

HUBBELL WEATHERPROOF CABLE REELS

INSTALLATION INSTRUCTIONS

English

GENERAL INFORMATION

NOTICE: For installation by a qualified electrician in accordance with national and local electrical codes and the following instructions.

CAUTION: RISK OF EXPLOSION. Not for use in Hazardous (Classified) Locations, per National Electrical Code® Articles 500-516 and Canadian Electrical Code Sections 18-20.

For Commercial/Industrial Use Only.

CAUTION: RISK OF ELECTRIC SHOCK. Disconnect power before installing. Never wire energized electrical components.

Check that the device's type and rating are suitable for the application. This device is for **grounding** circuits (circuits including an equipment ground/green grounding conductor) **ONLY. DO NOT** use in **non-grounding** applications.

Ensure that reel is properly installed before connecting to power supply.

A high-tension spring assembly is contained within the reel. **EXERCISE EXTREME CAUTION.** If reel ceases to unwind or rewind, remove power immediately.

Do not pull or jerk on electrical cable!

Check for frayed and/or broken wires before each use. Pull electrical cable from reel by grasping the electrical cable itself, not the work device.

If an electrical malfunction should occur, disconnect power from reel immediately.

SERVICING INSTRUCTIONS

NOTICE: For servicing only by qualified electrician.

Servicing of the reel consists of isolating a problem to power supply, reel, or utilization equipment. Refer any discrepancies only to an authorized service person or directly to Hubbell. A wiring diagram is inside enclosure cover.

REPLACEMENT CABLE

1. Use 90°C Type SOW-A Water Resistant or Type SOW (Canada) or Type SEOOW (HBL501232WM2, HBL501032WM2, HBL501042WM2).
2. For maximum length, see the first two digits on the Catalog Number.
3. For conductor size, see the second two digits of the Catalog Number.
4. For the number of conductors, see the fifth (last) digit of the Catalog Number.

Example: HBL50143W — L = length 50 ft (15 m); WG = cond. size #14 AWG; C = number of cond. 3. — 50 ft (15 m) of #14-3 SOW-A Cable.

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 must be pretensioned at time of installation to insure that tension is applied to cable at all times.

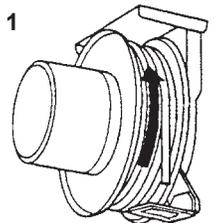
RATCHET LOCK

Reel is shipped with ratchet lock "engaged". If constant spring tension is required, lock may be disengaged by locating and removing the selector plate anchor screw on the frame, rotating the selector plate to disengage position, and replacing and tightening the selector plate screw.

INSTALLATION

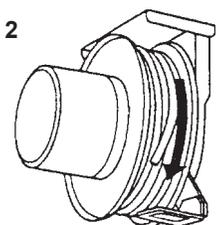
1. If reel is supplying power to a machine, insure that machinery is at position closest to reel.
CAUTION: If mounting overhead, provide safety chain between reel base and mounting surface to prevent accidental reel drop.
2. Securely mount reel in desired position using 3/8" (M10) bolts. Be sure spool centerline is aligned with cable run.
3. Position cable guide. Guide must be oriented so cable pays off reel in a straight line without bends.
4. Remove cable stop. Rotate spool counter-clockwise (when viewed from slip ring side) until cable is wound on reel... not extending through cable guide. See fig. 1.
5. Pre-tension reel by rotating spool in clockwise direction (when viewed from slip ring side). Number of "PRE-TENSION TURNS" is indicated on product label. See fig. 2.
6. Engage ratchet lock to prevent spool from unwinding. Feed cable end out through cable guide 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 flexible cable working end load connections.
8. If machine pull application or if no-lock operation is desired, disengage ratchet lock.
9. Remove junction box cover and connect individual supply conductors to slip ring leads, using Listed/Certified twist-on wire connectors.
 - a. **CAUTION: USE COPPER CONDUCTORS ONLY.**
 - b. For flexible cable, select conductor size from National Electrical Code® Table 400-5 or Canadian Electrical Code Table 12.
 - c. For individual conductors, select conductors having 90°C or higher rated insulation and sufficient ampacity in accordance with the 60°C column of National Electrical Code® Table 310-16 or Canadian Electrical Code Table 2.
 - d. Twist wire strands together on each conductor.
 - e. **DO NOT TIN CONDUCTORS.**
10. Turn on power to reel.

Fig. 1



WIND ALL CABLE
ONTO SPOOL

Fig. 2



PRE-TENSION: ROTATE SPOOL
AS SHOWN FULL 360° TURNS
PER NO. 5

MAINTENANCE

Bearings and springs are prelubricated and require no periodic maintenance.

CAUTION: 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.

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. Remove cable stop and allow cable to retract onto spool. Ensure all tension is off spring by manually rotating spool (normally counter-clockwise when viewed from junction box side).
4. Remove cable from spool by looping over spool flange and slip ring cover.
5. Remove slip ring cover.
6. Disconnect cable leads from slip ring brush terminals.
7. Loosen compression nut on cable connector in spool and pull cable out.

CAUTION: Failure to relieve all spring tension prior to removing cable could result in damage to equipment or personal injury. Follow instructions carefully.

8. Install new cable following directions below.

CABLE REPLACEMENT

Use the following procedure to replace cable. Refer to CABLE REPLACEMENT 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. Loosen compression nut on cable connector (compression nut is outside slip ring housing).
4. Feed one end of the cable through cable connector in spool and into the slip ring side. (See drawing below).
5. Connect individual conductors to appropriate collector brushes on slip ring assembly using Listed/Certified ring terminals on each conductor.
6. Tighten cable connector in spool. Do not overtighten.
7. Wind the cable onto the reel spool by hand rotating spool in direction it turns free of spring tension. (Normally counter-clockwise when viewed from junction box side)
8. Replace slip ring cover and gasket.
9. Before connecting to power, use a circuit tester to verify proper connection of input (supply) wires to output (load) wires.
10. Complete flexible cable's working end (lead) connections. Adjust cable stop.
11. Pretension reel and complete installation as described in INSTALLATION section.

SPRING ADJUSTMENT

Adjust tension by adding wraps (increasing tension) or removing wraps (decreasing tension) from the spool.

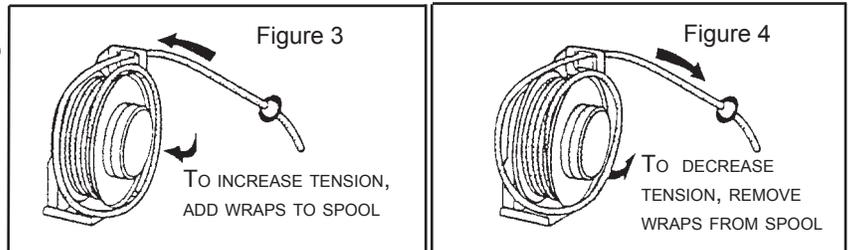
CAUTION: If machine pull reel, move machinery to position closest to reel before adjusting spring tension. Adjusting tension with cable extended may result in damage to reel or personal injury.

1. Pull 10" (254 mm) of cable, allowing spool to rotate.

INCREASE TENSION: Without allowing spool to rotate, hand feed cable through hose guide until loop is large enough to slip onto spool. Add two or three wraps until desired tension is achieved. See figure 3.

DECREASE TENSION: Without allowing spool to rotate, hand feed cable back through guide to provide slack. Remove one or two wraps from spool. See figure 4.

2. Test reel operation.



CABLE REPLACEMENT DRAWING

