# DIGITAL EZ HARNESS 79-86 & 87-93 MUSTANG INSTRUCTIONS

Thank you for purchasing the Digital EZ Harness installation kit. This kit enables use of your OEM connectors and avoids the time and effort to splice into factory wiring and easily reversible.

**Disclaimer/Safety Warning:**
This kit is designed to enable both DIYers and shops to install aftermarket gauge clusters/kits and requires basic automotive wiring skills. If you are not familiar with automotive wiring, please consult a professional.

When use as directed, the Digital EZ harness retains the factory wiring in your vehicle. It is the responsibility of the end-user wiring and connection methods. Disconnect the battery while performing work with the Digital EZ harness. Always used appropriately sized fuses for any added circuits to protect against short circuits.

**Short vs Long Kits**
The 87-93 Mustang Short kit contains the same hardware as 87-93 Mustang kit. The “short” kits are intended for dashes that typically do not need the longer wires.

| Foxbody 79-93 Mustang Kit Recommendations: | Dakota Digital | Holley Pro | New Vintage USA | Autometer Invision | Intellitronix |
|---|---|---|---|---|---|
| Digital EZ 87-93 Mustang | X | | | | |
| Digital EZ 87-93 Mustang (short) | | X | X | X | X |
| Digital EZ 79-86 Mustang | X | | | | |
| Digital EZ 79-86 Mustang (short) | | X | X | X | X |

It is recommended to read these instructions prior to working on vehicle to map out your work to be the most efficient.

# 79-86 & 87-93 Mustang Digital EZ Harness Installation

1. Disconnect negative battery cable.
   PRO-TIP:  Access to under the dash may be easier by removing the driver side seat but not required.
2. Remove headlight and fog/hazard switch.
   PRO-TIP:  Inspect the headlight switch and connector and if melted or distorted, it is recommended to replace.
3. Remove the plastic covers to the steering wheel.  Access the Phillips head screw holes from bottom piece.
4. 87-93 Mustangs only:  Remove the 2 phillips screws with a stubby screw driver near the windshield. Remove remaining screws of the cluster bezel surround that attach it do dash.  Set aside.

5. 79-86 Mustangs only:  Remove the screws to the bezel that retains the OEM gauge cluster

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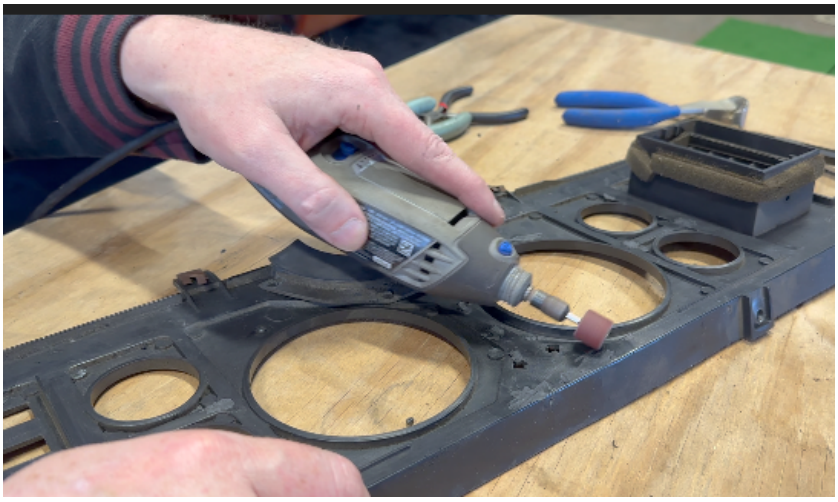
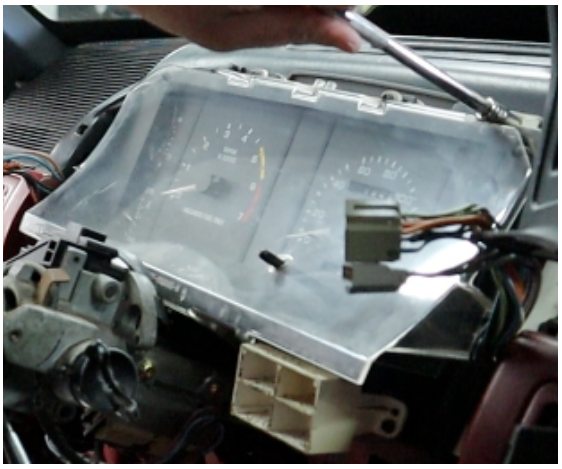
6. 79-86 Mustang only: Some gauge clusters require smoothing of the cluster bezel so it sits flush with the new dash. Use Dremel tool or sand paper.



7. Remove the 4 torx screws holding in the OEM gauge cluster. A 7mm socket can also be used.



8. Reaching behind the gauge cluster, grab the white plastic clip on the speedometer cable. pull the cable toward you, squeeze the clip to release the pawl on back of cluster, and then pull towards front of car. TIP: If you just pull the cable out while also trying to release the clip it can make cable removal more difficult. Pull it toward you first and then squeeze the clip.

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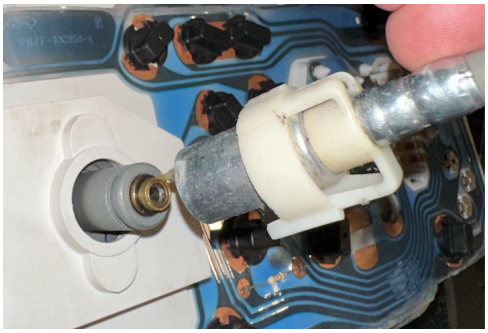


9. Remove the left and right electric connectors that are in the in back of the gauge cluster. Squeeze the release tabs on the connectors and pull to remove. The cluster should now be free from vehicle. PRO-TIP: Record the mileage of the gauge cluster if you intend to set current vehicle mileage.

10. Remove radio and center console. The control box will be mounted behind the radio. Alternative mounting location could be to zip tie it under the driver side dash. Be sure not to interfere with pedal or steering movement.

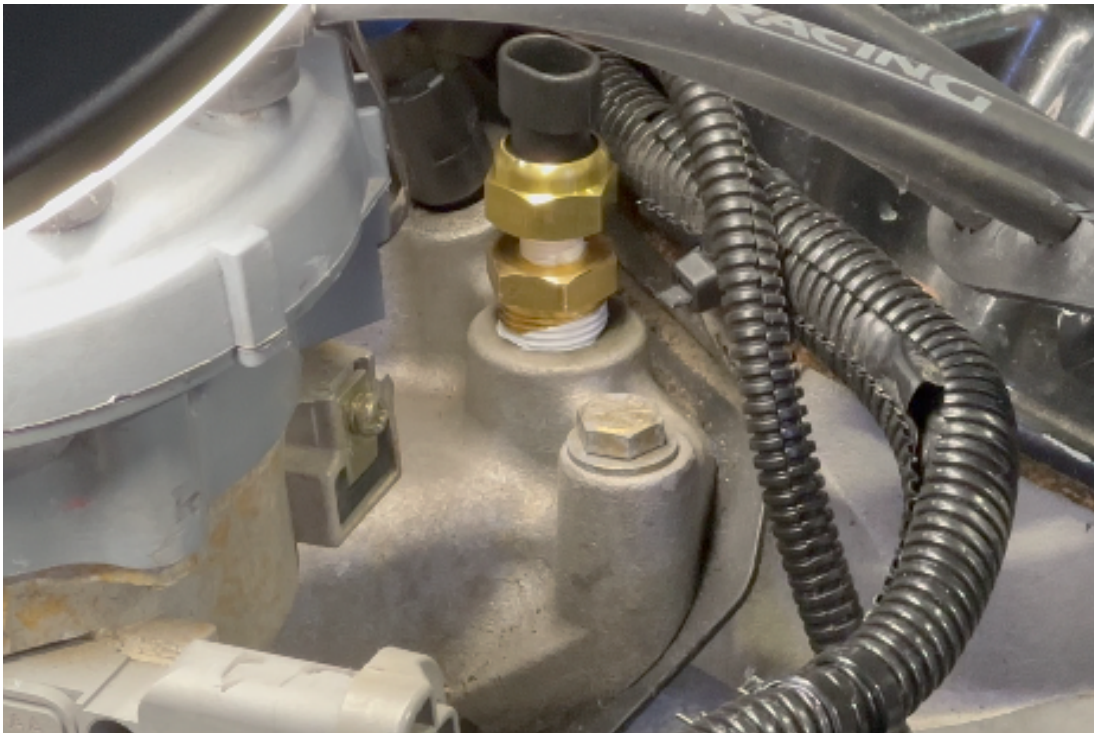
11. Using a lift or jack w/jack stands, raise the vehicle so you can access the speedometer cable. Remove the speedometer cable from VSS (speed sender). If using a Dakota Digital Dash, insert the supplied speed sender plug into the end of the speed sender. Ensure the VSS electrical is connected.

12. Remove the speedometer cable completely from the vehicle being sure to save the firewall grommet. Vehicle can be lowered at this point.

13. Pull electrical connection and remove OEM water temperature sender from the lower intake. You will need to drain about 1/3 to ½ gallon of coolant so the level is below the sender. Install supplied wafer temperature sender in the intake. Be sure to top off coolant after replacing temperature sender.

14. Install supplied water temp sender in same location as OEM temp sender. Use supplied brass hardware for proper sizing of adapter. Use plumbers tape or thread sealant on the manufacturers supplied
    PRO TIP: DO NOT OVER TIGHTEN THE WATER OR TEMP SENSDERS. THE THREADS ARE BRASS AND CAN SHEAR OFF.

Pro-tip: Use clean container so you can reuse the same fluid removed from radiator.



15. Remove factory oil pressure sender from drive side oil pressure sender extender. Install supplied oil pressure sender in same location as OEM oil pressure sender. Use supplied brass hardware for proper sizing of adapter. Use plumbers tape or thread sealant on the manufacturers supplied
PRO TIP: DO NOT OVER TIGHTEN THE WATER OR TEMP SENSDERS. THE THREADS ARE BRASS AND CAN SHEAR OFF.

16. Using the supplied cables for the oil and water temperature gauges route them along passenger side of vehicle and through the same hole of the previously installed speedometer cable. Pro-tip: Cut a slit in the OEM speedometer firewall and install around the water and oil pressure sender cables.
    Connect the appropriate cable to respective sender. You cannot mix this up as one is a 2-pin and another is a 3-pin connection.
    Pro-tip: Zip tie cables to the drive side fuel rail and under the upper intake.

17. Remove the contents from the Digital EZ harness installation kit.


**18. FOR 87-93 USERS DO NOT SKIP STEPS 19-23**

**19.** Install the supplied load harness resistor supplied by your dash manufacturer. **Failure to install the resistor can result in vehicle no-start or start and die condition!**

20. For the 87-89 Mustangs, install the gauge manufacturers resistor using the butt connectors supplied in the Digital EZ harness kit between pins L5 and L6 of the driver side Digital EZ harness connector. The orientation of the resistor does not matter. Use heat for sealing butt connector.
DO NOT just connect the resistor to the ends of the full-length wires.

PRO-TIP: You want the resistor and butt connectors to be within the supplied wire loom. Cut one wire about 4-5 inches from connector and another wire about 6 inches from connector so the two butt connectors are staggered and makes them sit cleanly in the harness. DO NOT just connector the resistor to the ends of the full-length wires.

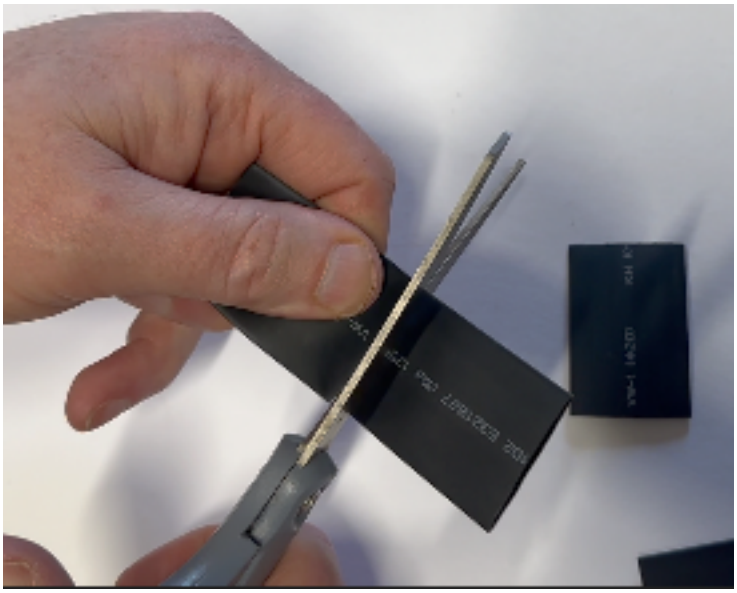
 

21. For the 90-93 Mustangs, install the gauge manufacturers resistor using the butt connectors supplied in the Digital EZ harness kit between Pin R2 and Pin R14 of the PASSENGER side Digital EZ harness. The orientation of the resistor does not matter. Use heat for sealing butt connector. DO NOT just connect the resistor to the ends of the full-length wires.

PRO-TIP: You want the resistor and butt connectors to be within the supplied wire loom. Cut one wire about 4-5 inches from connector and another wire about 6 inches from connector so the two butt connectors are staggered and makes them sit cleanly in the harness.

22. Note there are two slightly different sizes of heat shrink, use the slightly larger size for the harness connector that has more wires.

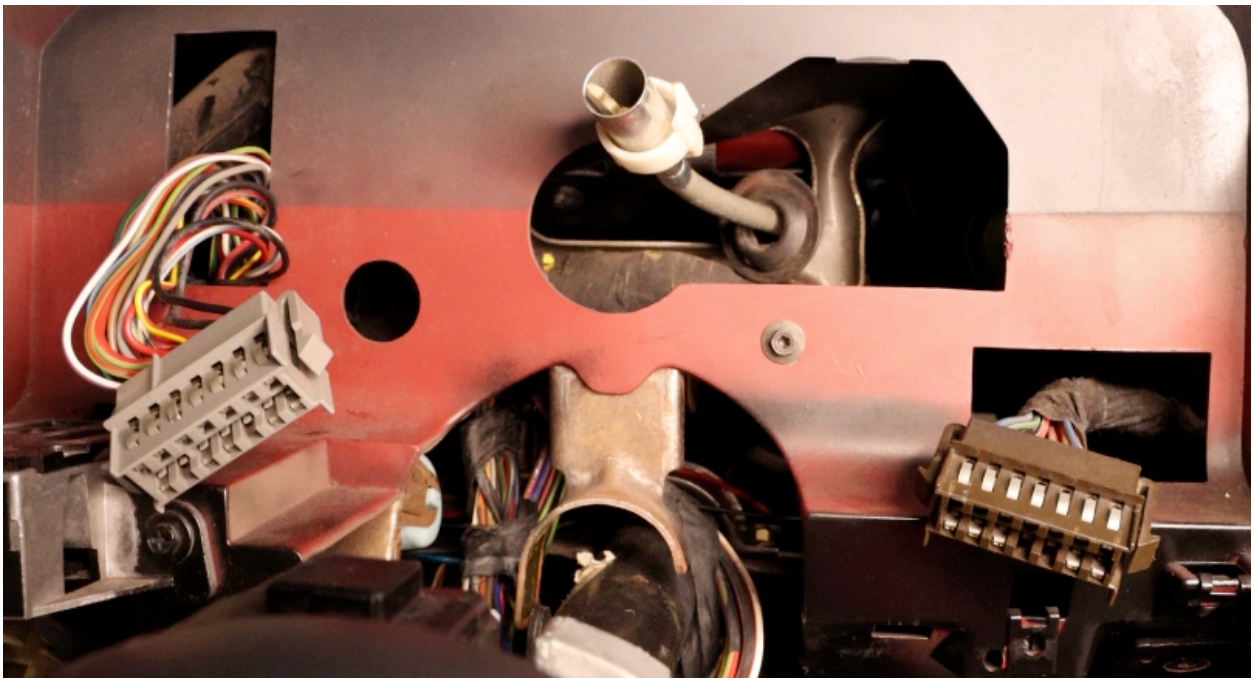
23. Cut in 1/2 each piece of the supplied heat shrink tubing.



24. Slide one piece of the appropriately sized heat shrink on each harness.
25. Use supplied wire loom and install on the harnesses.
26. Using a heat gun or other suitable hear source, heat the shrink tubing closest to the Digital EZ harness connectors.
27. Cut to fit the length of the wire loom on the label end of the Digital EZ harness. Make sure to leave enough free play in the wires to reach their destination such as on the Dakota Digital Control box. Do not cover the labels.

28. Install remaining heat shrink and heat to seal over the wire loom for the end towards the labels.

29. Install the Digital EZ harnesses in the vehicle by passing the loom/wires into the holes in the dash and down towards the driver side dash board.

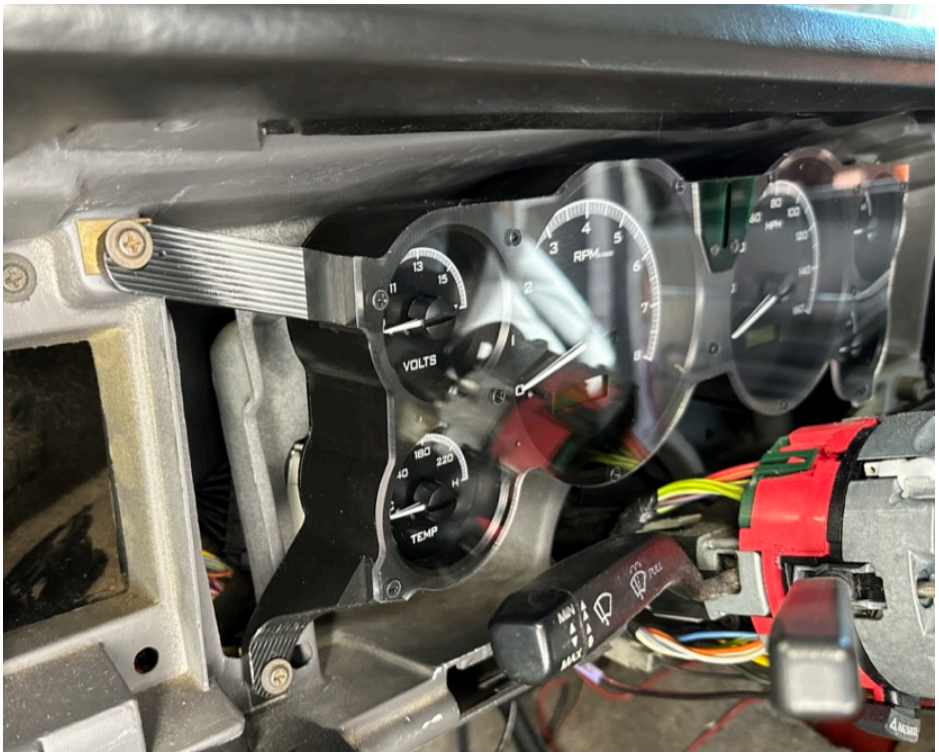


30. Connect the passenger side connector onto the OEM gauge connector.

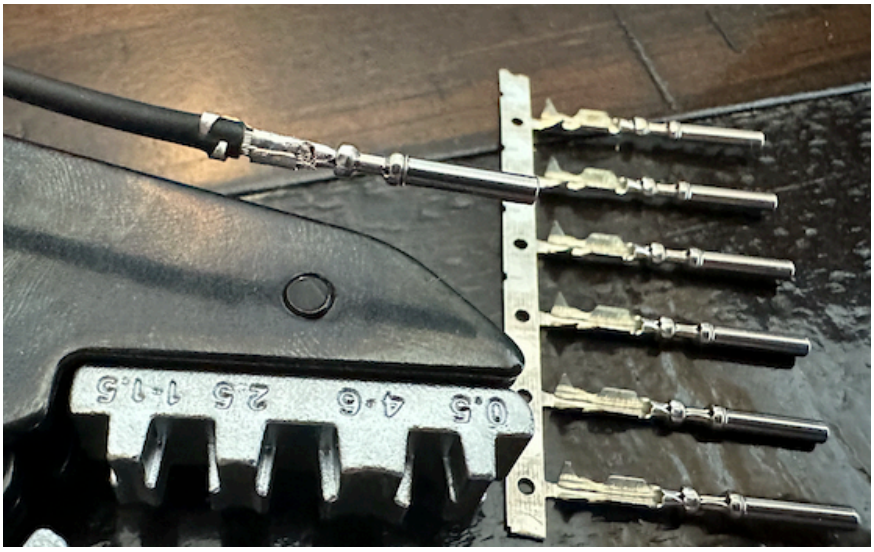
31. For the passenger connector, it is recommended to first push the OEM connector behind the dash and towards the passenger side so it clears the AC/heat duct and THEN connect the drive size Digital EZ harness.

32. If using a Dakota Digital dash you can now install the new gauge cluster with the factory hardware. Dakota Digtial VHX in a 1986 Mustang shown below.




33. If you are using an Autometer Envision/Holley Pro/New Vintage USA system, the recommended kit is our “short” version and you will make your connectors behind the gauge cluster. If you are using a Holley pro dash, you can crimp the Super Seal connectors directly to the Digital EZ harness wires like below.



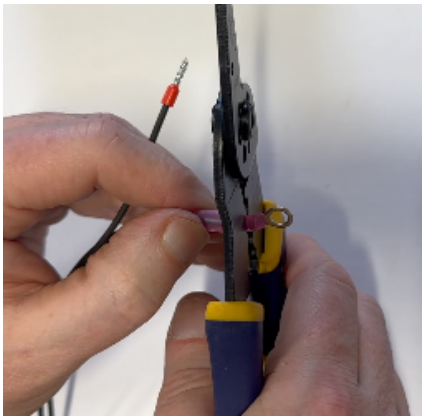
34. If you are using a gauge cluster or gauge kits such as New Vintage USA, Autometer Invision, or Intellitronix simply attach directly to the manufacturers supplied wiring. The Digital EZ harness eliminates the need to splice into your factory wiring and each wire is numbered.


35. Reinstall the gauge cluster bezel surround.
36. Reinstall the headlight and 4-way flasher switches being sure to reconnect electric connectors.
37. Reinstall the plastic surround pieces around the steering column.

38. Decide where you will locate your control box.
39. The Digital EZ harness kit includes multiple options for mounting a Dakota Digital control box.
    Option 1: Mount the control box behind the radio. Velcro is provided, as are two 1-inch mounting tabs and zip ties. Be sure to thoroughly clean any plastic surfaces prior to attaching Velcro and/or mounting tabs.
    Option 2: Coil the harness and zip tie behind the dash above the pedals being sure not to interfere with pedal or steering movement
40. Route the ends of the Digital EZ harness wires to the location of the where the Dakota Digital box will be located.
41. Using wiring diagrams of **Appendix A** for your year of vehicle connect wires as indicated.

PR-TIP: Because the Mustang Digital EZ harnesses are designed to work with multiple years, cut off any unused ferrules/wire ends. Using the supplied 3/32" heat shrink tubing, use ½-3/4 inch of the tubing and heat to seal to cover the wire ends.

42. Strip 3/8 inch of wire the end farther from the end of the wire labeled "Ground" and using crimp onto wire using supplied ring terminal. The wire end closest to the label will be installed in the ground connection of the Dakota Digital box. Using a drill, make a hole into clean metal under the dash and connect ring terminal using the supplied #10 screw.
    PRO-TIP: Do not use the ground connection within the OEM gauge connectors. Gauge manufacturers recommend a new chassis ground.



43. Strip 3/8 inch of wire labeled Constant Power. Connect the supplied bladed butt connector.
44. Remove the fuse labeled cigar lighter from fuse panel and apply the supplied ATC fuse tap. Reinsert fuse. Connect bladed connector to the installed fuse tap. This wire is your 12V power source for your gauge. It is labeled Const. Power on your Dakota Digital Box.

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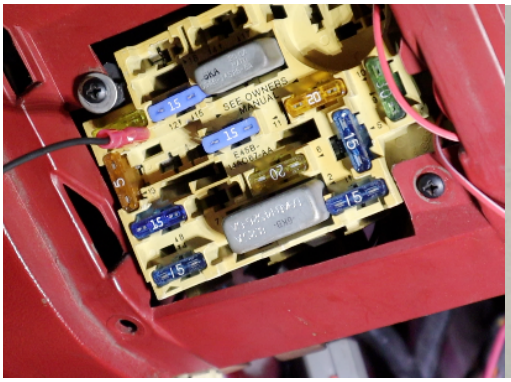
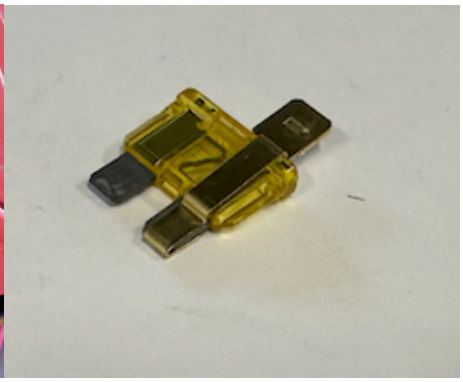
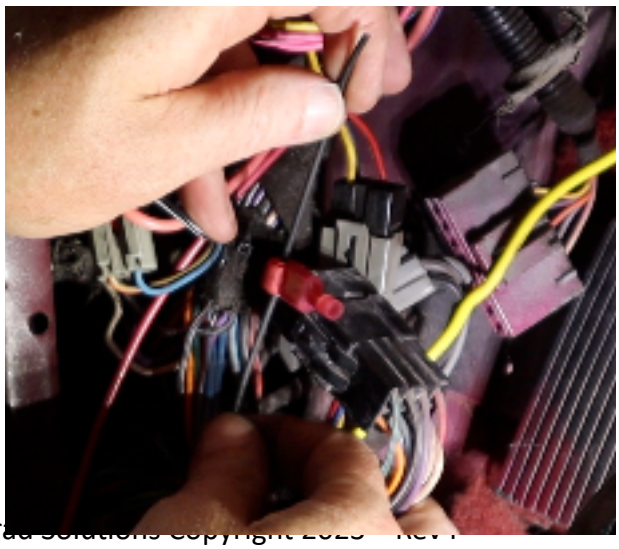
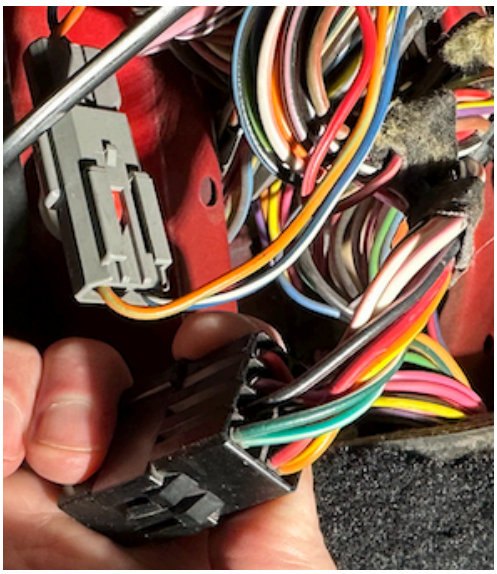




45. Strip 3/8 of wire labels SPD SND. Strip the end further from the label end. Using a crimper install the bladed connector supplied in the installation kit that attached to the wiretap. The ferrule end of this wire will insert into the SPD SND connection of the Dakota Digital control box or similar connection for other gauge manufacturers.
46. Using the supplied wiretap, in the driver side kick panel find the connector with the DG/W (dark green with white strip) wire. Using pliers install the wiretap. Connect the
47. Image below is demonstration of how the wiretap appears on a wire. You will connect this to the DG/W wire as shown below.





PRO-TIP: If you are using the Dakota Digital GPS you will not need to tap the VSS wire. You will share the 12V constant power terminal with the Digital EZ harness kit supplied GPS BATTERY / PWR wire. One end shares the 12V constant terminal, the other end will go to the BATTERY connection on the GPS box. Use the Dakota supplied BIM cable between the GPS box and the Dakota Digital Control Box.

48. Reinstall center console if previously removed.
49. Reinstall radio if previously removed.
50. Reinstall negative batter terminal.
51. Turn key to the on position and ensure gauge powers up.
52. Turn on headlights and ensure gauge back lights turn on for night time driving.
53. Follow your gauge manufacturer's instructions for set-up of your applicable dash/gauge kit.

TIPS:

1. If your headlight switch, connector or OEM dimmer is faulty, your dash back lights may not come on when you turn on your headlights. Replace faulty headlight switch or dimmer.
2. If you get an EEE signal on your Dakota Digital dash fuel signal, it most likely means you have a bad fuel sender. We have seen some fuel senders fail at only a specific spot in the range of travel so it can appear intermittent as fuel level changes. Replace faulty fuel sender.

NOTE: The 87-93 Digital EZ harness kits do not have all wires populated in the connectors, this is typical for most aftermarket gauge kit/cluster installs. In most applications you will use new wires for oil/water temp senders.

On the 79-86 left/driver side connector does not have wires in Pins 1-8. These pins were unused from the factory.

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Appendix A – Wiring Lists

| 1987-1989 MUSTANG | | | | |
|---|---|---|---|---|
| **Left / Driver Side Connector** | | | | |
| Connector Pin Number | EZ Harness Label Number | Wire Color | Function | Dakota Digital |
| 1 | L1 | LG/W | Left Turn Signal | LEFT (+) |
| 2 | L2 | BK | Ground | |
| 3 | L3 | R/W | Temp Sender | |
| 4 | L4 | R/Y | Warning Lamps | |
| 5 | L5 | R/LG | Ignition to Coil-Battery | LOAD RESISTOR |
| 6 | L6 | LG/R | Ignition to Alt. Reg | LOAD RESISTER |
| 7 | L7 | P/W | Brake Warning Light | BRAKE (-) |
| 8 | L8 | BK/L | Warning Lamp Prove Out | CHECK ENG (-) |
| 9 | L9 | Not Used | | |
| 10 | L10 | GY | Low Oil Level | |
| 11 | L11 | DG/Y | Tachometer | TACH |
| 12 | L12 | Not Used | | |
| 13 | L13 | W/LB | Right Turn Signal | RIGHT (+) |
| 14 | L14 | LG/BK | High Beam | HIGH (+) |

| 1987-1989 MUSTANG | | | | |
|---|---|---|---|---|
| **Right / Passenger Side Connector** | | | | |
| Connector Pin Number | EZ Harness Label Number | Wire Color | Function | Dakota Digital |
| 1 | R1 | GY | Low Oil Indicator | |
| 2 | R2 | R/W | Switch to Warning Lamp | |
| 3 | R3 | P/O | Not Used | |
| 4 | R4 | Not Used | | |
| 5 | R5 | Not Used | | |
| 6 | R6 | Y/BK | Signal Unit to fuel signal relay | |
| 7 | R7 | PK/Y | Washer Fluid Low | |
| 8 | R8 | Y/BK | Signal Unit to fuel signal relay | |
| 9 | R9 | W/R | Oil Pressure | |
| 10 | R10 | Y/W & LB | Fuel Level Gauge | FUEL SND |
| 11 | R11 | R/Y | Warning Lamp Feed | ACC POWER |
| 12 | R12 | BK | Ground | |
| 13 | R13 | DG/LG | Fasten Belts Indicator | |
| 14 | R14 | LB/R | Instrument Panel Lamps | DIM |

# NEWRAD SOLUTIONS

| 1990-1993 MUSTANG<br>Left / Driver Side Connector | | | | |
|---|---|---|---|---|
| Connector Pin Number | EZ Harness Label Number | Wire Color | Function | Dakota Digital |
| 1 | L1 | LG/W | Left Turn Signal | LEFT (+) |
| 2 | L2 | GY/W | High Beam | HIGH (+) |
| 3 | L3 | R/W | Coolant Temp Sender | |
| 4 | L4 | R/Y | 12V Input | ACC POWER |
| 5 | L5 | P/W | Check brake indicator | BRAKE (-) |
| 6 | L6 | LB | Low coolant indicator | |
| 7 | L7 | R/Y | 12V Input | |
| 8 | L8 | GY | Check Oil Indicator | |
| 9 | L9 | BK/LB, LK/LG | Multifunction Indicator Lamp | CHECK ENG (-) |
| 10 | L10 | BK/Y | Air Bag Indicator | |
| 11 | L11 | T/Y | Tachometer | TACH |
| 12 | L12 | Not Used | | |
| 13 | L13 | LB/R | Illumincation Feed | DIM |
| 14 | L14 | BK | Ground | |

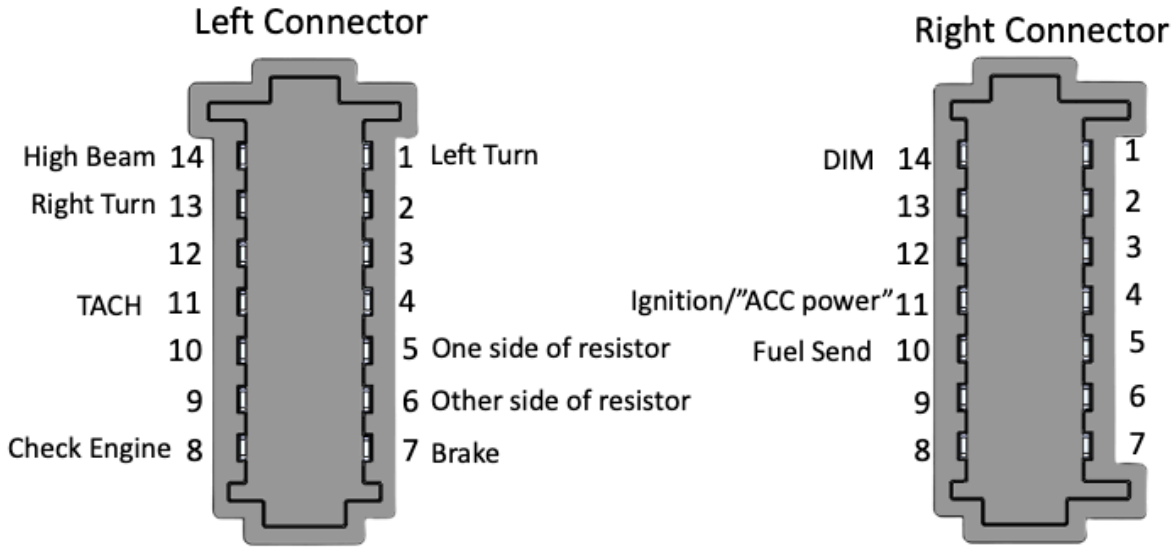
| 1990-1993 MUSTANG<br>Right / Passenger Side Connector | | | | |
|---|---|---|---|---|
| Connector Pin Number | EZ Harness Label Number | Wire Color | Function | Dakota Digital |
| 1 | R1 | Not Used | | |
| 2 | R2 | R/LG | Ignition Switch | LOAD RESISTOR |
| 3 | R3 | Not Used | | |
| 4 | R4 | Not Used | | |
| 5 | R5 | Not Used | | |
| 6 | R6 | Not Used | | |
| 7 | R7 | R/Y | 12V Input | |
| 8 | R8 | W/R | Oil Pressure | |
| 9 | R9 | BK | Ground | |
| 10 | R10 | Y/W | Fuel Level | FUEL SND |
| 11 | R11 | LB/R | Illumincation Feed | |
| 12 | R12 | W/LB | Right Turn Signal | RIGHT (+) |
| 13 | R13 | DG/LG | Fasten Belts Indicator | |
| 14 | R14 | LG/R | Battery Indicator | LOAD RESISTOR |

- These wiring guides are intended as an aid to your installation. Newrad Solutions, LLC takes no responsibility for your vehicle wiring due to age/modification/deterioration or conditions that could be unforeseen.

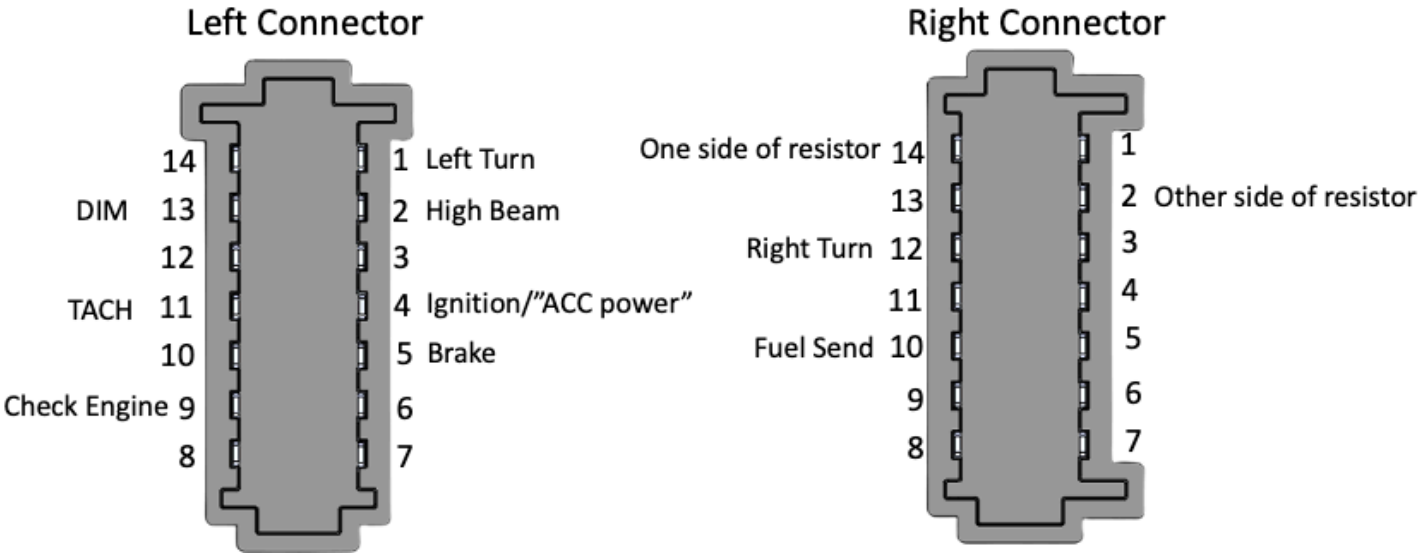
## APPENDIX A – WIRING LISTS Cont.

# NEWRAD SOLUTIONS

## 87-89 Digital EZ harness to Dakota Digital connections




## 90-93 Digital EZ harness to Dakota Digital connections




***Images not to scale**

NEWRAD SOLUTIONS

## APPENDIX A – WIRING LISTS Cont.

**1981-1986**

### Left / Driver Side Connector

| Connector Pin Number | EZ Harness Label Number | Wire Color | Function | Dakota Digital |
|---|---|---|---|---|
| 1 | L1 | Not Used | | |
| 2 | L2 | Not Used | | |
| 3 | L3 | Not Used | | |
| 4 | L4 | Not Used | | |
| 5 | L5 | Not Used | | |
| 6 | L6 | Not Used | | |
| 7 | L7 | Not Used | | |
| 8 | L8 | Not Used | | |
| 9 | L9 | BK/LG | Ground | |
| 10 | L10 | R/Y | Brake | |
| 11 | L11 | R/W | Wafer Temp | |
| 12 | L12 | Y/LG | Ammeter | |
| 13 | L13 | R/W | Ammeter | |
| 14 | L14 | P/W | Brake Indicator | BRAKE (-) |

**1981-1986**

### Right / Passenger Side Connector

| Connector Pin Number | EZ Harness Label Number | Wire Color | Function | Dakota Digital |
|---|---|---|---|---|
| 1 | R1 | Y/W & LB | Fuel Level | FUEL SND |
| 2 | R2 | BK/LG | Ground | |
| 3 | R3 | Not Used | | |
| 4 | R4 | Not Used | | |
| 5 | R5 | W/R | Seat Belt | |
| 6 | R6 | LB/R | Innstrument Cluster Illumination | DIM |
| 7 | R7 | W/LB | Right Turn Signal | RIGHT (+) |
| 8 | R8 | LG/W | Left Turn Signal | LEFT (+) |
| 9 | R9 | LG/BK | High Beam Indicator | HIGH (+) |
| 10 | R10 | DG/LG | Fasten Belts Indication | |
| 11 | R11 | R/Y | 12V | ACC POWER |
| 12 | R12 | DG/Y | Tachometer | TACH |
| 13 | R13 | BK | Ground | |
| 14 | R14 | Not Used | | |

**1979-1980**

### Left / Driver Side Connector

| Connector Pin Number | EZ Harness Label Number | Wire Color | Function | Dakota Digital |
|---|---|---|---|---|
| 1 | L1 | Not Used | | |
| 2 | L2 | Not Used | | |
| 3 | L3 | Not Used | | |
| 4 | L4 | Not Used | | |
| 5 | L5 | Not Used | | |
| 6 | L6 | Not Used | | |
| 7 | L7 | Not Used | | |
| 8 | L8 | Not Used | | |
| 9 | L9 | BK | Ground | |
| 10 | L10 | R/Y H | 12V | ACC POWER |
| 11 | L11 | DG/Y D | Tachometer | TACH |
| 12 | L12 | R/W | Coolant Temperature | |
| 13 | L13 | Y/LG | Ammeter | |
| 14 | L14 | R/O | Ammeter | |

**1979-1980**

### Right / Passenger Side Connector

| Connector Pin Number | EZ Harness Label Number | Wire Color | Function | Dakota Digital |
|---|---|---|---|---|
| 1 | R1 | Y/W | Fuel Level Sender | FUEL SND |
| 2 | R2 | BK/LG H | 12V IVR input | |
| 3 | R3 | P/W | Brake Warning | BRAKE (-) |
| 4 | R4 | W/R | Oil Pressure Gauge | |
| 5 | R5 | Not Used | | |
| 6 | R6 | Not Used | | |
| 7 | R7 | R/Y H | Seat Belt Timer/Buzzer | |
| 8 | R8 | Not Used | | |
| 9 | R9 | LB/R | Innstrument Cluster Illumination | DIM |
| 10 | R10 | W/LB | Right Turn Signal | RIGHT (+) |
| 11 | R11 | BK | Ground | |
| 12 | R12 | LG/BK | High Beam | HIGH (+) |
| 13 | R13 | LG/W | Left Turn Signal | LEFT (+) |
| 14 | R14 | DG/LG | Fasten Belts Indicator | |

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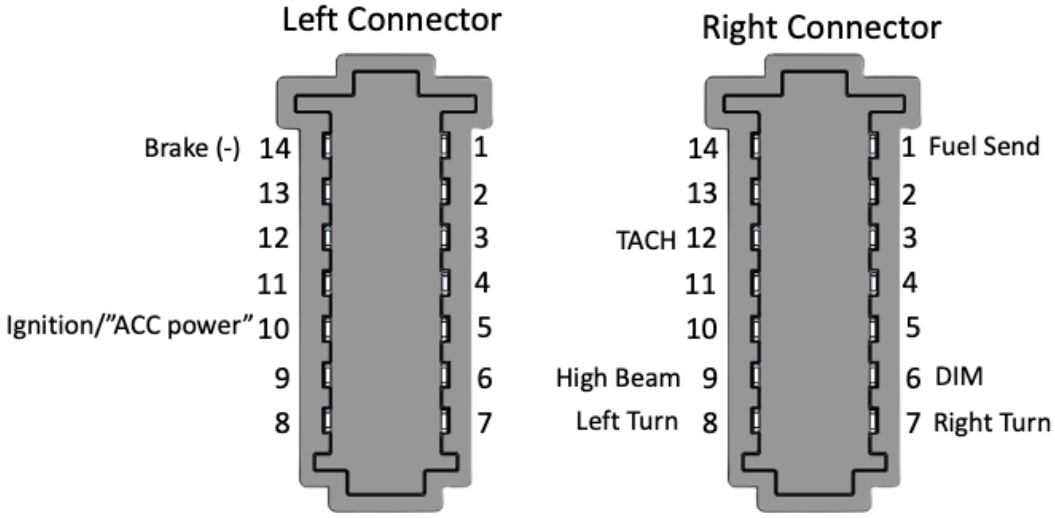
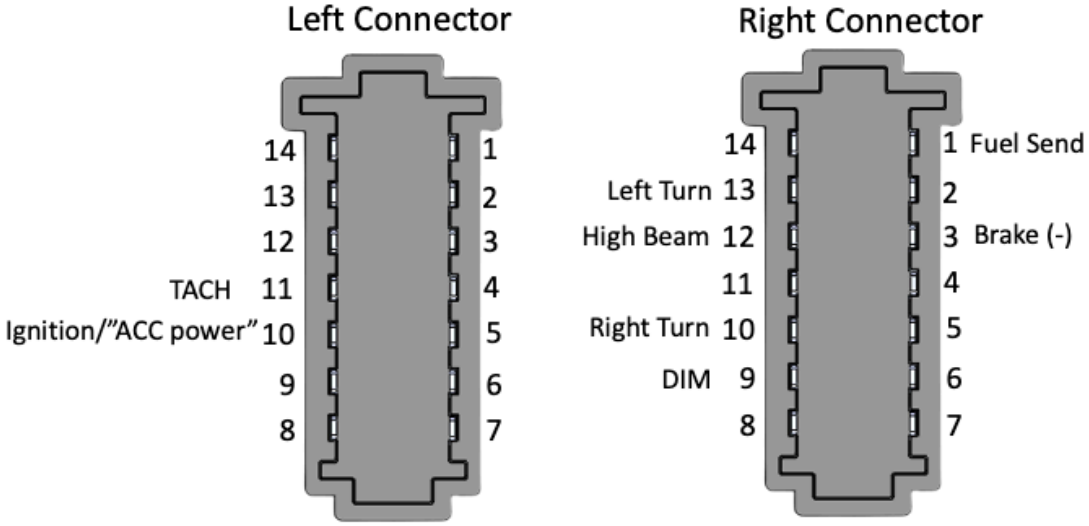
**APPENDIX A – WIRING LISTS Cont.**

## 81-86 Digital EZ harness to Dakota Digital connections




## 79-80 Digital EZ harness to Dakota Digital connections




***Images not to scale**

# NEWRAD SOLUTIONS

## Kit Contents

Connectors with TXL wire, pre numbered

Pre labeled wires for Ground, 12V power, GPS speed, GPS Power

Braided wire loom

Shrink tubing for wire loom ends

 Rev4

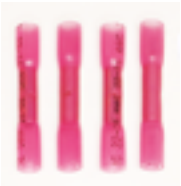
# NEWRAD SOLUTIONS

3/32 adhesive lined shrink tubing for covering unused wire ends

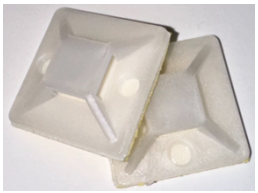
Wire tap for VSS wire

Heat shrink ring terminal with self-taping screw for ground connection

ATC fuse tap for connecting 12V power in fuse panel



22-16 AWG heat shrink butt connectors for alternator resistor. Only 2 are needed, 2 are provided extra for additional connections as needed for your application.



Adhesive mounting pads and zip ties for mounting control box

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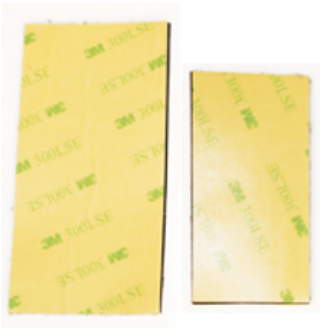

3M Velcro strips for control box & GPS box for optional mounting method

For Digital EZ harness technical support: info@newradsolutions.com

All products from Newrad Solutions, LLC are offered with a 1-year warranty for defects in workmanship and materials. Newrad Solutions reserves the right to inspect returned unmodified product and either repair, replace, or refund product at our discretion.

We will not be responsible for damaged, improper installation, or modified/cut product.

If you need to file a warranty claim, start the process by contacting info@newradsolutions.com