



TELORVEK EFI Explorer 4.6 & 5.0 Sequential Fuel Injection System (MG-91E) WIRING INSTRUCTIONS

Thank you for purchasing the absolute finest of wiring kits for the Ford Motor Co. 4.6/5.0 fuel injection engine. We have taken considerable time to work out the circuitry so that you, the customer will understand at least some of what this is all about. We ask that you follow our instructions closely. You must use a high pressure in tank fuel pump capable of producing a minimum of 45 PSI. Custom installations are available from Tanks Inc. (612-558-6882) and Rock Valley (800-344-1934).

Should you eliminate any sensor, your injection system will not work at its peak and will probably be in some variation of back up mode. There are many factors that will help you get a trouble free start up that you must consider.

NOTE: FORD diagnostic procedures are very detailed, lengthy and impossible to cover in this set of instructions. Purchasing the FORD ENGINE/ EMISSIONS DIAGNOSIS shop manual will help you learn about the engine you installed and guide you through the correct diagnostic procedures Ford recommends. **This book is available at your local Ford dealer.**

Note

The ECM for this engine must be reprogrammed to have the PATS anti-theft removed. This was explained to you at the time of order. If you have not had the ECM reprogrammed or have any questions call us at 610-485-1981.

WARNING!

After the kit installation is complete and it is necessary to diagnose a starting or drive ability problem, follow the procedures recommended in the shop manual. All voltage tests must be preformed using a HIGH impedance, digital voltmeter. DO NOT use a test light on this system! DAMAGE WILL BE DONE to the engine computer if a test light is used on this system.

STARTING INSTALLATION

Since there are so many individual circuits to complete, we recommend that you connect them in the order that we prescribe. Disconnect the battery before starting and do not reconnect until instructed.

There will be many connections to the TELORVEK panel so plan the location of the panel in an area with room to work. We suggest mounting the panel in an assessable location, in the trunk, under the seat or under the dash are good. In order to allow for the proper spacing between the computer and the Telorvek panel, plug the connector into the computer (ECM) and mount the panel and computer. **For safety, disconnect the ECM connector until finished the installation.** A poor installation will result in a poor running car. **The number referred to from this point on will be the location on one of the terminal blocks located on the TELORVEK panel.**

After all wires are connected to the engine, wire tie them together or use 3/4 inch Zip loom to protect them. This can be done before any connections are made to the panel. Since all wires are marked, running the entire group to the panel at one time is fine. Some terminals on the panel may not be used!

Important! We have supplied three sizes of terminals for your use on the panels itself. The Yellow is for 10-12 gauge wire, Blue for 14-16 gauge wire and red for 18 gauge wire. Each individual bag instructions will be marked as to which terminal to use.

NOTE

You will be moving around to different terminals on the TELORVEK panel to make connections. For this reason extra care is needed when making all connections to the panel.

Bag #60. INJECTORS: The injector wiring is made up in two harnesses, one for the left bank of injectors and one for the right bank. Locate the right injector connector with the Red and Tan wires and connect it to cylinder number (1) injector one. Now plug in the rest of the injector connectors (injectors 2, 3, 4) in that half of the harness. In the left injector harness locate the injector connector with the Red and Black wires and connect it to injector number (5). Plug in the rest of the injector connectors (injectors 6, 7, 8) and run all the wires from both halves of the harness to the Telorvek Panel. Using the blue terminals connect the Red wires (INJ 1->4) and (INJ 5->4) to **#4**. Now connect the remaining eight wires as follows using the red terminals, Tan (INJ 1->64) to **#64**, White (INJ 2->65) to **#65**, Brown (INJ 3->66) to **#66**, Lt Blue (INJ 4->67) to **#67**, Black (INJ 5->68) to **#68**, Lt Green (INJ 6->69) to **#69**, Dk Blue (INJ 7->70) to **#70** and Dk Green (INJ 8->71) to **#71**.

Bag #61. IGNITION COIL: The 4.6 engine has two coil packs, one for the left spark plugs and one for the right spark plugs. The coil packs are mounted to each head in front of the engine. The left coil pack connector has Red, Tan and Lt Blue wires and the right coil pack connector has Red, White and Orange wires. After attaching the connectors to the coils run the wires back to the Telorvek panel. Connect the Red wire (LF IGN COIL->10) and (RT IGN COIL->10) using the blue terminals to **#10**. Using the red terminals connect the Tan (LF IGN COIL->12) to **#12**, Lt Blue (LF IGN COIL->13) to **#13**, White (RT IGN COIL->14) to **#14** and the Orange wire (RT IGN COIL->15) to **#15**.

If you choose to wire in a tach, a wire is supplied. Connect the Purple wire (11->TACH) to **#11** on the panel and connect it to the tach.

WARNING !!!

The distributorless ignition system (DIS) on this engine is a high energy system operating in a dangerous voltage range which could prove to be fatal if exposed terminals or live parts are contacted. Use extreme caution when working on the vehicle with the ignition on or the engine running.

Bag #63 CRANK POSITION SENSOR (CPS) : Requires the wires to be shielded from any electrical interference.

NOTE!

The crank shaft position sensor and cam shaft position sensor utilize the same type of sensor connector. Be sure to plug the correct harness into the correct sensor.

Carefully uncoil the harness and plug it into the CPS located on the front of the engine down by the balancer. Run the wires to the Telorvek panel. Remove the tape and shielding material back only as far as it is necessary for the length of the wire to be cut and allowing enough wire to make the connections on the panel. In the shielded harness there is a solid strand wire with no insulation, install a blue terminal on it and connect it to **#24**. After the connection is made wrap the exposed wire from the shielded harness to **#24** with electrical tape. Connect the remaining two wires as follows: Dk Blue (CPS->19) to **#19** and the Dk Green wire (CPS->20) to **#20**.

Bag #64. MASS AIR FLOW SENSOR: Attach the connector to the M.A.F sensor located in the air intake tube between the intake manifold and air cleaner. Using a blue terminal run the Red wire (MAF->7) to **#7**. Now using the red terminals run the Black (MAF->25) to **#25**, Tan (MAF->22) to **#22** and the Lt Blue (MAF->21) to **#21**

YOU WILL HAVE EITHER BAG 65 OR 65A

Bag #65. CAM SHAFT POSITION SENSOR (CSP): Requires the wires to be shielded from any electrical interference.

NOTE!

The crank shaft position sensor and cam shaft position sensor utilize the same type of sensor connector. Be sure to plug the correct harness into the correct sensor.

Carefully uncoil the harness and plug it into the CSP located on the left front of the engine. Run the wires to the Telorvek panel. Remove the tape and shielding material back only as far as it is necessary for the length of the wire to be cut and allowing enough wire to make the connections on the panel. In the shielded harness there is a solid strand wire with no insulation, install a blue terminal on it and connect it to #23. After the connection is made wrap the exposed wire from the shielded harness to #23 with electrical tape. Connect the remaining two wires as follows: Dk Blue (CAM POS SEN->40) to #40 and the Gray (CAM POS SEN->73) to #73.

Bag #65A. CAM SHAFT POSITION SENSOR (CSP): Requires a wire to be shielded from any electrical interference.

NOTE!

The crank shaft position sensor and cam shaft position sensor utilize the same type of sensor connector. Be sure to plug the correct harness into the correct sensor.

Carefully uncoil the harness and plug it into the CSP located on the top of the engine. Run the wires to the Telorvek panel. Remove the tape and shielding material back only as far as it is necessary for the length of the wire to be cut and allowing enough wire to make the connections on the panel. In the shielded harness there is a solid strand wire with no insulation, install a blue terminal on it and connect it to #23. After the connection is made wrap the exposed wire from the shielded harness to #23 with electrical tape. Connect the remaining three wires as follows: Dk Blue (CAM POS SEN->40) to #40, the Black (CAM POS SEN->27) to #27 and the Red (CAM POS SEN->6) to #6.

Bag #66. COOLANT TEMPERATURE SENSOR: After attaching the plug to the sensor located on the lower front of the engine, underneath the alternator run the two wires to the panel. Connect them using the red terminals, Lt Green wire (ECT->35) to #35 and the Gray wire (ECT->72) to #72.

Bag #67A. THROTTLE POSITION SENSOR (TPS): Plug into the sensor located on the throttle body and run the wires back to the panel. Using the red terminals run the Brown (TPS->37) to #37, White (TPS->36) to #36 and Gray (TPS->72) to #72.

Bag #68A. EXHAUST GAS RECIRCULATION VALVE POSITION SENSOR & EGR SOLENOID: If you have had your computer reprogrammed to eliminate the emissions, this wiring does not need to be installed.

Plug in the connector to the EGRVP located on the left rear of the engine. Using red terminals run the Lt Green wire (EGRVP->38) to #38, Brown wire (EGRVP->37) to #37 and the Gray (EGRVP->73) to #73.

Plug the connector into the EGR solenoid located on the left rear of the engine. Using a the red terminals run the Red wire (EGR SOL->5) to #5 and the Brown wire (EGR SOL->39) to #39.

Bag #69. INTAKE AIR TEMPERATURE SENSOR (IAT): Plug the connector onto the IAT sensor located in the air intake tube running between the air cleaner and throttle body. Run the wires to the Telorvek Panel and using the red terminals connect the Yellow wire (IAT->41) to #41 and the Gray wire (IAT->74) to #74.

Bag #71. OXYGEN SENSOR (2 or 4): : If you have had your computer reprogrammed to eliminate the post-catalytic converter O2 sensors, the rear O2 sensor wiring (2) does not need to be installed.

Ford now uses four heated O2 sensors. This area of the vehicle is hot so keep the wires away from the exhaust. Four sensors are required per engine. **Install the left and right front O2 sensors in each exhaust manifold or in the header collector as close to the block as possible. The left and right rear O2 sensors mount behind the catalytic converters in each exhaust pipe.** These sensors monitor the status of the converters and WILL set a trouble code if a faulty converter is detected or a converter is not used at all (UNLESS YOU HAVE HAD YOUR COMPUTER REPROGRAMMED). NOTE: The O2 sensors do not send a signal to the ECM until they reach 600 degrees. Mounting them in header collectors may take longer for them to heat up causing the ECM to stay in OPEN LOOP longer than normal. If you must install an adapter, use Wire Works part # OS-30.

LEFT FRONT O2: The four gang connector with the Orange, Dk Blue, Yellow and Gray wires running from it plugs into the left front oxygen sensor.

RIGHT FRONT O2: The four gang connector with the Orange, Lt Blue, White and Gray wires running from it plugs into the right front oxygen sensor.

LEFT REAR O2: The four gang connector with the Orange, Pink, Tan and Gray wires running from it plugs into the left rear oxygen sensor.

RIGHT REAR O2: The four gang connector with the Orange, Lt Green, White and Gray wires running from it plugs into the right rear oxygen sensor.

Run all the wires back to the panel and using the blue terminals connect the Orange wires (LEFT FRT O2->9) & (RIGHT FRT O2->9) to **#9**, Orange wires (RIGHT RR O2->2) & (LEFT RR O2->2) to **#2**. The Gray wires (LEFT FRT O2->84) & (LEFT RR O2->84) to **#84**, Gray wires (RIGHT FRT O2->85) & (RIGHT RR O2->85) to **#85**. Now using the red terminals connect the Dk Blue (LEFT FRT O2->43) to **#43**, Yellow (LEFT FRT O2->44) to **#44**, Lt Blue (RIGHT FRT O2->59) to **#59**, White (RIGHT FRT O2->58) to **#58**, Lt Green (RIGHT RR O2->31) to **#31**, White (RIGHT RR O2->32) to **#32**, Pink (LEFT RR O2->87) to **#87** and the tan (LEFT RR O2->88) to **#88**.

Bag #72A. IDLE SPEED CONTROL: The ISC is located on the top of the engine, forward of the throttle body. Plug in the connector and run the wires back to the panel. Using the red terminals, connect the White wire (ISC->53) to **#53** and the Red wire (ISC->6) to **#6**.

Bag #73. VEHICLE SPEED SENSOR: Install the connector onto the speed sensor located in the speedometer assembly on the transmission and run the wires back to the Telorvek panel. Using the red terminals connect the Dk Green wire (VEH SPD SEN->46) to **#46** and the Black wire (VEH SPD SEN->25) to **#25**.

Bag #74. TRANSMISSION SPEED SENSOR: (4R70W automatic transmission only) The transmission speed sensor is located on the left front of the transmission case. This sensor combined with other sensors inputs determine proper shift points and torque converter lock-up. After plugging in the connector run the wires back to the panel. Connect the White wire (TRANS SP SEN->47) to **#47** and the Gray wire (TRANS SP SEN->77) to **#77**.

Bag #75. DATA LINK CONNECTOR (DLC): Mount the connector inside the vehicle under the dash. We have supplied a connector cover for the connector when not in use. Now run the wires to the Telorvek Panel and using the red terminals connect the Tan (DLC 2->49) to **#49**, Red (DLC 16->33) to **#33**, Pink (DLC 10->48) to **#48**, Yellow (DLC 13->42) to **#42** and the Black wires DLC 4->28 & DLC 5->28 to **#28**.

The remaining Lt Green & Red wires are for the dash mounted service engine soon (S.E.S) light. The light must be a two wire un-grounded light. Connect the Lt Green wire (51->SES LT) to **#51** on the Telorvek Panel and run it to a dash indicator light and connect it to one of the wires running from the light. The red wire (94->SES LT) connects to **#94** on the panel and run to the other wire running from the light. This light is not required as the yellow light on top of the Telorvek Panel has the same function.

Bag #77 OCTANE ADJUST: The ECM measures voltage across the octane adjust connector and uses this information to modify ignition spark advance. Leave this connector plugged together but if you experience detonation while driving, un-plug this connector or use higher octane gasoline. Using the red terminals connect the Gray (OCTA ADJ->77) to **#77** and the Dk Green (OCTA ADJ->54) to **#54**.

Bag #79 FUEL PUMP & INERTIA SWITCH: We have included the wiring necessary for the Ford inertia switch. The inertia switch cuts off the electric fuel pump in the advent of an accident. Mount the inertia switch in the rear of the vehicle in a dry area. Using the blue terminals, plug in the connector to the inertia switch and run the Tan wire (INERTIA SW->104) to **#104** on the Telorvek panel. Run the other Tan wire (INERTIA SW->PUMP) to the electric fuel pump. Hook the wire to the positive terminal on the pump. From the negative terminal on the pump connect a wire and run it to a good ground. It is necessary to install a relay in the panel for the fuel pump. See page 10 for specifications.

NOTE 1: The inertia switch has a red button on top of it that must be set (pushed down) in order for the fuel pump to operate. If the pump fails to operate check the inertia switch making sure the red button is in the down position.

NOTE 2: There is one relay socket in the cover of the panel. This is the fuel pump relay socket. Relays are not supplied with our wiring kit. The proper can be ordered locally under Airtex part #1R1061, Standard Motor Products part #RY116 or GM part #14100455.

BAGS 74, 80/81A, 81/81A & 82 NOT SUPPLIED FOR MANUAL TRANSMISSION APPLICATIONS**4R70W Electronic Controlled Overdrive Transmission Wiring**

Bag #80 EARLY 4R70W TRANSMISSION CONNECTIONS: The 4R70W transmission is a electronically controlled four speed automatic transmission. Plug the connector into the transmission and run the wires to the Telorvek panel. Using the red terminals, connect the Gray (TRANS 9->78) to **#78**, Yellow wire (TRANS 1->82) to **#82**, Pink (TRANS 3->80) to **#80**, Orange (TRANS 5->79) to **#79**, Purple (TRANS 6->83) to **#83** and the White (TRANS 10->81) to **#81**. Using blue terminals, connect the Red (TRANS 2->95) to **#95**, Red (TRANS 7->95) to **#95** and the Red (TRANS 8->96) to **#96**. The Purple wire (113->BRAKE SW) connects to **#113** and runs to the cold side of the brake light switch. This wire should only have 12 volts with the brake pedal depressed.

Bag #80A LATE 4R70W TRANSMISSION CONNECTIONS: The 4R70W transmission is a electronically controlled four speed automatic transmission. Plug the connector into the transmission and run the wires to the Telorvek panel. Using the red terminals, connect the Gray (TRANS 2->78) to **#78**, Yellow wire (TRANS 7->82) to **#82**, Pink (TRANS 3->80) to **#80**, Orange (TRANS 5->79) to **#79**, Purple (TRANS 8->83) to **#83** and the White (TRANS 6->81) to **#81**. Using blue terminals, connect the Red (TRANS 4->95) to **#95**. The Purple wire (113->BRAKE SW) connects to **#113** and runs to the cold side of the brake light switch. This wire should only have 12 volts with the brake pedal depressed.

Bag #81 MANUAL LEVER POSITION SWITCH (MLPS) : The manual lever position switch is located on the driver side of the transmission. The MLPS controls neutral safety, back-up and lever position functions. We have included wires in the MLPS connector to allow you to get full use out of the switch. Connect the circuits in the switch as follows:

NEUTRAL / SAFETY: The heavier gauge Lt Blue (MLPS->IGN SW) and the Purple (MLPS->START SOL) wires are for the neutral safety circuit. Locate the wire that runs from the ignition switch to the starter solenoid. Cut the wire and connect the Lt Blue wire (MLPS->IGN SW) to the wire running from the ignition switch and the Purple wire (MLPS->START SOL) to the wire running from the starter solenoid. **NOTE:** If you are wiring this circuit to a Ron Francis wiring kit, these wires are a color for color match.

BACK-UP LIGHTS: Connect the Dk Green wire (BACK UP LT FEED) to a 12 volt ignition source. This wire should have 12 volts only with the key in the run position. Run the other Dk Green wire (MLPS->BACK UP LT) to the rear of the vehicle and connect it to both back-up lights. The lights must be grounded.

LEVER POSITION CIRCUIT: Run the Yellow and Gray wires to the Telorvek panel. Using the red terminals, connect the Yellow wire (MLPS->110) to **#110** and the Gray wire (MLPS->78) to **#78**.

Bag #81A DIGITAL TRANSMISSION RANGE SELECTOR (DTR) : This switch is located on the driver side of the transmission. The DTR controls neutral safety, back-up and lever position functions. We have included wires in the DTR connector to allow you to get full use out of the switch. Connect the circuits as follows:

NEUTRAL / SAFETY: The heavier gauge Lt Blue (DTR 12->IGN SW) and the Purple (DTR 10->START SOL) wires are for the neutral safety circuit. Locate the wire that runs from the ignition switch to the starter solenoid. Cut the wire and connect the Lt Blue wire (DTR 12->IGN SW) to the wire running from the ignition switch and the Purple wire (DTR 10->START SOL) to the wire running from the starter solenoid. **NOTE:** If you are wiring this circuit to a Ron Francis wiring kits, these wires will be a color for color match.

BACK-UP LIGHTS: Connect the Orange wire (BACK UP LT FEED) to a 12 volt ignition source. This wire should have 12 volts only with the key in the run position. Run the Dk Green wire (BACK UP LTS) to the rear of the vehicle and connect it to both back-up lights. The lights must be grounded.

LEVER POSITION CIRCUIT: Run the Yellow, White, Black, Lt Blue and Gray wires to the Telorvek panel. Using the red terminals, connect the Yellow wire (DTR 4->63) to **#63**, the Black wire (DTR 5->62) to **#62**, the White wire (DTR 6->61) to **#61**, the Lt Blue wire (DTR 3->110) to **#110** and the Gray wire (DTR 2->78) to **#78**.

Bag #82 TRANSMISSION CONTROL SWITCH (TCS) & TRANSMISSION CONTROL INDICATOR LIGHT (TCIL): The ECM has the capability to lock-out fourth gear of the transmission with a push of a button. Pushing the momentary contact switch button will light the TCIL and lock-out fourth gear in the transmission for city driving. Pushing the button again will turn the TCIL off and release the lock-out allowing the transmission to shift into fourth gear for highway driving.

Mount a momentary contact switch in dash or near the shifter lever. Connect the Red wire (93->TCS) to **#93** and the Tan wire (112->TCS) to **#112** and run both wires to the TCS switch. You may connect the wires to either terminal on the switch.

The TCIL light must be a two wire un-grounded light. Mount the light in the dash where it is visible while driving. Connect the White wire (111->TCIL) to **#111** and the Red wire (94->TCIL) to **#94** and run both wires to the TCIL light and make the connections.

FINISHING UP

Connect the large pre-wired **orange** wire to the ignition circuit of your ignition switch. This is an ignition feed that is controlled by the ignition switch. This is not an accessory feed and must remain hot even when the engine is cranking.

Connect the large pre-wired **red** battery feed wire to a battery feed. This is a battery feed that must remain hot even with the key off. Make sure this is a good connection. If you have a Master Disconnect switch, install this wire on the battery side of the switch so it will remain hot with the Disconnect off.

The **black** ground wire from the TELORVEK Panel runs direct to the battery. Run the battery ground directly to the engine not the frame first. This includes rear mounted batteries.

STARTING THE ENGINE

You have now made all of the connections necessary to TRY to start your car. If you try now, you will be disappointed since you did not hook up the battery. You can do so now.

We're trying...

Ron Francis Wiring has made every effort to assure a quality product and can assure you that this system works well in your application. Most of the 'problem' calls we have had to date are basic trouble shooting questions which have nothing to do with the TELORVEK system we sold you.

We are committed to offering the most user friendly wiring systems available and support this with many years experience in the wiring and fuel injection fields. Please be certain that all connections are correct and tests run before calling. Your unit can be tested at any Ford Motor Company Dealership with no difficulty.

USING THE CHECK ENGINE LIGHT

The check engine light performs just the same as it would in any newer car, when the key is turned on (engine not running) the light will stay on until the engine starts.

When the check engine light comes on during engine operation, it is an indication of a fault in the system. It will be necessary to have the vehicle connected to a diagnostic scanner at your local Ford dealer or service station for further evaluation.

Breakout Box Circuit Diagnosis

The Telorvek panel can be used as a BREAKOUT BOX for testing circuits running to and from the EEC Processor. Listed below is the Ford circuit number, circuit description, E.E.C processor pin number, Telorvek panel number the circuit runs to, Ford wire color and the color of wire we used. Following the diagnostic procedures that can be found in the ENGINE / EMISSIONS DIAGNOSIS SHOP MANUAL that can be purchased at your local Ford dealer all trouble codes can be diagnosed.

Circuit	Description	EEC pin#	Panel #	Ford Color	RFW Color
361	IGN, LF RR & RT RR O2		2	Red	Orange
361	IGN, *Intake Man Run Con		3	Red	Red
361	Ign, Lf/Rt Injectors		4	Red	Red
361	Ign, Can Purge, EGR Sol		5	Red	Red
361	Ign, IAC, *IMRC Sol		6	Red	Red
361	Ign, MAF, Purge Flow Sen		7	Red	Red
361	Ign, CCRM 13	71,97	8	Red	Red
687	Ign, LF FRT,RT FRT O2		9	Gray/Yellow	Orange
16	Ign, LF, RT Ign coil		10	Red/Lt Green	Red
11	Tach	48	11	Tan/Yellow	Purple
97	LF ign coil	78	12	Tan/Lt Green	Tan
98	LF ign coil	104	13	Tan/Lt Blue	Lt Blue
95	RT ign coil	26	14	Tan/White	White
96	RT ign coil	52	15	Tan/Orange	Orange
			16		
			17		
462	#Chime	19	18	Purple	Purple
349	CKP Sensor	21	19	Dk Blue	Dk Blue
350	CKP Sensor	22	20	Gray	Dk Green
967	MAF	88	21	Lt Blue/Red	Lt Blue
968	MAF	36	22	Tan/LT Blue	Tan
48	Cam Shaft Shield		23		Clear
48,570	Crank Shaft Shield	24,51	24		Clear
570	MAF,VSS	33,103	25	Black/White	Black
570	Batt Grnd,Purge Flow Sen		26	Black	Black
570	*IMRC	25	27	Black/White	Black
570	DLC 4,5	76,77	28	Black/White	Black

Not used on Mustang Engines
 * 4.6 four valve engines only

Circuit	Description	EEC pin#	Panel #	Ford Color	RFW Color
392	RT RR O2	35	31	Red/Lt Green	Lt Green
389	RT RR O2	95	32	White/Black	White
37	DLC #16 (Batt FD)		33	Yellow	Red
75	*IMRC	8	34	Dk Green/Lt Green	Dk Green
354	ECT Sensor	38	35	Lt Green/Red	Lt Green
355	TPS	89	36	Gray/White	White
351	TPS,EGRVP	90	37	Brown/White	Brown
352	EGRVP	65	38	Brown/Lt Green	Lt Green
360	EGR	47	39	Brown/Pink	Brown
282	Cam Position	85	40	Dk Blue/Orange	Dk Blue
743	IAT	39	41	Gray	Yellow
382	DLC 13	13	42	Yellow/Black	Yellow
94	LF FRT O2	87	43	Red/Black	Dk Blue
388	LF FRT O2	94	44	Yellow/Lt Blue	Yellow
101	Canister Purge	56	45	Lt Green/Black	Gray
150	VSS	58	46	Dk Green/White	Dk Green
970	Trans Speed Sensor	84	47	Dk Green/White	White
915	DLC 10	15	48	Pink/Lt Blue	Pink
914	DLC 2	16	49	Tan/Orange	Tan
926	CCRM 18	80	50	Lt Blue/Orange	Lt Blue
658	S.E.S LT	2	51	Pink/Lt Green	Lt Green
91	Purge Flow Sensor	11	52	Purple/White	Purple
264	IAC	83	53	White/Lt Blue	White
242	Octane Adjust	30	54	Dk Green	Dk Green
367	*IMRC	42	55	Lt Green/Black	Lt Green
310	*RT Knock Sen	57	56	Yellow/Red	Yellow
311	*LF Knock Sen	32	57	Dk Green/Purple	Dk Green
387	RT FRT O2	93	58	Dk Green/White	White
74	RT FRT O2	60	59	Gray/Lt Blue	Lt Blue
555	Injector 1	75	64	Tan	Tan
556	Injector 2	101	65	White	White
557	Injector 3	74	66	Brown/Yellow	Brown
558	Injector 4	100	67	Brown/Lt Blue	Lt Blue
559	Injector 5	73	68	Tan/Black	Black
560	Injector 6	99	69	Lt Green/Orange	Lt Green
561	Injector 7	72	70	Tan/Red	Dk Blue
562	Injector 8	98	71	Lt Blue	Dk Green
359	ECT,TPS	91	72	Gray/Red	Gray
359	EGRVP,Cam Shaft Pos	91	73	Gray/Red	Gray
359	IAT	91	74	Gray/Red	Gray
359	*LF,RT Knock Sensor	91	75	Gray/Red	Gray
359	*IMRC 6	91	76	Gray/Red	Gray
359	Octane Adj, Trans Sp	91	77	Gray/Red	Gray
359	MLPS, Trans 9	91	78	Gray/Red	Gray
923	Trans 5	37	79	Orange/Black	Orange
480	Trans 3	54	80	Purple/Yellow	Pink
925	Trans 10	81	81	White/Yellow	White
237	Trans 1	27	82	Orange/Yellow	Yellow
315	Trans 6	1	83	Purple/Orange	Purple
359	LF FRT,LF RR O2	91	84	Gray/Red	Gray
359	RT FRT, RT RR O2	91	85	Gray/Red	Gray
639	CCRM	46	86	Lt Green/Purple	Lt Green
393	LF RR O2	61	87	Purple/Lt Green	Pink
390	LF RR O2	96	88	Tan/Yellow	Tan
238	*CCRM 5, *Fuel Pump Resistor		89	Lt Green/Yellow	Tan

* 4.6 four valve engines only

Circuit	Description	EEC pin#	Panel #	Ford Color	RFW Color
640	IGN, Trans Control Sw		93	Red/Yellow	Red
	IGN, S.E.S LT, TCIL LT		94	Red/Yellow	Red
361	IGN, Trans 2,7		95	Red	Red
361	IGN, Trans 8, TCS, *HSFPR		96	Red	Red
37	Battery,CCRM 3,4	55	97	Yellow	Yellow
37	Battery,CCRM 8,11		98	Yellow	Yellow
37	Battery,*AIR Relay,*AIR BYPASS		99	Yellow	Yellow
386	CCRM 10		100	Yellow	Yellow
229	CCRM 1,2		101	Red/Orange	Lt Blue
229	To Low Speed Cool Fan		102	Red/Orange	Lt Blue
238	CCRM 5 or *F/P Resistor/HSFPR	40	103	Pink/Black	Tan
238	To inertia SW/FP		104	Pink/Black	Tan
570	CCRM 15,16		105	Black/White	Black
57	Cooling Fan Grnd		106	Black	Black
57	*Air Relay, *Air Pump		107	Black	Black
638	CCRM 6,7		108	Orange/Lt Blue	Orange
638	To High Speed fan		109	Orange/Lt Blue	Orange
199	MLPS	64	110	Lt Blue/Yellow	Yellow
911	TCIL or *FP Resistor Rel	79	111	White/Lt Green	White
224	TCS	29	112	Tan/White	Tan
511	Brake Sw Input	92	113	Lt Green	Purple
17	*Air Relay, *Air Pump	5	114	White	White
18	*Air Bypass, *Air Relay	70	115	Orange/Yellow	Orange
198	CCRM 21, AC Press Cutoff	41	116	Black/Yellow	Black
228	CCRM 14	45	117	Lt Blue Pink	Dk Blue
879	AC Pressure	86	118	Dk Green/White	Dk Green
331	CCRM 22	69	119	Pink/Yellow	Pink
347	CCRM 23		120	Black/Yellow	Brown

* 4.6 four valve engines only

Fuse Designation & Size

The harness has a total of eight fuses. Shown below is a diagram of what each fuse protects. The illustration is the front view of the Telorvek panel.

Fuse Block #1	
Fuse Designation	Fuse Size Block #1
Left & Right Injectors	15 AMP
Engine Control Module (ECM) Canister Purge & EGR Solenoids IAC, *IMRC, MAF, CCRM, Purge Flow, O2 Sensors	20 AMP
LF FRT & RT FRT O2 Sensors	20 AMP
Left & Right Ignition Coils	20 AMP

Fuse Block #2	
Fuse Designation	Fuse Size Block #2
Transmission Control Switch S.E.S & TCIL, Transmission, *HSFPR	15 AMP
*Air Relay, Air Bypass	30 AMP
Engine Control Module (ECM)	30 AMP
Fuel Pump	20 AMP

* 4.6 four valve engines only

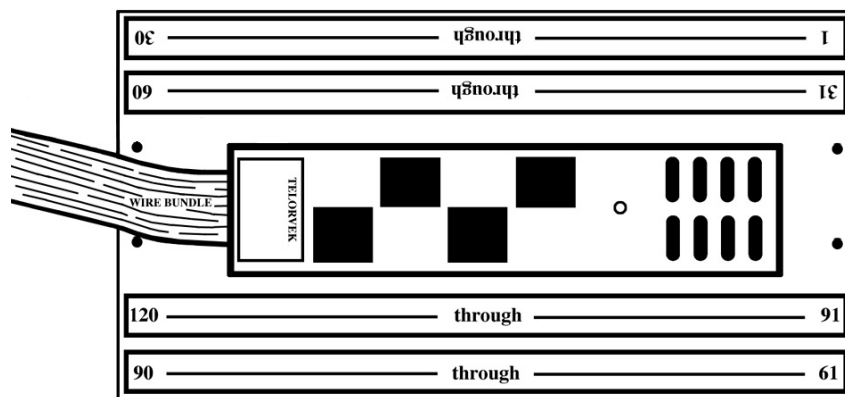
FUEL PUMP RELAY

The relay housing mounted in the cover of the Telorvek panel is for the FUEL PUMP. While typical 5 prong ISO Automotive relays can be used, the relay can be ordered under General Motors part number 14100455, Standard Motor Products RY116 or Airtex 1R1061.

Numbered terminal block cover strip reference.

The drawing below is for your reference on the correct positioning of the Telorvek fuel injection panel terminal block cover strips.

When connecting wires to the panel be sure the numbered terminals match the drawing below.



Copyright Infringement

Ron Francis Wiring has taken the extra effort to produce a quality, easy to understand instructions. We will aggressively prosecute any other harness supplier who attempts to copy this material!!