

## Aero-Motive Company

**W** A Woodhead Industries, Inc. Subsidiary

### Important Safety Instructions

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.

**!** **DANGER:** Immediate hazards which **WILL** result in severe personal injury or death.

**!** **WARNING:** Hazards or unsafe practices which **COULD** result in severe personal injury or death.

**!** **CAUTION:** Hazards or unsafe practices, which **MAY** result in, *minor* personal injury or product or property damage.

### INSTALLATION

**!** **CAUTION:** Operators should be instructed in the safe and proper use and maintenance of this product. Keep this manual for future references.

**!** **WARNING:** Improper use or failure to follow these instructions could result in serious injury, death or property damage.

**!** **WARNING:** This equipment should only be installed, adjusted & serviced by a qualified electrician in accordance with the National Electric Code and any applicable local codes

#### Mounting

Wall or ceiling mount so that shaft is horizontal. When wall mounting, ensure large end of keyholes are facing down. Centerline of drum should be in-line and perpendicular to intended cable payout. Secure reel to mounting surface using 3/8" hardware suitable for specific mounting surface or structure.

#### Secondary Safety Cable

**!** **DANGER:** Attach a secondary safety cable or chain to all reels mounted overhead to prevent reel from falling. Immediate hazards **WILL** result in severe personal injury or death.

For all overhead mounting, attach a secured secondary safety cable to hole provided on stand.

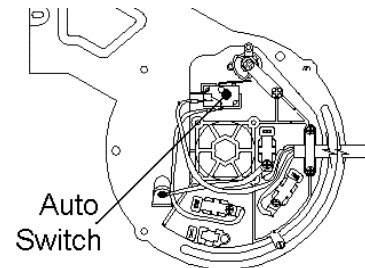
#### WIRING

**!** **WARNING:** Do not disconnect green wire, green wire is grounded to frame on all models and cannot be used as a power conductor. Hazards or unsafe practices **COULD** result in severe personal injury or death.

All internal wiring is completed at factory.  
Reels equipped with handle and guard are ready for installation.

#### Optional Automatic Switch

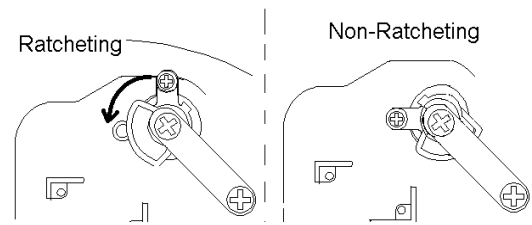
If specified, reels come with switch to turn on power when cable is extended and ratchet lock engaged. See parts kits if switch needs to be added. If switch is not wanted, remove it and connect lead-in wires directly to brushes.



### ADJUSTMENT

### Ratchet Lock

All models are equipped with a ratchet lock system. If ratchet is not desired, remove wire inlet housing by removing (3) screws on face, disengage ratchet if engaged by rotating drum, rotate cam counterclockwise until stop (@9:00 from base) and complete installation screw at end of cam arm. Replace housing.



### Cable Guide/Payout Orientation

The cable guide may be oriented in either of two positions –90 degrees apart. To change orientation, remove wire inlet housing by removing (3) screws on face, remove two mounting screws completely from arm, loosen two remaining mounting screws and rotate guide arm slowly to position. Reinstall two screws and tighten all four screws. Replace housing.

### Spring Tension

**CAUTION:** Failure to test for adequate spring revolutions can cause spring damage. Hazards or unsafe practices MAY result in *minor* personal injury or product or property damage.

Adjust tension before or after installation of reel. Increase tension by pulling out cord one revolution and, while holding drum, pulling cord back through guide & wrapping around drum. To decrease tension, reverse procedure. NOTE: Reel should have at least 2-3 initial “pre-turns” of tension and should complete the payout cycle with at least one turn remaining to ensure normal operational life.

## SERVICE

**WARNING:** Disconnect ALL electrical power before dismantling any part of reel. Remove all spring tension before attempting any service. Hazards or unsafe practices COULD result in severe personal injury or death.

### Power Spring Replacement

**WARNING:** Do not remove spring cover from housing. Hazards or unsafe practices COULD result in severe personal injury or death.

Disconnect reel from line. Remove all spring tension. Remove spring housing assembly by removing (3) screws from front & pulling housing straight off drum assembly. Install new assembly by reversing steps.

**NOTE:** Internal hex of spring hub must line up with hex shaft to complete installation and must be installed in proper direction to engage spring hook.

### Working Cord Replacement

Disconnect reel from line. Remove all spring tension. Remove spring housing assembly by removing (3) screws from front & pulling housing straight off drum assembly. Payout all cord from drum. Remove ball stop system from cord. Remove cord from drum by disconnecting (3) conductors from ring terminals on inside of drum. Grip connectors & pull straight out while holding ring terminals with needle nose pliers. Do not pull wires. Install new working cord by reversing steps.

### Lead-in Cord Replacement

Disconnect reel from line. Remove wire inlet housing by removing (3) screws from front. Remove strain relief bracket from terminal block. Remove lead-in cord by disconnecting (3) conductors from brush terminals. Grip connectors & pull straight out while holding brush terminals with needle nose pliers. Do not pull wires. Install new lead-in cord by reversing steps.

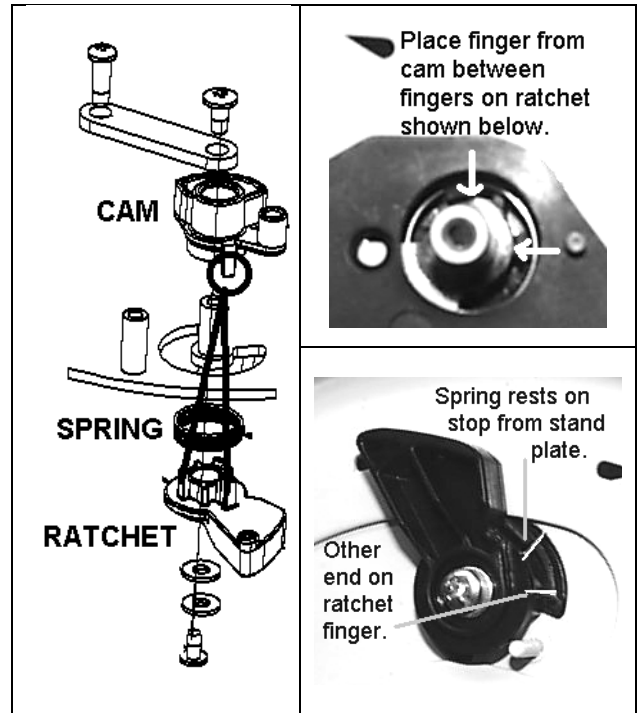
### Brush Replacement

Disconnect reel from line. Remove wire inlet housing by removing (3) screws from front. Disconnect lead-in cord by removing (3) conductors from brush terminals. Grip connectors & pull straight out while holding brush terminals with needle nose pliers. Do not pull wires. Remove brushes by removing screw from terminal & pulling brush straight out. Install new brushes by reversing steps.

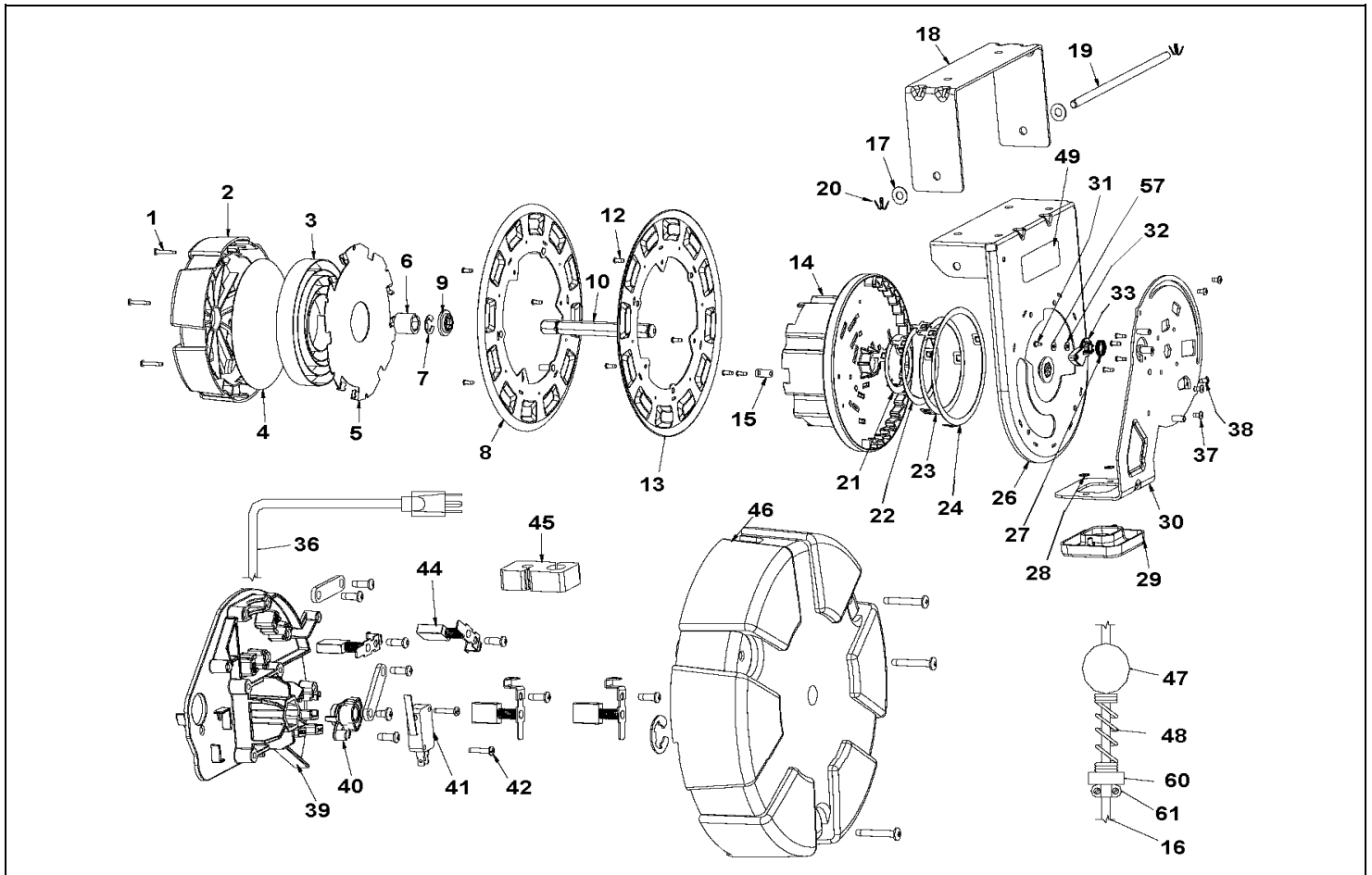
## Ratchet Kit Replacement

**Cam** - Disconnect reel from line. Remove wire inlet housing by removing (3) screws from front. Remove screw & washer in center of cam; loosen screw on support bracket and rotate bracket off pivot pin. Install cam by reversing steps. **Note: To ensure proper interface with ratchet, cam finger must be positioned between two 90deg apart ratchet fingers as per picture.** Install lock washer, screw, and tighten. After reinstallation of new ratchet & cam system, test for proper operation.

**Ratchet & Spring** - Disconnect reel from line. Release all spring tension. Remove spring housing assembly by removing (3) screws, pull housing straight off drum assembly. Remove retainer ring on shaft, removing plastic bearing and slide drum off shaft. Remove screw and washer holding ratchet and ratchet spring. Reverse steps to install new ratchet. Spring legs should be positioned between two "outer fingers" of cam & installed between two stops (one plastic, one steel) on guide arm/base assembly). Install screws and washers. It is likely that cam will need repositioning. Remove 3 screws from inlet housing and check position of Cam as per above instruction.



## REPLACEMENT PARTS



| Item | Qty | Part No. or Kit | Description                          |
|------|-----|-----------------|--------------------------------------|
| 1    | 6   |                 | Screw; M4 x 30mm, PHMS               |
| 2    | 1   | E               | Housing; spring                      |
| 3    | 1   | E               | Spring; main                         |
| 4    | 1   | E               | Plate; spring seat                   |
| 5    | 1   | E               | Plate; spring cover                  |
| 6    | 1   | E               | Hub; spring                          |
| 7    | 2   | E               | Retainer; E-ring, flat, 5/8" shaft   |
| 8    | 1   | A               | Flange; drum, outer                  |
| 9    | 2   | A               | Bearing                              |
| 10   | 1   |                 | Shaft; main                          |
| 12   | 20  |                 | Screw; #8 x 1/2", PH, thrd rolling   |
| 13   | 1   | A               | Flange; drum inner                   |
| 14   | 1   | A               | Drum                                 |
| 15   | 3   |                 | Clamp; strain relief                 |
| 16   | 1   | M10720109       | Cord; 16/3 x51', SJTOW(RI51)         |
|      |     | H88000001       | 16/3 x 51' w/ triplex outlet (RI51T) |
|      |     | M10720110       | 14/3 x46', SJTOW (RI53)              |
|      |     | M10720111       | 12/3 x36' SJTOW, (RI55)              |
|      |     | M10720115       | 16/4 x50' SJTOW(RI52)                |
|      |     | M10720117       | 14/4 x30' SJTOW (RI54)               |
| 17   | 2   | C               | Washer; 3/8" x 5/64", flat           |
| 18   | 1   | C               | Yoke; mounting                       |
| 19   | 1   | C               | Yoke                                 |
| 20   | 2   | C               | Pin; cotter, 3/32" x 1"              |
| 21   | 1   | A               | Ring; conductor, #1 (inner)          |
| 22   | 1   | A               | Ring, conductor, #2                  |
| 23   | 1   | A               | Ring, conductor, #3 (outer)          |
| 26   | 1   |                 | Stand                                |
| 27   | 1   | D               | Spring; ratchet pawl                 |
| 28   | 2   |                 | Retainer; push-on, 1/4" shaft        |
| 29   | 1   |                 | Guide; cord                          |
| 30   | 1   |                 | Arm; guide                           |

| Item        | Qty | Part No. or Kit | Description                  |
|-------------|-----|-----------------|------------------------------|
| 31          | 2   | D               | Screw; M4 x 8mm, PHMS        |
| 32          | 1   | D               | Washer; #8 x 3/64" thick     |
| 33          | 1   | D               | Pawl; ratchet                |
| 36          | 1   | M10720100       | Cord, grounded lead-in, 16/3 |
|             |     | M10720114       | 16/4                         |
|             |     | M10720107       | 14/3                         |
|             |     | M10720116       | 14/4                         |
|             |     | M10720108       | 12/3                         |
| 37          | 4   |                 | Screw; M5 x10mm, PHMS        |
| 38          | 1   |                 | Screw; M5 x 10mm, green      |
| 39          | 1   |                 | Block; terminal              |
| 40          | 1   | D               | Cam; ratchet pawl            |
| 41          | *   | F               | Switch; miniature, 15A, 125V |
| 42          | *   | F               | Screw; #4 x 5/8" BHMS        |
| 43          | 0   |                 | Circuit Breaker; 250V,       |
| 44          | 3   | B               | Assy; brush                  |
| 45          | 1   |                 | Seal; foam                   |
| 46          | 1   |                 | Housing; wire inlet/hub      |
| 57          | 2   | D               | Washer; lock, M4             |
| 47,48,60,61 | 1   | G               | Ball Stop Parts              |

#### Repair Part Kits

|   |   |           |                      |
|---|---|-----------|----------------------|
| A | 1 | H05040014 | Drum Kit             |
| B | 1 | H05040015 | Brush Kit            |
| C | 1 | H05040016 | Swinging Mount Kit   |
| D | 1 | H05040017 | Ratchet Lock Kit     |
| E | 1 | H05040018 | Spring Kit           |
| F | 1 | H36220002 | Automatic Switch Kit |
| G | 1 | H05010025 | Ball Stop Kit        |

#### End of Cable Options

|   |            |  |
|---|------------|--|
| 1 | H81420038  | RI5X13G 13W Florescent lamps with switch in handle       |
|   | H81420039  | RI5X13GAS 13W Florescent lamp w/o switch in handle.      |
|   | C89440011  | RI5xM Incandescent with phenolic handle and steel guard  |
|   | 01101P0035 | RI5xR Single NEMA5-15 receptacle.                        |
|   | C89440005  | RI5XFE Incandescent with rubber handle and coated guard. |

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