Voltage Regulators MN225056EN

Effective April 2017 Supersedes May 2007 (S225-50-45)

# QD3 Quik-Drive Tap-Changer Position Indicator Drive Gear Kit Number 5740787B11





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## Safety for life



Eaton's Cooper Power series products meet or exceed all applicable industry standards relating to product safety. We actively promote safe practices in the use and maintenance of our products through our service literature, instructional training programs, and the continuous efforts of all Eaton employees involved in product design, manufacture, marketing and service.

We strongly urge that you always follow all locally approved safety procedures and safety instructions when working around high-voltage lines and equipment and support our "Safety For Life" mission.

### **Safety information**

The instructions in this manual are not intended as a substitute for proper training or adequate experience in the safe operation of the equipment described. Only competent technicians who are familiar with this equipment should install, operate, and service it.

A competent technician has these qualifications:

- · Is thoroughly familiar with these instructions.
- Is trained in industry-accepted high and low-voltage safe operating practices and procedures.
- Is trained and authorized to energize, de-energize, clear, and ground power distribution equipment.
- Is trained in the care and use of protective equipment such as arc flash clothing, safety glasses, face shield, hard hat, rubber gloves, clampstick, hotstick, etc.

Following is important safety information. For safe installation and operation of this equipment, be sure to read and understand all cautions and warnings.

## Hazard Statement Definitions

This manual may contain four types of hazard statements:

## DANGER

Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

#### WARNING

Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

## CAUTION

Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

#### CAUTION

Indicates a potentially hazardous situation which, if not avoided, may result in equipment damage only.

#### **Safety instructions**

Following are general caution and warning statements that apply to this equipment. Additional statements, related to specific tasks and procedures, are located throughout the manual.

### 🛕 DANGER

Hazardous voltage. Contact with hazardous voltage will cause death or severe personal injury. Follow all locally approved safety procedures when working around highand low-voltage lines and equipment. G103.3

#### 🛕 WARNING

Before installing, operating, maintaining, or testing this equipment, carefully read and understand the contents of this manual. Improper operation, handling or maintenance can result in death, severe personal injury, and equipment damage.

## 

This equipment is not intended to protect human life. Follow all locally approved procedures and safety practices when installing or operating this equipment. Failure to comply can result in death, severe personal injury and equipment damage.

## WARNING

Power distribution and transmission equipment must be properly selected for the intended application. It must be installed and serviced by competent personnel who have been trained and understand proper safety procedures. These instructions are written for such personnel and are not a substitute for adequate training and experience in safety procedures. Failure to properly select, install or maintain power distribution and transmission equipment can result in death, severe personal injury, and equipment damage. G122.3

## **Product Information**

#### Introduction

This document provides the installation instruction for replacement of the position indicator (PI) drive gear on the QD3 Quik-Drive Tap Changer on an Eaton's Cooper Power series voltage regulator.

#### **Read this manual first**

Read and understand the contents of this manual and follow all locally approved procedures and safety practices before installing or operating this equipment.

#### **Additional information**

These instructions cannot cover all details or variations in the equipment, procedures, or process described nor provide directions for meeting every possible contingency during installation, operation, or maintenance. For additional information, contact your Eaton's Cooper Power series product representative.

#### Acceptance and initial inspection

Each kit is in good condition when accepted by the carrier for shipment. Upon receipt, inspect the shipping container for signs of damage. Unpack the kit and inspect it thoroughly for damage incurred during shipment. If damage is discovered, file a claim with the carrier immediately.

#### Handling and storage

Be careful during handling and storage of the kit to minimize the possibility of damage. If the kit is to be stored for any length of time prior to installation, provide a clean, dry storage area.

#### Standards

ISO 9001 Certified Quality Management System

#### Parts supplied

ltem	Part Number	Description	Qty
1	2240787B11	Position Indicator Drive Gear	1
2	0800073184Z	Retainer Ring	1

#### **Tools Required**

Description	Qty
Standard Narrow Blade Screw Drive	1
Needle Nose Pliers	1

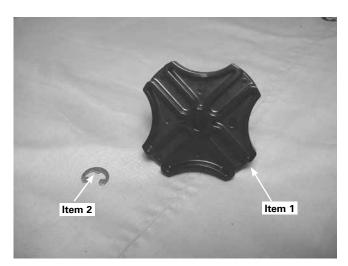


Figure 1. Kit Parts

## Procedure

1. Using a narrow blade standard screwdriver inserted into the retainer ring slots, pry off and remove the retainer ring. See Figure 2.

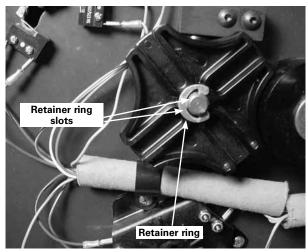


Figure 2. Retainer ring removal

2. Slide the PI drive gear off of the shaft. See Figure 3.

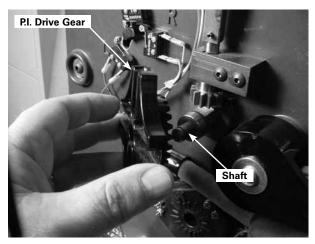


Figure 3. P.I. drive gear and shaft

3. Slide the new PI drive gear onto the shaft matching up the gear teeth of the PI drive gear with the teeth of the miter gear. See Figure 4.

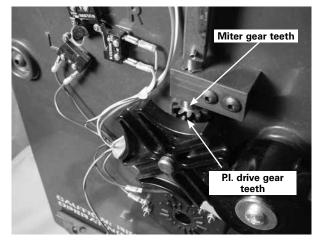


Figure 4. Gear teeth

4. Use a pair of needle-nose pliers to press the retainer ring into the groove on the shaft. See Figures 5 and 6.

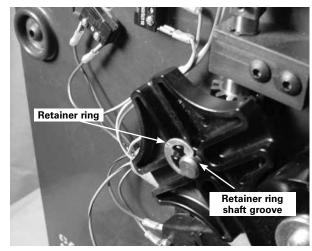


Figure 5. Retainer ring fastening

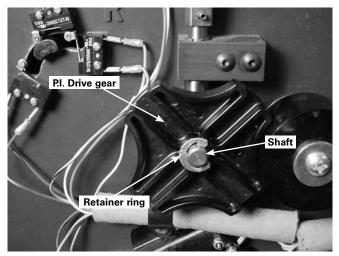


Figure 6. Retainer ring in place



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