

This is every wire from all the X connectors and ECM BLUE HIGHLIGHTS you will need for external connection. Once you find all of these, you should not need anything left on the X connectors

DEVICE and pin Location	COLOR	WHERE'S OTHER END (2015 Picup Specific, use multil meter to confirm)	POWERED BY
ECM X1 pin 73	VT/BU	X2 UNDERHOOD pin G4	Powertrain Relay
ECM X1 pin 62	VT/BU	X2 UNDERHOOD pin K3	Powertrain Relay
ECM X1 pin 67	VT/BU	X2 UNDERHOOD pin K5	Powertrain Relay
Oxygen Sensor B1S1 pin 2	VT/BU	X2 UNDERHOOD pin G3	two wires in G3 Powertrain Relay
Oxygen Sensor B2S1 pin 2	VT/BU	X2 UNDERHOOD pin G3	Powertrain Relay
Multifunction Air Intake Sensor pin 5 (MAF)	VT/BU	X2 UNDERHOOD pin J2	Powertrain Relay
Coil 1 pin 4	VT/BU	X2 UNDERHOOD pin J3	two wires in J3 Powertrain Relay
Coil 3 pin 4	VT/BU	X2 UNDERHOOD pin J3	Powertrain Relay
Coil 5 pin 4	VT/BU	X2 UNDERHOOD pin H2	two wires in H2 Powertrain Relay
Coil 7 pin 4	VT/BU	X2 UNDERHOOD pin H2	Powertrain Relay
Coil 2 pin 4	VT/BU	X2 UNDERHOOD pin J4	two wires in J4 Powertrain Relay
Coil 4 pin 4	VT/BU	X2 UNDERHOOD pin J4	Powertrain Relay
Coil 6 pin 4	VT/BU	X2 UNDERHOOD pin K4	two wires in K4 Powertrain Relay
Coil 8 pin 4	VT/BU	X2 UNDERHOOD pin K4	Powertrain Relay
AFM/Oil Pressure Control Solenoid	VT/BU	X2 UNDERHOOD pin H3	splice in harness, splits powers AFM & Oil Pressure Sol Powertrain Relay
Combine to a 15 amp fuse	4 wires		
Combine to a 20 amp fuse	5 wires		
Combine to a 20 amp fuse	5 wires		
Single wire to a 30 amp fuse	1 wire		

These 4 fuses at left should be powered up by a Powertrain Relay, which is controlled by the ECM.

DEVICE and pin Location	COLOR	WHERE'S OTHER END (2015 Picup Specific, use multil meter to confirm)	POWERED BY
ECM X1 pin 52	RD/BN	X2 UNDERHOOD pin H5	Battery + Fuse hot all times
TCM 6L80E pin 4	RD/GN	X2 UNDERHOOD pin G5	Battery + Fuse hot all times
ECM X1 pin 51	VT/GN	X2 UNDERHOOD pin M7	MAIN Relay key hot
TCM 6L80E pin 12	VT/BK	X2 UNDERHOOD pin L7	MAIN Relay key hot
Accessory Wake: ECM X1-70 and 6L80E pin 9	VT/YE	x115 pin 16 (splice in harness already combined these to 1 wire)	MAIN Relay key hot
Combine to a 15 amp fuse	2 wires	This fuse should be HOT ALL THE TIME	
Combine to a 15 amp fuse	3 wires	This fuse should be powered up by a MAIN Relay, which is controlled by vehicals ignition switch	

Loose wires from ECM to....	COLOR	Where did it go?	Notes
Fuel Pump Control ECM X1 pin 44	GY	X2 UNDERHOOD pin m5	this was control signal for fuel pump control module. This should be able to activate a normal relay when not using FPCM (programming change) This should be 12v+ trigger.
Fan Control ECM X1 pin 59	BN/YE	x105 pin 1	this is a PWM output for variable speed fans, some info on internet says this can be converted to on/off (programming change)
Powertrain Relay Control ECM X1 pin 72	YE	X2 UNDERHOOD pin H6	ecm controls GROUND to powertrain relay. Powertrain relay should power up fuses for everything above indicated powered by Powertrain Relay
Service Engine Soon Lamp ECM X1 pin 46	BN/WH	x115 pin 3	ecm controls GROUND to activate service engine soon lamp. You may want to bring an extra key hot from a fuse to power light if your vehicle does not already have one.
Brake Switch Signal ECM X1 pin 57	WH/D-BU	x115 pin 4	signal to ECM from brake lamps, 12v+ hot when you hit the brakes.
APP Low Reference 2 ECM X1 pin 53	BK/PU	APP pin A	
APP Signal 2 ECM X1 pin 34	L-GN/WH	APP pin B	
APP 5 Volt Reference 2 ECM X1 pin 33	BN/RD	APP pin C	these all go to the Gas pedal (Accelerator Pedal Position)
APP 5 Volt Reference 1 ECM X1 pin 14	WH/RD	APP pin D	you will need a pigtail and extend these to reach inside
APP Signal 1 ECM X1 pin 15	YE/WH	APP pin E	
APP Low Reference 2 ECM X1 pin 30	BK/D-BU	APP pin F	

Find and keep these from the X115 Plug. The Data wires run from ECM to TCM, then TCM to this plug. We will run this to OBD2 port now.			
High Speed GMLAN Serial Data (-)	WH	x115 pin 5	data wire to obd2 port pin 14, a resistor of 120 ohms should be added AT the obd2 port across these
High Speed GMLAN Serial Data (+)	D-BU	x115 pin 6	data wire to obd2 port pin 6, a resistor of 120 ohms should be added AT the obd2 port across these

Wiring for OBD2 Port	COLOR	Where is it?	Notes
Pin 4	BK		ground from engine block you will need to add this
Pin 5	BK/WH		ground from engine block you will need to add this
Pin 6 - High Speed GMLAN Serial Data +	D-BU	x115 pin 6	
Pin 14 - High Speed GMLAN Serial Data -	WH	x115 pin 5	
Pin 16 - Battery 12v+	RD/WH		hot all the time you will need to add this. I used B+ fuse for ECM/TCM

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