

AAN Engine Harness – Passenger Compartment – by Dave F. (UrS4boy) – FIRST DRAFT

This was inspired by and is based on a post “AAN Loom” by pug’slife (Jay) on the S2 forum (<http://www.s2forum.com/forum/showthread.php?t=38722>)

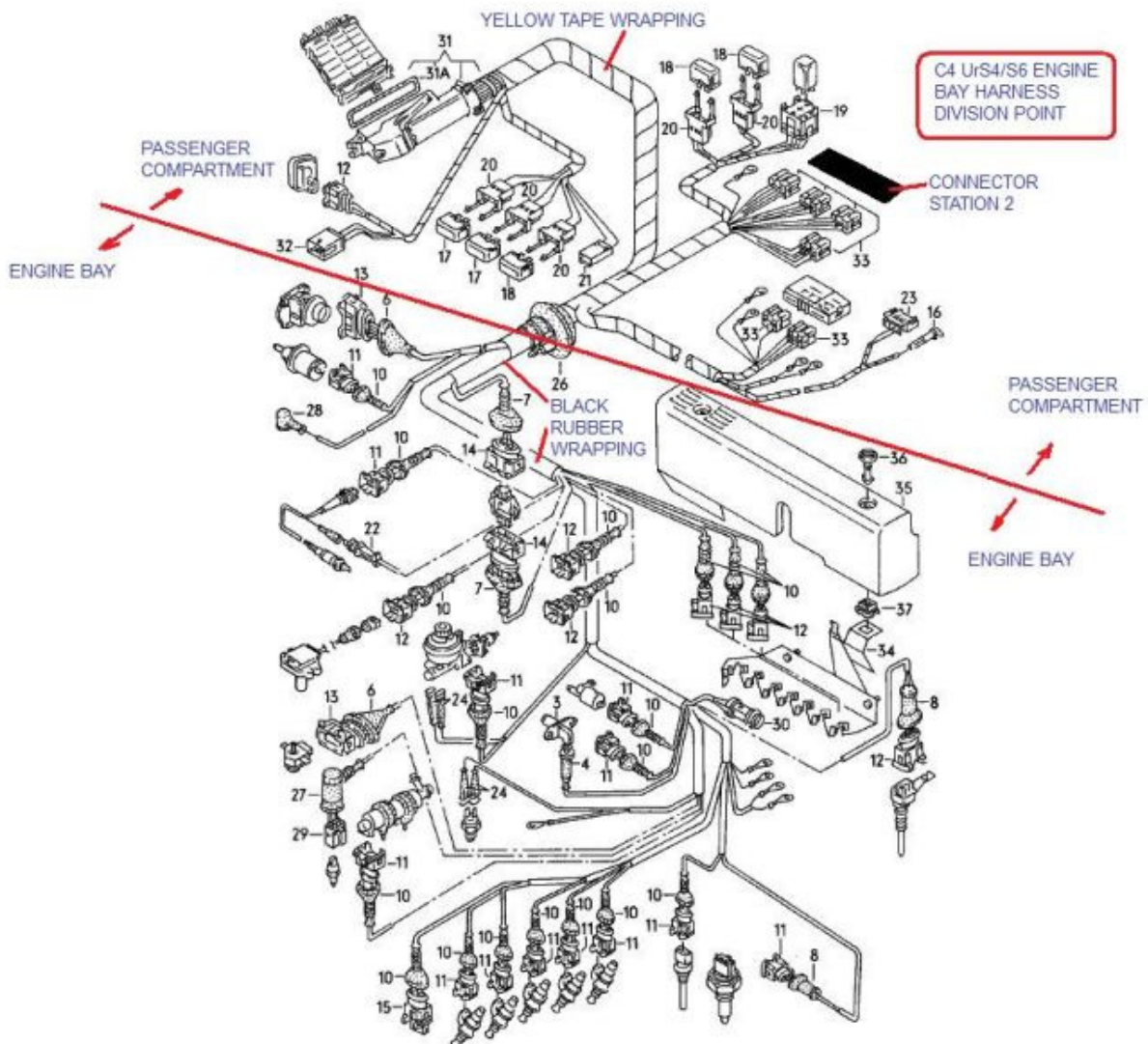
I (UrS4boy) had the resources and time to chase down some missing info and/or correct some minor things that Jay was mistaken on. The descriptive text is a combination of Jay’s comments and my comments. (Thanks Jay) I have also added hyperlinks that should still be operable, even in the pdf form of this document. Hyperlinks are in [blue](#).

To quote Jay, this has been kept as simple as possible and pictures should aid people who work better with images rather than text. Special thanks to Jay for starting this. Without his pioneering work, I would never have started this. (It turned out to be more work than I imagined)

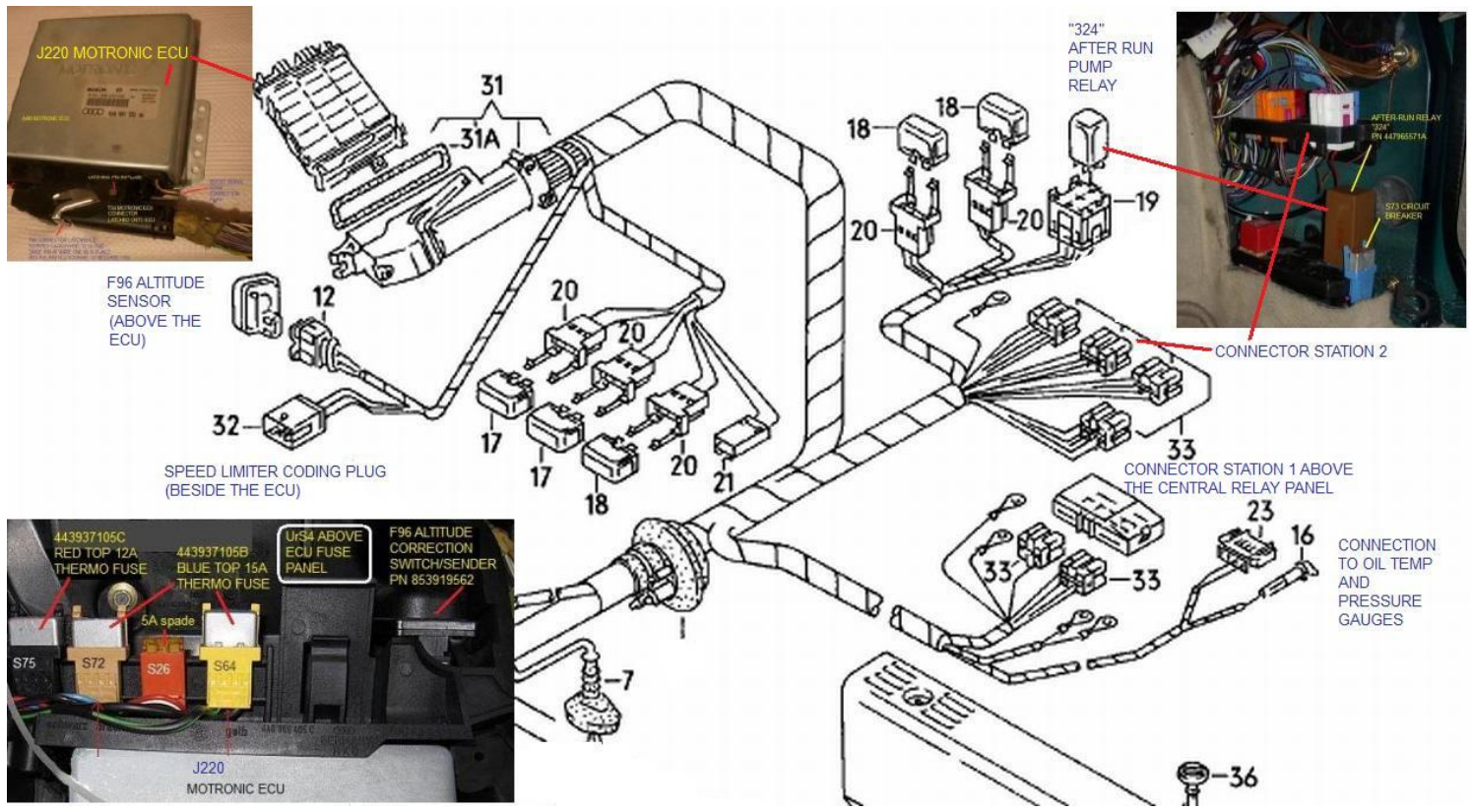
AAN Engine Loom (Harness)

The following document gives a pictorial description of the engine wiring loom from a C4 Audi 100 UrS4. Photos are based on 92, 93 and 94 UrS4s with the odd UrS6 photo. Please note this is information gathered from manual car and any variations with earlier/later years that may be found are not listed. This document only describes the yellow taped wrapped section of the loom (harness) inside the car.

Here is the division point between the inside (passenger compartment) and the engine compartment:



This current document is focussed on the portion of the harness that is wrapped in yellow tape and located in the passenger compartment, connected to Connector Station 1, Connector Station 2 and the instrument cluster (directly and indirectly):



A photograph of each connector/Fuse holder is given along with the Pin out and wire colours, the number in brackets is the wire size. Next to each of these is the source of the wire and if present, the ECU pin the wire traces from. (Colours are the wires involved are in this link to an [AAN ECU pin-out with hyperlinks](#))

WARNING: Some connector names might be in different in UrS4s and UrS6s (go figure)

Altitude sensor (F96) which has 3 wires connecting to it. (F96 lives above the ECU.)

PIN WIRECOLOUR SOURCE

1/3 Grey/Black (0.5) ECU pin 9. (T55/9 - Input from [F96 Barometric pressure/altitude sensor](#) - GY/BK - provides a signal to the ECU to help control boost at higher altitudes - between 1000 and 4000 meters - prevents the turbo from spinning over 155000 rpm)

2/3 Red (0.5) ECU pin 12, (12v Power) Also branches to T6a/3, G40 (cam sensor) and G69 (throttle potentiometer)

3/3 Green/Black (0.5) - goes to a common ground (201) in the engine bay as does the G62 and several other devices

(F96 photo courtesy of pugslife)



Coding Connector T6ag by the ECU, 6pin, Black. Has 4 wires connecting to it.

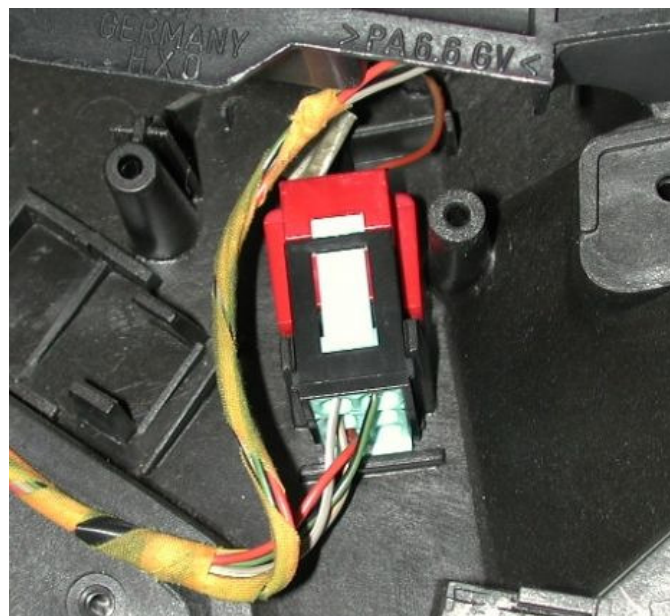
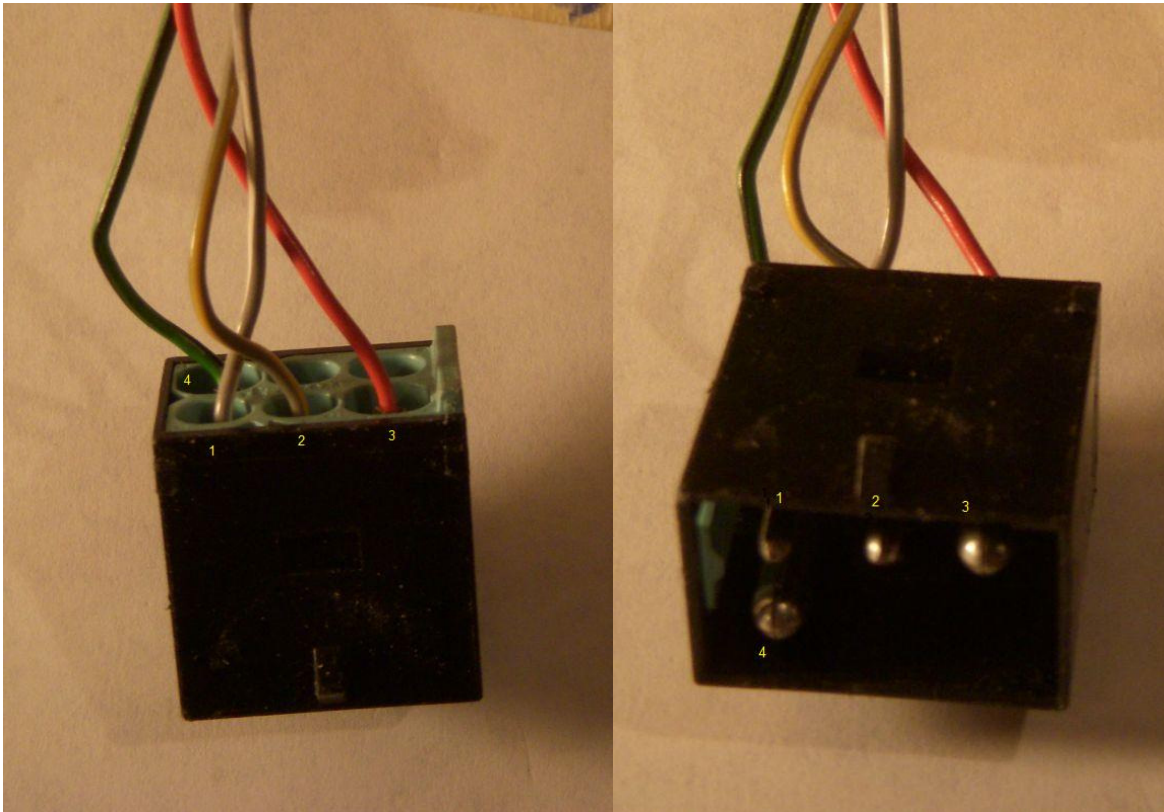
This is the speed limiter connector on the NAmerica UrS4/UrS6 (Link to [removal of the red speed limiter Coding plug](#))

1/6 Grey/White (0.5) ECU pin 38 (T6ag Coding plug -Pin 1-GY/W)

2/6 Grey/Yellow (0.5) ECU pin 39 (T6ag Coding plug- Pin 2- GY/Y)

3/6 Red (0.5) ECU pin 12, branches from F96, G40, G69. (12v Power from ECU)

4/6 Green/Black (0.5) Earth (to location (201) in the engine bay somewhere)



A section of wires branches off to 4 fuse holders (these are the ones over the ECU)



Black Fuse Holder (12 Amp) – S75 fuse for N71(ISV), N75 (WGFV) and N80 (Emissions canister valve). Stated as 10Amp ???

1 Blue (1.5) Bridged with S72/S116, comes from 87a on the [J17 Fuel Pump Relay](#)

2 Red (1.5) Bridged to N71, N75 and N80. ([N71 Idle Stabilization Valve](#), [N75 Wastegate Frequency Valve info](#), [N80 Evaporative Emissions Control Valve](#))

Light Brown Fuse Holder (15 Amp) – S72/S116 Injector Valve and MAF fuse.

1 Blue (2.5) Bridged with S75, comes from 87a on the [J17 Fuel Pump Relay](#)

2 Black/Red (2.5) D95 injector harness ([Fuel Injector Info](#), [G70 Mass Airflow \(MAF\) Sensor info](#))

Red Fuse Holder (5 Amp) – S26/S102 Engine Control Module fuse.

1 Red (1.5) Bridged with S61, Permanent, unswitched, 12V Feed.

2 White/Black (1.5) ECU Pin 18 (T55/18 = Constant power supply to ECU J220 - R/R- from power terminal 30 (+12V) Fuse S26 (5A) - passenger footwell as shown [HERE, in this above ECU fuse panel call-out post](#)). This constant power also feeds the [Holding Relay](#) for its work during start-up and shut-down.)

Yellow Fuse Holder (15 Amp) – S64/S115 Ignition Coil Terminal 15 fuse.

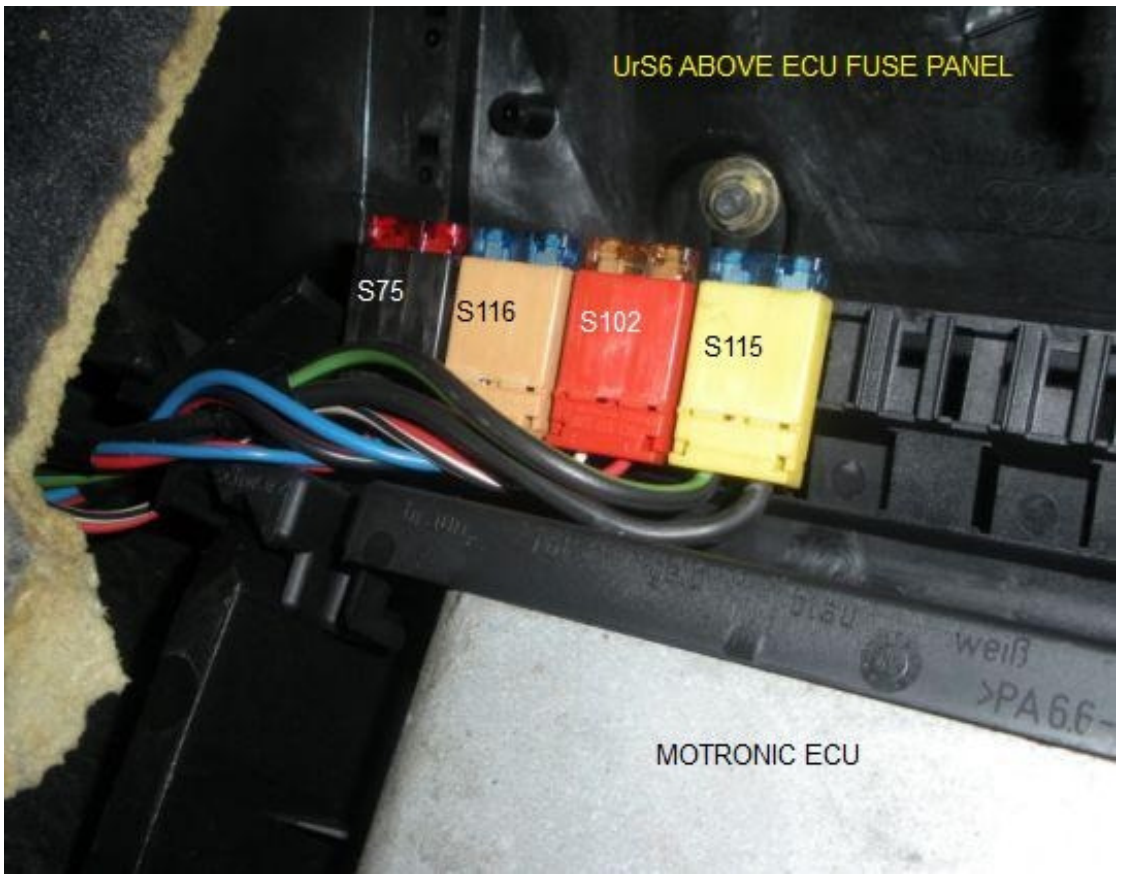
1 Black (4.0) Switched 12V power

2 Black/Green (4.0) T3w/2 for Ignition Coils ([Ignition Coil info, including testing procedures](#)) and the ECU

UrS4 equivalent fuse holders:



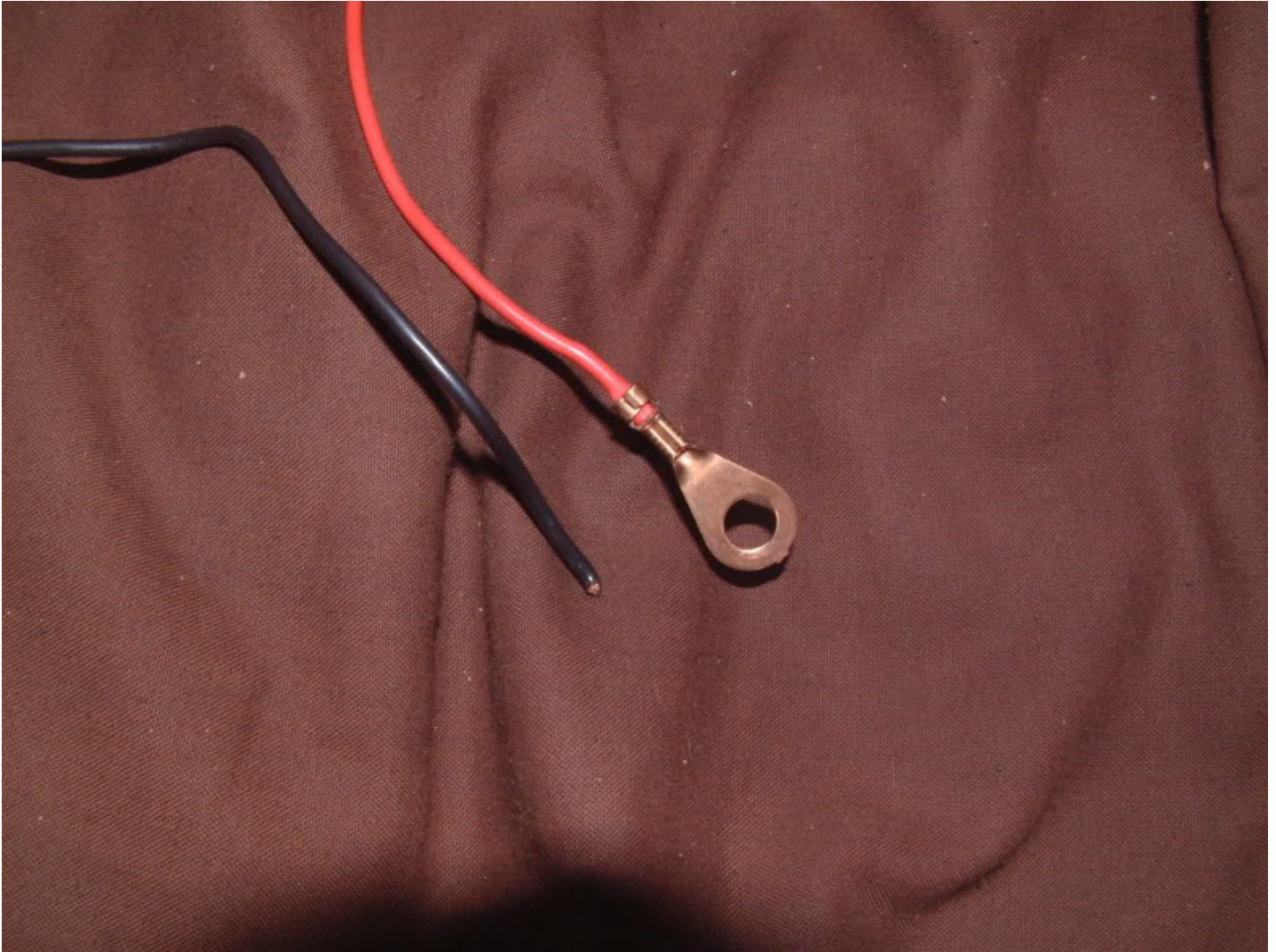
UrS6 equivalent fuse holders:



Two wires with eyelet terminals. One eyelet was removed from my loom but should be present on black wire. (NOT SURE ABOUT THIS ONE - INPUT APPRECIATED)

Black (1.5) 87f on fuseboard.
Red (1.5) Permanent 12v Feed

Photo courtesy of pugslife



Data Link connector wires. T2 white connector.

Green/Red (1.0) ECU Pin T55/55 goes to DLC (L) on Aux panel 1 (under hood) [Auxiliary Relay Panel 1](#) and T2/2

White/Red (1.0) ECU Pin T55/13 goes to DLC (K) on Aux panel 1 and T2/1 (13/55- Output to [Data Link connector "L"](#) for diagnostics - W/R)

Photo courtesy of pugslife



[Auxiliary Relay Panel 1](#) (Photo courtesy of vbmica)



(T6e) 6pin White plug. Has a single wire connection. (in Connector Stn 1 - Above the [Central Relay Panel](#) above and behind the driver's knee bolster, at least on the LHD cars)

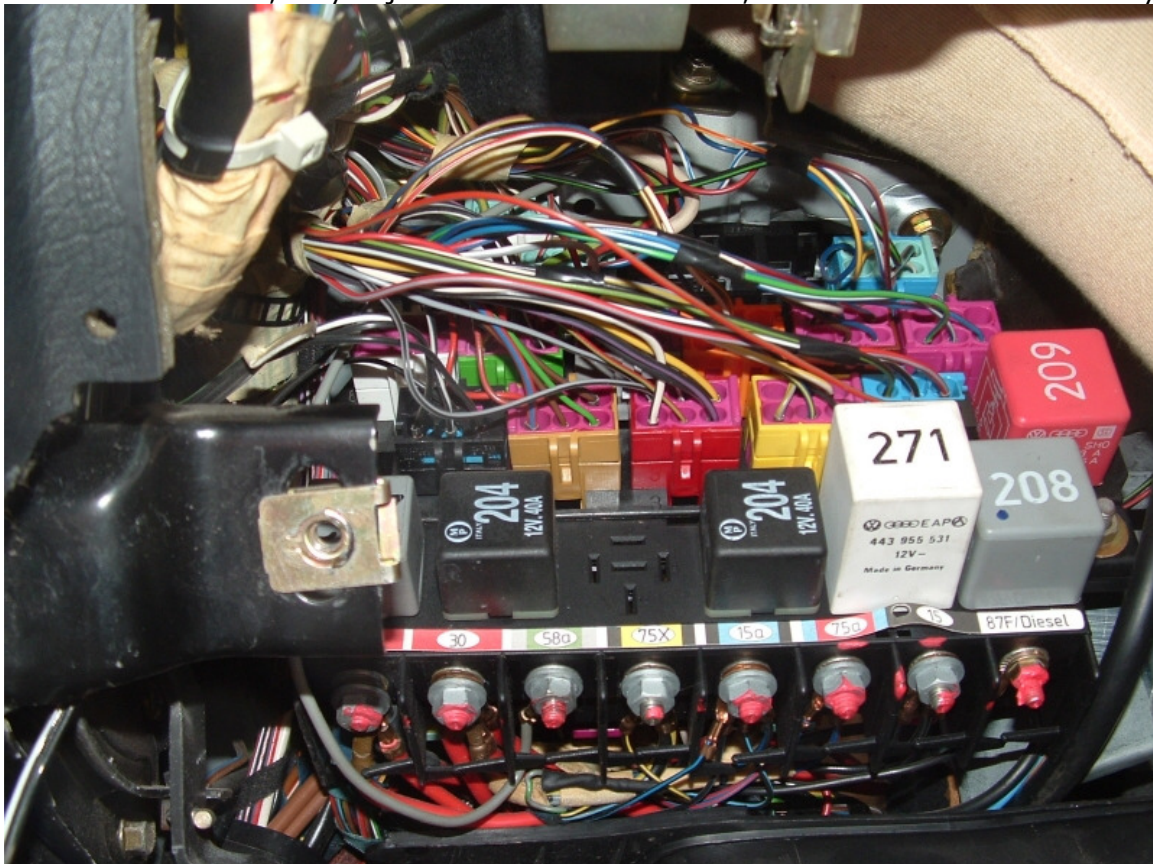
6/6 Brown/Yellow 0.5

Connects the After-run coolant fan control relay (J69)(a "214" relay) at Pin 4/86 (This is the 214 relay in Position 1 of the [Auxiliary Relay and Fuse Panel 1](#) under the hood/bonnet) and the Turbocharger (TC) coolant pump relay (J115) Pin 5/87a (Note: Bentley shows this a J155 which we know as the "324" relay) in the [Auxiliary Relay and Fuse Panel 3](#) (the brown relay) and the TC coolant pump = auxiliary after-run coolant pump)

T6e Connector photo courtesy of pugslife



Somewhere in here, maybe just visible on the left side, above the left most 204 relay



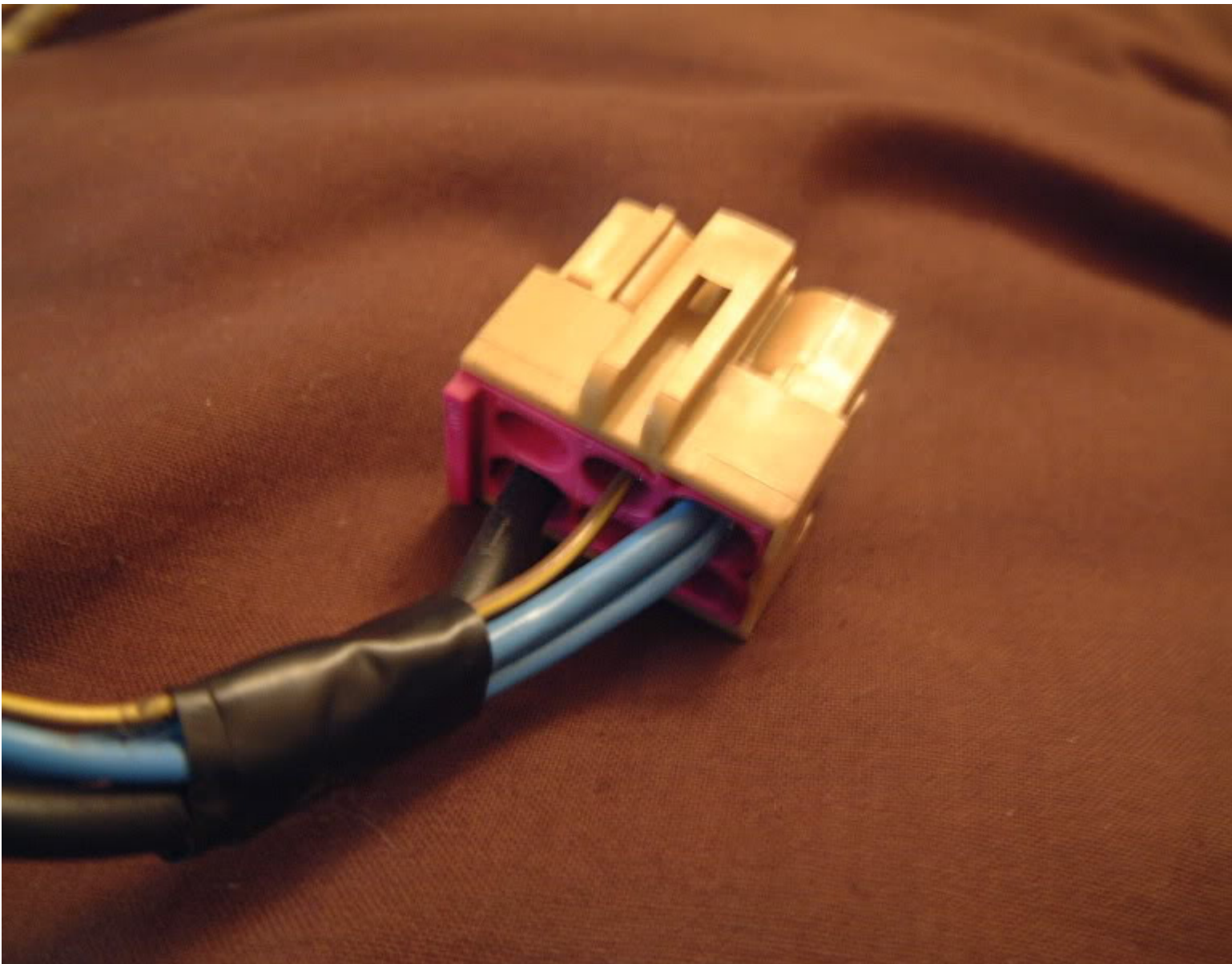
T6? - 6 Pin Light Brown plug, 3 pins have connections. – Probably in the same mess as in the above photo

3/6 Black (4.0) Fuse S115, pin 1 (This is the switched power feed to yellow-holder coil fuse, S64 in the UrS4s and S115 in the UrS6s – [as shown HERE, in this above ECU fuse panel call-out post](#))

4/6 2x Blue (1.5/2.5) Power comes from Pin 31/87a of the [J17 Fuel Pump Relay](#) . The smaller (1.5 mm) wire goes to the Black S75 fuse holder above the ECU, which supplies power to the N75 WGFV, the N71 ISV and the N89 Evap Emissions Valve (as noted above). The larger wire (2.5 mm) goes to the brown fuse holder above the ECU (S72 in the UrS4s and S116 in the UrS6s) which feeds the injectors and the MAF, as listed in the ECU fuse panel call-out post linked above)

5/6 Brown/Yellow (0.5) T6e/6 (This same brown/yellow in T6e above- related to the after-run coolant pump)

(Photo courtesy of pugslife)



Aux Gauge plug (T4m) (Item 23 in the AAN harness diagram) has two connections to it.

1/4 Black/White (0.5) The Bentley shows a Black/White wire from the G10 Engine Oil pressure sensor entering the UrS4 instrument cluster at T4b/1 via a T3m/2 (??) – More [Info about the G10 Oil Pressure Sender](#))

2/4 Black/Brown (0.5) Oil temp sensor (G8) ([Info about the G8 Oil Temp Sender](#))(Note: the Bentley shows a single Black/Brown wire from the sender to T4b/2 at the instrument cluster)

Bulb holder wiring: Black/Blue (0.5) White/Blue (0.5) (Item 16 in the AAN harness diagram)

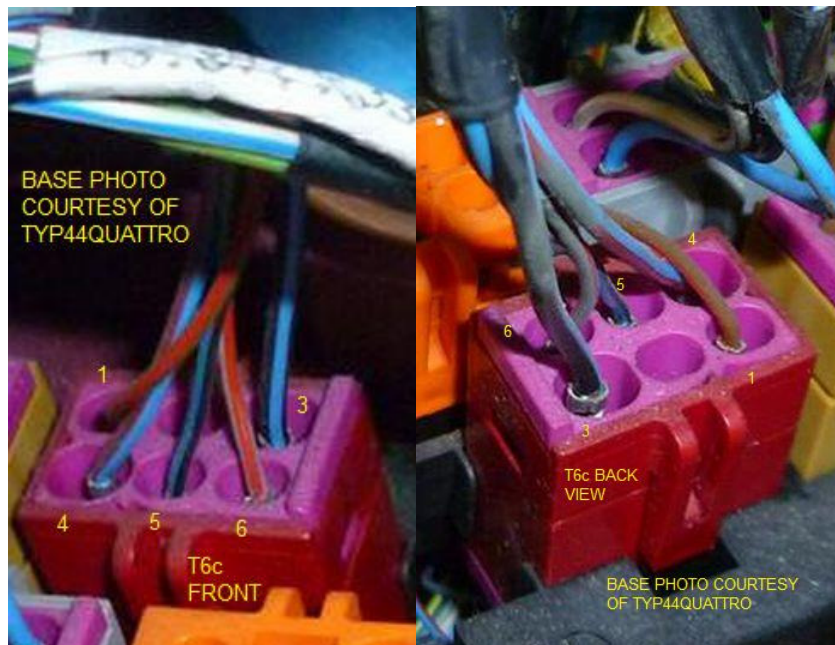
(Photo courtesy of pugslife)



T6c, Red 6 pin connector. ([Connector Stn 2, Right hand front kick panel, behind the orange and grey connectors - at least for LHD UrS4 cars](#)) (Base photo courtesy of typ44quattro)



- 1/6 Brown/Red** (0.5) Vehicle Speed Sensor (G22) ([More G22 Vehicle Speed Sensor info](#))
- 3/6 Black/Blue** (1.5) from Fuse S14 in dash fuse panel, on to many devices, including back-up lights and ECU pin T55/22, via a [Data Link Connector](#) – as W/BL wire - linked to Check engine light (Malfunction indicator lamp) - also used in the [blink code check.](#))
- 4/6 Blue/Red** (1.0) After staring at the Bentley for an hour and then looking at my spare (but damaged – wires cut at the connector) harness AND then going out to my 93 UrS4, I (UrS4boy) finally figured it out: There is a 1.0 Blue/Red wire coming into 4/6 of T6c from the F4 Manual Transmission Backup Light switch AND there are two Blue/Red wires going out: One 0.5 going to T26/3 of the mirror control module (presumably for the mirror dip function), and one 1.5 going to the back up lights
- 5 Blue/Black** (0.5) ECU pin 31 (T55/31- Fuel consumption signal for trip computer - BL/BK Enters the J128 Board Computer at Pin T10a/5 - Note: only used in N.America on 92 spec UrS4s)
- 6/6 Grey/Red** (0.5) Hydraulic Pressure Control Switch (F79) (relates to the brake system and connects to the Autocheck at T14/10) (The grey/red and a ground are connected underneath the Master cylinder via two separate spade connectors (no plastic housing) (Base photos courtesy of typ44quattro)



T6a Green 6 pin Connector - 5 wires ([Connector Stn 2](#) to left of the grey connector)

1/6 Lilac/Black (0.5) ECU pin 40. (Output from [G28 Engine Speed Sensor](#) - V/BK - Also connected to Ch.27 in the A/C head (you can read out RPM in the A/C head) [Link to Climate Control Diagnostics](#))

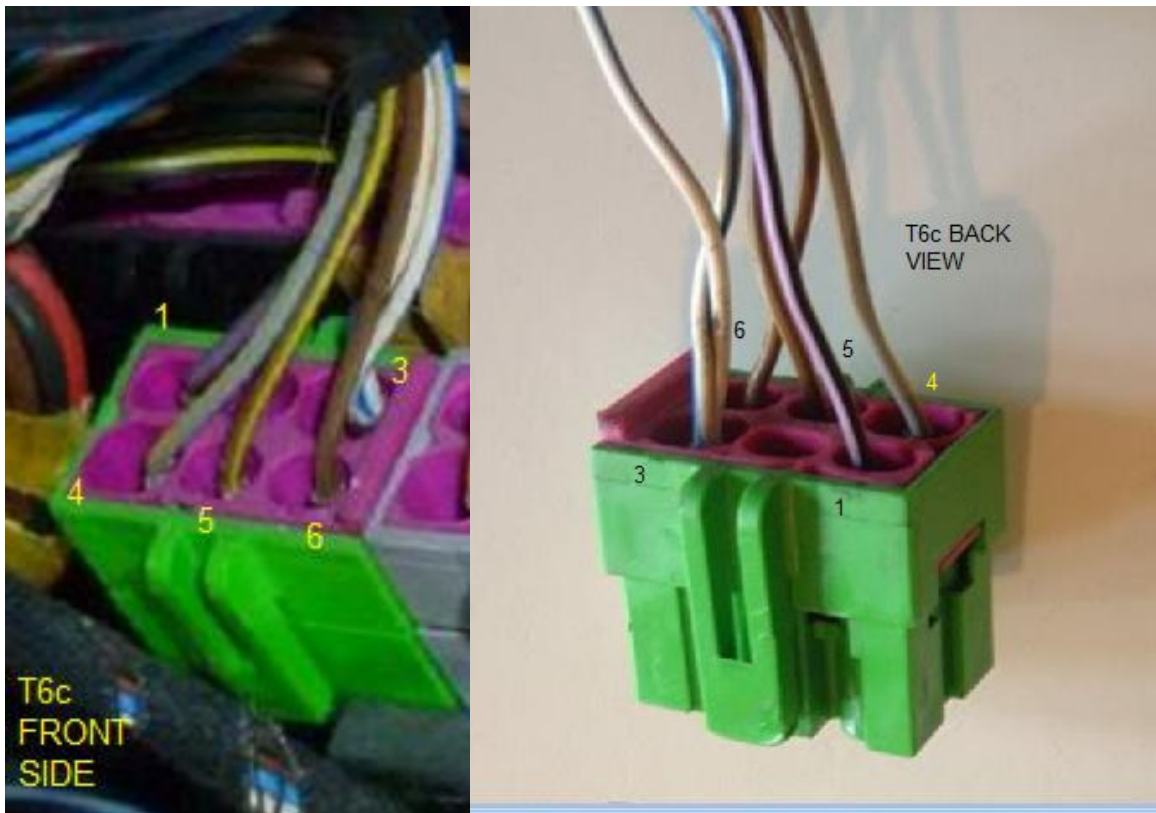
3/6 2x White/Blue (0.5) ECU pin 50, branches to T6g/1. (Road Speed signal output (input?) to Instrument Cluster-G21-W/BL-signal also goes to Automatic Climate Control Head Channel 17 - which you can read out speed as well AND the UrS4 lockable rear differential controller (under the rear seat so it can dis-engage the rear diff lock at 15 mph (25 kph))

4/6 Grey/Yellow (0.5) Brake Fluid Level Warning Switch (F34) (and then to Pin T26a/1 of the Autocheck system)

5/6 Brown/Yellow (0.5) ECT Thermal Switch (F76) (Pin 1/T and then to Pin T26a/16 of the instrument cluster/autocheck and then to the G3 engine coolant temp gauge) (More [F76 Multifunction Temperature Switch \(ECT Thermostat\) info](#))

6/6 Brown (0.5) Earth (Ground)

(Left base photo courtesy of typ44quattro, right base photo courtesy of pugslife)



(T6d) Grey 6 pin connector. ([Connector Stn 2](#) to the left of the orange connector)

1/6 Yellow/Blue (0.5) ECU pin T55/32 (Output to Trip Computer Boost Pressure Gauge - Y/BL - Note: only used in N.America on 92 spec UrS4s)

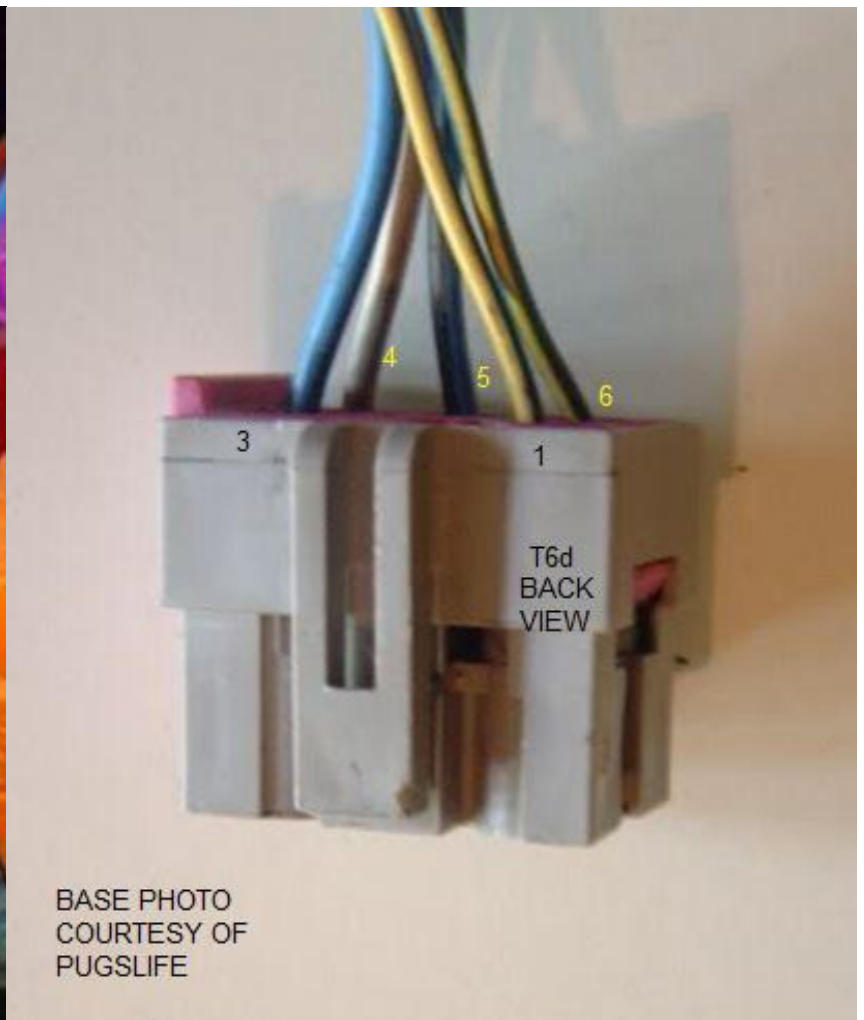
3/6 Blue (1.0) Voltage Regulator, Alternator.

4/6 Blue/Yellow (0.5) ECT Thermal Switch (F76) (Pin 4/C and then to Pin T26a/3 of the Autocheck) ([F76 Multifunction Temperature Switch \(ECT Thermostat\) info](#))

5/6 Blue/Black (1.0) The blue/black wire in T6d/5 is from the F22 0.3 Bar Engine oil pressure switch in the G10 oil pressure gauge sender (More info: [AAN Oil Pressure Sender, Switches and Check Valves](#))

6/6 White/Grey (1.0) Oil Pressure Switch (F1) (More info: [AAN Oil Pressure Sender, Switches and Check Valves](#))

(NOTE: Both of the oil pressure F1 and F22 wires connect to a T3m before ending up in T6d)



T6 (no letter) - Blue 6 pin Connector (ECU to Climate Control head communication)

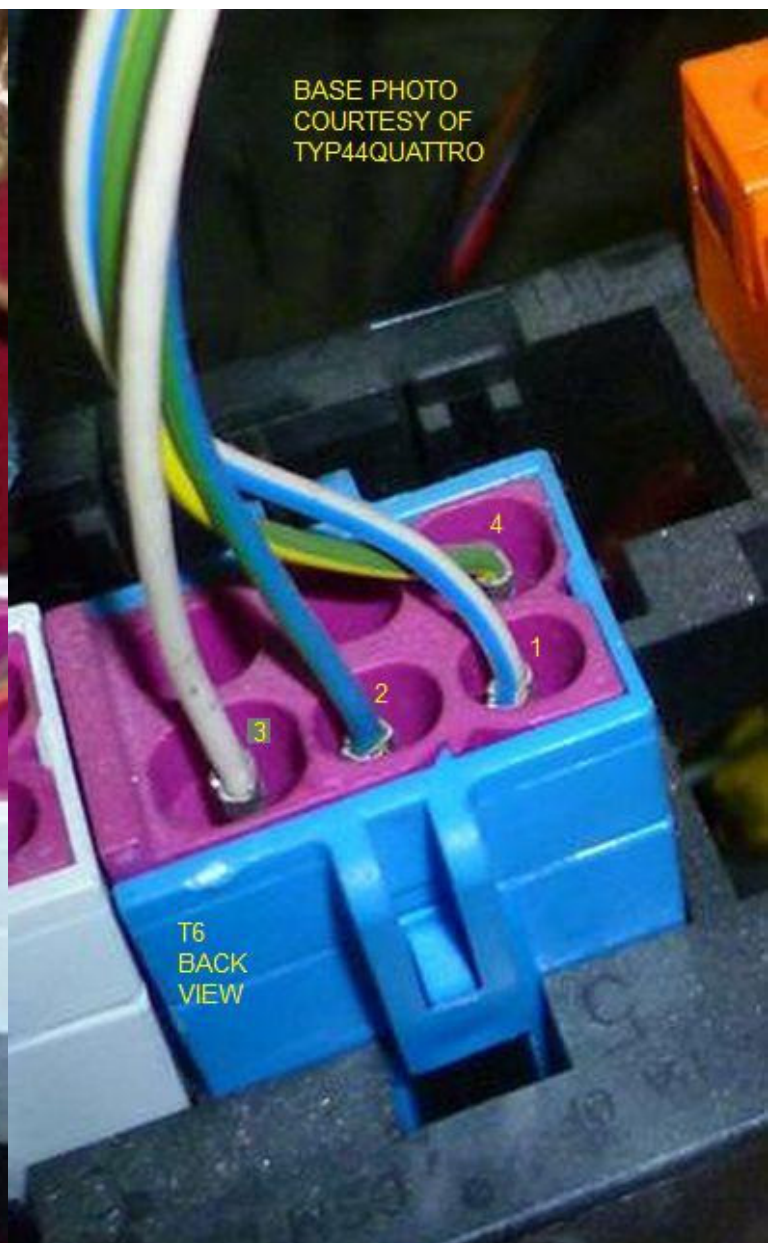
[Connector Stn 2](#)

1/6 White/Blue (0.5) Bridged with T6c/3 (Road speed signal, goes to Pin T16d/4 of the E87 A/C Climate control head)

2/6 Blue/Green (0.5) A/C Control Head (E87) (Comes from 2/R on the F76 MFTS and goes to Pin T12d/11 of the E87 - (More [F76 Multifunction Temperature Switch \(ECT Thermoswitch\) info](#)))

3/6 White (0.5) ECU Pin 41 (Signal from A/C control module -W/W - signal used by ECU to increase idle speed through ISV control when A/C compressor is activated (actually just maintains the idle speed when the extra load from A/C compressor is added to the system during idle)

4/6 Green/Yellow (0.5) ECU Pin 6 ([Connection to A/C Control Head](#) -E87- G/Y - Used to shut off A/C for up to 12 seconds when throttle is opened rapidly at speeds under 7 kph and shut off A/C for up to 3 seconds when in first gear and throttle position is at 65 degrees or more (full load) Ref: VAG143.))



Turbo Coolant pump relay (J155) (aka "324") has 5 connections. Blue 9 Pin relay plug.

For the [Auxiliary After-run Coolant Pump Relay](#) on the [Auxiliary Relay and Fuse Panel 3](#)

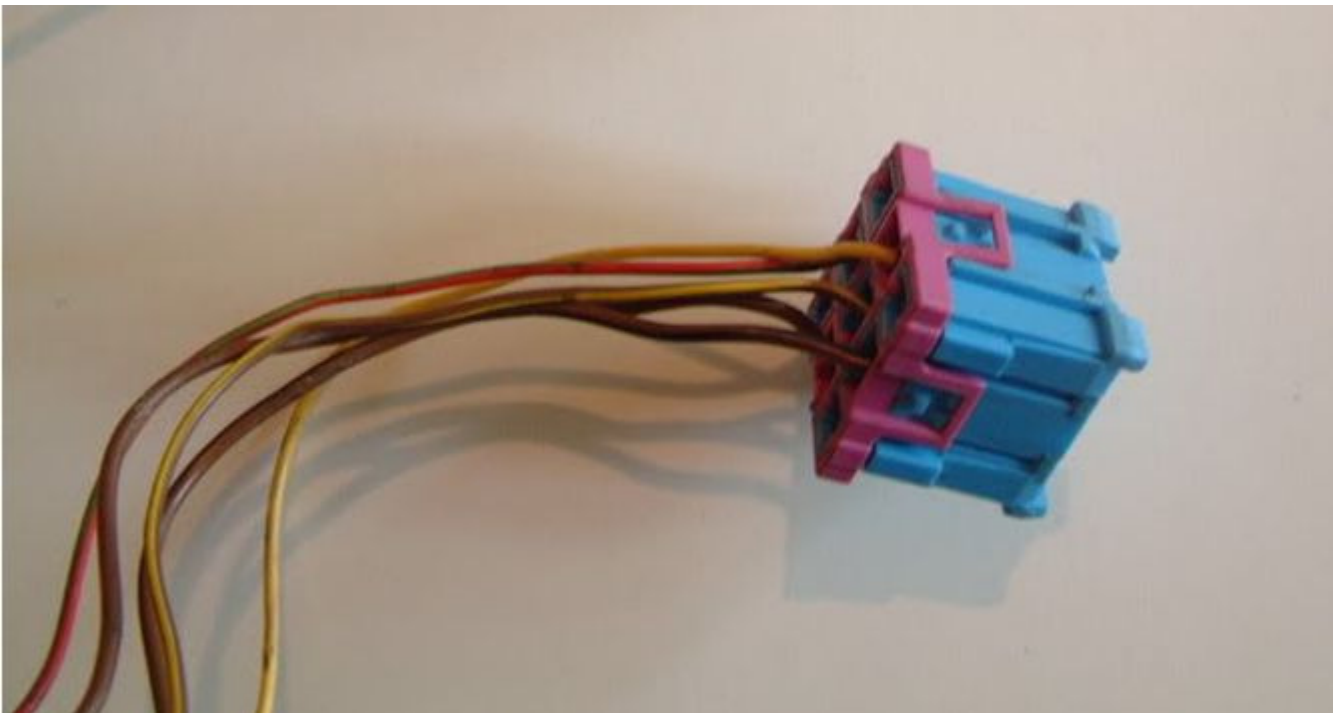
2/9 (2/30) Red/Green (0.5) Trigger signal from the TC coolant pump after-run thermal switch (F98)

4/9 (4/87f) Yellow (0.5) Fuse S73 Pin 2.

5/9 (5/87a) Brown/Yellow (0.5) Trigger to Coolant Fan 214 relay via T6e (6/6) as noted above

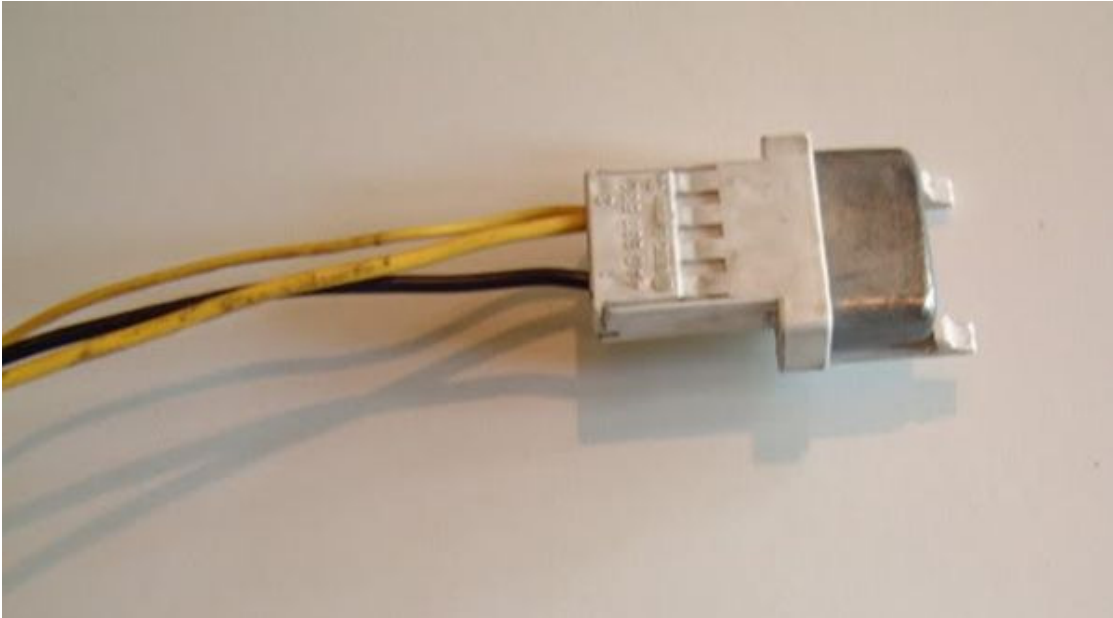
6/9 (6/31) Brown (1.0) Earth

8/9 (8/87) Brown/Black (1.0) Ground for After-run coolant pump motor (V51)



(S73) White Fuse Holder (12Amp) on the [Auxiliary Relay and Fuse Panel 3](#)

1. Black (1.5) 12V power in from 87f of the [J17 Fuel Pump Relay](#))
2. 2xYellow (0.5/1.5):
 - 0.5 - TC auxiliary coolant pump relay (J155) Pin 4 [Auxiliary After-run Coolant Pump](#)
 - 1.5 - T2f/2 Heated Oxygen sensor (Z19) (part of the [G39 Oxygen Sensor](#))



(S61 or S42?) Blue Fuse Holder (12Amp) on the [Auxiliary Relay and Fuse Panel 3](#)

- 1 2xRed (1.5) One is a constant on (#30 bus) 12v feed, the other is bridged to fuse S102.
- 2 White/Black (1) V51 and F98, After-run pump and after-run thermal switch, respectively ([Auxiliary After-run Coolant Pump](#) info)

