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CALL 800-221-9723 or 818-882-8611 • FAX 818-882-7028
E-MAIL: techsupport@rpi.com • WEBSITE: www.rpiparts.com

"The Alternate Source™"

INSTALLATION INSTRUCTIONS

RPI Part #MIA164 - Back & Foot Actuator

RPI Part #MIA165 - Base & Tilt Actuator

RPI Part #MIC166 - Motor Coupler

RPI Part #MIK167 - Brake & Coupler Kit

RPI Part #MIC176 - Gas Cylinder

RPI Part #MIT177 - Support Bar

RPI Part #MIT178 - Pry Bar

WARNING: To avoid potential personal injury or death, always disconnect the power from the wall outlet before beginning service and removing panels or covers from the table.

ACTUATOR REMOVAL AND INSTALLATION

STEP 1. Position the table as specified below if possible:

BACK ACTUATOR: "Back down" (fully)

FOOT ACTUATOR: "Foot up" (fully)

TILT ACTUATOR: No preferred position

BASE ACTUATOR: "Table up" (Insert support bar) then "Table down" (see Support Bar Installation below).

STEP 2. Remove the cable tie securing the (3) power wires to the actuator motor. Label or document the color coding for reattachment, then disconnect wires from the motor cable. Not all motor/harness connections have the same color coding (see Figure 5).

STEP 3. Remove the cable ties securing the transmitter and/or the receiver cables (see Figure 1).

BASE ACTUATOR ONLY

Disconnect the wires to the base limit switch.

DANGER: When replacing the BASE ACTUATOR, the table must be securely supported before the base actuator and/or gas cylinder service can be performed.

SUPPORT BAR INSTALLATION

Run the table to the full up position, insert the Support Bar (RPI Part #MIT177) across the right and left side panels. Position the support bar under the tilt bracket (see Figure 2).

CAUTION: Slowly lower the base actuator until the tilt bracket contacts the support bar and the weight of the table rests firmly on the support bar. Do not run the base actuator beyond support bar contact causing the actuator to stall. Damage to the actuator could result.

WARNING: If you do not have the "Support Bar", consult the OEM's service manual for alternative support recommendations. Failure to do so could result in severe personal injury or death (see Figure 2).

STEP 4. Remove the (2) clevis pins attaching the actuator to the table mounting brackets. You can now remove the actuator from the table.

FOOT: For ease of access, remove the (3) screws which mounts the actuator hitch ('U' shaped mounting bracket attached to the foot panel (see Figure 1) then remove the actuator from the table. Transfer the actuator hitch to the new actuator.

IF REPLACING THE GAS CYLINDER: See Gas Cylinder Removal and Installation

IF REPLACING THE ACTUATOR: Remove the transmitter/receiver assembly set from the old actuator and reinstall onto the new actuator (see Transmitter/Receiver Removal and Installation).

BASE: Remove and reinstall the Base Limit Switch (RPI Part #MIS175) and bracket (see Figure 4).

STEP 5. Place the actuator into position and reassemble the (2) clevis pins and retaining rings (or pin clip).

FOOT: Reinstall the (3) mounting screws attaching the actuator hitch to the foot panel.

BASE: Install the (2) spacers between the actuator shaft and the mounting bracket (see Figure 4). An assistant may be needed to help push the table top down slightly (compressing the gas cylinder) to allow the clevis pin to be inserted through the actuator shaft. Install the retaining rings and the pin clip.

FIGURE 1

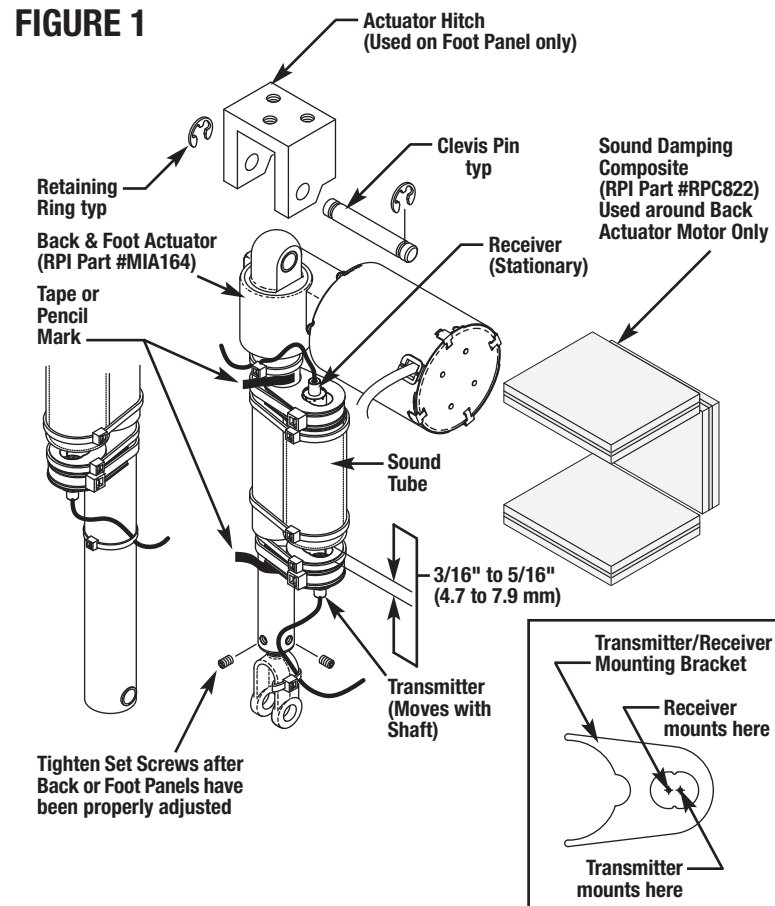
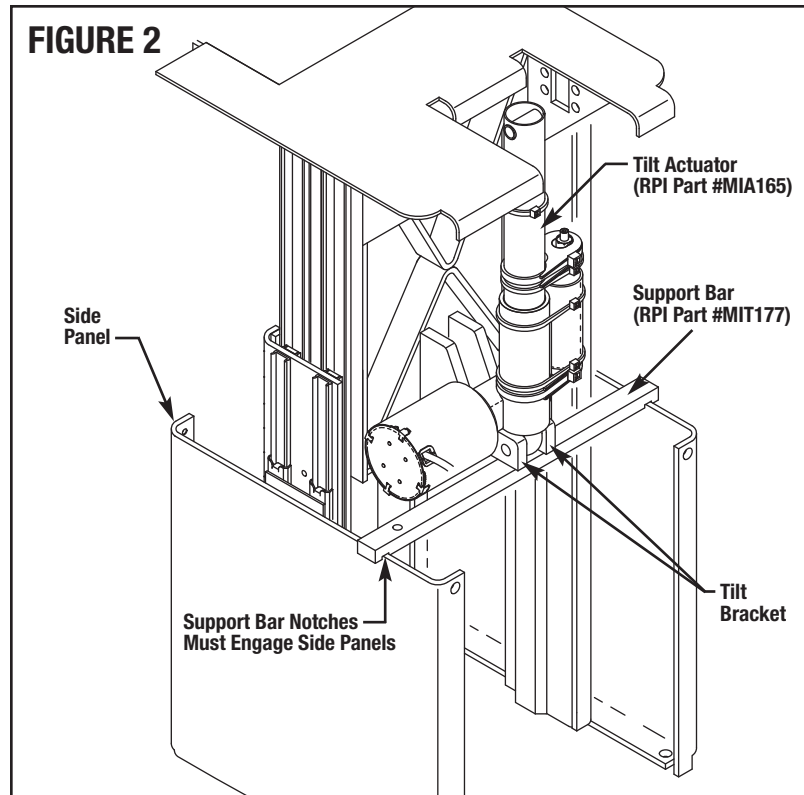


FIGURE 2



STEP 6. Reconnect the transmitter and receiver connectors and the (3) power wires to the actuator motor.

CAUTION: Ensure that the motor wire color code has been properly reconnected (see Figure 5). Improper connection can lead to equipment damage, personal injury or death.

BASE: Reattach the limit switch wires.

After reinstalling the actuator into the table, remove the support bar and run the actuator all the way in and out, looking for anything that may contact the transmitter bracket. Fully retract the actuator and align the transmitter bracket to the sound tube. Tighten cable ties used to mount the transmitter bracket and cut off the excess cable tie tail (see Figure 1).

NOTE: Once the transmitter/receiver set has been relocated or replaced, verify the accuracy of the programmed positions from the Hand Control.

STEP 7. Exercise the newly installed actuator and verify its function. Test pre-programmed function by selecting the desired numbered position on the Hand Control.

BASE: Verify the function of the base limit switch and adjust the position if necessary.

BACK & FOOT: Bring the actuator to the full down position (until actuator spins freely). If the back or foot panel is not parallel, support the back or foot panel and remove the clevis pin from the clevis yoke, adjust (screw) the yoke up or down, reinstall the clevis pin and recheck parallelism. Repeat as necessary until the panel is parallel. Tighten the (2) set screws locking clevis yoke to the actuator shaft maintaining the adjusted position. Inspect the Sound Damping Composite (RPI Part #RPC822) and replace if necessary (see Figure 1).

GAS CYLINDER REMOVAL AND INSTALLATION

NOTE: The Gas Cylinder (RPI Part #MIC176) may be used as a replacement for both the "Single" style Gas Cylinder (OEM Part #002-0213-00) and the "Double" style Gas Cylinder (OEM Part #016-0236-01).

STEP 1. The gas cylinder is located behind the base actuator, which must be removed to gain access to the gas cylinder. To remove the base actuator, see "**Actuator Removal and Installation**" Steps #1-4 on the reverse side of this page. **DANGER:** The table must be securely supported before the base actuator and/or gas cylinder service can be performed.

STEP 2. Position the Pry Bar (RPI Part #MIT178) over the rod end fitting of the gas cylinder and catch the table middle crossbar within the slot of the pry bar. Press down on the pry bar relieving pressure on the clevis joint allowing the clevis pin and spacers to be removed. Slowly raise the pry bar allowing the gas cylinder to become fully extended and no longer in tension. Remove the lower clevis pin and spacers. Replace the gas cylinder, then reinstall the clevis pin and spacers at base. Using the Pry Bar, slowly compress the top rod end of the gas cylinder until the clevis pin (and spacers) can be reinserted through the bracket. Remove the Pry Bar and verify that the retaining rings and pin clip have been reinstalled (see Figure 4).

STEP 3. Reinstall the base actuator, see "**Actuator Removal and Installation**" Steps #5-7 on the reverse side of this page.

BRAKE AND COUPLER REPLACEMENT

Motor Coupler (RPI Part #MIC166)

Brake & Coupler Kit (RPI Part #MIK167)

STEP 1. Remove the desired actuator, see "**Actuator Removal and Installation**" Steps #1-4 on the reverse side of this page.

STEP 2. Separate the motor from the actuator and replace the motor coupler and brake (see Figure 3). *Note: The brake is not used in actuator assemblies manufactured by Fasco.*

STEP 3. Reinstall the actuator, see "**Actuator Removal and Installation**" Steps #5-7 on the reverse side of this page.

FIGURE 3

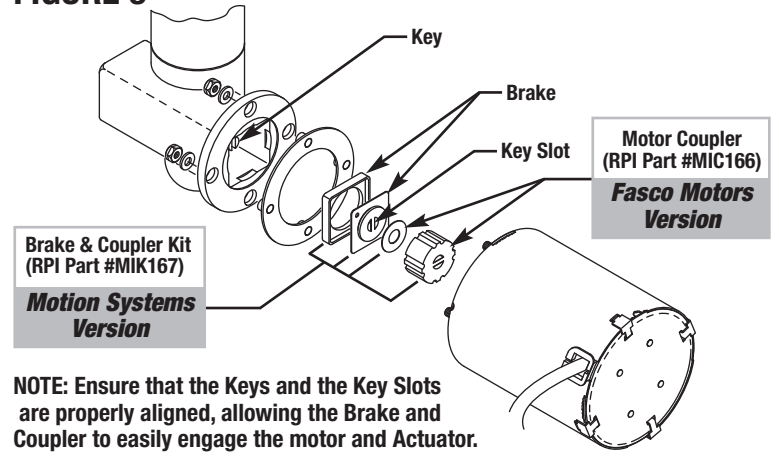
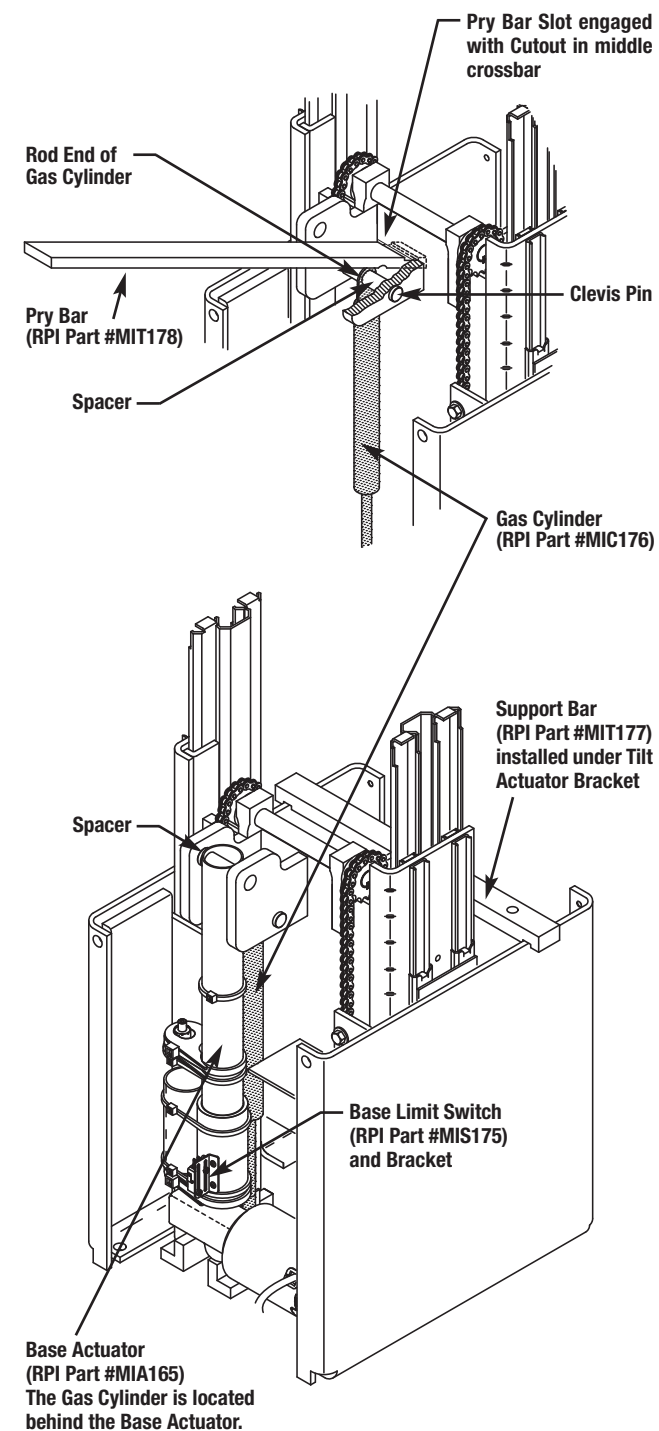


FIGURE 4



TRANSMITTER/RECEIVER REMOVAL AND INSTALLATION

The transmitter/receiver system remembers the actuator shaft positions which allow the table to be returned to a pre-programmed position selected by the Hand Control. Alignment of these devices are crucial to the programming function. Mis-alignment could cause program malfunction.

The transmitters & receivers are matched sets. If removing and reinstalling or replacing these devices, they must be maintained as a set.

STEP 1. Mark the existing position of the transmitter/receiver assembly set using tape or a pencil (see Figure 1). You will need to repeat this position upon reassembly onto the new actuator. Mark the devices (transmitter and receiver) to be sure they are reinstalled as they were and used in the same manner.

The receiver is the stationary device, and the transmitter moves with the actuator shaft. Should the device types become confused, the part number on the body of the device will tell you its type. P/N: EFR XTB40K2, The X position designates type: R = Receiver and Q = Transmitter. If you remove the device from its plastic mounting bracket, be sure to note which side of the "figure 8" style mounting hole the device was removed from and reinstall into the same mounting hole. When mounted, the transmitter and the receiver's centerlines are offset (not concentric). See Figure 1.

STEP 2. Cut the cable ties and remove the transmitter/receiver assembly set (with the sound tube) from the old actuator.

STEP 3. Transfer the transmitter/receiver marks from the old actuator onto the new actuator.

STEP 4. Reinstall the receiver bracket and the sound tube onto the new actuator at the marked position in approximately the same radial orientation used on the old actuator. Secure with the (3) cable ties (1 ea 5/16" wide & 2 ea 3/16" wide), then cut off the excess cable tie tail. Ensure that the receiver cable is properly restrained (see Figure 1).

STEP 5. Reinstall, but do not fully tighten the transmitter bracket using the cable ties (1 ea. 5/16" wide and 1 ea. 3/16" wide). See Figure 1. Position the bracket to the mark previously transferred from the old actuator (from STEP 1 above) to the new actuator. Ensure that the transmitter cable is properly restrained (see Figure 1). Note: Alignment of the transmitter and receiver will be completed after the actuator is reinstalled into the table.

STEP 6 To complete the installation, go to "**Actuator Removal and Installation**" STEP #7, on the reverse side of this page.

FIGURE 5

