
BK/BL
0.5
BL/W
12
T5h/4
0.5
BR
6.0
BR
119
* Manual Transmission Only
81
81
32
1
2
3
4
5
6
7
8
9
10
11
12
13
14



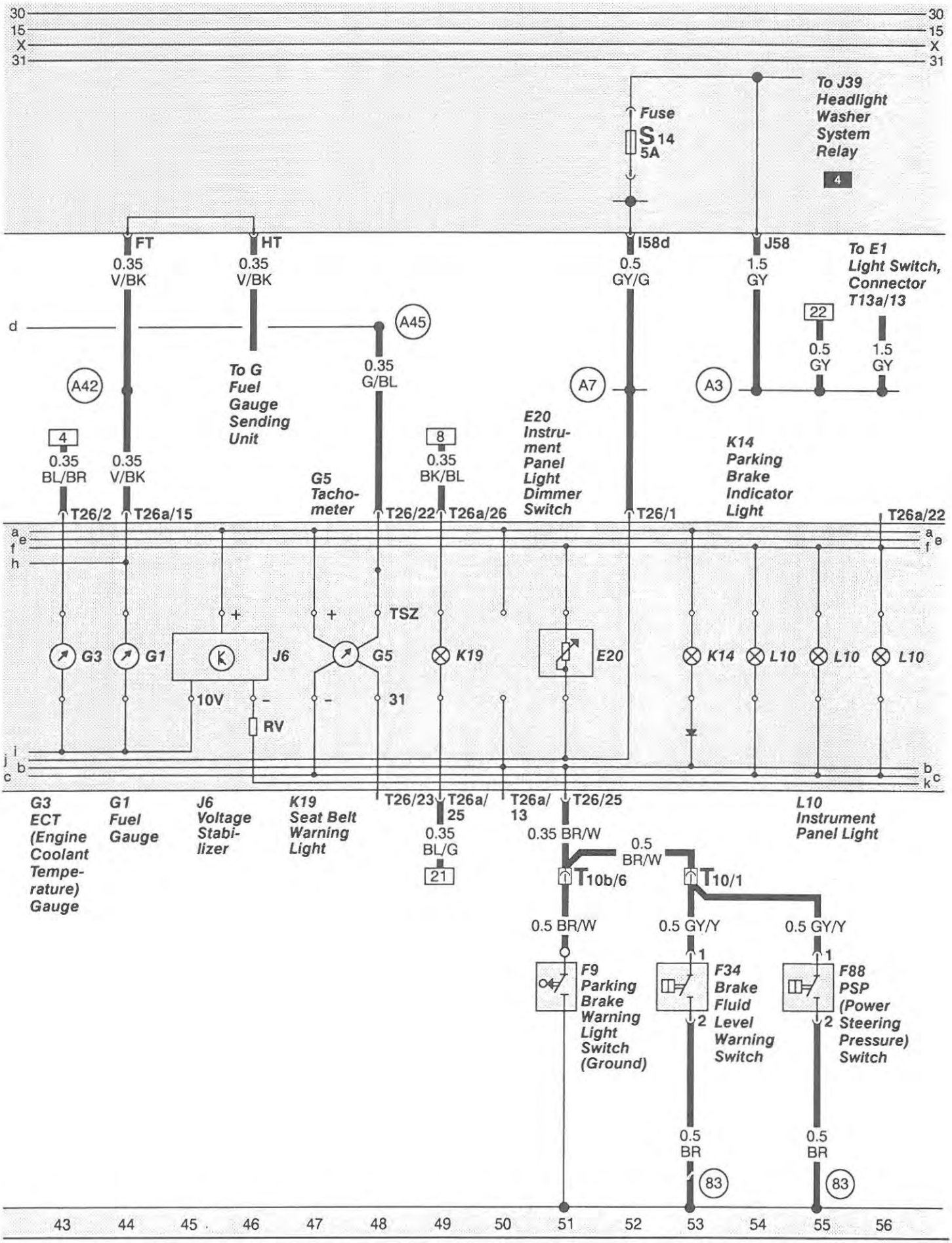
123 Mini-check system

Up to VIN: 8CPA 000100

90 S, 90 CS-USA/Canada
90 CS Quattro Sport–USA



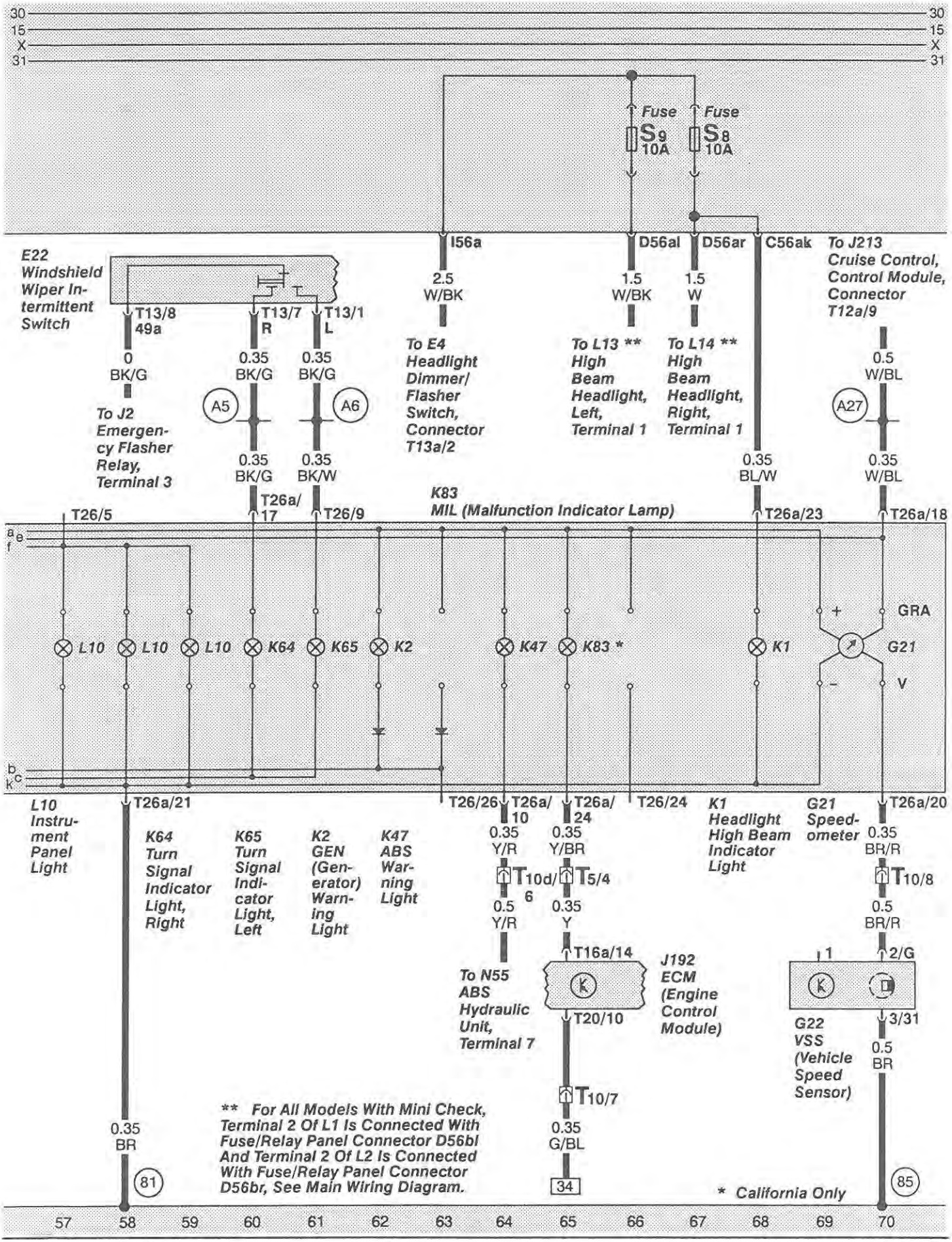
29 30 31 32 33 34 35 36 37 38 39 40 41 42



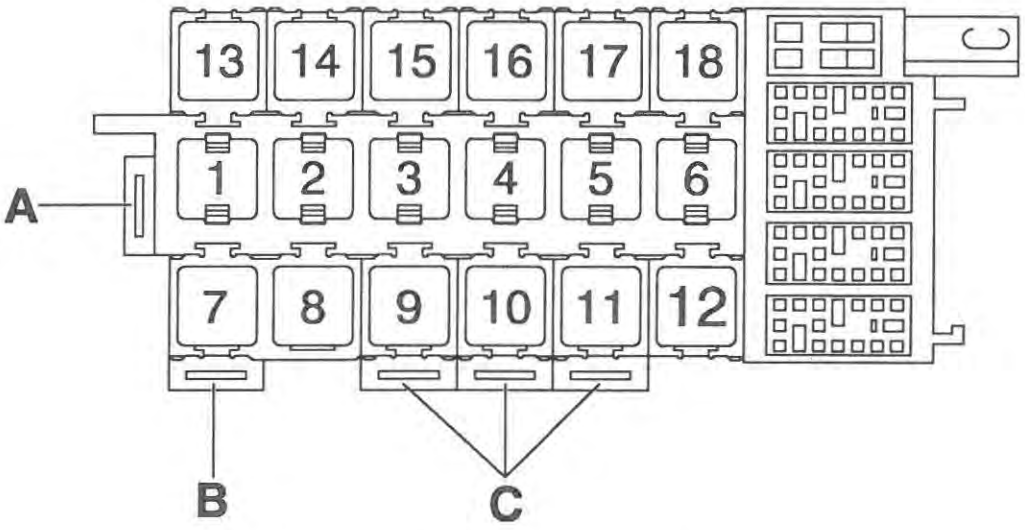
125 Mini-check system

Up to VIN: 8CPA 000100

90 S, 90 CS-USA/Canada
90 CS Quattro Sport–USA


30
15
X
31
Fuse S9 10A
Fuse S8 10A
I56a
D56al
D56ar
C56ak
E22 Windshield Wiper Intermittent Switch
T13/8 49a
T13/7 R
T13/1 L
2.5 W/BK
1.5 W/BK
1.5 W
To J213 Cruise Control, Control Module, Connector T12a/9
0 BK/G
0.35 BK/G
0.35 BK/G
0.5 W/BL
A5
A6
A27
To J2 Emergency Flasher Relay, Terminal 3
To E4 Headlight Dimmer/ Flasher Switch, Connector T13a/2
To L13 ** High Beam Headlight, Left, Terminal 1
To L14 ** High Beam Headlight, Right, Terminal 1
0.35 BK/G
0.35 BK/W
0.35 BL/W
0.35 W/BL
T26a/ 17
T26/9
K83 MIL (Malfunction Indicator Lamp)
T26/5
T26a/23
T26a/18
L10
L10
L10
K64
K65
K2
K47
K83 *
K1
GRA
G21
V
T26a/21
T26/26
T26a/ 10
T26a/ 24
T26/24
T26a/20
L10 Instrument Panel Light
K64 Turn Signal Indicator Light, Right
K65 Turn Signal Indicator Light, Left
K2 GEN (Generator) Warning Light
K47 ABS Warning Light
K1 Headlight High Beam Indicator Light
G21 Speedometer
0.35 Y/R
0.35 Y/BR
0.35 BR/R
T10d/ 6
T5/4
T10/8
0.5 Y/R
0.35 Y
0.5 BR/R
T16a/14
J192 ECM (Engine Control Module)
To N55 ABS Hydraulic Unit, Terminal 7
T20/10
T10/7
0.35 G/BL
34
1
2/G
3/31
G22 VSS (Vehicle Speed Sensor)
0.5 BR
0.35 BR
81
85
** For All Models With Mini Check, Terminal 2 Of L1 Is Connected With Fuse/Relay Panel Connector D56bl And Terminal 2 Of L2 Is Connected With Fuse/Relay Panel Connector D56br, See Main Wiring Diagram.
* California Only
57
58
59
60
61
62
63
64
65
66
67
68
69
70

Auxiliary Relay Panel With Connector Station



A – Not Used B – Fuse Adapter For Coolant Fan C – Fuse Adapter For Circuit Breakers 97-7024

Relay location

- 5 Power Window And Sunroof Control Module, J139
- 6 Power Window And Sunroof Control Module, J139

Description	Current track
Power Window Control Module, J139	1–5
Sunroof Circuit Breaker, S83, 20A	3
Sunroof Motor, V1	8
Sunroof Relay, J72	11–14
Sunroof Stop Switch (Closed Pos.), E56	6
Sunroof Stop Switch (Raise/Lower), E60	5
Sunroof Switch, E8	7–9

Wire connectors

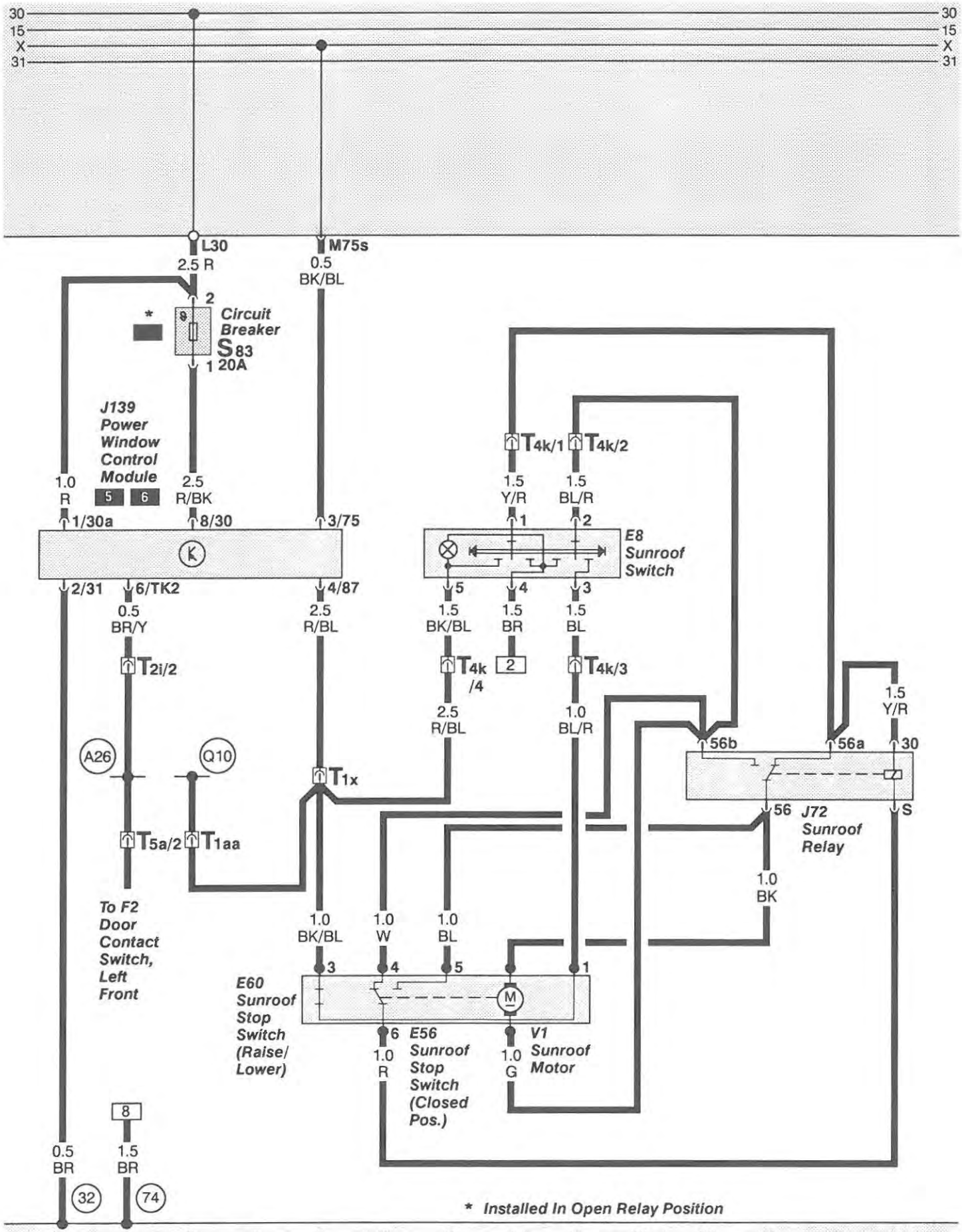
T1aa – single, green, in interior light and sunroof harness
T1x – single, green, behind instrument panel, left
T2i – double, white, for door contact switch, driver's door
T4k – four point, black, near sunroof switch
T5a – five point, brown, connector station in auxiliary relay panel

Welded wiring harness points

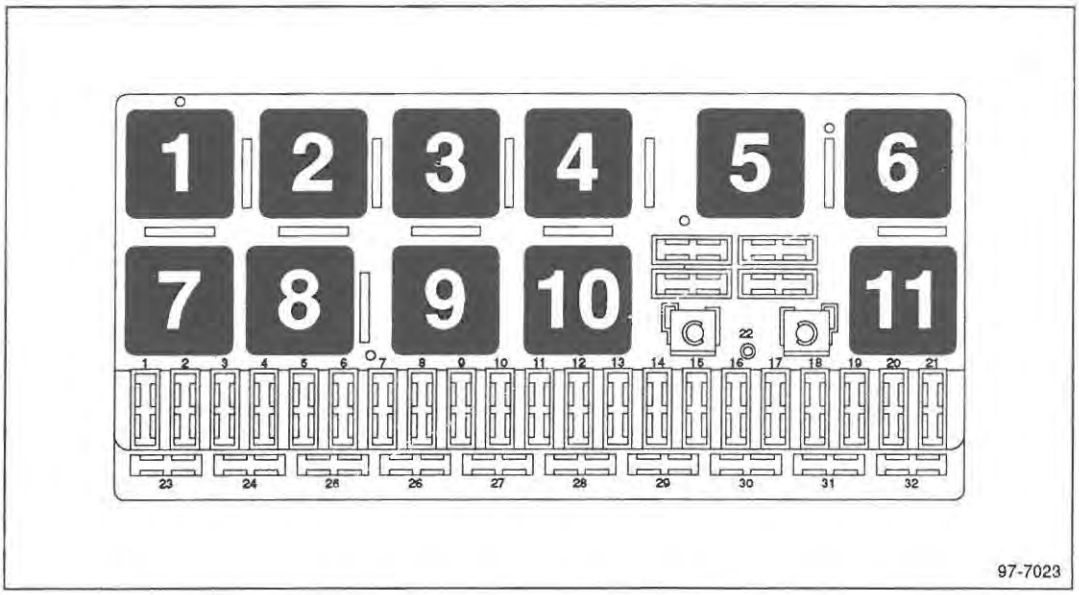
(A26) – wire connection (driver's door contact switch), in instrument panel wiring harness
(Q10) – plus connection (87), in power windows, power locks and door contact switch wiring harness

Ground connections

(32) – ground connection, behind instrument panel, left
(74) – ground connection, behind roof headliner


30
15
X
31
L30
2.5 R
M75s
0.5
BK/BL
2
Circuit
Breaker
S83
1 20A
*
J139
Power
Window
Control
Module
5
6
1.0
R
2.5
R/BK
1/30a
8/30
3/75
K
2/31
6/TK2
4/87
0.5
BR/Y
2.5
R/BL
T2i/2
A26
Q10
T1x
T5a/2
T1aa
To F2
Door
Contact
Switch,
Left
Front
T4k/1
T4k/2
1.5
Y/R
1.5
BL/R
1
2
E8
Sunroof
Switch
5
4
3
1.5
BK/BL
1.5
BR
1.5
BL
T4k
/4
2
T4k/3
2.5
R/BL
1.0
BL/R
1.5
Y/R
56b
56a
30
56
J72
Sunroof
Relay
S
1.0
BK
1.0
BK/BL
1.0
W
1.0
BL
3
4
5
1
E60
Sunroof
Stop
Switch
(Raise/
Lower)
M
6
1.0
R
E56
Sunroof
Stop
Switch
(Closed
Pos.)
1.0
G
V1
Sunroof
Motor
8
0.5
BR
1.5
BR
32
74
* Installed In Open Relay Position
1
2
3
4
5
6
7
8
9
10
11
12
13
14

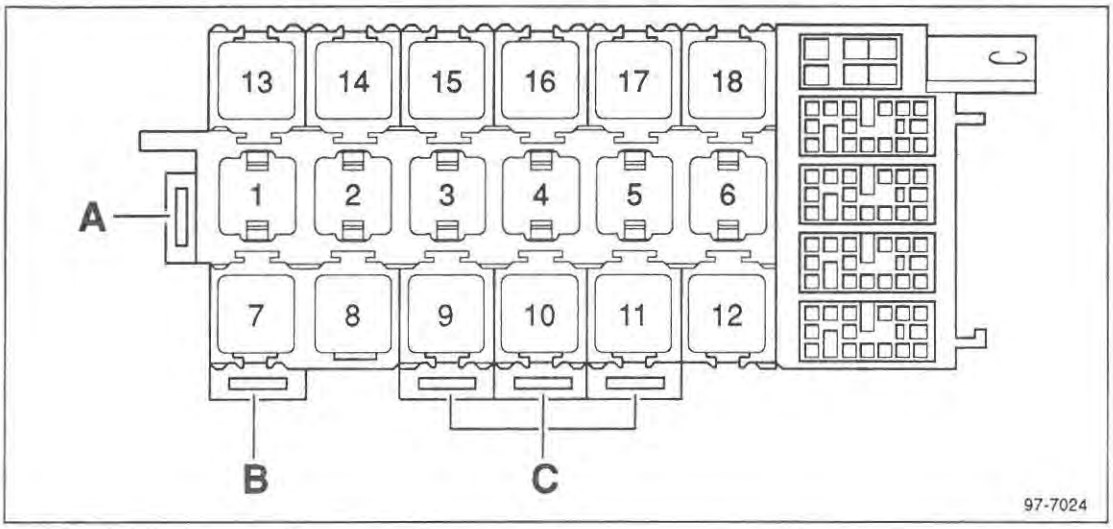
Fuse / Relay Panel (Left Side Plenum Tray)



Relay location

- **1** - Fog Light Relay, J5
- **4** - Headlight Washer System Relay, J39
- **5** - Load Reduction Relay, J59
- **7** - Dual Horn Relay, J4
- **8** - Alarm System Relay (Starter Interlock), J60 (Manual Transmission Only)
Bridge Connection (Manual Transmission Without Alarm System)
Open (Automatic Transmission)
- **9** - Washer / Wiper Intermittent Relay, J31
- **10** - Fuel Pump (FP) Relay, J17

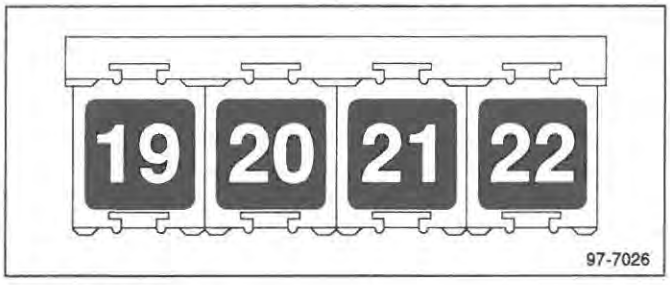
Auxiliary Relay Panel With Connector Station



Relay location

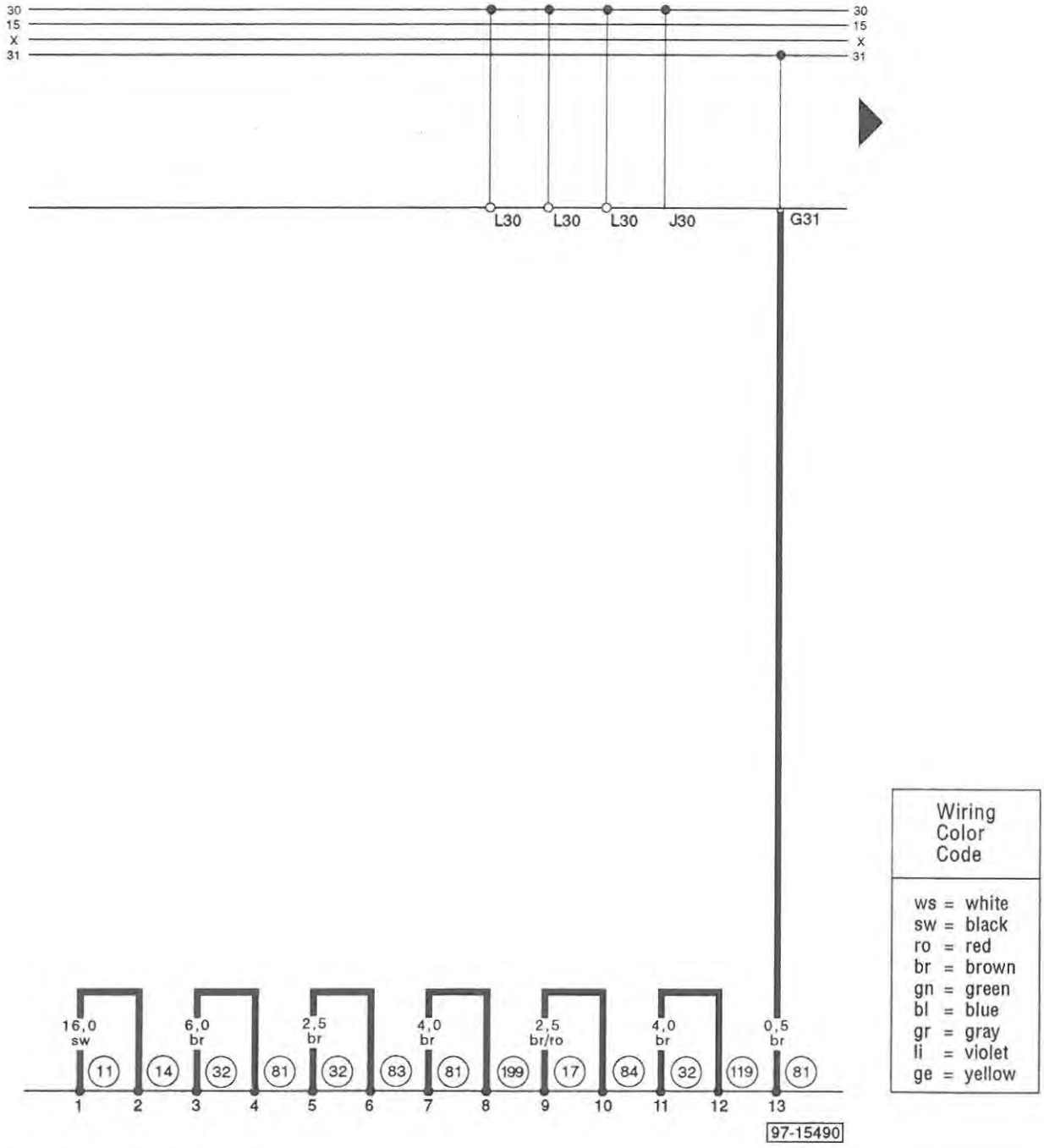
- 7 - Fuel Gauge Damper Control Module (Quattro Only), J273
- 5, 6 - Power Window And Sunroof Control Module, J139
- 9 - Airbag Control Light Relay, J312
- 12 - Seat Belt Warning Control Module, J34
- 15 - Lamp Control Module, Front, J123 (With Auto Check System Only)

Auxiliary Relay Panel, Rear (Left Side Plenum Tray)



Relay location

- 22 - ABS Combi Relay, J156
  Overload Protection For Airbag



Wiring Color Code
ws = white
sw = black
ro = red
br = brown
gn = green
bl = blue
gr = gray
li = violet
ge = yellow

(11) - Ground connection, in battery box

(14) - Ground connection, on transmission

(17) - Ground connection, on intake manifold

(32) - Ground connection, behind instrument panel, left

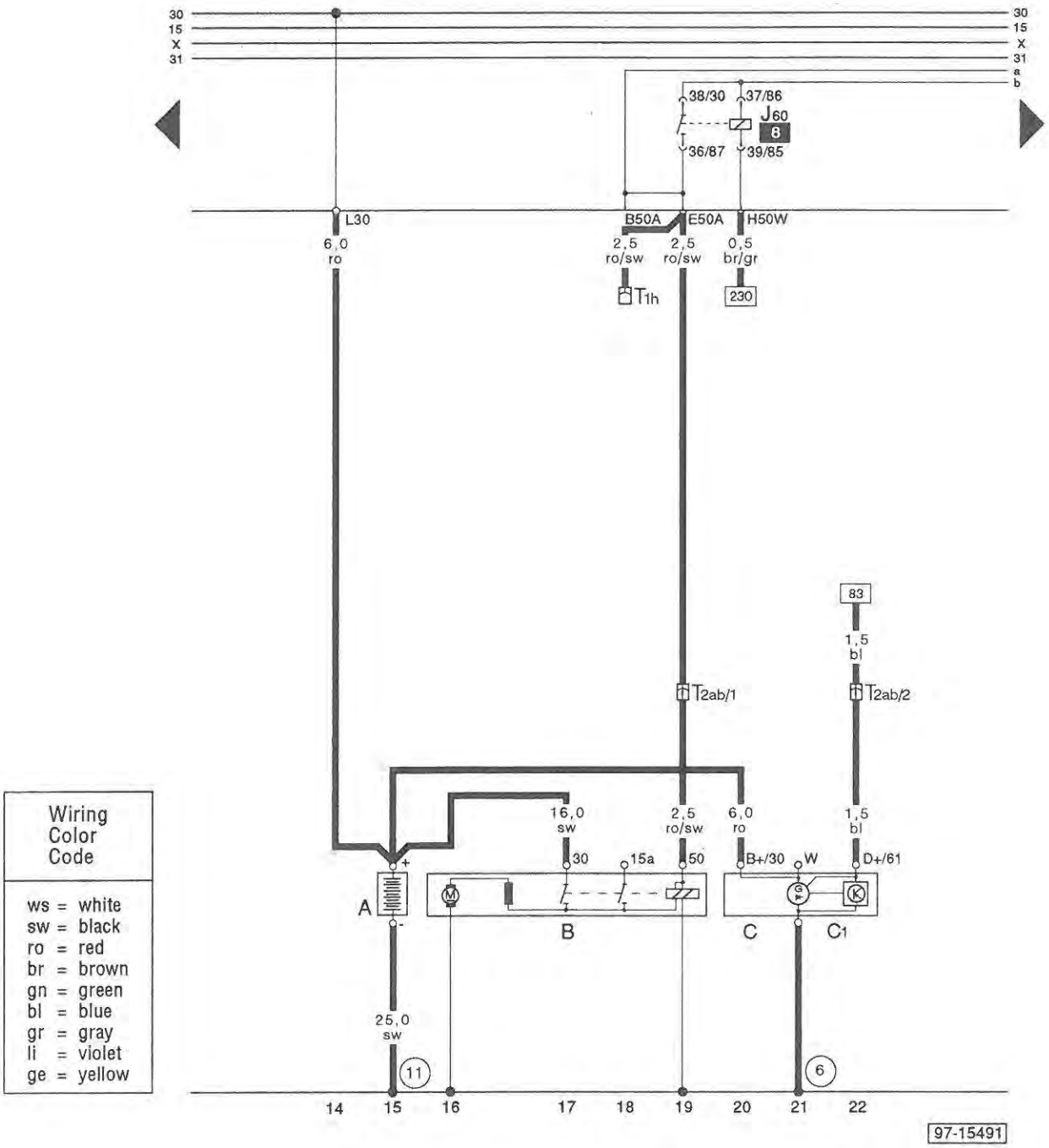
(81) - Ground connection -1-, in instrument panel wiring harness

(83) - Ground connection -1-, in right front wiring harness

(84) - Ground connection, engine block, in right front wiring harness

(119) - Ground connection -1-, in headlight wiring harness

(199) - Ground connection -3-, in instrument panel wiring harness

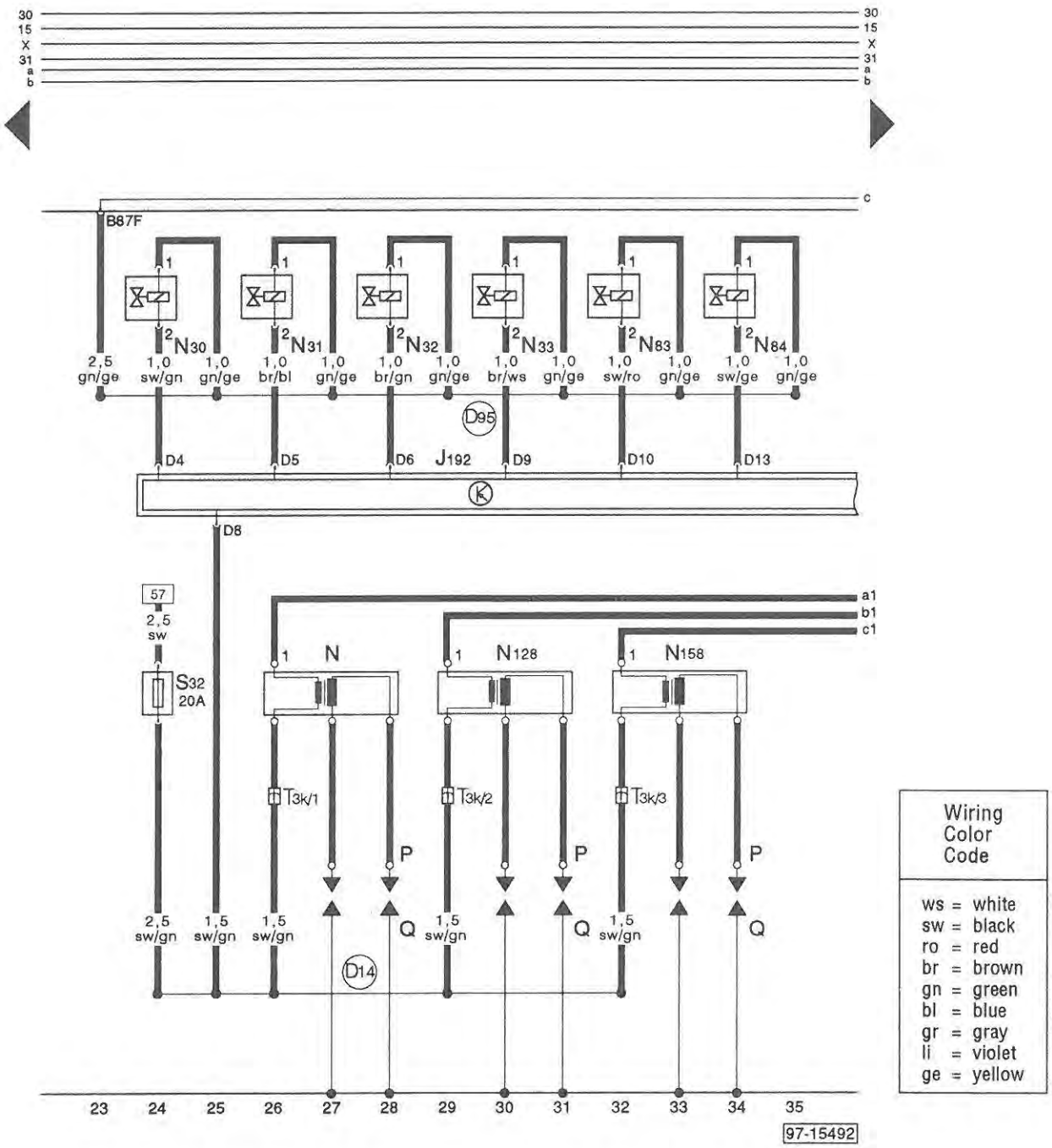


Wiring Color Code
ws = white
sw = black
ro = red
br = brown
gn = green
bl = blue
gr = gray
li = violet
ge = yellow

A = Battery
B = Starter
C = Generator
C1 = Voltage Regulator
J60 = Alarm System Relay
T1h = Wire Connector, single, red, behind insrument panel, left
T2ab = Wire Connector, double, gray, near starter

(6) - Ground strap, engine to generator

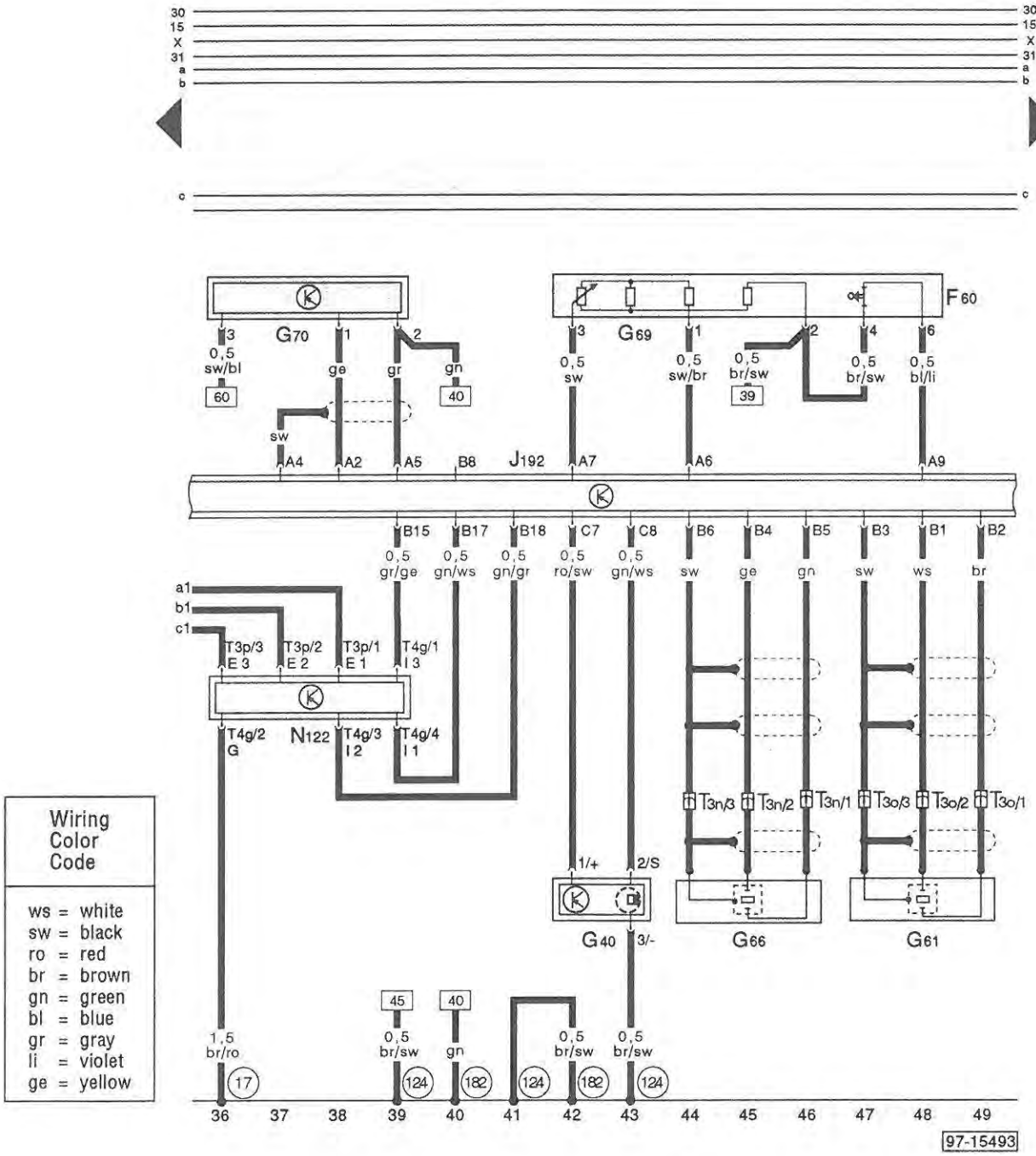
(11) - Ground connection, in battery box



Wiring Color Code
ws = white
sw = black
ro = red
br = brown
gn = green
bl = blue
gr = gray
li = violet
ge = yellow

J192 = MFI Engine Control Module (ECM)
N = Ignition Coil 1
N30 = Injector, Cyl. 1
N31 = Injector, Cyl. 2
N32 = Injector, Cyl. 3
N33 = Injector, Cyl. 4
N83 = Injector, Cyl. 5
N84 = Injector, Cyl. 6
N128 = Ignition Coil 2
N158 = Ignition Coil 3
P = Spark Plug Connector
Q = Spark Plugs
S32 = Fuse in auxiliary fuse holder (Ignition Coil, Engine Control III)
T3k = Wire Connector, 3 Point, white, on Ignition Coils, connector 15

(D14) - Wire connection (ignition coil - control module), in right front wiring harness
(D95) - Wire connection (injectors), in engine compartment wiring harness



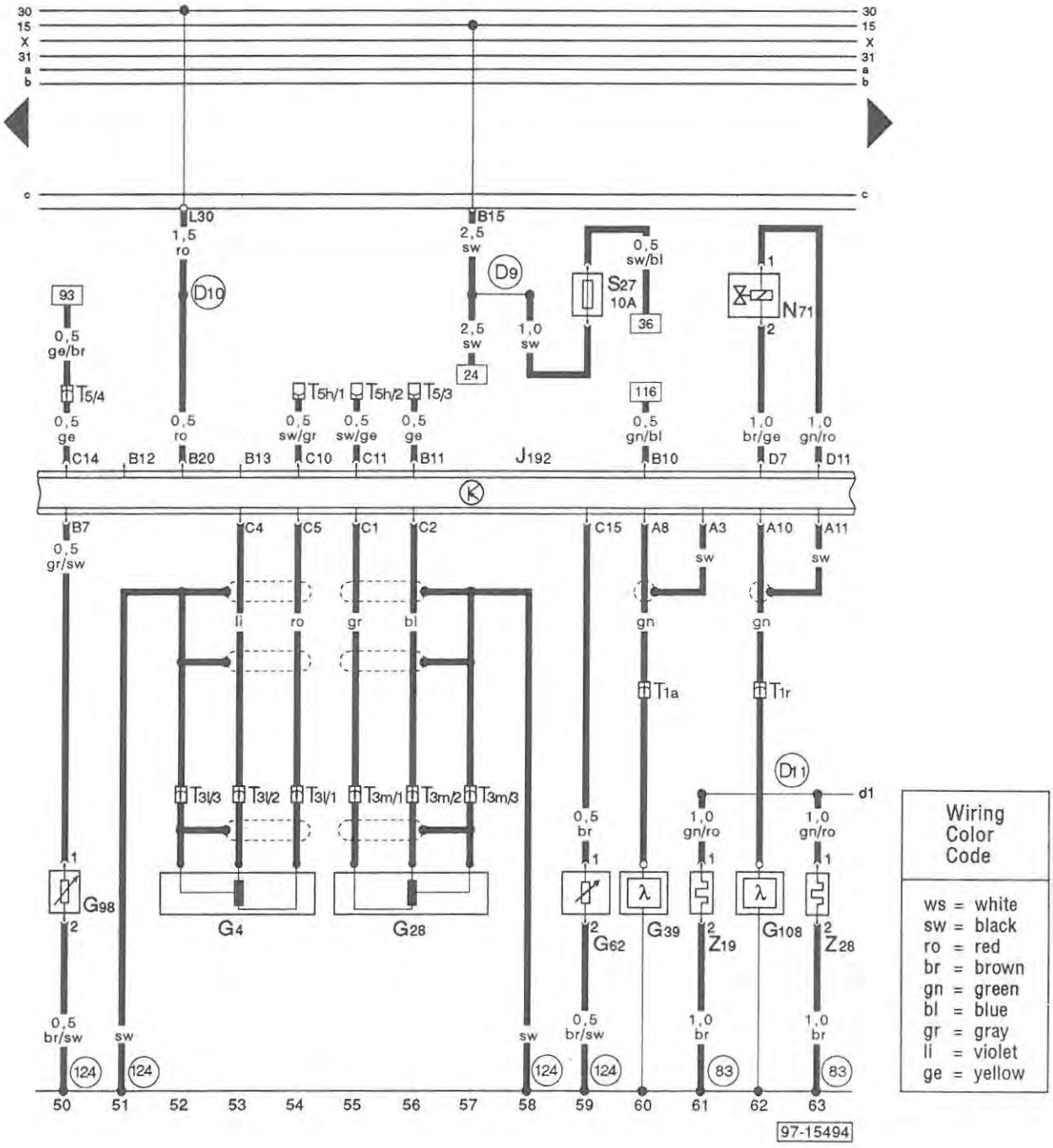
Wiring Color Code
ws = white
sw = black
ro = red
br = brown
gn = green
bl = blue
gr = gray
li = violet
ge = yellow

F60 = Closed Throttle Position (CTP) Switch
G40 = Hall Sensor
G61 = Knock Sensor (KS) I
G66 = Knock Sensor (KS) II
G69 = Throttle Position (TP) Sensor
G70 = Mass Air Flow (MAF) Sensor
J192 = MFI Engine Control Module (ECM)
N122 = Power Output Stage
T3n = Wire Connector, 3 Point, green, on Knock Sensor (KS) II
T3o = Wire Connector, 3 Point, blue, on Knock Sensor (KS) I
T3p = Wire Connector, 3 Point, white, on Power Output Stage
T4g = Wire Connector, 4 Point, brown, onPower Output Stage

(17) - Ground connection, on intake manifold

(124) - Ground connection, in engine compartment wiring harness right

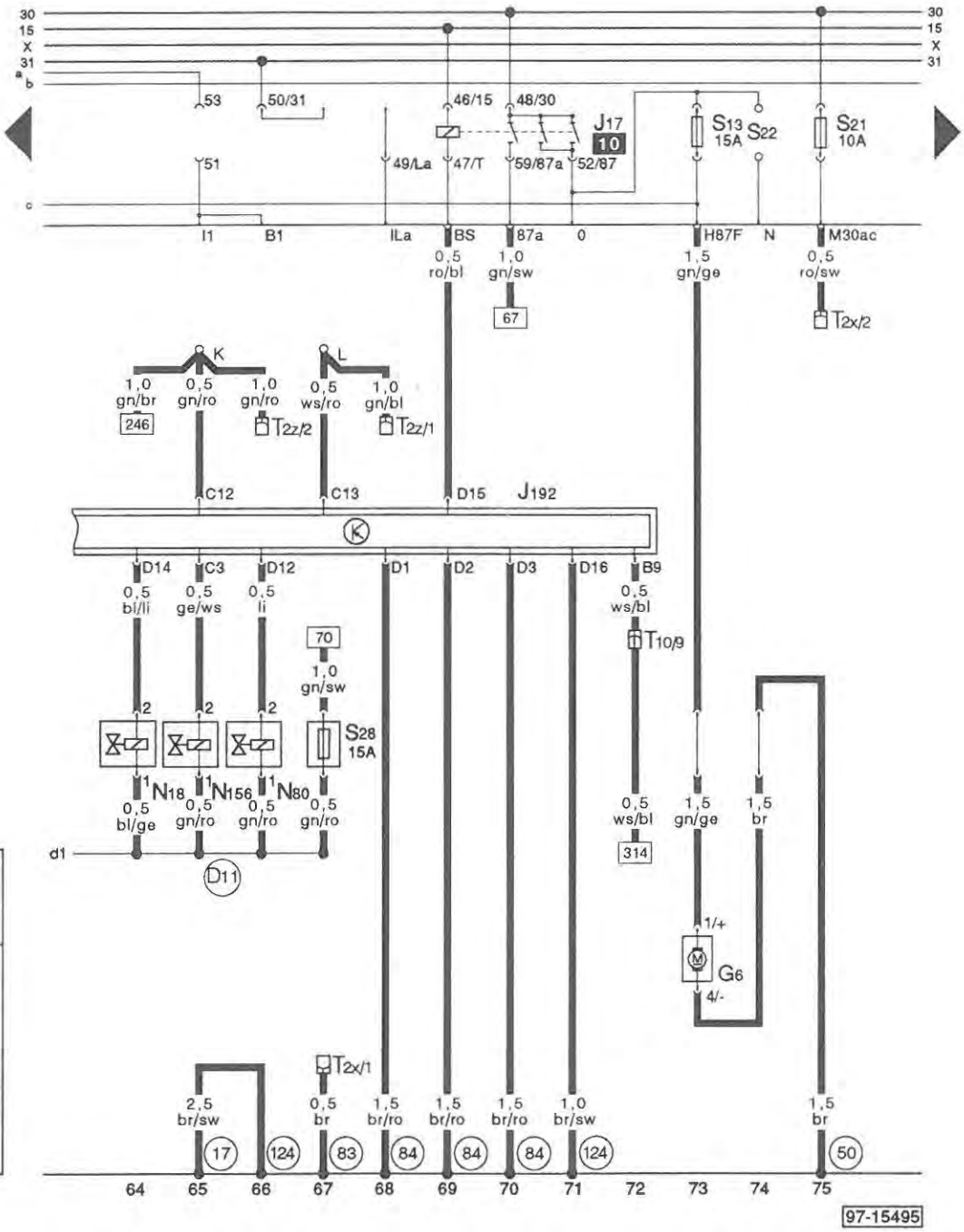
(182) - Ground connection -1-, in engine compartment wiring harness (6- Cylinder)



Wiring Color Code	
ws	= white
sw	= black
ro	= red
br	= brown
gn	= green
bl	= blue
gr	= gray
li	= violet
ge	= yellow

G4 = Crankshaft Position (CKP) Sensor
G28 = Engine Speed (RPM) Sensor
G39 = Heated Oxygen Sensor (HO2S)
G62 = EGR Temperature Sensor
G98 = Engine Coolant Temperature (ECT) Sensor
G108 = Heated Oxygen Sensor (HO2S) II
J192 = MFI Engine Control Module (ECM)
N71 = Idle Air Control (IAC) Valve
S27 = Fuse in auxiliary fuse holder (Engine Control I)
T1a = Wire Connector, single, in engine compartment, right
T1r = Wire Connector, single, in engine compartment, right
T3l = Wire Connector, 3 Point, black, on Crankshaft Position (CKP) Sensor
T3m = Wire Connector, 3 Point, gray, on Engine Speed (RPM) Sensor
T5 = Wire Connector, 5 Point, black, connector station in auxiliary relay panel
T5h = Wire Connector, 5 Point, red, behind instrument panel, left
Z19 = Oxygen Sensor (O2S) Heater
Z28 = Oxygen Sensor (O2S) II Heater

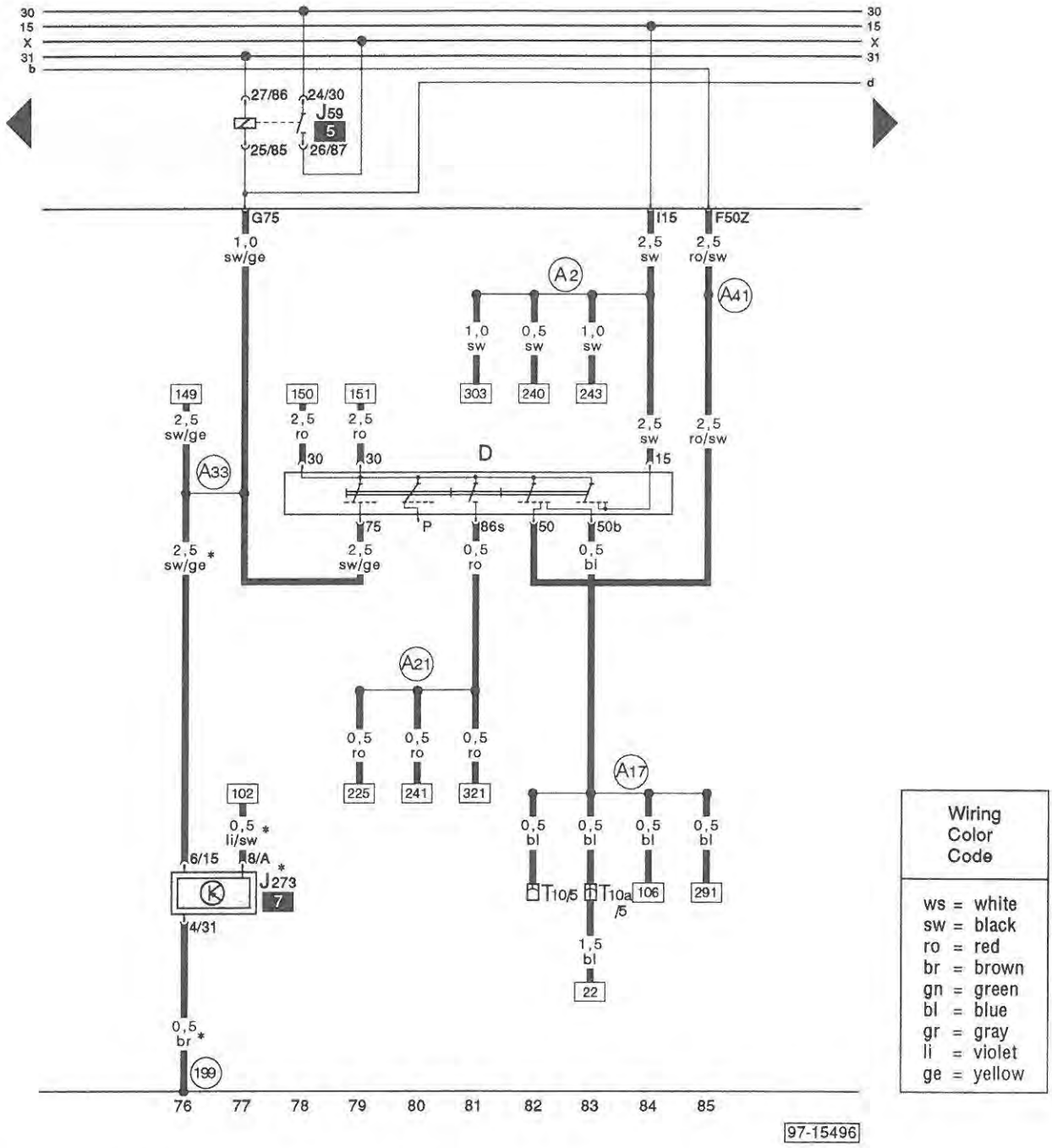
(83) - Ground connection -1-, in right front wiring harness
(124) - Ground connection, in engine compartment right wiring harness
(D9) - Plus connection (15, via fuse 27), in right front wiring harness
(D10) - Plus connection (30), in right front wiring harness
(D11) - Plus connection (15, via fuse 28), in right front wiring harness



Wiring Color Code
ws = white
sw = black
ro = red
br = brown
gn = green
bl = blue
gr = gray
li = violet
ge = yellow

G6 = Fuel Pump
J17 = Fuel Pump (FP) Relay
J192 = MFI Engine Control Module (ECM)
N18 = EGR Vacuum Regulator Solenoid Valve
N80 = Evaporative Emission (EVAP) Canister Purge Regulator Valve
N156 = Intake Manifold Change-Over Valve
S13 = Fuel pump Fuse, in Fuse Panel
S21 = On-Bord Diagnostics (OBD) Fuse, in Fuse Panel
S22 = Open
S28 = Fuse in auxiliary fuse holder (Engine Control II -Injectors)
T2x = Wire Connector, double, black, in Plenum, Near Relay Panel (Data Link Connector)
T2z = Wire Connector, double, white, in Plenum, Near Relay Panel (Data Link Connector)
T10 = Wire Connector, 10 Point, black, connector station in auxiliary relay panel

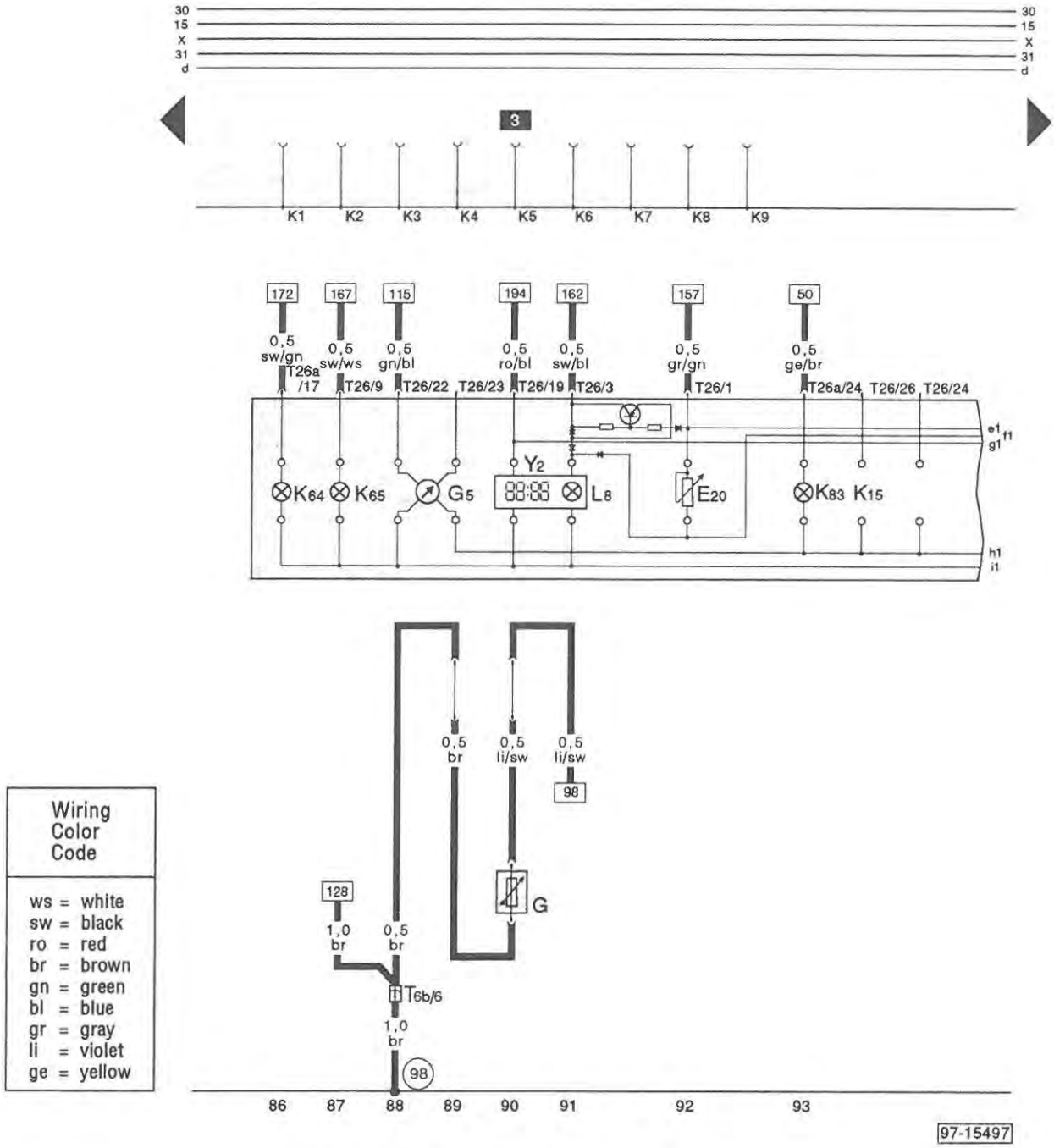
(17) - Ground connection, on intake manifold
(50) - Ground connection, in luggage compartment, left
(83) - Ground connection -1-, in right front wiring harness
(84) - Ground connection, engine block, in right front wiring harness
(124) - Ground connection -1-, in engine compartment wiring harness, right
(A27) - Wire connection (speed signal), in instrument panel wiring harness
(D1) - Wire connection (15a), in right front wiring harness
K - Wire Distributor For Data Link Connector (DLC); Terminal K
L - Wire Distributor For Data Link Connector (DLC); Terminal L



Wiring Color Code
ws = white
sw = black
ro = red
br = brown
gn = green
bl = blue
gr = gray
li = violet
ge = yellow

D = Ignition / Starter Switch
J59 = Load Reduction Relay
J273 = Fuel Gauge Damper Control Module
T10 = Wire Connector, 10 Point, black, connector station in auxiliary relay panel
T10a = Wire Connector, 10 Point, yellow, connector station in auxiliary relay panel

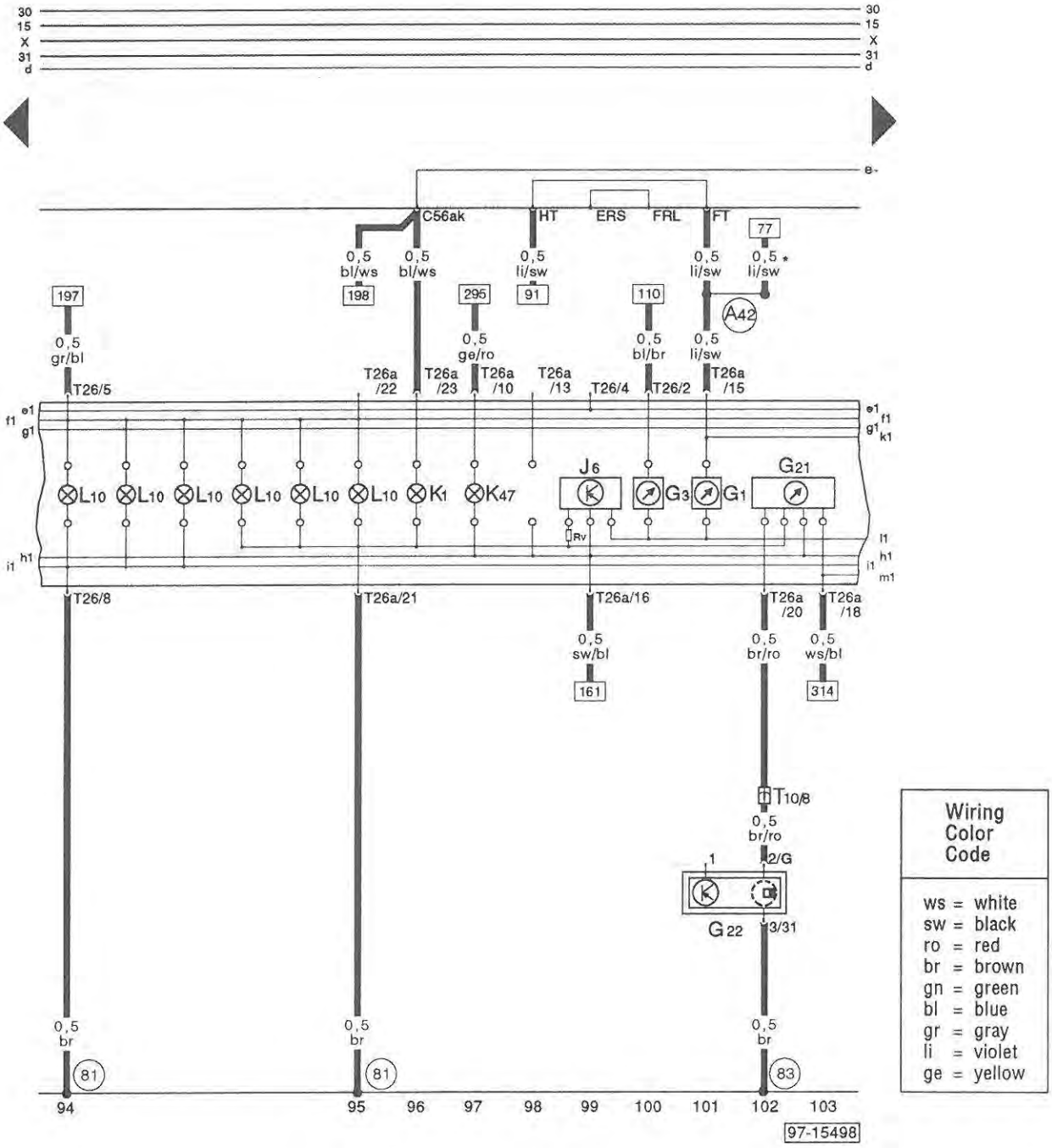
(199) - Ground connection -3-, in instrument panel wiring harness
(A2) - Plus connection (15), in instrument panel wiring harness
(A17) - Wire connection (61), in instrument panel wiring harness
(A21) - Wire connection (86s), in instrument panel wiring harness
(A33) - Wire connection (75), in instrument panel wiring harness
(A41) - Wire connection (50), in instrument panel wiring harness
* - Quattro only



Wiring Color Code
ws = white
sw = black
ro = red
br = brown
gn = green
bl = blue
gr = gray
li = violet
ge = yellow

E20 = Instrument Panel Light Dimmer Switch
G = Fuel Level Sensor
G5 = Tachometer
K15 = Starting Device Indicator Light
K64 = Turn Signal Indicator Light, Right
K65 = Turn Signal Indicator Light, Left
K83 = Malfunction Indicator Lamp (MIL)
L8 = Clock Light
T6b = Wire Connector, 6 Point, black, in luggage compartment, left
T26 = Wire Connector, 26 Point, yellow, on instrument cluster
T26a = Wire Connector, 26 Point, blue, on instrument cluster
Y2 = Digital Clock

(98) - Ground connection, in rear lid wiring harness



Wiring Color Code
ws = white
sw = black
ro = red
br = brown
gn = green
bl = blue
gr = gray
li = violet
ge = yellow

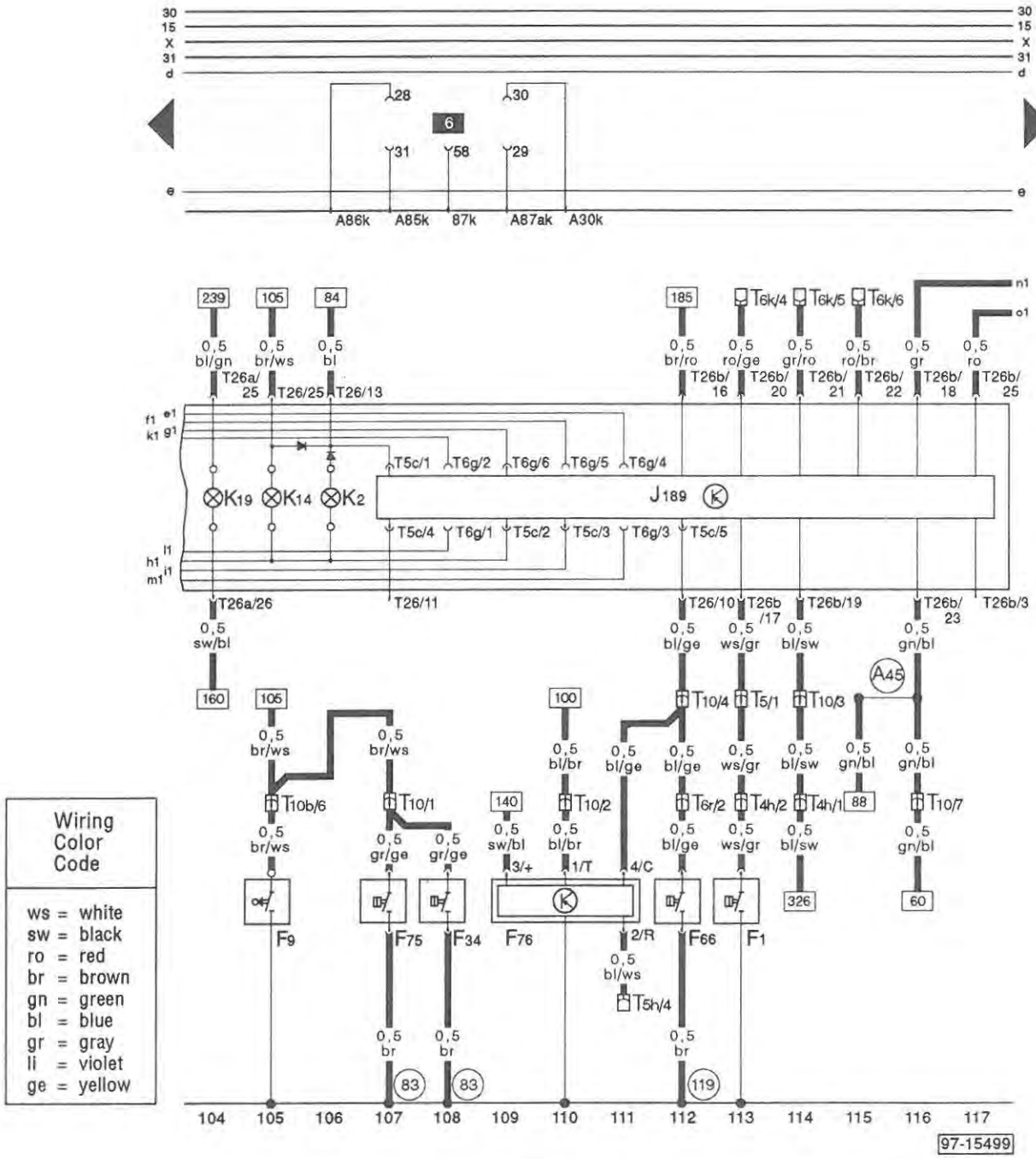
G1 = Fuel Gauge
G3 = Engine Coolant Temperature (ECT) Gauge
G21 = Speedometer
G22 = Vehicle Speed Sensor (VSS), Speedometer
J6 = Voltage Stabilizer
K47 = ABS Warning Light
L10 = Instrument Cluster Light
T10 = Wire Connector, 10 Point, black, connector station in auxiliary relay panel
T26 = Wire Connector, 26 Point, yellow, on instrument cluster
T26a = Wire Connector, 26 Point, blue, on instrument cluster

(81) - Ground connection -1-, in instrument panel wiring harness

(83) - Ground connection -1-, in right front wiring harness

(A42) - Plus connection (fuel gauge), in instrument panel wiring harness

* - Quattro only

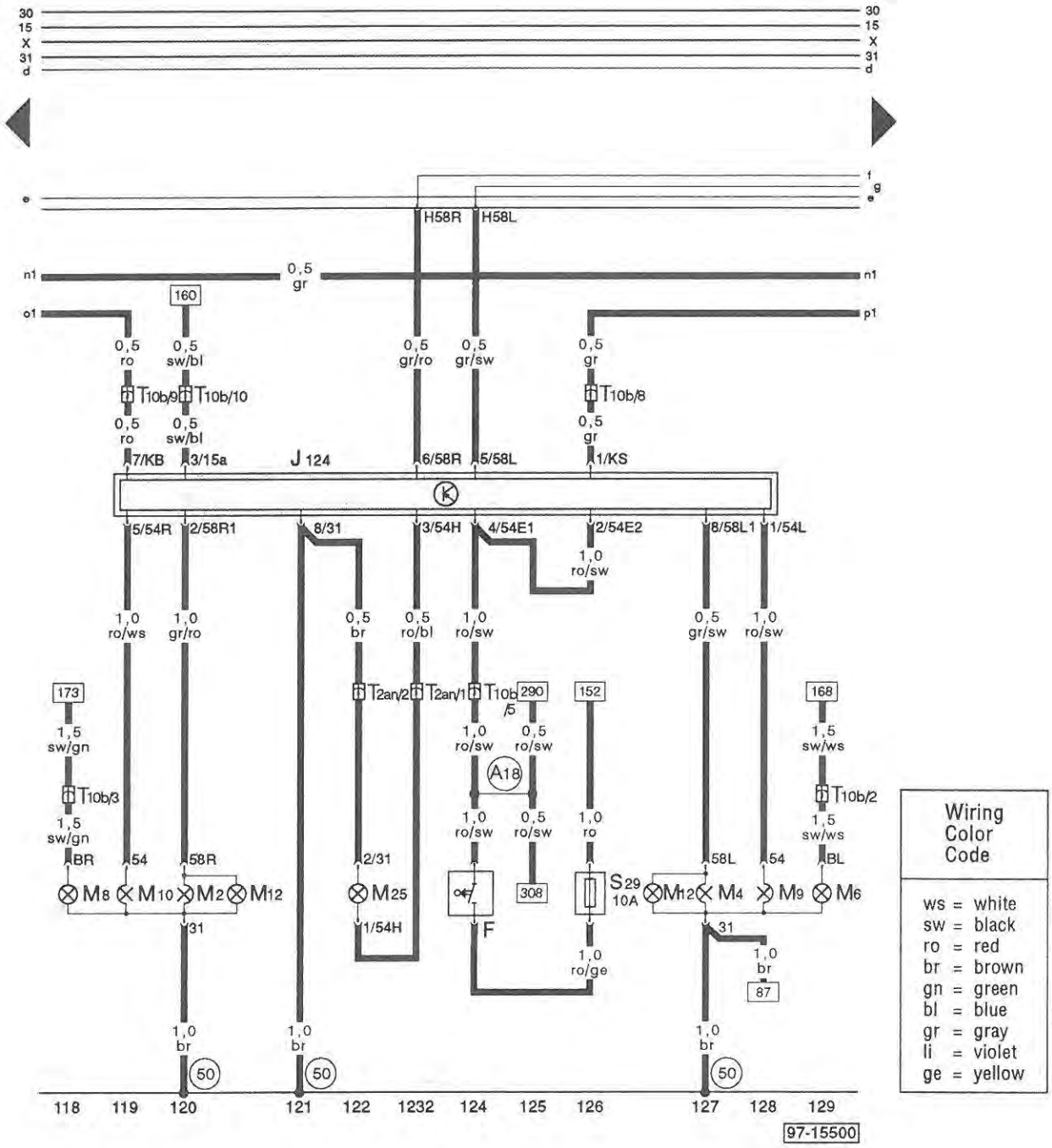


Wiring Color Code

ws	= white
sw	= black
ro	= red
br	= brown
gn	= green
bl	= blue
gr	= gray
li	= violet
ge	= yellow

F1 = Oil Pressure Switch
F9 = Parking Brake Warning Light Switch
F34 = Brake Fluid Level Warning Switch
F66 = Engine Coolant Level (ECL) Warning Switch
F75 = Hydraulic Fluid Low Level Sensor
F76 = Engine Coolant Temperature (ECT) Electronic Thermoswitch
J189 = Auto Check System
K2 = Generator (GEN) Warning Light
K14 = Parking Brake Indicator Light
K19 = Seat Belt Warning Light
T4h = Wire Connector, 4 Point, black, in engine compartment, right
T5 = Wire Connector, 5 Point, black, connector station in auxiliary relay panel
T5c = Wire Connector, 5 Point, on instrument cluster
T5h = Wire Connector, 5 Point, red, behind instrument panel, left
T6g = Wire Connector, 6 Point, on instrument cluster
T6k = Wire Connector, 6 Point, black, behind console
T6r = Wire Connector, 6 Point, black, behind instrument panel, left
T10 = Wire Connector, 10 Point, black, connector station in auxiliary relay panel
T10b = Wire Connector, 10 Point, brown, connector station in auxiliary relay panel
T26 = Wire Connector, 26 Point, yellow, on instrument cluster
T26a = Wire Connector, 26 Point, blue, on instrument cluster
T26b = Wire Connector, 26 Point, white, on instrument cluster (on auto - check - system monitor)

(83) - Ground connection -1-, in right front wiring harness
(119) - Ground connection -1-, in headlight wiring harness
(A45) - Wire connection (RPM signal), in instrument panel wiring harness

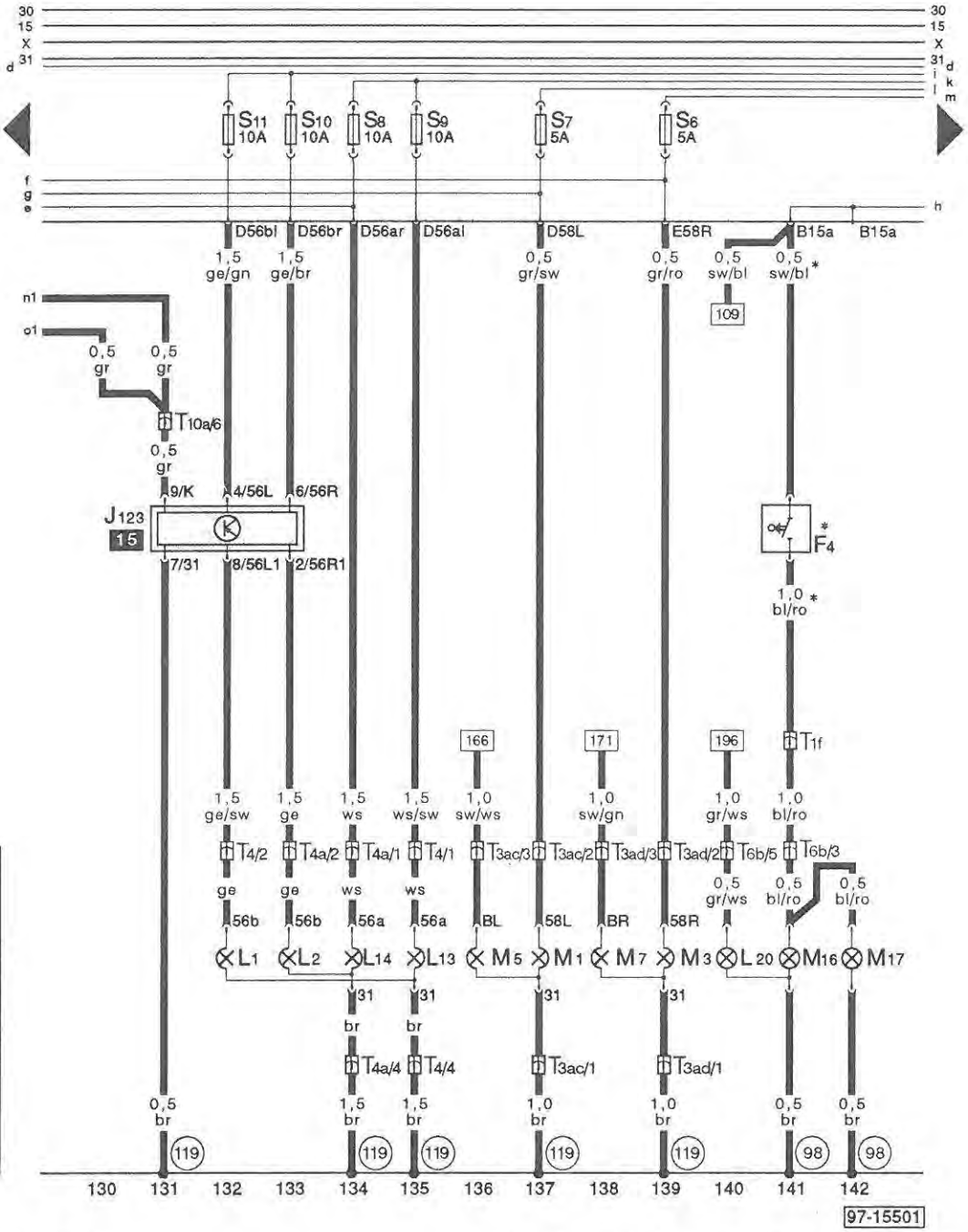


Wiring Color Code
ws = white
sw = black
ro = red
br = brown
gn = green
bl = blue
gr = gray
li = violet
ge = yellow

F = Brake Light Switch
J124 = Lamp Control Module, Rear
M2 = Tail Light, Right
M4 = Tail Light , Left
M6 = Turn Signal Light, Left Rear
M8 = Turn Signal Light, Right Rear
M9 = Brake Light, Left
M10 = Brake Light, Right
M12 = Side Marker Lights, Rear
M25 = High- Mount Brake Light
S29 = Fuse in auxiliary fuse holder (Brake Lights)
T2an = Wire Connector, double, black, in luggage compartment
T10b = Wire Connector, 10 Point, black, connector station in auxiliary relay panel

(50) - Ground connection, in luggage compartment, left

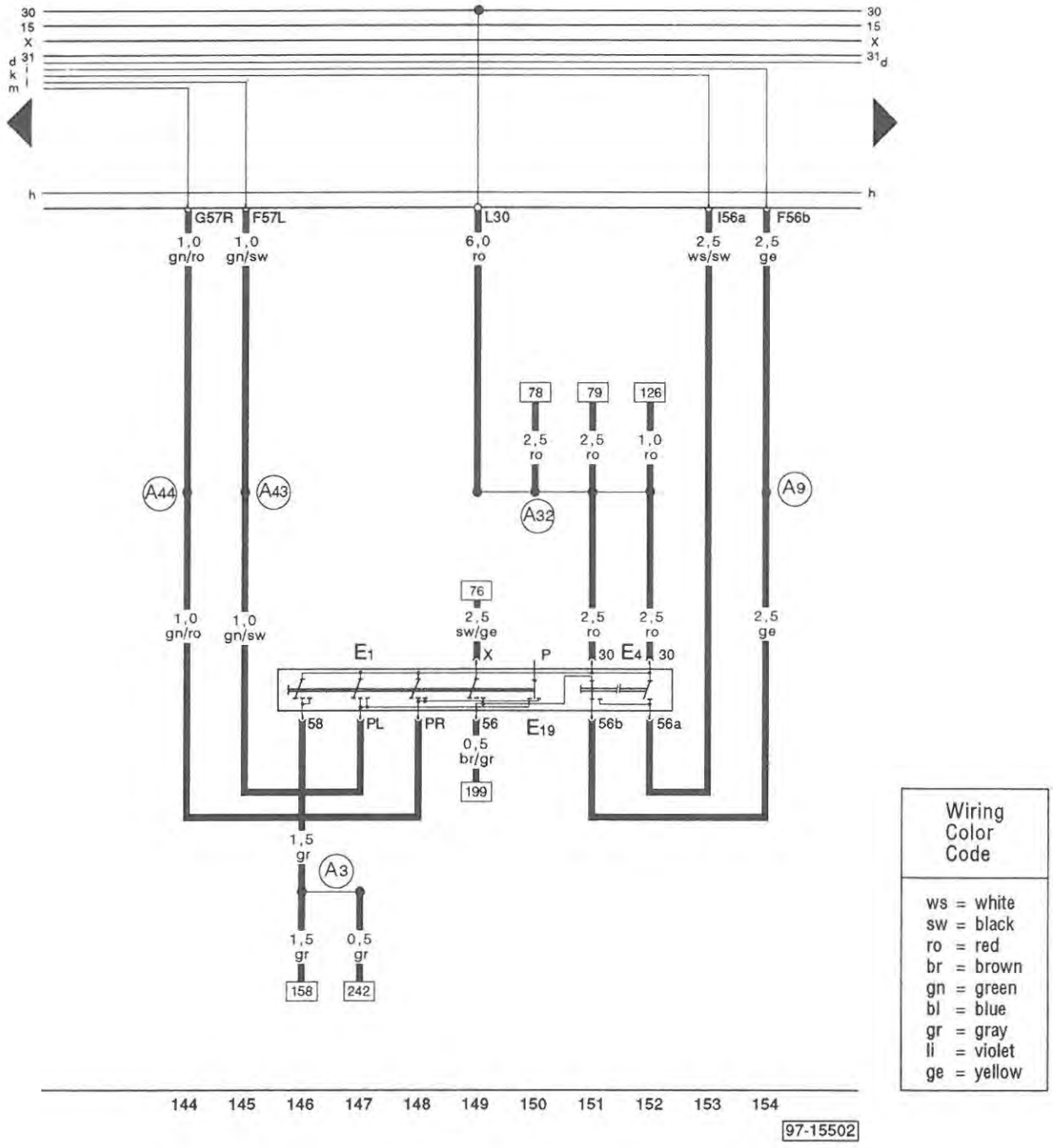
(A18) - Wire connection (54), in instrument panel wiring harness



Wiring Color Code	
ws	= white
sw	= black
ro	= red
br	= brown
gn	= green
bl	= blue
gr	= gray
li	= violet
ge	= yellow

F4 = Back-Up Light Switch
J123 = Lamp Control Module, Front
L1 = Headlight, Left
L2 = Headlight, Right
L13 = High Beam Headlight, Left
L14 = High Beam Headlight, Right
L20 = Rear Fog Light Bulb
M1 = Parking Light, Left
M3 = Parking Light, Right
M5 = Turn Signal Light, Left Front
M7 = Turn Signal Light, Right Front
M16 = Back-Up Light, Left
M17 = Back-Up Light, Right
S6 = Fuse For Parking Lights, Side Marker and Tail Lights, Right, in Fuse Panel
S7 = Fuse For Parking Lights, Side Marker and Tail Lights, Left, in Fuse Panel
S8 = Fuse For High Beam Headlight, Right / Headlight High Beam Indicator Light, in Fuse Panel
S9 = Fuse For High Beam Headlight, Left, in Fuse Panel
S10 = Fuse For Lowbeam Headlight, right, in Fuse Panel
S11 = Fuse For Lowbeam Headlight, left, in Fuse Panel
T1f = Wire Connector, single, black, behind instrument panel,left
T3ac = Wire Connector, 3 Point, white, near headlight, left
T3ad = Wire Connector, 3 Point, white, near headlight, right
T4 = Wire Connector, 4 Point, near Headlight, left
T4a = Wire Connector, 4 P,oint, near headlight, right
T6b = Wire Connector, 6 Point, black, in luggage compartment, left
T10a = Wire Connector, 10 Point, yellow, connector station in auxiliary relay panel

(98) - Ground connection, in rear lid wiring harness
(119) - Ground connection -1-, in headlight wiring harness
* - Manual Transmission Only



Wiring Color Code
ws = white
sw = black
ro = red
br = brown
gn = green
bl = blue
gr = gray
li = violet
ge = yellow

E1 = Light Switch
E4 = Headlight Dimmer / Flasher Switch
E19 = Park Light Switch

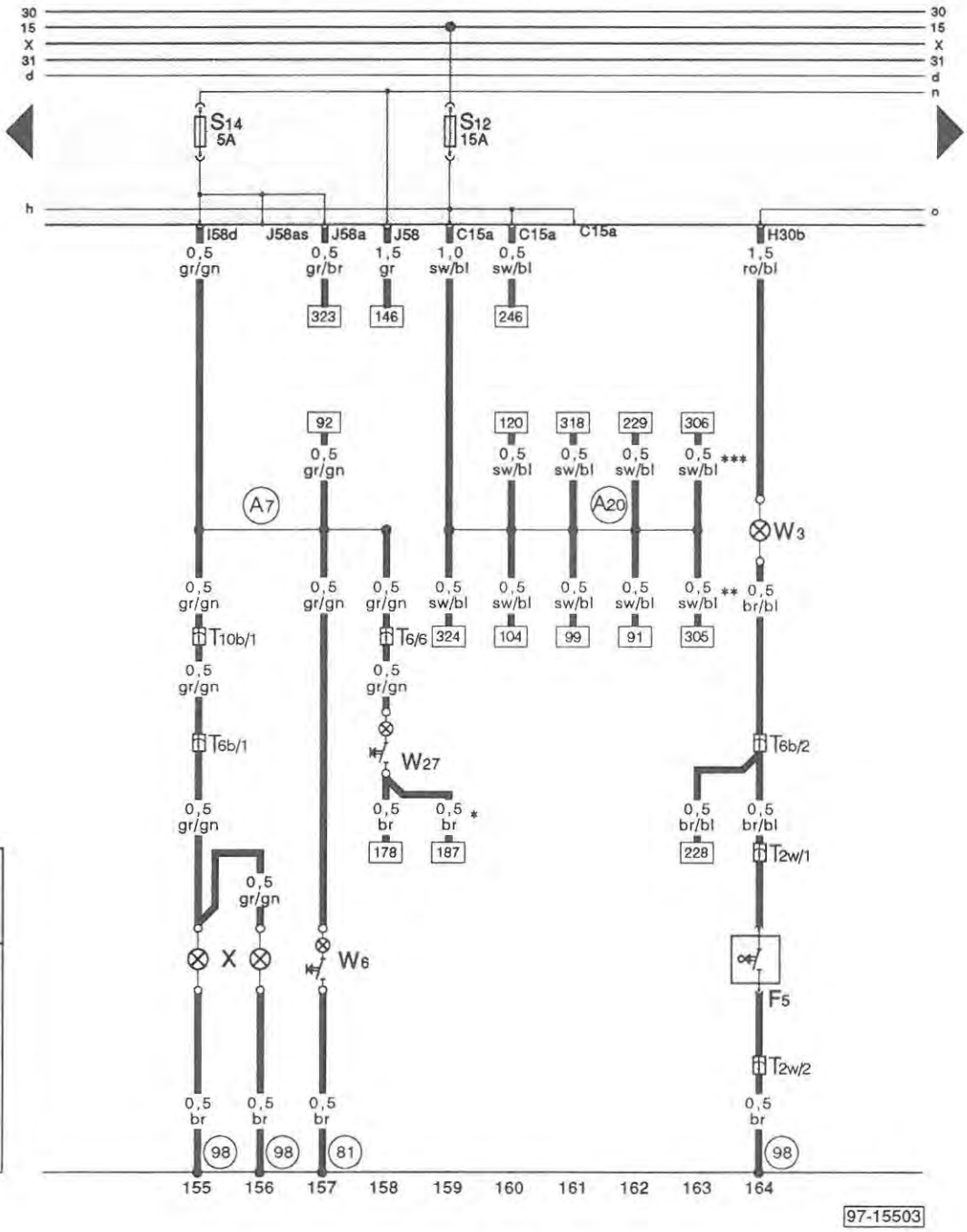
(A3) - Plus connection (58), in instrument panel wiring harness

(A9) - Plus connection (56b), in instrument panel wiring harness

(A32) - Plus connection (30), in instrument panel wiring harness

(A43) - Wire connection (57l), in instrument panel wiring harness

(A44) - Plus connection (57r), in instrument panel wiring harness



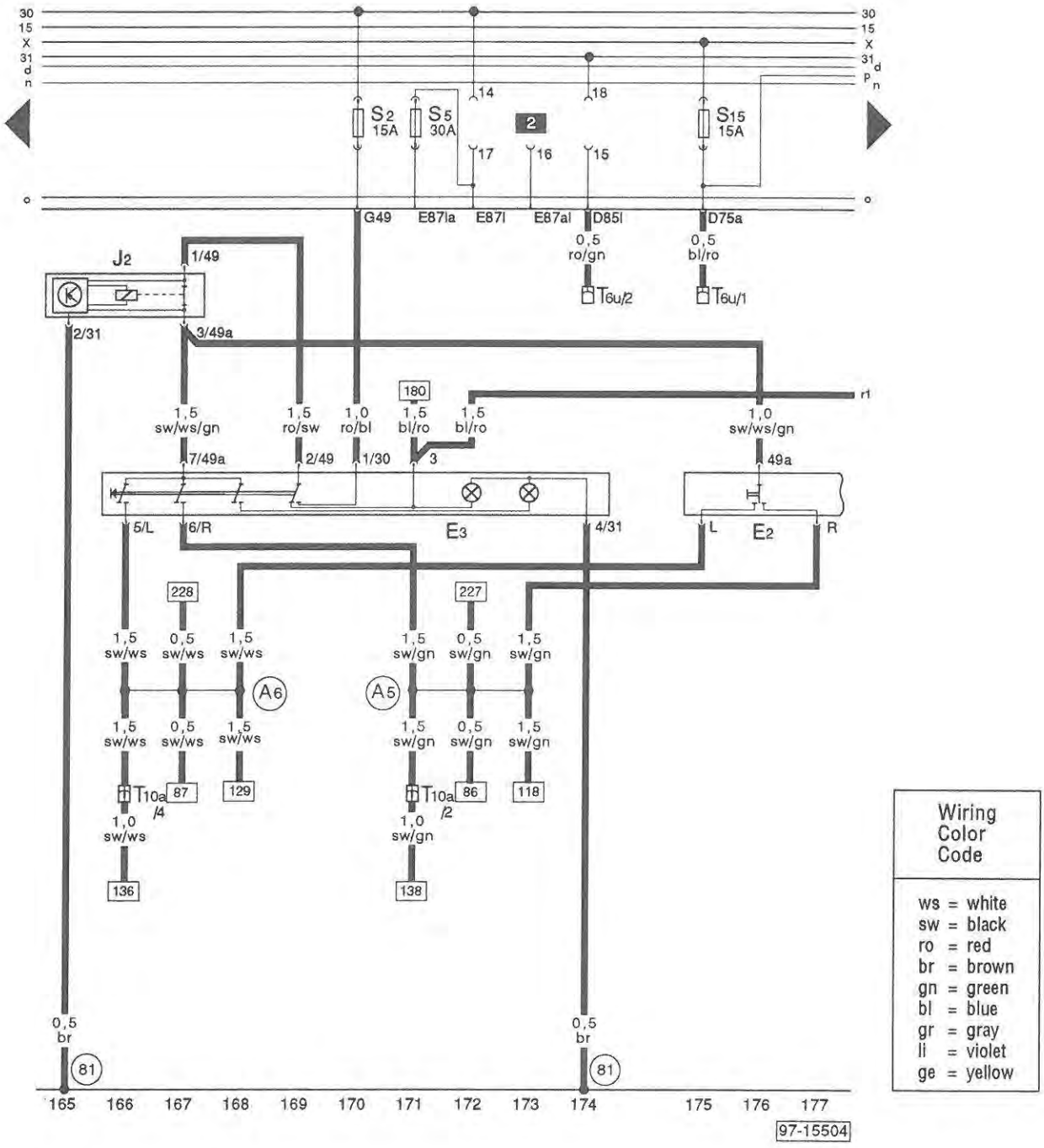
Wiring Color Code

ws	=	white
sw	=	black
ro	=	red
br	=	brown
gn	=	green
bl	=	blue
gr	=	gray
li	=	violet
ge	=	yellow

F5 = Luggage Compartment Light Switch
S12 = Fuse For Cruise Control/ Electronic Thermoswitch/ Auto Check System/ Instrument Cluster/ Interior Light With Delay/ Back-Up Lights/ Servotronic/ Automatic Transmission/ Airbag Control Light/ Coolant Fan Afterrun/ Differential Lock/ Board Computer, in Fuse Panel
S14 = Fuse For License Plate Light/ Glove Compartment Light/ Engine Compartment Light, in Fuse Panel
T2w = Wire Connector, double, black, in rear lid lock
T6 = Wire Connector, 6 Point, black, connector station in auxiliary relay panel
T6b = Wire Connector, 6 Point, black, in luggage compartment, left
T10b = Wire Connector, 10 Point, brown, connector station in auxiliary relay panel
W3 = Luggage Compartment Light
W6 = Glove Compartment Light
W27 = Engine Compartment Light
X = License Plate Light

(81) - Ground connection -1-, in instrument panel wiring harness
(98) - Ground connection, in rear lid wiring harness
(A7) - Plus connection (58 D1), in instrument panel wiring harness
(A20) - Wire connection (15a), in instrument panel wiring harness

* - Optional For All Models
** - Automatic Transmission Only
*** - Manual Transmission Only



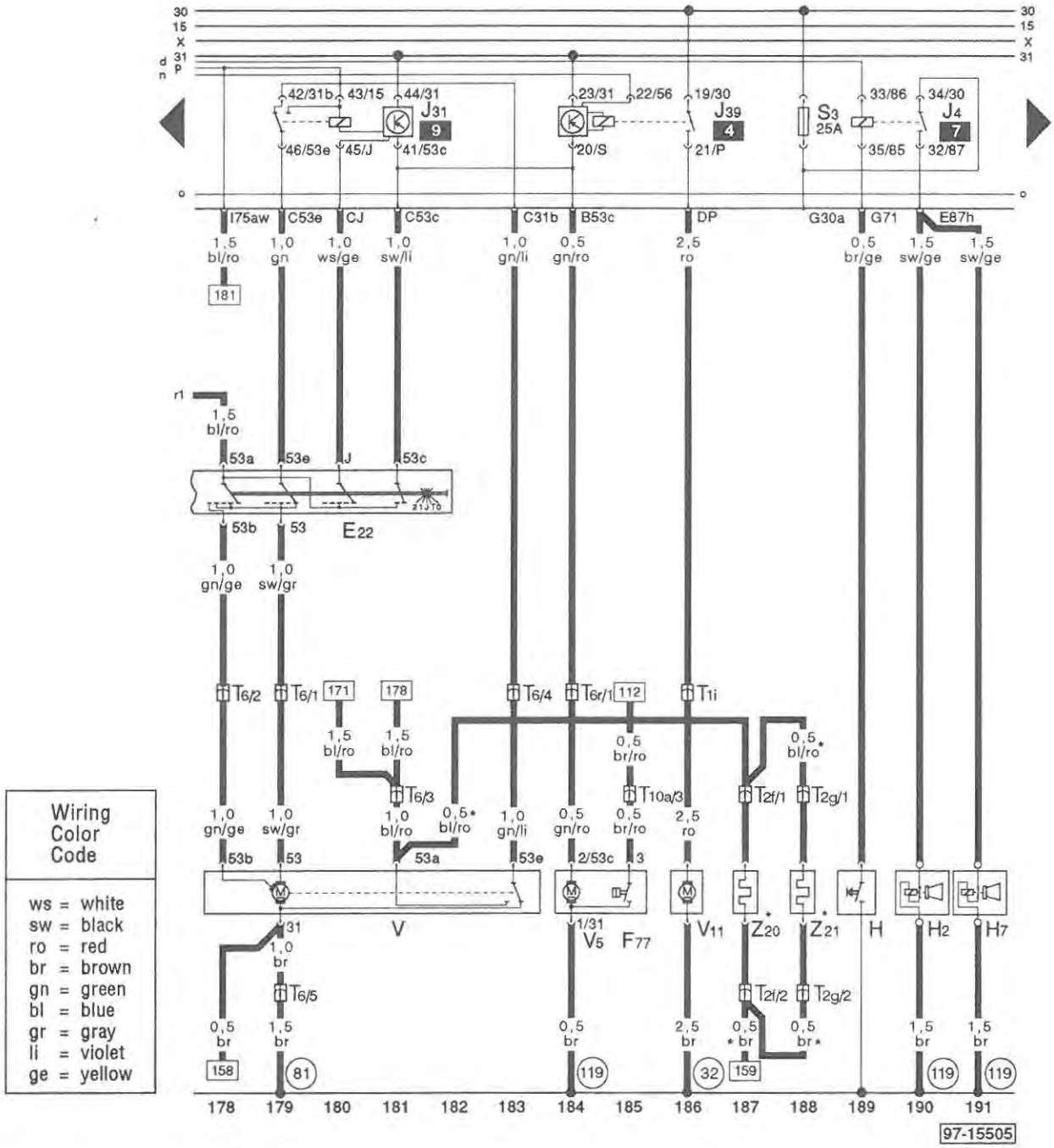
Wiring Color Code
ws = white
sw = black
ro = red
br = brown
gn = green
bl = blue
gr = gray
li = violet
ge = yellow

E2 = Turn Signal Switch
E3 = Emergency Flasher Switch
J2 = Emergency Flasher Relay
S2 = Fuse For Emergency Flasher, in Fuse Panel
S5 = Fuse For Coolant Fan, in Fuse Panel
S15 = Fuse For Windshield Wiper And Washer / Washer Nozzle Heaters / Turn Signal Lights / Coolant Fan / Air Conditioning, in Fuse Panel
T6u = Wire Connector, 6 Point, green, in luggage compartment, right
T10a = Wire Connector, 10 Point, yellow, connector station in auxiliary relay panel

(81) - Ground connection -1-, in instrument panel wiring harness
(A5) - Plus connection (right turn signal), in instrument panel wiring harness
(A6) - Plus connection (left turn signal), in instrument panel wiring harness

147 Emergency flasher relay/switch

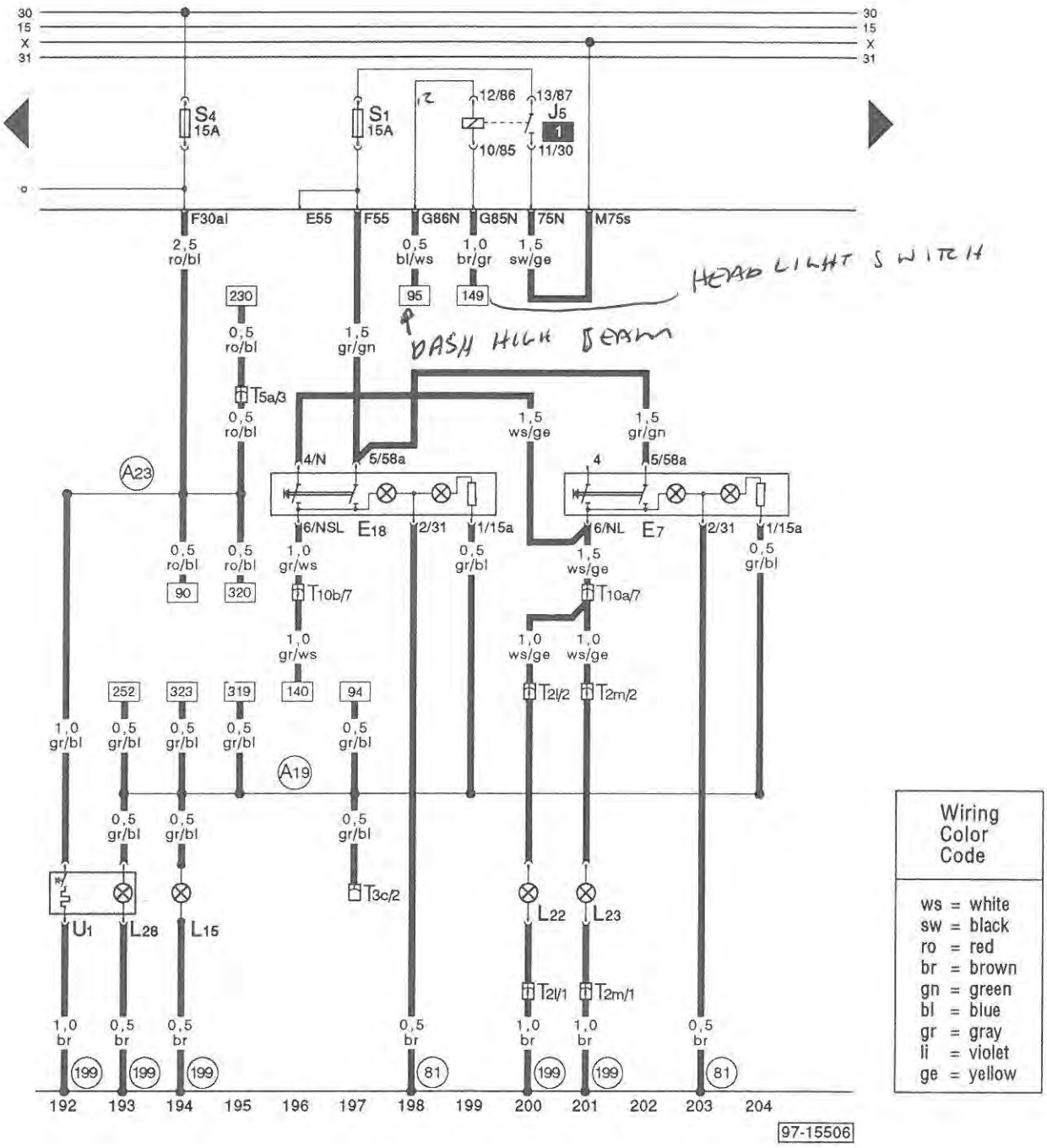
90 (All models)–USA/Canada
From VIN: 8CPA 000100



Wiring Color Code	
ws	= white
sw	= black
ro	= red
br	= brown
gn	= green
bl	= blue
gr	= gray
li	= violet
ge	= yellow

E22 = Windshield Wiper Intermittent Switch
F77 = Windshield Washer Fluid Level Warning Switch
H = Horn Button
H2 = High Tone Horn
H7 = Low Tone Horn
J4 = Dual Horn Relay
J31 = Washer / Wiper Intermittent Relay
J39 = Headlight Washer System Relay
S3 = Fuse For Dual Horns / Heated Seats, in Fuse Panel
T1i = Wire Connector, single, white, behind insrument panel, left
T2f = Wire Connector, double, near washer nozzle heater, left
T2g = Wire Connector, double, near washer nozzle heater, right
T6 = Wire Connector, 6 Point, black, connector station in auxiliary relay panel
T6r = Wire Connector, 6 Point, black, behind instrument panel, left
T10a = Wire Connector, 10 Point, black, connector station in auxiliary relay panel
V = Windshield Wiper Motor
V5 = Windshield Washer Pump
V11 = Headlight Washer Pump
Z20 = Washer Nozzle Heater, Left
Z21 = Washer Nozzle Heater, Right

(32) - Ground connection, behind instrument panel, left
(81) - Ground connection -1-, in instrument panel wiring harness
(119) - Ground connection -1-, in headlight wiring harness
* - Optional For All Models

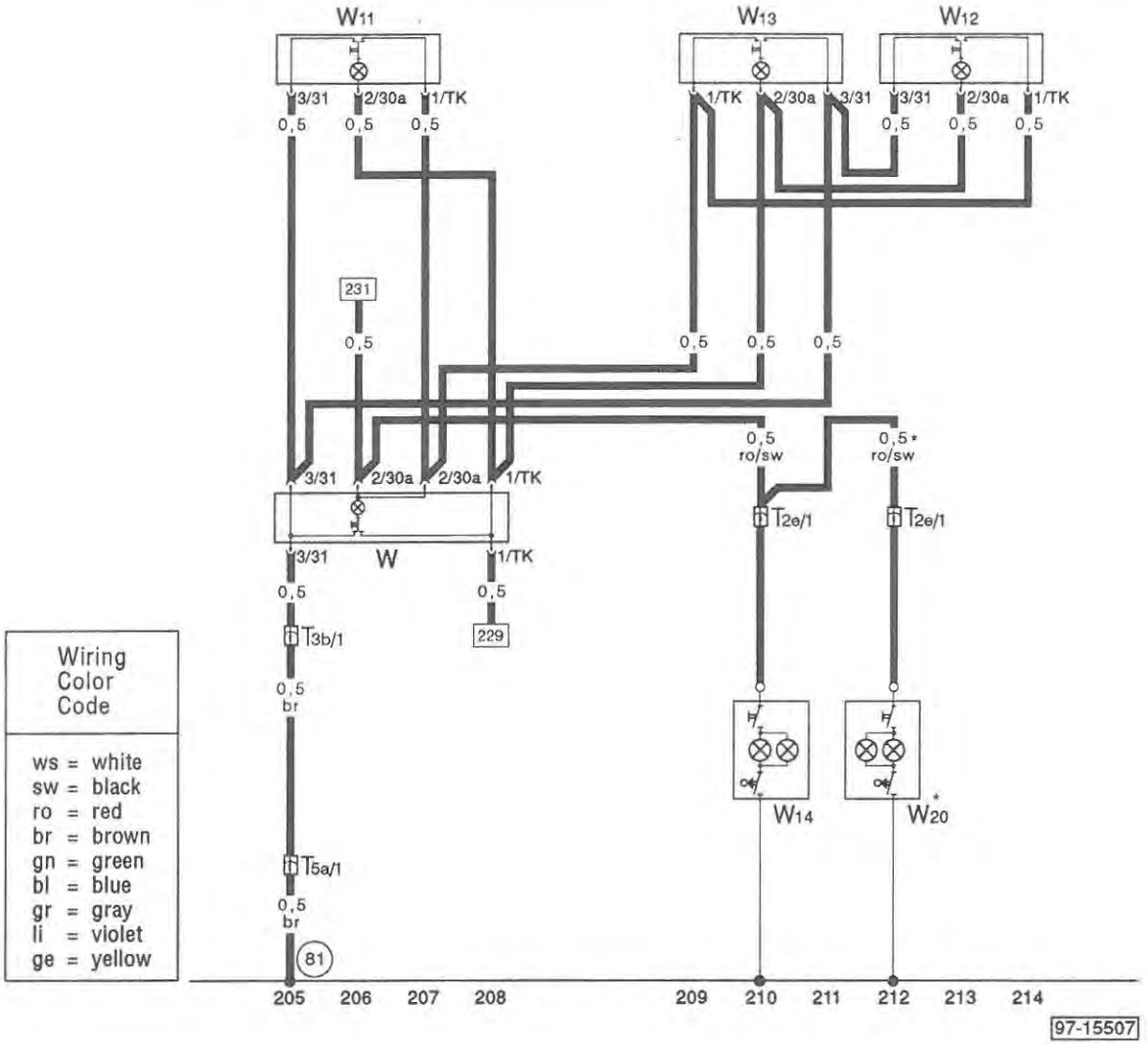


Wiring Color Code
ws = white
sw = black
ro = red
br = brown
gn = green
bl = blue
gr = gray
li = violet
ge = yellow

E7 = Fog Light Switch
E18 = Rear Fog Light Switch
J5 = Fog Light Relay
L15 = Ashtray Light
L22 = Left Front Fog Light Bulb
L23 = Fog Light Bulb
L28 = Cigarette Lighter Light
S1 = Fuse For Fog lights / Rear Fog Lights, in Fuse Panel
S4 = Fuse For Digital Clock / Luggage Compartment Light / Interior Light, Front / Make-Up-Mirror Lights / Reading Lights / Cigarette Lighters / Bordcomputer/ Automatic Climate, in Fuse Panel
T2l = Wire Connector, double, black, in engine compartment, left
T2m = Wire Connector, double, black, in engine compartment, right
T3c = Wire Connector, 3 Point, brown, behind insrument panel, center
T5a = Wire Connector, 5 point, brown, connector station in auxiliary relay panel
T10a = Wire Connector, 10 Point, yellow, connector station in auxiliary relay panel
T10b = Wire Connector, 10 Point, brown, connector station in auxiliary relay panel
U1 = Cigarette Lighter

(81) - Ground connection -1-, in instrument panel wiring harness
(119) - Ground connection -1-, in headlight wiring harness
(199) - Ground connection -3-, in instrument panel wiring harness
(A19) - Wire connection (58d), in instrument panel wiring harness
(A23) - Wire connection (30al), in instrument panel wiring harness

30
15
X
31



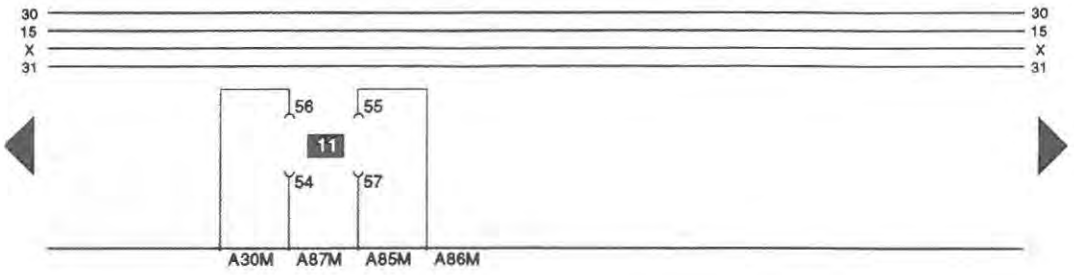
Wiring Color Code

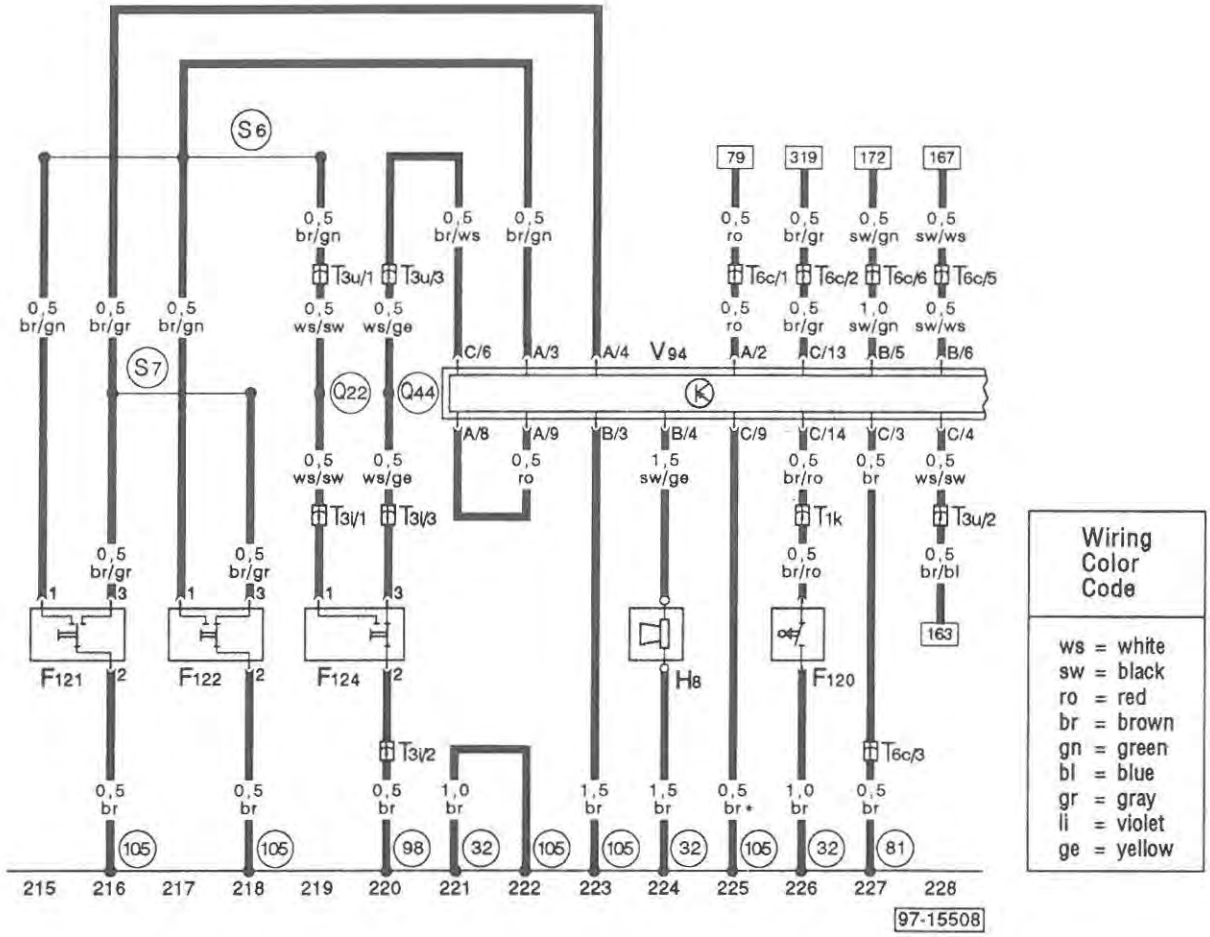
ws = white
sw = black
ro = red
br = brown
gn = green
bl = blue
gr = gray
li = violet
ge = yellow

T2e = Wire Connector, double, near interior lights
T3b = Wire Connector, 3 Point, green, behind instrument panel, left
T5a = Wire Connector, 5 Point, brown connector station in auxiliary relay panel
W = Interior Light, Front
W11 = Reading Light, Left Rear
W12 = Reading Light, Right Rear
W13 = Map/Reading Light, Right Front
W14 = Make-Up Mirror Light, Right
W20 = Make-Up Mirror Light, Left

(81) - Ground connection -1-, in instrument panel wiring harness

* - Only Make-Up Mirror Light, Left

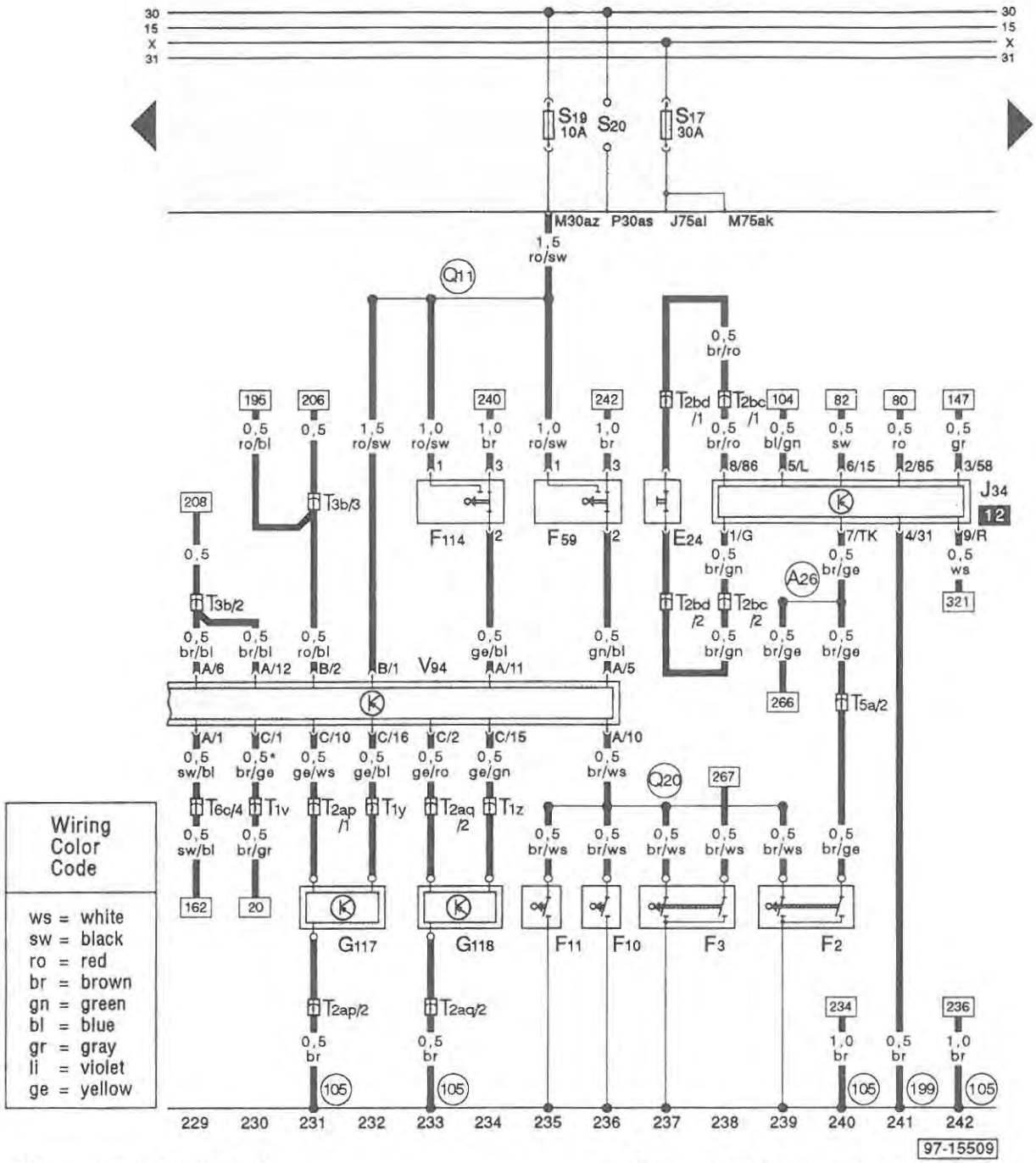




Wiring Color Code
ws = white
sw = black
ro = red
br = brown
gn = green
bl = blue
gr = gray
li = violet
ge = yellow

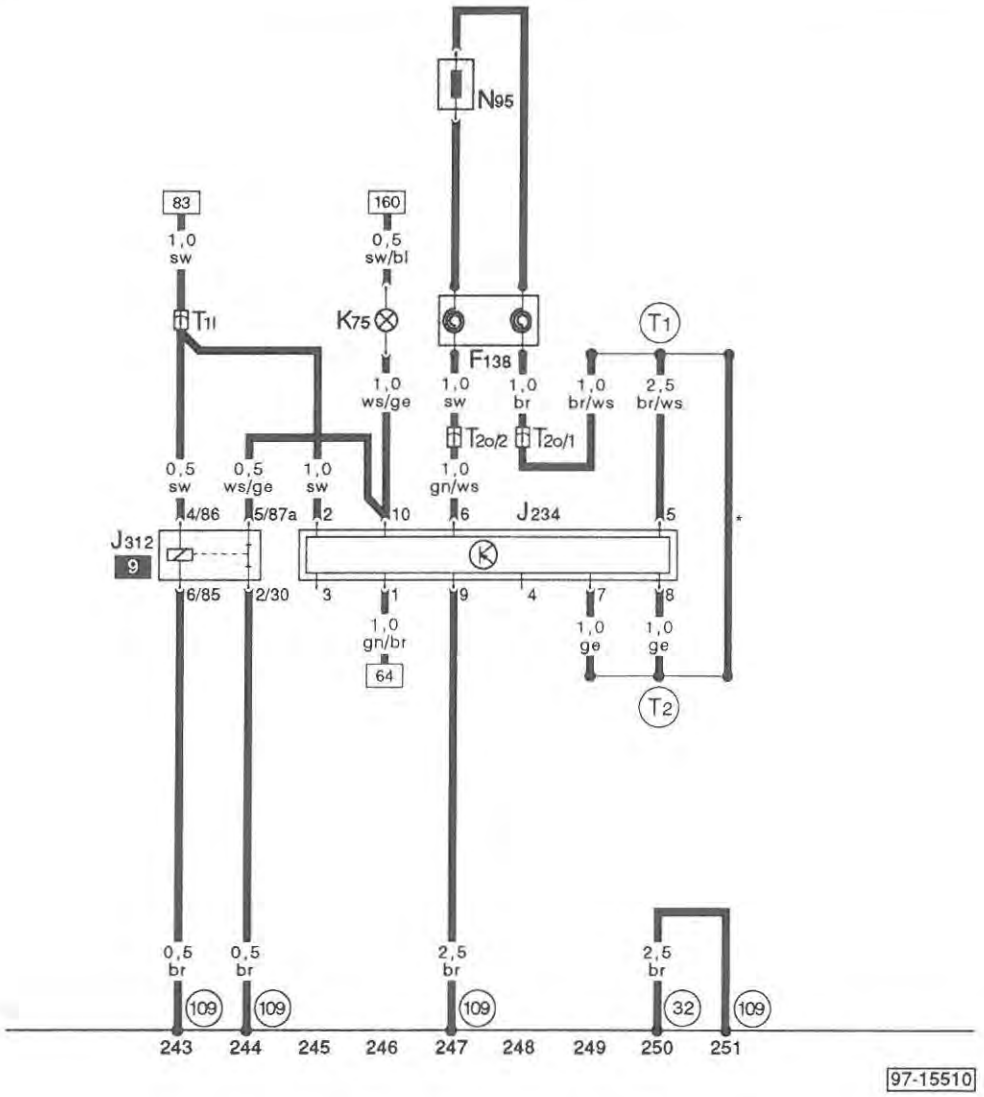
F120 = Alarm Switch, Hood
F121 = Alarm Switch, Driver´s Door Handle
F122 = Alarm Switch, Passenger´s Door Handle
F124 = Alarm / Central Locking Switch, Trunk Lock
H8 = Alarm Horn
T1k = Wire Connector, single, blue, behind insrument panel
T3i = Wire Connector, 3 Point, black, in rear lid
T3u = Wire Connector, 3 Point, black, in luggage compartment,left
T6c = Wire Connector, 6 Point, yellow, behind insrtrument panel, left
V94 = Central Locking / Alarm System / Interior Light Delay Control Module

(32) - Ground connection, behind instrument panel, left
(81) - Ground connection -1-, in instrument panel wiring harness
(98) - Ground connection, in rear lid wiring harness
(105) - Ground connection -1-, in central locking system wiring harness
(Q22) - Wire connection -1-, in rear lid wiring harness
(Q44) - Wire connection -2-, in tailgate wiring harness
(S6) - Wire connection (A) -1-, in central locking system wiring harness
(S7) - Wire connection (A) -2-, in central locking system wiring harness
* - Manual Transmission Only



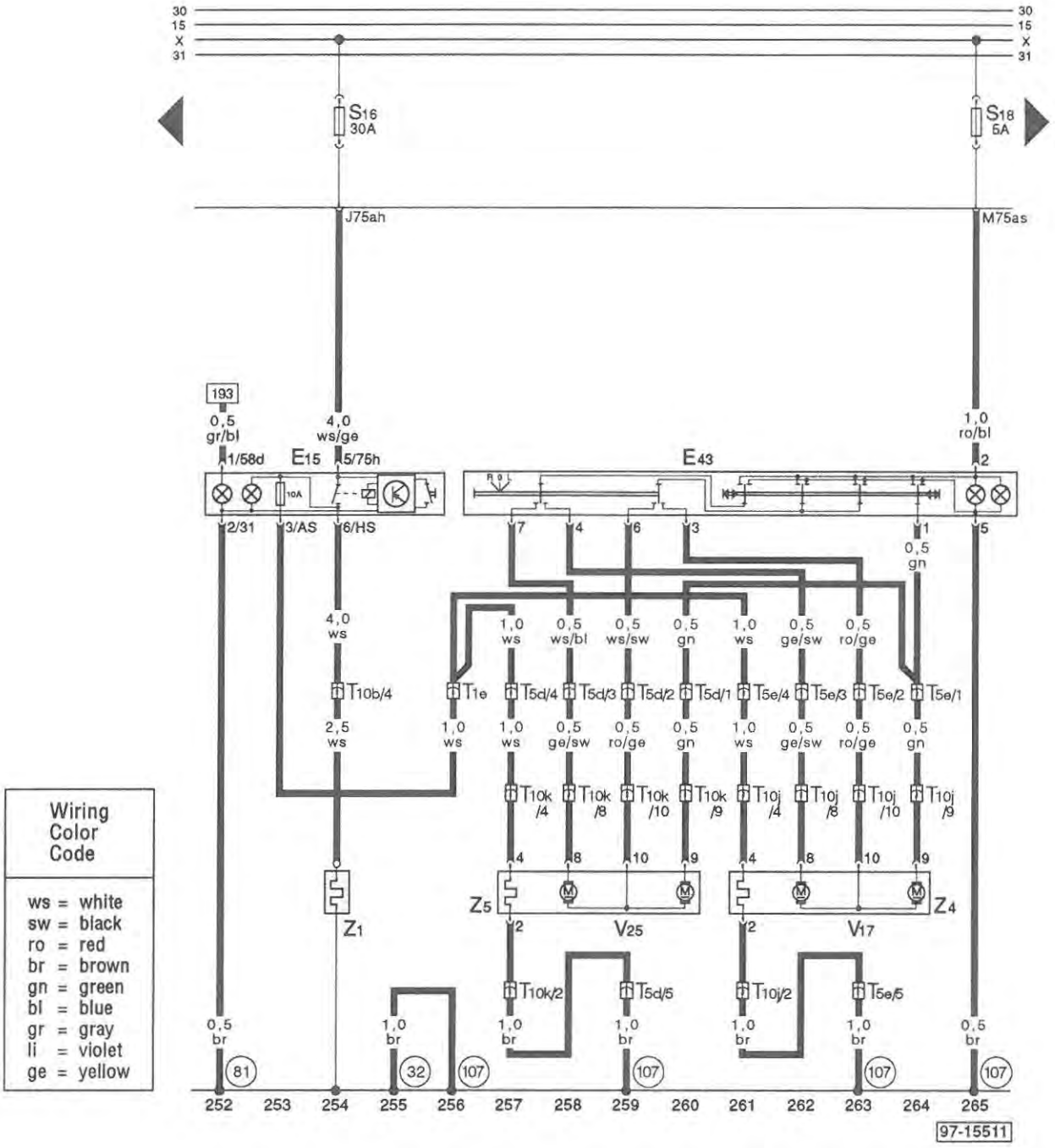
Wiring Color Code
ws = white
sw = black
ro = red
br = brown
gn = green
bl = blue
gr = gray
li = violet
ge = yellow

E24 = Seat Belt Switch, Left
F2 = Door Contact Switch, Left Front
F3 = Door Contact Switch, Right Front
F10 = Door Contact Switch, Left Rear
F11 = Door Contact Switch, Right Rear
F59 = Central Locking System Switch, Driver´s Door
F114 = Central Locking System Switch, Passenger´s Door
G117 = Infrared Central Locking System Sensor, Left
G118 = Infrared Central Locking System Sensor, Right
J34 = Seat Belt Warning System Relay
S17 = Fuse For Automatic Climate Control / Fresh Air Blower, in Fuse Panel
S19 = Fuse For Central Locking / Alarm System Heated Door Locks, in Fuse Panel
S20 = Fuse For First Speed Coolant Fan / Coolant Fan Afterrun, in Fuse Panel
T1v = Wire Connector, single, black, below rear seat, center
T1y = Wire Connector, single, in driver´s door
T1z = Wire Connector, single, in front passenger´s door
T2ap = Wire Connector, double, in driver´s door
T2aq = Wire Connector, double, in passenger´s door
T2bc = Wire Connector, double, orange, behind instrument panel, left
T2bd = Wire Connector, double, Black, on Seat Belt switch, left
T3b = Wire Connector, 3 Point, green, behind instrument Panel, left
T5a = Wire Connector, 5 Point, brown, connector station in auxiliary relay panel
T6c = Wire Connector, 6 Point, yellow, in luggage compartment, right
V94 = Central Locking / Alarm System / Interior Light Delay Control Module
(105) - Ground connection -1-, in central locking system wiring harness
(199) - Ground connection -3-, in instrument panel wiring harness
(A26) - Wire connection (driver´s door contact switch),in instrument panel wiring harness
(Q11) - Plus connection (30az),in power window / central locking system and door contact switch wiring harness
(Q20) - Wire connection -1- (door contact switch),in power window wiring harness
* - Manual Transmission Only



F138 = Airbag Spiral Spring
J234 = Airbag Control Module
J312 = Relay For Airbag Control Lamp
K75 = Airbag Control Light
N95 = Airbag Igniter - Driver's Side
T1l = Wire Connector, single, red, behind insrument panel, left
T2o = Wire Connector, double, red, behind instrument panel

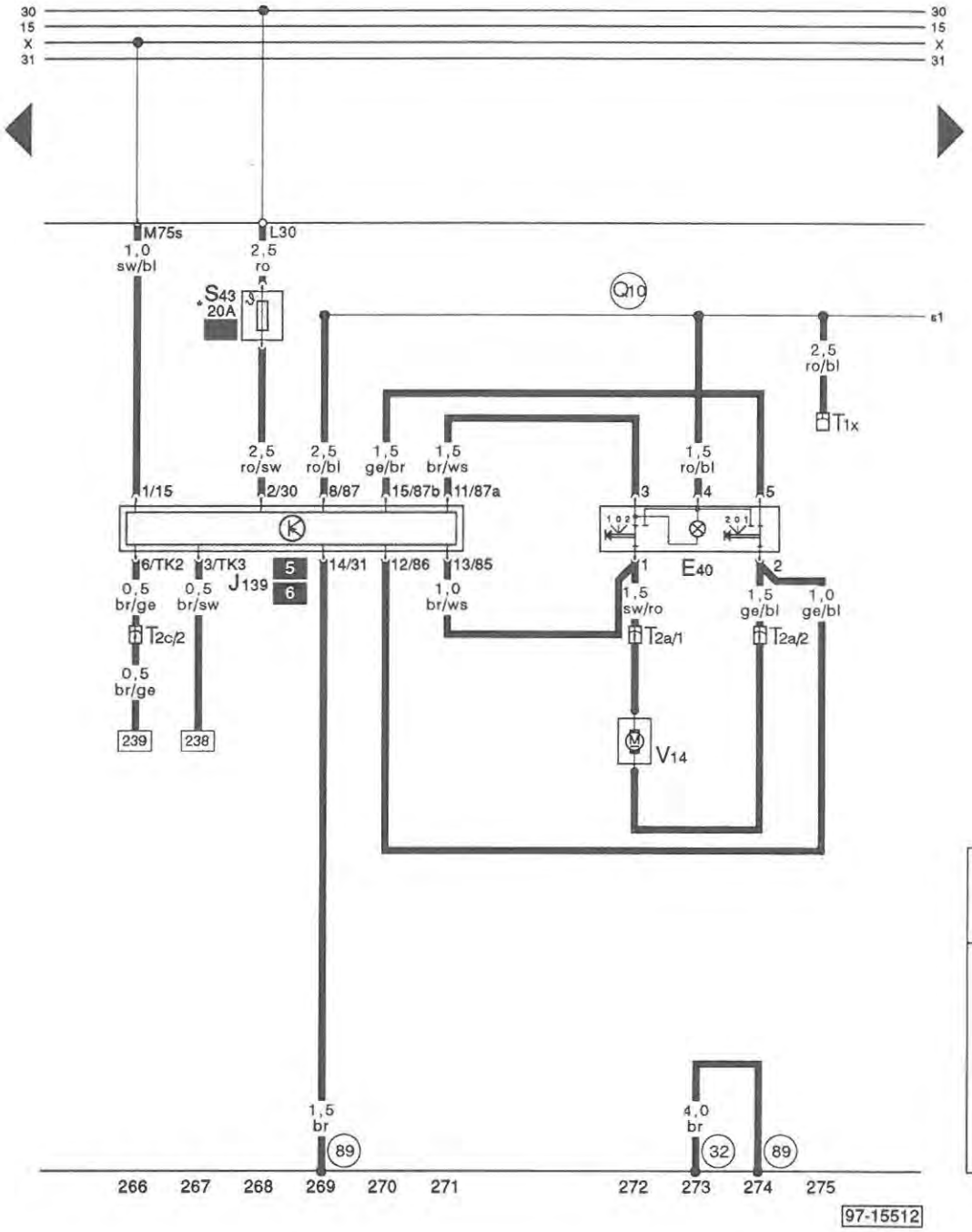
(32) - Ground connection, behind instrument panel, left
(109) - Ground connection, in airbag wiring harness
(T1) - Plus connection -1-, in airbag wiring harness
(T2) - Plus connection -2-, in airbag wiring harness
* - Resistor Wire 2,5 Ω



Wiring Color Code	
ws	= white
sw	= black
ro	= red
br	= brown
gn	= green
bl	= blue
gr	= gray
li	= violet
ge	= yellow

E15 = Rear Window Defogger Switch
E43 = Mirror Adjustment Switch
S16 = Fuse For Rear Window Defogger / Heated Mirrors, in Fuse Panel
S18 = Fuse For Power Mirrors, in Fuse Panel
T1e = Wire Connector, single, green, behind instrument panel, left
T5d = Wire Connector, 5 Point, on right A-pillar, lower part
T5e = Wire Connector, 5 Point, on left A-pillar, lower part
T10b = Wire Connector, 10 Point, brown, connector station in auxiliary relay panel
T10j = Wire Connector, 10 Point, on heated mirror, left
T10k = Wire Connector, 10 Point, on heated mirror, right
V17 = Driver's Side Mirror Adjustment Motor
V25 = Passenger's Side Mirror Adjustment Motor
Z1 = Rear Window Defogger (Heat Element)
Z4 = Driver's Side Heated Mirror
Z5 = Passenger's Side Heated Mirror

(32) - Ground connection, behind instrument Panel, left
(81) - Ground connection -1-, behind instrument Panel wiring harness
(107) - Ground connection, in outside mirrors wiring harness



Wiring Color Code
ws = white
sw = black
ro = red
br = brown
gn = green
bl = blue
gr = gray
li = violet
ge = yellow

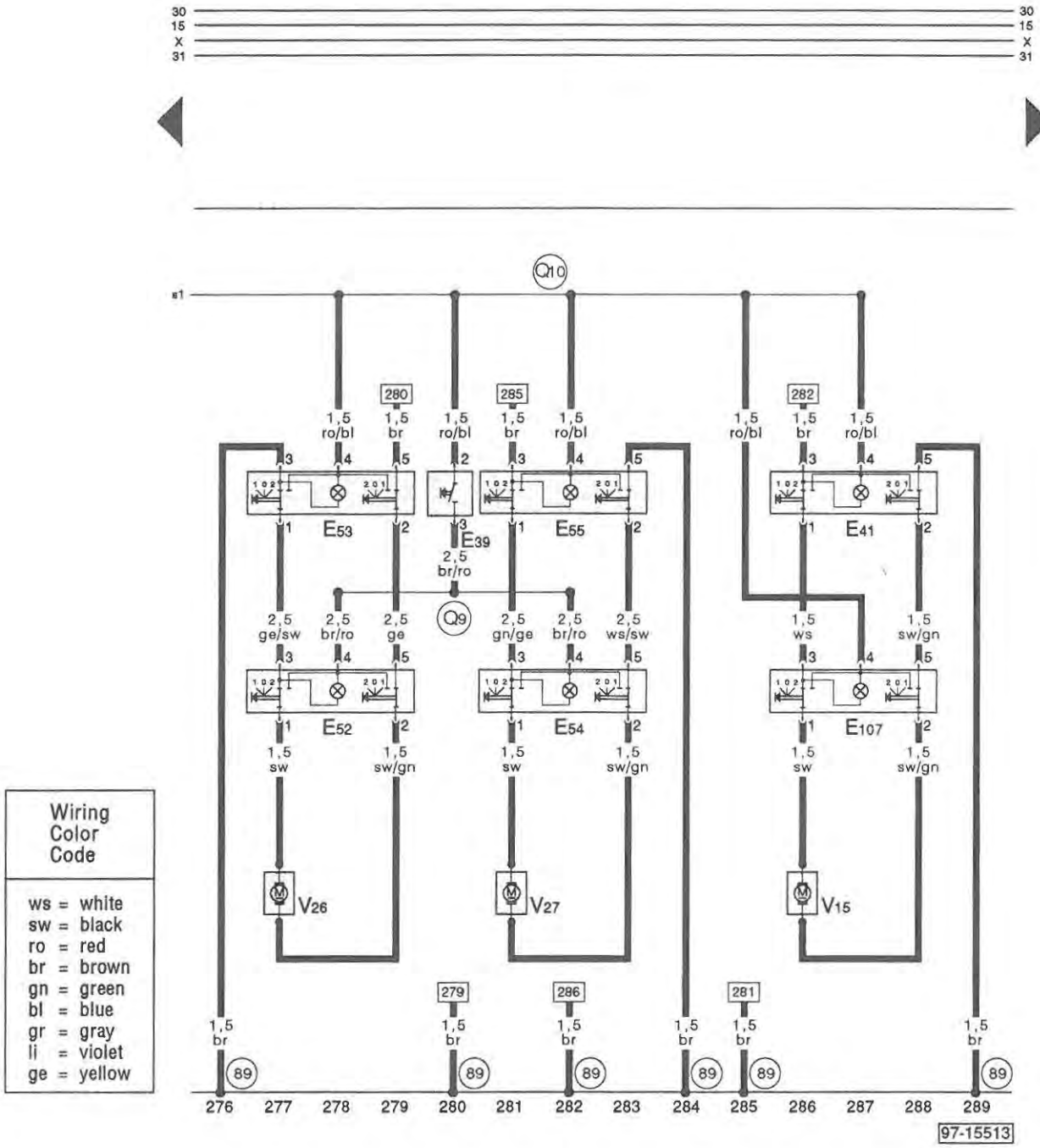
E40 = Window Switch, Left Front
J139 = Power Window Control Module
S43 = Power Window Circuit Breaker, in Adapter C
T1x = Wire Connector, single, green, behind instrument panel ,left
T2a = Wire Connector, double, in driver´s door
T2c = Wire Connector, double, white, behind instrument panel, left
V14 = Window Motor, Left

(32) - Ground connection, behind instrument panel, left

(89) - Ground connection -1-, in power window wiring harness

(Q10) - Plus connection (87), in power window / central locking system and door contact switch wiring harness

* - Fuses in Fuse Adapter C are installed in any free position and are not allocated any specific position



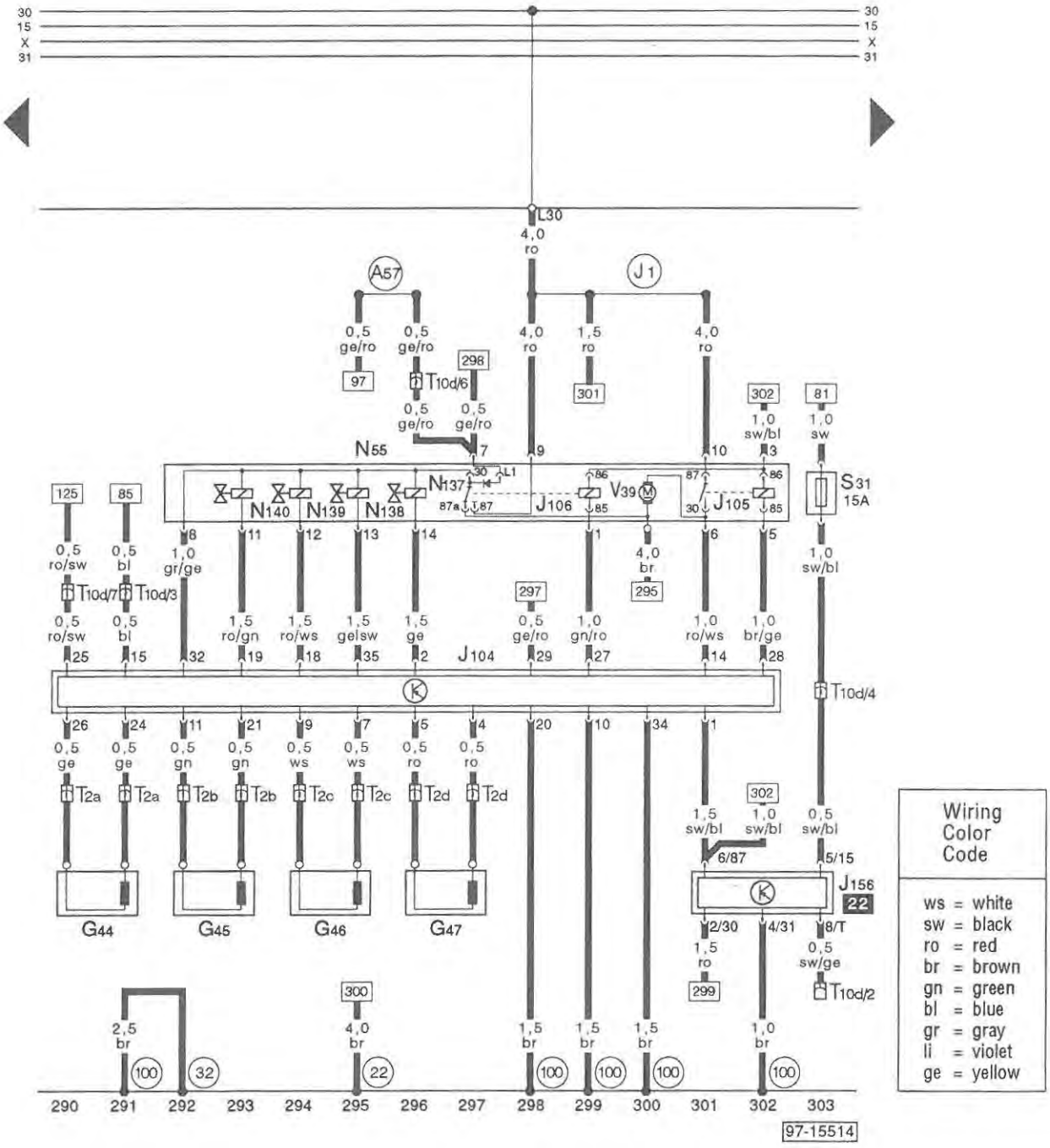
Wiring Color Code
ws = white
sw = black
ro = red
br = brown
gn = green
bl = blue
gr = gray
li = violet
ge = yellow

E39 = Window Lockout Switch
E41 = Window Switch, Right Front
E52 = Left Rear Window Switch, (in Door)
E53 = Left Rear Window Switch, (in Console)
E54 = Right Rear Window Switch, (in Door)
E55 = Right Rear Window Switch, (in Console)
E107 = Right Front Window Switch , (in Passenger's Door)
V15 = Window Motor, Right
V26 = Window Motor, Left Rear Door
V27 = Window Motor, Right Rear Door

(89) - Ground connection -1-, in power window wiring harness

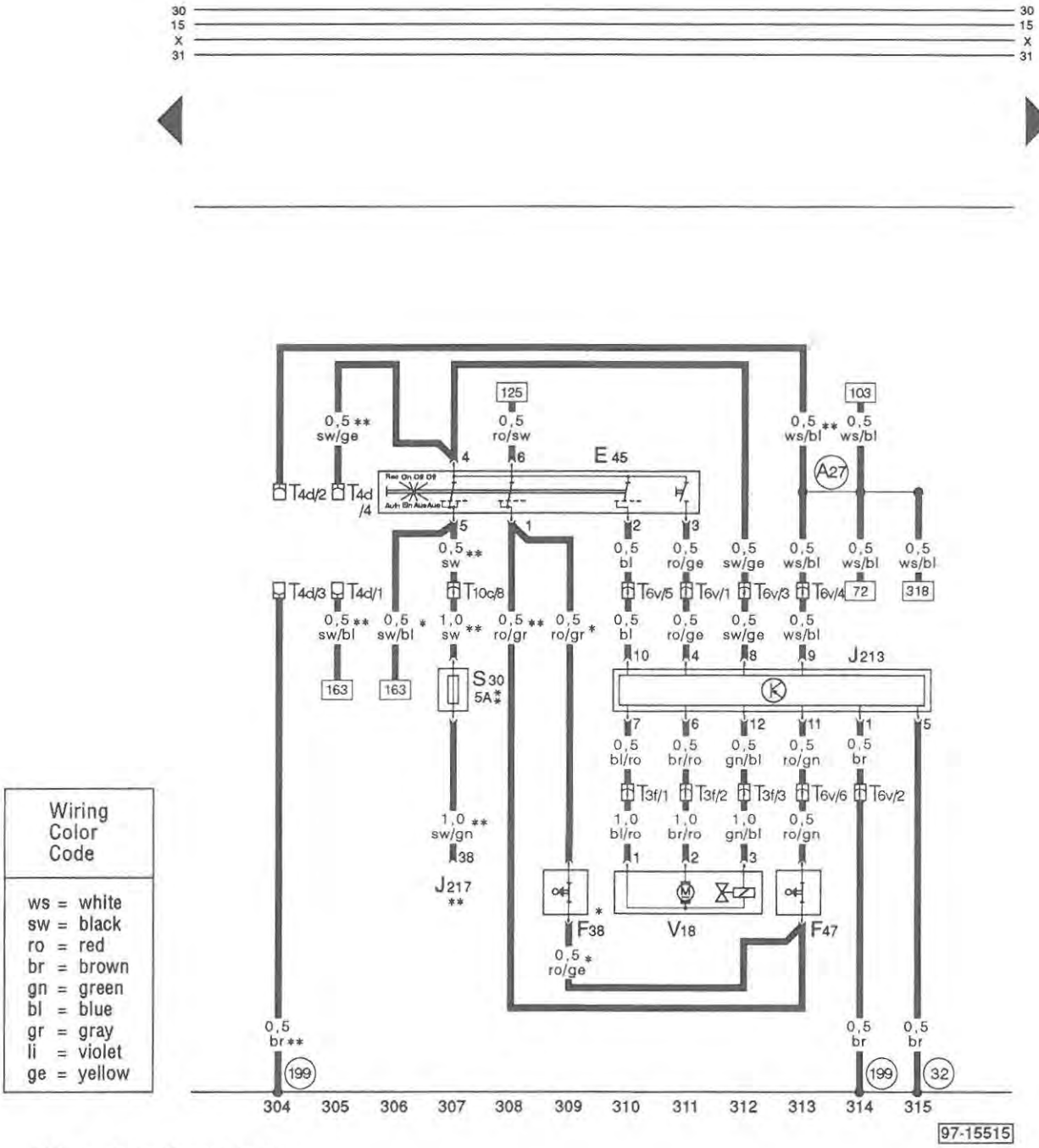
(Q9) - Wire connection, in power window wiring harness

(Q10) - Plus connection (87), in power window/central locking system and door contact switch wiring harness



G44 = ABS Wheel Speed Sensor, Right Rear
G45 = ABS Wheel Speed Sensor, Right Front
G46 = ABS Wheel Speed Sensor, Left Rear
G47 = ABS Wheel Speed Sensor, Left Front
J104 = ABS Control Module
J105 = ABS Return Flow Pump Relay
J106 = ABS Solenoid Valve Relay
J156 = ABS Combination Relay
N55 = ABS Hydraulic Unit
N137 = ABS Inlet / Outlet Valve, Left Front
N138 = ABS Inlet / Outlet Valve, Right Front
N139 = ABS Inlet / Outlet Valve, Left Rear
N140 = ABS Inlet / Outlet Valve, Right Rear
S31 = Fuse For ABS / Differential Lock, in Fuse Panel
T2a = Wire Connector, double, below rear seat, right
T2b = Wire Connector, double, in engine compartment, right
T2c = Wire Connector, double, below rear seat, left
T2d = Wire Connector, double, in engine compartment, left
T10d = Wire Connector, 10 Point, blue, connector station in auxiliary relay panel
V39 = ABS Return Flow Pump

(22) - Ground connection, on hydraulic unit
(32) - Ground connection, behind instrument panel, left
(100) - Ground connection -1-, in ABS wiring harness
(A57) - Wire connection (ABS), in instrument panel wiring harness
(J1) - Plus connection (30), in ABS wiring harness



Wiring Color Code
ws = white
sw = black
ro = red
br = brown
gn = green
bl = blue
gr = gray
li = violet
ge = yellow

E45 = Cruise Control Switch
F36 = Vacuum Vent Valve, Clutch
F47 = Vacuum Vent Valve, Brake
J213 = Cruise Control, Control Module
J217 = Alarm System Relay
S30 = Fuse For Cruise Control (Automatic Transmission), in Fuse Panel
T3f = Wire Connector, 3 Point, blue, behind insrument panel
T4d = Wire Connector, 4 Point, black, behind instrument panel
T6v = Wire Connector, 6 Point, blue, behind instrument panel, left
T10c = Wire Connector, 10 Point, green, connector station in auxiliary relay panel
V18 = Cruise Control Vacuum Pump

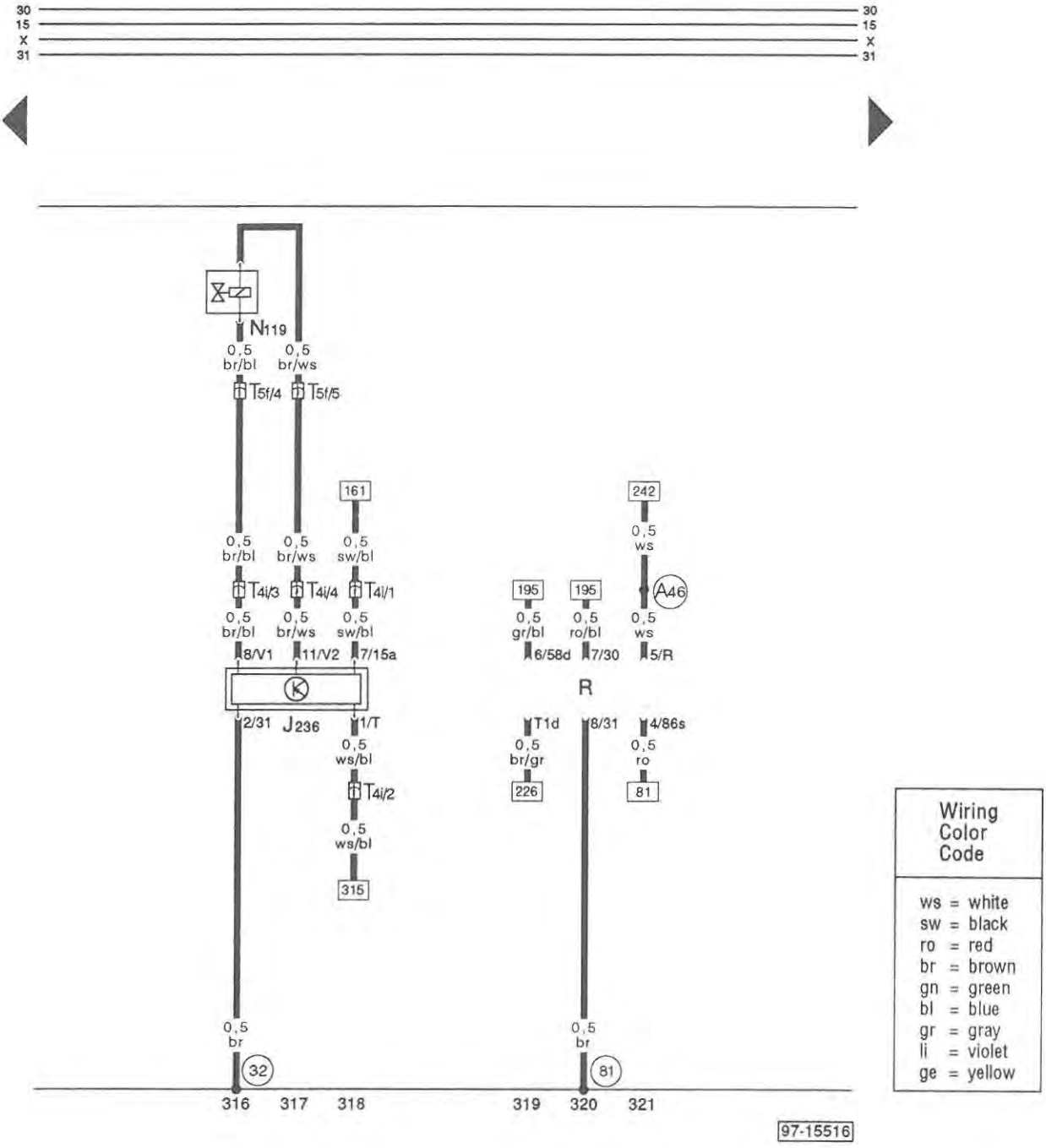
(32) - Ground connection, behind instrument panel, left

(199) - Ground connection -3-, in instrument panel wiring harness

(A27) - Wire connection (speed signal), in instrument panel wiring harness

* - Manual Transmission Only

** - Automatic Transmission Only

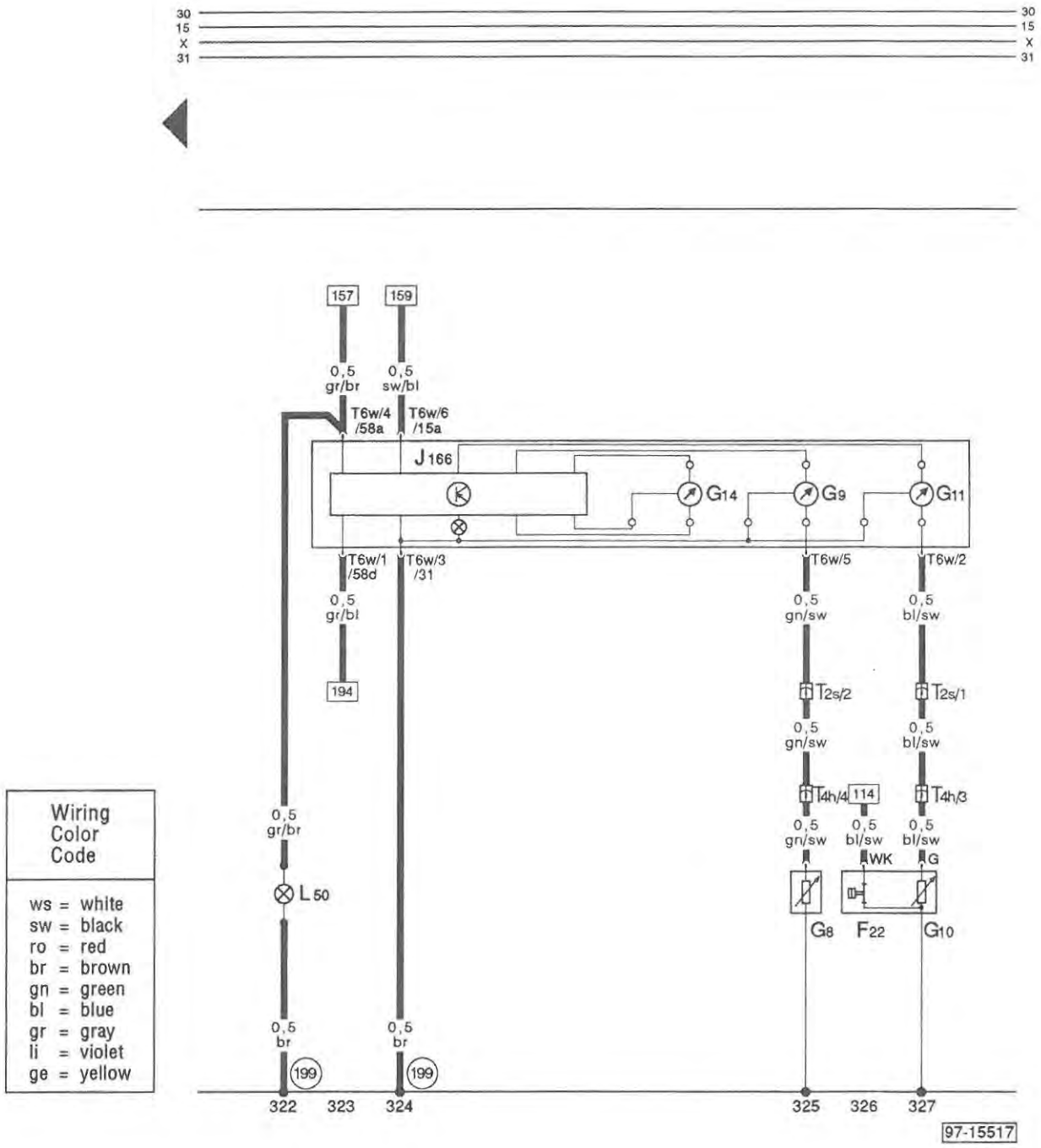


J236 = Servotronic Control Module
N119 = Servotronic Solenoid Valve
R = Radio
T4i = Wire Connector, 4 Point, green, behind insrument panel
T5f = Wire Connector, 5 Point, blue, behind instrument panel

(32) - Ground connection, behind instrument panel, left

(81) - Ground connection -1-, in instrument panel wiring harness

(A46) - Plus connection (30-from Radio), in instrument panel wiring harness

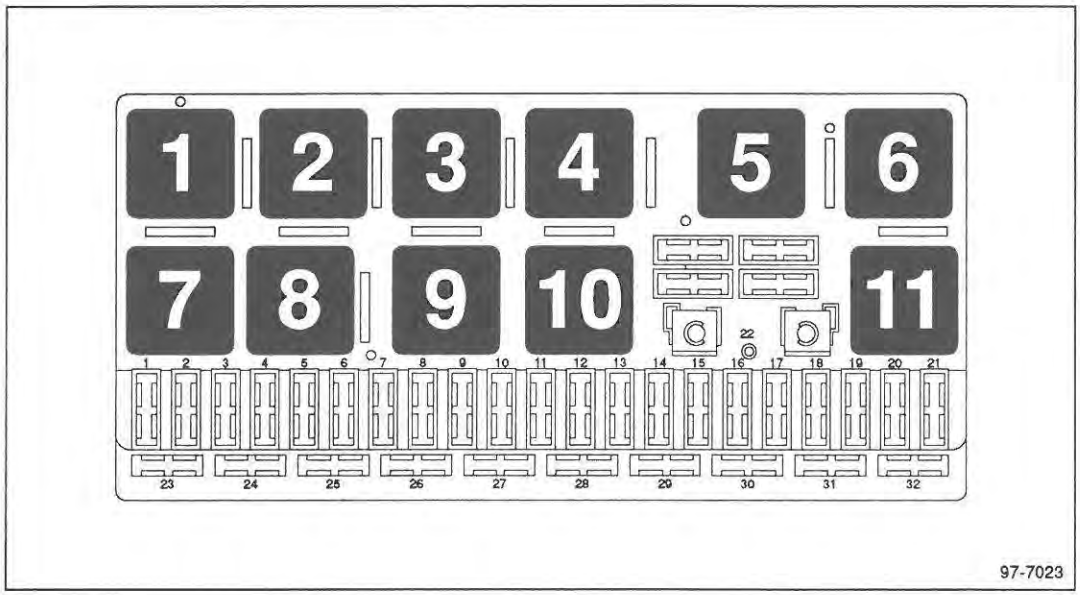


Wiring Color Code
ws = white
sw = black
ro = red
br = brown
gn = green
bl = blue
gr = gray
li = violet
ge = yellow

F22 = Oil Pressure Switch (0,3 bar)
G8 = Oil Temperature Sensor
G9 = Oil Temperature Gauge
G10 = Oil Pressure Sensor
G11 = Oil Pressure Gauge
G14 = Voltmeter
J166 = Instrument Lighting Booster
L50 = Center Rear Ashtray Light
T2s = Wire Connector, double, brown, behind console
T4h = Wire Connector, 4 Point, black, in engine compartment right
T6w = Wire Connector, 6 Point, white, behind console

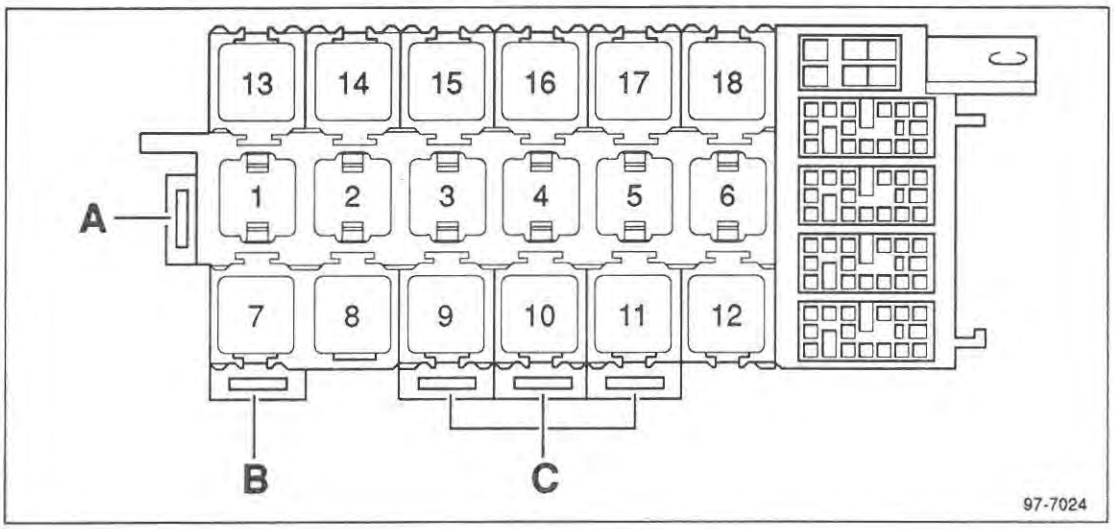
(199) - Ground connection -3-, in instrument panel wiring harness

Fuse / Relay Panel (Left Side Plenum Tray)



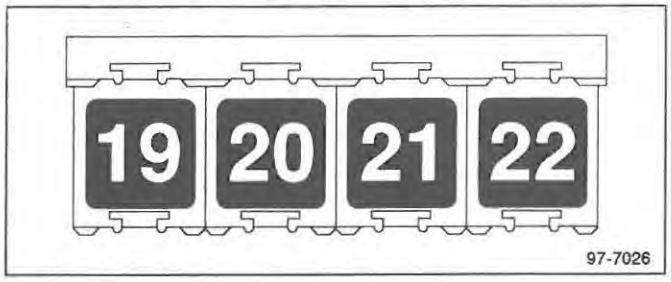
Relay location

Auxiliary Relay Panel With Connector Station

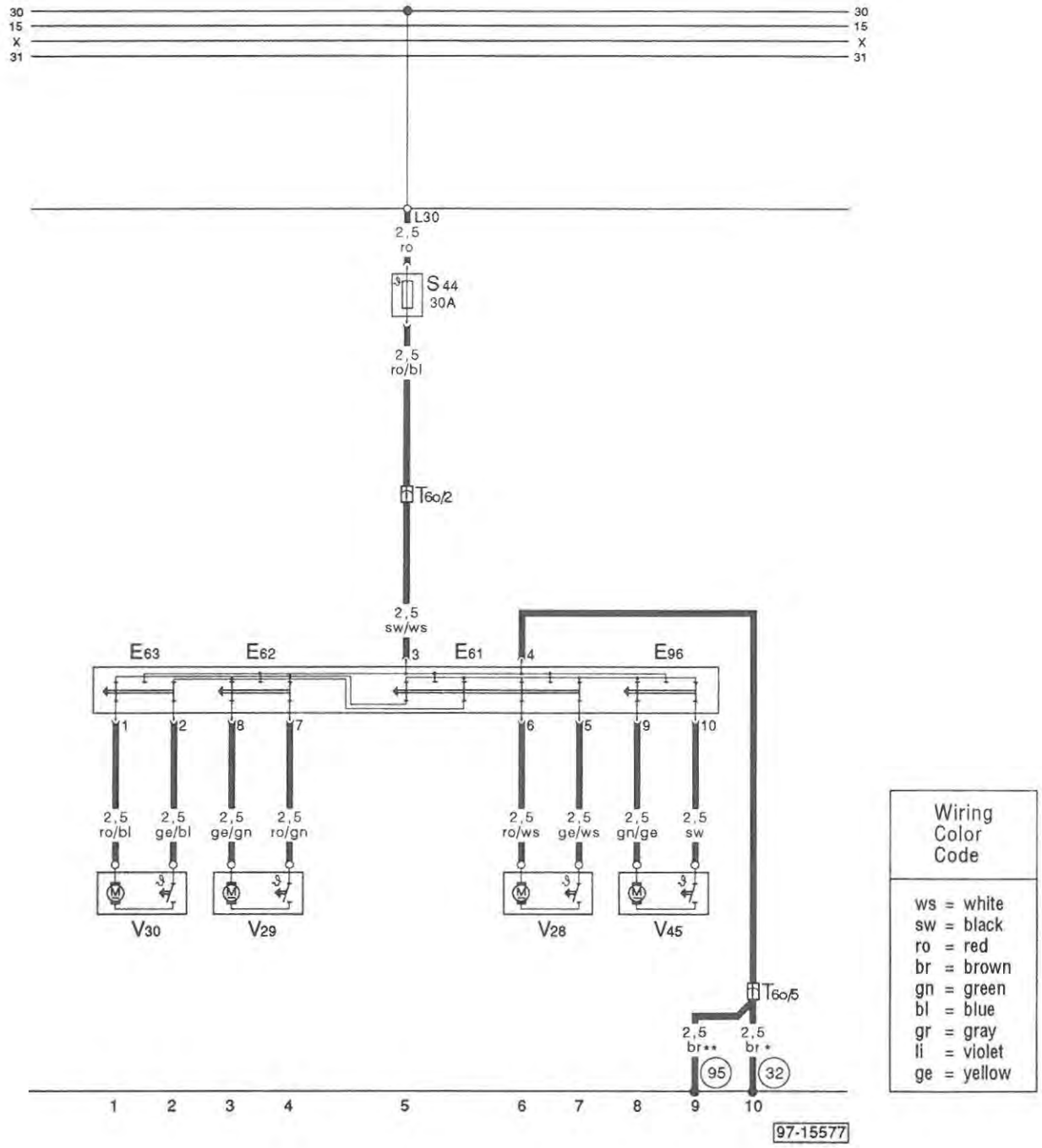


Relay location

Auxiliary Relay Panel, Rear



Relay location



Wiring Color Code
ws = white
sw = black
ro = red
br = brown
gn = green
bl = blue
gr = gray
li = violet
ge = yellow

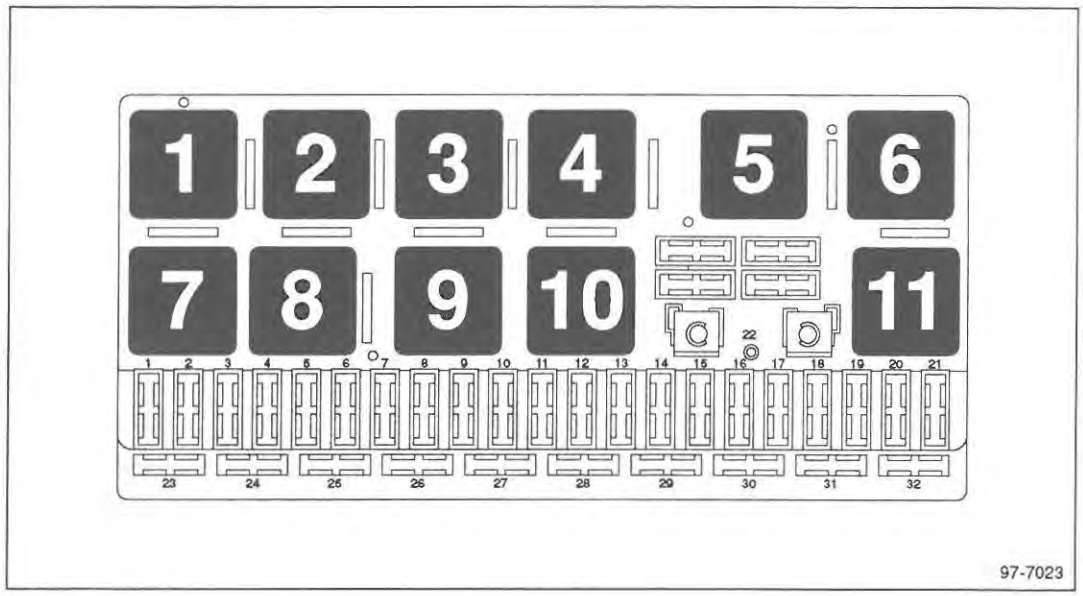
E61 = Driver Seat Fore / Aft Adjusting Switch
E62 = Driver Seat Front Height Adjusting Switch
E63 = Driver Seat Rear Height Adjusting Switch
E96 = Driver Backrest Adjustment Switch
S44 = Fuse For Memory Seat Adjusting Circuit Breaker, in Adapter C
T6o = Wire Connector, 6 Point, brown, below driver´s seat
V28 = Driver´s Seat Fore / Aft Adjusting Motot
V29 = Driver´s Seat Front Height Adjusting Motor
V30 = Driver´s Seat Rear Height Adjusting Motor
V45 = Driver´s Backrest Adjusting Motor

(32) - Ground connection, in instrument panel, left

(96) - Ground connection -1-, in power seat wiring harness

* - With Heated Front Seats
** - Without Heated Front Seats

Fuse / Relay Panel (Left Side Plenum Tray)

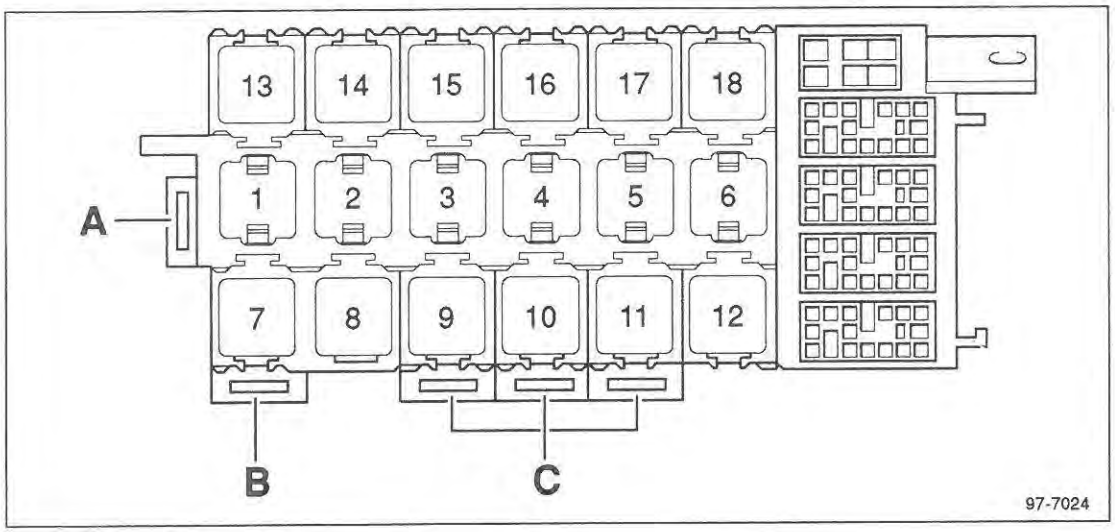


Relay location

From VIN: 8CPA 000100

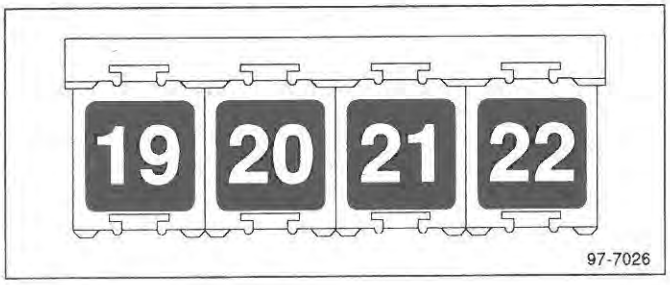
90 CS Quattro Sport–USA
90 S Quattro–Canada

Auxiliary Relay Panel With Connector Station



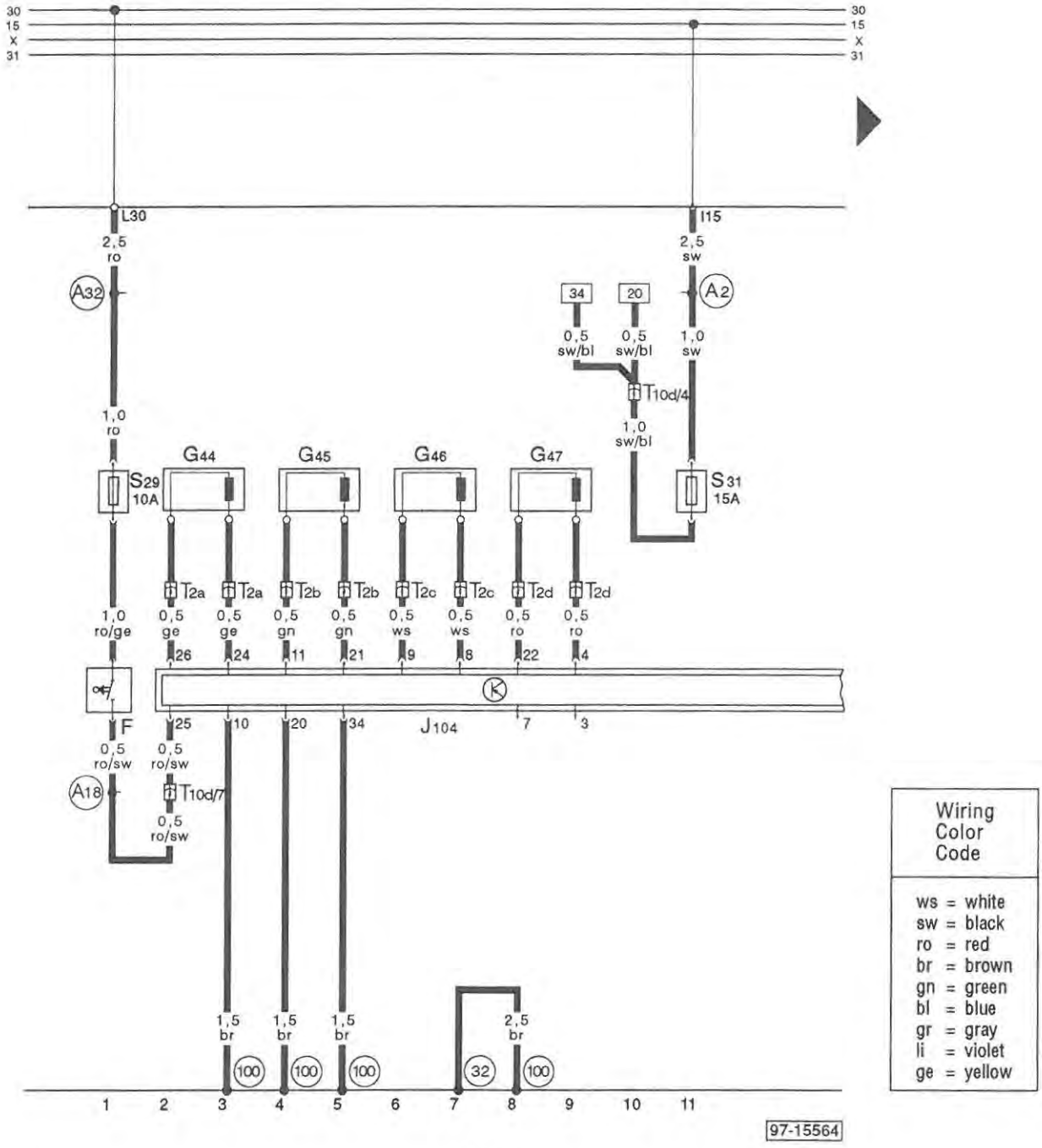
Relay location

Auxiliary Relay Panel, Rear



Relay location

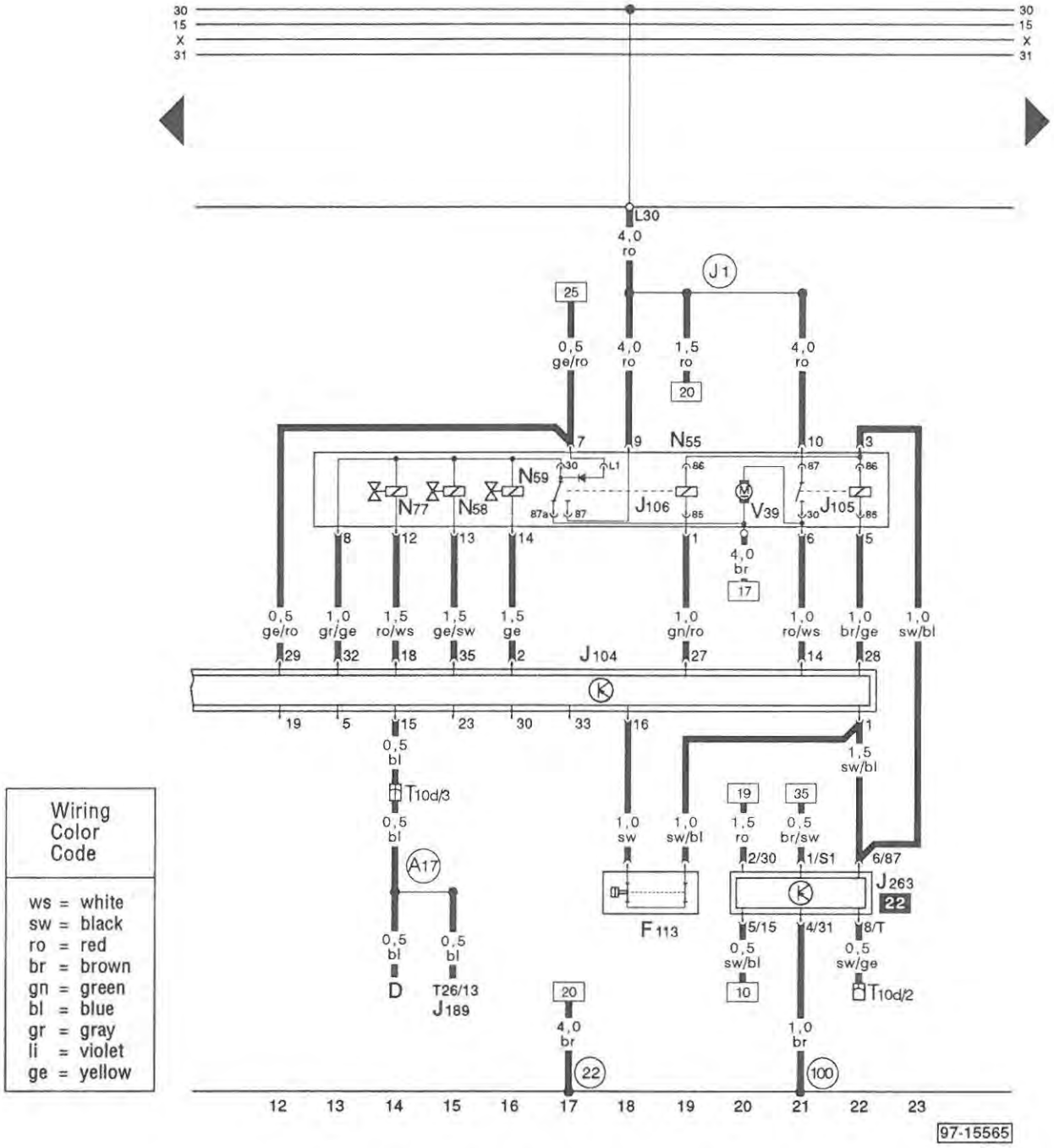
22 - Electronic Differential Lock Cot-Off Relay, J263



Wiring Color Code
ws = white
sw = black
ro = red
br = brown
gn = green
bl = blue
gr = gray
li = violet
ge = yellow

F = Brake Light Switch
G44 = ABS Wheel Speed Sensor, Right Rear
G45 = ABS Wheel Speed Sensor, Right Front
G46 = ABS Wheel Speed Sensor, Left Rear
G47 = ABS Wheel Speed Sensor, Left Front
J104 = ABS Control Module (w/EDL)
S29 = Fuse For Brake Lights, in Fuse Panel
S31 = Fuse For ABS / Differential Lock, in Fuse Panel
T2a = Wire Connector, double, below rear seat, right
T2b = Wire Connector, double, in engine compartment, right
T2c = Wire Connector, double, below rear seat, left
T2d = Wire Connector, double, in engine compartment, left
T10d = Wire Connector, 10 Point, blue, connector station in auxiliary relay panel

(32) - Ground connection, behind instrument panel, left
(100) - Ground connection -1-, in ABS wiring harness
(A2) - Plus connection (15), in instrument panel wiring harness
(A18) - Wire connection (54), in instrument panel wiring harness
(A32) - Plus connection (30), in instrument panel wiring harness



Wiring Color Code
ws = white
sw = black
ro = red
br = brown
gn = green
bl = blue
gr = gray
li = violet
ge = yellow

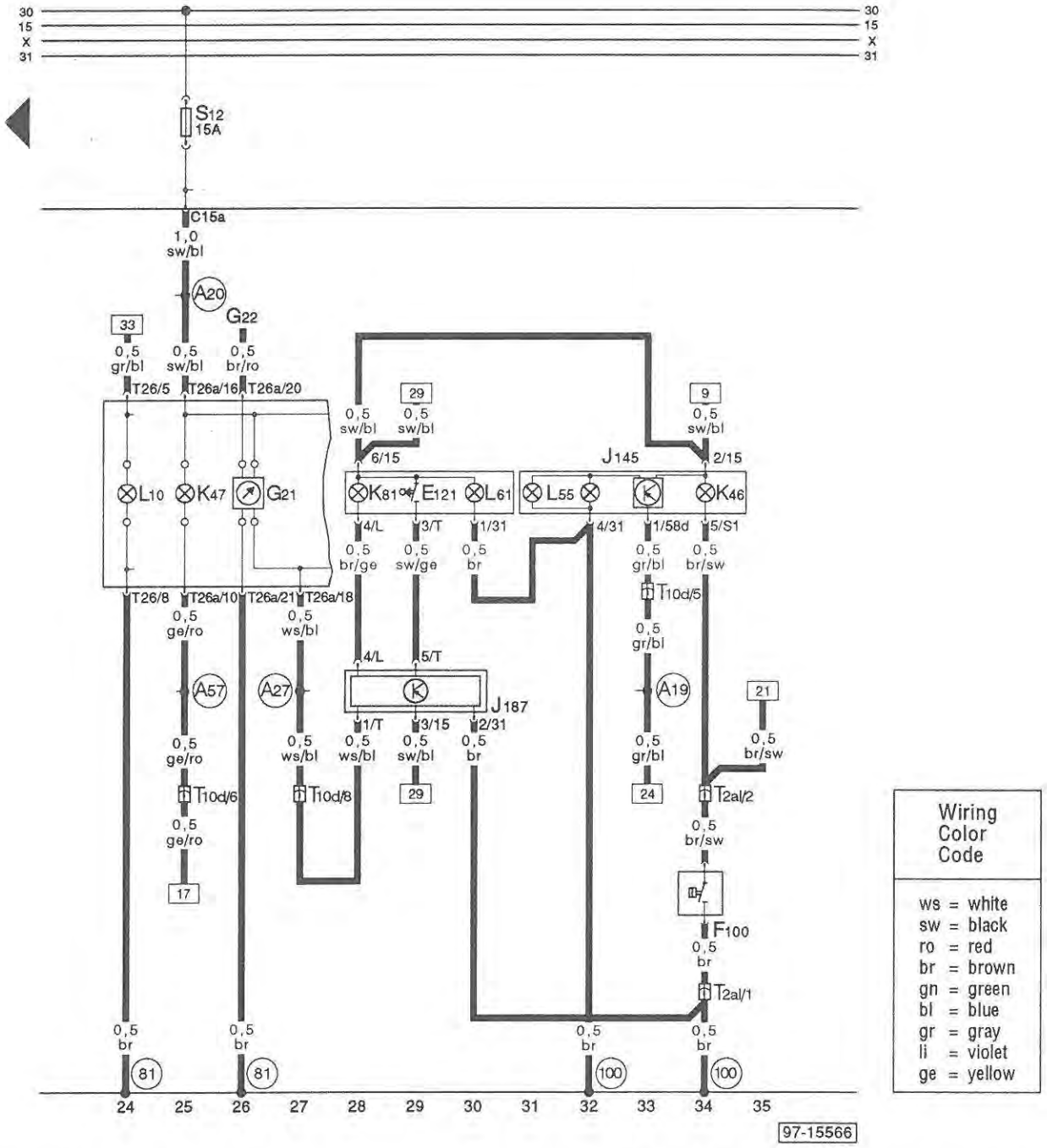
D = Ignition / Starter Switch
F113 = ABS Acceleration Switch
J104 = ABS Control Module (w/EDL)
J105 = ABS Return Flow Pump Relay
J106 = ABS Solenoid Valve Relay
J189 = Auto Check System
J263 = Electronic Differential Lock Cot-Off Relay
N55 = ABS Hydraulic Unit
N58 = ABS Solenoid Valve, Right Front
N59 = ABS Solenoid Valve, Left Front
N77 = ABS Solenoid Valve, Rear
T10d = Wire Connector, 10 Point, blue, connector station in auxiliary relay panel
T26 = Wire Connector, 26 Point, yellow, on instrument cluster
V39 = ABS Return Flow Pump

(22) - Ground connection, on hydraulic unit

(100) - Ground connection -1-, in ABS wiring harness

(A17) - Wire connection (61), in instrument panel wiring harness

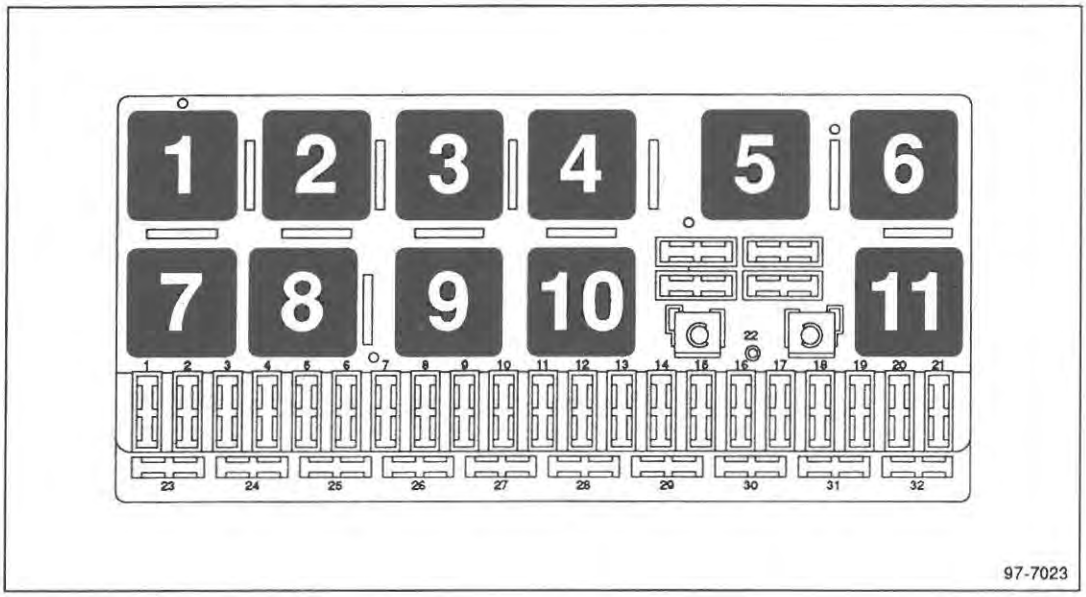
(J1) - plus connection (30), in ABS wiring harness



E121 = Rear Differential Lock Switch
F100 = Differential Lock Switch, Rear
G21 = Speedometer
G22 = Vehicle Speed Sensor (VSS), Speedometer
J145 = Display Unit
J187 = Differential Lock Control Module
K46 = Rear Differential Lock Indicator Light
K47 = ABS Warning Light
K81 = Differential Lock Indicator Light
L10 = Instrument Cluster Light
L55 = Differential Lock Switch Light
L61 = Differential Lock Switch Light
T2al = Wire Connector, double, white, below rear seat, left
T10d = Wire Connector, 10 Point, blue, connector station in auxiliary relay panel
T26 = Wire Connector, 26 Point, yellow, on instrument cluster
T26a = Wire Connector, 26 Point, blue, on instrument cluster

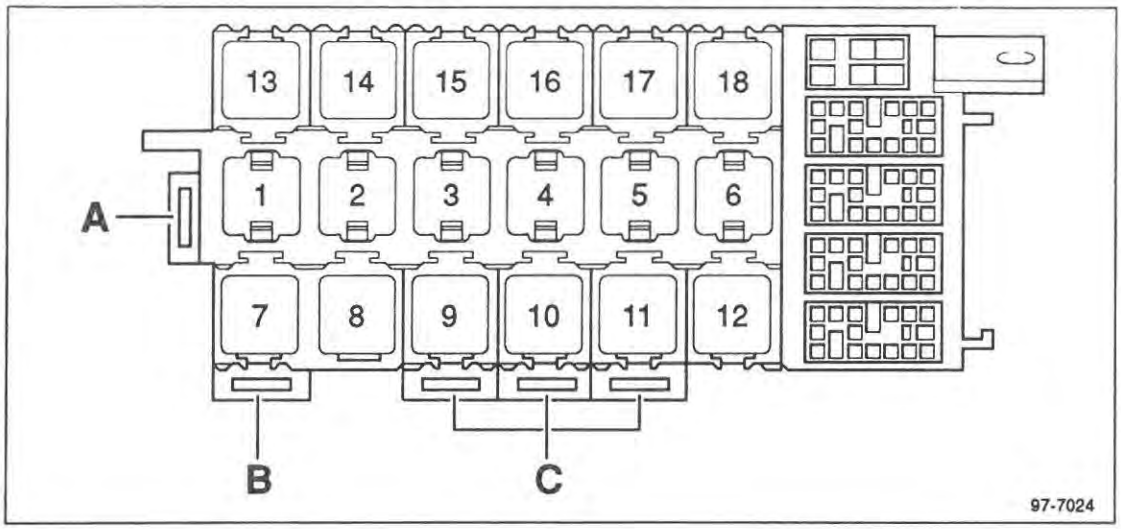
(81) - Ground connection -1-, in instrument panel wiring harness
(100) - Ground connection -1-, in ABS wiring harness
(A19) - Wire connection (58d), in instrument panel wiring harness
(A20) - Wire connection (15a), in instrument panel wiring harness
(A27) - Wire connection (speed signal), in instrument panel wiring harness
(A57) - Wire connection (ABS), in instrument panel wiring harness

Fuse / Relay Panel (Left Side Plenum Tray)



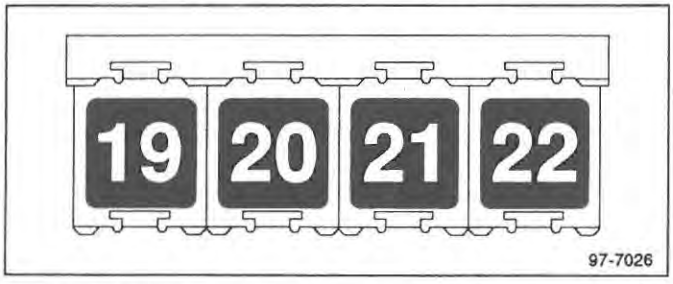
Relay location

Auxiliary Relay Panel With Connector Station



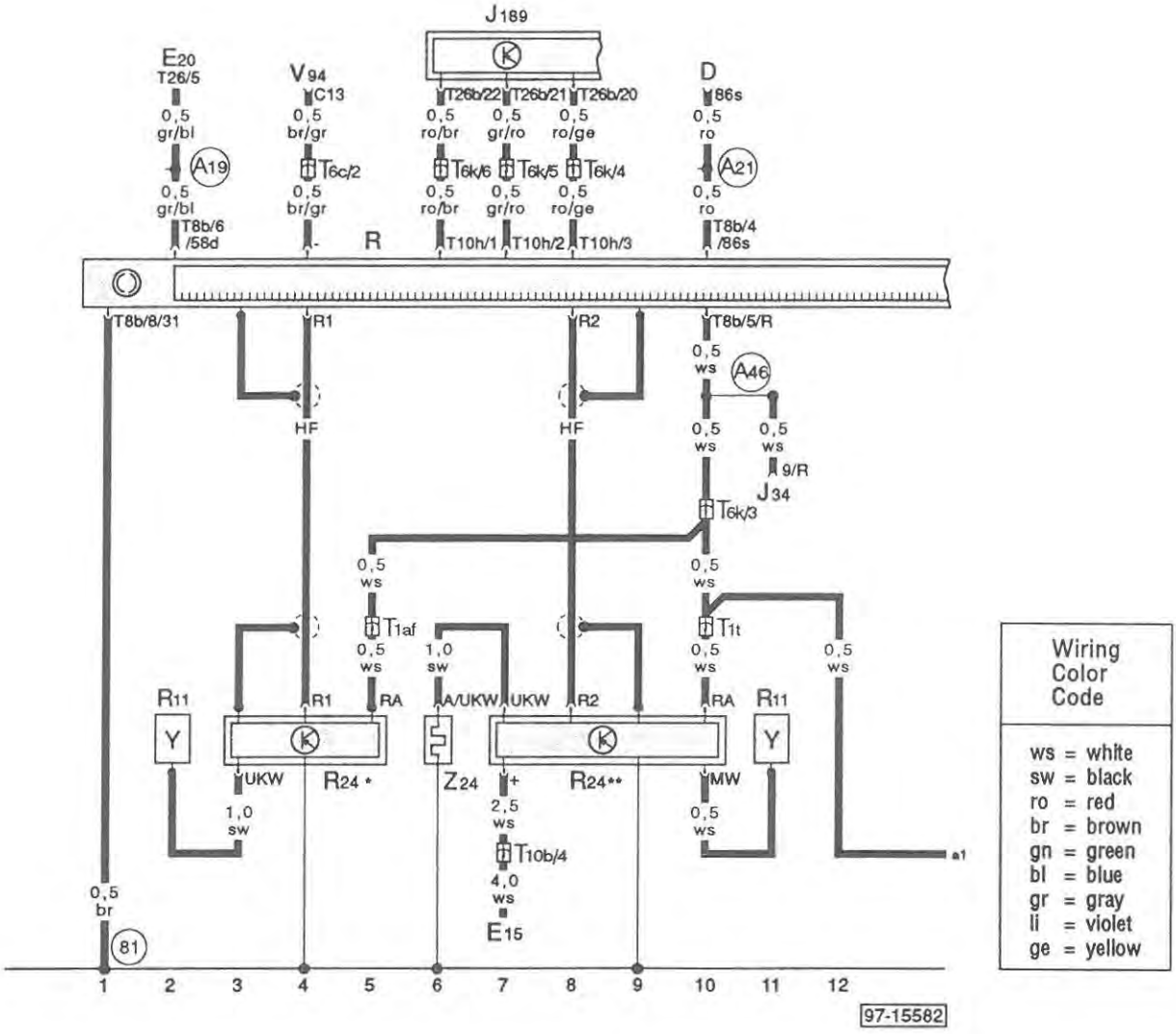
Relay location

Auxiliary Relay Panel, Rear



Relay location

30
15
X
31



Wiring Color Code
ws = white
sw = black
ro = red
br = brown
gn = green
bl = blue
gr = gray
li = violet
ge = yellow

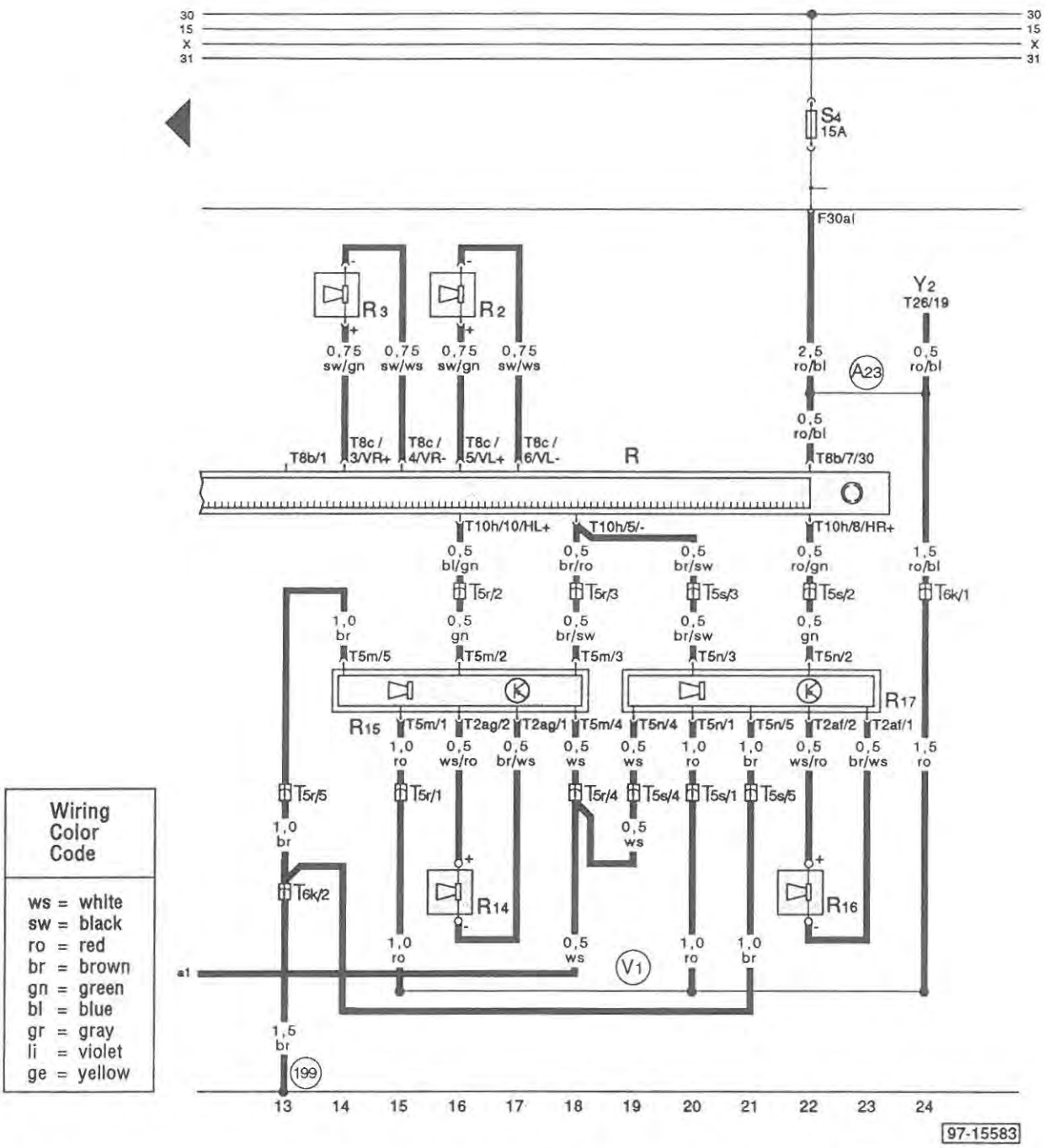
D = Ignition / Starter Switch
E15 = Rear Window Defogger Switch
E20 = Instrument Panel Light Dimmer Switch
J34 = Seat Belt Warning System Relay
J189 = Auto-Check-System
R = Radio
R11 = Antenna
R24 = Antenna Amplifier
T1t = Wire Connector, single, red, in luggage compartment, left
T1af = Wire Connector, single, red, in luggage compartment, right
T6c = Wire Connector, 6 Point, yellow, behind instrument panel, left
T6k = Wire Connector, 6 Point, black, behind console
T8b = Wire Connector, 8 Point, on Radio
T10b = Wire Connector, 10 Point, brown, connector station on auxiliary relay panel
T10h = Wire Connector, 10 Point, red, on Radio
T26 = Wire Connector, 26 Point, yellow, on instrument cluster
T26b = Wire Connector, 26 Point, white, on instrument cluster (Auto Check System With Display)
V94 = Central Locking / Alarm System / Interior Light Delay Control Module
Z24 = Rear Window Defogger With Window Antenna

(81) - Ground connection -1-, in instrument panel wiring harness
(A19) - Wire connection (58d), in instrument panel wiring harness
(A21) - Wire connection (86s), in instrument panel wiring harness
(A46) - Wire connection (30-from radio), in instrument panel wiring harness

* - Located in Rear D-Pillar, Right
** - Located in Rear D-Pillar, Left

173 AM/FM stereo radio with 6 speakers

90 (All models)-USA/Canada
From VIN: 8CPA 000100



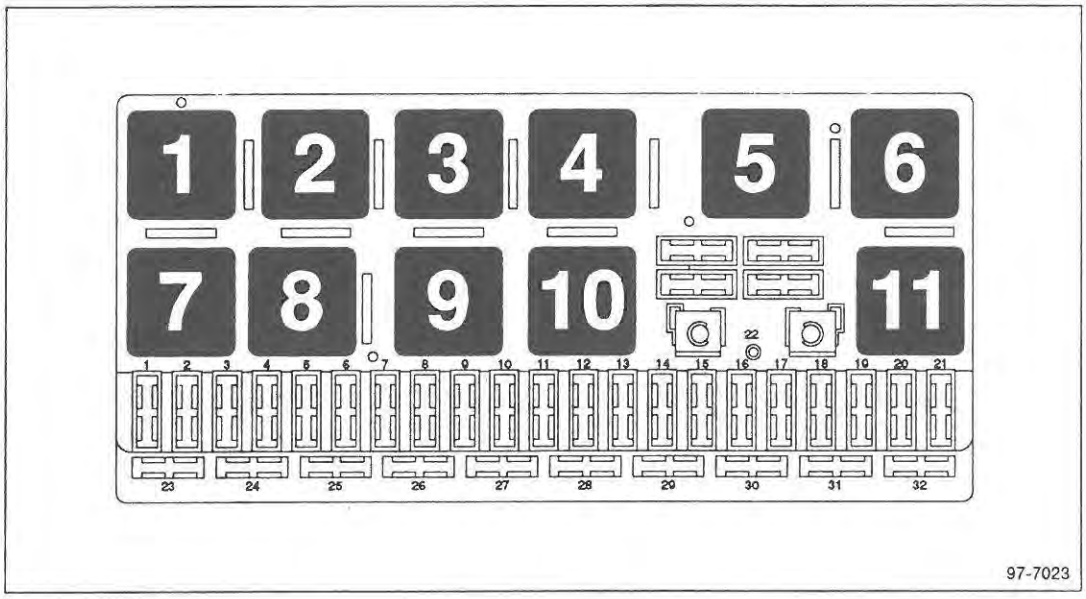
Wiring Color Code
ws = white
sw = black
ro = red
br = brown
gn = green
bl = blue
gr = gray
li = violet
ge = yellow

R = Radio
R2 = Speaker, Left Front
R3 = Speaker, Right Front
R14 = Tweeter, Left Rear
R15 = Woofer, Left Rear
R16 = Tweeter, Right Rear
R17 = Woofer, Right Rear
T2af = Wire Connector, double, on Tweeter, Right Rear
T2ag = Wire Connector, double, on Tweeter, Left Rear
T5m = Wire Connector, 5 Point, black, on Woofer, Left Rear
T5n = Wire Connector, 5 Point, black, on Woofer, Right Rear
T5r = Wire Connector, 5 Point, in left rear door
T5s = Wire Connector, 5 Point, in right rear door
T6k = Wire Connector, 6 Point, black, behind console
T8b = Wire Connector, 8 Point, on Radio
T8c = Wire Connector, 8 Point, on Radio
T10h = Wire Connector, 10 Point, red, on Radio
T26 = Wire Connector, yellow, on instrument cluster
Y2 = Digital Clock

(199) - Ground connection -3-, in instrument panel wiring harness
(A23) - Wire connection (30al), in instrument panel wiring harness
(V1) - Plus connection (30), in rear speaker wiring harness

This page
intentionally
left blank

Fuse / Relay Panel (Left Side Plenum Tray)

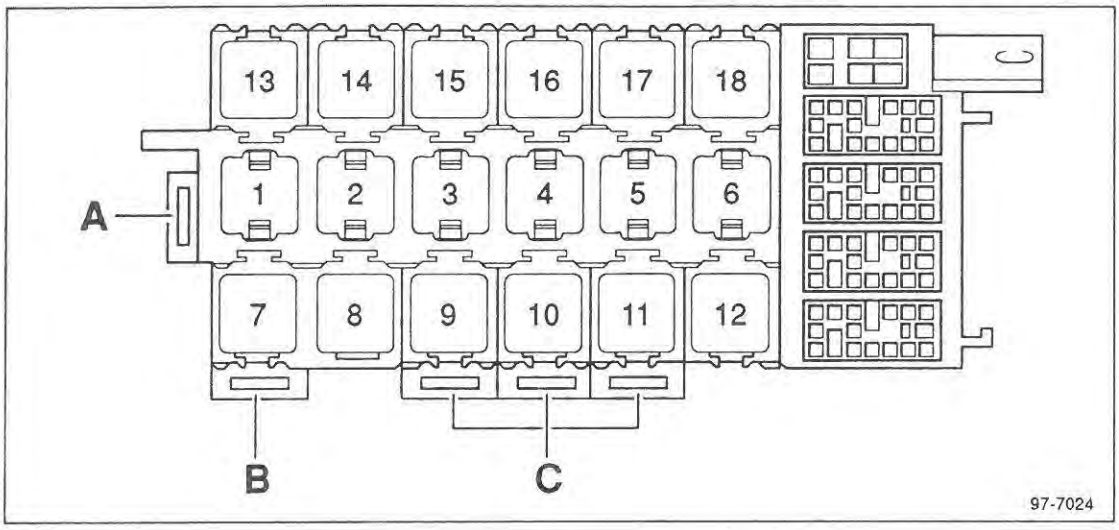


Relay location

2 - Second Speed Coolant Fan Control (FC) Relay, J101

3 - Coolant FC (Fan Control) Relay, J26

Auxiliary Relay Panel With Connector Station

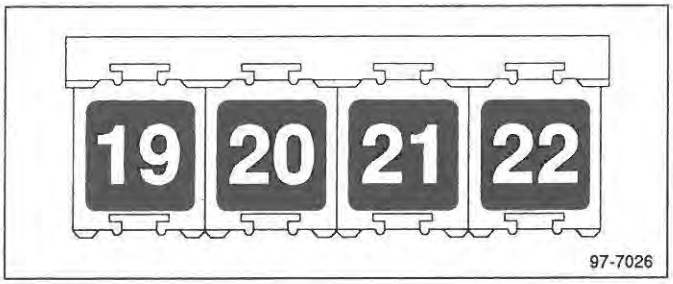


Relay location

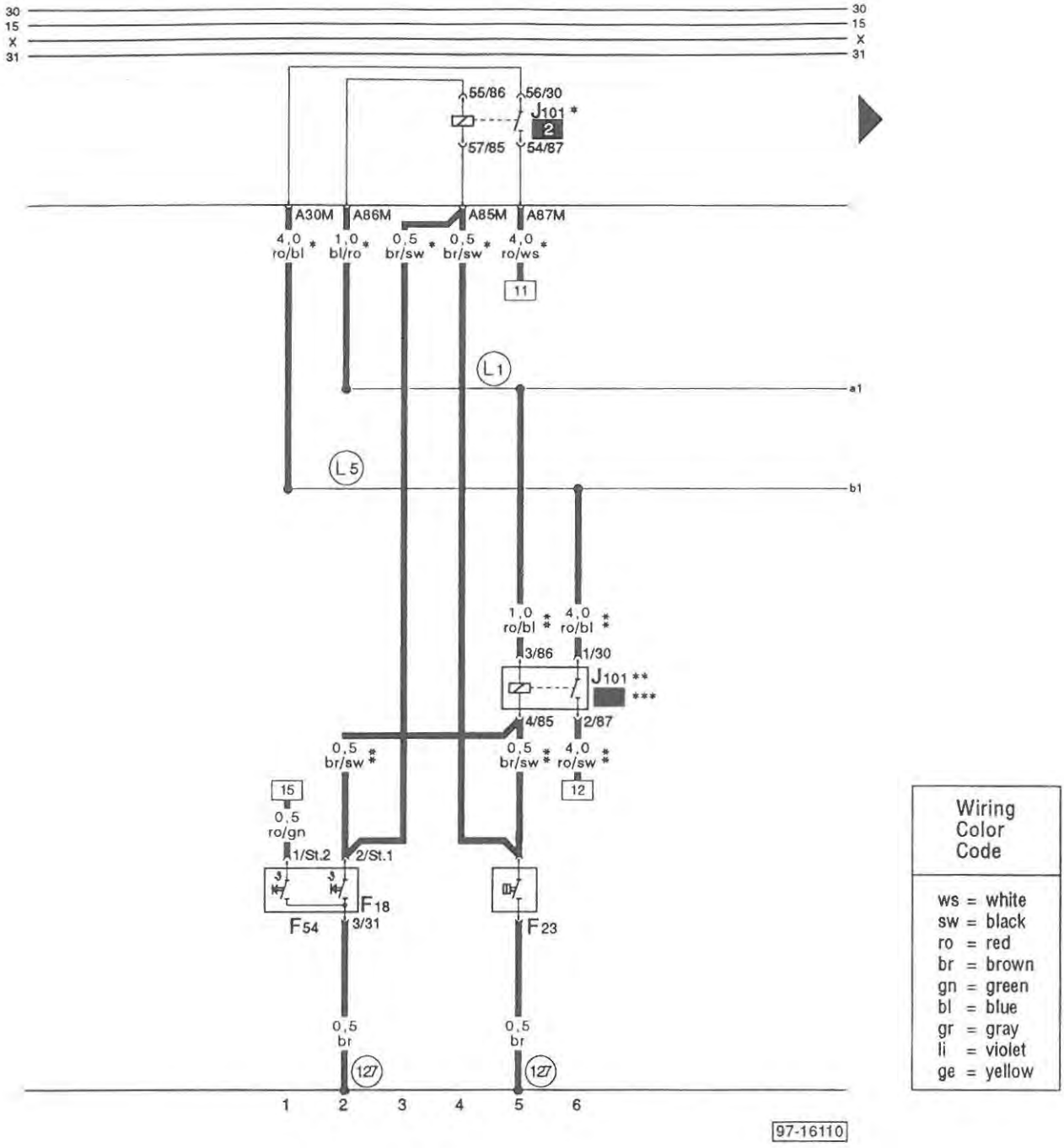
4 - A/C Compressor Clutch Relay, J44

18 - Third Speed Coolant FC (Fan Control) Relay, J135

Auxiliary Relay Panel, Rear



Relay location



Wiring Color Code
ws = white
sw = black
ro = red
br = brown
gn = green
bl = blue
gr = gray
li = violet
ge = yellow

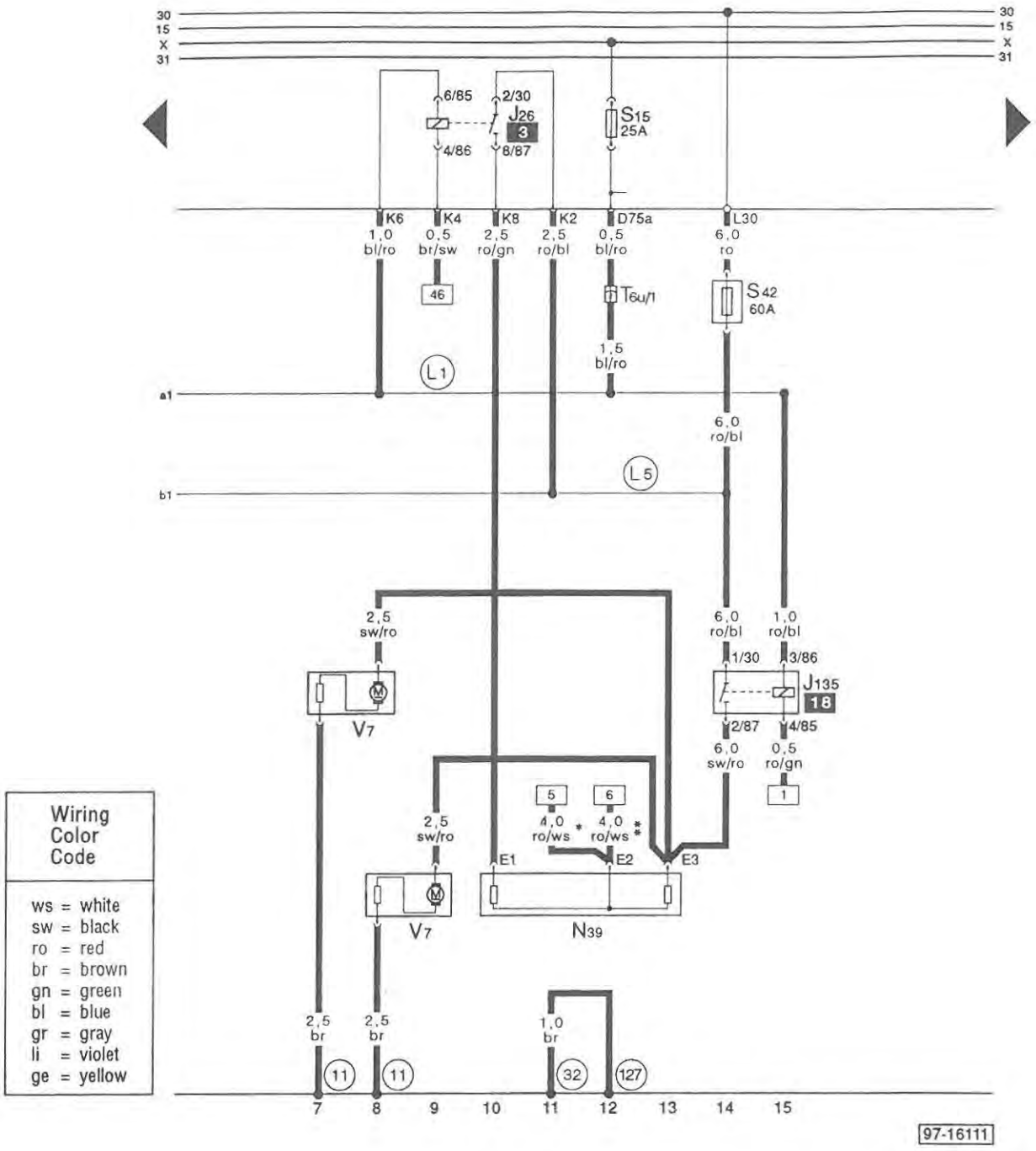
F18 = Coolant Fan Control (FC) Thermoswitch
F23 = A/C Refrigerant High Pressure Switch
F54 = Coolant Fan Control (FC) Thermoswitch
J101 = Second Speed Coolant Fan Control (FC) Relay

(127) - Ground connection -1-, in A/C compressor wiring harness

(L1) - Plus connection (75), in A/C wiring harness

(L5) - Wire connection -1-, in evaporator housing wiring harness

* - until October 1992
** - from October 1992
*** - Relay are installed in any free position and are not allocated any specific position



Wiring Color Code
ws = white
sw = black
ro = red
br = brown
gn = green
bl = blue
gr = gray
li = violet
ge = yellow

J26 = Coolant Fan Control (FC) Relay
J135 = Third Speed Coolant Fan Control (FC) Relay
N39 = Coolant Fan Control (FC) Series Resistance
S42 = Fuse For Coolant Fan, in Adapter B
T6u = Wire Connector, 6 Point, green, behind instrument panel, left
V7 = Coolant Fan

(11) - Ground connection, in battery box

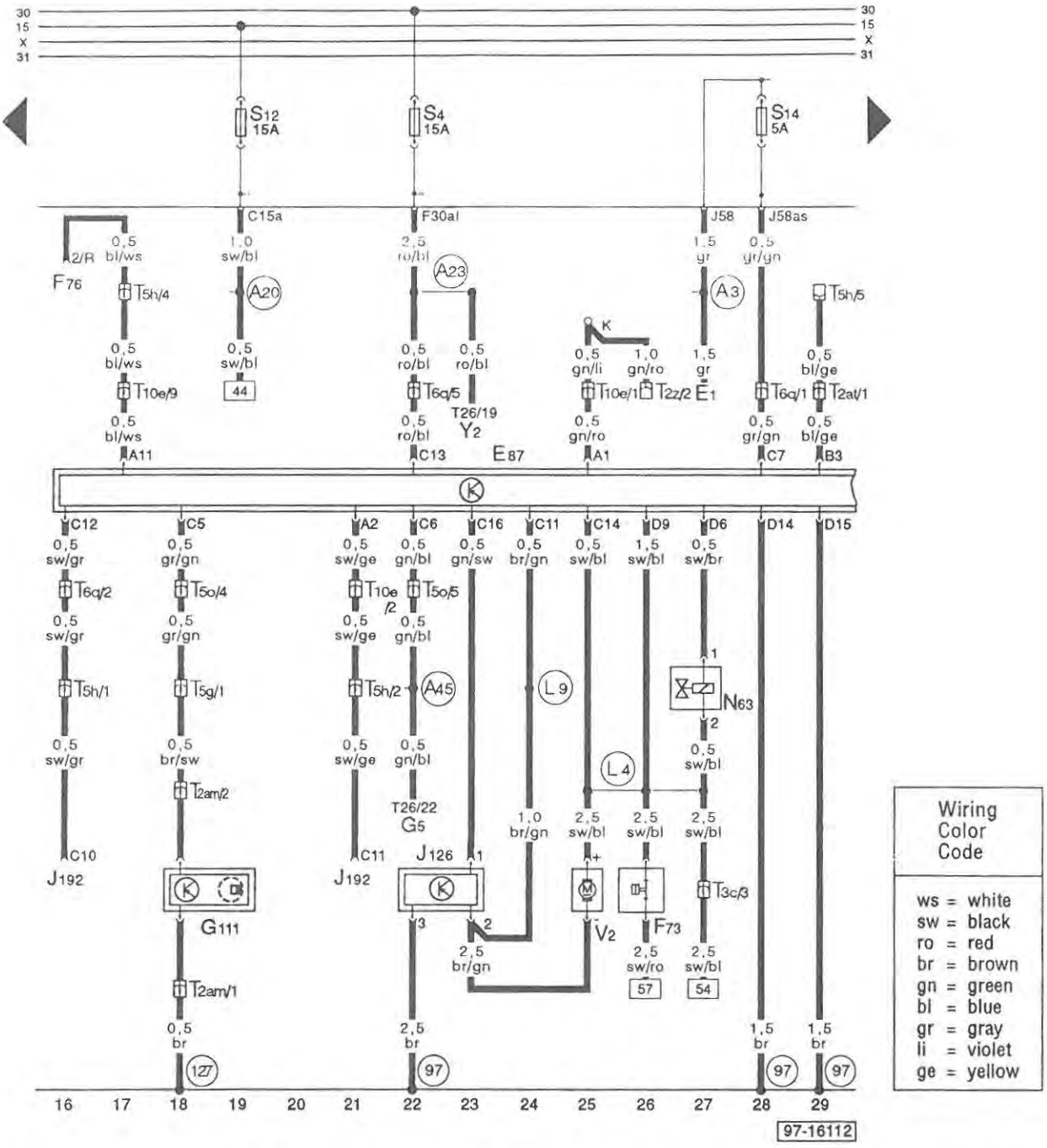
(32) - Ground connection, behind instrument panel, left

(127) - Ground connection -1-, in A/C compressor wiring harness

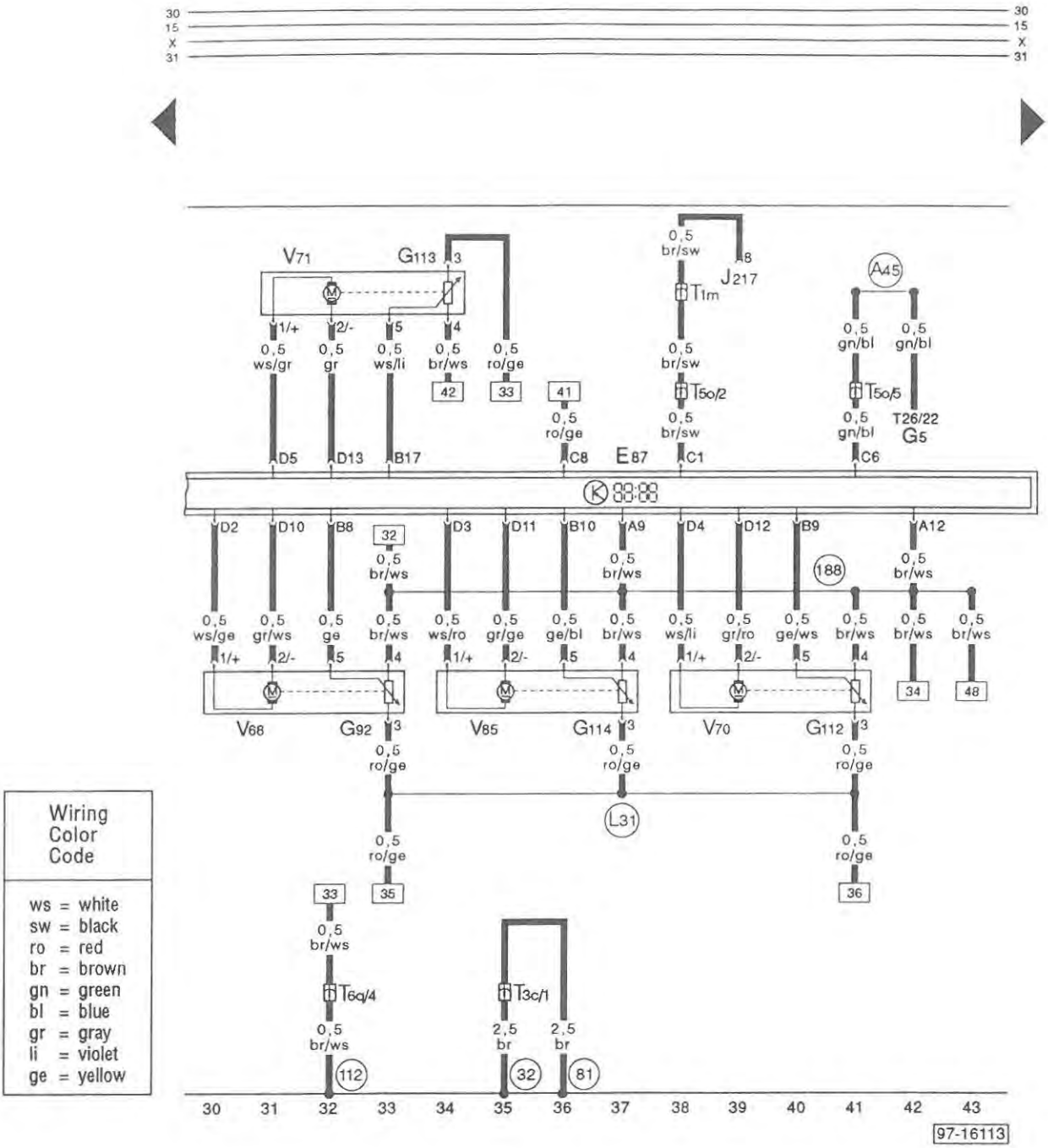
(L1) - Plus connection (75), in A/C wiring harness

(L5) - Wire connection -1-, in evaporator housing wiring harness

* - until October 1992
** - from October 1992

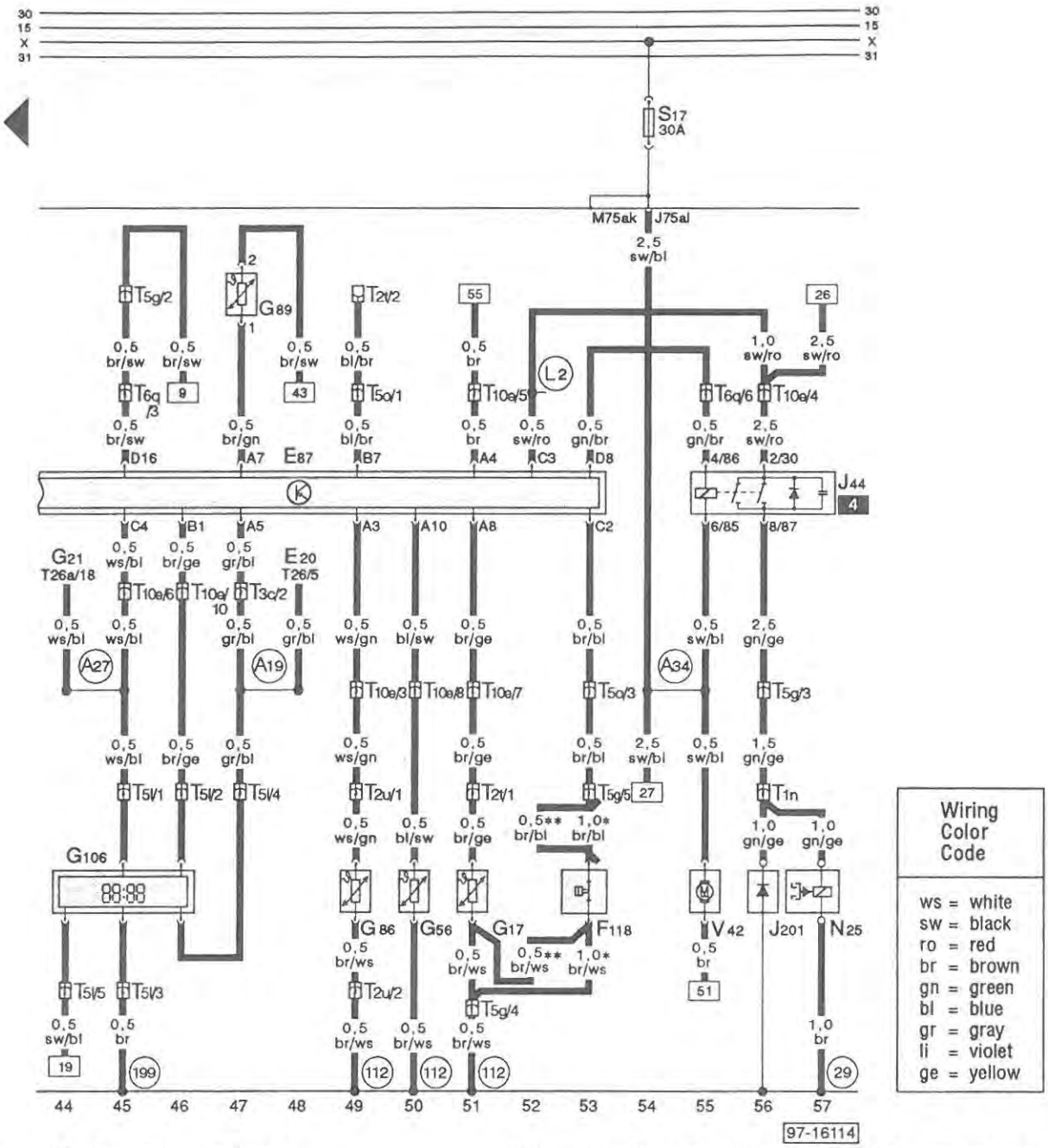


E1 = Light Switch
E87 = A/C Control Head
F73 = A/C Refrigerant Low Pressure Switch
F76 = Engine Coolant Temperature (ECT) Electronic Thermoswitch
G5 = Tachometer
G111 = A/C Compressor Speed Sensor
J126 = Fresh Air Blower Control Module
J192 = MFI Engine Control Module (ECM)
N63 = Fresh Air / Recirculating Flap Two-Way Valve
T2z = Wire Connector, double, white, in Plenum, Near Relay Panel (Data Link Connector)
T2am = Wire Connector, double, green, near compressor
T2at = Wire Connector, double, black, behind instrument panel, center
T3c = Wire Connector, 3 Point, brown, behind instrument panel, center
T5g = Wire Connector, 5 Point, green, connector station in auxillary relay panel
T5h = Wire Connector, 5 Point, red, behind instrument panel, left
T5o = Wire Connector, 5 Point, red, behind instrument panel, center
T6q = Wire Connector, 6 Point, red, behind instrument panel, center
T10e = Wire Connector, 10 Point, red, behind instrument panel, center
T26 = Wire Connector, 26 Point, yellow, on instrument cluster
V2 = Fresh Air Blower
Y2 = Digital Clock
(97) - Ground connection -1-, in A/C wiring harness
(127) - Ground connection -1-, in A/C compressor wiring harness
(A3) - Plus connection (58), in instrument panel wiring harness
(A20) - Wire connection (15a), in instrument panel wiring harness
(A23) - Wire connection (30al), in instrument panel wiring harness
(A45) - Wire connection (RPM signal), in instrument panel wiring harness
(L4) - Wire connection (75al), in A/C wiring harness
(L9) - Wire connection -1-, in A/C wiring harness
K - Wire Distributer For Data Link Connector(DLC); Terminal K



E87 = A/C Control Head
G5 = Tachometer
G92 = Temperature Regulator Flap Motor Potentiometer
G112 = Central Flap Motor Potentiometer
G113 = Back Pressure Flap Motor Potentiometer
G114 = Footwell / Defrost Flap Motor Potentiometer
J217 = Transmission Control Module (TCM)
T1m = Wire Connector, single, red, behind instrument panel, left
T3c = Wire Connector, 3 Point, brown, behind instrument panel, center
T5o = Wire Connector, 5 Point, red, behind instrument panel, center
T6q = Wire Connector, 6 Point, behind instrument panel, center
T26 = Wire Connector, 26 Point, yellow, on instrument cluster
V68 = Temperature Regulator Flap Motor
V70 = Central Air Flap Motor
V71 = Air Flow Flap Motor
V85 = Footwell / Defrostet Flap Motor

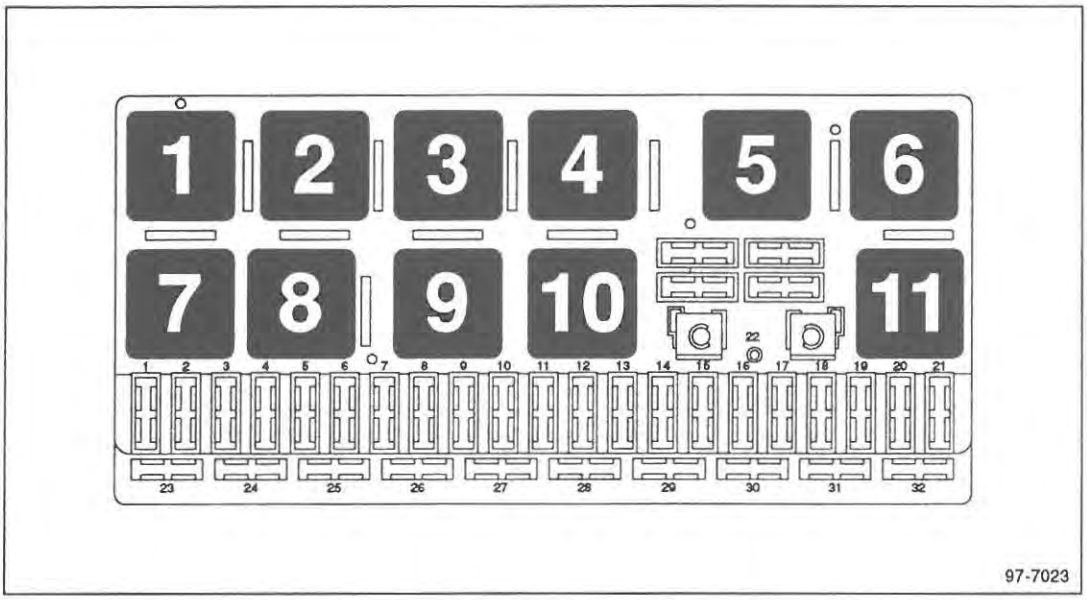
(81) - Ground connection -1-, in instrument panel wiring harness
(97) - Ground connection -1-, in A/C wiring harness
(112) - Ground connection -2-, in A/C wiring harness
(188) - Ground connection -3-, in A/C wiring harness
(A45) - Wire connection (RPM signal), in instrument panel wiring harness
(L31) - Wire connection (5 Volts), in A/C wiring harness



E20 = Instrument Panel Light Dimmer Switch
E87 = A/C Control Head
F118 = A/C Refrigerant High Pressure Switch
G17 = Outside Air Temperature Sensor
G21 = Speedometer
G56 = Interior Temperature Sensor; in instrument panel
G86 = Interior Temperature Sensor, in Headliner
G89 = Fresh Air Intake Duct Temperature Sensor
G106 = Outside Air Temperature Display
J44 = A/C Clutch Relay
J201 = Protection Diode
N25 = A/C Clutch
T1n = Wire Connector, single, green, near compressor
T2t = Wire Connector, double, brown, behind instrument panel, left
T2u = Wire Connector, double, red, behind instrument panel, left
T3c = Wire Connector, 3 Point, brown, behind instrument panel, center
T5g = Wire Connector, 5 Point, green, connector station in auxiliary relay panel
T5l = Wire Connector, 5 Point, yellow, on instrument cluster
T5o = Wire Connector, 5 Point, red, behind instrument panel, center
T6q = Wire Connector, 6 Point, red, behind instrument panel, center
T10e = Wire Connector, 10 Point, red, behind instrument panel, center
T26 = Wire Connector, 26 Point, yellow, on instrument cluster
T26a = Wire Connector, 26 Point, blue, on instrument cluster
V42 = Fan For Interior Temperature Sensor

(29) - Ground connection, near compressor
(112) - Ground connection -2-, in A/C wiring harness
(199) - Ground connection -2-, in instrument panel wiring harness
(A19) - Wire connection (58d), in instrument panel wiring harness
(A27) - Wire connection (speed signal), in instrument panel wiring harness
(A34) - Wire connection (75x), in instrument panel wiring harness
(L2) - Wire connection, in A/C wiring harness
* - until October 1992
** - from October 1992

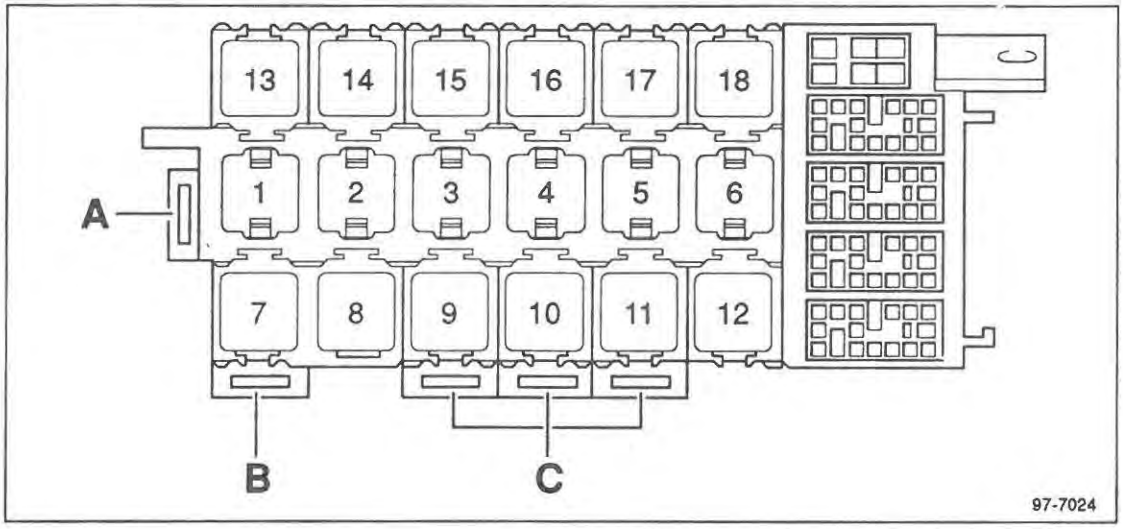
Fuse / Relay Panel (Left Side Plenum Tray)



Relay location

11 - Coolant FC (Fan Control) Relay, J26

Auxiliary Relay Panel With Connector Station

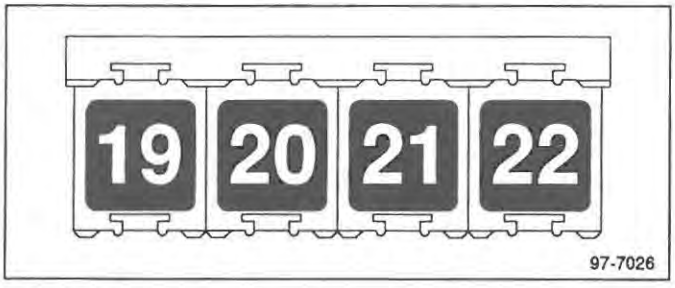


Relay location

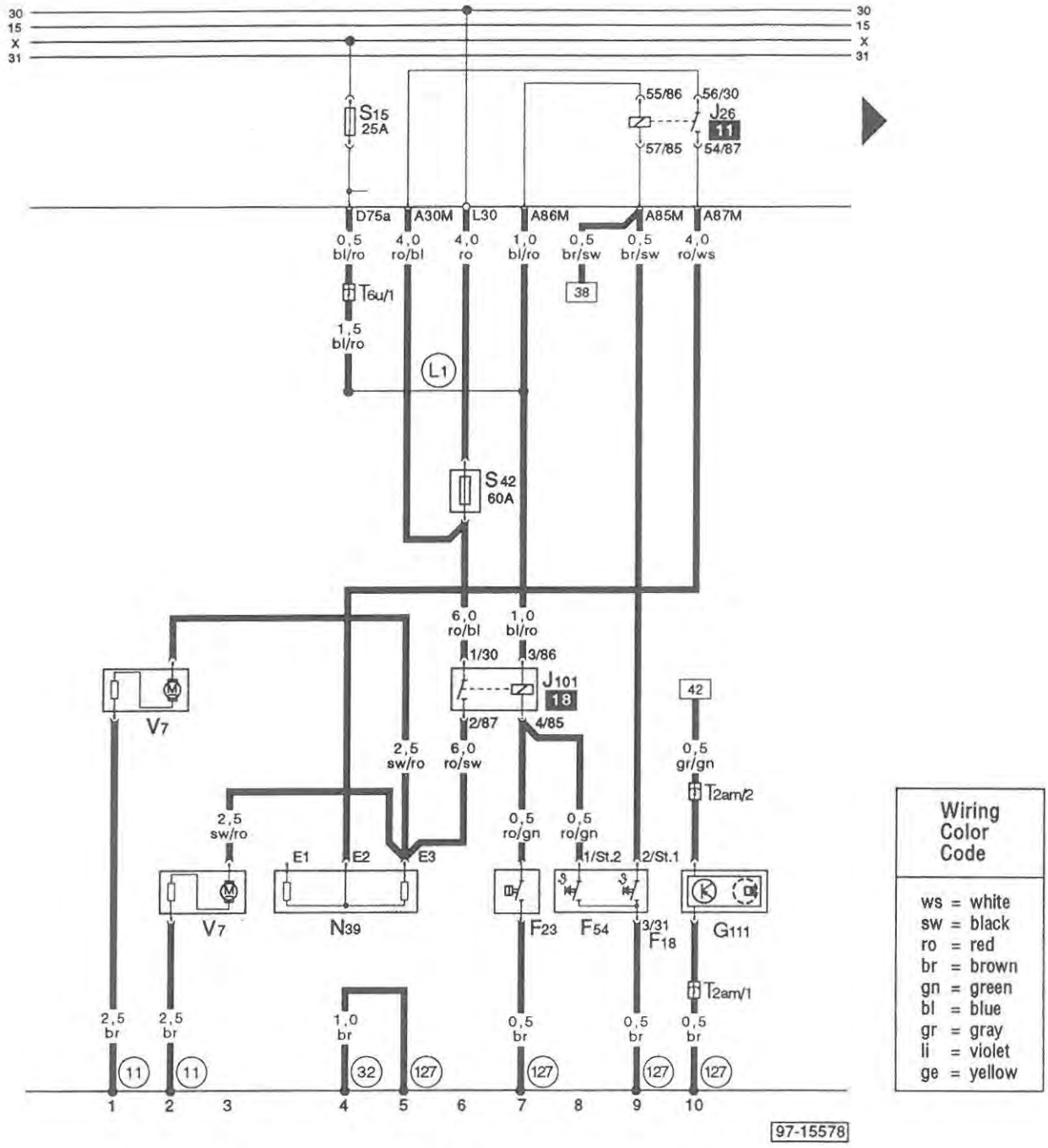
4 - A/C Compressor Clutch Relay, J44

18 - Second Speed Coolant FC (Fan Control) Relay, J101

Auxiliary Relay Panel, Rear



Relay location



Wiring Color Code
ws = white
sw = black
ro = red
br = brown
gn = green
bl = blue
gr = gray
li = violet
ge = yellow

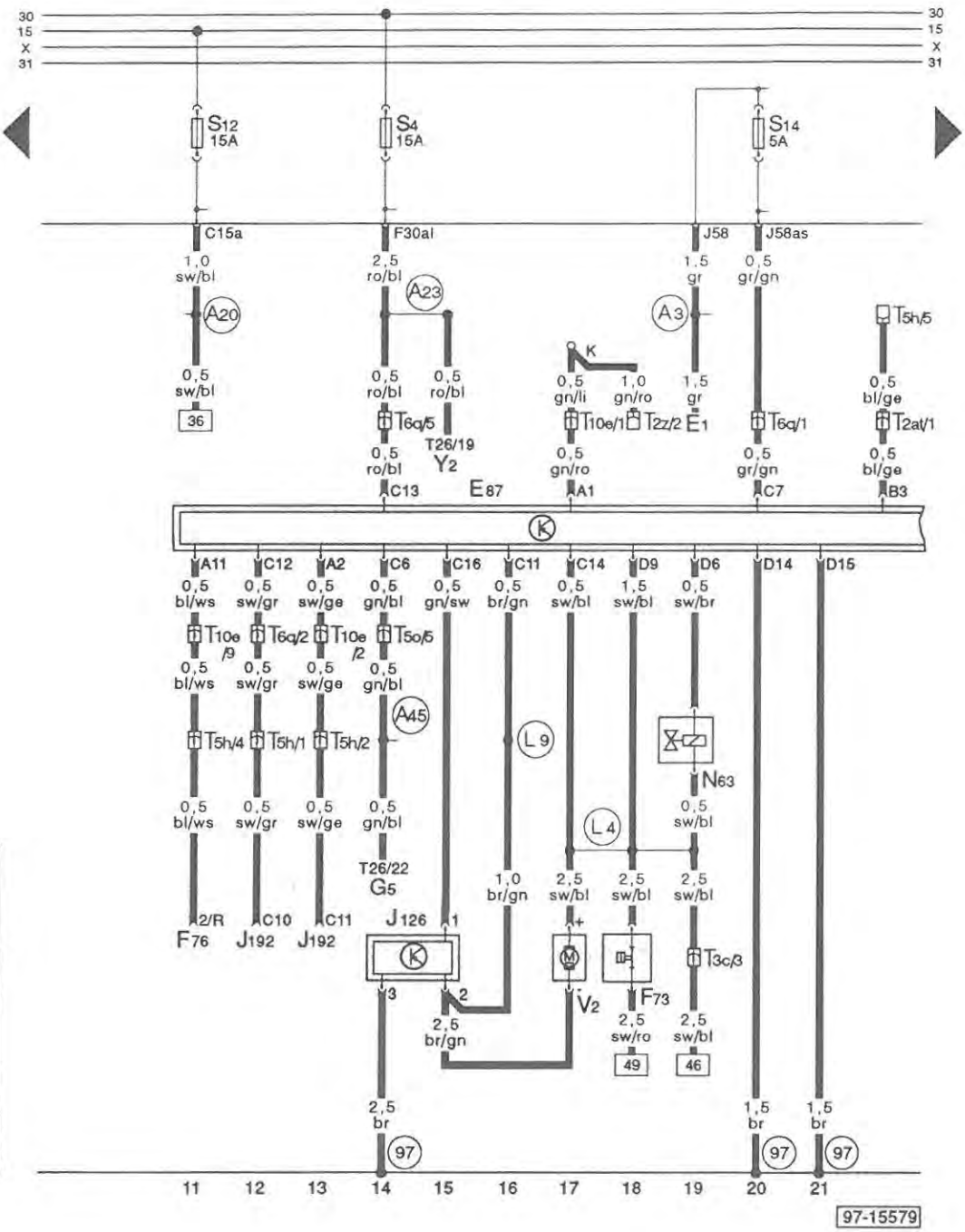
F18 = Coolant Fan Control (FC) Thermoswitch
F23 = A/C Refrigerant High Pressure Switch
F54 = Coolant Fan Control (FC) Thermoswitch
G111 = A/C Compressor Speed Sensor
J26 = Coolant Fan Control (FC) Relay
J101 = Second Speed Coolant Fan Control (FC) Relay
N39 = Coolant Fan Control (FC) Series Resistance
S42 = Fuse For Coolant Fan, in Adapter B
T2am = Wire Connector, double, green, near compressor
T6u = Wire Connector, 6 Point, green, behind instrument panel, left
V7 = Coolant Fan

(11) - Ground connection, in battery box

(32) - Ground connection, behind instrument panel, left

(127) - Ground connection -1-, in A/C compressor wiring harness

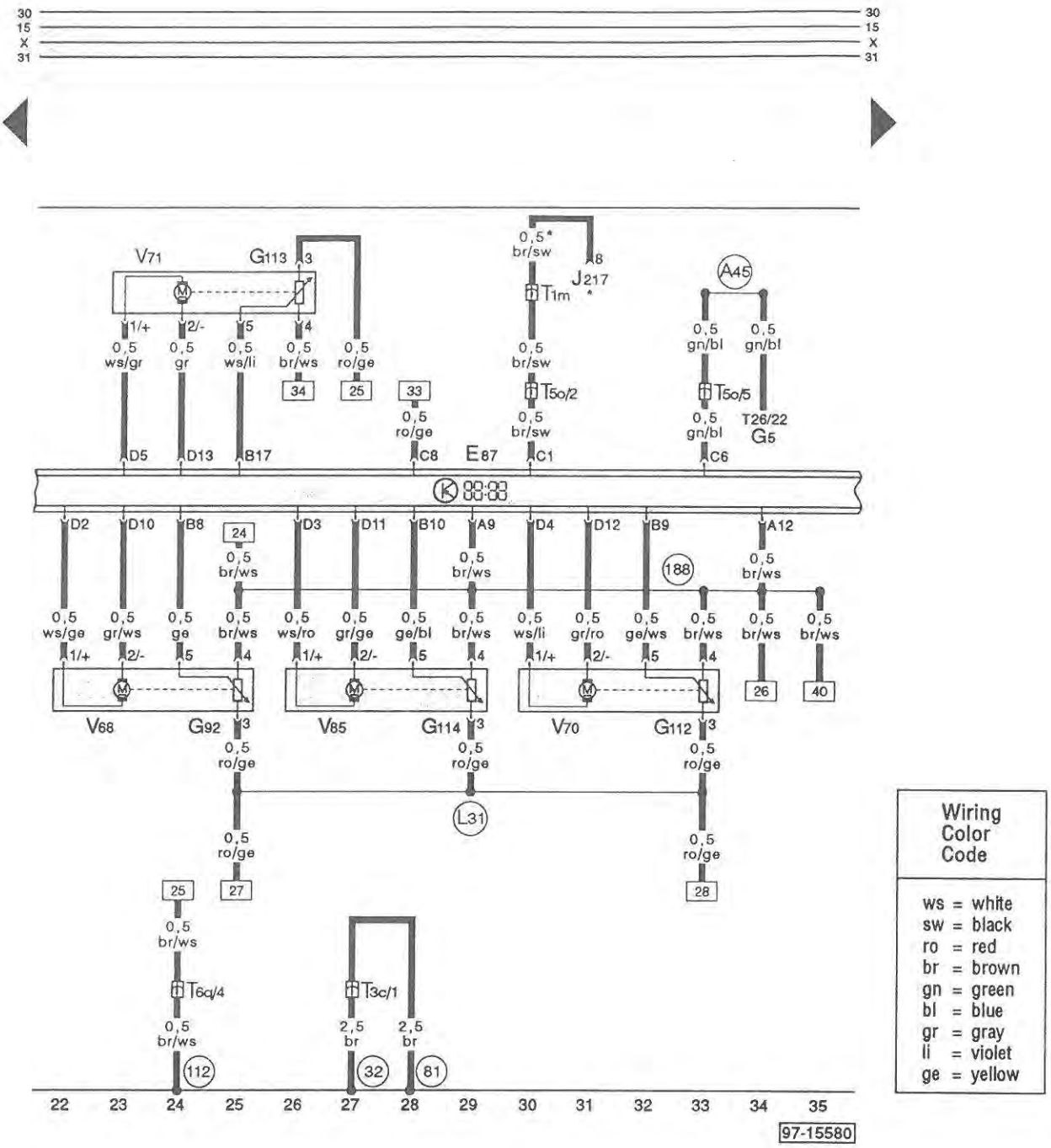
(L1) - Plus connection (75), in A/C wiring harness



Wiring Color Code	
ws	= white
sw	= black
ro	= red
br	= brown
gn	= green
bl	= blue
gr	= gray
li	= violet
ge	= yellow

E1 = Light Switch
E87 = A/C Control Head
F73 = A/C Refrigerant Low Pressure Switch
F76 = Engine Coolant Temperature (ECT) Electronic Thermoswitch
G5 = Tachometer
J126 = Fresh Air Blower Control Module
J192 = MFI Engine Control Module (ECM)
N63 = Fresh Air / Recirculating Flap Two-Way Valve
T2z = Wire Connector, double, white, in Plenum, Near Relay Panel (Data Link Connector)
T2at = Wire Connector, double, black, behind instrument panel, center
T3c = Wire Connector, 3 Point, brown, behind instrument panel, center
T5h = Wire Connector, 5 Point, red, behind instrument panel, left
T5o = Wire Connector, 5 Point, red, behind instrument panel, center
T6q = Wire Connector, 6 Point, red, behind instrument panel, center
T10e = Wire Connector, 10 Point, red, behind instrument panel, center
T26 = Wire Connector, 26 Point, yellow, on instrument cluster
V2 = Fresh Air Blower
Y2 = Digital Clock

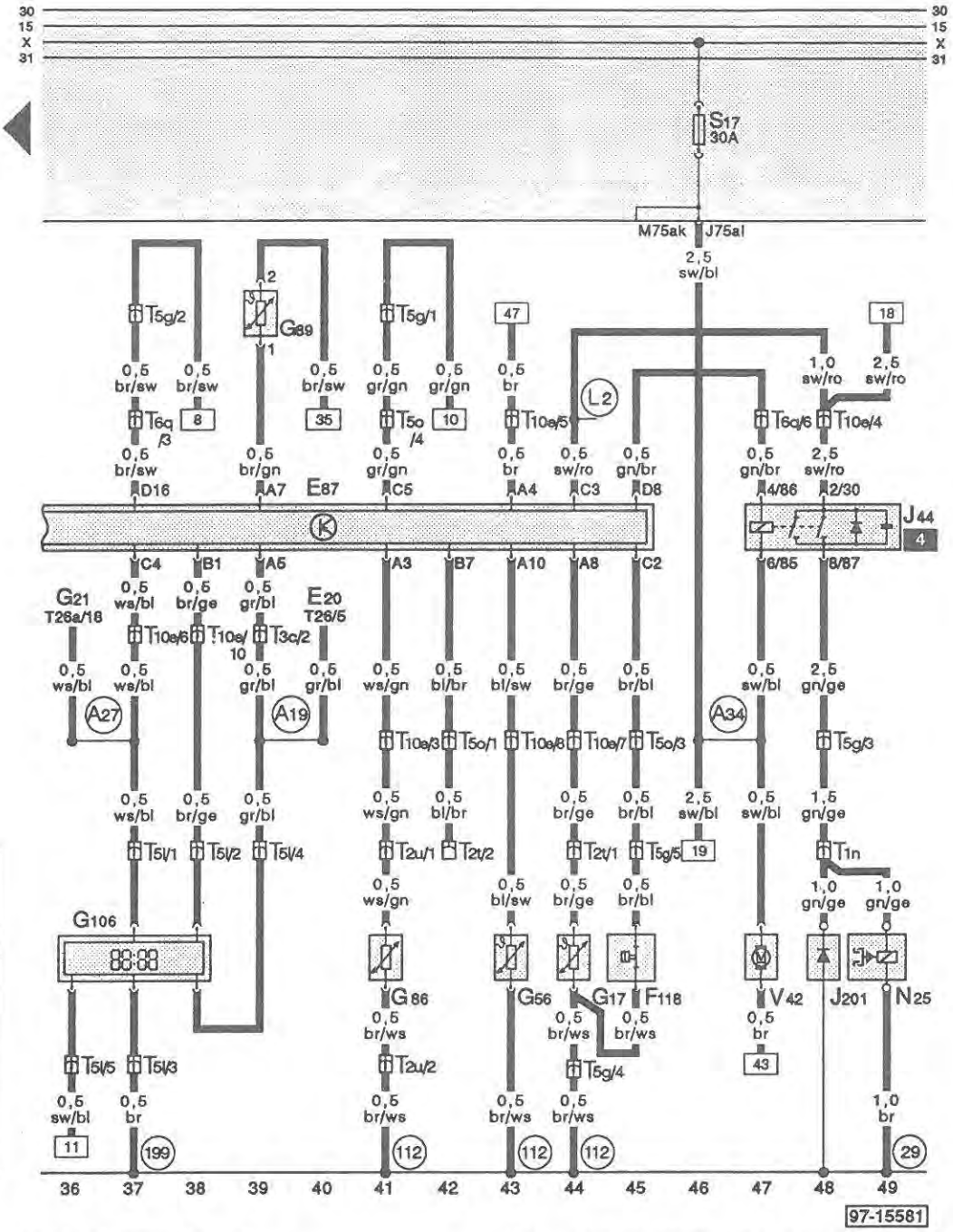
(97) - Ground connection -1-, in A/C wiring harness
(A3) - Plus connection (58), in instrument panel wiring harness
(A20) - Wire connection (15a), in Instrument panel wiring harness
(A23) - Wire connection (30al), in instrument panel wiring harness
(A45) - Wire connection (RPM signal), in instrument panel wiring harness
(L4) - Wire connection (75al), in A/C wiring harness
(L9) - Wire connection -1-, in A/C wiring harness
K - Wire Distributer For Data Link Connector(DLC); Terminal K



E87 = A/C Control Head
G5 = Tachometer
G92 = Temperature Regulator Flap Motor Potentiometer
G112 = Central Flap Motor Potentiometer
G113 = Back Pressure Flap Motor Potentiometer
G114 = Footwell / Defrost Flap Motor Potentiometer
J217 = Transmission Control Module (TCM)
T1m = Wire Connector, single, red, behind instrument panel, left
T3c = Wire Connector, 3 Point, brown, behind instrument panel, center
T5o = Wire Connector, 5 Point, red, behind instrument panel, center
T6q = Wire Connector, 6 Point, behind instrument panel, center
T26 = Wire Connector, 26 Point, yellow, on instrument cluster
V68 = Temperature Regulator Flap Motor
V70 = Central Air Flap Motor
V71 = Air Flow Flap Motor
V85 = Footwell / Defrostet Flap Motor

(81) - Ground connection -1-, in instrument panel wiring harness
(97) - Ground connection -1-, in A/C wiring harness
(112) - Ground connection -2-, in A/C wiring harness
(188) - Ground connection -3-, in A/C wiring harness
(A45) - Wire connection (RPM signal), in instrument panel wiring harness
(L31) - Wire connection (5 Volts), in A/C wiring harness

* - Automatic Transmission Only

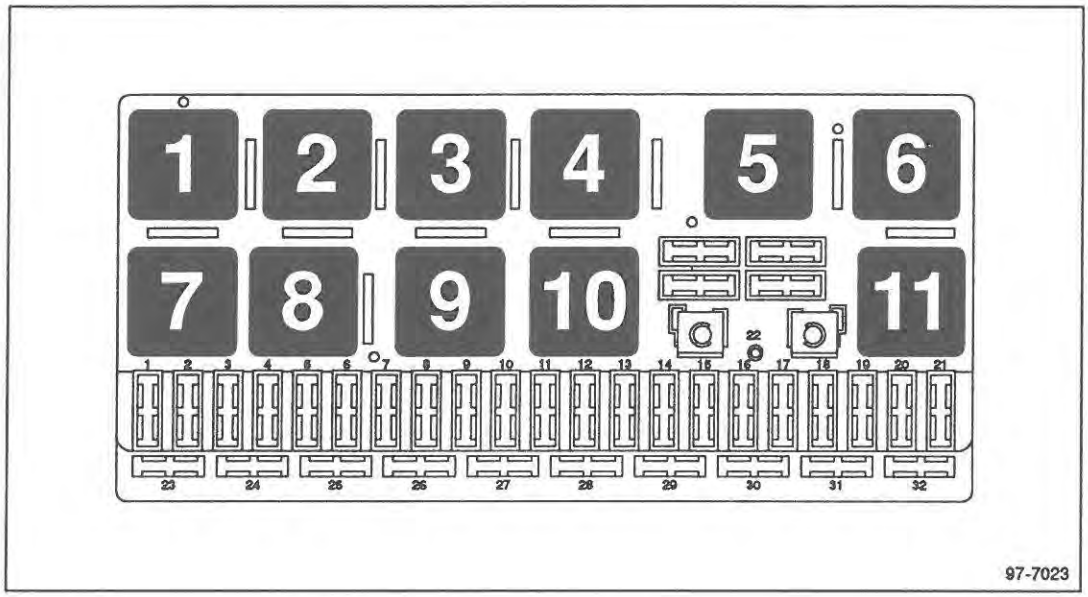


Wiring Color Code
ws = white
sw = black
ro = red
br = brown
gn = green
bl = blue
gr = gray
li = violet
ge = yellow

E20 = Instrument Panel Light Dimmer Switch
E87 = A/C Control Head
F118 = A/C Refrigerant High Pressure Switch
G17 = Outside Air Temperature Sensor
G21 = Speedometer
G56 = Interior Temperature Sensor; in instrument panel
G86 = Interior Temperature Sensor, in Headliner
G89 = Fresh Air Intake Duct Temperature Sensor
G106 = Outside Air Temperature Display
J44 = A/C Clutch Relay
J201 = Protection Diode
N25 = A/C Clutch
T1n = Wire Connector, single, green, near compressor
T2t = Wire Connector, double, brown, behind Instrument panel, left
T2u = Wire Connector, double, red, behind instrument panel, left
T3c = Wire Connector, 3 Point, brown, behind Instrument panel, center
T5g = Wire Connector, 5 Point, green, connector station in auxiliary relay panel
T5l = Wire Connector, 5 Point, yellow, on instrument cluster
T5o = Wire Connector, red, behind instrument panel, center
T6q = Wire Connector, 6 Point, red, behind instrument panel, center
T10e = Wire Connector, 10 Point, red, behind Instrument panel, center
T26 = Wire Connector, 26 Point, yellow, on instrument cluster
T26a = Wire Connector, 26 Point, blue, on instrument cluster
V42 = Fan For Interior Temperature Sensor

(29) - Ground connection, near compressor
(112) - Ground connection -2-, in A/C wiring harness
(199) - Ground connection -2-, in instrument panel wiring harness
(A19) - Wire connection (58d), in instrument panel wiring harness
(A27) - Wire connection (speed signal), in instrument panel wiring harness
(A34) - Wire connection (75x), in instrument panel wiring harness
(L2) - Wire connection, in A/C wiring harness

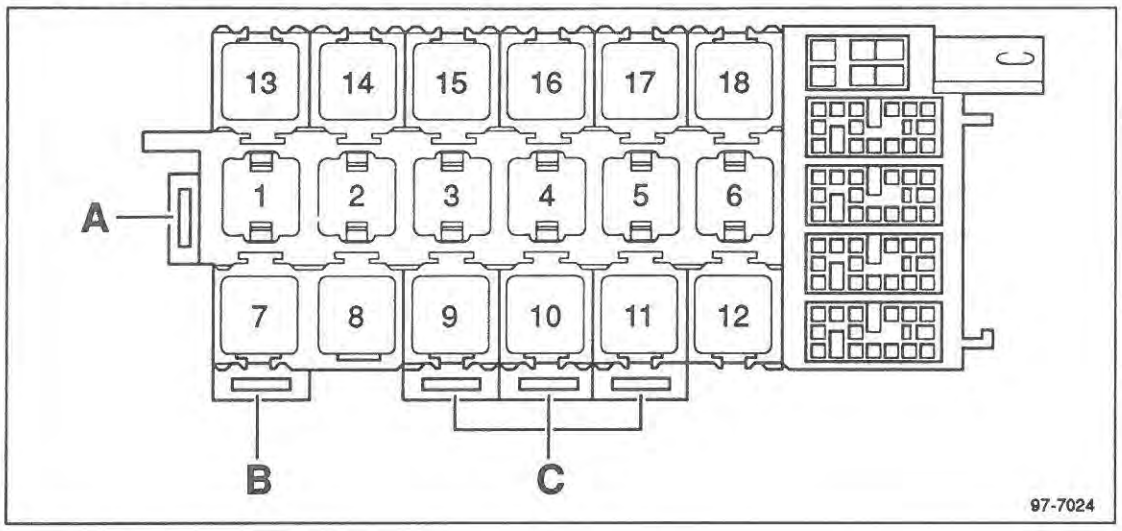
Fuse / Relay Panel (Left Side Plenum Tray)



Relay location

8 - Open (Automatic Transmission)

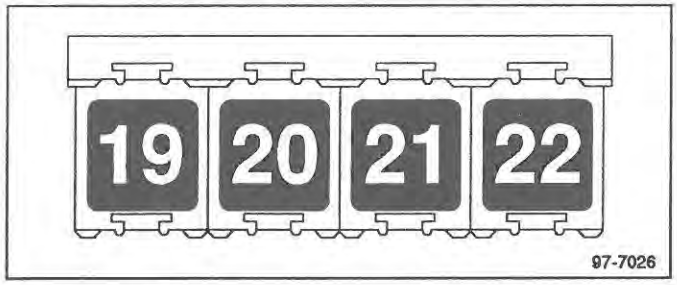
Auxiliary Relay Panel With Connector Station



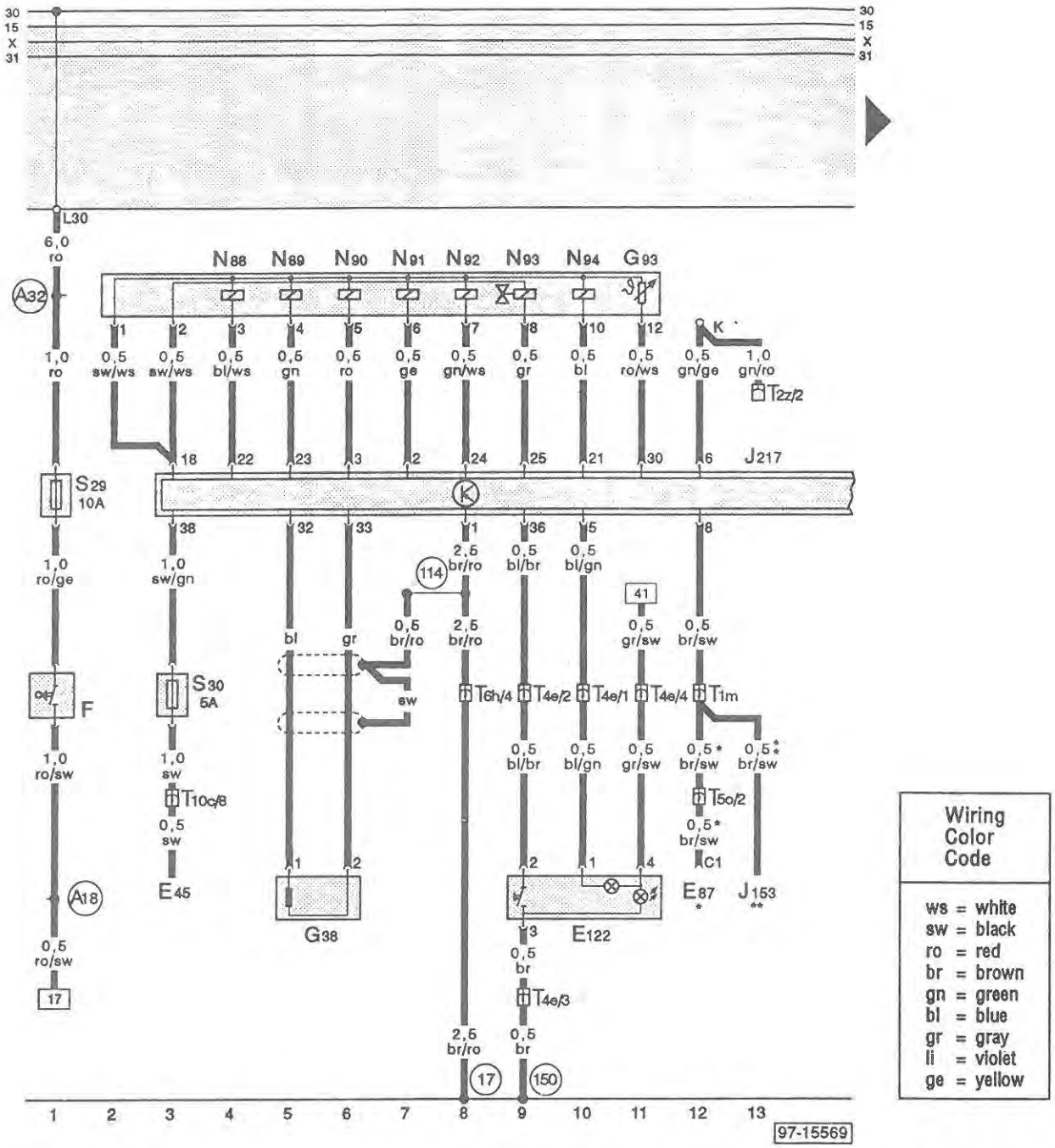
Relay location

- 1 - PNP (Park/Neutral Position) Relay, J226
- 2 - Shift Lock Control Module, J226
- 8 - Automatic Transmission Console Light Switch-Over Relay, J307
- 11 - Program Switch Light Relay, J300

Auxiliary Relay Panel, Rear



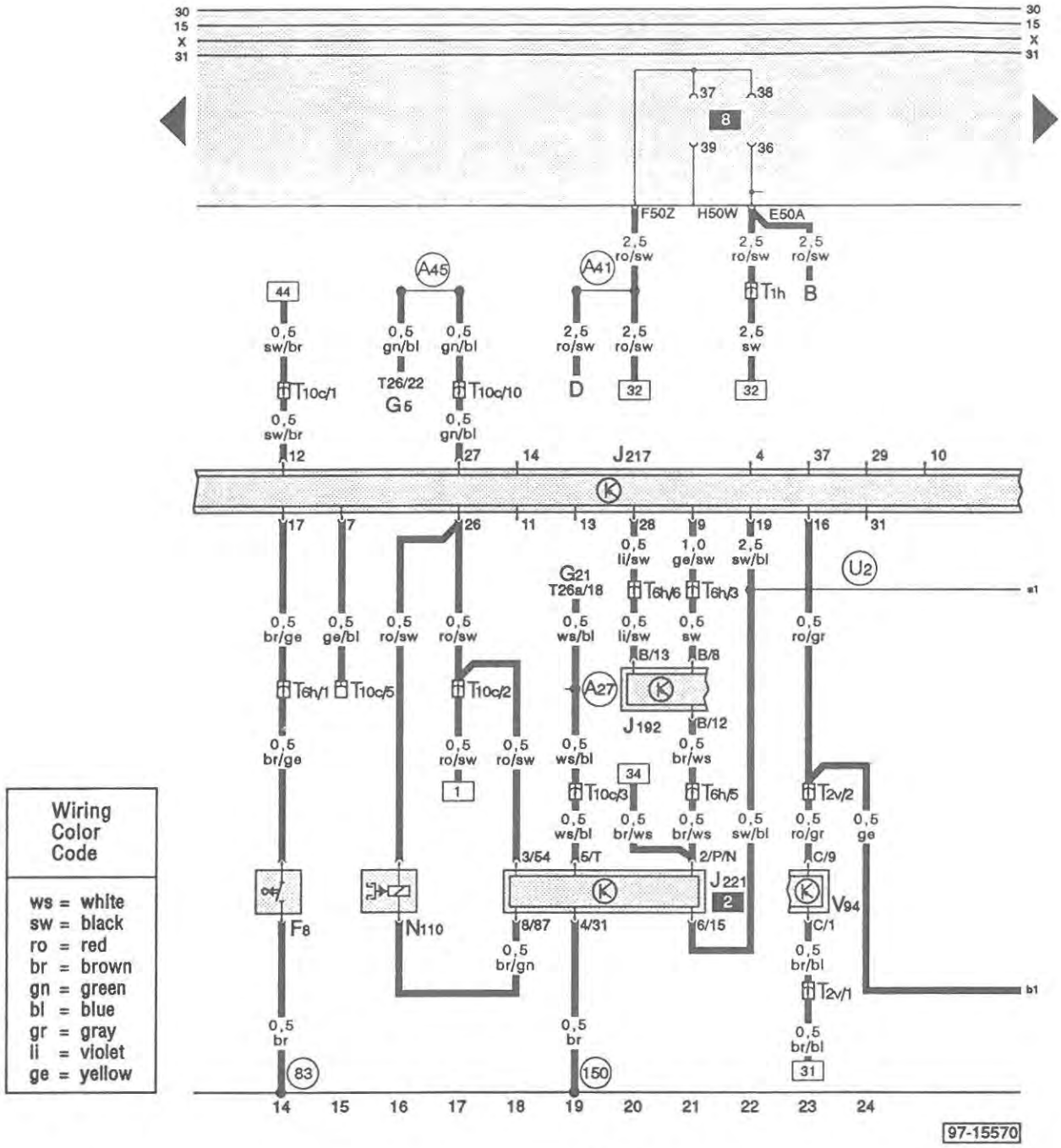
Relay location



Wiring Color Code
ws = white
sw = black
ro = red
br = brown
gn = green
bl = blue
gr = gray
li = violet
ge = yellow

E45 = Cruise Control Switch
E87 = A/C Control Head
E122 = Transmission Range (TR) Program Switch
F = Brake Light Switch
G38 = Transmission Vehicle Speed Sensor (VSS)
G93 = Transmission Fluid Temperature Sensor
J153 = A/C Clutch Control Module
J217 = Transmission Control Module (TCM)
N88 = Solenoid Valve 1
N89 = Solenoid Valve 2
N90 = Solenoid Valve 3
N91 = Solenoid Valve 4
N92 = Solenoid Valve 5
N93 = Solenoid Valve 6
N94 = Solenoid Valve 7
S29 = Fuse For Brake Lights, In Fuse Panel
S30 = Fuse For Cruise Control (Automatic Transmission), In Fuse Panel
T1m = Wire Connector, single, red, behind instrument panel, left
T2z = Wire Connector, double, white, In Plenum Near Relay Panel (Data Link Connector)
T4e = Wire Connector, 4 Point, black, behind instrument panel
T5o = Wire Connector, 5 Point, red, behind instrument panel, center
T6h = Wire Connector, 6 Point, black, behind instrument panel
T10c = Wire Connector, 10 Point, green, connector station in auxiliary relay panel
(17) - Ground connection, on intake manifold
(114) - Ground connection, in automatic transmission wiring harness
(150) - Ground connection, in automatic transmission (AG4) wiring harness
(A18) - Wire connection (54), in instrument panel wiring harness
(A32) - Plus connection (30), in instrument panel wiring harness
K - Wire Distributor For Data Link Connector (DLC); Terminal K
* - Automatic Climate Control Only
** - Manual Air Conditioning Only

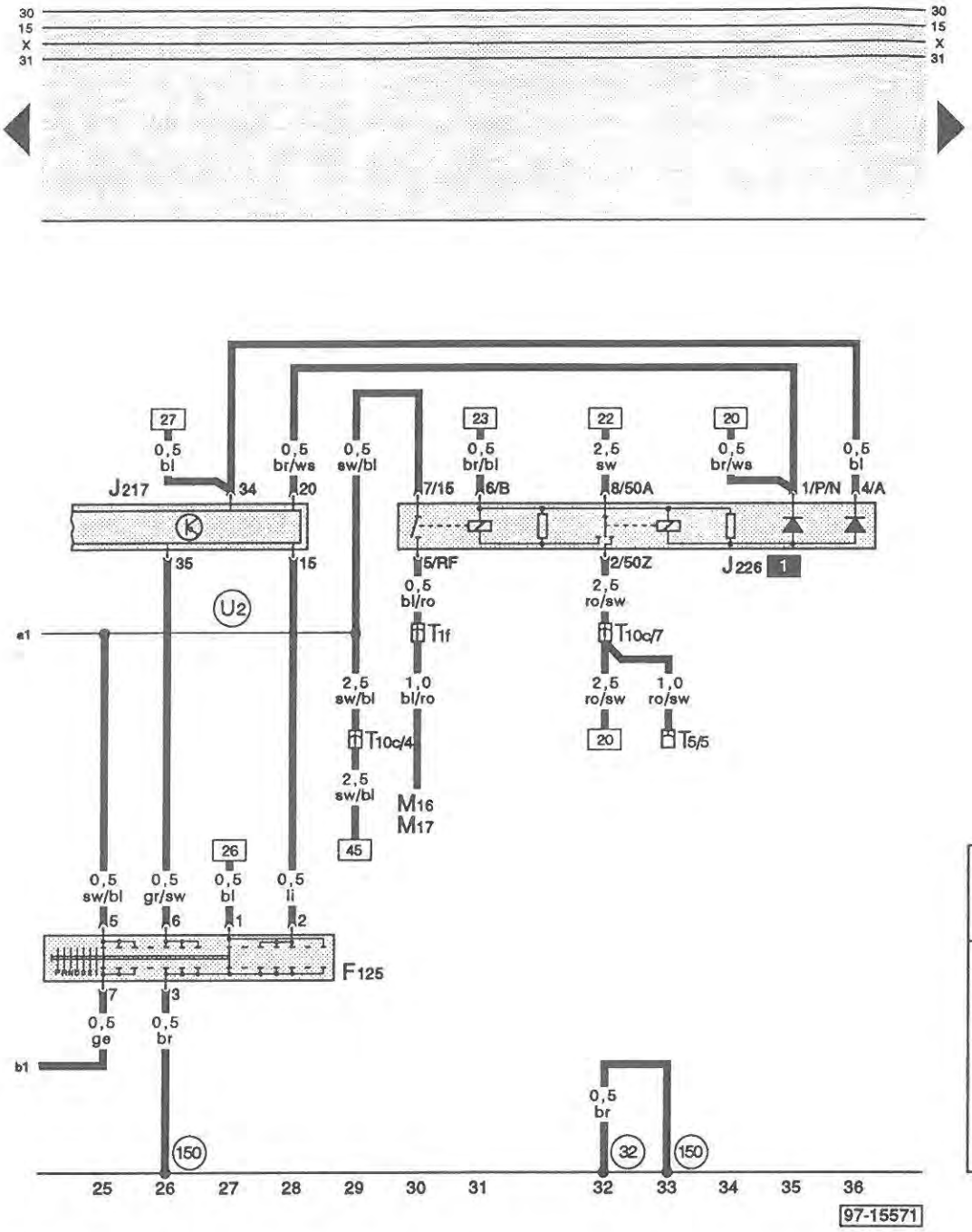
90 S, 90 CS–USA/Canada
From VIN: 8CPA 000100



Wiring Color Code
ws = white
sw = black
ro = red
br = brown
gn = green
bl = blue
gr = gray
li = violet
ge = yellow

B = Battery
D = Ignition / Starter Switch
F8 = Kick Down Switch
G5 = Tachometer
G21 = Speedometer
J192 = MFI Engine Control Module (ECM)
J217 = Transmission Control Module (TCM)
J221 = Shift Lock Control Module
N110 = Shift Lock Solenoid
T1h = Wire Connector, single, red, behind instrument panel, left
T2v = Wire Connector, double, white, behind instrument panel
T6h = Wire Connector, 6 Point, black, behind instrument panel
T10c = Wire Connector, 10 Point, green, connector station in auxiliary relay panel
T26 = Wire Connector, 26 Point, yellow, on instrument cluster
T26a = Wire Connector, 26 Point, blue, on instrument cluster
V94 = Central Locking/Alarm System/Interior Light Delay Control Module

(83) - Ground connection -1-, in right front wiring harness
(150) - Ground connection -1-, in automatic transmission (AG4) wiring harness
(A27) - Wire connection (speed signal), in instrument panel wiring harness
(A41) - Plus connection (50), in instrument panel wiring harness
(A45) - Plus connection (RPM signal), in instrument panel wiring harness
(U2) - Wire connection -1- (15), in automatic tansmission wiring harness

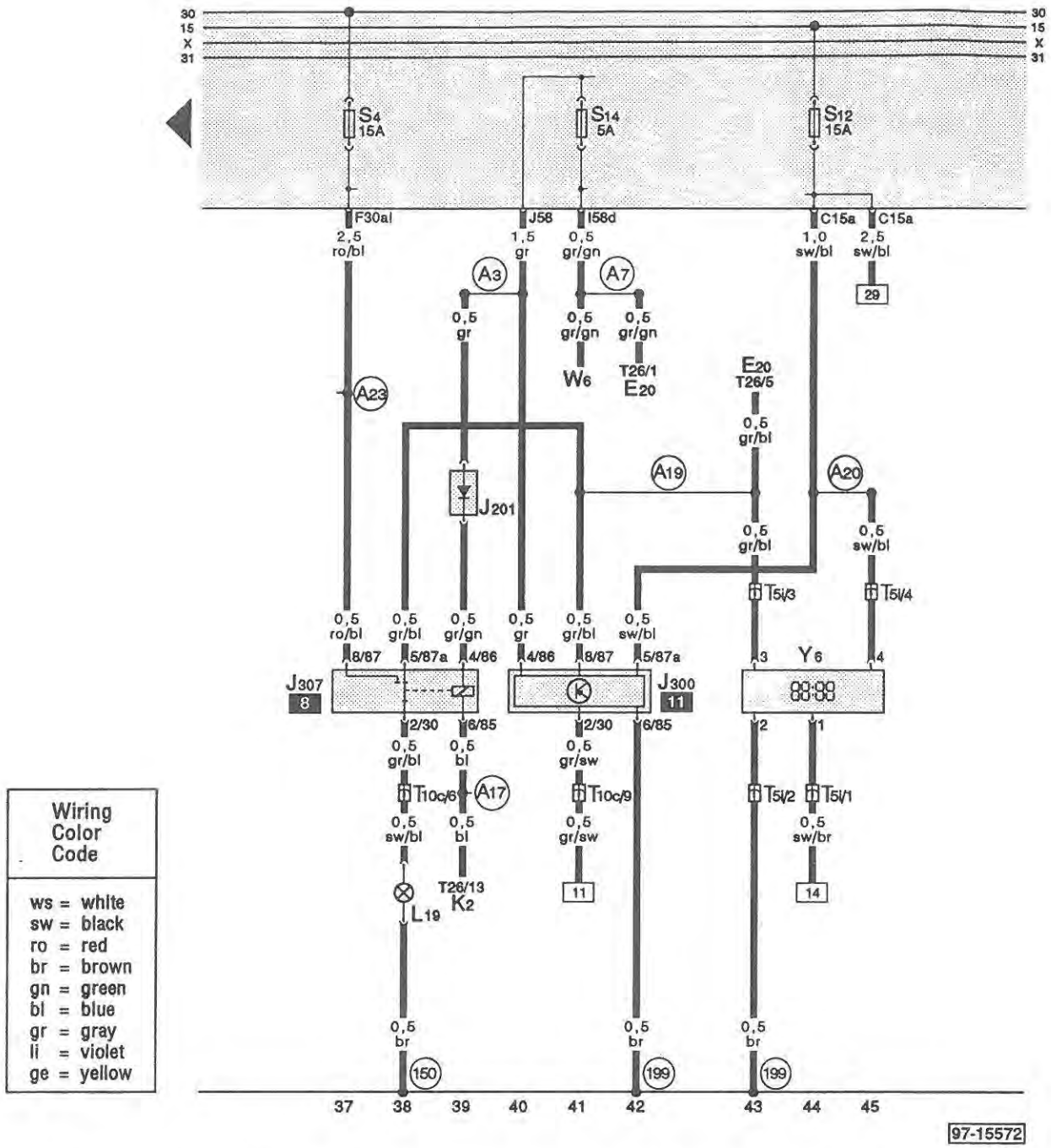


F125 = Multi-Funktion Transmission Range (TR) Switch
J217 = Transmission Control Module (TCM)
J226 = Park/Neutral Position (PNP) Relay
M16 = Back-Up Light, Left
M17 = Back-Up Light, Right
T1f = Wire Connector, single, black, behind insrument panel, left
T5 = Wire Connector, 5 Point, black, connector station in auxiliary relay panel
T10c = Wire Connector, 10 Point, green, connector station in auxiliary relay panel

(32) - Ground connection, behind instrument panel, left

(150) - Ground connection, in automatic transmission (AG4) wiring harness

(U2) - Ground connection -1- (15), in automatic transmission wiring harness

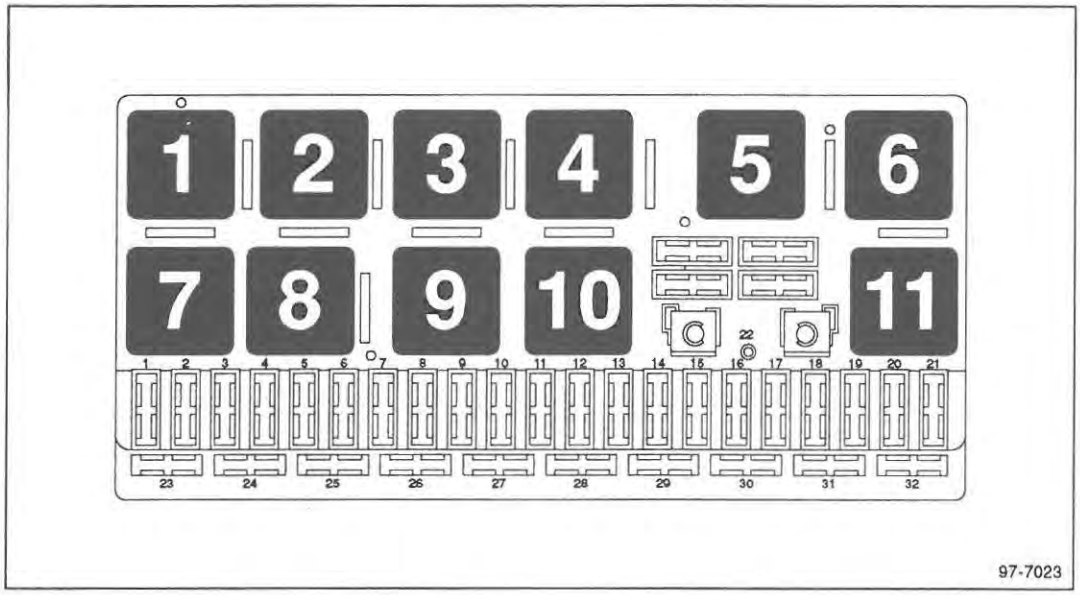


Wiring Color Code
ws = white
sw = black
ro = red
br = brown
gn = green
bl = blue
gr = gray
li = violet
ge = yellow

E20 = Instrument Panel Light Dimmer Switch
J201 = Protection Diode
J300 = Program Switch Illumination Relay
J307 = Selector Lever Light Relay
K2 = Generator (GEN) Warning Light
L19 = Automatic Transmission Console Light
S4 = Fuse For Digital Clock / Luggage Compartment Light/ Interior Light, Front /Make-Up Mirror Lights/ Reading Lights / Cigarette Lighters / Boardcomputer / Automatic Climate Control / Radio / Auto Check System, in Fuse Panel
S12 = Fuse For Cruise Control / Electronic Thermoswitch / Auto Check System / Instrument Cluster / Interrior Light With Delay / Back-Up Lights / Servotronic / Boardcomputer / Automatic Transmission / Airbag Control Light / Coolant Fan Afterrun / Differential Lock, in Fuse Panel
S14 = Fuse For License Plate Light / Glove Compartment Light / Engine Compartment Light, in Fuse Panel
T5i = Wire Connector, 5 Point, black, behind instrument panel
T10c = Wire Connector, 10 Point, green, connector station in auxiliary relay panel
T26 = Wire Connector, 26 Point, yellow, on instrument cluster
W6 = Glove Compartment Light
Y6 = Transmission Range (TR) Selector Lever Display

(150) - Ground connection, in automatic transmission (AG4) wiring harness
(199) - Ground connection -3-, in instrument panel wiring harness
(A3) - Plus connection (58), in instrument panel wiring harness
(A7) - Plus connection (58D1), in instrument panel wiring harness
(A17) - Plus connection (61), in instrument panel wiring harness
(A19) - Plus connection (58d), in instrument panel wiring harness
(A20) - Plus connection (15a), in instrument panel wiring harness
(A23) - Plus connection (30a1), in instrument panel wiring harness

Fuse / Relay Panel (Left Side Plenum Tray)



Relay location

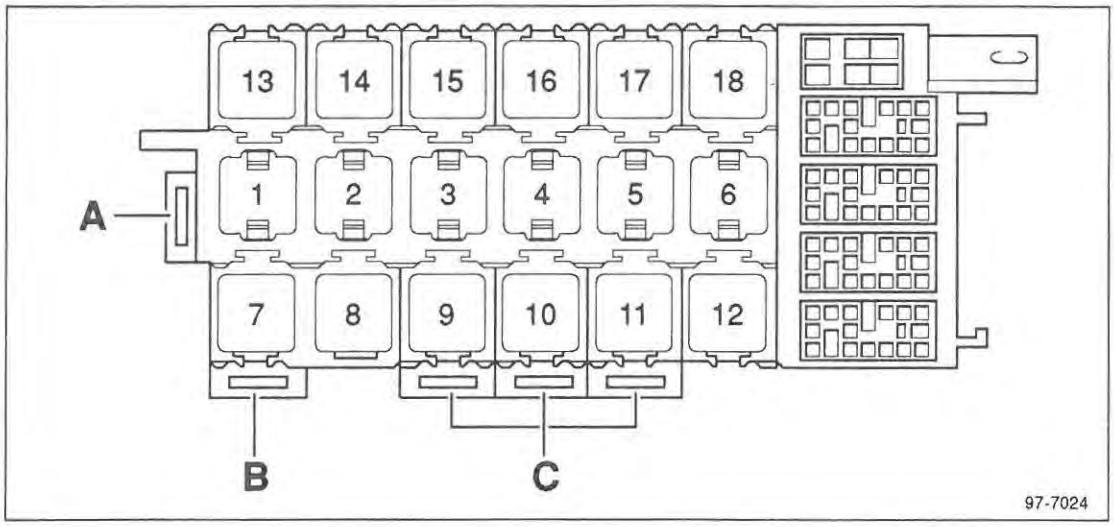
1 - Fog Light Relay, J5

5 - Load Reduction Relay, J59

From VIN: 8CPA 000100

90 S, 90 S Quattro, 90 CS
Canada only

Auxiliary Relay Panel With Connector Station

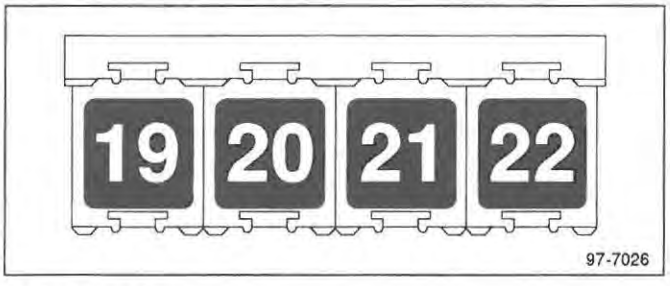


Relay location

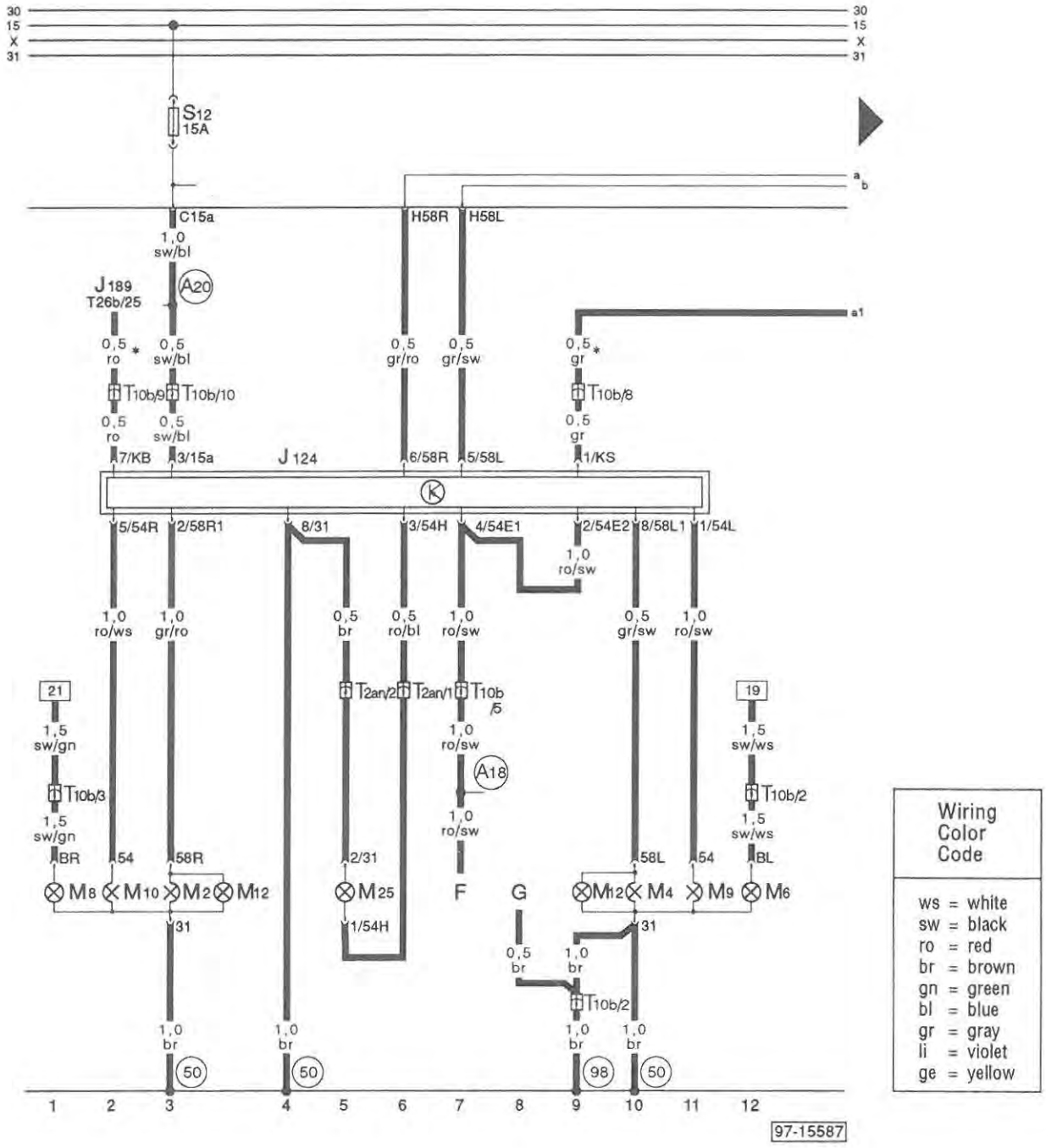
10 - Daytime Running Lights Relay, J90

15 - Lamp Control Module, Front, J123 (Auto Check System Only)

Auxiliary Relay Panel, Rear



Relay location



Wiring Color Code
ws = white
sw = black
ro = red
br = brown
gn = green
bl = blue
gr = gray
li = violet
ge = yellow

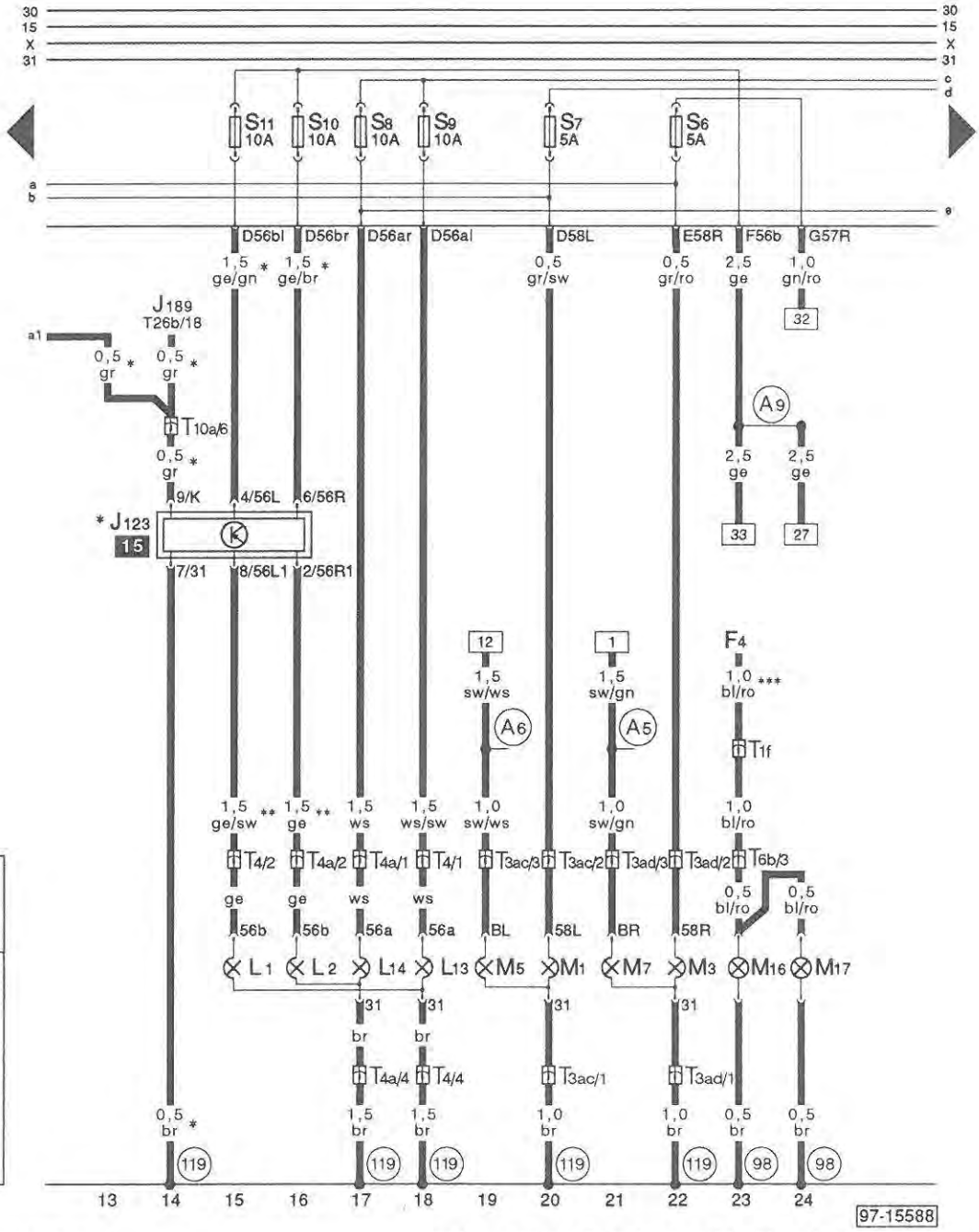
F = Brake Light Switch
G = Fuel Level Sensor
J124 = Lamp Control Module, Front
J189 = Auto Check System
M2 = Tail Light, Right
M4 = Tail Light, Left
M6 = Turn Signal Light, Left Rear
M8 = Turn Signal Light, Right Rear
M9 = Brake Light, Left
M10 = Brake Light, Right
M12 = Side Marker Lights, Rear
M25 = High-Mount Brake Light
S12 = Fuse For Cruise Control / Electronic Thermoswitch / Auto Check System / Instrument Cluster / Interior Light With Delay / Back-Up Lights / Servotronic / Automatic Transmission / Airbag / Control Light / Coolant Fan Afterrun / Differential Lock / Boardcomputer, in Fuse Panel
T2an = Wire Connector, double, black, in luggage compartment
T6b = Wire Connector, 6 Point, black, in luggage compartment, left
T10b = Wire Connector, 10 Point, brown, connector station in auxiliary relay panel
T26b = Wire Connector, 26 Point, white, on instrument cluster (Auto Check System With Delay)

(32) - Ground connection, behind instrument panel, left
(98) - Ground connection, in rear lid wiring harness
(A18) - Wire connection (54), in instrument panel wiring harness
(A20) - Wire connection (15a), in instrument panel wiring harness

197 Daytime running lights

From VIN: 8CPA 000100

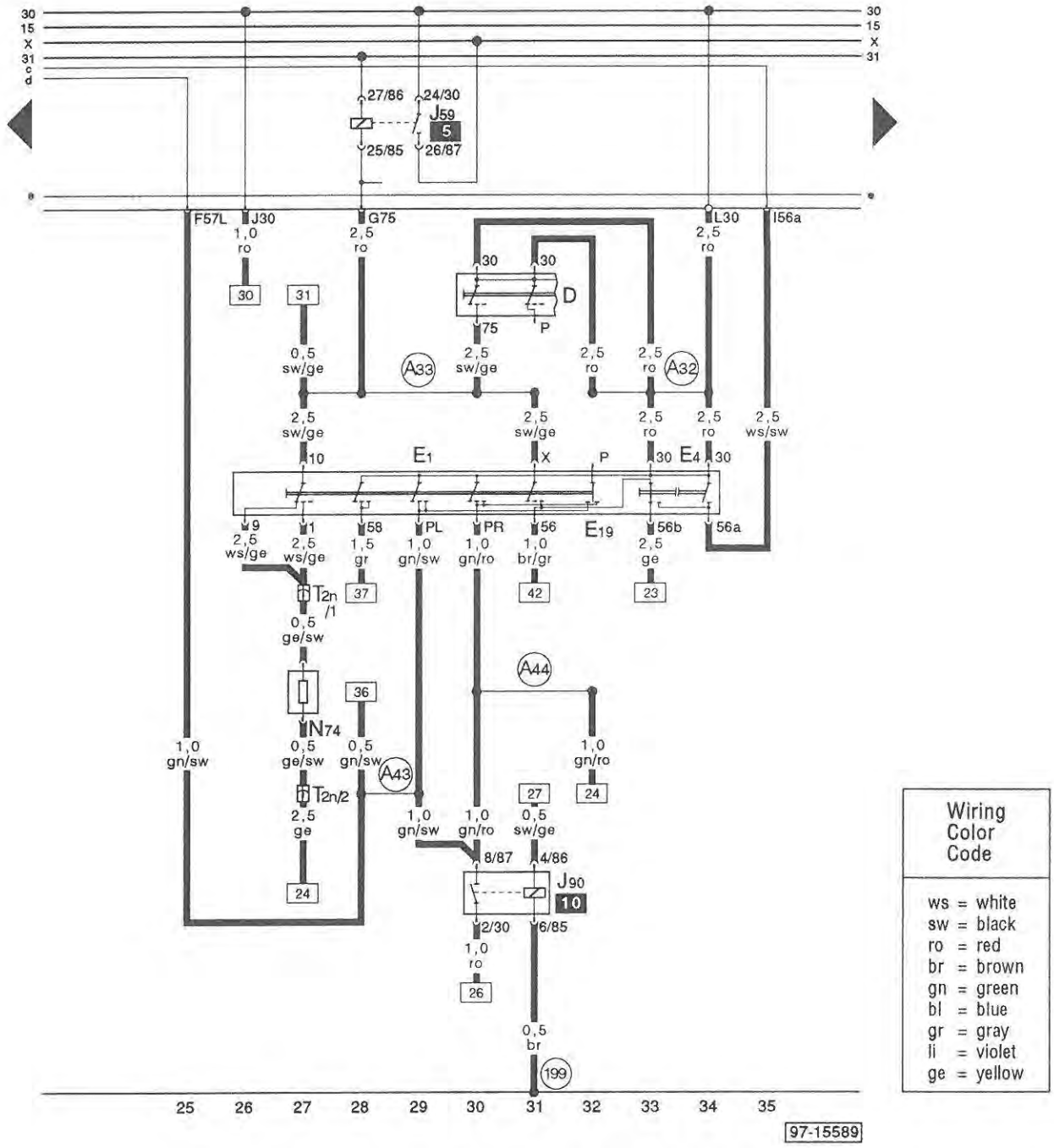
90 S, 90 S Quattro, 90 CS Canada only



Wiring Color Code

ws	= white
sw	= black
ro	= red
br	= brown
gn	= green
bl	= blue
gr	= gray
li	= violet
ge	= yellow

F4 = Back-Up Light Switch
J123 = Lamp Control Module, Front
J189 = Auto Check System
L1 = Headlight, Left
L2 = Headlight, Right
L13 = High Beam Headlight, Left
L14 = High Beam Headlight, Right
M1 = Parking Light, Left
M3 = Parking Light, Right
M5 = Turn Signal Light,Left Front
M7 = Turn Signal Light, Right Front
M16 = Back-Up Light, Left
M17 = Back-Up Light, Right
S6 = Fuse For Parking Lights, Side Marker and Tail Lights, Right, in Fuse Panel
S7 = Fuse For Parking Lights, Side Marker and Tail Lights, Left, in Fuse Panel
S8 = Fuse For High Beam Headlight, Right / Headlight High Beam Indicator Light, in Fuse Panel
S9 = Fuse For High Beam Headlight, Left, in Fuse Panel
S10 = Fuse For Lowbeam Headlight, Right, in Fuse Panel
S11 = Fuse For Lowbeam Headlight, Left in Fuse Panel
T1f = Wire Connector, single, black, behind instrument panel, left
T3ac = Wire Connector, 3 Point, white, near headlight, left
T3ad = Wire Connector, 3 Point, white, near headlight, right
T4 = Wire Connector, 4 Point, near headlight, left
T4a = Wire Connector, 4 Point, near headlight, right
T6b = Wire Connector, 6 Point, black, in luggage compartment, left
T10b = Wire Connector, 10 Point, brown, connector station in auxiliary relay panel
T26b = Wire Connector, 26 Point, white, on instrument cluster (Auto Check System With Delay)
(98) - Ground connection, in rear lid wiring harness
(119) - Ground connection -1-, in headlight wiring harness
(A5) - Plus connection (right turn signal), in instrument panel wiring harness
(A6) - Plus connection (left turn signal), in instrument panel wiring harness
(A9) - Plus connection (56b), in instrument panel wiring harness
* - Auto Ceck System Only
*** - Manual Transmission Only



Wiring Color Code
ws = white
sw = black
ro = red
br = brown
gn = green
bl = blue
gr = gray
li = violet
ge = yellow

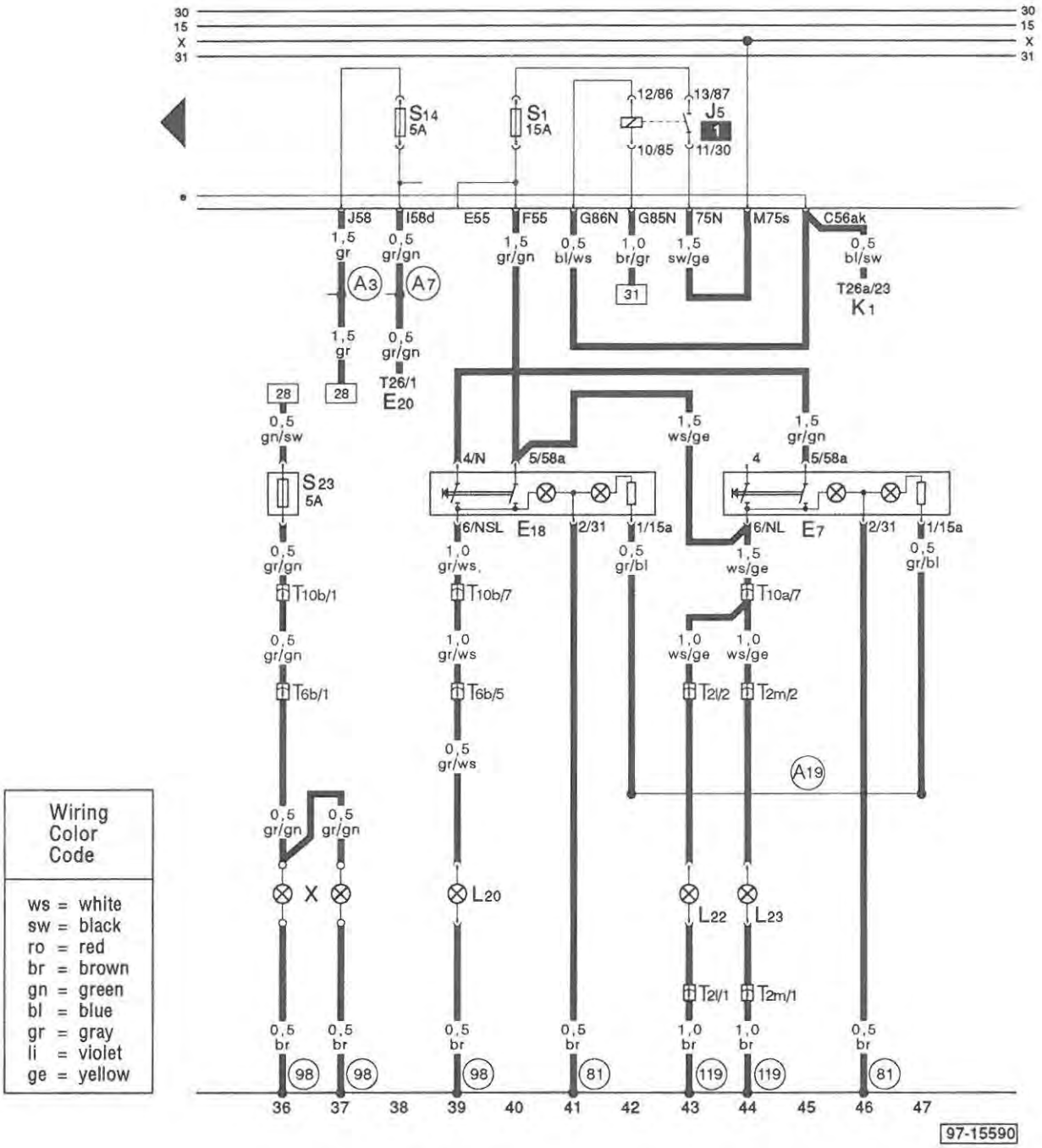
D = Ignition / Starter Switch
E1 = Light Switch
E4 = Headlight Dimmer / Flacher Switch
E19 = Parklight Switch
J59 = Load Reduction Relay
J90 = Daytime Running Lights Relay
N74 = Series Resistance Wiring
T2n = Wire Connector, double, brown, behind instrument panel, left

(199) - Ground connection -3-, in front light wiring harness
(A32) - Plus connection (30), in instrument panel wiring harness
(A33) - Plus connection (75), in instrument panel wiring harness
(A43) - Plus connection (57l), in instrument panel wiring harness
(A44) - Plus connection (57r), in instrument panel wiring harness

199 Daytime running lights

From VIN: 8CPA 000100

90 S, 90 S Quattro, 90 CS Canada only



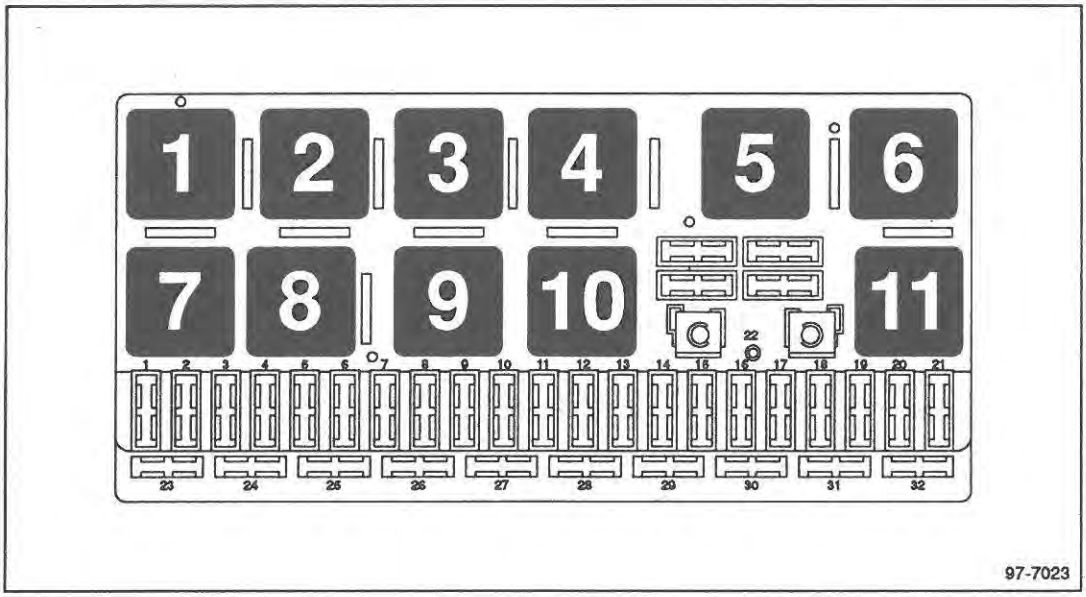
Wiring Color Code
ws = white
sw = black
ro = red
br = brown
gn = green
bl = blue
gr = gray
li = violet
ge = yellow

E7 = Fog Light Switch
E18 = Rear Fog Light Switch
E20 = Instrument Panel Light Dimmer Switch
J5 = Fog Light Relay
K1 = Headlight High Beam Indicator Light
L20 = Rear Fog Light Bulb
L22 = Left Front Fog Light Bulb
L23 = Fog Light, Right
S1 = Fuse For Fog Lights / Rear Fog Lights, in Fuse Panel
S14 = Fuse For License Plate Light / Glove Compartment Light / Engine Compartment Light, in Fuse Panel
S23 = Fuse For Daytime Running Lights, in Fuse Panel
T2l = Wire Connector, double, black, in engine compartment, left
T2m = Wire Connector, double, black, in engine compartment, right
T6b = Wire Connector, 6 Point, black, in luggage compartment, left
T10a = Wire Connector, 10 Point, black, connector station in auxiliary relay panel
T10b = Wire Connector, 10 Point, brown, connector station in auxiliary relay panel
T26 = Wire Connector, 26 Point, yellow, on instrument cluster
T26a = Wire Connector, 26 Point, blue, on instrument cluster
X = License Plate Light

(81) - Ground connection -1-, in instrument panel wiring harness
(98) - Ground connection , in rear lid wiring harness
(119) - Ground connection -1- , in headlight wiring harness
(A3) - Plus connection (58), in instrument panel wiring harness
(A7) - Plus connection (58D1), in instrument panel wiring harness
(A19) - Wire connection (58d), in instrument panel wiring harness

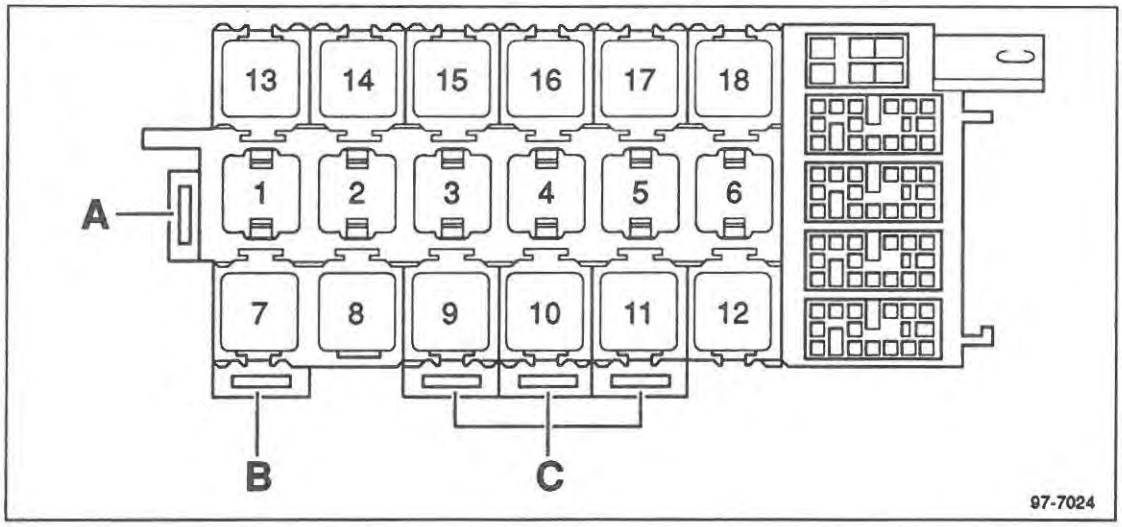
This page
intentionally
left blank

Fuse / Relay Panel (Left Side Plenum Tray)



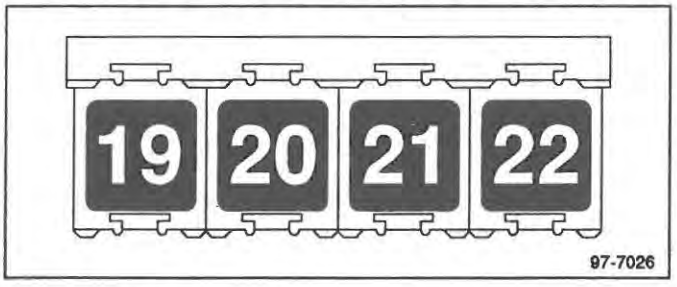
Relay location

Auxiliary Relay Panel With Connector Station

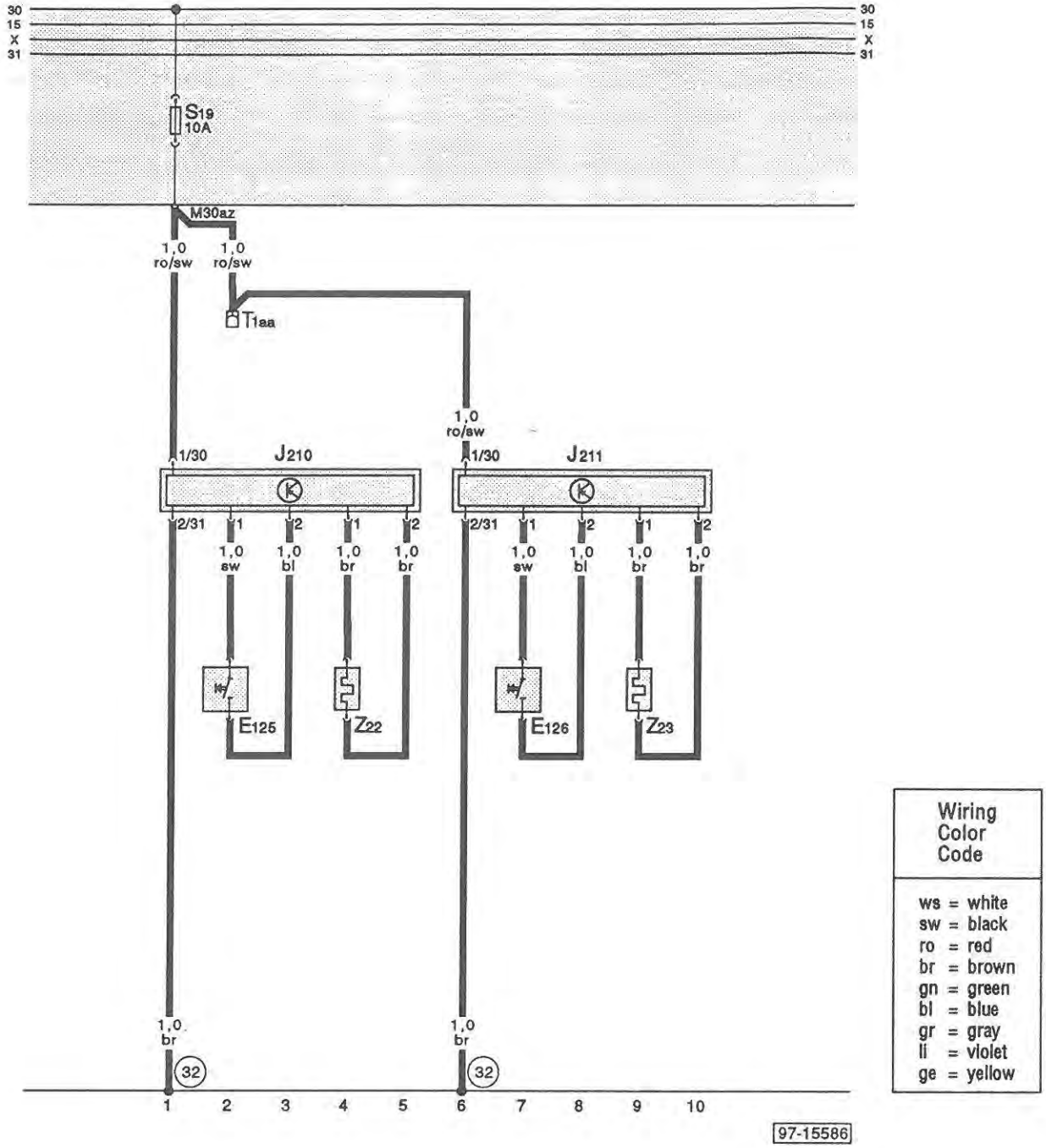


Relay location

Auxiliary Relay Panel, Rear



Relay location

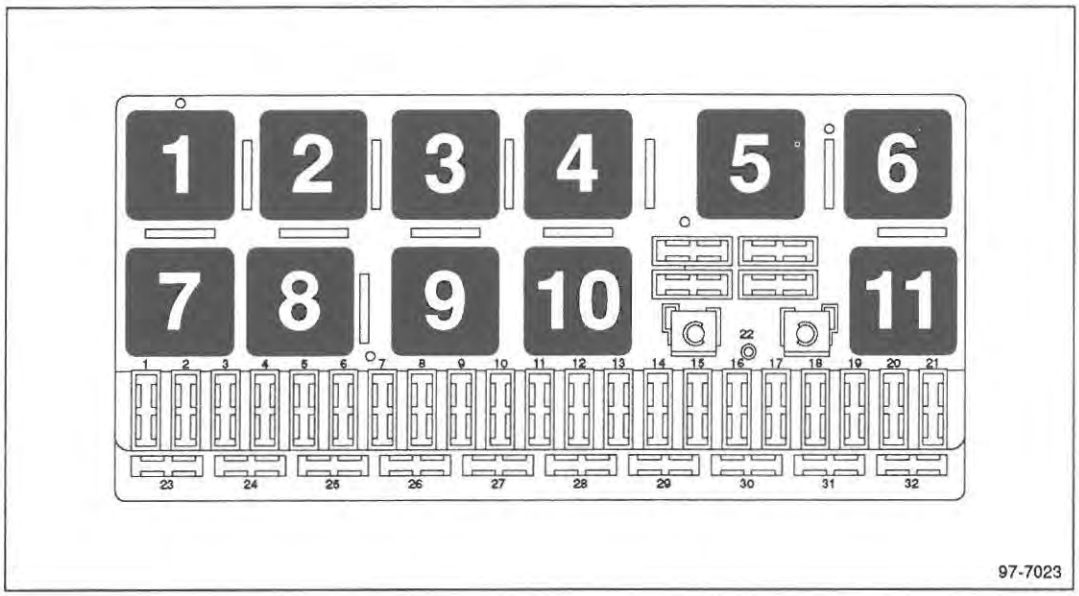


Wiring Color Code
ws = white
sw = black
ro = red
br = brown
gn = green
bl = blue
gr = gray
li = violet
ge = yellow

E125 = Heated Door Lock Switch, Left
E126 = Heated Door Lock Switch, Right
J210 = Heated Door Lock Control Module, Left
J211 = Heated Door Lock Control Module, Right
S19 = Central Locking / Alarm System Heated Door Locks, in Fuse Panel
T1aa = Wire Connector, single, behind insrument panel
Z22 = Door Lock Heater, Left
Z23 = Door Lock Heater, Right

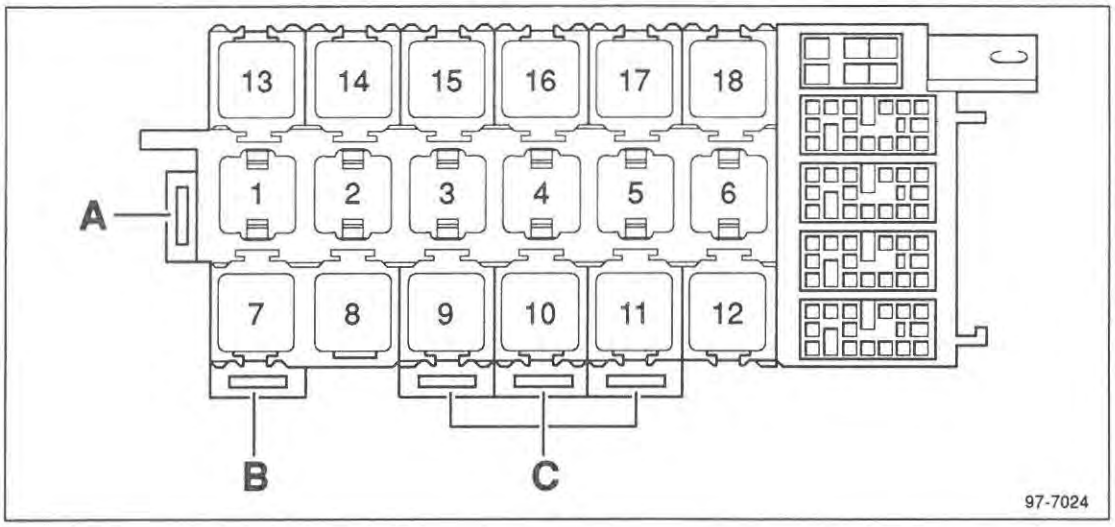
(32) - Ground connection, behind instrument panel, right

Fuse / Relay Panel (Left Side Plenum Tray)



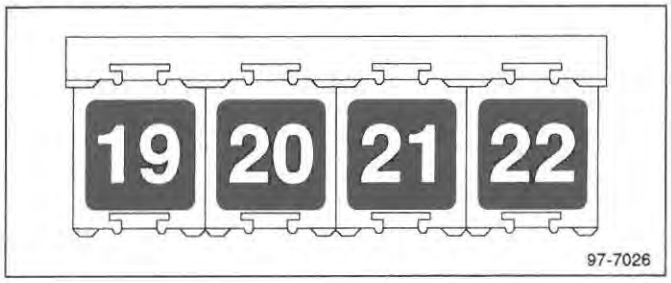
Relay location

Auxiliary Relay Panel With Connector Station

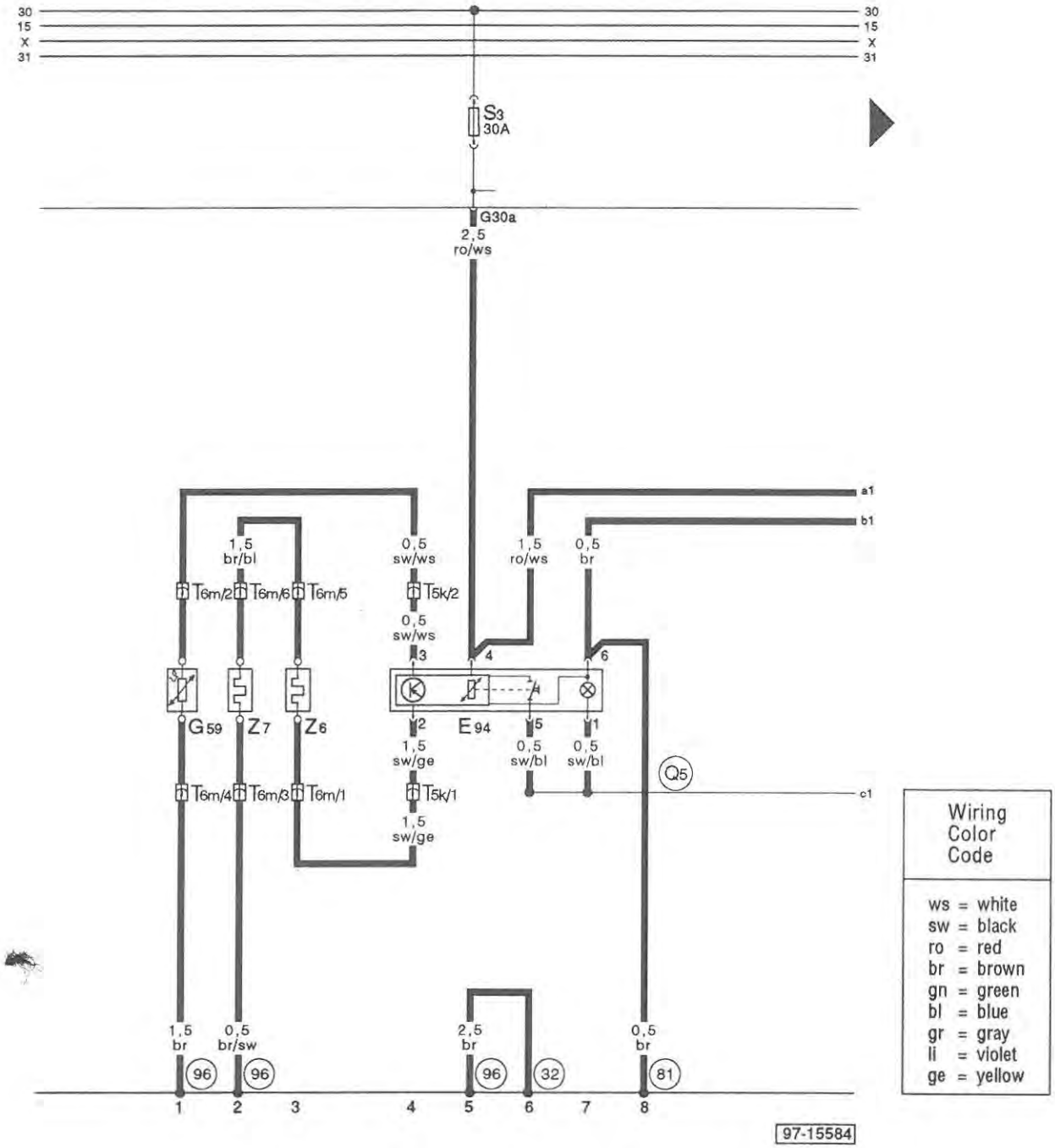


Relay location

Auxiliary Relay Panel, Rear



Relay location



Wiring Color Code
ws = white
sw = black
ro = red
br = brown
gn = green
bl = blue
gr = gray
li = violet
ge = yellow

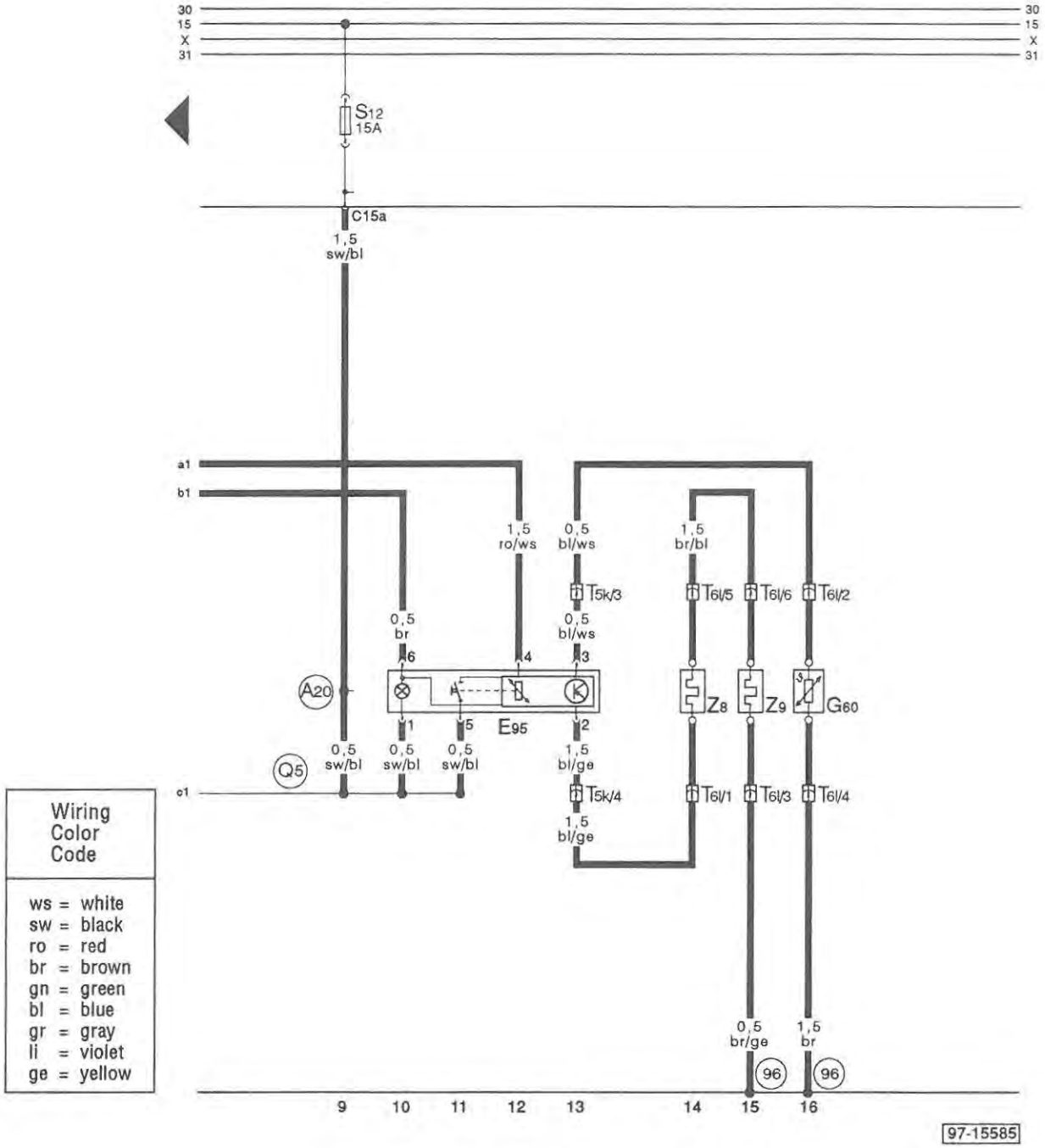
E94 = Heat Regulating Switch, Driver Seat
G59 = Driver Seat Heater Temperature Sensor
S3 = Heateed Seats / Dual Horns, in Fuse Panel
T5k = Wire Connector, 5 Point, yellow, connector station in auxiliary relay panel
T6m = Wire Connector, 6 Point, below driver´s seat
Z6 = Driver´s Seat Heat Element
Z7 = Driver´s Backrest Heat Element

(32) - Ground connection, behind instrument panel, left

(81) - Ground connection -1-, in instrument panel wiring harness

(96) - Ground connection -1-, in heated seats wiring harness

(Q5) - Plus connection (58), in power window / central locking system and door contact switch wiring harness



Wiring Color Code
ws = white
sw = black
ro = red
br = brown
gn = green
bl = blue
gr = gray
li = violet
ge = yellow

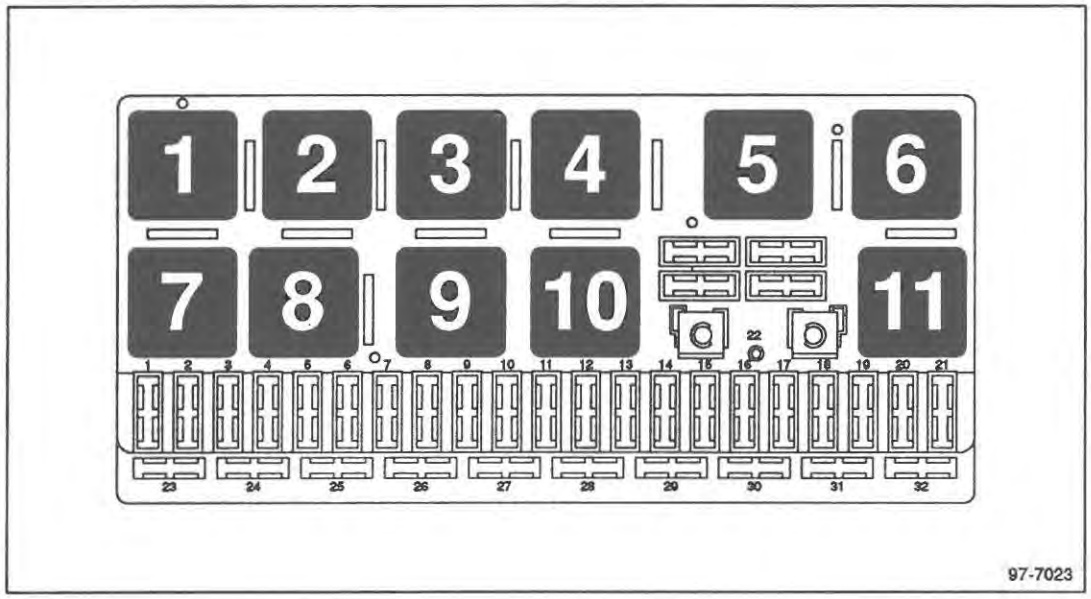
E95 = Heat Regulating Switch, Driver Seat
G60 = Passenger Seat Heater Temperature Sensor
S12 = Cruise Control / Electronic Thermswitch / Auto Check System / Instrument Cluster / Interior Light With Delay / Back-Up Lights / Servotronic / Automatic Transmission / Airbag Control Light / Coolant Fan Afterrun / Differential Lock / Board Computer, in Fuse Panel
T5k = Wire Connector, 5 Point, yellow, connector station in auxiliary relay panel
T6l = Wire Connector, 6 Point, below passenger´s seat
Z8 = Passenger´s Seat Heat Element
Z9 = Passenger´s Backrest Heat Element

(96) - Plus connection (58), in power window / central locking system and door contact switch wiring harness

(A20) - Wire connection (15a), in instrument panel wiring harness

(Q5) - Plus connection (58), in powre window / central locking system and door contact switch wiring harness

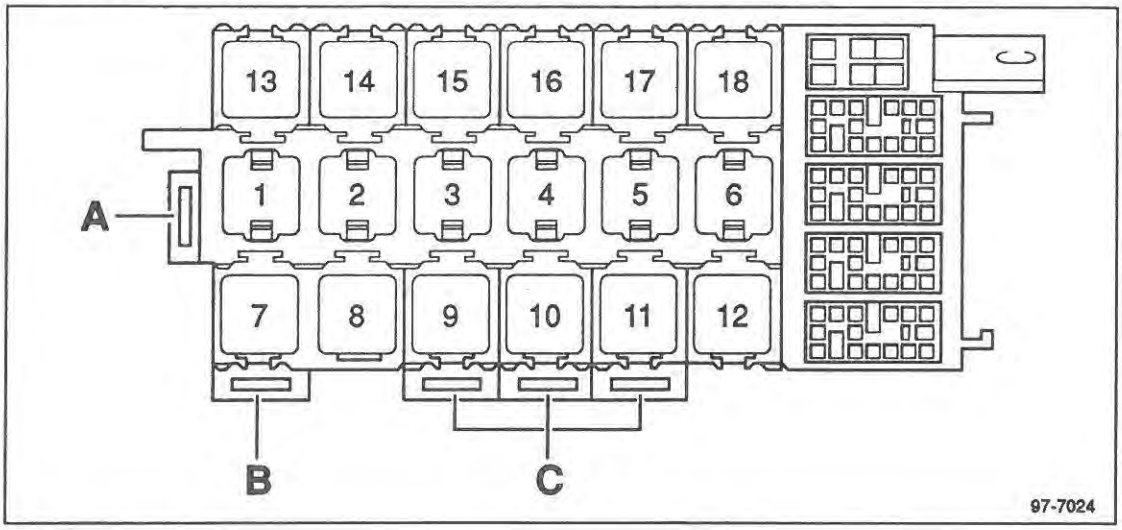
Fuse / Relay Panel (Left Side Plenum Tray)



Relay location

- 6 - Heater Fan Relay, J11
- 11 - Coolant FC (Fan Control) Relay, J26

Auxiliary Relay Panel With Connector Station

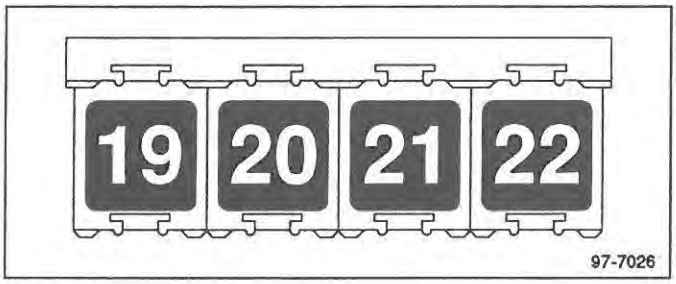


Relay location

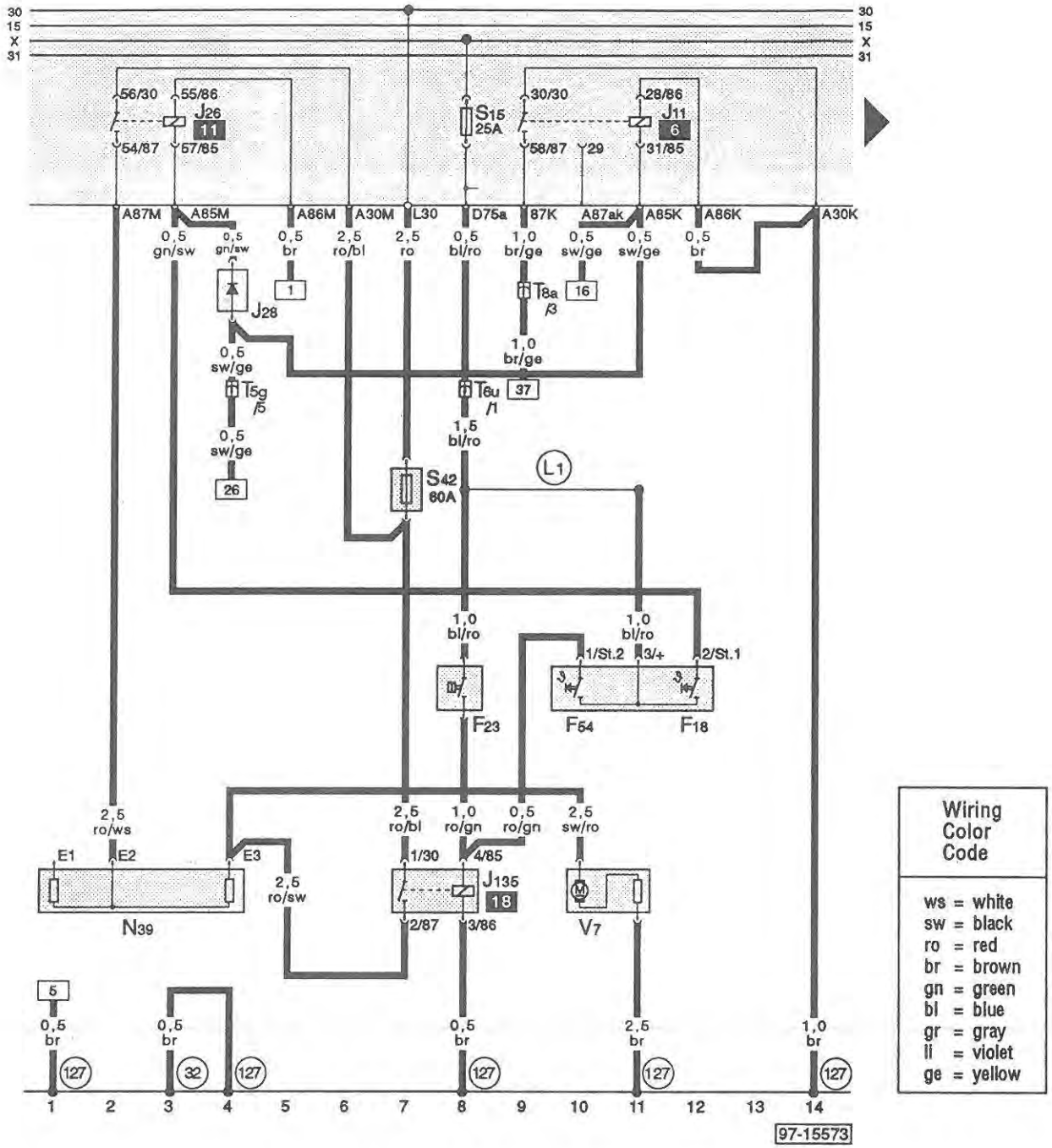
3
4
} A/C Compressor Clutch Control Module, J153

18 - Third Speed Coolant FC (Fan Control) Relay, J135

Auxiliary Relay Panel, Rear



Relay location



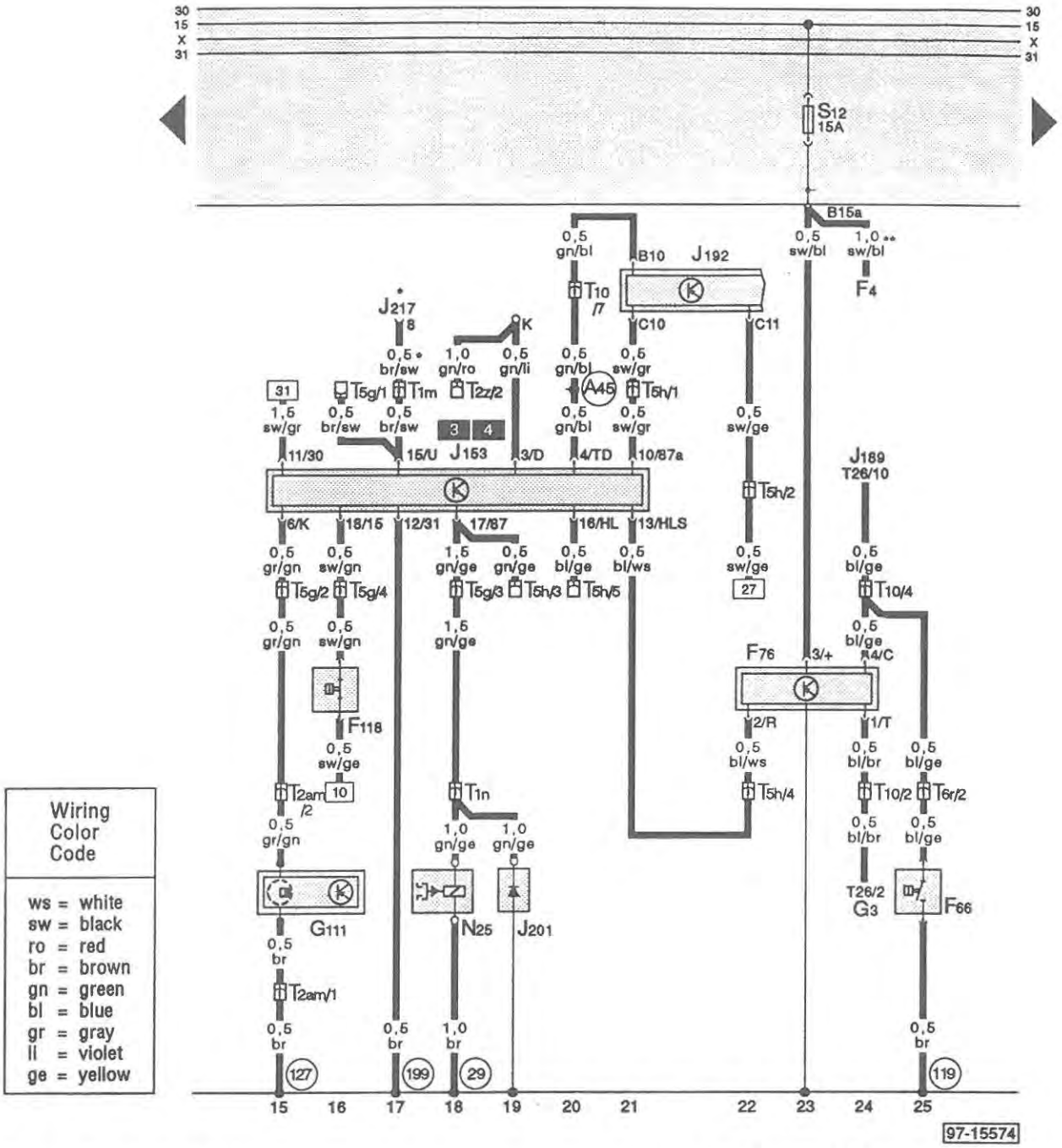
F18 = Coolant Fan Control (FC) Thermoswitch
F23 = A/C Refrigerant High Pressure Switch
F54 = Coolant Fan Control (FC) Thermoswitch
J11 = Heater Fan Relay
J26 = Coolant Fan Control (FC) Relay
J28 = A/C Diode
J135 = Third Speed Coolant Fan Control (FC) Relay
N39 = Coolant Fan Control (FC) Series Resistance
S42 = Fuse For Coolant Fan, in Adapter B
T5g = Wire Connector, 5 Point, green, connector station in auxiliary panel relay
T6u = Wire Connector, 6 Point, black, behind instrument panel, left
T8a = Wire Connector, 8 Point, red, behind instrument panel, center
V7 = Coolant Fan

(11) - Ground connection, in battery box

(32) - Ground connection, behind instrument panel, left

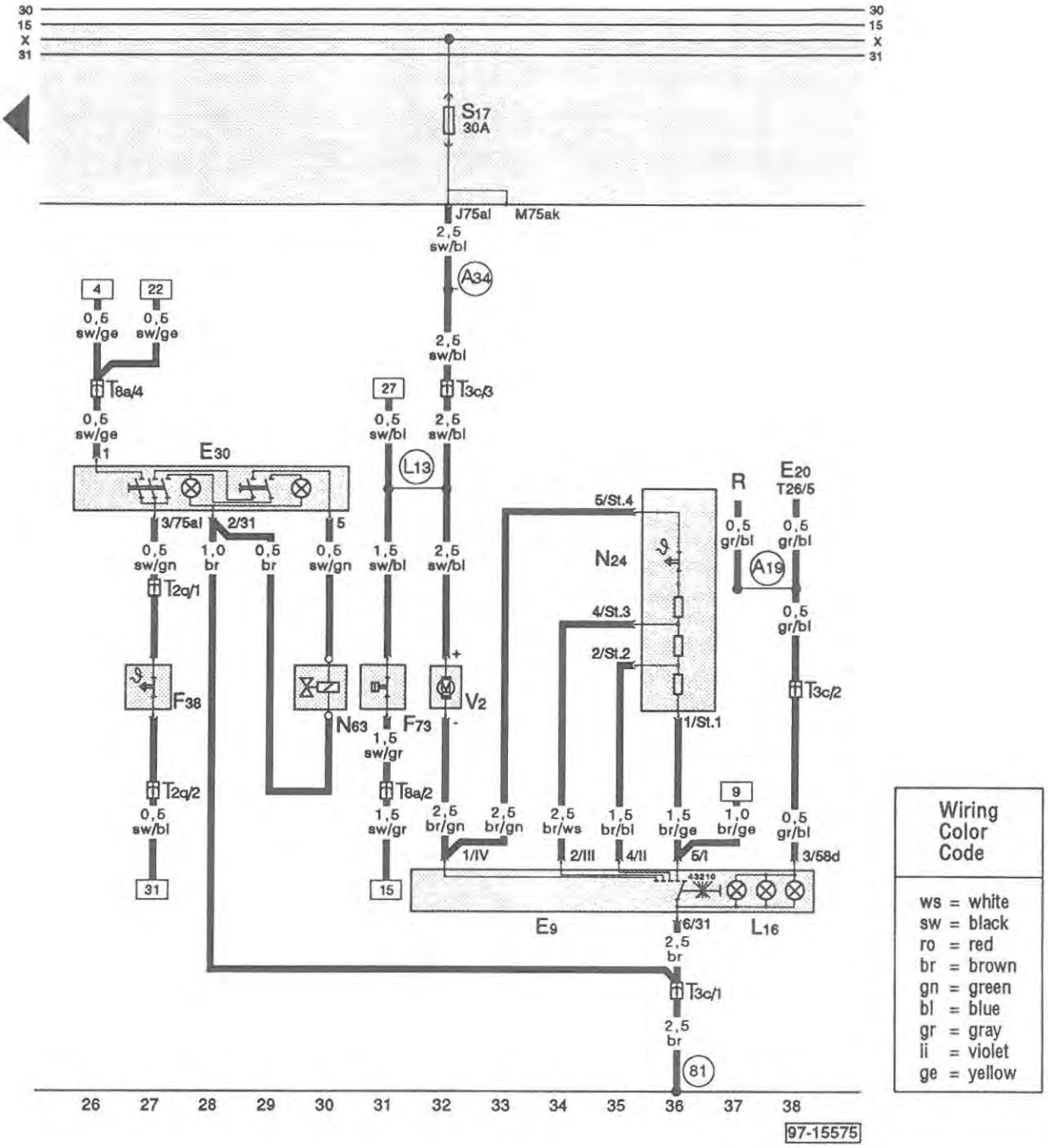
(127) - Ground connection -1-, in A/C compressor wiring harness

(L1) - Plus connection (75), in A/C wiring harness



Wiring Color Code
ws = white
sw = black
ro = red
br = brown
gn = green
bl = blue
gr = gray
li = violet
ge = yellow

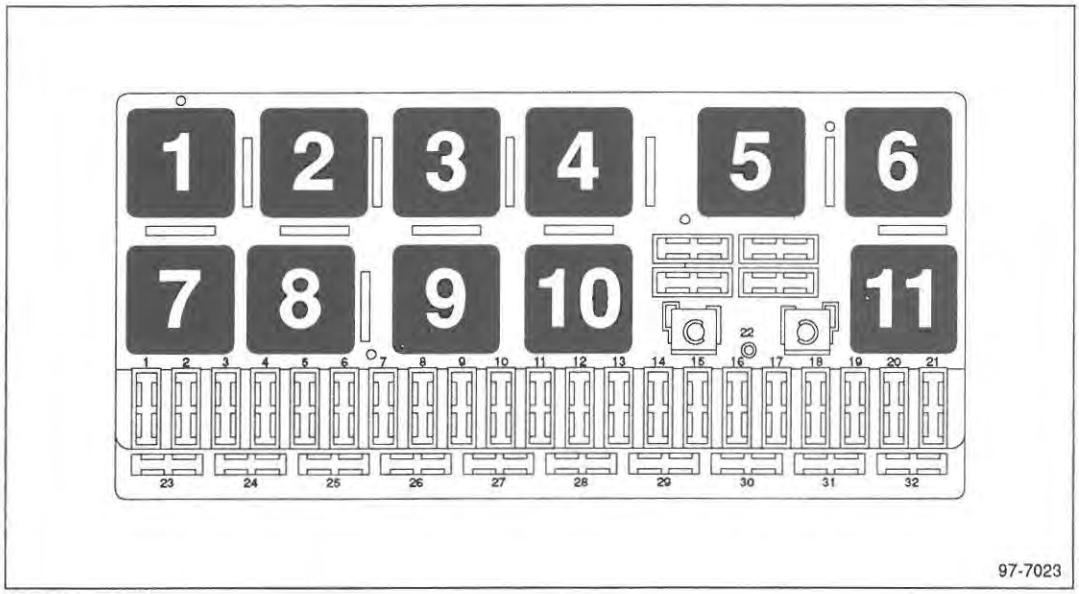
F4 = Back-Up Light Switch
F66 = Engine Coolant Level (ECL) Warning Switch
F76 = Engine Coolant Temperature (ECT) Electronic Thermoswitch
F118 = A/C Refrigerant High Pressure Switch
G3 = Engine Coolant Temperature (ECT) Gauge
G111 = A/C Compressor Speed Sensor
J153 = A/C Clutch Control Module
J189 = Auto Check System
J192 = MFI Engine Control Module (ECM)
J201 = Protection Diode
J217 = Transmission Control Module (TCM)
J268 = Mini Check System Control Module
N25 = A/C Clutch
T1m = Wire Connector, single, red, behind instrument panel, left
T1n = Wire Connector, single, green, near compressor
T2z = Wire Connector, double, white, in Plenum, Near Relay Panel (Data Link Connector)
T2am = Wire Connector, double, green, near compressor
T5g = Wire Connector, 5 Point, green connector station in auxiliary relay panel
T5h = Wire Connector, 5 Point, red, behind instrument panel, left
T6r = Wire Connector, 6 Point, black, behind instrument panel, left
T10 = Wire Connector, 10 Point, black, connector station in auxiliary relay panel
T26 = Wire Connector, 26 Point, yellow, on instrument cluster
(29) - Ground connection, near compressor
(119) - Ground connection -1-, in headlight wiring harness
(127) - Ground connection -1-, in A/C compressor wiring harness
(199) - Ground connection -3-, in instrument panel wiring harness
(A45) - Wire connection (RPM signal), in instrument panel wiring harness
* - Automatic Transmission only
K - Wire Distributor For Data Link Connector (DLC); Terminal K



E9 = Fresh Air Blower Switch
E20 = Instrument Panel Light Dimmer Switch
E30 = A/C Switch
F38 = Ambient Temperature Switch
F73 = A/C Refrigerant Low Pressure Switch
L16 = Fresh Air Control Lever Light
N24 = Fresh Air Blower Series Resistance With Fuse
N63 = Fresh Air Recirculating Flap Two-Way Valve
R = Radio
T2q = Wire Connector, double, behind instrument panel, left
T3c = Wire Connector, 3 Point, brown, behind instrument panel, center
T8a = Wire Connector, 8 Point, red behind instrument panel, center
T26 = Wire Connector, 26 Point, yellow, on instrument cluster
V2 = Fresh Air Blower

(81) - Ground connection -1-, in instrument panel wiring harness
(A19) - Wire connection (58d), in instrument panel wiring harness
(A34) - Wire connection (75x), in instrument panel wiring harness
(L13) - Plus connection (75al), in fresh air blower wiring harness

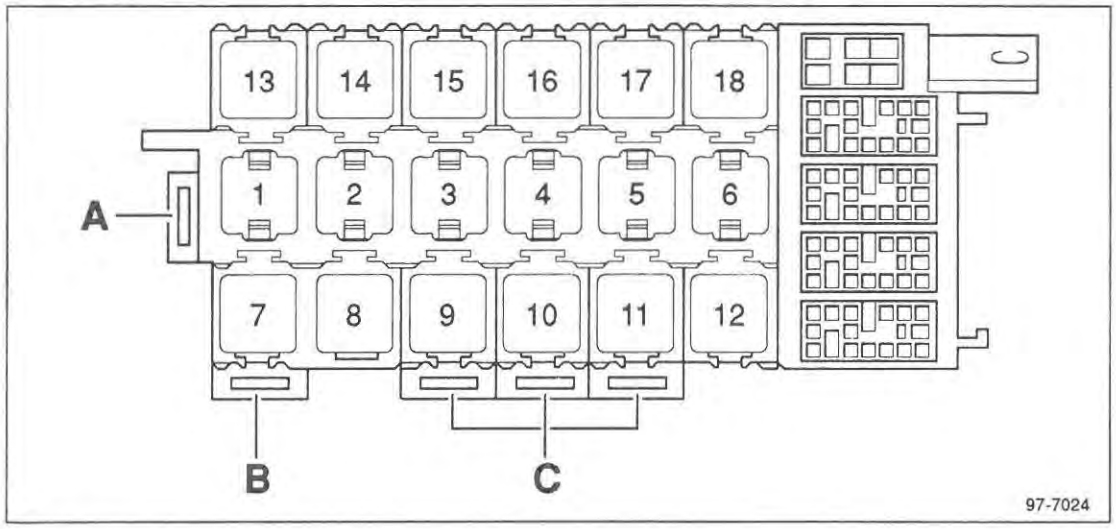
Fuse / Relay Panel (Left Side Plenum Tray)



Relay location

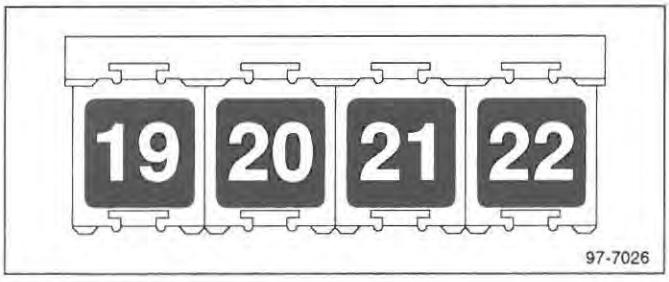
4 - Headlight Washer System Relay, J39

Auxiliary Relay Panel With Connector Station

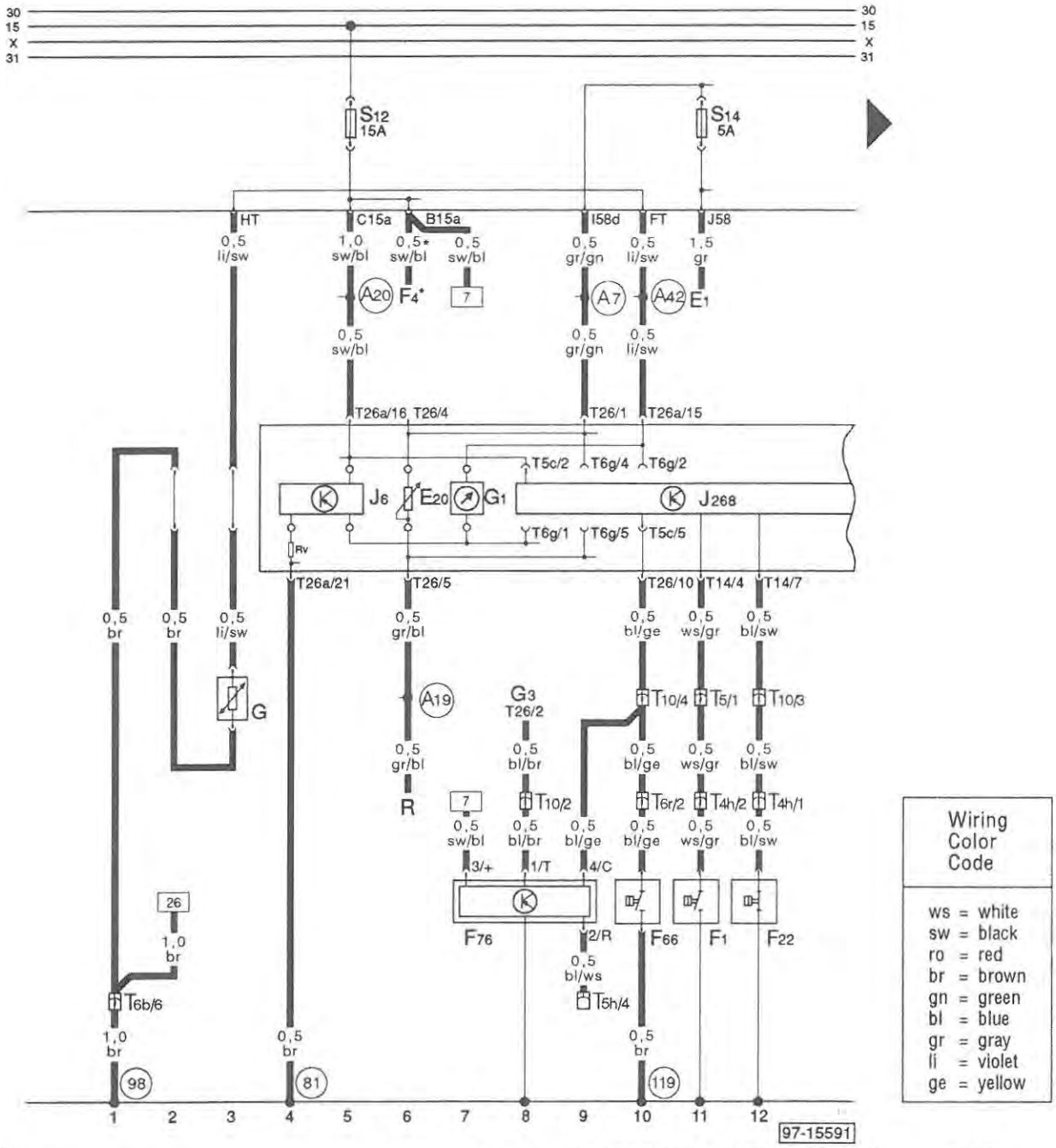


Relay location

Auxiliary Relay Panel, Rear



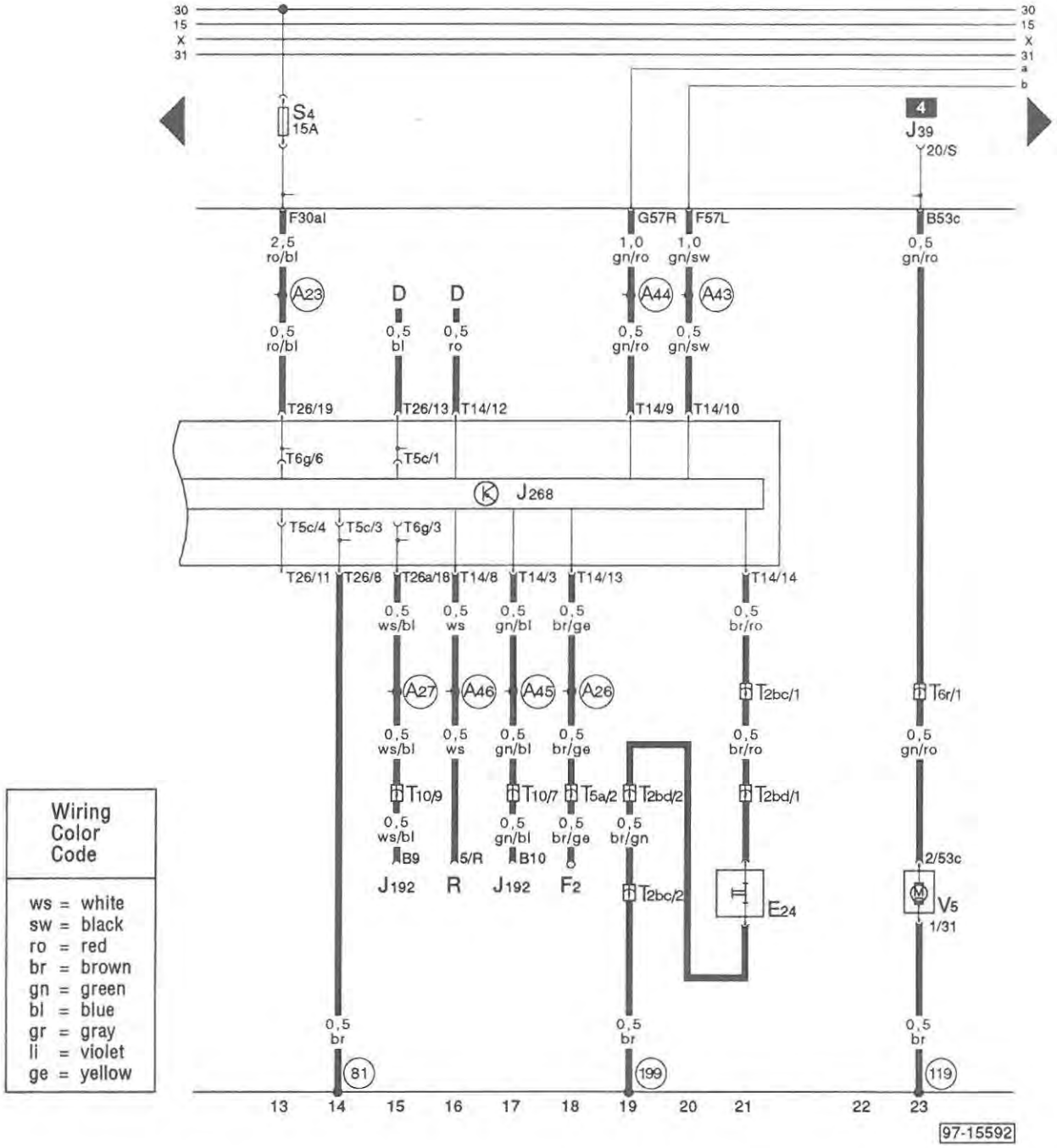
Relay location



Wiring Color Code
ws = white
sw = black
ro = red
br = brown
gn = green
bl = blue
gr = gray
li = violet
ge = yellow

E1 = Light Switch
E20 = Instrument Panel Light Dimmer Switch
F1 = Oil Pressure Switch
F4 = Back-Up Light Switch
F22 = Oil Pressure Switch (0,3 bar)
F66 = Engine Coolant Level (ECL) Warning Switch
F76 = Engine Coolant Temperature (ECT) Electronic Thermoswitch
G = Fuel Level Sensor
G1 = Fuel Gauge
G3 = Engine Coolant Temperature (ECT) Gauge
J6 = Voltage Stabilizer
J268 = Mini Check System Control Module
S12 = Fuse For Cruise Control / Electronic Thermoswitch / Auto Check System / Instrument Cluster / Interior Light With Delay / Back-Up Lights / Servotronic / Automatic Transmission / Airbag Control Light / Coolant Fan Afterrun / Differential Lock / Board Computer, in Fuse Panel
S14 = Fuse For License Plate Light / Glove Compartment Light / Engine Compartment Light, in Fuse Panel
T4h = Wire Connector, 4 Point, black, in engine compartment, right
T5 = Wire Connector, 5 Point, black, connector station in auxiliary relay panel
T5c = Wire Connector, 5 Point, on instrument cluster
T5h = Wire Connector, 5 Point, red, behind instrument panel, left
T6b = Wire Connector, 6 Point, black, in luggage compartment, left
T6g = Wire Connector, 6 Point, on instrument cluster
T6r = Wire Connector, 6 Point, black, behind instrument panel, left
T10 = Wire Connector, 10 Point, black, connector station in auxiliary relay panel
T14 = Wire Connector, 14 Point, white, on Mini Check System Control Module
T26 = Wire Connector, 26 Point, yellow, on instrument cluster
T26a = Wire Connector, 26 Point, blue, on instrument cluster

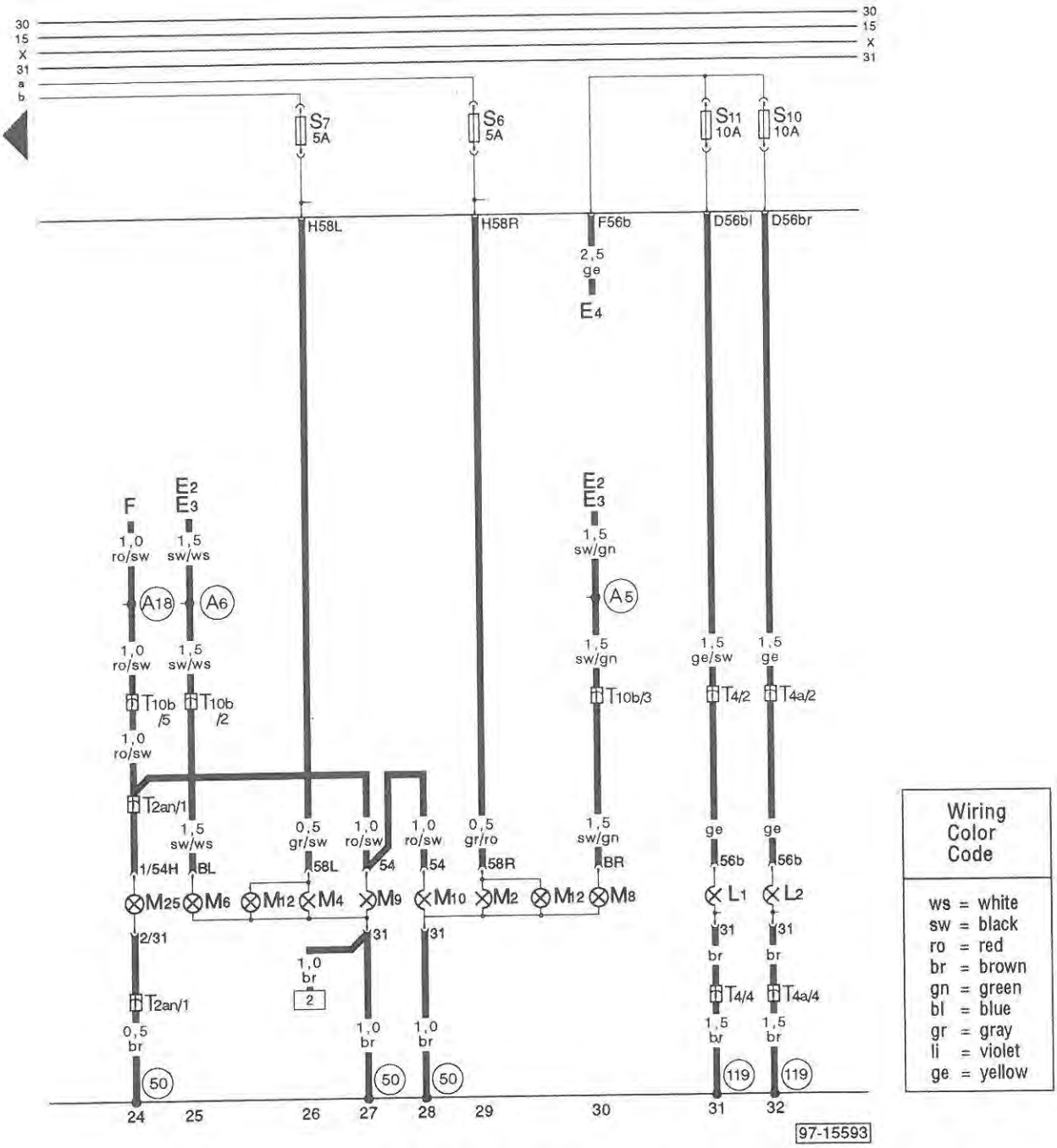
(81) - Ground connection -1-, in instrument panel wiring harness
(98) - Ground connection, in rear lid wiring harness
(119) - Ground connection -1-, in headlight wiring harness
(A7) - Plus connection (58D1), in instrument panel wiring harness
(A19) - Wire connection (58d), in instrument panel wiring harness
(A20) - Wire connection (15a), in instrument panel wiring harness
(A42) - Wire connection (fuel gauge), in instrument panel wiring harness
* - Manual Transmission Only



Wiring Color Code	
ws	= white
sw	= black
ro	= red
br	= brown
gn	= green
bl	= blue
gr	= gray
li	= violet
ge	= yellow

D = Ignition / Starter Switch
E24 = Seat Belt Switch, Left
F2 = Door Contact Switch, Left Front
J39 = Headlight Washer System Relay
J192 = MFI Engine Control Module (ECM)
J268 = Mini Check System Control Module
R = Radio
S4 = Fuse For Digital Clock / Luggage Compartment Light / Interior Light, Front / Make-Up Mirror Lights / Reading Lights / Cigarette Lighters / Boardcomputer / Automatic Climate Control / Radio / Auto Check System, in Fuse Panel
T2bc = Wire Connector, double, orange, behind instrument panel, left
T2bd = Wire Connector, double, black, on Seat Belt Switch, left
T5a = Wire Connector, 5 Point, brown, connector station in auxiliary relay panel
T6r = Wire Connector, 6 Point, black, behind instrument panel, left
T10 = Wire Connector, 10 Point, black, connector station in auxiliary relay panel
T14 = Wire Connector, 14 Point, white, on Mini check System Control Module
T26 = Wire Connector, 26 Point, yellow, on instrument cluster
T26a = Wire Connector, 26 Point, blue, on instrument cluster
V5 = Windshield Washer Pump

(81) - Ground connection -1-, in instrument panel wiring harness
(119) - Ground connection -1-, in headlight wiring harness
(199) - Ground connection -3-, in instrument panel wiring harness
(A23) - Wire connection (30al), in instrument panel wiring harness
(A26) - Wire connection (driver's door contact switch), in instrument panel wiring harness
(A27) - Wire connection (speed signal), in instrument panel wiring harness
(A43) - Wire connection (57l), in instrument panel wiring harness
(A44) - Wire connection (57r), in instrument panel wiring harness
(A45) - Wire connection (RPM signal), in instrument panel wiring harness
(A46) - Wire connection (30-from radio), in instrument panel wiring harness



Wiring Color Code	
ws	= white
sw	= black
ro	= red
br	= brown
gn	= green
bl	= blue
gr	= gray
li	= violet
ge	= yellow

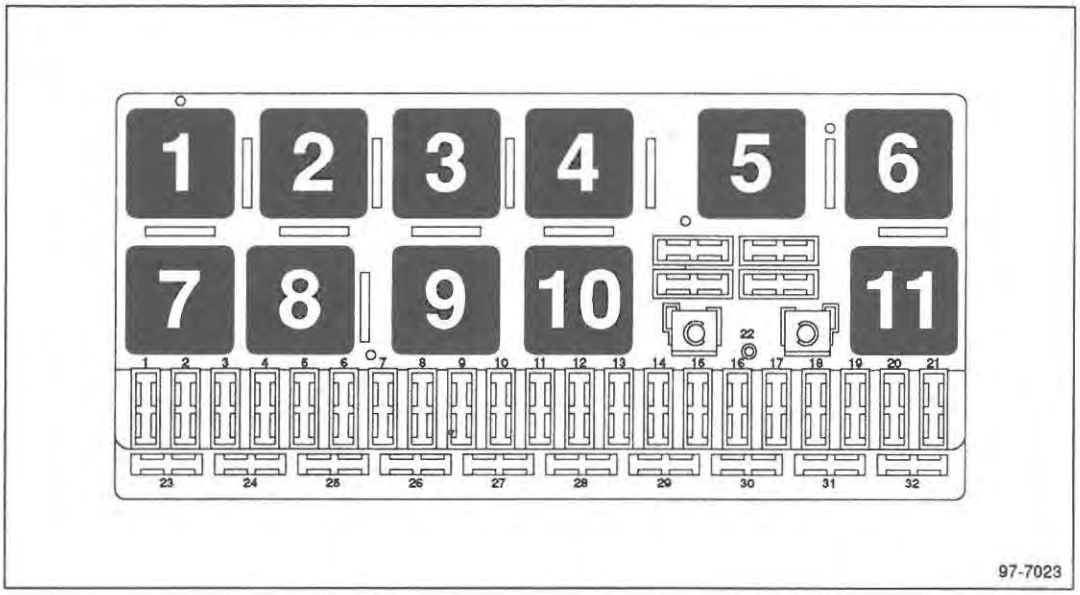
E2 = Turn Signal Switch
E3 = Emergency Flasher Switch
E4 = Headlight Dimmer / Flasher Switch
F = Brake Light Switch
L1 = Headlight, Left
L2 = Headlight, Right
M2 = Tail Light, Right
M4 = Tail Light, Left
M6 = Turn Signal Light, Left Rear
M8 = Turn Signal Light, Right Rear
M9 = Brake Light, Left
M10 = Brake Light, Right
M12 = Side Marker Lights, Rear
M25 = High Mount Brake Light
S6 = Fuse For Parking Lights, Side Marker and Tail Lights,Right, in Fuse Panel
S7 = Fuse For Parking Lights, Side Marker and Tail Lights, Left, in Fuse Panel
S10 = Fuse For Lowbeam Headlight, Right
S11 = Fuse For Lowbeam Headlight, Left

T2an = Wire Connector, double, black, in luggage compartment
T4 = Wire Connector, 4 Point, near headlight, left
T4a = Wire Connector, 4 Point, near headlight, right
T10b = Wire Connector, 10 Point, brown, connector station in auxiliary relay panel

(50) - Ground connection, in luggage compartment, left
(119) - Ground connection -1-, in headlight wiring harness
(A5) - Plus connection (right turn signal), in instrument panel wiring harness
(A6) - Plus connection (left turn signal), in instrument panel wiring harness
(A18) - Wire connection (54), in instrument panel wiring harness

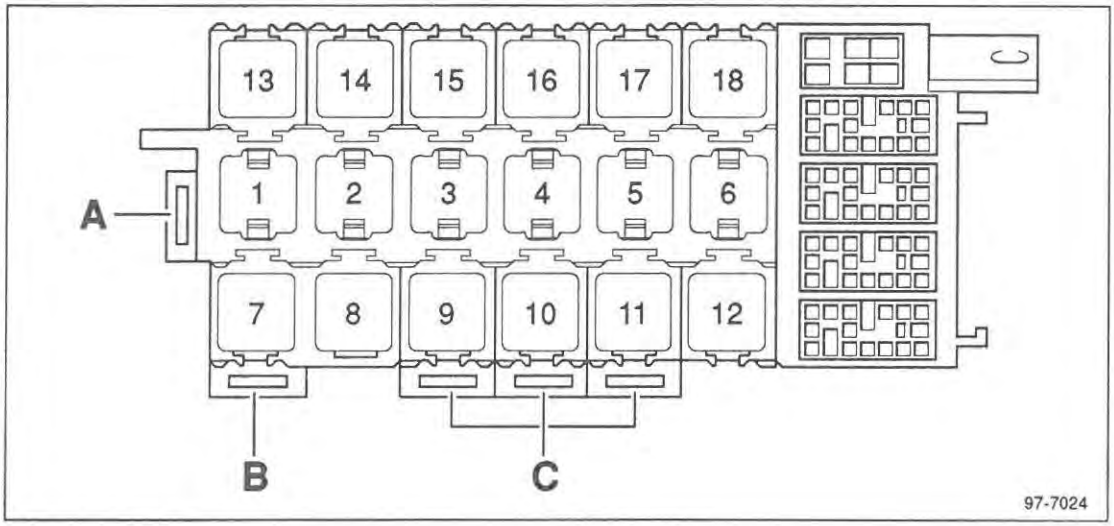
90 (All models)–USA/Canada
From VIN: 8CPA 000100

Fuse / Relay Panel (Left Side Plenum Tray)



Relay location

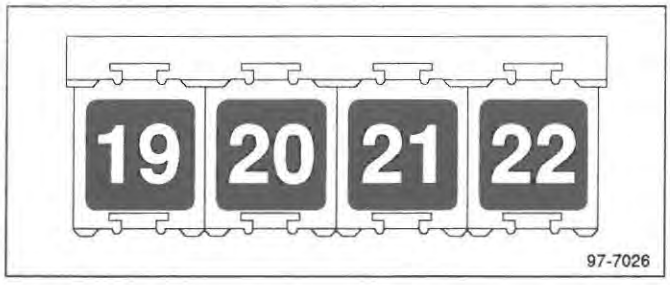
Auxiliary Relay Panel With Connector Station



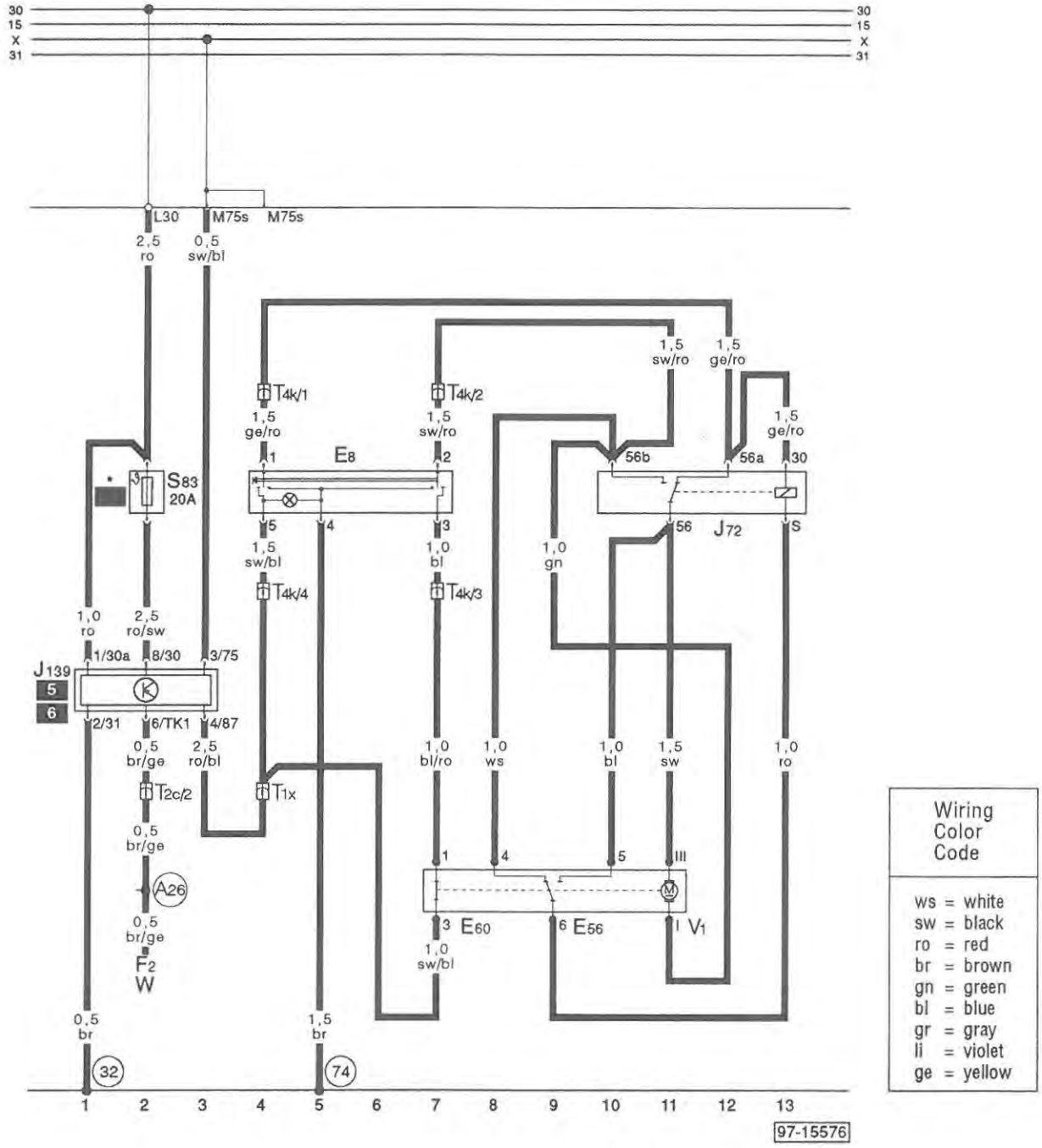
Relay location

5
6
} Power Window / Sunroof Control Module, J139

Auxiliary Relay Panel, Rear



Relay location



Wiring Color Code	
ws	= white
sw	= black
ro	= red
br	= brown
gn	= green
bl	= blue
gr	= gray
li	= violet
ge	= yellow

E8 = Sunroof Switch
E56 = Sunroof Stop Switch (Closed Pos.)
E60 = Sunroof Stop Switch (Raise/Lower)
F2 = Door Conntact Switch, Left Front
J72 = Sunroof Relay
J139 = Power Window / Sunroof Control Module
S83 = Fuse For Sunroof Circuit Breaker, in Adapter C
T1x = Wire Connector, single, green, behind instrumsnt panel, left
T2c = Wire Connector, double, white, behind instrument panel, left
T4k = Wire Connector, 4 Point, black, near sunroof switch
V1 = Sunroof Motor
W = Interior Light, Front

(32) - Ground connection, behind instrument panel left

(74) - Ground connection, under roof headliner

(A26) - Wire connection (driver's door contact switch), in instrument panel wiring harness

* - Installed In Open Relay Position

We Encourage Professionalism
Through Technician Certification