


INSTALLATION and MAINTENANCE INSTRUCTIONS SPRING OPERATED ELECTRIC CABLE REELS



NOTE: These instructions are written for machine pull reels.
If installing or servicing hand pull reel, use only those steps marked with hand .

All units are provided with right hand rotation unless otherwise specified. This means that spool rotates counter-clockwise to wind cable **when viewing reel from slip ring side.**




Clock-type springs provide power for cable take-up. **Spring tension must be adjusted at time of installation** to insure that cable will rewind completely at all times.

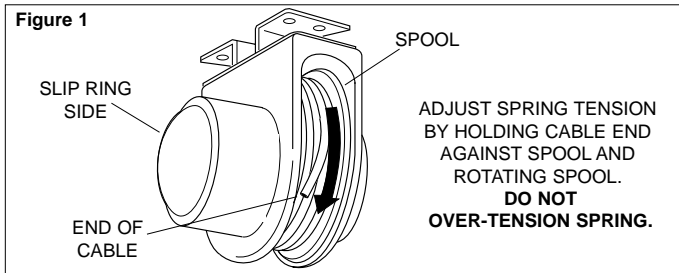
INSTALLATION


1. If reel is supplying power to a machine, insure that machinery is at position closest to reel.

CAUTION

If mounting overhead, provide safety chain between reel base and mounting surface to prevent accidental reel drop.



-  2. Securely mount reel in desired position using 3/8" (M10) bolts. If reel is not equipped with a pivoting mounting base, be sure spool centerline is aligned with cable run.
-  3. Position cable guide (optional). Guide must be oriented so cable pays off reel **in a straight line** without bends. Refer to GENERAL ARRANGEMENT DRAWING on back page.
-  4. Install cable if not included with reel. Refer to **CABLE INSTALLATION** section on back page.




-  5. Adjust spring tension using one of the following methods:
 - A. If outer end of cable has not been connected, hold cable end next to the spool and rotate spool in **clockwise** direction (when viewed from **slip ring side**) until desired tension is achieved. See Figure 1.
 - B. If outer end of cable has been connected, remove the four spring housing screws and rotate the entire spring housing **clockwise** (when viewed from spring side).


CAUTION

Following adjustment, be sure all cable can be drawn off reel without winding the spring tight. Winding spring tight could damage spring or cable.

-  6. Feed cable end out through cable guide (if so equipped) and pay-out cable to maximum working length. At least one turn of cable should remain on spool. If spool locks up prior to reaching required length, either reel was over-tensioned during step 5 or reel capacity has been exceeded. Failure to correct this condition will result in shortened spring life and possible damage to other reel components.
-  7. Attach and adjust cable stop. Complete cable working end connections.

8. If machine pull application or if no-lock operation is desired, disengage ratchet lock. See following section.

 9. Remove slip ring cover and connect individual supply conductors to terminal block. Replace cover.

 10. Turn on power to reel.

RATCHET LOCK

If reel is equipped with ratchet lock, reel is shipped with ratchet lock "engaged". If constant spring tension is required, lock may be disengaged by moving the selector lever, located beneath the spring assembly, to "OFF".

MAINTENANCE

Periodically oil the bronze flange-bushing located on the slip ring side of the reel.

The self-aligning bushing located on the spring side of the reel is made of a self-lubricating, wear -resistant material that needs no further lubrication.







Periodically inspect brushes on the slip ring assembly. Replace if badly worn. Remove the slip ring side frame half to gain access to brushes.

SPRING REPLACEMENT








WARNING

Do not attempt to remove spring from its housing. Clock-type springs can be dangerous to handle. Removal of spring from housing could result in personal injury.

The unique SAFETYCHANGE® spring motor consists of a spring sealed within a housing. A replacement spring is supplied sealed in its housing and the old unit should be discarded completely.

-  1. Turn off all electric power.
-  2. Disconnect cable from working end connections.
-  3. Wind cable onto reel to relieve **all** spring tension.
-  4. Remove four screws holding spring assembly and gently slide spring assembly off main shaft.
-  5. Slide new spring assembly onto shaft and reassemble reel by reversing above steps.
-  6. Adjust spring tension. Refer to INSTALLATION, Step 5.

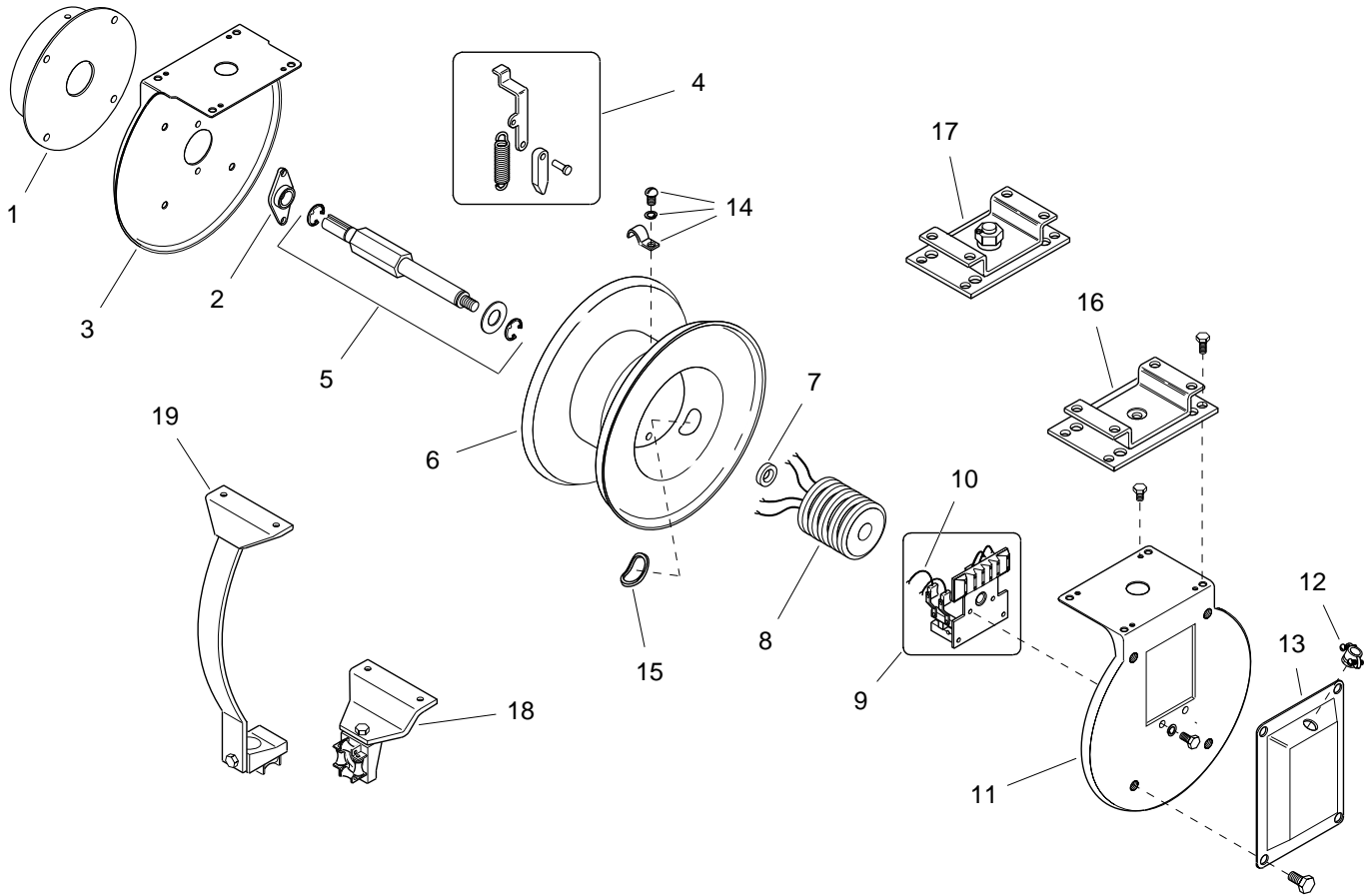
SLIP RING REPLACEMENT

-  1. Turn off all electric power. Disconnect input wiring.
-  2. Engage ratchet lock to prevent spool from rotating.
-  3. Remove reel from mounting base.
-  4. Remove screws holding slip ring side frame half and remove frame half.
-  5. Disconnect cable leads from slip ring terminals.
-  6. Remove hardware holding slip ring assembly in position. Pull slip ring assembly off shaft.
-  7. Install new slip ring assembly on shaft and re-assemble reel by reversing above steps.

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ILLUSTRATED PARTS LIST

LOCKING AND HOIST DUTY ELECTRIC CABLE REELS

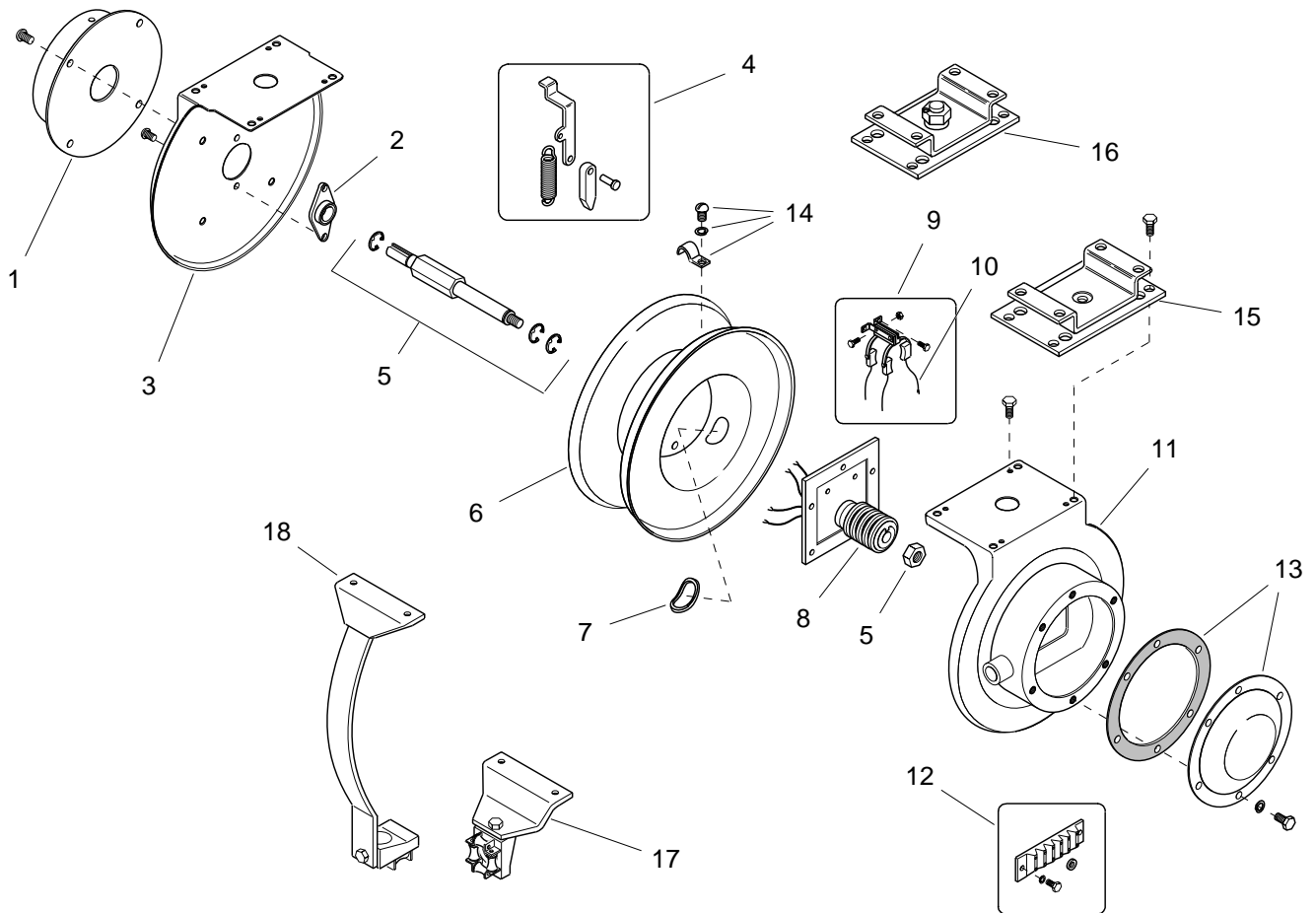


ITEM	KIT NO.	DESCRIPTION	QTY.
1	602369	Spring Motor	1
2	028121	Bearing Kit	1
3	028122	Frame, Spring End—Includes Decals	1
4	028123	Dog Kit (for models with ratchet lock)	1
5	033589	Shaft—includes snap rings, thrust washer	1
6	027908	Spool Assembly	1
7	027923	Spacer	1
8	602730	Slip Ring Assembly	1
9	602739	Bearing/Brush Holder—Includes Brushes	1
10	602738	Brush only	3

ITEM	KIT NO.	DESCRIPTION	QTY.
11	028125	Frame, Slip Ring End	1
12	101494	Cable Connector	1
13	028126	Slip Ring Cover Kit Includes decals	1
14	028127	Cable Clamp Kit—.125"	1
14	028128	Cable Clamp Kit—.375"	1
15	032855	Cable Entry Grommet	1
16	GL20-01	Fixed Mounting Base	1
17	GL20-02	Pivoting Mounting Base (optional)	1
18	GL15-09	Horizontal Pay-out Cable Guide (optional)	1
19	GL15-14	Vertical Pay-out Cable Guide (optional)	1

Always specify SERIAL NUMBER & MODEL NUMBER when ordering parts.

ILLUSTRATED PARTS LIST WATERTIGHT ELECTRIC CABLE REELS



ITEM	KIT NO.	DESCRIPTION	QTY.
1	602369	Spring Motor-4 Pole Slip Ring	1
1	602370	Spring Motor-8 Pole Slip Ring	1
2	028121	Bearing Kit	1
3	028122	Frame, Spring End-Includes Decals	1
4	028123	Dog Kit	1
5	033599	Shaft-4 Pole Slip Ring	1
5	033600	Shaft-8 Pole Slip Ring Shaft includes nut, snap rings and O-ring.	1
6	033207	Spool Assembly	1
7	032855	Cable entry Grommet	1
8	602731	Slip Ring & Bearing-4 Pole	1
8	602732	Slip Ring & Bearing-8 Pole	1
9	602740	Brush Holder, 4 Pole-Includes Brushes	1
9	602741	Brush Holder, 8 Pole-Includes Brushes	1

ITEM	KIT NO.	DESCRIPTION	QTY.
10	602738	Brush only-4 Pole	4
10	602738	Brush only-8 Pole	8
11	033603	Frame, Slip Ring End-4 Pole	1
11	033604	Frame, Slip Ring End-8 Pole	1
12	033605	Terminal Block Kit-4 Pole	1
12	033606	Terminal Block Kit-8 Pole	1
13	033607	Slip Ring Cover Kit Includes gasket & decals	1
14	028127	Cable Clamp Kit-.125"	1
14	028128	Cable Clamp Kit-.375"	1
15	GL20-01	Fixed Mounting Base	1
16	GL20-02	Pivoting Mounting Base (optional)	1
17	GL15-09	Horizontal Pay-out Cable Guide (optional)	1
18	GL15-14	Vertical Pay-out Cable Guide (optional)	1

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CABLE REMOVAL

Use the following procedure to remove worn or damaged cable from reel prior to installation of new cable.

1. Move machine serviced by reel to a position closest to reel. Spring will still be under pre-tension at this point.
2. Turn off all electric power.
3. Disconnect cable from machine or other fixtures. Wind cable onto spool to relieve all spring tension.
NOTE: Once all tension is removed from spring, spool cannot rotate further. Forcing spool to rotate could damage spring.
4. Remove four screws holding spring assembly and gently slide assembly off main shaft.
5. **Locking and hoist duty reels only**, remove slip ring cover.
6. Unwind cable from spool. Remove cable clamp.
7. Disconnect cable leads: **On locking and hoist duty reels**, disconnect leads from junction block on spool. **On watertight reels**, pull cable out of hole in spool, exposing slip ring leads. Disconnect.
8. Install new cable following directions below.

CABLE INSTALLATION

Use the following procedure to replace cable or if reel was ordered without cable. Refer to CABLE INSTALLATION REFERENCE DRAWING, below.

1. Unspool new cable from shipping spool and lay out to eliminate twist.
NOTE: This step is not essential, but will aid in winding operation of the reel and prolong cable life.
2. Remove slip ring cover.
3. Remove four screws holding spring assembly and gently slide spring assembly off main shaft.

4. Connect cable leads: **On locking and hoist duty reels**, feed one end of the cable through opening in spool and connect cable leads to junction box on spool. (See drawing below).

On watertight reels, connect cable leads to slip ring leads (slip ring leads should extend thru hole in spool). Following connection, tuck leads and cable end inside spool.

5. Secure cable using cable clamp on spool.
6. Wind the cable onto the reel spool by hand rotating spool in counter-clockwise direction (when viewed from slip ring side).
6. Slide spring assembly onto shaft and secure with four screws.
7. Replace slip ring cover, if removed.
8. Complete cable installation using steps 5 thru 10 under **INSTALLATION** on page one.

SPRING ADJUSTMENT

INCREASE TENSION:

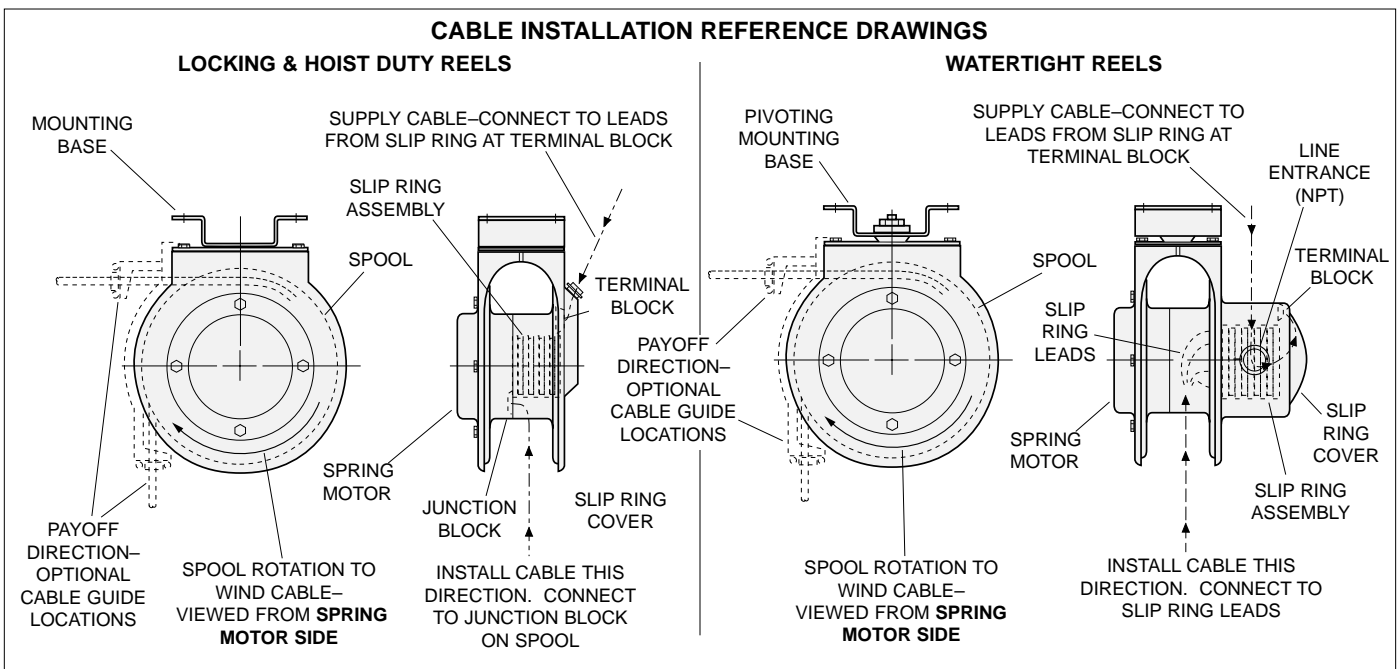
- A. If outer end of cable has not been connected, hold cable end next to spool and rotate in clockwise direction (when viewed from slip ring side) until desired tension is achieved. Refer to Page 1, Figure 1.

–OR–

- B. If outer cable has been connected, remove the four spring housing screws and rotate the entire spring housing clockwise.

DECREASE TENSION:

1. Remove as much spring tension as possible by retracting cable to cable stop or by moving machinery to position closest to reel.
2. Remove four spring housing screws and rotate entire spring housing counterclockwise (when viewed from spring side).



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