

INSTALLATION GUIDE V.1.3.2

Pr**Adjust**

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ProAdjust Equipment Overview

The following is a list of the necessary components that make up a working ProAdjust System:

- 1. Base Power Enclosure
- 2. Teach Pendant
- 3. PRO-D01 Drive Power Pack
- 4. PRO-D03 Drive Power Pack
- 5. PRO-D07 Drive Power Pack
- 6. PRO-A04/A06 Air Power Pack
- 7. Power Cable

- 8. Interface Cable
- 9. Power Distribution Extension Cable
- 10. Base Expansion Enclosure
- 11. Base Expansion Power Cable
- 12. Air Expansion Enclosure
- 13. Air Pack Power Cable
- 14. Power Distribution Cable



ProAdjust Power Pack Installation

Before installing ProAdjust Power Pack, review the following required materials:

Tool List:

Emery cloth (to clean shaft) Standard wrenches/sockets 5mm hex key (allen wrench) 5mm hex bit socket Torque wrench (140 in-lb)

Typical Parts List:

ProAdjust power pack ProAdjust adapter bushing ProAdjust anti-rotation pin Interface cable(s) Power cable(s) Power distribution cable(s) ProAdjust panel and teach pendent

Tool list to check required torque (optional):

Beam style torque wrenches (0 to 60 in-lb and 0 to 600 in-lb) 3/4" hex socket

Shaft to hex adapter

STEP 1: Verify the required torque (optional)

To ensure a successful installation, the required torque for each adjustment mechanism can be measured. This will confirm if the proper Power Pack has been specified prior to setting up the system.

- · Attach a beam style torque wrench to the existing adjustment shaft.
- Begin to rotate the shaft with the torque wrench, while observing the torque required to start the rotation, as well as the torque required to maintain the rotation. The starting torque will typically be greater than the continuous torque.
- Continue rotating the shaft for 2 to 3 rotations, while observing for any tight spots or binding.
- Below are the recommended maximum torque requirements for proper operation. These lower values ensure trouble free operation of the system, as contaminants and other future issues cause binding in the mechanism.

Drive Power Packs

Power Pack (PRO-D01)	15	in-lb
Power Pack (PRO-D03)	. 35	in-lb
Power Pack (PRO-D07)	120	in-lb

STEP 2: Orient the Motor

To meet the space constraints of your installation, the ProAdjust Motor can be rotated in any of four directions by simply removing the four mounting screws, rotating the motor, and reinstalling the screws. It is not necessary to remove the motor from the housing.

If the motor is removed from the housing, ensure the sealing o-ring is seated properly in its groove. The M6 mounting screws should be re-torqued to 40in-lb.

ProAdjust Motor can be rotated in any of four (4) positions

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Standard Location

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STEP 3: Install the Power Pack

Where necessary, insert the proper shaft reducer bushing into the hollow 20mm output shaft. The specifically engineered reducer bushings are available in a wide range of sizes from the manufacturer.

To use the most common installation method (shaft supported installation), install an anti-rotation pin on an existing bearing mounting hole. Anti-rotation pins are available in a wide range of sizes from the manufacturer.



Install the hollow output shaft onto the existing adjustment shaft. (As shown above)

Note

For a successful installation, the shaft should be a minimum of 1 inch in length, free of oils, contaminants, burrs and toleranced at nominal dimension +0.000/-0.002 inches. The surface finish should be a minimum of 32 micro inch.



STEP 4: Wire the System

Plan out the system before you begin the installation. Choose a location where the ProAdjust Base Power Enclosure will be easily accessible to an operator, and not obstruct access to the equipment. Attach the enclosure to the equipment using the attached mounting tabs.

Choose a centralized location for each power distribution block, to keep the Power Cables to the four connecting motors as short as possible. Avoid high traffic locations where the distribution block will be susceptible to damage.

Drill holes as needed, and mount the distribution block to the machine frame.

Connect the power distribution block(s) to the provided connector(s) on the base or expansion enclosure. Excess cable should be neatly coiled and secured with tie wraps or a similar method.

Connect each motor to the power distribution block(s) using the Power Cable.

Connect the Interface Cable to the provided connector on the enclosure. The interface connection is done in a serial configuration where each motor connects to the next.

- 1. Interface Cable
- 2. Power Pack Cable
- 3. Power Distribution Cable

Note The distribution block is part of

the Power Distribution Cable.



Note

Avoid running ProAdjust interface cables near high-voltage cables.

Power distribution cables are available in lengths of 1, 3, and 6 meters.

Power pack power cables are available in lengths of 1, 3, and 6 meters.

Interface cables are available in lengths of 1, 3, 6, and 9 meters.

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