



## TELORVEK EFI 4.6 Sequential Fuel Injection System (MG-91A) WIRING INSTRUCTIONS

Thank you for purchasing the absolute finest of wiring kits for the 1996-98 Ford Motor Co. 4.6 / COBRA 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. Custom installations are available from Tanks Inc. (612-558-6882) and Rock Valley (800-344-1934).

**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.**

### **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!

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**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 right 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**

**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 #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 #67. 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 #68. EXHAUST GAS RECIRCULATION VALVE POSITION SENSOR & EGR SOLENOID:** If you have had your computer reprogrammed to eliminate this sensor, this wiring bag does not need to be installed and has not been included in your kit.

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 on 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 #70. KNOCK SENSOR (LEFT & RIGHT):** The knock sensors are located on both sides of the engine screwed into the water jacket in the engine block. After reading the printing on the wires, plug in the connectors to both knock sensors and run the wires back to the panel. Using the red terminals, connect the Gray wires (LF KNOCK->75) & (RT KNOCK->75) to #75, Yellow wire (RT KNOCK->56) to #56 and the Dk Green wire (LF KNOCK->57) to #57.

**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.

**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 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 #72. IDLE SPEED CONTROL:** The ISC is located on the right side 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 (IAC->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 #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 #76A INTAKE MANIFOLD RUNNER CONTROL:** This sensor is located in the rear center of the engine. Plug the connector into the sensor and run the wires to the panel. Using the red terminals, connect the red wire (IMRC 2->3) to **#3**, Dk Green (IMRC 5->34) to **#34**, Black (IMRC 3->27) to **#27**, Lt Green (IMRC 1->55) to **#55** and the Gray (IMRC 6->76) to **#76**.

**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 #79A FUEL PUMP INERTIA SWITCH & FUEL PUMP RESISTOR:** We have included the wiring necessary for the Ford inertia switch. The inertia switch cuts off the electric fuel pump in the event 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.

**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.

**FUEL PUMP: Follow the directions based on your application!**

**USING THE ORIGINAL COBRA 2 SPEED FUEL PUMP - FUEL PUMP RESISTOR** The Ford fuel pump is designed to operate at two speeds. The ECM controls the operation through the ECM, CCRM, RESISTOR BYPASS RELAY & FUEL PUMP RESISTOR. Plug the connector into the fuel pump resistor and connect the tan (FP RESISTOR->89) to **#89** and the tan (FP RESISTOR->103) to **#103**. DO NOT INSTALL THIS WIRING IF YOU ARE USING AN AFTERMARKET FUEL PUMP.

**USING AN AFTERMARKET, SINGLE SPEED FUEL PUMP** (and have had your computer reprogrammed for such) No further action is required.

**Bag #83. CANISTER PURGE SOLENOID & CANISTER PURGE FLOW SENSOR:** If you have had your computer reprogrammed to eliminate these sensors, this wiring bag does not need to be installed and has not been included in your kit.

The canister purge solenoid in a stock application is mounted on the right side engine compartment. After mounting the solenoid plug in the connector and run the wires back to the panel. Using a red terminals connect the Red wire (CAN PURGE->5) to **#5** and the Gray wire (CAN PURGE->45) to **#45**.

The canister purge flow sensor was mounted in a stock application in the right rear engine compartment. Plug the connector into the sensor and run the wires back to the panel. Connect the Red (PURGE FLOW->7) to #7, Pink (PURGE FLOW->52) to #52 and the Black wire (PURGE FLOW->26) to #26.

## 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.

|                                       |
|---------------------------------------|
| <b>Breakout Box Circuit Diagnosis</b> |
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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.

| <b>Circuit</b> | <b>Description</b>       | <b>EEC pin#</b> | <b>Panel #</b> | <b>Ford Color</b> | <b>RFW Color</b> |
|----------------|--------------------------|-----------------|----------------|-------------------|------------------|
| 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             |                   |                  |
|                |                          |                 | 18             |                   |                  |
| 349            | CKP Sensor               | 21              | 19             | Dk Blue           | Blue             |
| 350            | CKP Sensor               | 22              | 20             | Gray              | Green            |
| 967            | MAF                      | 88              | 21             | Lt Blue/Red       | 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,Purge Flow Sen      |                 | 26             | Black             | Black            |
| 570            | IMRC                     | 25              | 27             | Black/White       | Black            |
| 570            | DLC 4,5                  | 76,77           | 28             | Black/White       | Black            |

\* 4.6 two valve engines only

| <b>Circuit</b> | <b>Description</b>         | <b>EEC pin#</b> | <b>Panel #</b> | <b>Ford Color</b> | <b>RFW Color</b> |
|----------------|----------------------------|-----------------|----------------|-------------------|------------------|
| 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            | 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              |

| 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                  |          | 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   | Blue      |
| 879     | AC Pressure                    | 86       | 118     | Dk Green/White | Green     |
| 331     | CCRM 22                        | 69       | 119     | Pink/Yellow    | Pink      |
| 347     | CCRM 23                        | 120      |         | Black/Yellow   | Dk Gn     |

### 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)<br>Canister Purge & EGR Solenoids<br>IAC, IMRC, ICM, MAF, CCRM,<br>Purge Flow, LF RR & RT RR O2 | 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<br>S.E.S & *TCIL,<br>*Transmission, *HSFPR | 15 AMP             |
| Air Relay, Air Bypass   | 30 AMP             |
| Engine Control Module (ECM)<br>CCRM                                     | 30 AMP             |
| CCRM  | 20 AMP             |

### HIGH SPEED FUEL PUMP RELAY

The relay housing mounted in the cover of the Telorvek panel is the FUEL PUMP relay. The relay can be ordered under Airtex part #1R1061, Standard Motor Products part #RY116 or GM part #14100455

\* 4.6 two valve engines only

## 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.

