



# RS4S PTO INSTALLATION AND ACTIVATION

## Paccar TX12 – Eaton Endurant HD Transmissions

**READ OPERATOR'S MANUAL IN17-04 BEFORE OPERATING OR INSTALLING  
PTO FOLLOW PRECAUTIONS IN OPERATOR'S MANUAL IN17-04**

### IMPORTANT NOTICE:

1. 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.
2. 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 Power PTO.
3. Air control valves with Cv ratings greater than 0.12 require a flow restriction in the disconnected exhaust port to achieve shift control. A 1/32" (0.031 inch) orifice will provide adequate control.
4. If the vehicle is not ordered with the PTO activation option then refer to the back of this document for the installation of the Muncie Power components. Be sure to program the TCU as mentioned below.
5. Contact the vehicle manufacturer or review Body Builder manuals for instructions and locations of the chassis connections.
6. The Eaton Endurant TCU 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 TCU. Otherwise, this is accomplished by using the Eaton "Service Ranger 4" software and Nexiq tool. Contact Eaton for this software and its application.

The following chart shows the output yoke number and the available PTO which will clear this output.

| Eaton Yoke Number        | Muncie RS4S-P81 (1:1) ratio | Muncie RS4S-P84 (1:0.9) ratio |
|--------------------------|-----------------------------|-------------------------------|
| 5505543                  | OK                          | OK                            |
| 5505544                  | XXXXXX                      | OK                            |
| 5505545 (1750 series)    | XXXXXX                      | OK                            |
| 5505546                  | XXXXXX                      | OK                            |
| 5505547 (1810 series)    | XXXXXX                      | XXXXXX                        |
| 5505548 (1810 series)    | XXXXXX                      | OK                            |
| 5505553 (RPL 25 series)  | XXXXXX                      | OK                            |
| 5505571                  | OK                          | OK                            |
| 5505572                  | OK                          | OK                            |
| 5505607                  | OK                          | OK                            |
| 5505632 (SPL 350 series) | OK                          | XXXXXX                        |
| 5505635                  | OK                          | OK                            |

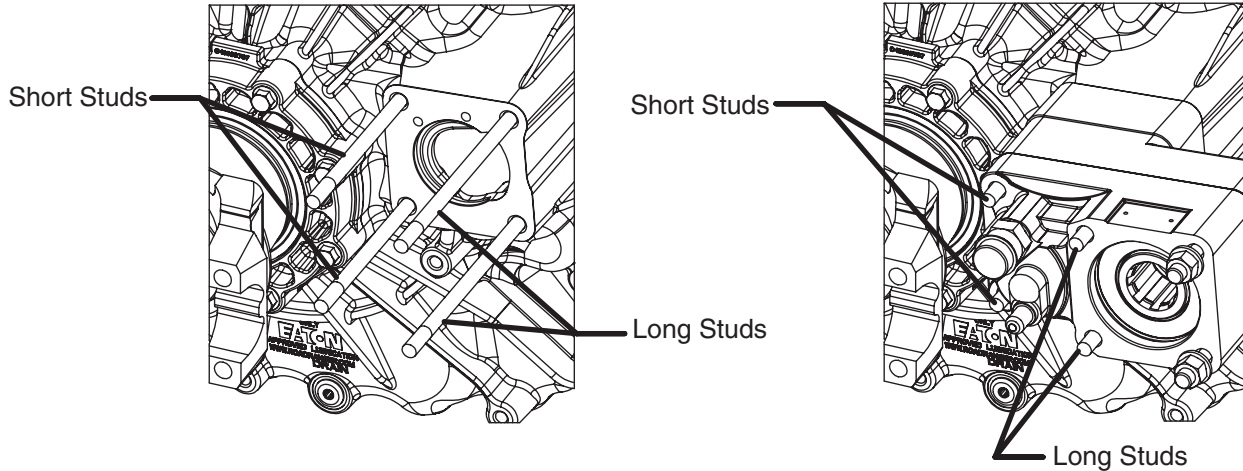
OK — Clearance deemed acceptable

XXXXXX — deemed unacceptable

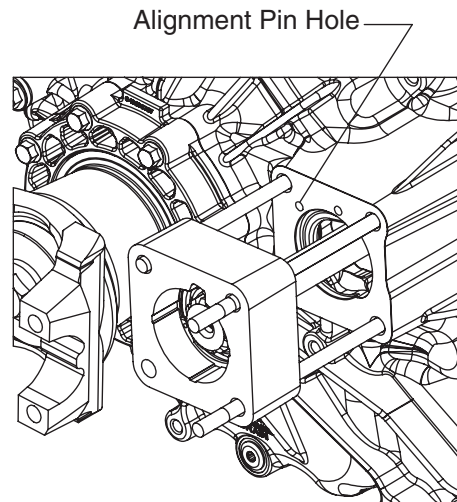
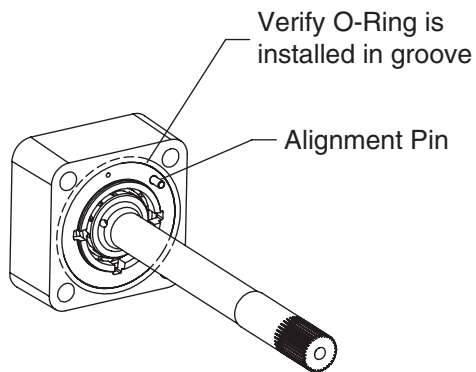
# INSTALLATION INSTRUCTIONS

1. Remove the cover for the rear PTO opening from the transmission. Note that some oil may be present and drip from the opening. The transmission does not need to be drained, as the location is above the oil level.
2. Install PTO studs in transmission  
**RS4S-P81** – Insert 4 studs (equal length) in the transmission pad  
**RS4S-P84** – Insert 2 long studs and 2 short studs in the transmission pad as shown (varies depending on desired/permitted output location from PTO).

P84 Stud Installation for  
Horizontal PTO Orientation



3. Slide the PTO adapter over the mounting studs. Make sure the O-Ring provided is in its groove in the adapter housing.
4. Mount the PTO adapter shaft over the studs and onto the rear PTO mounting pad, and align the PTO shaft with the internal transmission driveshaft while aligning the alignment pin in the adapter to the hole in the transmission.

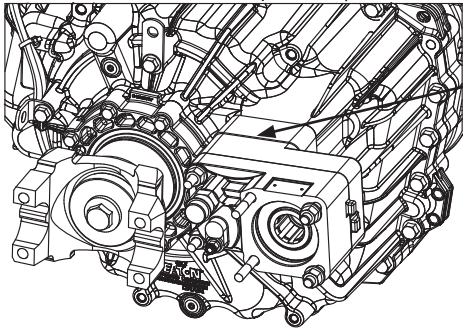


# INSTALLATION INSTRUCTIONS

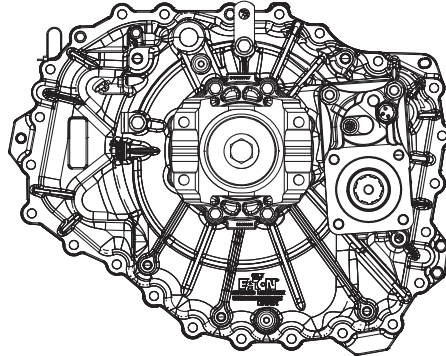
- Mount the PTO to the transmission by connecting it to the adapter shaft. Be sure to install the O-Ring between the PTO and adapter shaft

**RS4S-P84 ONLY:** Installation of the PTO can be either horizontal (output to the right) or vertical (output down) if clearance allows. Note: check clearance to transmission output yoke.

- Using washers and nuts, secure the PTO with the mounting studs. Torque to 35 ft.lbs.
- The PTO shown has the DIN pump mount. Install the washer and cap screw after mounting the pump. For SAE pumps, an additional output adapter will be required.

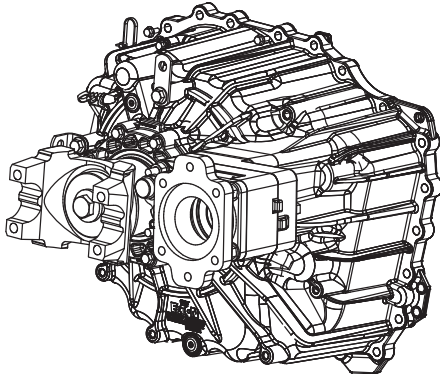


O-Ring  
installed  
between  
PTO and  
Adapter

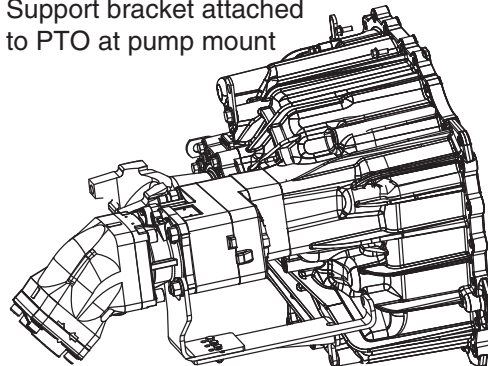


PTO may be mounted vertically if transmission output shaft permits. Check to make sure components clear rotating components.

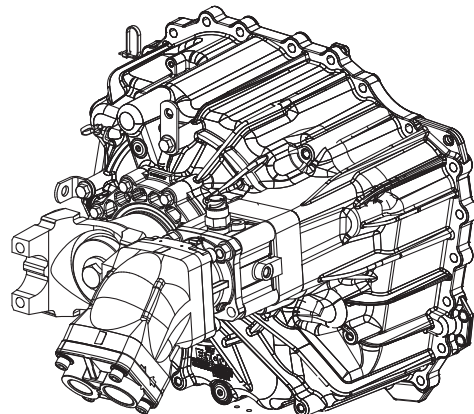
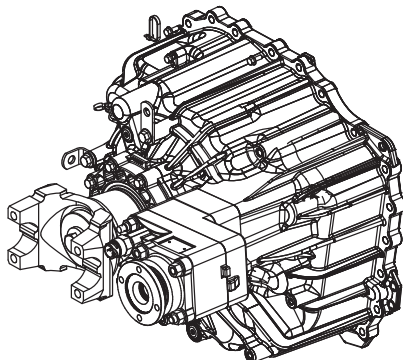
- PTO with SAE-B output is shown below. The pump orientation must be away from the frame rail to insure clearance.
- Whenever a direct mount hydraulic pump is used, it is required to use a support bracket attached to the two transmission locations. **It is the responsibility of the installer to provide this support bracket.**
- The maximum total mass allowed on this PTO opening is 90 lbs. (41 Kg.) including the PTO and pump.



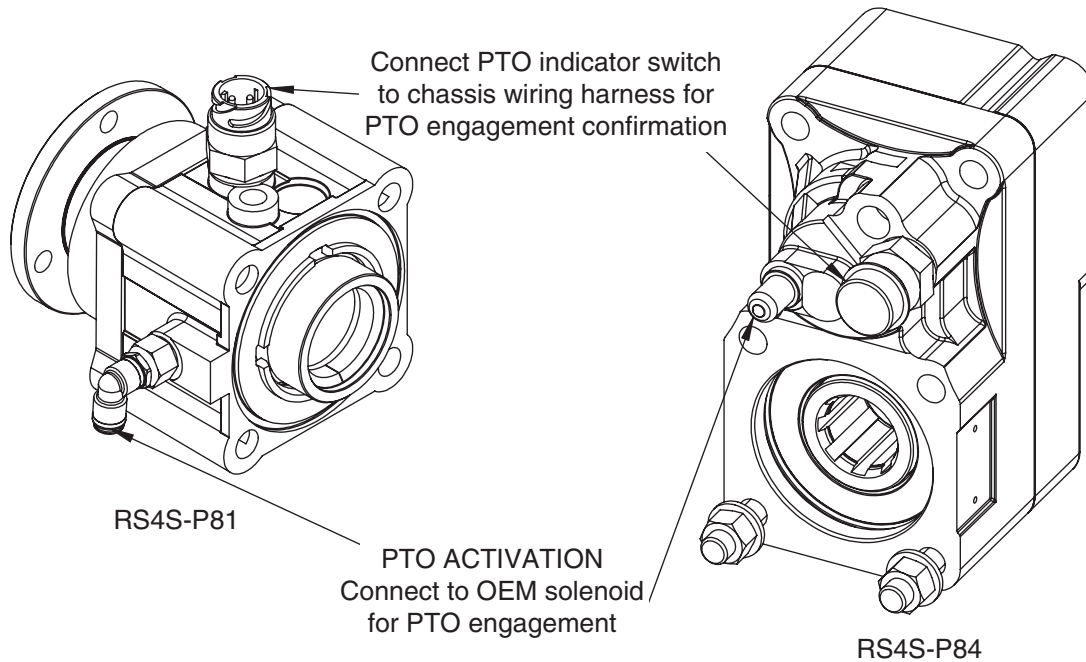
Support bracket attached  
to PTO at pump mount



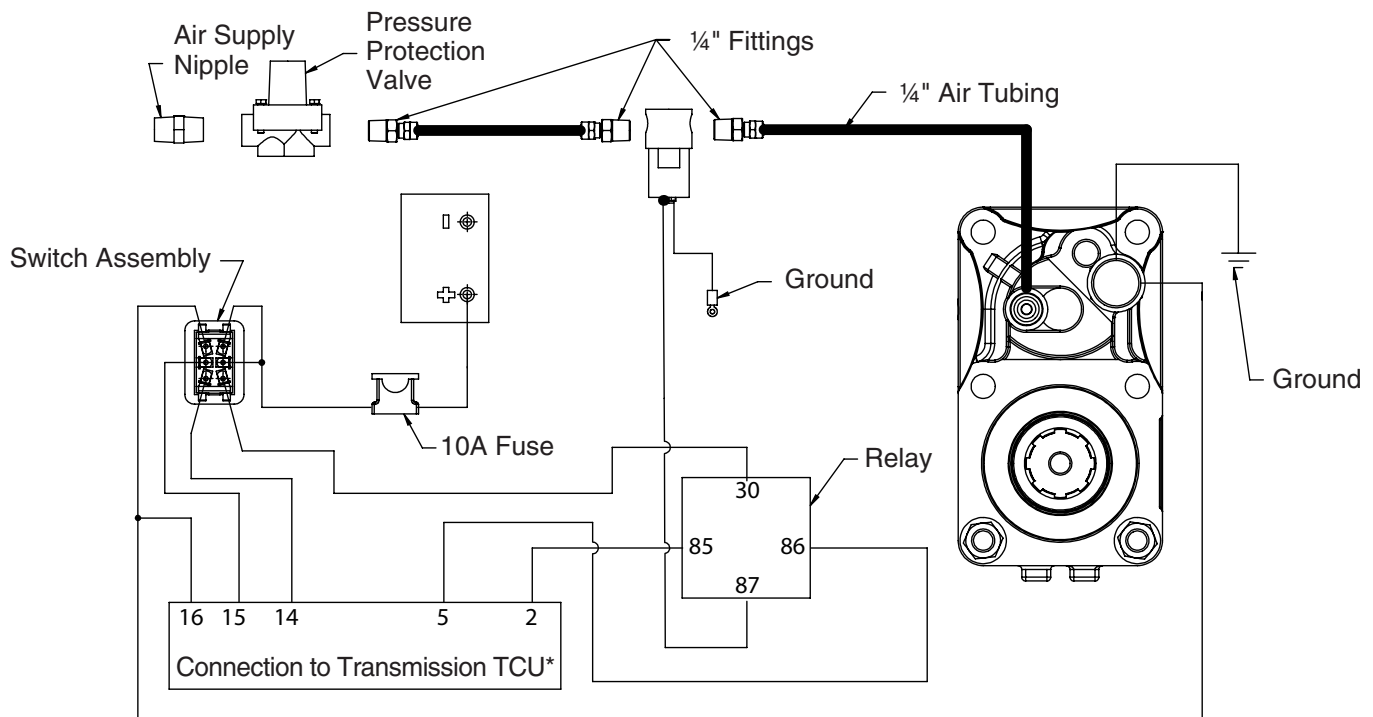
- The RS4S PTO is available with a companion flange output for connection to 1310 Series type driveshaft.
- Check for frame rail and cross member clearance before ordering this option.
- The Muncie P81Z1 Series PTO is available for the Eaton Endurant HD. This PTO places the hydraulic pump directly out from the PTO mounting pad. This air shift PTO is available with a DIN mount or 1310 Series companion flange for driveshaft applications. This PTO does not need additional support when coupled to the Q Series or T Series Muncie Power pump.



# RS4S SERIES PTO ACTIVATION INSTRUCTIONS FOR CHASSIS ORDERED WITH PTO CONTROL OPTIONS



# RS4S SERIES PTO ACTIVATION INSTRUCTIONS FOR CHASSIS NOT ORDERED WITH PTO CONTROL OPTIONS



A Member of the Interpump Group

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201 East Jackson Street, Muncie, Indiana 47305  
800-367-7867 • Fax: 765-284-6991 • info@munciepower.com

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