



Installation Instructions – 6hp Harness

The harness should be fitted by somebody with electrical competence. House of Torque will bear no responsibility for damages due to incorrect fitment.

Overview

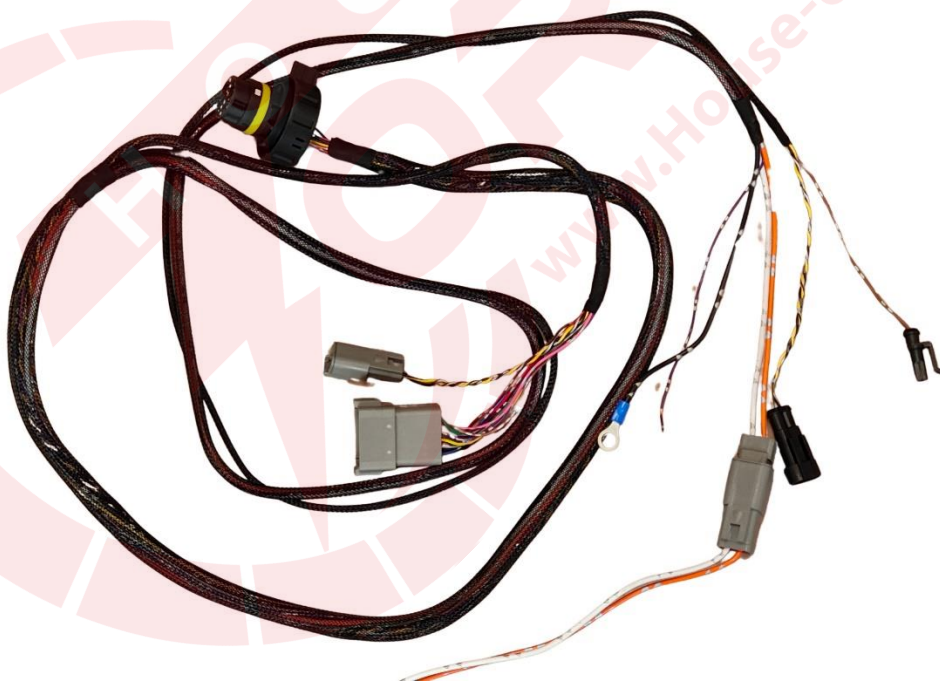
The main function of the harness is to connect the following components:

- 6hp transmission
- Shifter
- Engine ECU CANBus

In addition, there is also:

- +12v, ground and ignition
- Input for side light dimming (6hp26 only)
- Shift padel inputs (6hp28 only)

The wiring loom has a shared main section, which is common for both 6hp26 and 6hp28 installations:



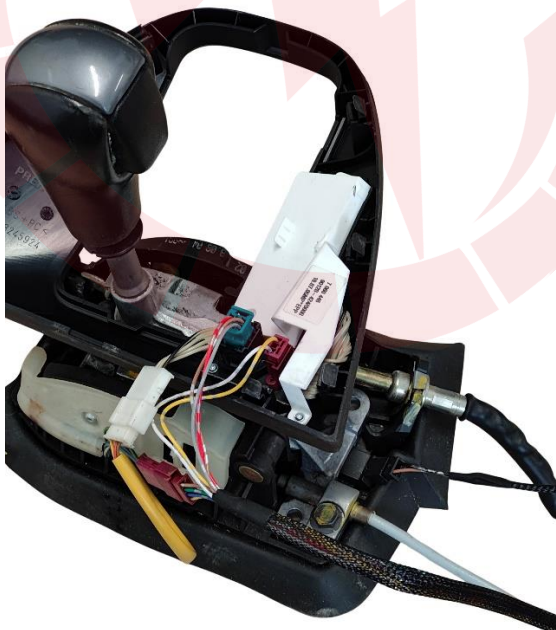
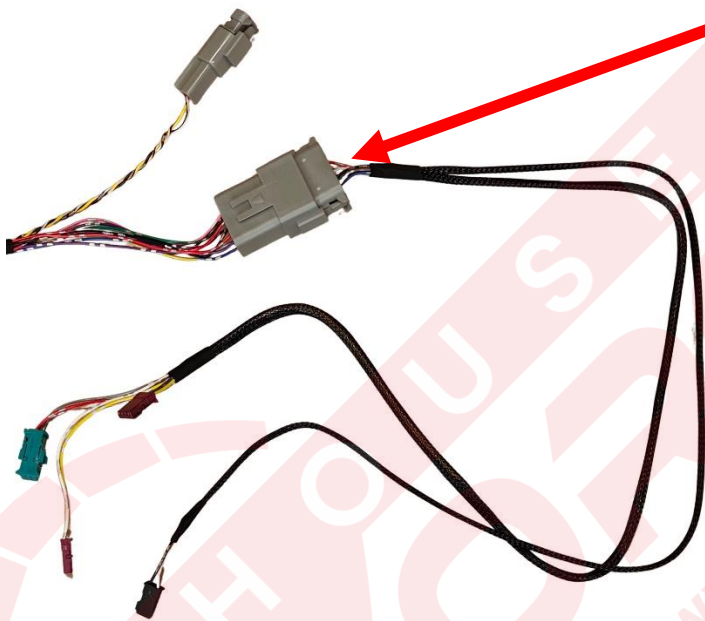
However, the instructions are split, the first section is applicable for 6hp26, the 2nd section for 6hp28.

6hp26 Harness

The loom has been designed for the 6hp26 and the mechanical shifter. The instructions will cover the E53 shifter, <2005 E60 and >2005 E60. We also have the option of using the E83 X3 shifter, this follows the E53 instructions closely.

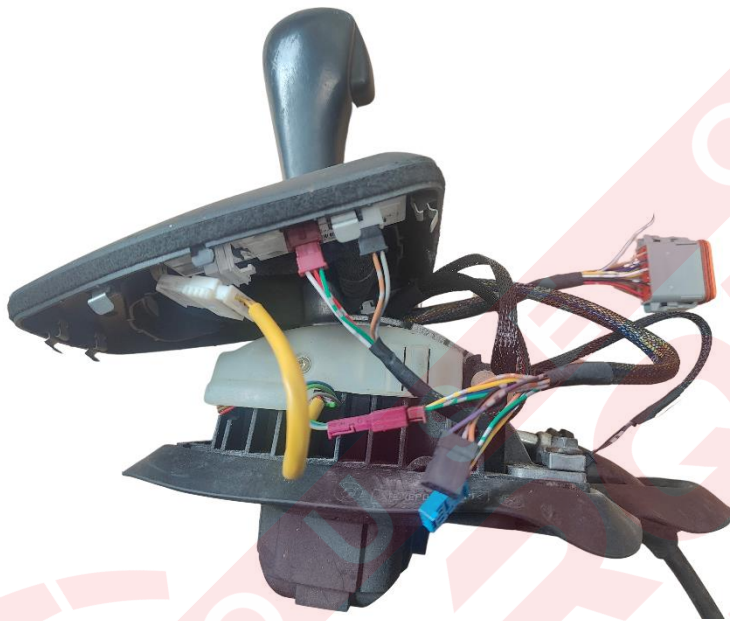
E53 6hp26 Shifter connections

- Join the shifter loom to the main loom with the 12 way Deutsch connector
- Make the connections to the shifter as indicated below



Early E60 Shifter connections

- Join the shifter loom to the main loom with the 12 way Deutsch connector
- Make the connections to the shifter as indicated below



Take care as there are 2x 3 pin black connectors. The one with the purple and brown wire goes to the front of the shifter.

You will be left with a 4 pin blue, 4 pin black and a single white/black wire. These are left unused on this shifter.

Late E60 Shifter connections

- Join the shifter loom to the main loom with the 12 way Deutsch connector
- Make the connections to the shifter as indicated below

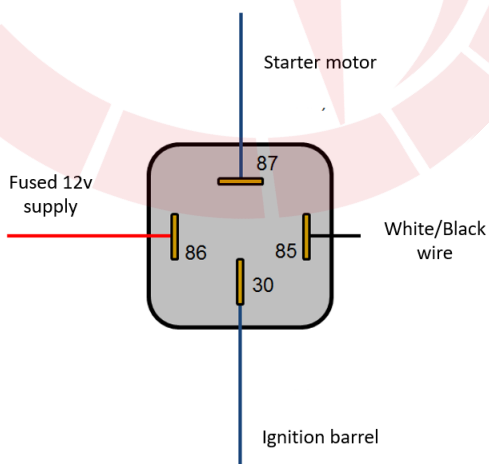


Take care as there are 2x 3 pin black connectors. The one with the purple and brown wire goes to the front of the shifter.

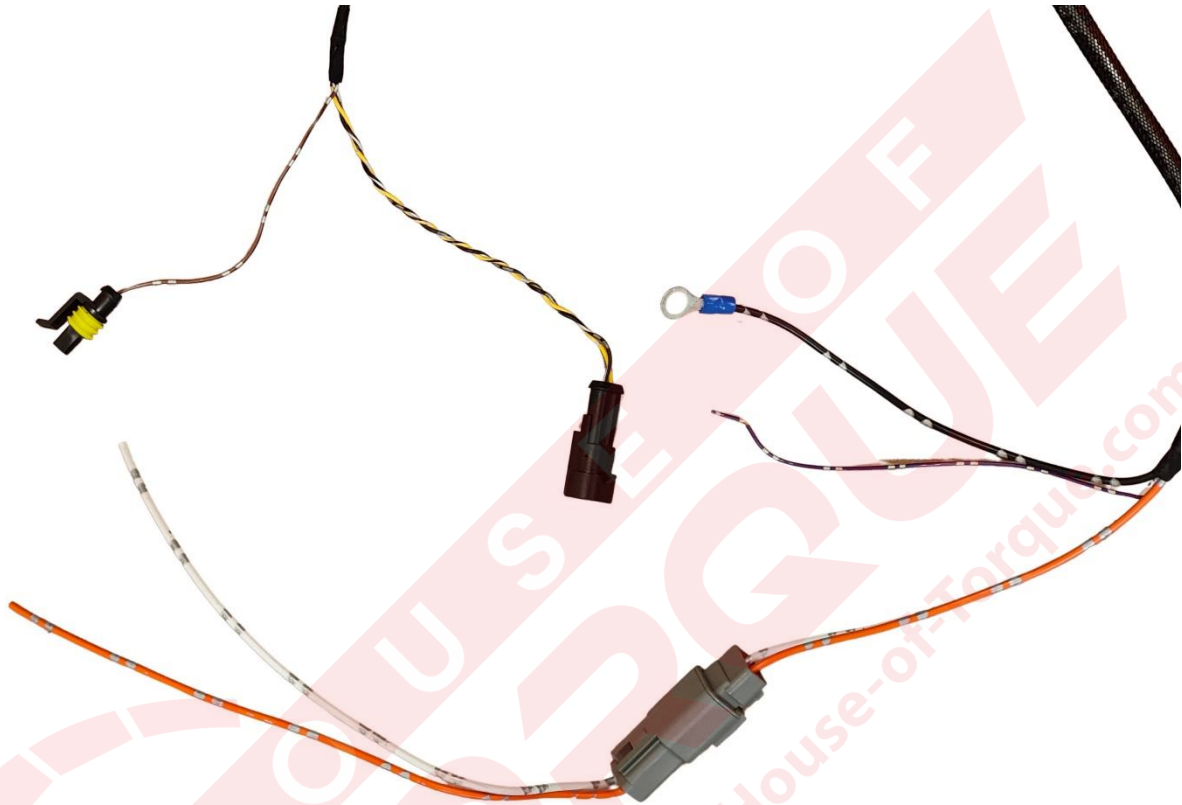
You will be left with a 4 pin purple connector, this is left unused.

The single white/black wire near the 12 way Deutsch connector is grounded when the shifter is in park. This could be utilised if you wanted to fit a park start inhibit.

An example of how this could be achieved is as follows:



6hp26 Body/ECU Connections



Wire Colour	Destination
White	Permanent 12v - 10 amp fuse
Orange	Ignition 12v - 5 amp fuse
Black with ring terminal	Ground
Purple	Side light 12v *
Yellow twisted	CAN High
Black twisted	Can Low
Brown	K Line **

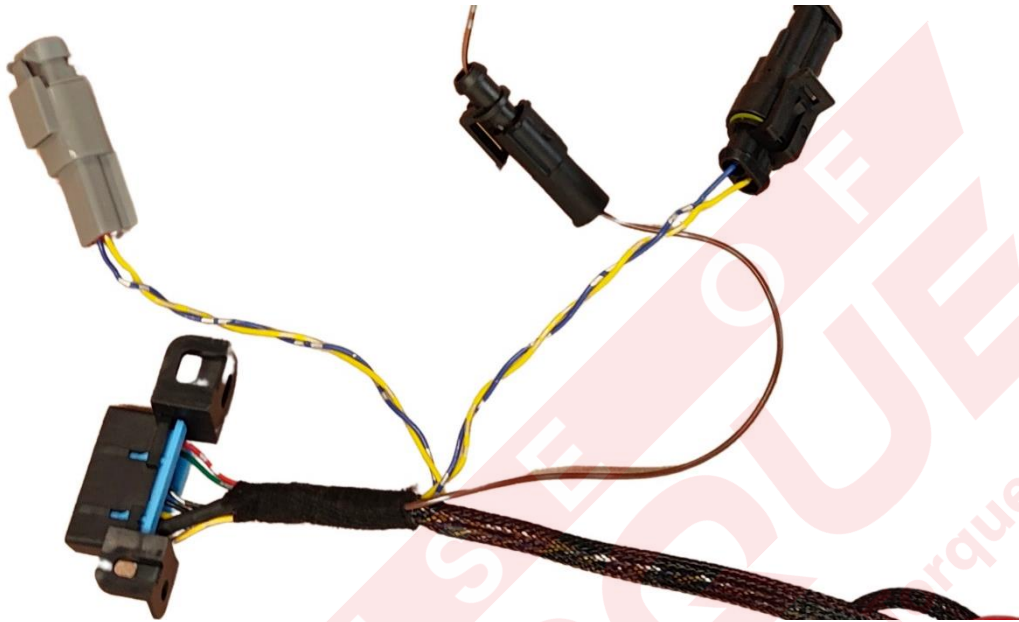
*Dims the shifter lights when the side lights are turned on

**Splice into pin 7 of the OBD connector. DDE 5/6 looms purchased with the 6hp loom will have a connector added for this



6hp26 CANBus connections

If using the House of Torque DDE 5/6 loom, the connections will look like this:



As with all CANBus circuits, the resistance between CAN High and CAN Low must be 60 ohms.

We have included a plug in 120 Ω terminating resistor which can be added to the DDE 5/6 Loom:



We recommend checking the CANBus resistance with a multimeter before connecting the plug in resistor.

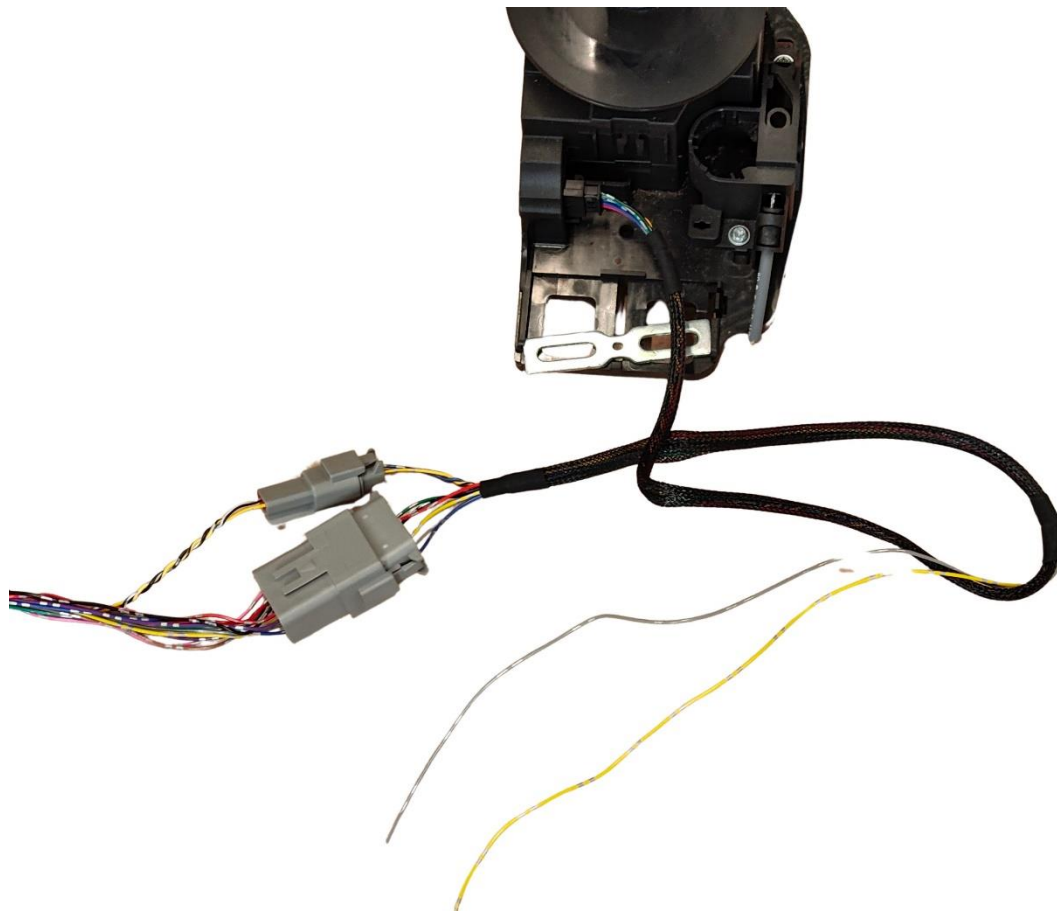
Multimeter Reading	What to do
60 Ω	Nothing
120 Ω	Plug in the resistor
High Ω or M Ω	Plug in resistor + one other 120 Ω resistor in the CANBus circuit

6hp28 Harness

The loom has been designed for the E70 6hp28x, E60 LCI 6hp21/28 or E90 mechanical.

6hp28 Electronic shifter connections

- Join the shifter loom to the main loom with the 12 way Deutsch connector and the CANBus connector.
- Connect to the shifter using the 6 pin connector



The remaining yellow and grey wires can be used change gear using flappy paddles or auxiliary switches.

Wire Colour	Destination
Yellow switched to ground	Gearshift down
Grey switched to ground	Gearshift up



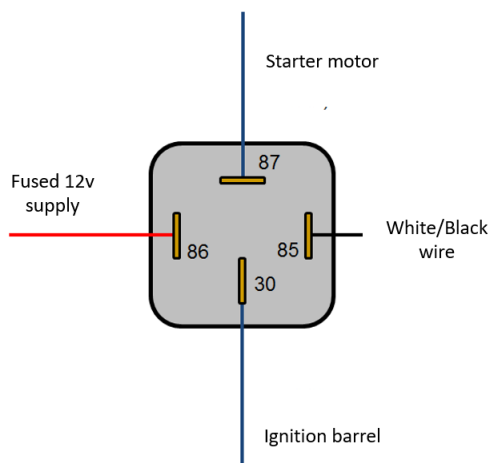
E90 mechanical shifter connections

- Join the shifter loom to the main loom with the 12 way Deutsch connector
- Make the connections to the shifter as indicated below

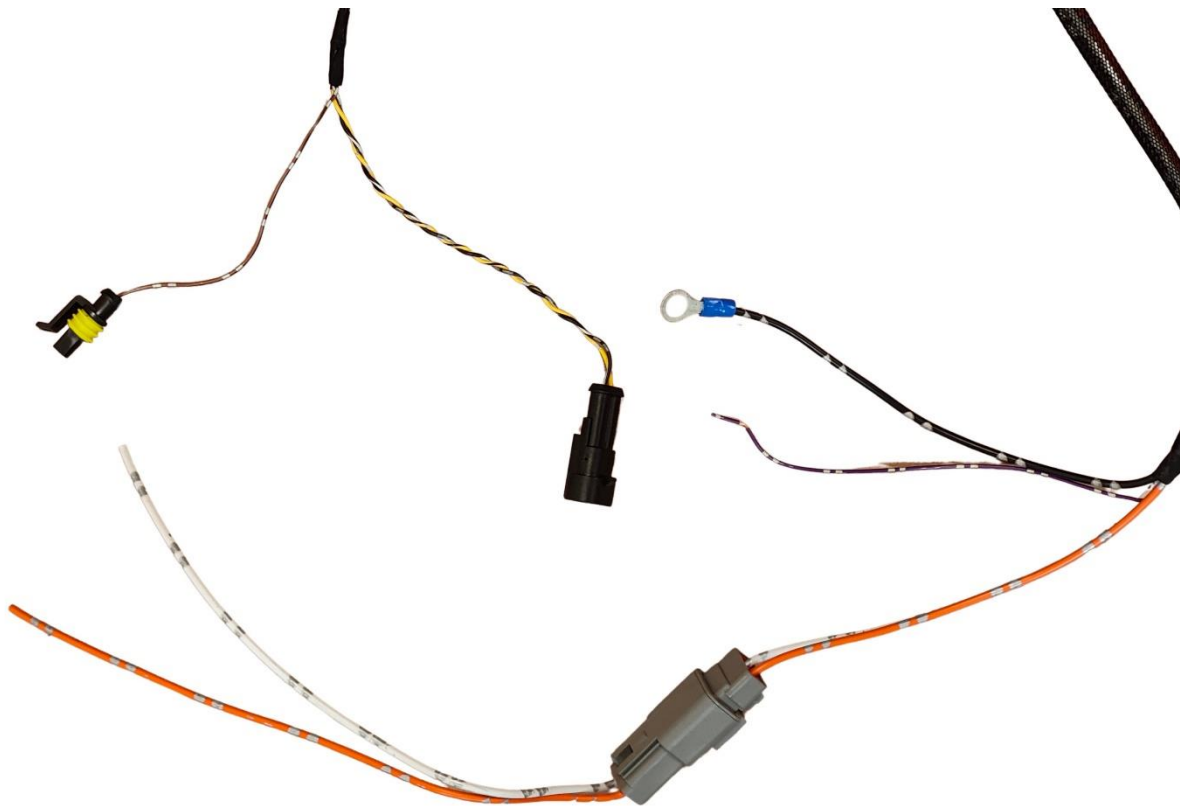


The single white/black wire near the 12 way Deutsch connector is grounded when the shifter is in park. This could be utilised if you wanted to fit a park start inhibit.

An example of how this could be achieved is as follows:



6hp28 Body/ECU Connections



Wire Colour	Destination
White	Permanent 12v - 10 amp fuse
Orange	Ignition 12v - 5 amp fuse
Black with ring terminal	Ground
Purple	Side light 12v *
Yellow twisted	CAN High
Black twisted	Can Low
Brown	Not used

*Dims the shifter lights when the side lights are turned on - mechanical shifters only



6hp28 CANBus connections

If using the House of Torque DDE 5/6 loom, the connections will look like this:



As with all CANBus circuits, the resistance between CAN High and CAN Low must be 60 ohms.

We have included a plug in 120 Ω terminating resistor which can be added to the DDE 5/6 Loom:



We recommend checking the CANBus resistance with a multimeter before connecting the plug in resistor.

Multimeter Reading	What to do
60 Ω	Nothing
120 Ω	Plug in the resistor
High Ω or M Ω	Plug in resistor + one other 120 Ω resistor in the CANBus circuit