

**Wiring List for 10R-80 transmission with the F150 Shifter, Controls Inc RX Operator Display, Foot Pedal for Road Speed Control and Interlocks: Foot Brake Switch and Seat Safety Switch.
8-17-2026, Jerry Kosner.**

Item 1 42-Pin CIC (Ford customer interface connector) for transmission controller with F150 shifter, controls inc RX101-CC C display, foot pedal, and Safety Interlocks for seat switch and foot brake switch.

Pin # Description

- 1) INPUT: VSW 12V for Key ON or ON/OFF Switch.
- 2) NC
- 3) NC
- 4) INPUT: Sets tap up down speed control – GND (Ignores foot pedal input)
- 5) OUTPUT: Connect to (+) gasoline fuel pump terminal.
- 6) OUTPUT: Connect to MIL ground leg. Put 12V with 600 ohm in series on other leg.
- 7) NC but wired
- 8) NC
- 9) NC
- Row2
- 10) INPUT: 12V Safety Switch not connected.
- 11) NC
- 12) NC but wired.
- 13) NC
- 14) INPUT: FPP foot pedal position 0 to 5v.
- 15) INPUT: START 12V from KEY Start or Push Button Start.
- Row3
- 16) NC but wired.
- 17) NC
- 18) OUTPUT: Connect to (-) gasoline fuel pump terminal.
- 19) INPUT: Foot brake input to GND connects to ECM pin15.
- 20) BI-DIRECTIONAL: CAN2+ connects to ECM pin17 and transmission VIC pin2.
- 21) BI-DIRECTIONAL: CAN2- connects to ECM pin16 and transmission VIC pin3.
- Row4
- 22) NC
- 23) INPUT: tap up switch to GVS2 governor with 12V.
- 24) INPUT: tap down switch to GVS1 governor with 12V.
- 25) INPUT: IVS idle validation switch set with GND.
- 26) NC but wired.

27) NC but wired.

Row5

28) BI-DIRECTIONAL: CAN1 (+) J1939 connect to Controls Inc pin2.

29) BI-DIRECTIONAL: CAN1(-) J1939 connect to Controls Inc pin3.

30) NC

31) OUTPUT: FPP 5V Source.

32) NC

33) OUTPUT: FPP 5V Return.

Row6

34) NC

35) NC but wired.

36) NC but wired

37) NC but wired

38) NC

39) NC but wired

40) NC

41) NC

42) NC

Item 2-Transmission VIC Deutz Connector 6-pin

Pin # Description

1) INPUT: VSW 12V for Key ON

2) BI-DIRECTIONAL: CAN2+ connects to CIC 42-pin pin20.

3) BI-DIRECTIONAL: CAN2- connects to CIC 42-pin pin21.

4) INPUT: NC but wired to EEPOD input.

5) INPUT: Seat Safety Switch1 returns transmission to PARK.

6) INPUT: Seat Safety Switch2 not used but wired to GND.

Item 3-Controls Inc Operator Display Panel J1 6-pin RX-101-C CC

Pin # Description J1 Connector.

1) INPUT: VSW 12V for Key ON.

2) BI-DIRECTIONAL: CAN1+ connects to CIC 42-pin pin28.

3) BI-DIRECTIONAL: CAN1- connects to CIC 42-pin pin29.

4) NC

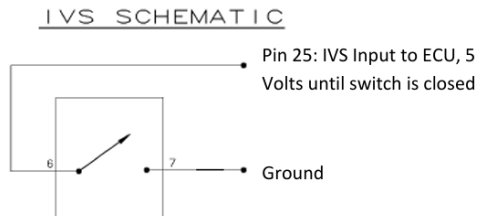
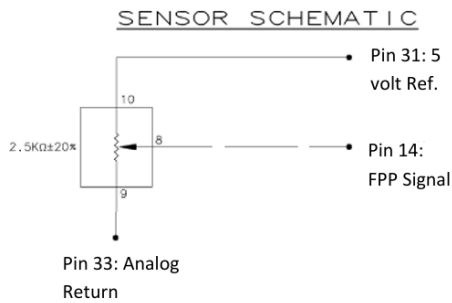
5) NC

6) INPUT: GND

5-Foot Pedal Accelerator 12-pin

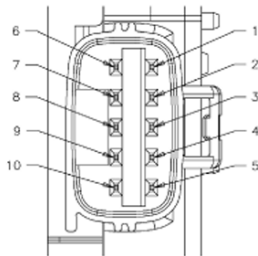
Pin # Description

- 1) NC
- 2) NC
- 3) NC
- 4) NC
- 5) NC
- 6) IVS – BK-Y Connects to CIC 42-pin pin25.
- 7) IVS GND – BK Connects to GND.
- 8) FPP Position Signal – LB-BK Connects to CIC 42-pin pin 14.
- 9) FPP 5V Return – GY-R Connects to CIC 42-pin pin33.
- 10) FPP 5V Source – BR-V Connects to CIC 42-pin pin31.

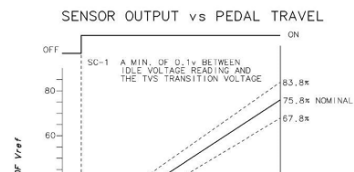


PEDAL WIRING BY WIRE COLOR

CIRCUIT NUMBER	CIRCUIT DESCRIPTION	COLOR	GAUGE	42 Pin
151	DRIVE BY WIRE SIGNAL INPUT	LB-BK	18	14
307	IVS INPUT	BK-Y	18	25
359	DRIVE BY WIRE SIGNAL RETURN	GY-R	18	33
351	5V REFERENCE	BR-W	18	31
57	GROUND	BK	18	GND



PINOUT	
1	NOT USED
2	NOT USED
3	NOT USED
4	NOT USED
5	NOT USED
6	IVS INPUT
7	IVS GROUND
8	FPP SIGNAL
9	ANALOG RTN
10	5V REF



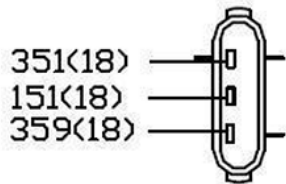
Item 6-Hand Throttle

Pin # Description

151 GY-W throttle signal- connects to CIC 42-pin pin14.

359 GY-R 5V Return - connects to CIC 42-pin pin33.

351 BR-W 5V Source - connects to CIC 42-pin pin31.



Hand Controller Wiring

CIRCUIT NUMBER	CIRCUIT DESCRIPTION	COLOR	GAUGE	42 Pin Connector
151	DRIVE BY WIRE SIGNAL INPUT	GY-W	18	14
359	DRIVE BY WIRE SIGNAL RETURN	GY-R	18	33
351	5V REFERENCE	BR-W	18	31

Item 7-TAP UP/DOWN Speed Control

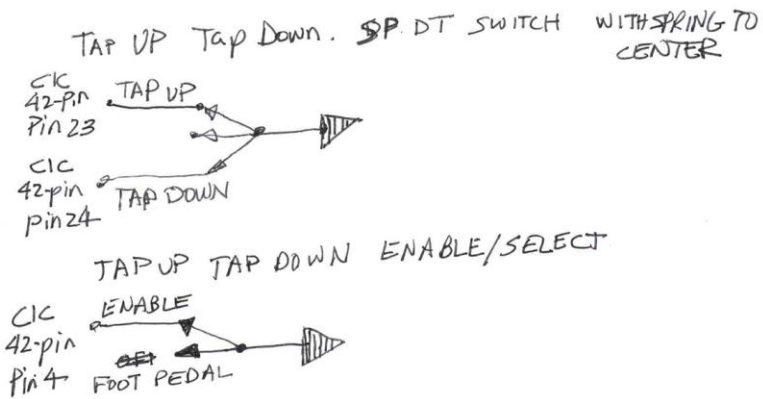
Return to Center DPDT Switch

Pin # Description

- 1) Tap UP - Connect to CIC 42-pin pin23.
- 2) GND – BK Connect to GND.
- 3) Tap Down – Connect to CIC 42-pin pin24.

Enable Tap UP/DOWN SP/ST Switch

- 4) Enable – Connect to CIC 42-pin pin4.
- 5) GND – BK Connect to GND.



8-TRANSMISSION SAFETIES INTERLOCKS

8- Foot Brake Switch – Transmission will not Shift without Foot Brake Switch Applied.

Foot Brake Relay connects GND to CIC 42-pin Pin 19 when foot brake applied.

9- Seat Safety Switch – Transmission Returns to Park if shifter left in Forward or Reverse Gears. Also Disables Shifting from Park into Forward and Reverse Gears.

Seat Safety Switch connects GND to Transmission VIC pin 5 when sitting in seat.