



Mustang Cluster Kit
- INSTALLATION INSTRUCTIONS -
For use with Ford Mustang (1994-1998) and Simco Kit Part #'s 2034-7XX

Revised: Dec 30, 2008 Rev. C

Please read and understand all instructions before attempting installation.

Please pay attention to all Cautions and Notes within these instructions.

Simco, Ltd is not responsible for damage or calibration to your original Instrument Cluster.

Thank you,

Simco, Ltd.

Read All Instructions and Review Figures Carefully Before Proceeding with Installation

Kit Includes:

<u>Description</u>	<u>Qty</u>
Simco Graphic Appliqué and EL Lamp Assembly	1
Bezel Assembly	1
EL Inverter	1
Lamp Socket Connector Pigtail	1
Pointer Stops	4 (3 used in installation, 1 extra)
Long Pointers	2
Short Pointers	4
Calibration Overlays w/ Instructions	1
4" strip of tape	1
T-15 Torx Bit	1
Pointer Stop Insert Tool	1
Pointer Remover and Depth Tool	1
Simco Stickers	2
Hub Adaptor	2 (For use with 94-95 clusters with smaller shafts)

Installation Procedures

Tools required: Small Standard Head Screwdriver, Driver for T-15 Torx bit, Pliers, 7mm Socket Driver

Caution: *The Instrument Cluster contains sensitive electronic components. Great care should be taken when working around or handling electronic components. Avoid touching components on a circuit board directly. Static shock could damage these components. Avoid working in areas that can create excessive static shock such as carpeted rooms.*

1. First disconnect the Negative (-) Battery Terminal and apply the Emergency Brake.
2. Remove the instrument cluster trim by the following steps:
 - A. Tilt the steering wheel down to its lowest position.
 - B. Remove the headlamp switch knob by inserting a narrow tool or small standard screwdriver in the slot on the side of the switch. Slide the tool along the slot moving towards the front end of the knob and pull the knob away from the dash to release the knob from the shaft. (See Figure 1)
 - C. Remove the two black screws from the top-inside of the instrument panel trim with a T-15 Torx Bit or a 7mm Socket Driver depending on year of the vehicle. (See Figure 2)
 - D. Carefully pull instrument panel trim away from the dashboard by pulling directly outward on the panel. Carefully slide the panel out from behind the steering wheel and set aside.

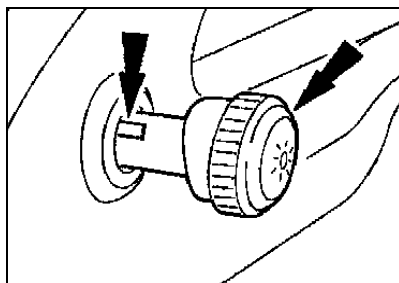


Figure 1

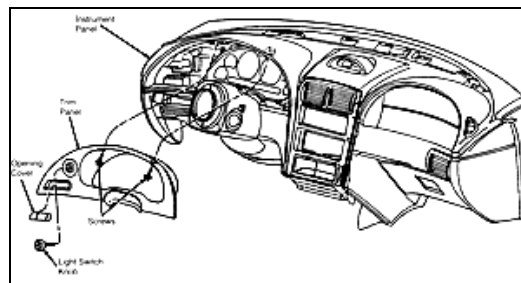


Figure 2

3. Remove the original instrument cluster from the vehicle by the following steps:
 - A. Remove the four screws in the top and bottom outer corners of the instrument cluster with a T-15 Torx Bit or a 7mm socket driver. (See Figure 3)
 - B. Carefully pull the cluster slightly forward and tilt it back and upwards allowing room to remove the two harness connectors. (See Figure 4)
 - C. Disconnect the two harness connectors from the backside of the cluster. (See Figure 5)
 - D. Remove the cluster from the vehicle.

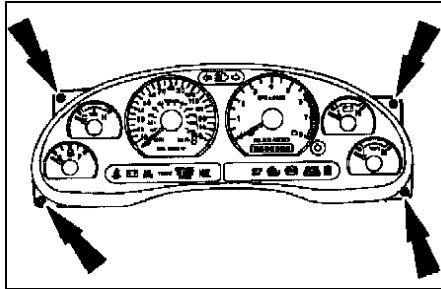


Figure 3

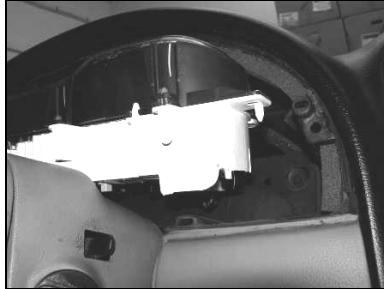


Figure 4

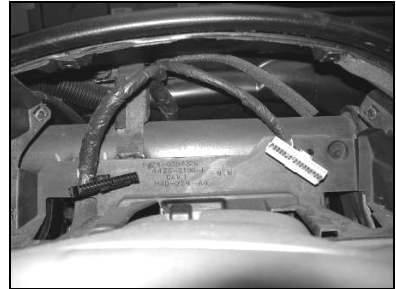


Figure 5

4. Place the original cluster on a clean work surface.
5. Remove the original bezel lens and pointer stops from the cluster by the following steps:
 - A. Remove the eight screws around the bezel lens with a T-15 Torx Bit and set the screws aside for later use. Remove the bezel lens from the cluster. (See Figure 6)
 - B. Locate the 3 pointer-stops that are pressed into the original appliqué surface. Remove them by pulling perpendicular from the original appliqué surface; Pliers may be necessary to grip them while removing. The Pointers may also need to be gently rotated Clockwise away from the pointer stop. (See Figure 7)

Important: When touching and rotating the pointers it is very important to use a soft touch and rotate in a slow and steady motion.



Figure 6

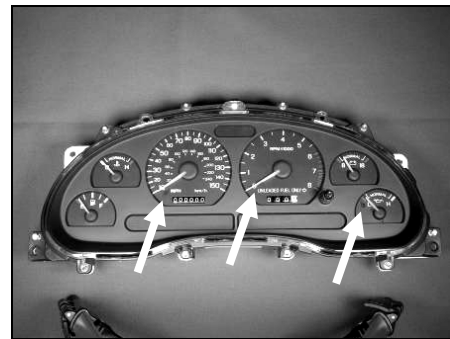


Figure 7

6. Install the instrument cluster without the bezel lens into the instrument panel of the vehicle and reconnect the two harness connectors. The cluster should rest securely in its original position in the instrument panel opening.
7. Obtain the cluster calibration data by the following steps:

Important: engine conditions (temperature, voltage, fuel level, etc.) must remain consistent for the calibration data collection and pointer re-installed to be accurately.

- A. Place the calibration overlay over the existing graphics and pointers, locating the overlay on the five pins of the white rear housing. (See Figure 8)
- B. Reconnect the Negative (-) Battery Terminal.

- C. Turn the ignition key to the ON position (position just before starting the engine). Making sure that the calibration overlay stays in place, use a pen or fine tipped marker to mark the locations of all six pointers directly onto the calibration overlay. The best way to do this is to start out with a cold vehicle that has not been running, turn the key to the on position, mark the points, then turn the key off until it's time to install the new pointers. It's also best if you double check you're marked calibration points by turning the key back to the on position and making sure that the marked locations have not changed, then turn key back off.
- D. Disconnect the Negative (-) Battery Terminal.
- E. Remove the calibration overlay and pull the cluster out of the dash by detaching the two large connectors on the backside of the instrument cluster.



Figure 8

- 8. Place the original cluster back on the clean work surface.
- 9. Install the Simco Graphic Appliqué and EL Lamp Assembly by the following steps:

Important: It is crucial that all gauge center holes in the graphic appliqué align with the center of the gauge shafts on the cluster.

Note: Original pointers and pointer stops will not be reused. OEM appliqué is lightly welded to the surface below. A small flat tip standard screwdriver or razor blade will break the weld. Depending on the strength of the weld, the appliqué may pull off by hand with minimal force.

- A. Using the pointer removal tool, remove the six pointers by gently prying upwards under the base of each pointer hub. (See Figure 9)
- B. Test fit the Simco Graphic Appliqué and EL Lamp Assembly over the original graphics with the adhesive liner still intact to get a feel for placing the new graphics.
- C. When you are comfortable placing the graphics, remove the original OEM graphic appliques from the cluster.
- D. Review the surface under the OEM appliques and remove any dirt or debris that might affect the adhesion of the new appliqué.
- E. Peel the liner attached to the back of the Simco Graphic Appliqué and EL Lamp Assembly and adhere the new graphic assembly to the flat cluster surface making sure to line up all gauge center holes with the gauge shafts.

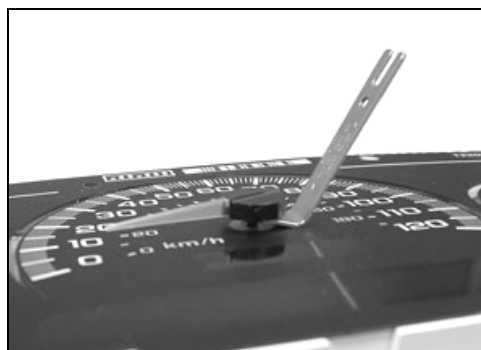


Figure 9

10. Install the instrument cluster **without** the New Bezel Assembly into the instrument panel of the vehicle and reconnect the two harness connectors. The cluster should rest securely in its original position in the instrument panel opening as it did earlier when you recorded the cluster calibration data on the calibration overlay.
11. Calibrate the instrument cluster with the New Simco Graphic Appliqué and EL Assembly by the following steps:
 - A. Place the calibration overlay over the new graphics, locating the overlay on the five pins of the white rear housing.
 - B. Remove the New Pointers from their packaging. The Long Pointers will be installed on the Speedometer and Tachometer locations and the Short Pointers will be installed on the Fuel, Water Temperature, Voltage, and Oil Pressure locations.*
 - C. Turn the ignition key to the ON position (position just before starting the engine). Place the new pointers onto the gauge shafts one-by-one by first aligning the pointer tip with the marked point on the calibration overlay and then lightly pressing the pointer onto the gauge shaft. Turn off ignition key, wait a moment and then back on to check alignment. Then turn back off. If a pointer needs to be adjusted, use the pointer removal tool to gently pry upwards on the hub of the pointer to release the pointer from the shaft and re-stake. Once the pointer is accurately aligned with the mark on the calibration overlay, make sure the key is in the off position, and then firmly press the pointer onto the gauge shaft. Recommended staking pressure is about 8 lbs, but a firm push with your thumb will do. Recheck the calibration alignment once again and adjust if necessary.
 - D. Disconnect the Negative (-) Battery Terminal.
 - E. Remove the calibration overlay and pull the cluster out of the dash by detaching the two large connectors on the backside of the instrument cluster

* Some '94-95 model year vehicles will need a Hub Adaptor added to one or two of the small pointers so they can work with these vehicles gauges that have the smaller gauge shafts than standard. (See Figure 10 for illustration of smaller gauge shaft and figure 11 for standard gauge shaft). To assemble the Hub Adaptor to the pointer press the hub of pointer into the larger hole in the hub adaptor (See figure 12). An easy way to install the hub to the pointer is to place the pointer on a clean flat surface face side down, hub of the pointer facing up. Align the larger hole of the adaptor to the pointer hub and press into place firmly.



Figure 10



Figure 11

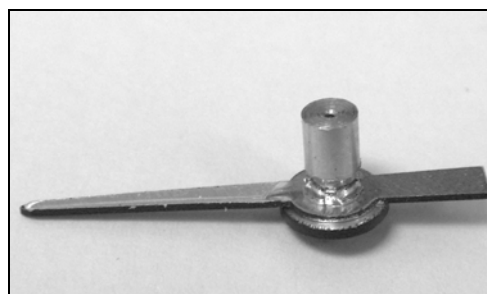


Figure 12

12. Place the original cluster back on the clean work surface.
13. Install the New Pointer Stops and Bezel Assembly by the following steps:

Note: Be careful not damage or touch new pointers.

- A. Place each New Pointer Stop, located in the small pointer zip lock bag, in either end of the pointer stop installation tool (2" clear tube). The straight portion of the pointer stop goes into the tool.
- B. Press the tapered end of the pointer stops into the holes in the following locations: speedometer, tachometer, and oil pressure. Keep the Pointers ABOVE the Pointer Stops when installing. (See Figure 7 where the OEM pointer stops were removed)
- C. If need gently rotate the two long pointers so they are above the pointer stops.
- D. Gently rotate the oil pressure, battery, and water temperature small pointers until they are in the Normal range. Gently rotate the fuel pointer until it is in between the Empty and Full range.
- E. Place the New Bezel over the graphics locating the bezel on the five white pins in the white rear housing of the cluster.

- F. Screw the bezel to the white rear housing using the eight brass screws removed in Step 5 with a T-15 Torx Bit. (Figure 6 in Step 5 shows these screw locations)

14. Attach the Simco EL Inverter to the back of the instrument cluster by the following steps:

CAUTION: *Be very careful to avoid bending of leads on EL Lamp. Damage may occur if proper care is not taken.*

Note: *The lamp connector **MUST** have the **red wire** side facing down towards the bottom of the cluster when installed. New lamp connector is solely used as a power source; not intended to be filled with a lamp (bulb).*

- A. Remove the liner from the 4” strip of tape provided and strap the Simco EL Inverter to the flexible circuit. (See Figure 13)
- B. Connect the connector from the white leads to the connector on the Simco EL Lamp.(See Figure 13)
- C. Remove the black lamp circled in Figure 13. This lamp is the second from the left if you are looking at the back of the cluster.
- D. Plug the new lamp connector into the empty lamp socket so that the red wire is to the right, push downward and twist a quarter turn clockwise (CW) until the lamp connector is firmly in place.(See Figure 13)
15. Finally, install the instrument cluster into the dash by connecting the two harness connectors to the rear of the instrument cluster and setting the unit into place. Re-install the four screws that attach the instrument cluster to the vehicle and re-install the instrument cluster trim removed in Step 2. Finally reconnect the Negative (-) Battery Terminal.

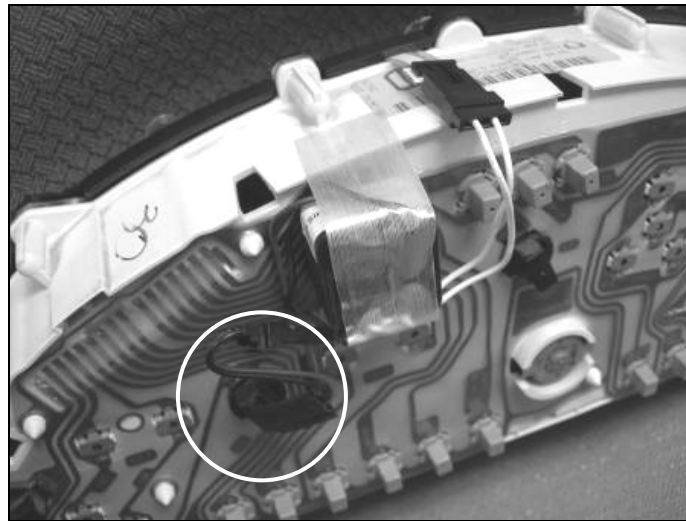


Figure 13

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