**Standard Work Instruction: 795312 Assembly Rev: B**

**PPE Needed:**

Gloves

**Material Needed:**

630566- Potentiometer Plate Single **Location: BT1431** Qty: 1

928529- 5K Potentiometer **Location: Work Table** Qty: 1 includes black lock washer and silver nut

941728- Cable Shielded Wire **Location: Work Station** Qty: 1 Length: 9 inches

941731- Receptacle Molex **Location: Work Table** Qty: 1

941729- Pin Male Molex **Location: Work Table** Qty: 3

941736- Heat Shrink **Location: Work Table** Qty: 2 Length: 1 inch

928526- Heat Shrink **Location: Work Table** Qty: 3 Length: 0.6 inches

941734- Knob MPKES 90B **Location: Work Table** Qty: 1

928215- Label Dual ECM **Location: BT1431** Qty: 1

991254- Handy Box **Location: BT1433** Qty: 1

991313- Handy Box Connector **Location: BT1433** Qty: 1

941091- Screw #6-32 X 1/2 Oval **Location: Work Table** Qty: 2

**Tools needed:**

Molex contact crimper

Heat gun

Wire stripper

Solder station

Needle nose pliers

Side cutters

Ruler

Permanent/Paint marker

9/16 box end wrench

Hex wrench

**NOTE: Item numbers reference the DWG bill of material.**

**Assembly Steps:**

**1.)** Get Potentiometer Plate (630566 Item: 10) and clean the oil from the surface. It will prevent the label from adhering properly. Make certain to wear gloves during this process. The edges are sharp and present a cutting hazard.

**2.) Apply the Label Dual ECM (928215 Item: 80) to the front surface. Align the holes in the label with the two holes on the plate.**

**3.)** From the rear of the plate put the potentiometer (928529 Item: 20) through hole "A" keeping the tab on the potentiometer aligned with the guide hole to the side.

**4.)** Place the black lock washer and then the silver nut over the potentiometer on the front of the plate. Use a 9/16 inch wrench to tighten.

**5.)** Install Knob MPKES (941734 Item: 70) onto the potentiometer. Make certain the potentiometer is turned off completely. Use the Allen wrench to remove the screw from the knob. Place the knob on the potentiometer. Install and tighten the screw. Make certain the knob turns fully to each direction.

**6.)** Measure and strip 1.25 inches of the jacket from one end of the cable-shielded wire (941728 Item: 30)

**7.)** Remove the foil and fillers using side cutters.

**8.)** Strip .25 inches of insulation from the three conductor wires.

**9.)** Take the assembled potentiometer plate, stripped cable, Qty: 1 of (941736 Item: 60) heat shrink, Qty: 3 of (928526) heat shrink, and DWG NO. 795312 to the solder station. Solder the wires to the potentiometer according to DWG NO. 795312. Make certain to install heat shrink (928526) to each conductor before soldering to the potentiometer.

**10.)** Apply heat to (928526) heat shrink around solder joints on the potentiometer.

**11.)** Install (941736 Item: 60) heat shrink to overlap the cable jacket strip and the conductor wires. Apply heat until adhesive is slightly protruding from the heat shrink.

**12.)** Mount handy box connector (991313 Item: 100) on the side of the handy box (991254 Item: 90). Locate the connector opposite of the mounting hole in the bottom of the handy box, identifiable by a screw hole. Use needle nose pliers to loosen the tab covering the hole as well as to tighten the connector.

**13.)** Install the assembled potentiometer plate on the handy box by running the cable wire through the inside of the handy box connector to the outside. Use screws (941091) to attach the plate to the handy box.

**14.)** While pulling slightly on the cable to remove any slack from the inside of the handy box, tighten the screws on the handy box connector.

**15.)** Place heat shrink (941736 Item: 60) on the cable. (Do not apply heat)

**16.)** Measure and strip 1.25 inches of the jacket from the end of the cable-shielded wire (941728 Item: 30) and remove the foil and filler using side cutters.

**17.)** Strip the three conductor wires to .25 inches.

**18.)** Use the contact crimper to attach a Molex Pin (941729 Item: 50) to each of the conductor wires.

**19.)** Install crimped contacts into the Molex receptacle (941731 Item: 40) according to DWG NO. 795312. After installing contacts, pull firmly to ensure each is fully seated.

**20.)** Move the heat shrink to overlap the cable jacket strip and conductor wires. Apply heat until adhesive is slightly protruding from the heat shrink.

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**Revision Record**

Rev: -

Date First Issued: 03-May-18

Rev: A

Date of revision: 10-MAY-2018

Change log: Added Item numbers to all listed part numbers to help when referencing the drawing.

Added note to the title page.

**Rev: B**

**Date of Revision: 2018-AUG-08**

**Change log: Added location to all items in the Material Needed list.**

**Revised Step 2 for accuracy.**