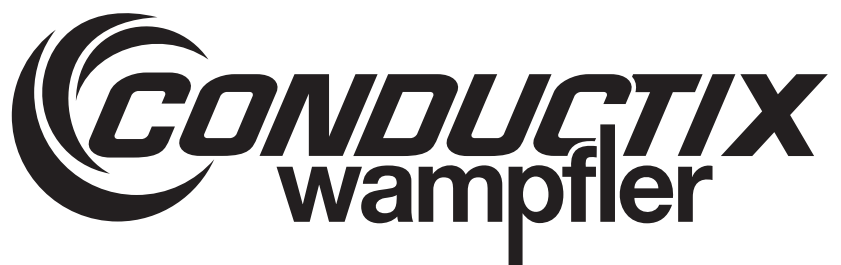


# VersaReel™ Manual



## CONDUCTIX INCORPORATED

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# SECTION 1 - SAFETY

## Safety Information Responsibility

All owner, operator, and maintenance personnel must read and understand all manuals associated with this product before installation, operation, or maintenance.

The manual provides information on the recommended installation, operation, and maintenance of this product. Failure to read and follow the information provided could cause harm to yourself or others and/or cause product damage. No one should install, operate, or attempt maintenance of this product prior to familiarizing themselves with the information in this manual.

## Safety Messages

Safety messages in this manual are preceded by the HAZARD SYMBOL and one of three words: CAUTION, DANGER, OR WARNING. These safety messages are intended to alert you to potential hazards that could cause harm to you or others and/or cause product damage.

### CAUTION

- The HAZARD SYMBOL used with the word CAUTION indicates unsafe actions or situations that have the potential to cause injury, and/or minor equipment or property damage.

### DANGER

- The HAZARD SYMBOL used with the word DANGER describes immediate hazards that have the potential to cause severe personal injury or death.

### WARNING

- The HAZARD SYMBOL used with the word WARNING describes unsafe actions or situations that have the potential to cause severe injury, death, and/or major equipment or property damage.

### NOTE

- The word NOTE is used to alert you to installation, operation, programming, or maintenance information that is important, but not hazard related.

## SECTION 1 - SAFETY

### Electrical Warnings

#### **WARNING**

- Properly ground this equipment before use in accordance with both the National Electric Code and local electrical codes and ordinances.
- Disconnect the electrical power from the cable reel before any service functions are performed.
- Do not use this cable reel for loads greater than the current rating listed on the label or voltage greater than 120V.
- Electrical wiring on the reel must be done by a qualified electrician.

### Operational Warnings

#### **WARNING**

- Exercise care when handling the cable reel during normal operation. This cable reel has a rotating spool powered by springs under tension.
- For use in indoor, dry location only.
- Do not allow cable to retract without restricting the retraction speed.

### Maintenance Warnings

#### **WARNING**

- Do not install cable different from that for which the reel is intended. Changes in diameter, weight per foot, length of cable, or flexibility will affect the operation of the reel.
- Mounting hardware and fasteners should be installed to maintain tightness under vibration and checked periodically to assure tightness.
- Overhead installation mountings should be such that the reel is not suspended by bolts in tension. A safety chain or cable is strongly recommended to minimize damage and/or possible injury in the event of mounting failure.
- Do not disassemble the spring motor for any reason. Serious personal injury could result. This cable reel is equipped with springs under tension. Contact the factory for assistance:
  - In the US call: 1-800-521-4888
  - In Canada call: 1-800-667-2487

### UL Rating

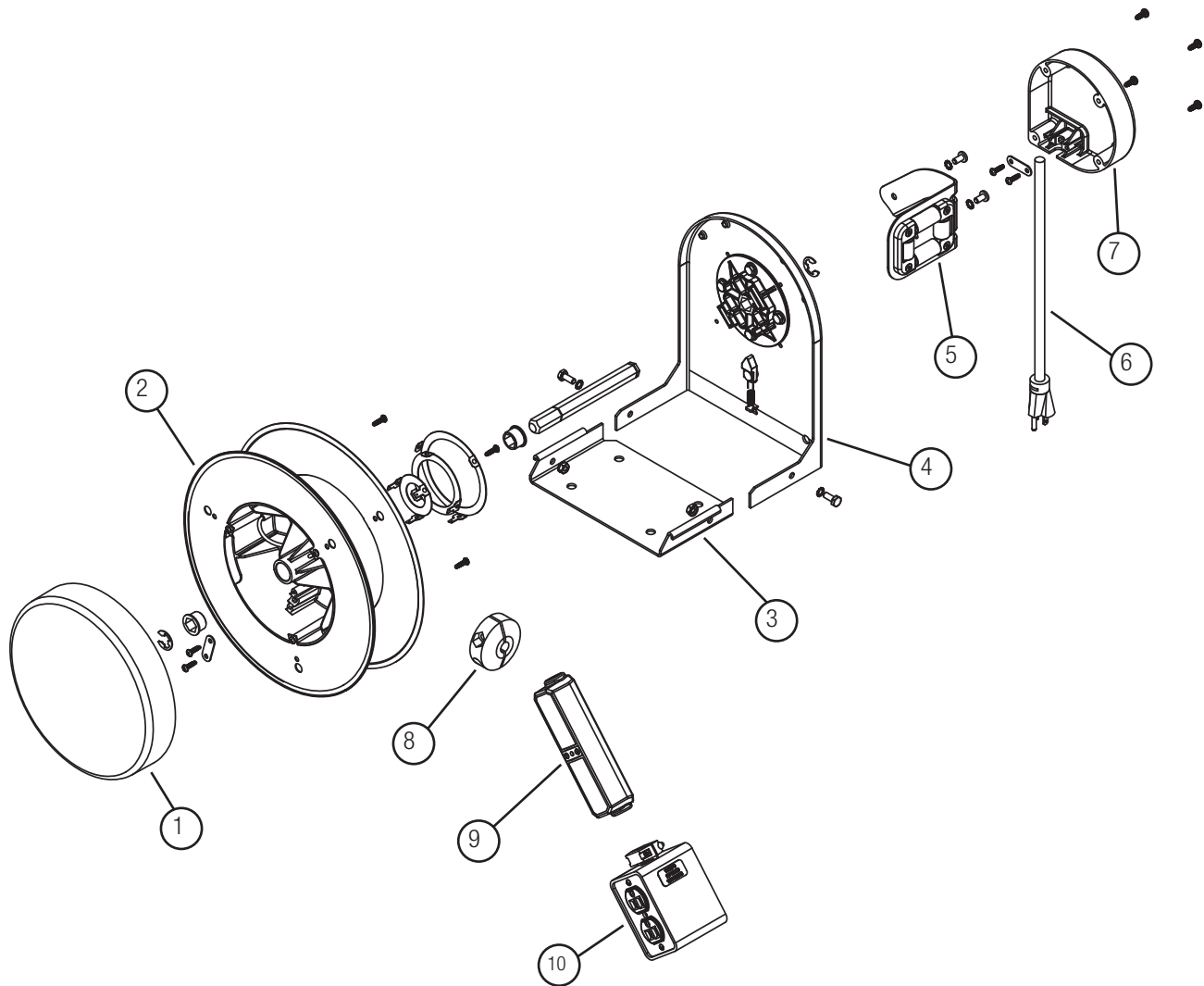
All reels in catalog are cULus listed.

Listed cable reels are intended for general use and are provided with permanent mounting means. If not completely wired from the factory, any needed electrical wiring or connections must be done by a qualified electrician.

### Labels and Marking

Every cable reel is marked with a label which includes the Conductix-Wampfler name and logo, the product catalog number, the individual product serial number, NEMA rating, amps, volts, watts, and cable footage.

## SECTION 2 - OVERVIEW



1. Spring Motor
2. Spool
3. Base
4. Frame
5. Guide Arm

6. Feeder Cord
7. Feeder Cord Cover
8. Ball Stop
9. GFCI
10. End Accessory



## SECTION 3 - INSTALLATION

### Mounting

#### Standard Mounting

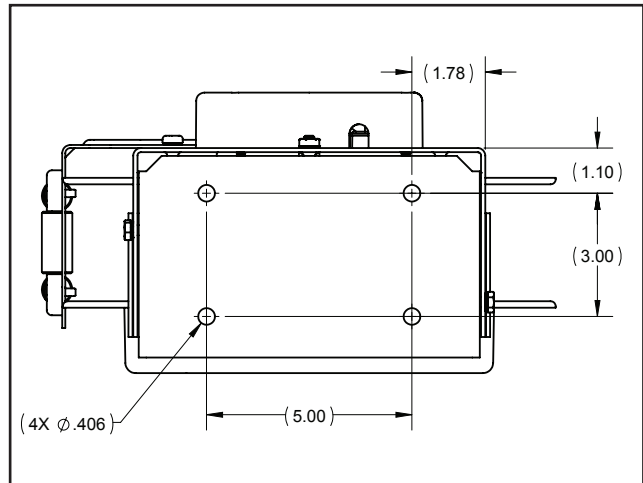
The reel may be mounted by bolting the base to any flat surface which is structurally sound and can support the weight of the reel and the forces of winding and unwinding the reel.

The spool must rotate on a horizontal axis for proper operation.

The reel must be oriented so that the cable extends perpendicular to the rotation of the spool. The total cable deflection should not exceed 30°. See **Figure 8-2**.

While mounting the reel, the installer must always safely support the weight of the reel. The reel should not be left hanging unsupported without the base mounting hardware properly installed and torqued.

1. Unbolt the base hardware and remove the mounting base from the frame of the cord reel. See **Figure 8-1**.
2. Securely mount the base in the desired location.
3. Insert the reel into the base. Please note the reel will only install into the base in one direction.
4. Re-install the base mounting hardware and torque hardware to 50 in-lbs.



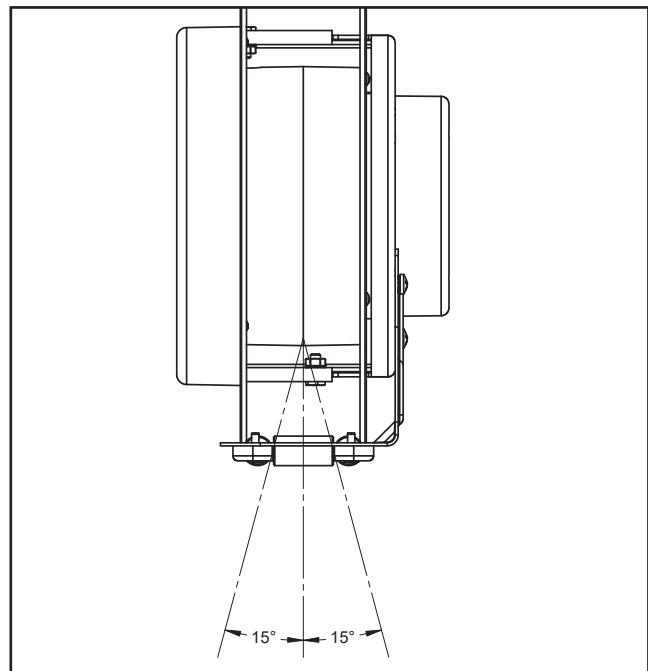
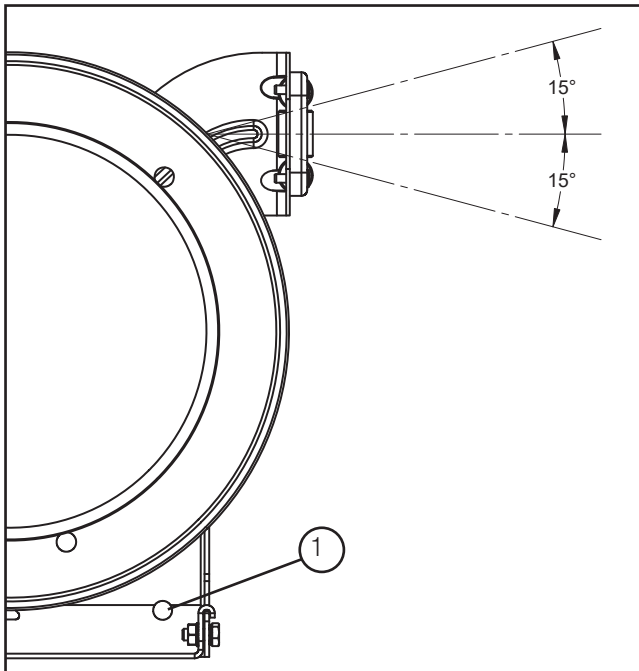
**Figure 8-1** Underside of Mounting Base

#### Reel Deflection

If deflection is constant to either side of the reel and operation is impaired, re-mount the reel.

We recommend a safety chain for all overhead installations.

Attach the safety chain using the 0.39 hole provided in the base. See **Figure 8-2**.



**Figure 8-2** Cable Deflection with Roller Guide

1. Safety Chain Hole



## SECTION 3 - INSTALLATION

### Guide Arm Position Adjustment

The guide arm can be mounted in two positions.

1. Slowly unspool a small amount of cable until the reel begins to click and the spool ratchet engages.
2. Unscrew the two phillips screws. **See Figure 9-1.**
3. Position the guide arm in the desired orientation and re-install the two phillips screws. Position 1 shows the correct position for a wall mount, and Position 2 is the correct position for a ceiling mount.
4. Torque the screws to 18 in-lbs.

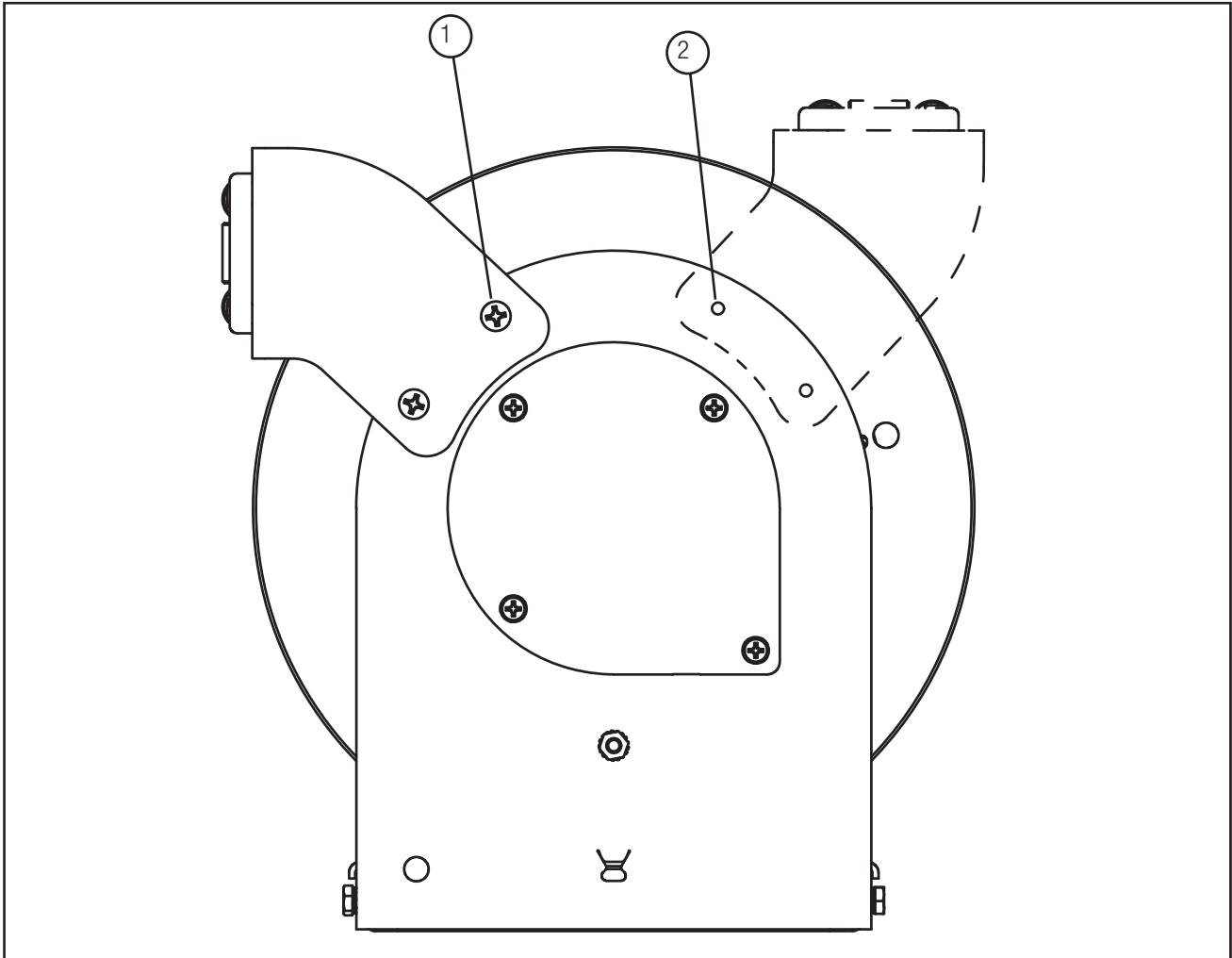


Figure 9-1 Guide Arm Positions

## SECTION 4 - OPERATION

### Overview

Do not exceed the voltage or amperage rating of the reel. Overheating, fire, damage to equipment, or personal injury could result.

Do not allow cable to retract without restraining the retraction speed.

Operate the reel within the cable size, cable length, and spring tensioning limits for which it was intended.

### NOTE

- Two wraps of cable should remain on the reel at maximum extension to avoid excessive tension on the cable entrance.

Keep the reel and cable clean to avoid excessive wear and damage.

Discontinue use and arrange for maintenance service if damage is found on the cable or reel.

Cable should be fully retracted when not in service to maximize spring life.

## SECTION 5- REPLACING PARTS

### CAUTION

- Reel weight requires care to be taken when removing reel from base.

### WARNING

Ensure that all power is disconnected from the reel prior to performing any tasks in Section 5.

### Quick Mount Base

Tools needed: 7/16" wrench, 7/16" socket wrench, ratchet, torque wrench.

1. Remove quick mount base from reel by removing 1/4" hardware that attaches the frame's legs to the base. **The entire weight of the reel must be supported during this process.** (Figure 11-1)
2. Properly secure the new base to the mounting structure. (Figure 11-2)
3. Once the quick mount base is secured to the mounting structure, slide the frame legs into the flange tabs on the base to connect the reel to the base. (Figure 11-3)
4. While supporting the reel's weight, align the frame holes with the base holes and insert the 1/4" hardware on both sides and tighten to 6 ft.-lbs. (Figure 11-4)



Figure 11-1

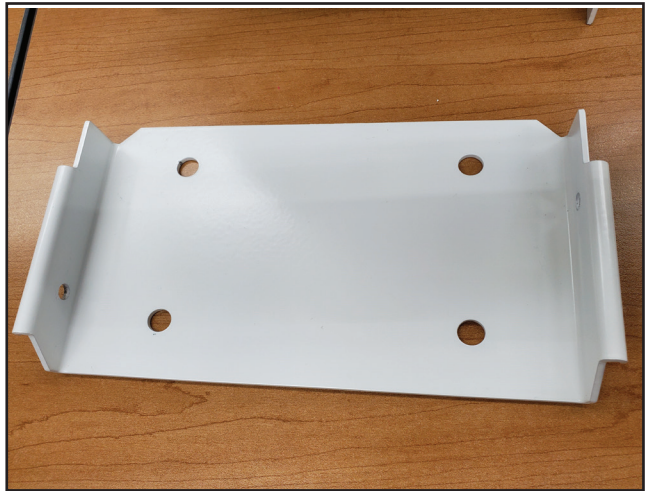


Figure 11-2



Figure 11-3



Figure 11-4

## SECTION 5 - REPLACING PARTS

### Guide Arm

Tools needed: Phillips or Torx head screwdriver.

1. Keep reel from spinning by locking in place on ratchet. Remove ball stop. Remove guide arm. **See Figure 12-1.**
2. Remove any cable end accessory and GFCI if installed on cable. See cable end accessory and GFCI replacement instructions.
3. Install new guide arm by inserting cable through cable opening. **See Figure 12-2.**
4. Re-attach arm to reel using the same screws and tighten down. Torque to 50 inch lbs. **See Figure 12-1.**
5. Re-attach ball stop, cable accessory and GFCI if needed. See cable end accessory and GFCI replacement instructions.



Figure 12-1

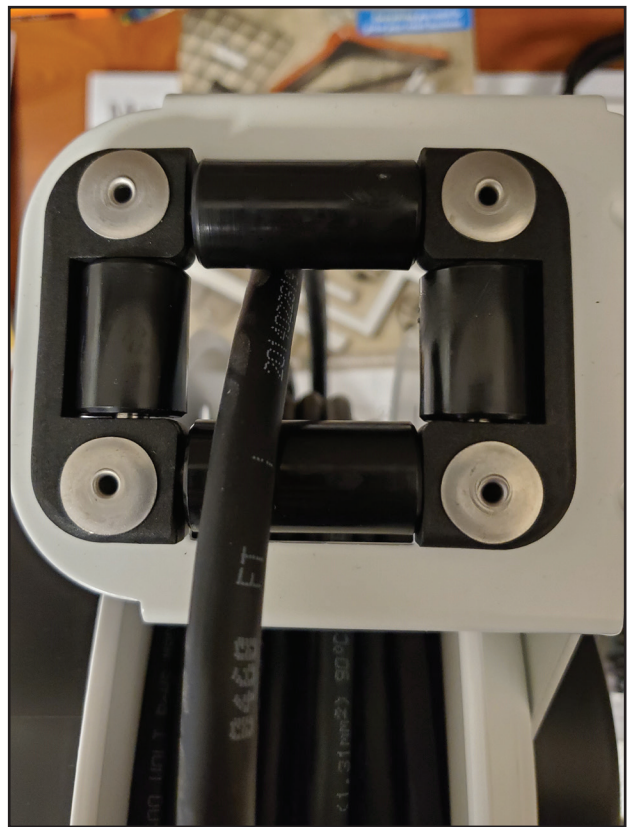


Figure 12-2



## SECTION 5 - REPLACING PARTS

### Ball Stop

Tools needed: Phillips screwdriver.

1. Keep reel from spinning by locking in place on ratchet.
2. Attach new ball stop on cable in location for application. **See Figure 13-1 and Figure 13-2.**
  - A. Remove screws completely to replace ball stop.
  - B. Loosen and move ball stop along cable to adjust hanging length.

#### NOTE

- Donut-style ball clamp used on reels using 12/3 cable, clamp style used on reels with 16/3 cable.



Figure 13-1



Figure 13-2

## SECTION 5 - REPLACING PARTS

### Spring Motor

Tools needed: Phillips or Torx head screwdriver.

1. **Remove all tension on spring** by removing guide arm and having a controlled spool retraction. Let reel retract completely while holding on to guide arm and cable accessory to prevent damage to reel.
2. Remove cable off spool by lifting over and off of flange. Remove enough cable to expose spring motor screws. **See Figure 14-1.**
3. Remove spring motor by removing the 3 screws attaching it to the flange. **See Figure 14-2.**

### WARNING

- Never take apart spring motor assembly.

4. Re-attach new spring motor to shaft. **See Figure 14-3.**  
**NOTE:** Ensure hex shaft is properly inserted into spring arbor of the motor.
5. Attach new spring motor to flange with screws. Tighten 3 screws down properly. Torque to 20 inch lbs. **See Figure 14-2.**
6. Hand wind cable back on spool. Make sure cable is spooled on tightly and evenly preventing uneven and loose stack up. **See Figure 14-4.**
7. Place 6 pre turns in reel by winding reel forward 6 full revolutions. Keep a hold of reel during pre-turning to prevent retraction. **See Figure 14-5**
8. Once pre-turns are placed tensioning the reel, lock the reel out on ratchet to prevent retraction.
9. Re-attach guide arm. Torque screws to 50 inch lbs.



Figure 14-1



Figure 14-2



Figure 11-4

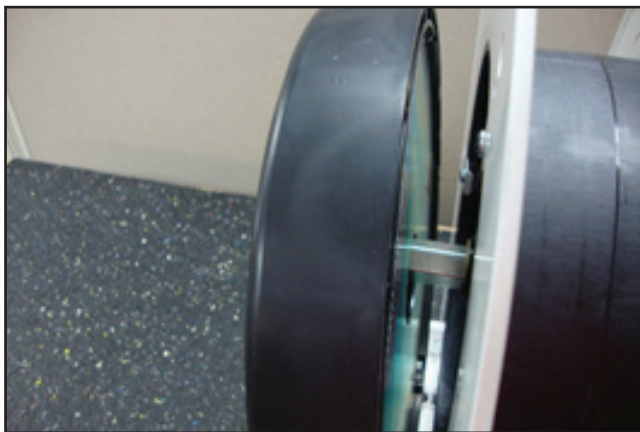


Figure 11-3

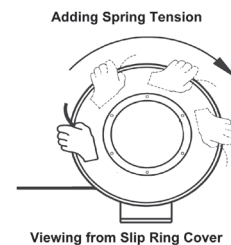


Figure 14-5

## SECTION 5 - REPLACING PARTS

### Cable and Tri-Tap

Tools needed: phillips screw driver, electrical wire crimpers, proper wire connectors.

1. Remove Spring Motor (see Page 11.)
2. Remove strain relief bracket. See **Figure 15-1**.
3. Remove cable wires from quick connector. See **Figure 15-1**.
4. Install new cable or cable with tri-tap through slot in drum. See **Figure 15-2**.
  - For Tri-Tap without GFCI, install cable through guide arm before wiring.

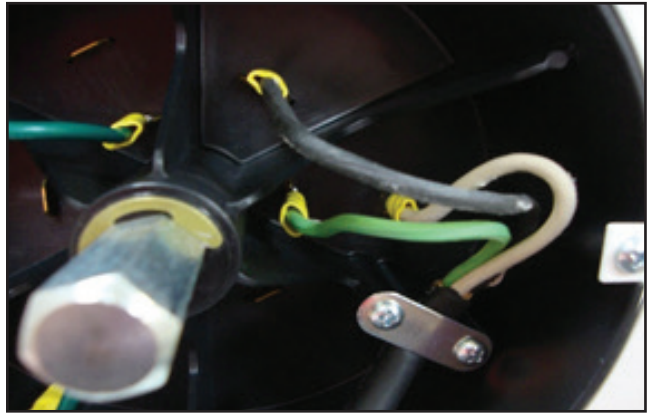


Figure 15-1



Figure 15-2



## SECTION 5 - REPLACING PARTS

5. Strip cable properly and install proper cable connector to each wire with crimper. See **Figure 16-1**.
6. Attach connector to correct corresponding quick connector inside drum. See **Figure 16-2** and **Figure 16-3**.
  - Black wire connected to wire from #2 hole.
  - White wire connected to wire from #3 hole.
  - Green wire connected to #GRD hole. See **Figure 16-4**.
7. Re-attach strain relief bracket. See **Figure 16-2**.
8. Re-attach spring motor. See **Page 11 Spring Motor Replacement**.
9. Attach ball stop in proper location.
10. Attach GFCI if applicable. See GFCI installation instructions
11. Attach desired end accessory. See cable end accessory instructions



Figure 16-1

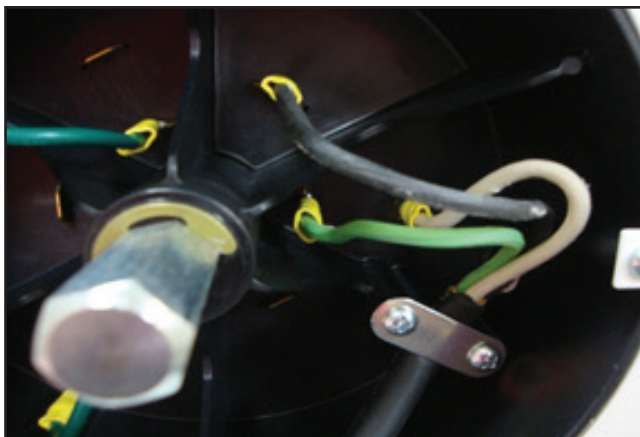


Figure 13-2



Figure 13-3



Figure 13-4

## SECTION 5 - REPLACING PARTS

### Ground Fault Interrupter (GFCI)

Tools needed: Phillips head screwdriver.

1. Remove existing GFCI by removing each end cover. **See Figure 17-1.**
2. On both sides, remove strain relief bracket, cable gasket and disconnect wires from connectors. **See Figure 17-2.**
3. Install new GFCI 5 from cable accessory in the same location as the old GFCI. **See Figure 17-3.**
4. Install cable gaskets to both sections of cable before connecting the new GFCI. **See Figure 17-2.**

#### NOTE

- Make sure GFCI is installed in correct orientation of the line and load labeled on GFCI: "Line" towards the spool side and "load" towards the end accessory side
5. Connect wires to connector on both ends and install strain relief. **See Figure 17-2.**
    - White wire to silver screw.
    - Green wire to green screw.
    - Black wire to brass screw.
  6. Re-attach GFCI covers. Make sure gasket has proper placement in case. **See Figure 17-2.**

### Cable End Accessory

1. Remove existing accessory.
2. Install desired end accessory.
3. Follow proper wiring instructions for type and style of accessory:
  - A. If required, strip cable jacket and wires to correct length.
  - B. Attach black, white and green wire to correct accessory connection.
  - C. Correctly install any strain relief plates or nuts included with accessory.



Figure 17-1



Figure 17-2



Figure 17-3



## SECTION 5 - REPLACING PARTS

### Pivot Base

Tools needed: 9/16" and 7/16" wrench, 7/32" Allen wrench, 7/16" socket, ratchet, and torque wrench.

1. Remove the 1/4" hardware attaching the quick mount frame to the base (See Figure 18-1.). **The entire weight of the reel must be supported during this process.** Align the four holes in the pivot base mounting plate to the holes in the quick mount base.
2. Insert the 3/8" flat screws from the bottom through both plates, attach lock nuts, and tighten to 20 ft-lbs. See Figure 18-2.
3. Attach and secure both bases to the mounting structure (See Figure 18-3). **Pivot base is for ceiling or table mounts only-NO wall mounting.**
4. Once quick mount base is securely mounted, attach reel by sliding frame legs into the flange tabs on base (See Figure 18-4).
5. While supporting the reel's weight, align the frame holes with the base holes, insert 1/4" hardware and tighten to 6 ft-lbs. See Figure 18-5.



Figure 18-1

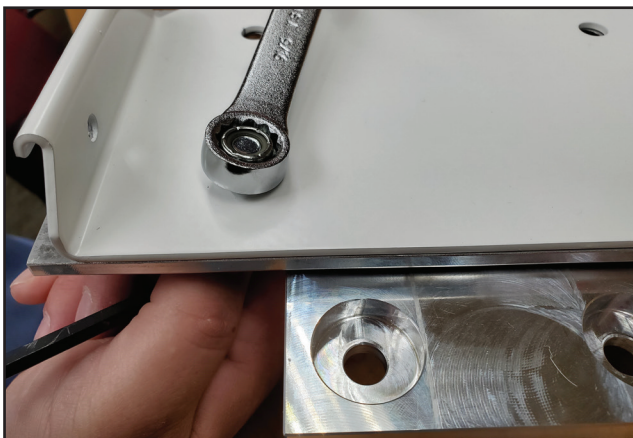


Figure 18-2

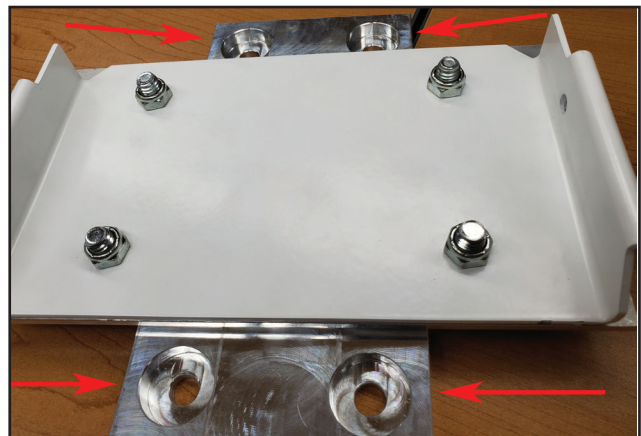


Figure 18-3



Figure 18-4



Figure 18-5

## SECTION 6 - TROUBLESHOOTING

| PROBLEM   | POSSIBLE CAUSE  | SOLUTION   |
|---|---|--|
| Reel will not retract cable but has some tension                      | <ul style="list-style-type: none"> <li>• Improper cable or cable length installed</li> <li>• Cable guide adjustment</li> </ul>  | <ul style="list-style-type: none"> <li>• Install correct cable type and length</li> <li>• Check guide alignment</li> </ul>   |
| Reel does not have spring tension                                     | <ul style="list-style-type: none"> <li>• Broken spring</li> </ul>   | <ul style="list-style-type: none"> <li>• Replace spring motor</li> </ul>   |
| Ratchet will not engage   | <ul style="list-style-type: none"> <li>• Broken ratchet pawl spring</li> </ul>  | <ul style="list-style-type: none"> <li>• Replace ratchet pawl spring</li> </ul>  |
| Ratchet will not disengage  | <ul style="list-style-type: none"> <li>• Over-extension of reel</li> </ul>  | <ul style="list-style-type: none"> <li>• Manually rotate reel spool to disengage ratchet. Do not over-extend (guide adjustment may prevent lock-up when over-extended)</li> <li>• Adjust ball stop</li> </ul>      |
| Cable wraps improperly (uneven wrapping, wraps above or jumps flange) | <ul style="list-style-type: none"> <li>• Reel mounting not level</li> <li>• Cable retraction rate too high</li> <li>• Cable guide out of adjustment</li> <li>• Improper cable or cable length installed</li> </ul>                                      | <ul style="list-style-type: none"> <li>• Mount reel on level surface</li> <li>• Maintain steady retraction rate</li> <li>• Properly adjust cable guide</li> <li>• Install correct cable type and length</li> </ul> |
| Cable twisting or knotting  | <ul style="list-style-type: none"> <li>• Reel mounted in improper orientation</li> <li>• Improperly installed cable</li> <li>• Cable rubbing on or bending around fixed object</li> <li>• Inadequate anchoring of cable</li> </ul>                      | <ul style="list-style-type: none"> <li>• See cable installation section in maintenance manual</li> <li>• Check roller guide for function and cable pay out path</li> </ul>   |
| Open or intermittent circuit  | <ul style="list-style-type: none"> <li>• Inadequate wiring or feeding circuit</li> <li>• Loss of brush contact to slip ring</li> <li>• Cable defective</li> <li>• Cable guide out of adjustment</li> <li>• Dirt or contaminants on slip ring</li> </ul> | <ul style="list-style-type: none"> <li>• Check all termination points</li> <li>• Check brush wear, spring tension and, alignment</li> <li>• Perform continuity check on cable at termination points</li> </ul>     |
| Circuit arcing  | <ul style="list-style-type: none"> <li>• Amp or voltage above rating of reel</li> <li>• Excessive carbon dust accumulation</li> <li>• Loss of brush to ring contact</li> </ul>  | <ul style="list-style-type: none"> <li>• Clean dust from inside slip ring</li> <li>• Replace brush assembly</li> </ul>   |

## SECTION 7 - REPLACEMENT PARTS

| <b>Part Number</b> | <b>Description</b>       | <b>Notes</b> |
|--------------------|--------------------------|--------------|
| XA-41043           | Feeder Cord              | 20A          |
| XA-41042           | Feeder Cord              | 15A, 10A     |
| XA-573396          | Feeder Cord Cover        |              |
| XA-577828          | Cable 12/3 SJOOW         | 105°C        |
| XA-33018           | Cable 16/3 S00W 90°C     | 90°C         |
| XA-577872          | Cable Tri-Tap 12/3 SJOOW | 90°C         |
| XA-578566          | Cable Tri-Tap 16/3 S00W  | 90°C         |
| XA-34474           | Ball Stop 12/3           |              |
| XA-34885           | Ball Stop 16/3           |              |
| XA-577878          | GFCI Inline 12/3         |              |
| XA-578852          | Quad Receptable Box      | 10A          |
| XA-578853          | Quad Receptable Box      | 15A          |
| XA-578854          | Quad Receptable Box      | 20A          |
| XA-51302           | Single Outlet            | 10A, 15A     |
| XA-37464           | Single Outlet            | 20A          |
| XA-577871          | Locking Outlet           | 10A, 15A     |
| XA-540975          | Locking Outlet           | 20A          |
| XA-573399          | Spring Motor Assembly    |              |
| XA-573508          | Quick Mount Base         |              |



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