This manual provides installation instructions for Cascade electronic Rotational Control (ERC) Kits. Rotational Control provides accurate stops during rotation to position the attachment arms at true vertical or bilge position to reduce product damage of misclamped loads. An electrical supply circuit using a cable reel is required to provide an electrical connection between the Electrical Rotational Control on the attachment and the truck electrical system. A normally closed pushbutton switch mounted on the truck ROTATE control lever is provided to override the stop positions for continuous rotation.

Major components are shown.
Cable, Switch Installation

1. Connect the power cable from the electronic rotational control (ERC) enclosure on the back of the attachment to the cable reel carriage cable junction.

   **NOTE:** Cable Y-adapters used if adaptive force control (AFC) equipped.

2. Install pushbutton switch on ROTATE control lever.

   **NOTE:** The installation shows connection to Cascade Cable Reel Kit 679061 which includes components for over-the-mast electrical supply from the truck to the attachment. Refer to Installation Manual 679932 to install the cable reel on the mast.

Operation and Adjustment

1. Test the installation before putting the truck in service. When rotating, attachment travel should stop at the vertical and bilge handling positions. Wait 3 seconds to rotate after stopping **OR** press the rotate override button to continue rotating.

   - If rotation **stops** at the vertical or bilge position, continue with step 2.
   - If rotation **stops momentarily and then continues** at the vertical or bilge positions:
     
     A. Reduce the hydraulic input pressure for the rotate function.

     **OR**

     B. Adjust both counterbalance cartridges CCW in 1/2 turn increments until rotation stop at the vertical and bilge position.

   - If rotation **does not stop** at the vertical or bilge positions:

     A. Inspection the wiring installation. Look for loose connection or pinches cables.

     B. The limit switch end rollers are not fully engaging the deceleration ramp in the vertical or bilge position. Adjust the limit switch actuators to engage the ramp. The ramp can also be adjusted for precision of the stop position.

2. To continue rotation, wait 3 seconds after stopping or the rotate override button must be pressed to continue rotation. To rotate without stopping, press the override button.
Rotational Control Electrical Hookup

NOTES:

1. All cables 2-conductor with Deutsch-type connectors.
2. Recommendations:
   - Electrical Power Relay preferred as a minimum for rotational control
   - Power Bus/Relay preferred for multiple accessories
3. For relay or power bus installation, refer to the following:
   - Relay Installation Instructions 6006270
   - Power Bus Installation Instructions 6019876

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Retrofit Installation
Rotational control is also available as a field installation kit for attachments that have predrilled faceplates and baseplate.

1. Locate the eight holes that need to be tapped with the 6 mm tap provided. Six holes are located in the faceplate and two holes are located in the baseplate. Drill out the holes using the 5.3 mm drill bit provided. Tap the holes using the 6 mm tap.

2. Locate the two holes in the baseplate that need to be tapped with the 8 mm tap provided. Drill out the holes using the 7.3 mm drill bit provided. Tap the holes using the 8 mm tap.

3. Disconnect hydraulic hoses to the drive group. Tag the hoses for reassembly.

4. Remove the four capscrews fastening the check valve to the drive group. Keep track of the two O-rings between the check valve and drive motor.
5 Install the new solenoid valve to the drive group. Place the two O-rings between the solenoid valve and drive motor. Install the four capscrews and tighten to 20 ft.-lbs.

6 Install the limit switches and brackets to the baseplate. Tighten the baseplate bracket capscrews to 14 ft.-lbs.

7 Install the stop ramps to the faceplate. Tighten the stop capscrews to 3 ft.-lbs. Shim as required.
8 Install the cable junction box to baseplate. Tighten the capscrews to 14 ft.-lbs.

9 Install the cables. Use the adhesive blocks and wire ties to secure the wiring.

10 Adjust the limit switch engagement with the stops as described in Operation and Adjustment on page 2.
### Rotational Control Group

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Reference: Common Parts Groups 6048217, 6048224.
Do you have questions you need answered right now? Call your nearest Cascade Service Department. Visit us online at www.cascorp.com

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