

Safety

Please read this manual carefully and follow its instructions. Improper use or failure to follow these instructions could result in serious injury, death or property damage. Operators should be instructed in the safe and proper use and maintenance of this product. Keep this manual for future reference.

The following safety precautions call attention to potentially dangerous conditions.

⚠ WARNING: Warnings are used when hazards exist which could result in serious injury, death or property damage if proper precautions are not taken.

⚠ CAUTION: Cautions are used as reminders of safety hazards which could result in personal injury or property damage if proper precautions are not taken.

Installation

⚠ CAUTION: Instruct operators in the safe, proper use and maintenance. Keep this manual for future reference.

⚠ WARNING: Failure to read, understand, and follow these instructions may result in personal injury or death.

Mounting

The fixed base of the cable reel allows mounting in several different positions including base up, base down, or wall mounted. Here are general mounting requirements.

1. The main shaft (8) must be horizontal.
2. The center line of drum (34) must be on line with the cable run.
3. When mounted overhead in base up position, add a secondary chain, bracket, or other safety device to prevent the reel from falling in case the mounting bolts are removed or become loosened from vibration.

⚠ WARNING: A secondary safety cable or chain must be attached to all reels mounted overhead to prevent reel from falling.

Pivot Base

If optional pivot base is used, reel will be self-aligning to direction of cable run. The four roller cable guide must be used with pivot or swivel mounts.

Wiring

A convenient one inch pipe thread opening has been provided at the bottom of the enclosure in base (5) for connecting standard water tight cable connectors or conduit fitting--fittings not supplied. Individual power connections are made to the collector ring bus wires inside the junction box enclosure in base (5) using commercially available twist on wire connectors or compression splices.

⚠ CAUTION: On model 228BH and CSA listed reels--in Canada--, the green wire has been grounded to the frame of the reel and cannot be used as a power conductor.

Safety Internal Grounding

Standard reels are not grounded internally with the exception of reels built to CSA standards and the model 228BH. Internal grounding must be accomplished by running a jumper wire from the brush assembly to the grounding screw provided, and attaching the collector ring ground bus to the bolt (3) provided in the junction box enclosure on back of base (5). See main illustration and diagram.

Operation

Ratchet lock

All models are supplied with a ratchet lock which works in any position. If ratchet lock is not required--constant tension--, move spring clip (21) and spring (15) under the actuator cable guide screw (20).

Cable Guide

The cable guide position is set by rotating the spring pocket assembly (14). Loosen the three clamps (6) holding the spring pocket assembly in place by unscrewing the three hex head bolts (7). Unless required, do not completely remove bolts or clamps. Reposition guide as required, making sure clamps straddle ribs on outside diameter of spring pocket assembly and retighten hex head bolts.

Spring Tension

NOTE: Adjust tension before or after installation of reel.



CAUTION: Do not connect working end of cable until the reel is properly pretensioned.

To pretension reel:

1. Wrap all cable onto the reel and engage ratchet even if you elect not to use the ratchet.
2. Pull cable out far enough to allow one full wrap of cable to be placed back on reel and re-engage ratchet.
3. Wrap the cable that was pulled out back onto the reel. This sets the tension one turn.
4. Repeat to place a total of two pretension turns on the reel.
5. Pull cable out completely to ensure enough spring revolutions remain for operating.

Additional tension may be added, if required, by repeating the above process. After tension is set, connect cable end. Failure to pretension the reel may result in insufficient tension to retract the cable and may shorten the life of the spring.



CAUTION: Failure to test for adequate spring revolutions can cause spring damage.

Service



WARNING: Always disconnect electrical power before dismantling any part of the reel. Fuse size must not be greater than maximum amperage capacity of cable. Remove all spring tension before attempting any service.

Main Spring and Spring Pocket Assembly

If reel will not develop tension or retract cable, spring pocket assembly (14) may need to be replaced as follows:

1. Remove junction box cover (12).
2. Disconnect line input wires from collector ring (33) bus wires.
3. Remove screw (1) and shaft retainer (2).
4. Remove drum (32 and 34) and main shaft (8) from base (5).
5. Remove cable guide (16), spring clip (21), ratchet spring (15), shoulder bolt (22) and ratchet pawl (23) from spring pocket assembly (14).
6. Remove spring pocket assembly (14) from base and replace with new part.



WARNING: Never, under any circumstances, remove the spring from its spring pocket assembly. Replacement springs are assembled in a sealed assembly for safety and there is no need to remove them. Serious injury or death could result from removal of spring from its cartridge.

To reassemble, reverse the above procedure making sure the dimple in the shaft retainer (2) is toward the main shaft.

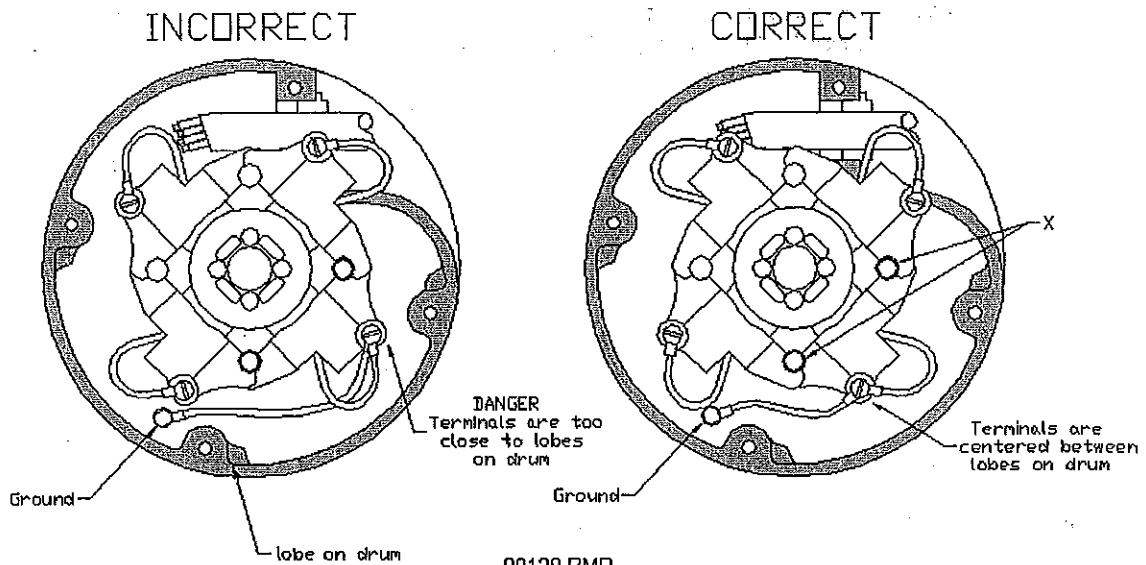
Collector Ring Replacement



WARNING: Unplug power. Failure to disconnect could cause serious injury, death or property damage.

To service the collector ring assembly (33):

1. Remove junction box cover (12) and disconnect bus wires in junction box.
2. Remove cover (39), if required, and outer drum half (32).
3. Unclip brush assembly (30) from brush studs and remove. Notice position of brush assembly.
4. Remove all brush assemblies from collector ring (33).
5. Loosen collector ring set screw.
6. Slide collector ring (33) off main shaft.



To reassemble, reverse above procedure.

The last brush assembly--one closest to steel hub on collector ring--must be assembled on brush studs indicated by the "X" in the above figure. NOTE: Check position of cable entry in relationship to studs marked by "X" in figure. Replace subsequent brush assemblies in clockwise rotation.

- ⚠ WARNING:** Check placement of brush holder assemblies to make sure terminal locations are centered between the protruding lobes on the inner and outer drums. Failure to assemble properly could cause serious injury, death or property damage.
- ⚠ CAUTION:** Check continuity and replace all covers before turning on electrical power.

Working Cable Replacement/Installation

 **WARNING:** Unplug power. Failure to disconnect could cause serious injury, death or property damage.

The procedure below applies to both new installations and for replacement of working cable. To install/replace cable:

1. Loosen seal cover (36) and cable seal (35).
2. Remove cover (39), if required, and outer drum half (32).
3. Loosen or remove cable clamp (24).
4. Remove individual conductors of working cable from brush assemblies (30).
5. Pull working cable through opening of inner drum (34).
6. Remove seal cover (36) and cable seal (35) from old working cable.
7. Place seal cover (36) and cable seal (35) over replacement cable.

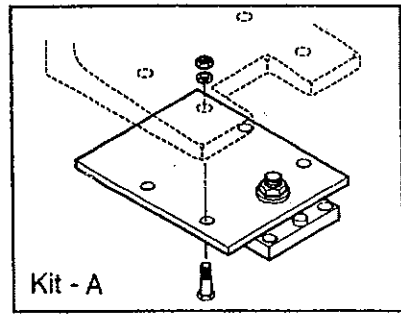
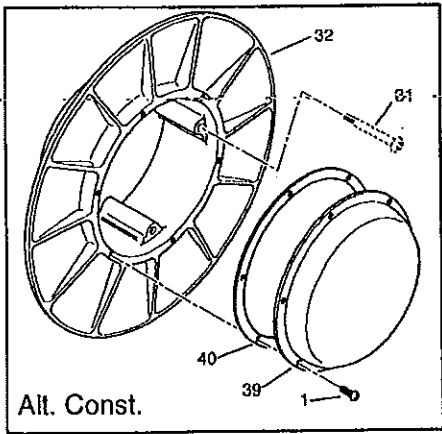
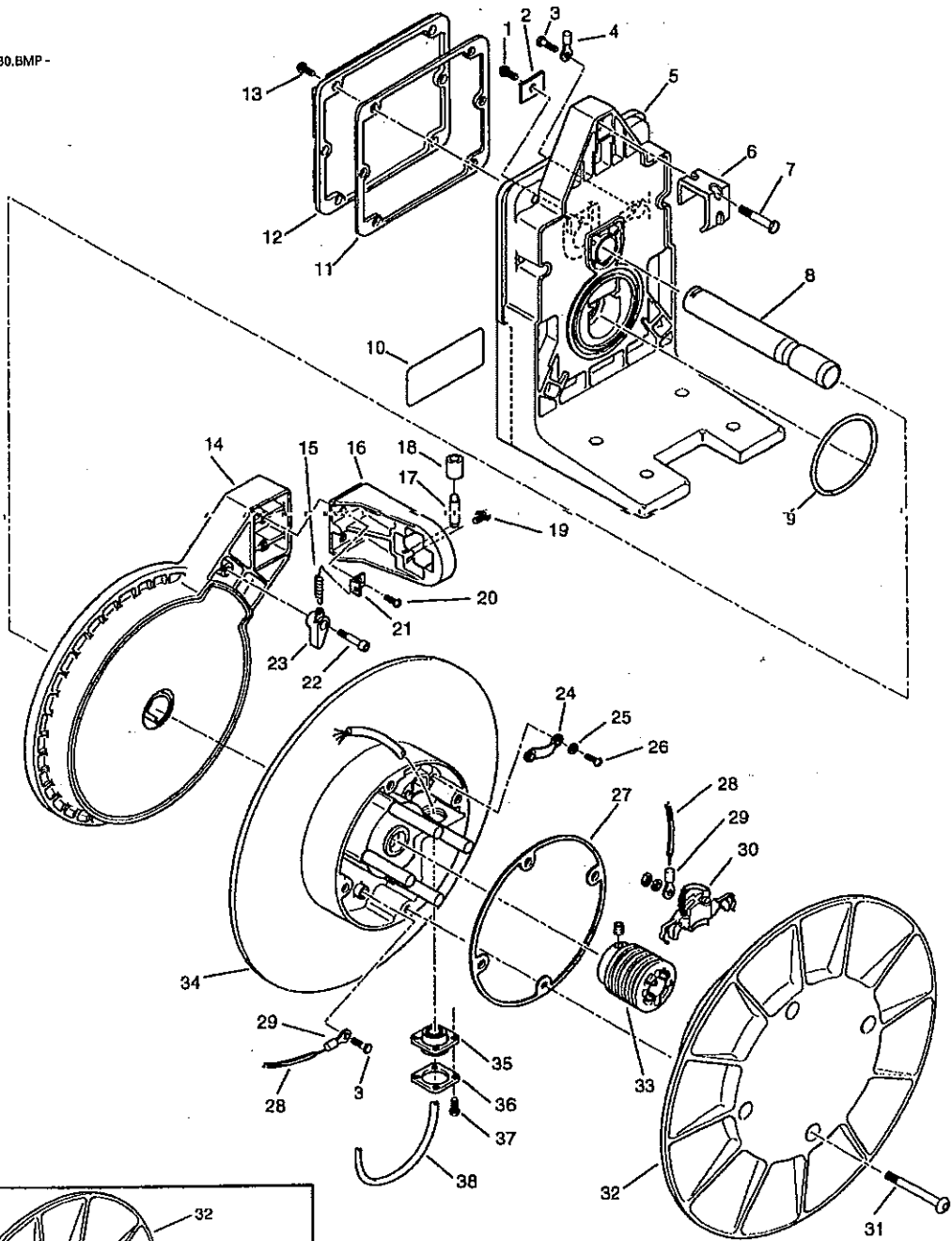
To reassemble, reverse the above procedure. Be sure to connect working cable conductors to the proper brush assembly (30).

NOTE: Cable seal (35) is a bellows type seal designed to fit different size cables. Pull out the bellows in one direction and cut the seal so that the through opening is at least 1/8 inch diameter smaller than the working cable. Always cut the seal smaller than required. More of the seal may be cut off if necessary.

 **CAUTION:** Check continuity and replace all covers before turning on electrical power.

Replacement Parts

-00130.BMP-



McGill Model Number	Included Cable:		
	Length - ft.	Size	O.D.
5007-8624	30	16-3	.430
5007-8628	50	16-3	.430
5007-8634	30	16-4	.485
5007-8638	50	16-4	.485
5007-8653	25	14-3	.560
5007-8658	50	14-3	.560
5007-8663	25	14-4	.605
5007-8667	45	14-4	.605
5007-8683	25	12-3	.640
5007-8685	35	12-3	.640
5007-8694	30	12-4	.670
5007-8703	50	16-8	.645
5007-8701	30	16-10	.720
5007-8702	30	16-12	.720
5007-8705	30	14-8	.845
5007-8704	20	14-10	.905
5007-8706	50	12-3	.640
5007-8707	40	12-4	.670
5007-8708	30	12-6	.800
5007-8709	20	12-8	.915
5007-8710	40	10-3	.695
5007-8711	30	10-4	.750
5007-8712	20	10-6	.880

Reference Number	Part Number	Qty.	Description
1	C03500231	1	Screw pan head M5x12mm
	C03500231	7	Screw pan head m5x12mm -5007,-8701,-8702,-8703,-8704,-8705,-8708,-8709,-8712
2	M41100003	1	Shaft retainer
3	C03510130	2	Bolt hex head M5x10mm
4	00041P0127	1	Terminal - 5007,-8624,-8628,-8634,-8638,-8653,-8658,-8663,-8667,-8683,-8685,-8694,-8706,-8707,-8708,-8710,-8711,-8712
	00041P0126	1	Terminal - 5007,-8701,-8702,-8703,-8704,-8705,-8709
5	M04160004	1	Base
6		3	Clamp-Included in Clamp Kit below.
7		3	Bolt hex head M6-Included in Clamp Kit below.
8	M34370002	1	Main shaft -8624,-8628,-8634,-8638,-8653,-8658,-8663,-8667,-8683,-8685,-8694,-8706,-8707,-8710,-8711
	M34370003	1	Main shaft - 5007,-8703,-8705,-8708,-8709,-8712
	M34370004	1	Main shaft - 5007,-8701,-8702,-8704
9	C47040141	1	O-ring
10	M13020029	1	Name plate
11	M14240007	1	Junction box gasket
12	M04540003	1	Junction box cover
13	C03500253	6	Screw pan head M6x16mm
14	H41220074	1	Spring pocket assembly - 5007,-8658,-8663,-8667,-8683,-8685,-8694
	H41220075	1	Spring pocket assembly - 5007,-8624,-8628,-8634,-8653
	H41220076	1	Spring pocket assembly - 5007,-8701,-8702,-8703,-8704,-8705,-8706,-8707,-8708,-8709,

				-8710,-8711,-8712
15	C60610118	1	Extension spring	
16	M04730007	1	Cable guide	
17	M24060125	4	Roller shaft	
18	M86700006	4	Roller	
19	C03500253	4	Screw pan head M6x16mm	
20	C03500255	2	Screw pan head M6x20mm	
21	M53350002	1	Spring clip	
22	C15070225	1	Screw shoulder M8x10x16	
23	M86750002	1	Ratchet pawl	
24	M70780007	1	Cable clamp-5007,-8658,-8663,-8667,-8683,-8685,-8694,-8701,-8702,-8703,-8704,-8705,	
	M70780008	1	-8706,-8707,-8708,-8709,-8710,-8711,-8712	
			Cable Clamp-5007,-8624,-8628,-8634,-8638,-8653	
25	C01070517	2	Flat washer M5	
26	C03500233	2	Screw pan head M5x16 -5007,-8624,-8628,-8634,-8638,-8653	
	C03500235	2	Screw pan head M5x20 --5007,-8658,-8663,-8667,-8683,-8685,-8694,-8703	
	C03500237	2	Screw pan head M5x25 -5007,-8701,-8702,-8704,-8705,-8706,-8707,-8708,-8709,-8710,-8711,-8712	
27		1	Drum gasket -- Included in Drum Kits below	
28	R61210586	6 inch	Wire - green #10 -- ground only	
29	00041P0126	2	Terminal - ground only -5007,-8701,-8702,-8704	
	00041P0127	2	Terminal - ground only -5007,-8624,-8628,-8634,-8638,-8653,-8658,-8663,-8667,-8683	
			-8685,-8694,-8703,-8705,-8706,-8707,-8708,-8709,-8710,-8711,-8712	
30	6050500000	3	Brush assembly -5007,-8624,-8628,-8634,-8653,-8658,-8683,-8685,-8706,-8710	
	6050500000	4	Brush Assembly-5007,-8634,-8638,-8663,-8667,-8694,-8707,-8711	
	6050500000	6	Brush assembly -- 5007,-8708,-8712	
	6050500000	8	Brush assembly --5007,-8703,-8705,-8709	
	6050500000	10	Brush assembly --5007,-8701,-8704	
	6050500000	12	Brush Assembly-5007,-8702	
31		4	Screw -- Included in Drum Kits below	
32		1	Outer drum half -- Included in Drum Kits below	
33	5856700021	1	Collector ring subassembly -5007,-8624,-8628,-8653,-8658,-8683,-8685,-8706,-8710	
	5856700022	1	Collector ring subassembly --5007,-8634,-8638,-8663,-8667,-8694,-8707,-8711	
	5856700023	1	Collector ring subassembly --5007,-8707,-8712	
	5856700024	1	Collector ring subassembly --5007,8703,-8705,-8709	
	5856700009	1	Collector ring subassembly --5007,-8701,-8704	
	5856700011	1	Collector ring subassembly --5007,-8702	
34		1	Inner drum half -- Included in Drum Kits below	
35	M86550002	1	Cable seal	
36	M37810027	1	Seal cover	
37	C03500201	4	Screw, cheese head M4x12mm	
38	see chart	AR	Cable	
39	5876200000	1	Cover --5007,-8703,-8705,-8708,-8709,-8712	
	5876100000	1	Cover --5007,-8701,-8702,-8704	
40	4350600000	1	Gasket --5007,-8701,-8702,-8703,-8704,-8705,-8708,-8709,-8712	
Kit A	H05010001	AR	Hand lamp kit 228H and terminal	
Kit B	PB2A	AR	Pivot base -- optional	
Kits	H05040001*	AR	Drum Kit - 3, 4 & 5 Cond. -- Includes Reference Numbers 27, 31, 32 & 34	
	H05040002	AR	Drum Kit - 6 & 8 Cond. -- Includes Reference Numbers 27, 31, 32 & 34	
	H05040003	AR	Drum Kit - 10 & 12 Cond. -- Includes Reference Numbers 27, 31, 32 & 34	
	H05040013	AR	Clamp Kit; Stainless Steel-Includes Reference Numbers 6 & 7.	

* Above Kits are based on parts painted Yellow
Optional Kits include H05040004 -- Space Blue