

**4T65E vs Early 4T80E (external range switch) Pinouts**

**4T65E vs 4T80E - T42 TCU Pinout**

TCU Pins	4T65E	4T80E
1	TCC Control	TCC Control
2	1-2 Shift Solenoid	1-2 Shift Solenoid
3	ISS High	ISS High
4		
5	VSS PCM	
6	Serial Data - (PCM)	Serial Data - (PCM)
7	Serial Data + (PCM)	Serial Data + (PCM)
8		
9	TFP Signal	
10	Remote Shift Signal	
11	IGN 3	IGN (wake up)
12		
13		
14		
15		
16	VSS Low	OSS (VSS) Low
17	PC Solenoid Low	PC Solenoid Low
18		
19		
20	2-3 Shift Solenoid	2-3 Shift Solenoid
21		
22		
23	Range Switch C	Range Switch C
24		
25		
26	ISS Low	ISS Low
27		
28		
29	Range Switch A	Range Switch A
30	TFT Low Ref	TFT Low Ref
31	IGN 1	IGN 1
32	12V Batt	12V Batt
33		
34		
35	TFT Signal	TFT Signal
36		
37	Serial Data - DLC	Serial Data - DLC
38	Serial Data + DLC	Serial Data + DLC
39	Range Switch P	Range Switch P
40	PC Solenoid High	PC Solenoid High
41	VSS High	OSS (VSS) High
42	Stop Lamp	Stop Lamp
43		
44		
45		
46	Range Switch B	Range Switch B
47		
49	Ground	Ground

**4T65E vs 4T80E - Trans Connector Pinout**

Trans Pins	4T65E	4T80E
A	1-2 Shift Solenoid	1-2 Shift Solenoid
B	2-3 Shift Solenoid	2-3 Shift Solenoid
C	PC Solenoid High	PC Solenoid High
D	PC Solenoid Low	PC Solenoid Low
E	IGN 1	IGN 1
F	Range Switch A	
G	Range Switch B	
H	Range Switch C	
J	Range Switch P	
K	Ground	
L	TFT Signal	TFT Low Ref
M	TFT Low	TFT Low Signal
N		TFP A (not used)
P		TFP C (not used)
R		TFP B (not used)
S	ISS High	ISS High
T	TCC Control	TCC Control
U	TFP Signal	IGN 1
V	ISS Low	ISS Low
W	Park/ Neutral (PCM)	

This pinout shows the wiring differences at the transmission and control module for people swapping from the 4T65E to the Early 4T80E (external range switch aka neutral safety) when using an OEM LS4 Engine Harness and T42 Transmission Controller. This pinout also shows the differences at the 20 pin connector found on both transmissions.

\*Pins listed in **RED** are locations which previous had wires but now are not required connections

\*Pins listed in **YELLOW** need to be swapped or repurposed depending on original intended purpose (see note below)

\*Pins listed in **GREEN** are for the range switch. (see note below)

**\*\*OSS (VSS) Pins "16" & "41" are connected to the 2 pin output speed sensor located on the differential cover on the passenger side of transmission\*\***

**\*\*Suggest taking pin "U" of the 20 pin transmission connector and jumping it to pin "E" for switched 12v source\*\***

**\*\*Pins in GREEN for the range switch need to be removed from the 20 pin connector at the transmission and extended to the range switch located under the shift lever. Alternatively, new leads could also be run from the highlighted cells of the T42 and connected directly.\*\***

**-Range A (Pin "29" or Pin "F") go to C2 Pin "D"**  
**-Range B (Pin "46" or Pin "G") go to C2 Pin "B"**  
**-Range C (Pin "23" or Pin "H") go to C2 Pin "C"**  
**-Range P (Pin "39" or Pin "J") go to C2 Pin "A"**  
**-Pin "K" or Direct Ground go to C1 Pin "D"**  
**\*\*C1 is 7 pin connector at the Range Switch\*\***  
**\*\*C2 is 4 pin connector at the Range Switch\*\***