



**Muncie<sup>®</sup>  
Power  
Products**

**KEEP IN VEHICLE  
READ OPERATING INSTRUCTIONS  
INSIDE BEFORE OPERATING PTO**

# **TG, SH, 82 SERIES**

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PTO ACTIVATION KIT INSTALLATION INSTRUCTIONS  
PACCAR AUTOMATED - EATON ENDURANT TRANSMISSIONS

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ALL INSTALLERS ***MUST*** READ THE FOLLOWING

## **PTO AND ACTIVATION KIT INSTALLATION INSTRUCTIONS**

*Always wear safety glasses. Read entire manual before starting installation.*

### **IMPORTANT:**

Disconnect vehicle battery prior to installing electrical and electric/hydraulic activation kits.

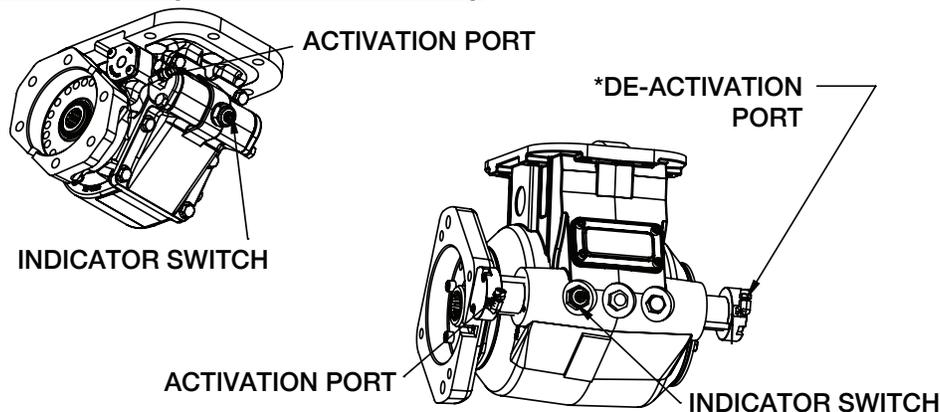
- A. Vehicle manufacturers may have specific locations for accessing electrical power and activating pneumatics. The body builder manual or company representative for the vehicle chassis should be contacted prior to installing electrical or pneumatic systems.
- B. Route wires and activation lines away from rotating and high temperature components. Use appropriate looms and bulk head pass-thru's wherever possible to avoid rubbing through insulation or tubing and causing an electrical short or oil leak.
- C. Follow all Federal Motor Vehicle Safety Standards (FMVSS) for your vehicle.
- D. Where electrical grounds are indicated, be sure that they are good grounds, with straight paths to the vehicle battery ground (many vehicle cabs are insulated from the vehicle frame and a weak ground is a very common cause for malfunctions).
- E. Caution should be taken by installer with any PTO installation to insure components do not interfere with any chassis component during installation or when vehicle is operated.

## IMPORTANT NOTICE:

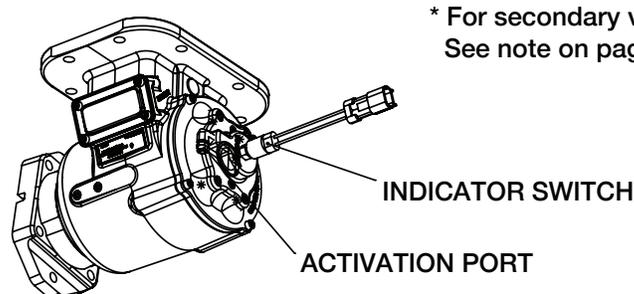
- The vehicle is provided with the connection to the PTO when the vehicle is ordered with the proper PTO control options from the chassis manufacturer.
- The PTO air supply for the shifting of the PTO must be supplied through a pressure protection valve supplied by the vehicle manufacturer otherwise their system cannot be used for the Muncie PTO.
- For the Muncie 82 Series PTO only, the maximum acceptable pneumatic Flow Coefficient is  $C_v=0.12$ .  $C_v$  values higher than 0.12 may cause failure.
- Air control valves with  $C_v$  ratings greater than 0.12 require a flow restriction in the disconnect exhaust port to achieve shift control. A  $\frac{1}{32}$ " (0.031 inch) orifice will provide adequate control.
- If the vehicle is not ordered with the PTO activation option then refer to page 3 through 5 for the installation of the Muncie components. Be sure to program the ECU as mentioned below.
- All PTOs must be connected to the chassis ECU for proper operation. Contact the vehicle manufacturer or Body Builder manuals for instructions and locations of the chassis connections.
- The Eaton Endurant ECU must be programmed with the proper Vocational Control Logic for the PTO application you are using. If the vehicle is ordered with the application shown, then the factory should have programmed the ECU. Otherwise, this is accomplished by using the Eaton "Service Ranger 4" software and Nexiq tool. Contact Eaton for this software and its application.

## SHIFT OPTIONS

### TG SERIES ("P" SHIFT OPTION)



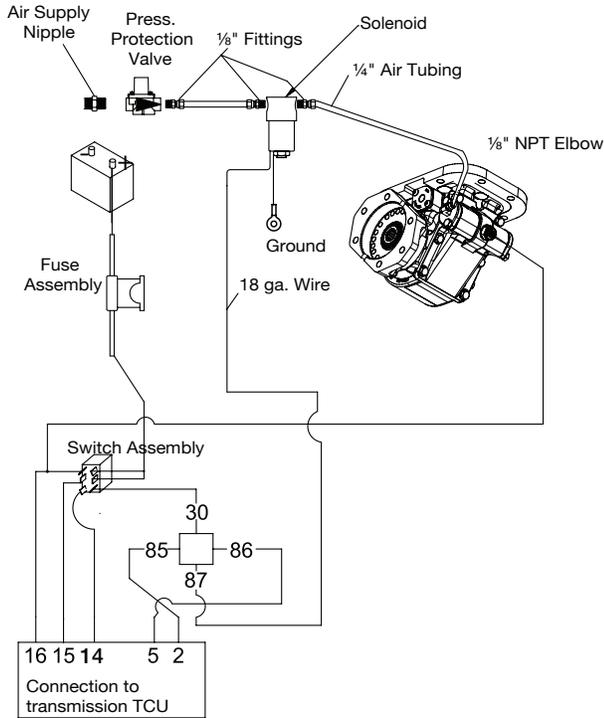
### 82 SERIES ("P" OR "T" SHIFT OPTION)



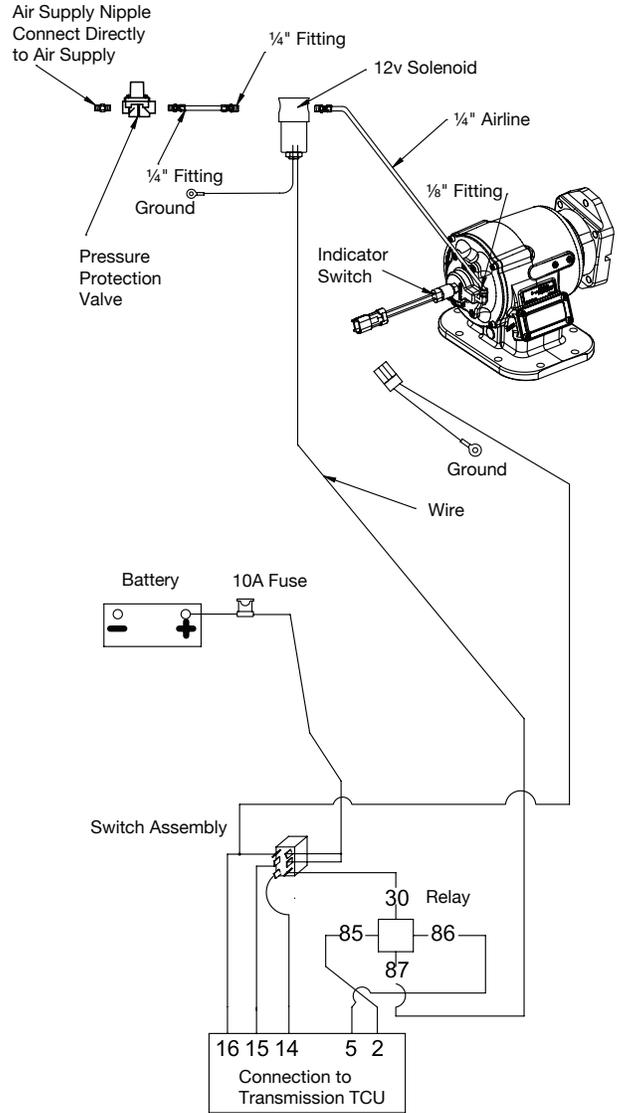
\* For secondary valve activation  
See note on page 5.

### SH SERIES ("P" SHIFT OPTION)

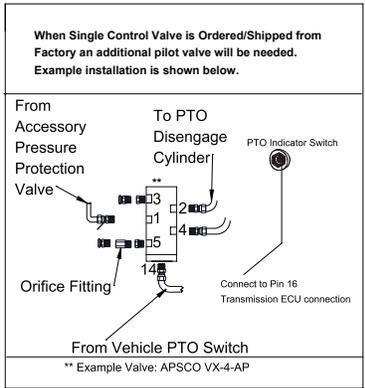
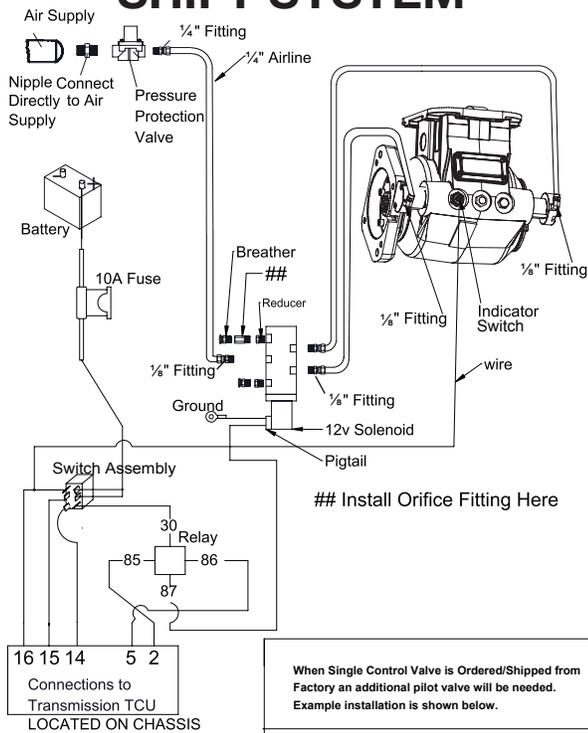
# TG SERIES ELECTRIC/AIR SHIFT SYSTEM



# SH SERIES ELECTRIC/AIR SHIFT SYSTEM

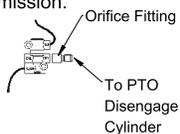


# 82 SERIES ELECTRIC/AIR SHIFT SYSTEM



Vehicles with Slave Valve activation Installation

Prevents damage to PTO and transmission.



# ENDURANT PTO OPERATION

## Stationary PTO Operation

To engage the PTO for stationary operation perform the following steps:

1. Apply the parking brake.
2. Depress the service brake.
3. PTO engagement must be made from neutral.
4. Select “N” on the Shift Control
5. Engage the PTO.
6. Release the service brake to engage the clutch and power the PTO.

## Mobile PTO Operation

Provides limited mobile operation in 2nd and R2 only.

To engage the PTO for mobile operation perform the following steps:

1. Apply the parking brake.
2. Depress the service brake.
3. PTO engagement must be made from neutral.
4. Select “N” on the Shift Control
5. Engage the PTO.
6. Release the service brake to engage the clutch and power the PTO.
7. Select “D”, “Manual”, “Neutral”, or “Reverse”, as required for vehicle movement. Release the parking brake.
8. Raise the engine speed as required to move vehicle/operate PTO.