

**PULLTARPS**

A Safe Fleet Brand



**PARTS SCHEMATICS**

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# PULLTARPS PARTS SCHEMATICS

Simply The Best

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SAFE FLEET  
Driving Safety Forward™



## PARTS SCHEMATICS

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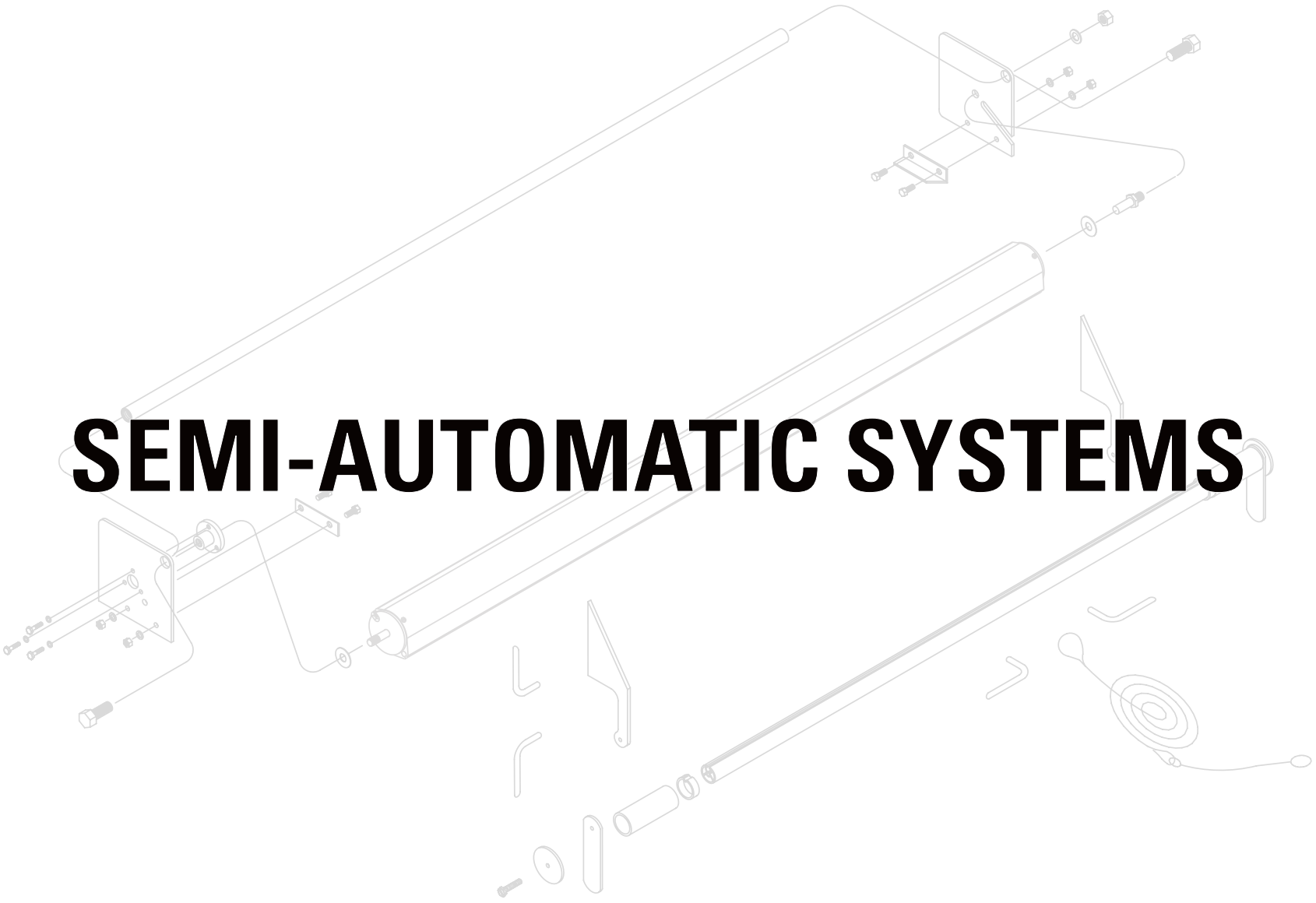
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# SEMI-AUTOMATIC SYSTEMS

An exploded view diagram of a semi-automatic system. The diagram shows a long, cylindrical main body with various components attached or nearby. On the left, there's a mounting bracket with several screws and a cable. On the right, there's another mounting bracket with a cable. Below the main body, there are several L-shaped brackets, a small circular component, and a coiled cable. The entire diagram is rendered in a light gray line-art style.

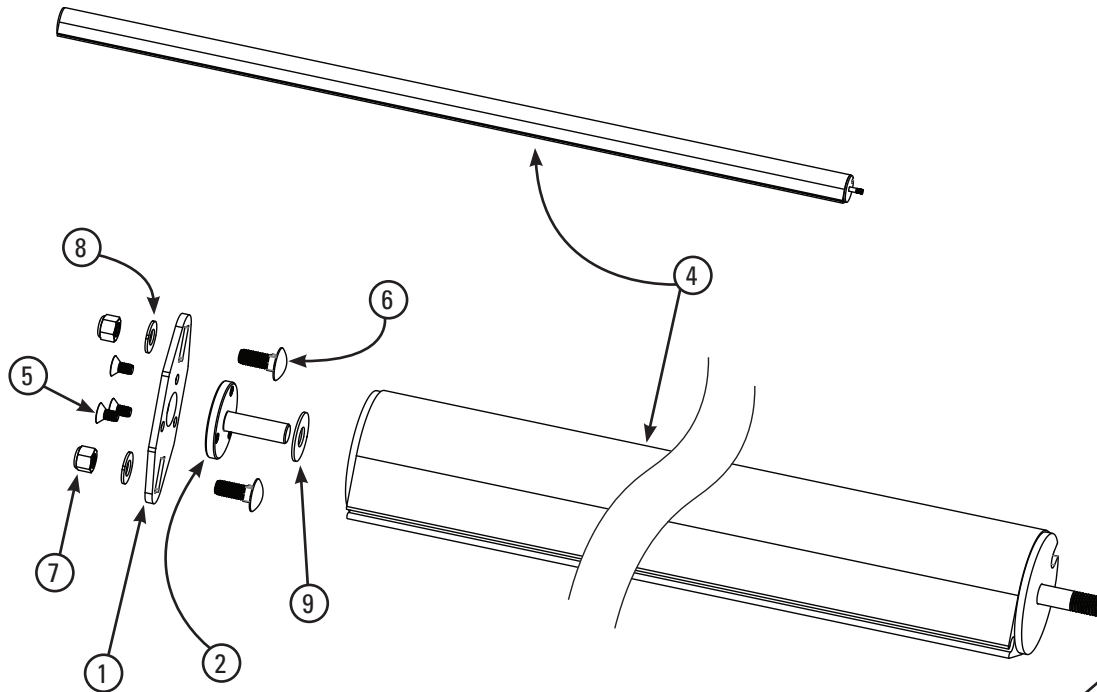




## PARTS SCHEMATICS

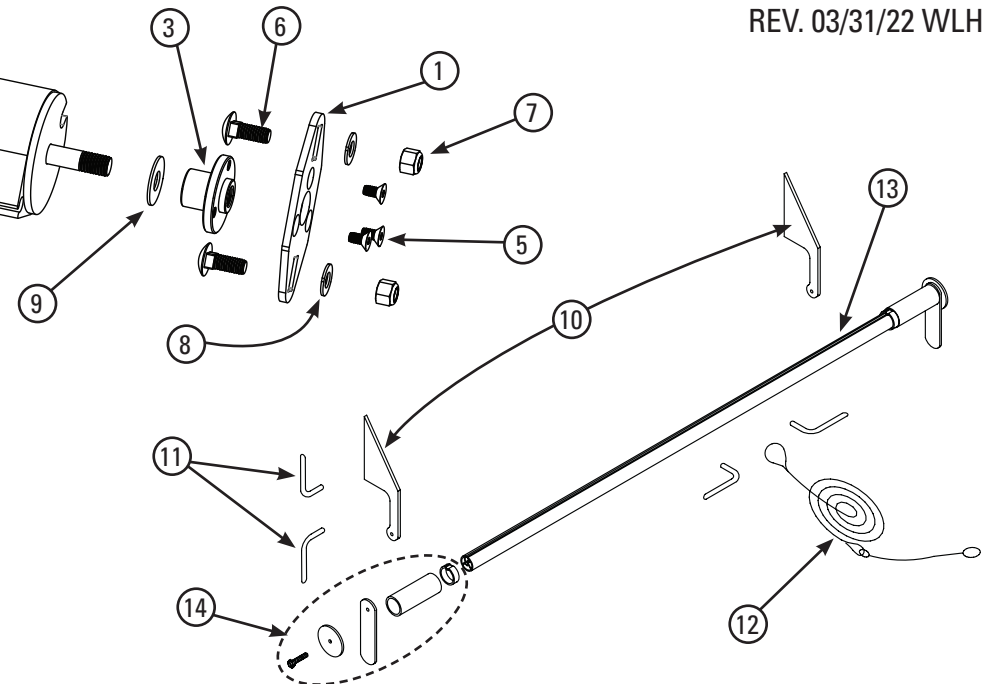
## Semi-Automatic Systems

### Core (Semi-Automatic) #185-3017 & 531-1850 (EZ-Fit) (Cut-to-Fit)



| ITEM | PART #   | DESCRIPTION               | QTY |
|------|----------|---------------------------|-----|
| 1    | 501-0293 | Core End Plate            | 2   |
| 2    | 501-0805 | Universal Bolt in Stud    | 1   |
| 3    | 501-0820 | Valew Spring Shaft Anchor | 1   |
| 4    | 501-1379 | EZ-Measure Rollertube     | 1   |
| 5    | 503-2521 | 1/4-20 x 1/2 FH Socket    | 6   |
| 6    | 503-3720 | 3/8-16x1 CGE Bolt         | 4   |
| 7    | 504-3702 | Nut, 3/8-16 Hex Nut       | 4   |
| 8    | 505-2502 | 1/4" USS Washer 5/16"     | 4   |
| 9    | 505-5002 | Washer Nylon .51D X       | 2   |

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### Pullrod Hardware

| ITEM | PART #               | DESCRIPTION                                 | QTY |
|------|----------------------|---------------------------------------------|-----|
| 10   | 501-0301             | Tarp Return Ramps (Steel)                   | 2   |
| --   | 501-0302             | Tarp Return Ramps (Alum.)                   | 2   |
| 11   | 501-0621             | Rope Storage Kits (4 Steel Hooks)           | 1   |
| --   | 501-0608             | Rope Storage Kits (4 Alum. Hooks)           | 1   |
| 12   | 517-10XX             | Pull Rope (20, 25, 30, 35, 40, 50')         | 1   |
| 13   | Determined by Length | Pullrod (85, 91, 93, 96, 100, 105" Lengths) | 1   |
| 14   | 501-0612             | Pullrod Hardware Kit                        | 1   |



## PARTS SCHEMATICS

## Semi-Automatic Systems

### Open 6000M #101-0215

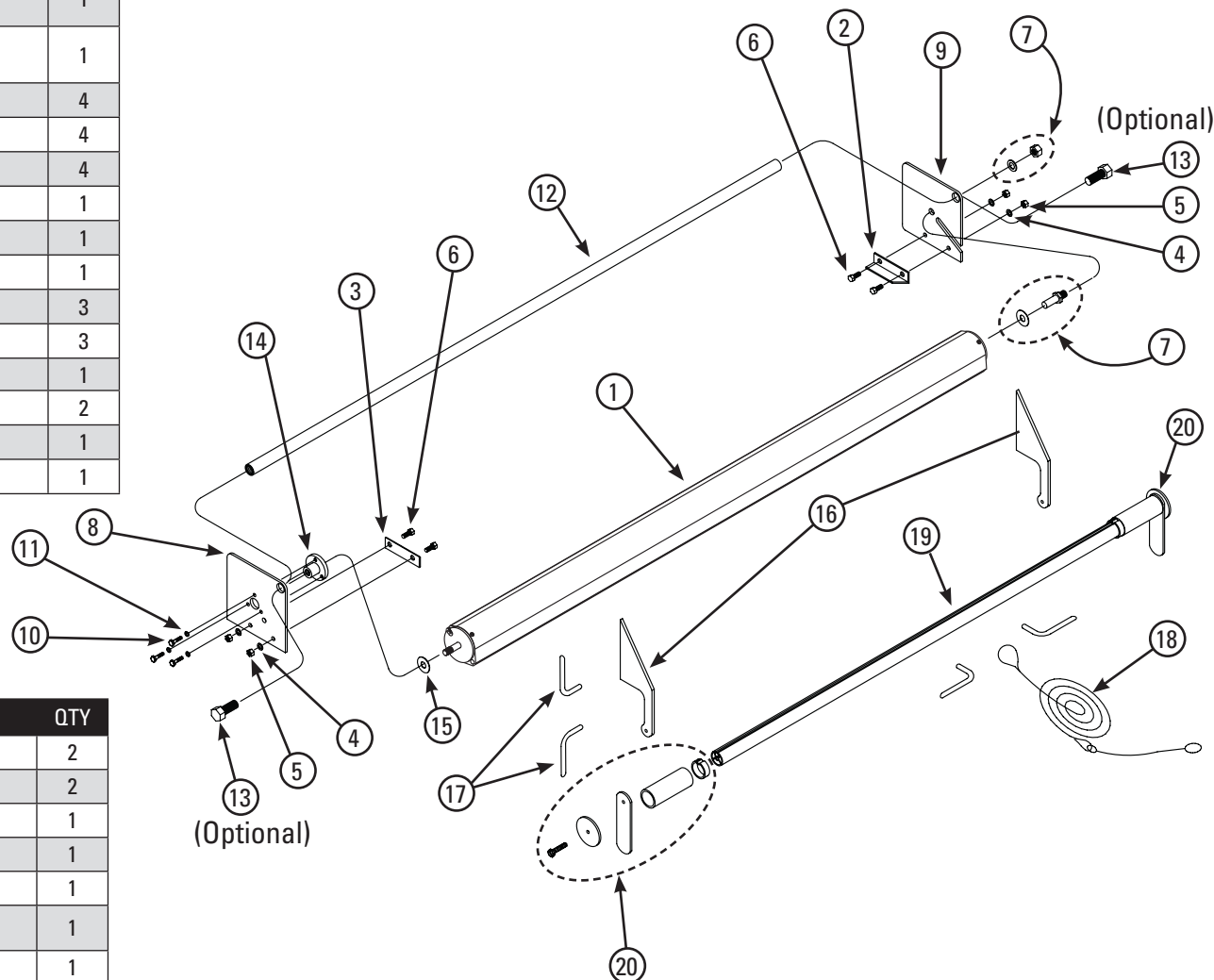
(Widths of 80, 84, 87, 89, 93, 96, 100")

| ITEM | PART #   | DESCRIPTION                                                    | QTY |
|------|----------|----------------------------------------------------------------|-----|
| 1    | 501-13XX | Roller Tube Assy 80,84,87,89,93,96,100"                        | 1   |
| 2    | 501-152X | Open System Mount Brkt.<br>(Specify Steel or Aluminum - Left)  | 1   |
| 3    | 501-152X | Open System Mount Brkt.<br>(Specify Steel or Aluminum - Right) | 1   |
| 4    | 505-2502 | 1/4" Flat Washer USS                                           | 4   |
| 5    | 504-3103 | 5/16"-18 Nyloc Nut                                             | 4   |
| 6    | 503-3104 | 5/16"-18 x 3/4"lg. Carriage Bolt                               | 4   |
| 7    | 501-0632 | System End Plate Stud Kit                                      | 1   |
| 8    | 501-0203 | 6" Open End Plate, (Drvr.)                                     | 1   |
| 9    | 501-0204 | 6" Open End Plate, (Pass.)                                     | 1   |
| 10   | 503-2503 | 1/4" - 20 x 1/2"lg. HHCS Bolt                                  | 3   |
| 11   | 505-2503 | 1/4" Lock Washer                                               | 3   |
| 12   | 501-980X | Spacer Rod 7/8" (Optional)                                     | 1   |
| 13   | 503-7501 | 3/4" - 10 x 1"lg. HHCS Bolt (Optional)                         | 2   |
| 14   | 501-0804 | Steel Spring Shaft Anchor                                      | 1   |
| 15   | 505-5002 | Nylon Washer                                                   | 1   |

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### Pullrod Hardware

| ITEM | PART #               | DESCRIPTION                                 | QTY |
|------|----------------------|---------------------------------------------|-----|
| 16   | 501-0301             | Tarp Return Ramps (Steel)                   | 2   |
| --   | 501-0302             | Tarp Return Ramps (Alum.)                   | 2   |
| 17   | 501-0621             | Rope Storage Kits (4 Steel Hooks)           | 1   |
| --   | 501-0608             | Rope Storage Kits (4 Alum. Hooks)           | 1   |
| 18   | 517-10XX             | Pull Rope (20, 25, 30, 35, 40, 50')         | 1   |
| 19   | Determined by Length | Pullrod (85, 91, 93, 96, 100, 105" Lengths) | 1   |
| 20   | 501-0612             | Pullrod Hardware Kit                        | 1   |





## PARTS SCHEMATICS

## Semi-Automatic Systems

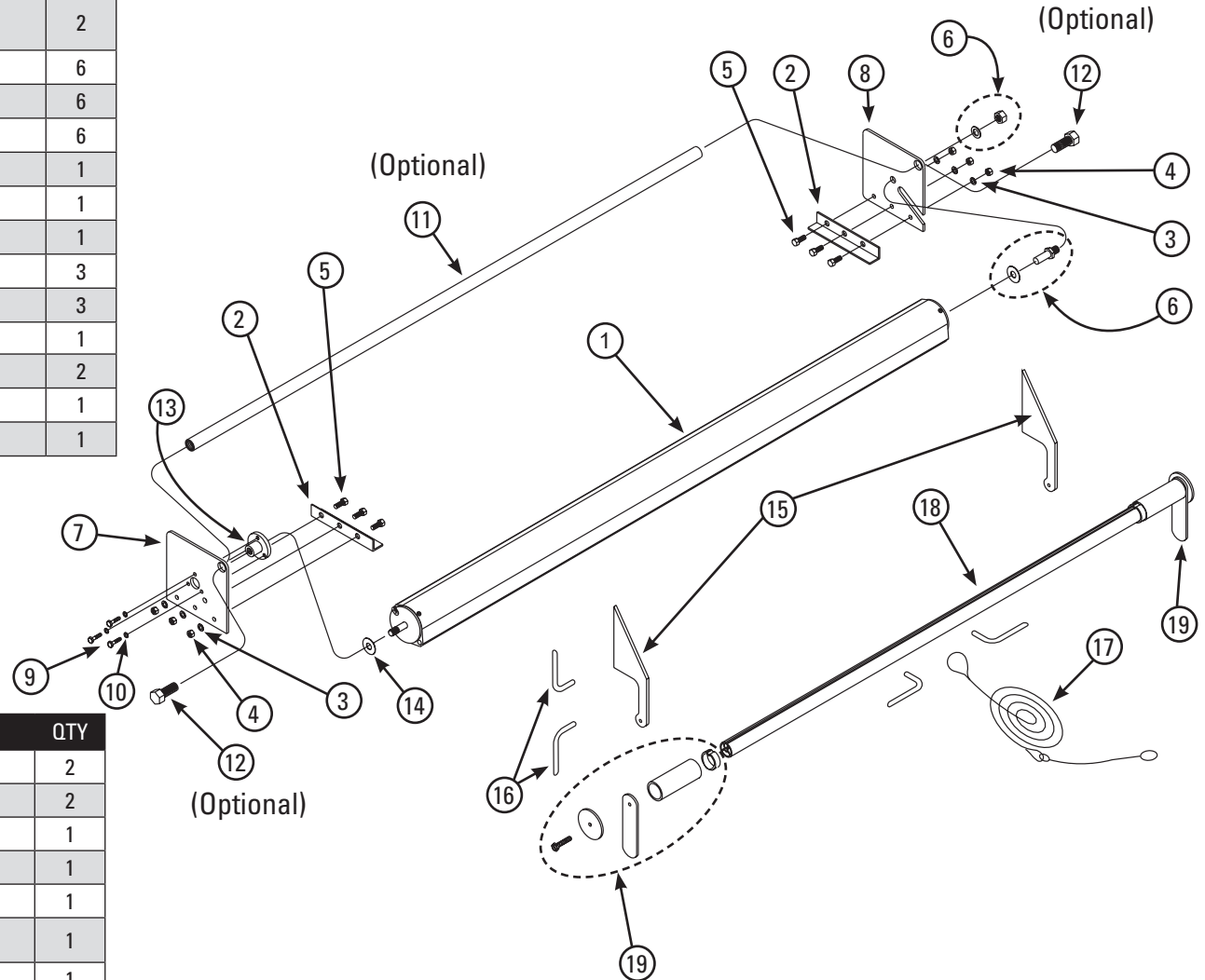
| ITEM | PART #   | DESCRIPTION                                            | QTY |
|------|----------|--------------------------------------------------------|-----|
| 1    | 501-13XX | Roller Tube Assy 80,84,87,89,93,96,100"                | 1   |
| 2    | 501-152X | Open System Mount Brkt.<br>(Specify Steel or Aluminum) | 2   |
| 3    | 505-2502 | 1/4" Flat Washer USS                                   | 6   |
| 4    | 504-3103 | 5/16"-18 Nyloc Nut                                     | 6   |
| 5    | 503-3104 | 5/16"-18 x 3/4"lg. Carriage Bolt                       | 6   |
| 6    | 501-0632 | System End Plate Stud Kit                              | 1   |
| 7    | 501-0219 | 9" Open End Plate, (Drvr.)                             | 1   |
| 8    | 501-0220 | 9" Open End Plate, (Pass.)                             | 1   |
| 9    | 503-2503 | 1/4" - 20 x 1 1/2"lg. HHCS Bolt                        | 3   |
| 10   | 505-2503 | 1/4" Lock Washer                                       | 3   |
| 11   | 501-980X | Spacer Rod 7/8" (Optional)                             | 1   |
| 12   | 503-7501 | 3/4" - 10 x 1"lg. HHCS Bolt (Optional)                 | 2   |
| 13   | 501-0804 | Steel Spring Shaft Anchor                              | 1   |
| 14   | 505-5002 | Nylon Washer                                           | 1   |

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### Pullrod Hardware

| ITEM | PART #               | DESCRIPTION                                 | QTY |
|------|----------------------|---------------------------------------------|-----|
| 15   | 501-0301             | Tarp Return Ramps (Steel)                   | 2   |
| --   | 501-0302             | Tarp Return Ramps (Alum.)                   | 2   |
| 16   | 501-0621             | Rope Storage Kits (4 Steel Hooks)           | 1   |
| --   | 501-0608             | Rope Storage Kits (4 Alum. Hooks)           | 1   |
| 17   | 517-10XX             | Pull Rope (20, 25, 30, 35, 40, 50')         | 1   |
| 18   | Determined by Length | Pullrod (85, 91, 93, 96, 100, 105" Lengths) | 1   |
| 19   | 501-0612             | Pullrod Hardware Kit                        | 1   |

**Open 9000M #105-0215**  
(Widths of 80, 84, 87, 89, 93, 96, 100")





## PARTS SCHEMATICS

## Semi-Automatic Systems

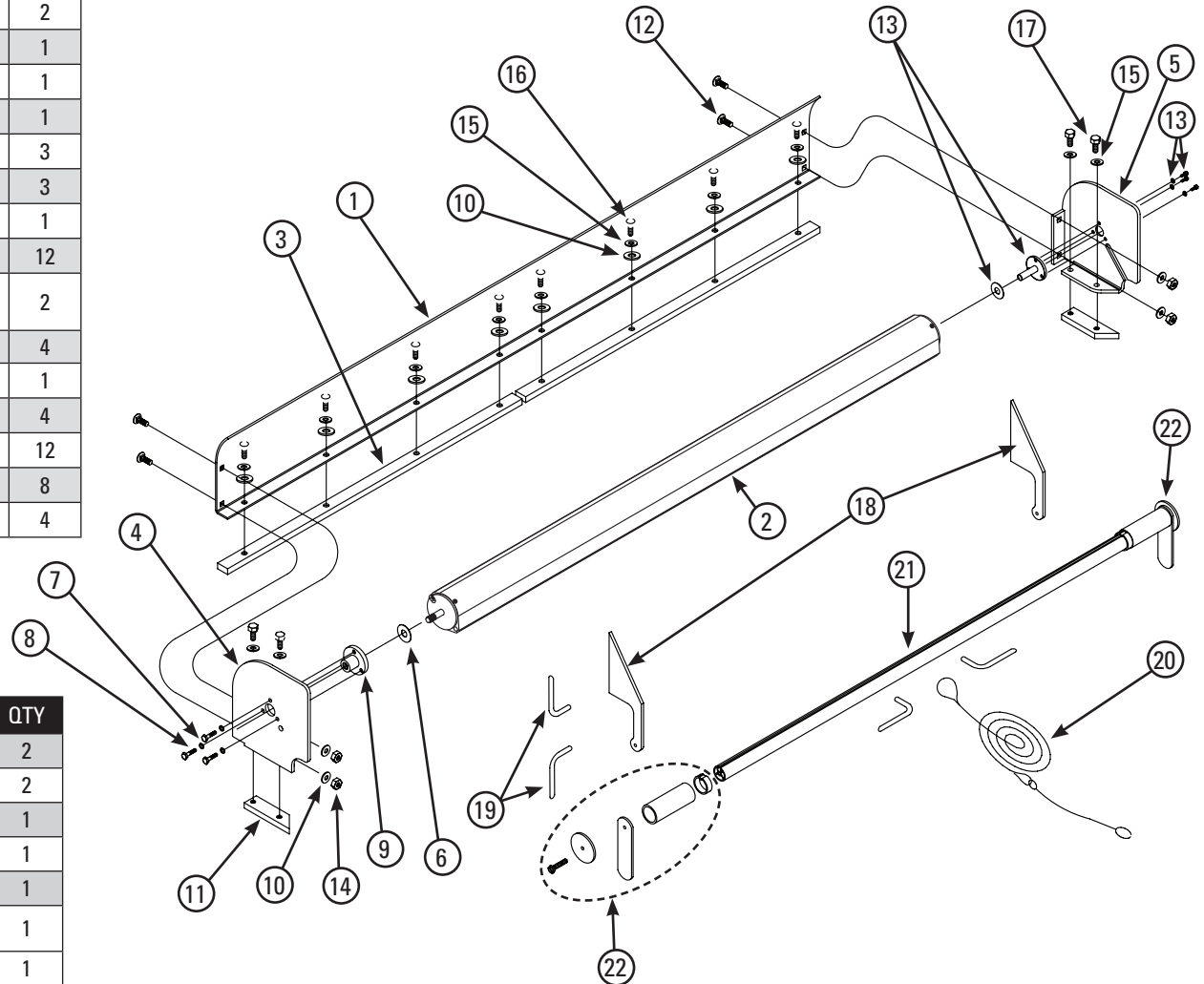
### Aluminator™ 7000M #103-0215 (Widths of 80, 84, 87, 89, 93, 96, 100")

| ITEM | PART #   | DESCRIPTION                                          | QTY |
|------|----------|------------------------------------------------------|-----|
| 1    | 501-10XX | Alum. Wind Guard 80, 84, 87, 89, 93, 96, 100"        | 1   |
| 2    | 501-13XX | Alum. Roller Tube Assy 80,84,87,89,93,96,100"        | 1   |
| 3    | 501-15XX | Mounting Bar-Steel 40, 42, 43.5, 44.5, 46.5, 48, 50" | 2   |
| 4    | 501-0207 | 7.5" Aluminum End Plate (Drvr.)                      | 1   |
| 5    | 501-0208 | 7.5" Aluminum End Plate (Pass.)                      | 1   |
| 6    | 505-5002 | Nylon Washer                                         | 1   |
| 7    | 505-2503 | 1/4" Lock Washer                                     | 3   |
| 8    | 503-2503 | 1/4" - 20 x 1/2"lg. HHCS Bolt                        | 3   |
| 9    | 501-0804 | Steel Spring Shaft Anchor                            | 1   |
| 10   | 505-2502 | 1/4" Flat Washer USS                                 | 12  |
| 11   | 501-150X | 5" Mounting Bar<br>(Specify Steel or Aluminum)       | 2   |
| 12   | 503-3104 | 5/16" - 18 x 3/4"lg. Carriage Bolt                   | 4   |
| 13   | 501-0805 | Universal Bolt In Stud Kit                           | 1   |
| 14   | 504-3103 | 5/16" - 18 Nyloc Nut                                 | 4   |
| 15   | 505-3102 | 5/16" Lock Washer                                    | 12  |
| 16   | 503-3101 | 5/16" - 18 x 1/2"lg. HHCS Bolt                       | 8   |
| 17   | 503-3102 | 5/16" - 18 x 1"lg. HHCS Bolt                         | 4   |

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### Pullrod Hardware

| ITEM | PART #               | DESCRIPTION                                 | QTY |
|------|----------------------|---------------------------------------------|-----|
| 18   | 501-0301             | Tarp Return Ramps (Steel)                   | 2   |
| --   | 501-0302             | Tarp Return Ramps (Alum.)                   | 2   |
| 19   | 501-0621             | Rope Storage Kits (4 Steel Hooks)           | 1   |
| --   | 501-0608             | Rope Storage Kits (4 Alum. Hooks)           | 1   |
| 20   | 517-10XX             | Pull Rope (20, 25, 30, 35, 40, 50')         | 1   |
| 21   | Determined by Length | Pullrod (85, 91, 93, 96, 100, 105" Lengths) | 1   |
| 22   | 501-0612             | Pullrod Hardware Kit                        | 1   |





## PARTS SCHEMATICS

## Semi-Automatic Systems

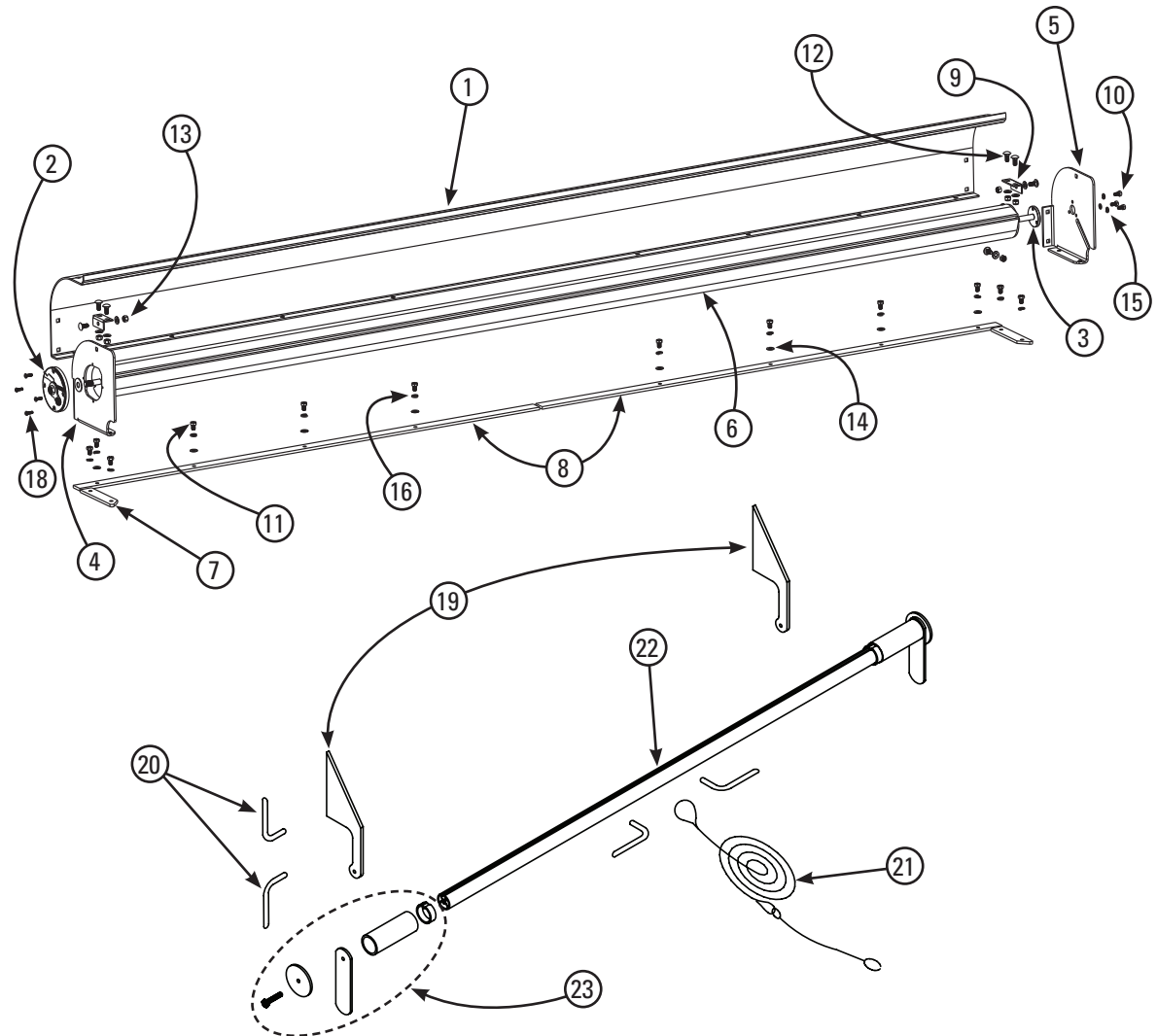
### Aluminator™ 8500M #117-0215 (Widths of 80, 84, 87, 89, 93, 96, 100")

| ITEM | PART #   | DESCRIPTION                     | QTY |
|------|----------|---------------------------------|-----|
| 1    | 501-0181 | 100" Aluminum 8.5 Housing       | 1   |
| 2    | 501-0647 | System End Plate Ratchet        | 1   |
| 3    | 501-0805 | Universal Bolt in Stud          | 1   |
| 4    | 501-1056 | 8.5" Ratchet Aluminum End       | 1   |
| 5    | 501-1057 | 8.5" Aluminum End Plate Right   | 1   |
| 6    | 501-1307 | 100" Spring Roller Tube         | 1   |
| 7    | 501-1506 | 6" Steel Mounting Bar           | 2   |
| 8    | 501-1513 | 50" Mounting Bar - Steel        | 2   |
| 9    | 501-9934 | Galvanized Steel Bracket        | 2   |
| 10   | 503-2503 | 1/4"-20 x 1/2" HHD Bolt         | 3   |
| 11   | 503-3101 | 5/16" - 18 x 1/2" Hex Bolt      | 12  |
| 12   | 503-3104 | 5/16" - 18 x 3/4" Carriage Bolt | 10  |
| 13   | 504-3103 | 5/16" - 18 Nylock Nut Steel     | 10  |
| 14   | 505-2502 | 1/4" USS Washer 5/16"           | 18  |
| 15   | 505-2503 | 1/4" Lock Washer - Plated       | 3   |
| 16   | 505-3102 | 5/16" Lock Washer               | 12  |
| 17   | 505-5002 | Washer Nylon .51D x 1.250D      | 2   |
| 18   | 506-9937 | 10-32 x 5/8" Philips Pan        | 4   |

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### Pullrod Hardware

| ITEM | PART #               | DESCRIPTION                         | QTY |
|------|----------------------|-------------------------------------|-----|
| 19   | 501-0301             | Tarp Return Ramps (Steel)           | 2   |
| --   | 501-0302             | Tarp Return Ramps (Alum.)           | 2   |
| 20   | 501-0623             | Rope Storage Kits (4 Steel Hooks)   | 1   |
| 21   | 517-10XX             | Pull Rope (20, 25, 30, 35, 40, 50') | 1   |
| 22   | Determined by Length | Pullrod (85, 91, 93, 96, 100, 105") | 1   |
| 23   | 501-0612             | Pullrod Hardware Kit                | 1   |





## PARTS SCHEMATICS

## Semi-Automatic Systems

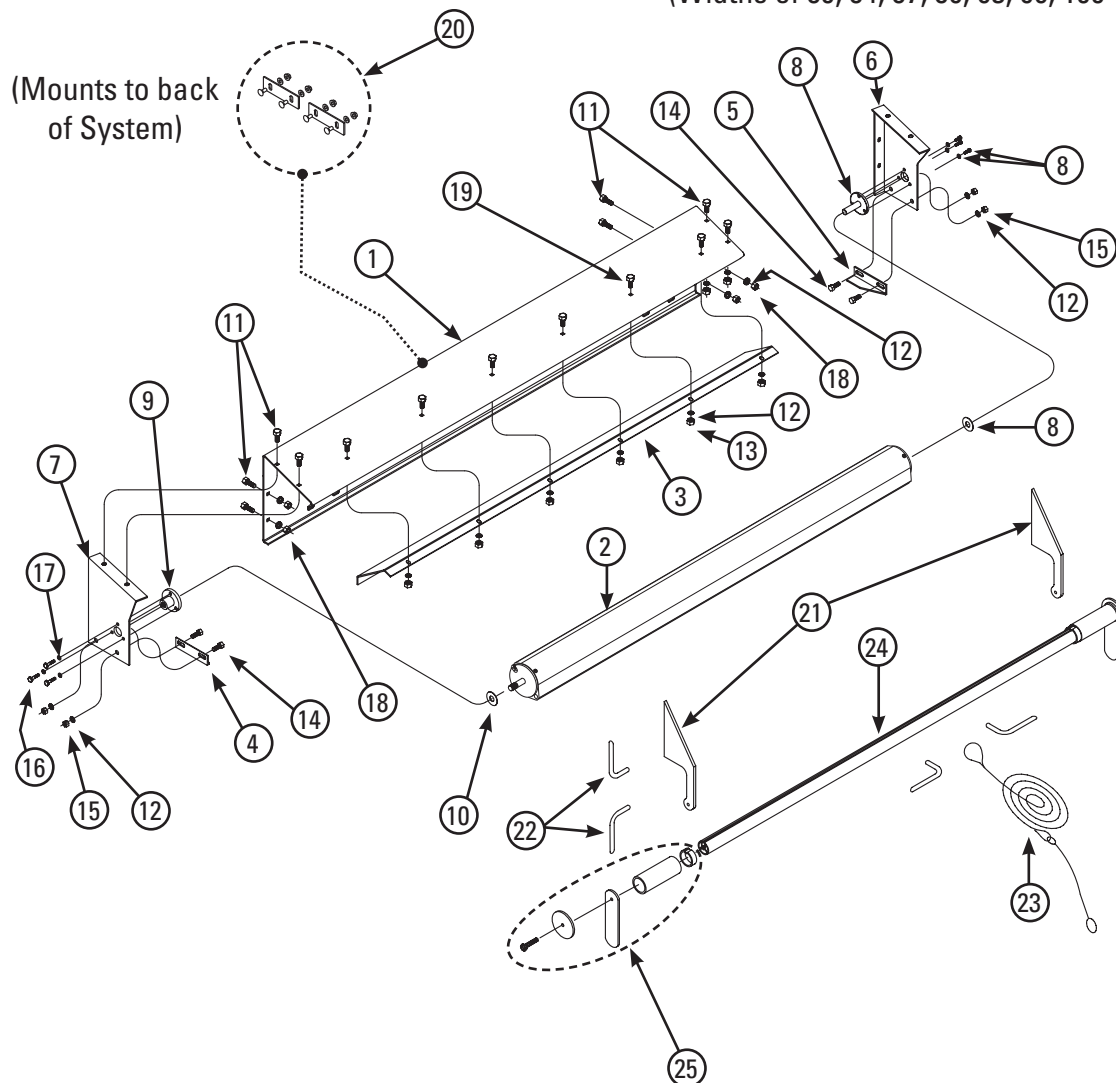
| ITEM | PART #   | DESCRIPTION                                                    | QTY |
|------|----------|----------------------------------------------------------------|-----|
| 1    | 501-010X | Galv. Steel Protector Housing 80, 84, 87, 89, 93, 96, 100"     | 1   |
| 2    | 501-130X | Roller Assembly 80, 84, 87, 89, 93, 96, 100"                   | 1   |
| 3    | 501-0138 | 48" x 5-1/2" Galv. Insert                                      | 1   |
| 4    | 501-152X | System Mount Bracket<br>(Specify Steel or Aluminum - Left)     | 1   |
| 5    | 501-152X | System Mount Bracket<br>(Specify Steel or Aluminum - Right)    | 1   |
| 6    | 501-0254 | Passenger Side Plate for "N" System                            | 1   |
| 7    | 501-0253 | Driver Side Plate for "N" System                               | 1   |
| 8    | 501-0633 | Universal Bolt in Stud Kit                                     | 1   |
| 9    | 501-0804 | Steel Spring Shaft Anchor                                      | 1   |
| 10   | 505-5002 | Nylon Washer                                                   | 1   |
| 11   | 503-2505 | 1/4" - 20 x 3/4"lg. Carriage Bolt                              | 8   |
| 12   | 505-2502 | 1/4" Flat Washer USS                                           | 24  |
| 13   | 504-2506 | 1/4" - 20 Nyloc Nut (Thin)                                     | 12  |
| 14   | 503-3104 | 5/16" - 18 x 3/4"lg. Carriage Bolt                             | 4   |
| 15   | 504-3103 | 5/16" - 18 Nyloc Nut                                           | 4   |
| 16   | 503-2503 | 1/4" - 20 x 1/2"lg. HHCS Bolt                                  | 3   |
| 17   | 505-2503 | 1/4" Lock Washer                                               | 3   |
| 18   | 504-2503 | 1/4" - 20 Nyloc Nut                                            | 8   |
| 19   | 503-2501 | 1/4" - 20 x 1/2"lg. Carriage Bolt                              | 12  |
| 20   | 501-06XX | Steel Protector System Hardware<br>(Specify Steel or Aluminum) | 1   |

### Pullrod Hardware

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| ITEM | PART #               | DESCRIPTION                                 | QTY |
|------|----------------------|---------------------------------------------|-----|
| 21   | 501-0301             | Tarp Return Ramps (Steel)                   | 2   |
| --   | 501-0302             | Tarp Return Ramps (Alum.)                   | 2   |
| 22   | 501-0621             | Rope Storage Kits (4 Steel Hooks)           | 1   |
| --   | 501-0608             | Rope Storage Kits (4 Alum. Hooks)           | 1   |
| 23   | 517-10XX             | Pull Rope (20, 25, 30, 35, 40, 50')         | 1   |
| 24   | Determined by Length | Pullrod (85, 91, 93, 96, 100, 105" Lengths) | 1   |
| 25   | 501-0612             | Pullrod Hardware Kit                        | 1   |

## Steel Protector™ #106-0215 (Widths of 80, 84, 87, 89, 93, 96, 100")







## PARTS SCHEMATICS

## Semi-Automatic Systems

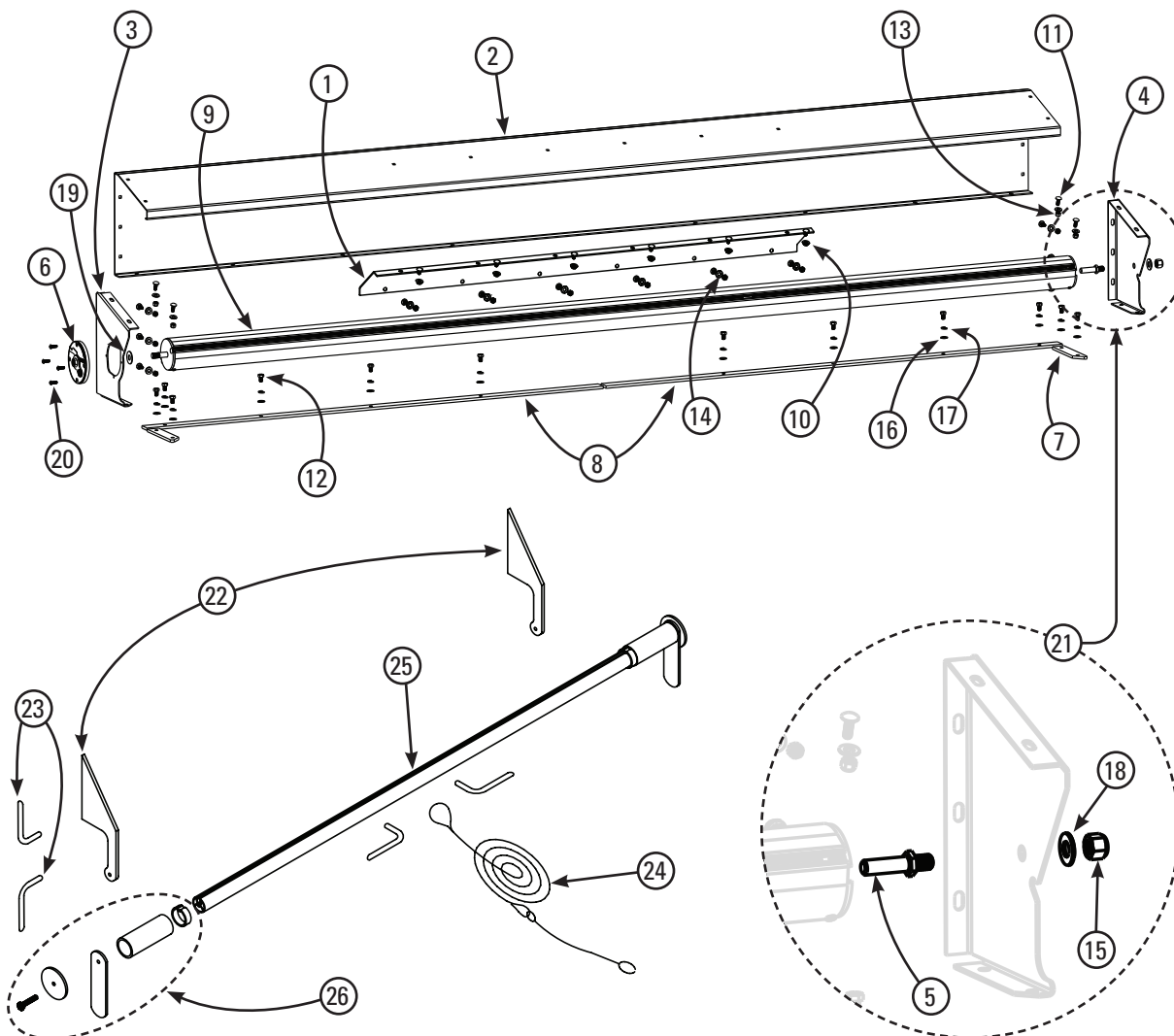
| ITEM | PART #           | DESCRIPTION                                        | QTY |
|------|------------------|----------------------------------------------------|-----|
| 1    | 501-0138         | Galvanized Insert                                  | 1   |
| 2    | 501-018X to 019X | Galv. Steel Protector + Housing                    | 1   |
| 3    | 501-0280         | Protector + Ratchet End Plate                      | 1   |
| 4    | 501-0281         | Protector + End Plate Passenger                    | 1   |
| 5    | 501-0801         | System End Plate Stud 2.4" (Part of Kit #501-0632) | 1   |
| 6    | 501-0647         | System End Plate Ratchet                           | 1   |
| 7    | 501-1505         | 6" Large Steel Mounting Bar                        | 2   |
| ---  | 501-1506         | 6" Large Aluminum Mounting Bar                     | --- |
| 8    | 501-1520         | 50" Mounting Bar Aluminum                          | 2   |
| ---  | 501-1513         | 50" Mounting Bar Steel                             | --- |
| 9    | 501-130X         | Spring Roller Tube                                 | 1   |
| 10   | 503-2501         | 1/4" - 20 x 1/2" USS Carriage Bolt                 | 12  |
| 11   | 503-2505         | 1/4" - 20 x 3/4" USS Carriage Bolt                 | 10  |
| 12   | 503-3101         | 5/16" - 18 x 1/2" Hex Bolt                         | 12  |
| 13   | 504-2503         | 1/4" - 20 USS Nylock Nut                           | 10  |
| 14   | 504-2506         | 1/4" Hex Lock Nut "Thin" L/N Steel Zinc            | 12  |
| 15   | 504-5001         | 1/2" Crimp Nut (Part of Kit #501-0632)             | 1   |
| 16   | 505-2502         | 1/4" USS Washer 5/16" Hole                         | 35  |
| 17   | 505-3102         | 5/16" Lock Washer                                  | 15  |
| 18   | 505-5001         | 1/2" AN Washer 1/16" Thick (Part of Kit #501-0632) | 1   |
| 19   | 505-5002         | Washer Nylon 0.5ID X                               | 2   |
| 20   | 506-9937         | 10-31 x 5/8" Philips Pan                           | 4   |
| 21   | 501-0632         | System End Plate Stud Kit                          | 1   |

### Pullrod Hardware

REV. 06/18/23 WLH

| ITEM | PART #               | DESCRIPTION                         | QTY |
|------|----------------------|-------------------------------------|-----|
| 22   | 501-0301             | Tarp Return Ramps (Steel)           | 2   |
| --   | 501-0302             | Tarp Return Ramps (Alum.)           | 2   |
| 23   | 501-0623             | Rope Storage Kits (4 Steel Hooks)   | 1   |
| 24   | 517-10XX             | Pull Rope (20, 25, 30, 35, 40, 50') | 1   |
| 25   | Determined by Length | Pullrod (85, 91, 93, 96, 100, 105') | 1   |
| 26   | 501-0612             | Pullrod Hardware Kit                | 1   |

### Steel Protector +™ #116-0215 (Widths of 80, 84, 87, 89, 93, 96, 100")





## PARTS SCHEMATICS

## Semi-Automatic Systems

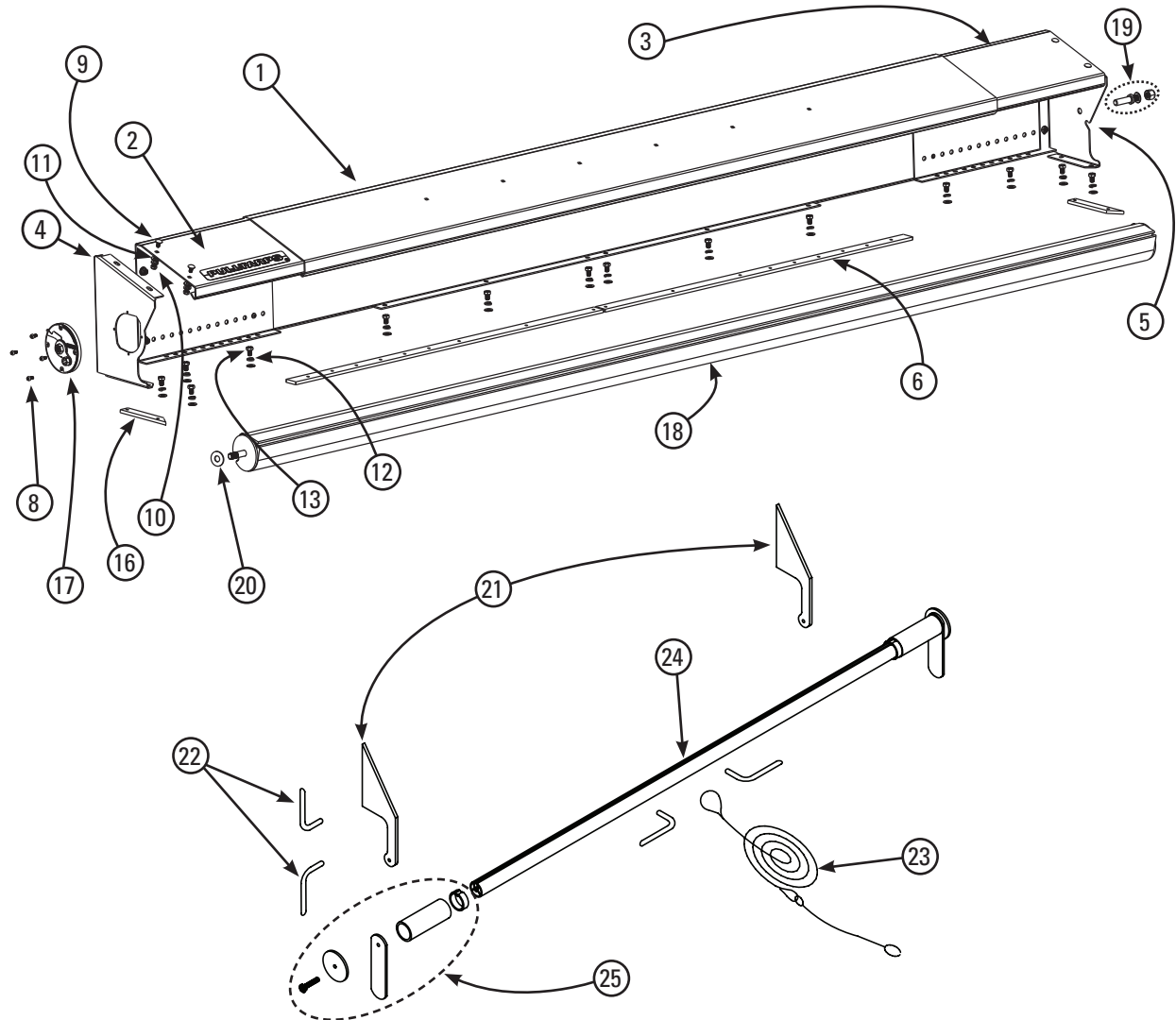
### X-Pando™ (Adjustable) #116-3027, 116-3017 (Widths of 78" - 100")

| ITEM | PART #   | DESCRIPTION                                     | QTY |
|------|----------|-------------------------------------------------|-----|
| 1    | 501-0167 | 76" Telescope Steel Protector Center Hsg.       | 1   |
| 2    | 501-0168 | 14" Steel Protector Adj. End (Left)             | 1   |
| 3    | 501-0169 | 14" Steel Protector Adj. End (Right)            | 1   |
| 4    | 501-0280 | Large Telescope Ratchet End Plate               | 1   |
| 5    | 501-0281 | Large Telescope End Plate Pass.                 | 1   |
| 6    | 501-155X | 51" Mounting Bar (Specify Steel or Aluminum)    | 2   |
| 7    | 501-0138 | Galvanized Insert (Not Shown)                   | 1   |
| 8    | 506-9905 | 10 - 32 x 1/2" Phillips Pan Head Screw          | 4   |
| 9    | 503-2501 | 1/4" - 20 x 1/2" USS Carriage Bolt              | 22  |
| 10   | 504-2506 | 1/4" Hex Lock Nut "Thin"                        | 22  |
| 11   | 505-2502 | 1/4" USS Washer 5/16" Hole                      | 22  |
| 12   | 505-3102 | 5/16" Lock Washer                               | 14  |
| 13   | 503-3101 | 5/16" - 18 x 1/2" Hex Bolt                      | 14  |
| 14   | 503-2502 | 1/4" - 20 x 1/2" SS Button HD Screw (Not Shown) | 4   |
| 15   | 504-2504 | 1/4" - 20 Weld Nut - Single (Not Shown)         | 4   |
| 16   | 501-150X | 5" Mounting Bar (Specify Steel or Aluminum)     | 2   |
| 17   | 501-0630 | System End Plate Ratchet Assembly               | 1   |
| 18   | 501-1307 | 100" Spring Roller Tube Assembly                | 1   |
| 19   | 501-0632 | System End Plate Stud 2.4"                      | 1   |
| 20   | 505-5002 | Nylon Washer .51 ID x 1.25 OD x .063 Thick      | 2   |

REV. 03/31/22 WLH

### Pullrod Hardware

| ITEM | PART #               | DESCRIPTION                                 | QTY |
|------|----------------------|---------------------------------------------|-----|
| 21   | 501-0301             | Tarp Return Ramps (Steel)                   | 2   |
| --   | 501-0302             | Tarp Return Ramps (Alum.)                   | 2   |
| 22   | 501-0621             | Rope Storage Kits (4 Steel Hooks)           | 1   |
| --   | 501-0608             | Rope Storage Kits (4 Alum. Hooks)           | 1   |
| 23   | 517-10XX             | Pull Rope (20, 25, 30, 35, 40, 50')         | 1   |
| 24   | Determined by Length | Pullrod (85, 91, 93, 96, 100, 105" Lengths) | 1   |
| 25   | 501-0612             | Pullrod Hardware Kit                        | 1   |







## PARTS SCHEMATICS

## Semi-Automatic Systems

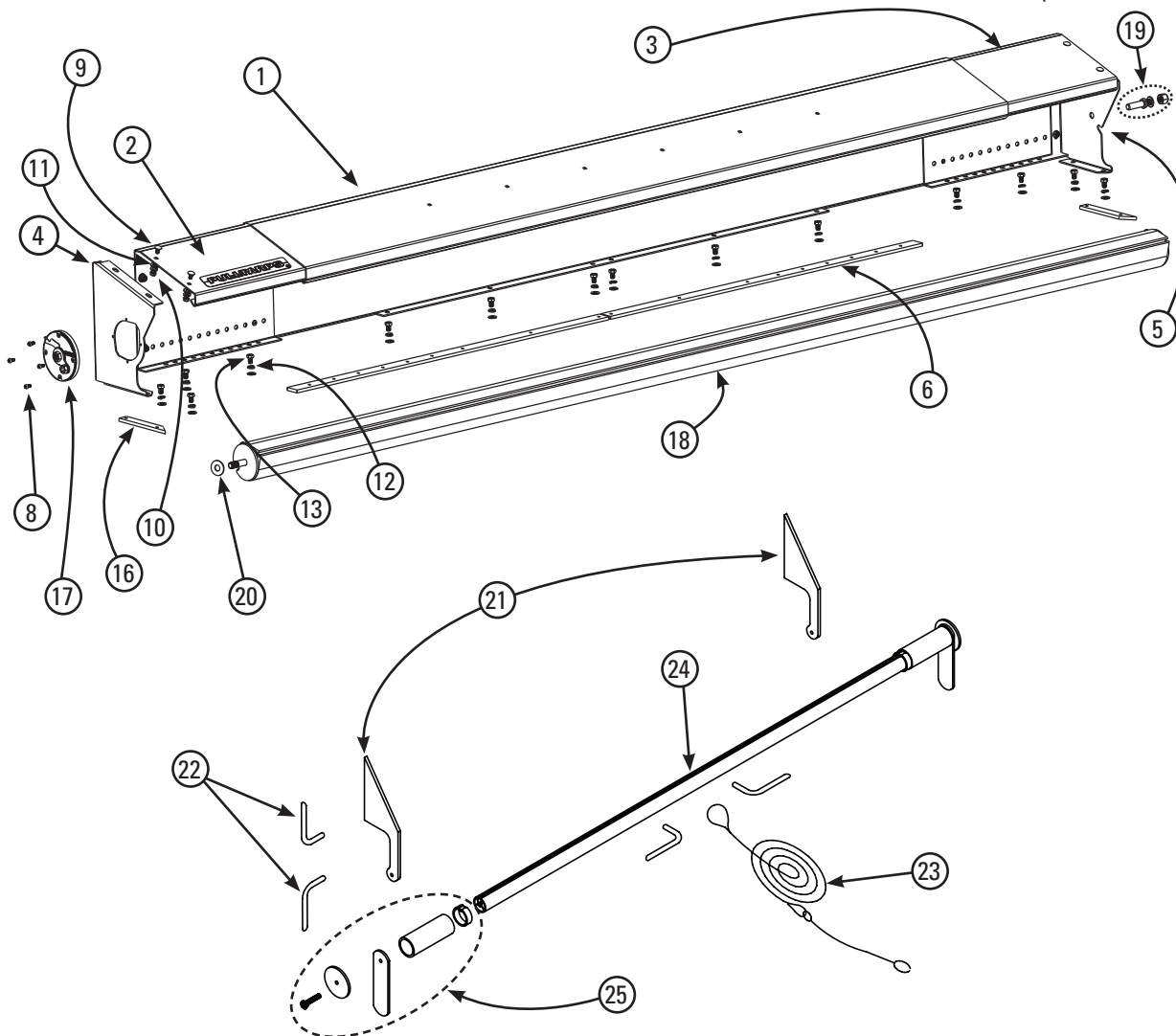
### X-Pando™ (Pre-Adjusted) #116-3028, 116-3018 (Set to Size)

| ITEM | PART #   | DESCRIPTION                                       | QTY |
|------|----------|---------------------------------------------------|-----|
| 1    | 501-0167 | 76" Telescope Steel Protector Center Hsg.         | 1   |
| 2    | 501-0168 | 14" Steel Protector Adj. End (Left)               | 1   |
| 3    | 501-0169 | 14" Steel Protector Adj. End (Right)              | 1   |
| 4    | 501-0280 | Large Telescope Ratchet End Plate                 | 1   |
| 5    | 501-0281 | Large Telescope End Plate Pass.                   | 1   |
| 6    | 501-155X | 51" Mounting Bar (Specify Steel or Aluminum)      | 2   |
| 7    | 501-0138 | Galvanized Insert (Not Shown)                     | 1   |
| 8    | 506-9905 | 10 - 32 x 1/2" Phillips Pan Head Screw            | 4   |
| 9    | 503-2501 | 1/4" - 20 x 1/2" USS Carriage Bolt                | 22  |
| 10   | 504-2506 | 1/4" Hex Lock Nut "Thin"                          | 22  |
| 11   | 505-2502 | 1/4" USS Washer 5/16" Hole                        | 22  |
| 12   | 505-3102 | 5/16" Lock Washer                                 | 14  |
| 13   | 503-3101 | 5/16" - 18 x 1/2" Hex Bolt                        | 14  |
| 14   | 503-2502 | 1/4" - 20 x 1/2" SS Button HD Screw (Not Shown)   | 4   |
| 15   | 504-2504 | 1/4" - 20 Weld Nut - Single (Not Shown)           | 4   |
| 16   | 501-150X | 5" Mounting Bar (Specify Steel or Aluminum)       | 2   |
| 17   | 501-0630 | System End Plate Ratchet Assembly                 | 1   |
| 18   | 501-13XX | Roller Tube Assembly 80, 84, 87, 89, 93, 96, 100" | 1   |
| 19   | 501-0632 | System End Plate Stud 2.4"                        | 1   |
| 20   | 505-5002 | Nylon Washer .51 ID x 1.25 OD x .063 Thick        | 2   |

REV. 03/31/22 WLH

### Pullrod Hardware

| ITEM | PART #               | DESCRIPTION                                 | QTY |
|------|----------------------|---------------------------------------------|-----|
| 21   | 501-0301             | Tarp Return Ramps (Steel)                   | 2   |
| --   | 501-0302             | Tarp Return Ramps (Alum.)                   | 2   |
| 22   | 501-0621             | Rope Storage Kits (4 Steel Hooks)           | 1   |
| --   | 501-0608             | Rope Storage Kits (4 Alum. Hooks)           | 1   |
| 23   | 517-10XX             | Pull Rope (20, 25, 30, 35, 40, 50')         | 1   |
| 24   | Determined by Length | Pullrod (85, 91, 93, 96, 100, 105" Lengths) | 1   |
| 25   | 501-0612             | Pullrod Hardware Kit                        | 1   |





## PARTS SCHEMATICS

## Semi-Automatic Systems

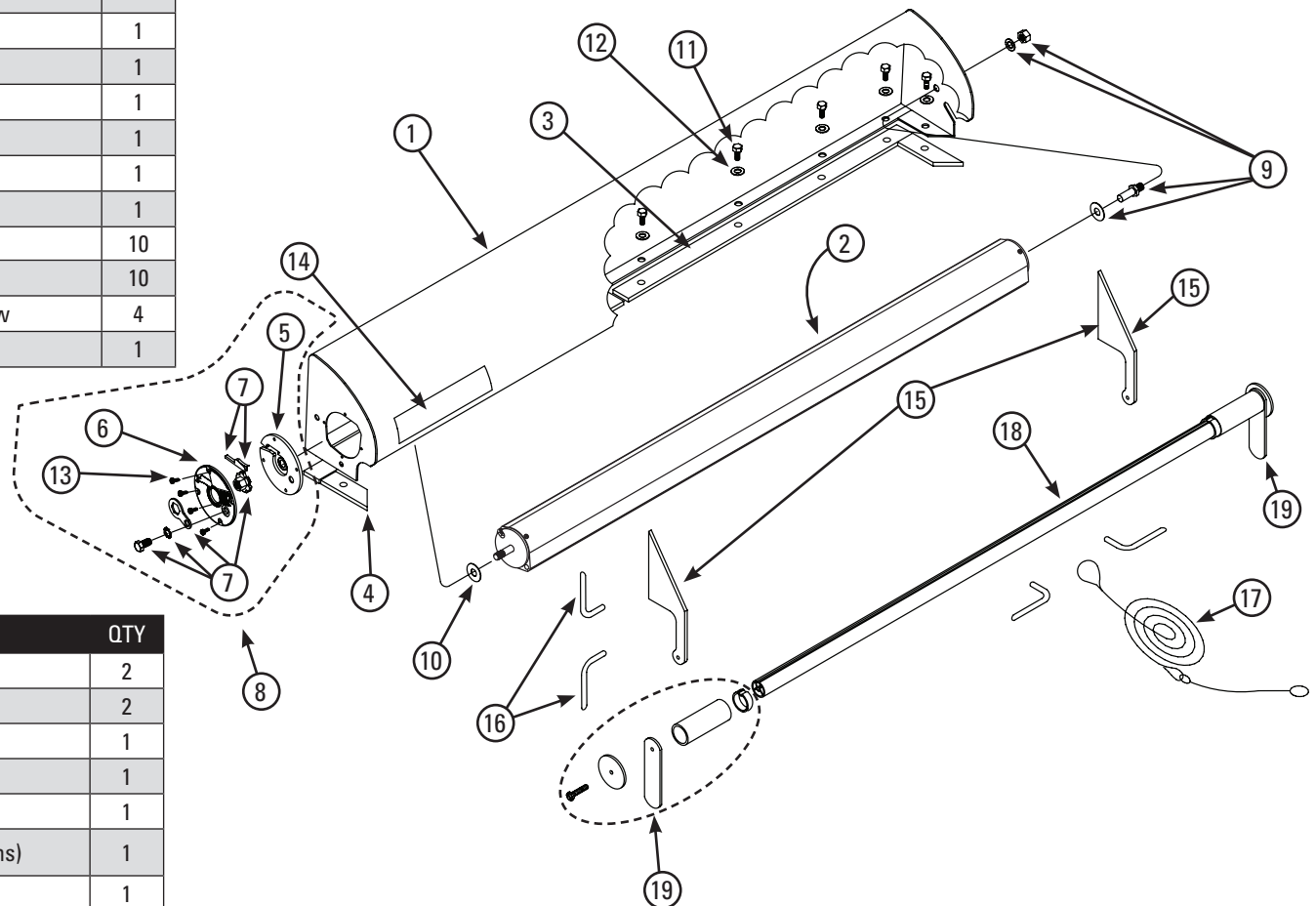
### SuperShield™ 8500M #107-0215 (Widths of 80, 84, 87, 89, 93, 96, 100")

| ITEM | PART #   | DESCRIPTION                                                                   | QTY |
|------|----------|-------------------------------------------------------------------------------|-----|
| 1    | 501-01XX | 8.5" Super Shield Housing 80, 84, 87, 89, 93, 96, 100"                        | 1   |
| 2    | 501-13XX | Roller Tube Assy 80,84,87,89,93,96,100"                                       | 1   |
| 3    | 501-15XX | Mounting Bar 40, 42, 43.5, 44.5, 46.5, 48, 50"<br>(Specify Steel or Aluminum) | 2   |
| 4    | 501-150X | Small Steel Mounting Bar<br>(Specify Steel or Aluminum)                       | 2   |
| 5    | 501-0809 | Ratchet Housing                                                               | 1   |
| 6    | 501-0806 | Ratchet Cover                                                                 | 1   |
| 7    | 501-0825 | Ratchet Kit                                                                   | 1   |
| 8    | 501-0630 | Ratchet Assembly                                                              | 1   |
| 9    | 501-0632 | System End Plate Stud Kit                                                     | 1   |
| 10   | 505-5002 | Nylon Washer                                                                  | 1   |
| 11   | 503-3101 | 5/16" - 18 x 1/2"lg. HHCS Bolt                                                | 10  |
| 12   | 505-3102 | 5/16" Lock Washer                                                             | 10  |
| 13   | 506-9905 | #10 - 32 x 1/2"lg. Phillips Pan Screw                                         | 4   |
| 14   | 607-0061 | Pulltarps Decal                                                               | 1   |

REV. 10/25/21 WLH

### Pullrod Hardware

| ITEM | PART #               | DESCRIPTION                                 | QTY |
|------|----------------------|---------------------------------------------|-----|
| 15   | 501-0301             | Tarp Return Ramps (Steel)                   | 2   |
| --   | 501-0302             | Tarp Return Ramps (Alum.)                   | 2   |
| 16   | 501-0621             | Rope Storage Kits (4 Steel Hooks)           | 1   |
| --   | 501-0608             | Rope Storage Kits (4 Alum. Hooks)           | 1   |
| 17   | 517-10XX             | Pull Rope (20, 25, 30, 35, 40, 50')         | 1   |
| 18   | Determined by Length | Pullrod (85, 91, 93, 96, 100, 105" Lengths) | 1   |
| 19   | 501-0612             | Pullrod Hardware Kit                        | 1   |





## PARTS SCHEMATICS

## Semi-Automatic Systems

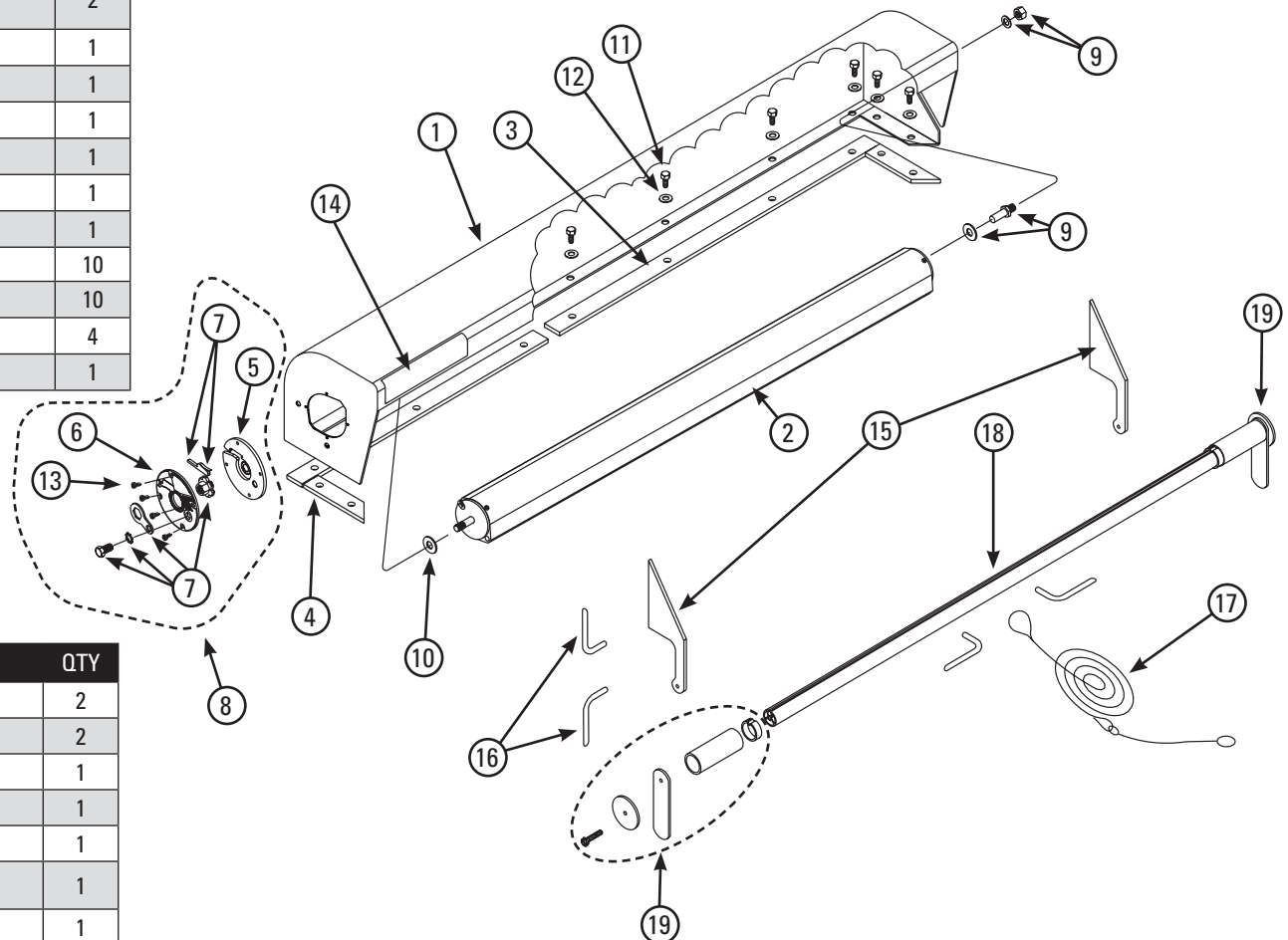
### SuperShield™ 9500M #108-0215 (Widths of 80, 84, 87, 89, 93, 96, 100")

| ITEM | PART #   | DESCRIPTION                                                                         | QTY |
|------|----------|-------------------------------------------------------------------------------------|-----|
| 1    | 501-01XX | 9.5" Super Shield Housing 80, 84, 87, 89, 93, 96, 100"                              | 1   |
| 2    | 501-13XX | Roller Tube Assy 80,84,87,89,93,96,100"                                             | 1   |
| 3    | 501-15XX | Mounting Bar-Steel 40, 42, 43.5, 44.5, 46.5, 48, 50"<br>(Specify Steel or Aluminum) | 2   |
| 4    | 501-150X | 6" Large Mount<br>(Specify Steel or Aluminum)                                       | 2   |
| 5    | 501-0809 | Ratchet Housing                                                                     | 1   |
| 6    | 501-0806 | Ratchet Cover                                                                       | 1   |
| 7    | 501-0825 | Ratchet Kit                                                                         | 1   |
| 8    | 501-0630 | Ratchet Assembly                                                                    | 1   |
| 9    | 501-0632 | System End Plate Stud Kit                                                           | 1   |
| 10   | 505-5002 | Nylon Washer                                                                        | 1   |
| 11   | 503-3101 | 5/16" - 18 x 1/2"lg. HHCS Bolt                                                      | 10  |
| 12   | 505-3102 | 5/16" Lock Washer                                                                   | 10  |
| 13   | 506-9905 | #10 - 32 x 1/2"lg. Phillips Pan Screw                                               | 4   |
| 14   | 607-0061 | Pulltarps Decal                                                                     | 1   |

REV. 10/22/21 WLH

### Pullrod Hardware

| ITEM | PART #               | DESCRIPTION                                 | QTY |
|------|----------------------|---------------------------------------------|-----|
| 15   | 501-0301             | Tarp Return Ramps (Steel)                   | 2   |
| --   | 501-0302             | Tarp Return Ramps (Alum.)                   | 2   |
| 16   | 501-0621             | Rope Storage Kits (4 Steel Hooks)           | 1   |
| --   | 501-0608             | Rope Storage Kits (4 Alum. Hooks)           | 1   |
| 17   | 517-10XX             | Pull Rope (20, 25, 30, 35, 40, 50')         | 1   |
| 18   | Determined by Length | Pullrod (85, 91, 93, 96, 100, 105" Lengths) | 1   |
| 19   | 501-0612             | Pullrod Hardware Kit                        | 1   |





## PARTS SCHEMATICS

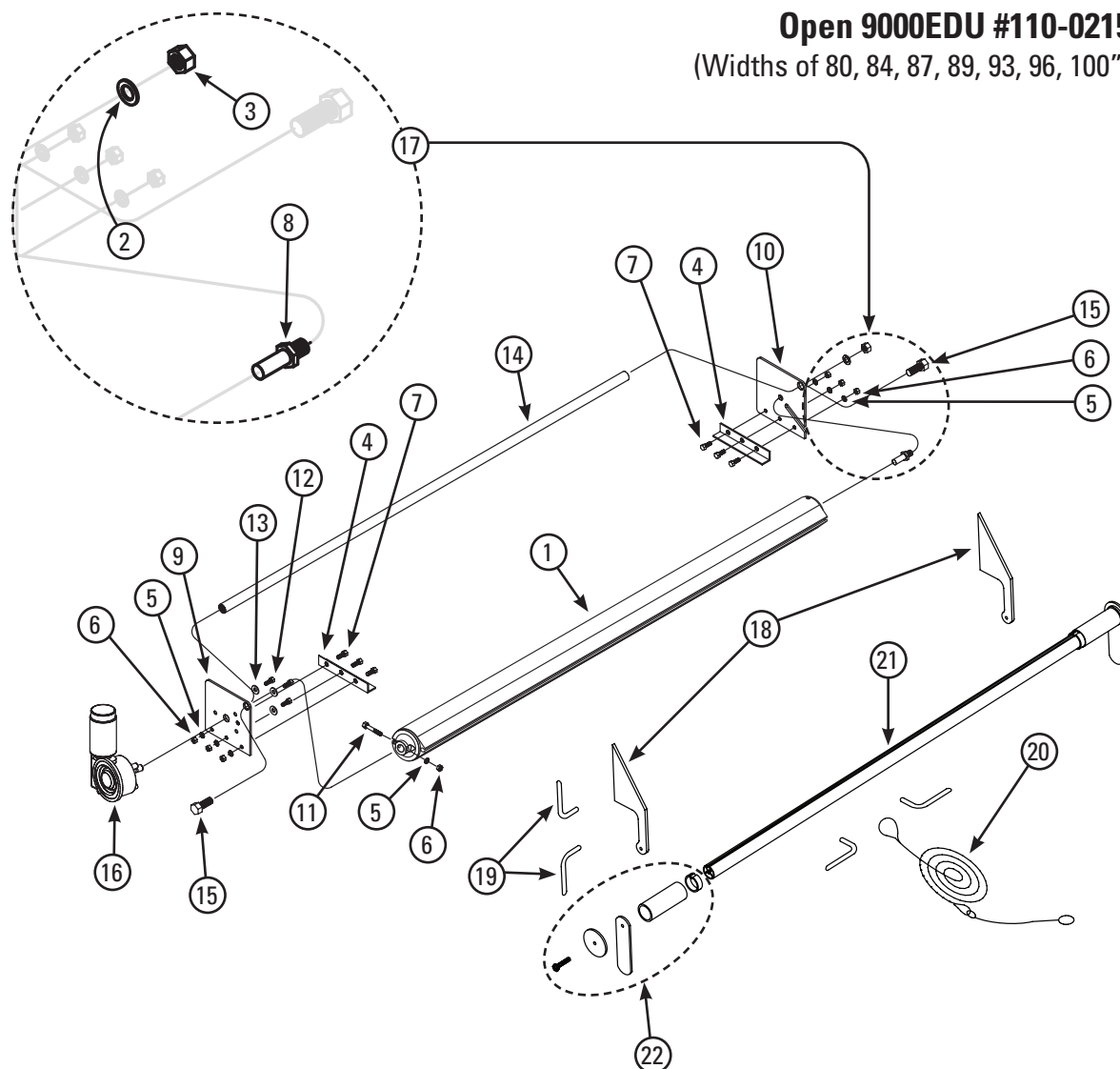
## Semi-Automatic Systems

| ITEM | PART #   | DESCRIPTION                                         | QTY  |
|------|----------|-----------------------------------------------------|------|
| 1    | 501-1310 | Roller Tube Assy. 80, 84, 87, 89, 93, 96, 100"      | 1    |
| 2    | 505-5001 | 1/2" AN Flat Washer (Part of Kit #501-0632)         | 1    |
| 3    | 504-5001 | 1/2" - 13 Crimp Nut (Part of Kit #501-0632)         | 1    |
| 4    | 501-152X | Open System Mount Brkt. (Specify Steel or Aluminum) | 2    |
| 5    | 505-2502 | 1/4" Flat Washer USS                                | 7    |
| 6    | 504-3103 | 5/16" - 18 Nyloc Nut                                | 7    |
| 7    | 503-3104 | 5/16" - 18 x 3/4"lg. Carriage Bolt                  | 6    |
| 8    | 501-0801 | System End Plate Stud 2.4" (Part of Kit #501-0632)  | 1    |
| 9    | 501-0221 | 9" Open End Plate, Electric (Drv.)                  | 1    |
| 10   | 501-0220 | 9" Open End Plate (Pass.)                           | 1    |
| 11   | 503-3108 | 5/16" - 18 x 1 3/4"lg. HHCS Bolt                    | 1    |
| 12   | 503-3103 | 5/16" - 18 x 3/4"lg. HHCS Bolt                      | 3    |
| 13   | 505-3102 | 5/16" Lock Washer                                   | 3    |
| 14   | 501-980X | Spacer Rod 7/8" 80, 84, 87, 89, 93, 96, 100"        | 1    |
| 15   | 503-7501 | 3/4" - 10 x 1"lg. HHCS Bolt                         | 2    |
| 16   | 517-5909 | Pulltarps® 1.3 HP 12V DC Electric Motor             | 1    |
| --   | 514-0124 | 6 Ga. Electric Wire (Not shown)                     | 100' |
| --   | 514-0101 | Switch Assembly (Not shown)                         | 1    |
| 17   | 501-0632 | System End Plate Stud                               | 1    |

REV. 06/19/23 WLH

### Pullrod Hardware

| ITEM | PART #               | DESCRIPTION                                | QTY |
|------|----------------------|--------------------------------------------|-----|
| 18   | 501-0301             | Tarp Return Ramps (Steel)                  | 2   |
| --   | 501-3102             | Tarp Return Ramps (Alum.)                  | 2   |
| 19   | 501-0643             | Rope Storage Hooks (Steel)                 | 4   |
| --   | 501-0642             | Rope Storage Hook (Alum.)                  | 4   |
| 20   | 517-10XX             | Pull Rope (20, 25, 30, 35, 40, 45, 50')    | 1   |
| 21   | Determined by Length | Pullrod (85, 91, 93, 96, 99, 105" Lengths) | 1   |
| 22   | 501-0612             | Pullrod Hardware Kit                       | 1   |



**Open 9000EDU #110-0215**  
(Widths of 80, 84, 87, 89, 93, 96, 100")



## PARTS SCHEMATICS

## Semi-Automatic Systems

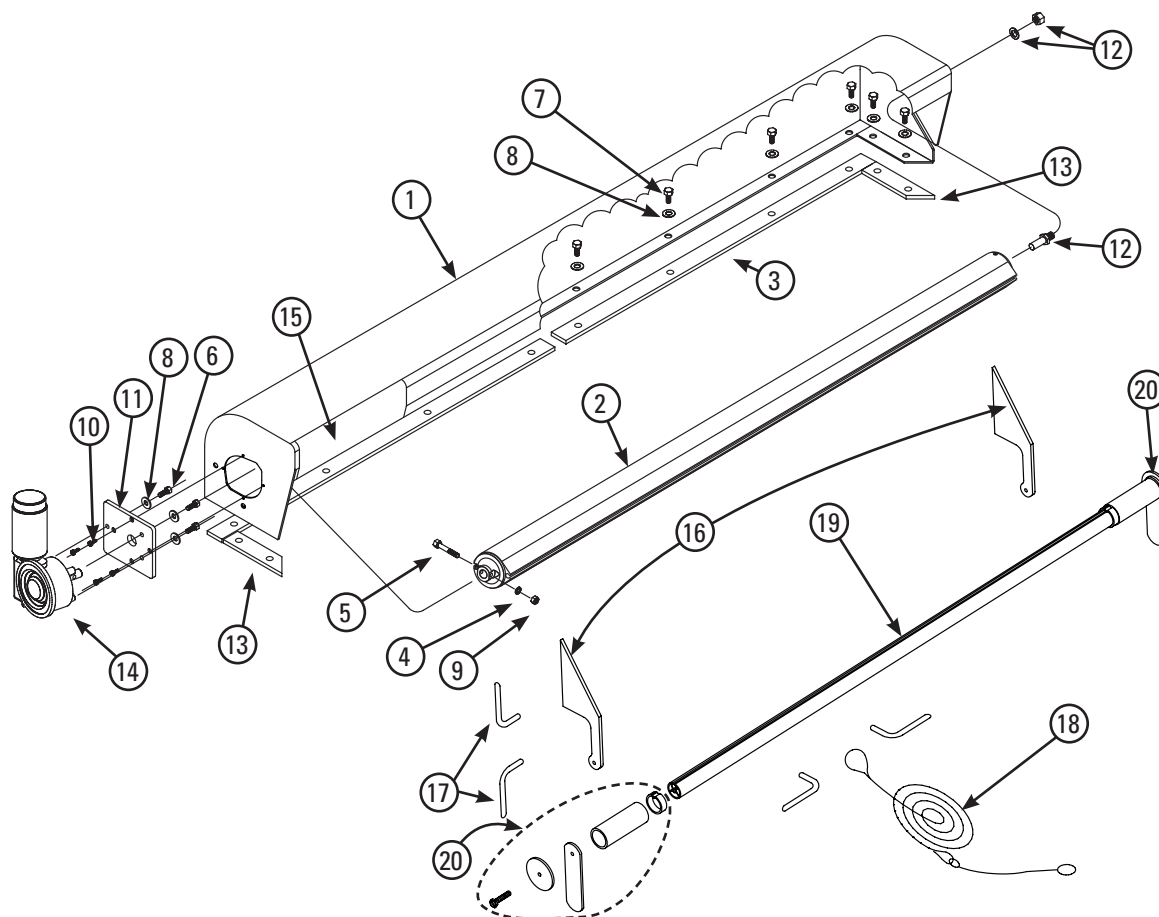
| ITEM | PART #   | DESCRIPTION                                                                   | QTY  |
|------|----------|-------------------------------------------------------------------------------|------|
| 1    | 501-01XX | SS Housing 9.5" 80, 84, 87, 89, 93, 96, 100"                                  | 1    |
| 2    | 501-13XX | Roller Tube Assy. 80,84,87,89,93,96,100"                                      | 1    |
| 3    | 501-15XX | Mounting Bar 40, 42, 43.5, 44.5, 46.5, 48, 50"<br>(Specify Steel or Aluminum) | 2    |
| 4    | 505-2502 | 1/4" Flat Washer USS                                                          | 1    |
| 5    | 503-3108 | 5/16" - 18 x 1-3/4"lg. HHCS Bolt                                              | 1    |
| 6    | 503-3105 | 5/16" - 18 x 1"lg. HHCS Bolt                                                  | 3    |
| 7    | 503-3101 | 5/16" - 18 x 1/2"lg. HHCS Bolt                                                | 12   |
| 8    | 505-3102 | 5/16" Lock Washer                                                             | 15   |
| 9    | 504-3103 | 5/16" - 18 Nyloc Nut                                                          | 1    |
| 10   | 506-9905 | #10 - 32 x 1/2"lg. Phillips Head Pan                                          | 4    |
| 11   | 501-1235 | Alum. Adaptor Plate-SW Motor                                                  | 1    |
| 12   | 501-0632 | System End Plate Stud Kit                                                     | 1    |
| 13   | 501-150X | 6" Large Steel Mounting Brkt.<br>(Specify Steel or Aluminum)                  | 2    |
| 14   | 517-5909 | Pulltarps® 1.3 HP 12V DC Electric Motor                                       | 1    |
| --   | 514-0121 | 6 Ga. Electric Wire (Not Shown)                                               | 100' |
| --   | 514-0505 | Gray Quick Disconnect (Not Shown)                                             | 2    |
| --   | 514-0101 | Switch Assembly (Not shown)                                                   | 1    |
| 15   | 607-0061 | Pulltarps Decal                                                               | 1    |

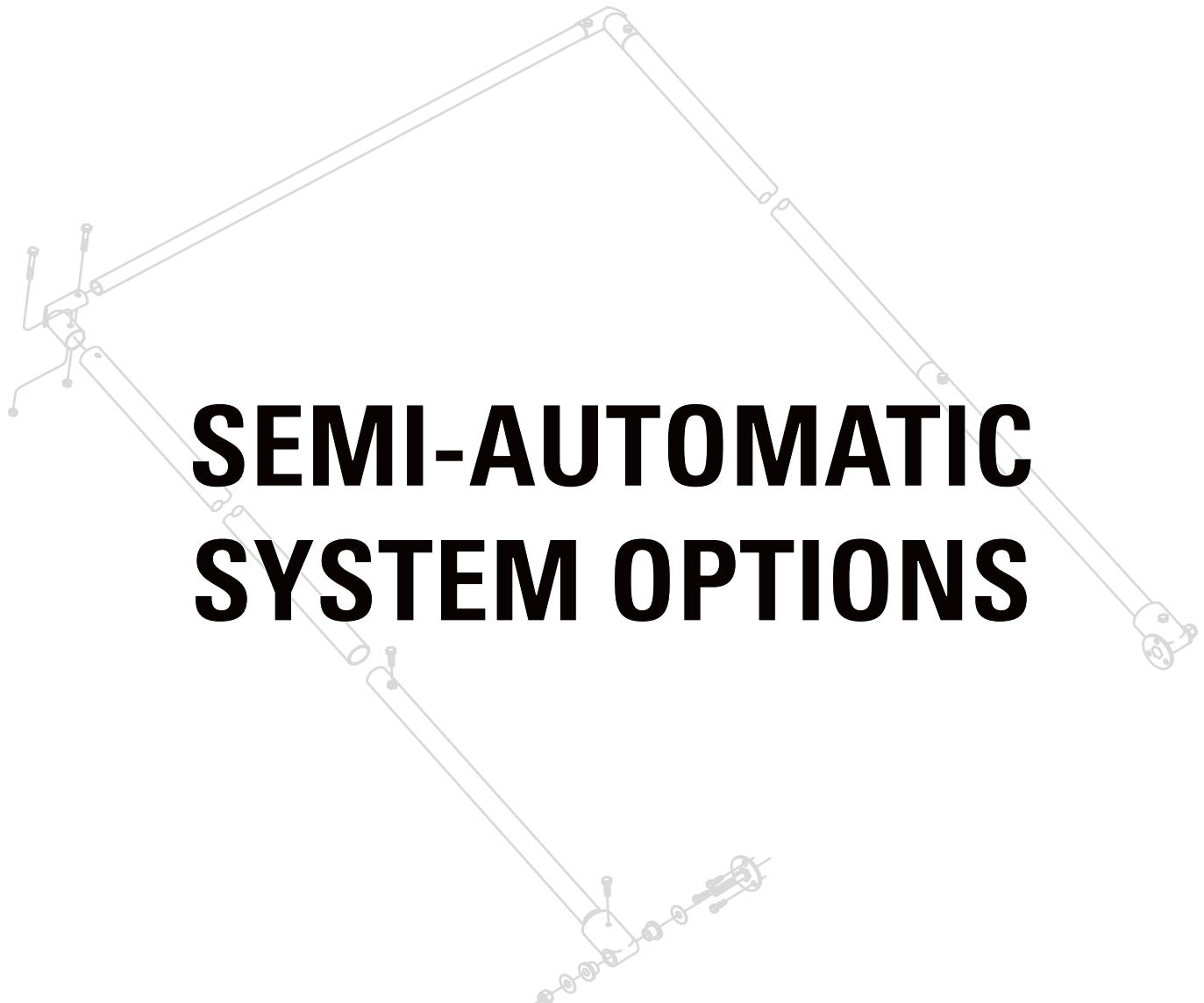
REV. 12/17/21 WLH

## Pullrod Hardware

| ITEM | PART #               | DESCRIPTION                                 | QTY |
|------|----------------------|---------------------------------------------|-----|
| 16   | 501-0301             | Tarp Return Ramps (Steel)                   | 2   |
| --   | 501-0302             | Tarp Return Ramps (Alum.)                   | 2   |
| 17   | 501-0621             | Rope Storage Kits (4 Steel Hooks)           | 1   |
| --   | 501-0608             | Rope Storage Kits (4 Alum. Hooks)           | 1   |
| 18   | 517-10XX             | Pull Rope (20, 25, 30, 35, 40, 50')         | 1   |
| 19   | Determined by Length | Pullrod (85, 91, 93, 96, 100, 105" Lengths) | 1   |
| 20   | 501-0612             | Pullrod Hardware Kit                        | 1   |

## SuperShield™ 9500EDU #111-0215 (Widths of 80, 84, 87, 89, 93, 96, 100")





# SEMI-AUTOMATIC SYSTEM OPTIONS



## PARTS SCHEMATICS

## Semi-Automatic System Options

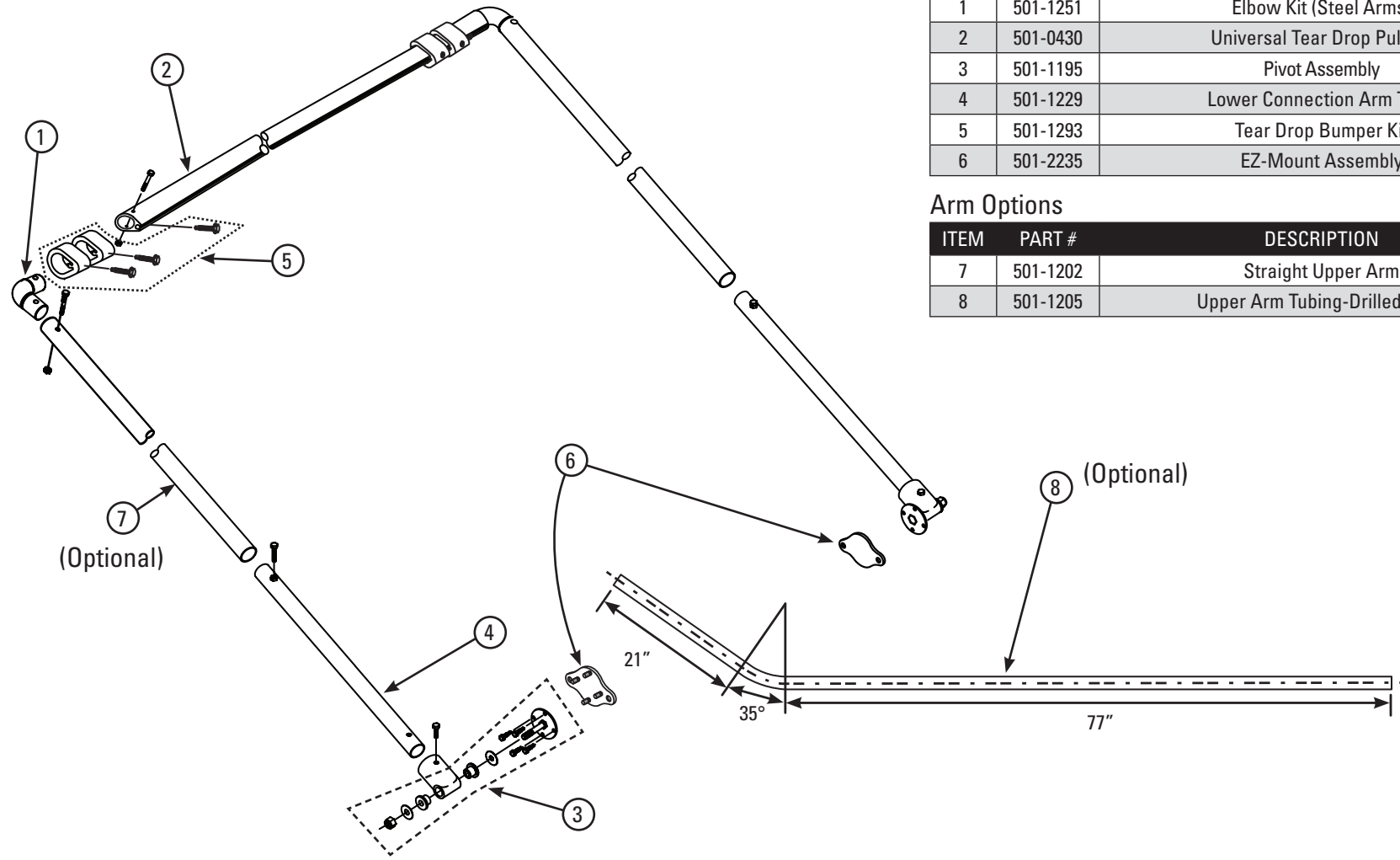
### Steel Manual Arms (Complete Kits) #113-2214, 113-2215

| ITEM | PART #   | DESCRIPTION                 | QTY |
|------|----------|-----------------------------|-----|
| 1    | 501-1251 | Elbow Kit (Steel Arms)      | 1   |
| 2    | 501-0430 | Universal Tear Drop Pullbar | 1   |
| 3    | 501-1195 | Pivot Assembly              | 2   |
| 4    | 501-1229 | Lower Connection Arm Tube   | 2   |
| 5    | 501-1293 | Tear Drop Bumper Kit        | 1   |
| 6    | 501-2235 | EZ-Mount Assembly           | 2   |

### Arm Options

| ITEM | PART #   | DESCRIPTION                   | QTY |
|------|----------|-------------------------------|-----|
| 7    | 501-1202 | Straight Upper Arm            | 2   |
| 8    | 501-1205 | Upper Arm Tubing-Drilled-Bent | 2   |

REV. 04/10/19 WLH







PARTS SCHEMATICS

Semi-Automatic System Options

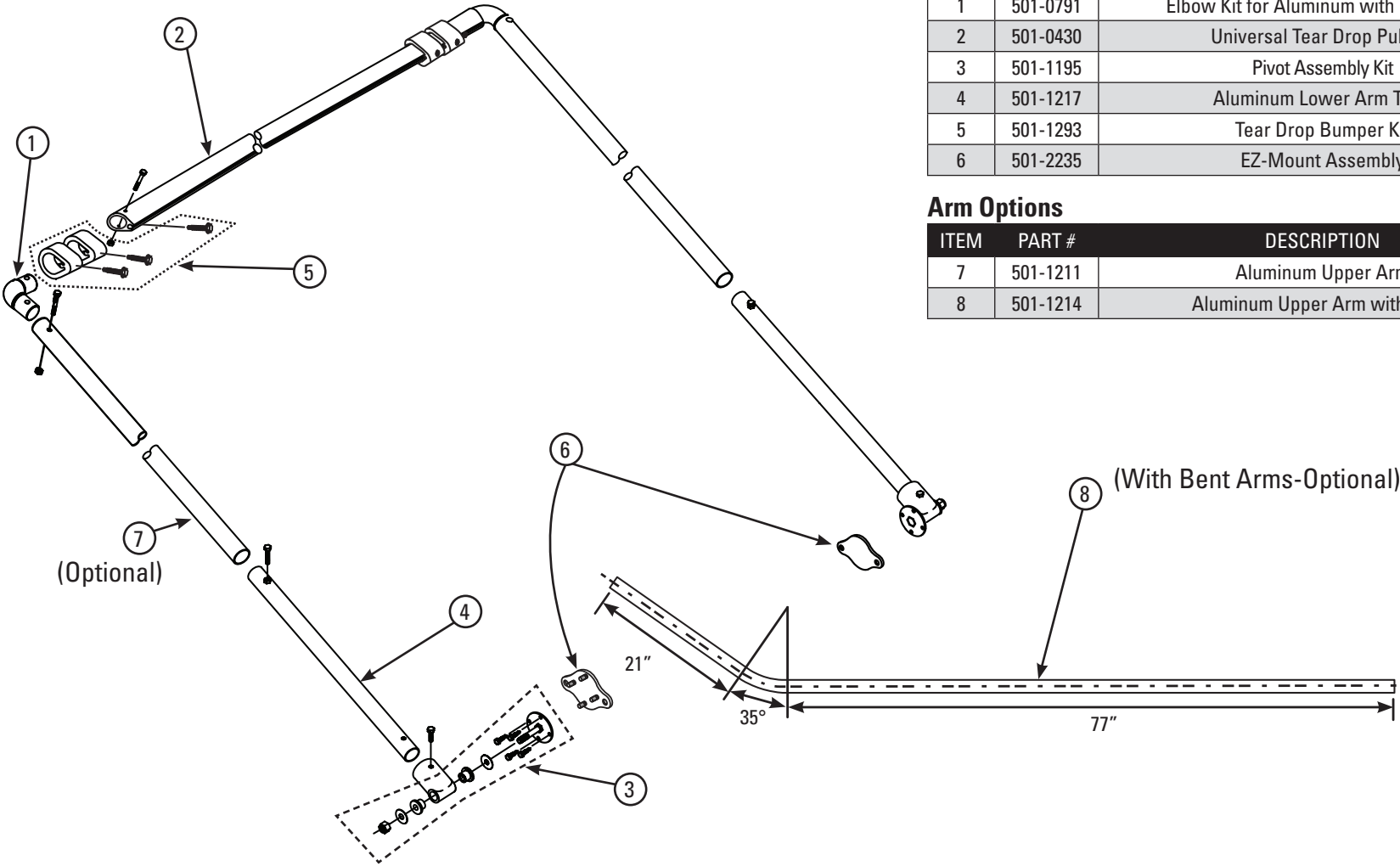
Aluminum Manual Arm Kits #113-2224, #113-2225

| ITEM | PART #   | DESCRIPTION                           | QTY |
|------|----------|---------------------------------------|-----|
| 1    | 501-0791 | Elbow Kit for Aluminum with Tear Drop | 1   |
| 2    | 501-0430 | Universal Tear Drop Pullbar           | 1   |
| 3    | 501-1195 | Pivot Assembly Kit                    | 2   |
| 4    | 501-1217 | Aluminum Lower Arm Tube               | 2   |
| 5    | 501-1293 | Tear Drop Bumper Kit                  | 1   |
| 6    | 501-2235 | EZ-Mount Assembly                     | 2   |

Arm Options

| ITEM | PART #   | DESCRIPTION                  | QTY |
|------|----------|------------------------------|-----|
| 7    | 501-1211 | Aluminum Upper Arm           | 2   |
| 8    | 501-1214 | Aluminum Upper Arm with Bend | 2   |

REV. 10/21/16 WLH

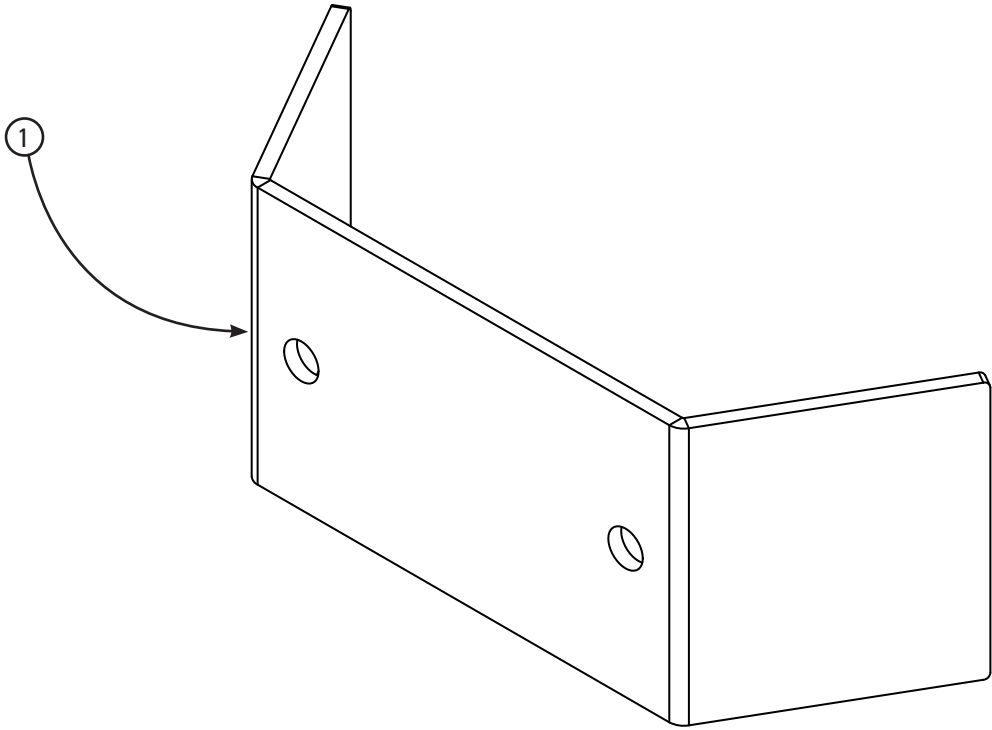




Offset Bracket - 4 Inch #501-1560

| ITEM | PART #   | DESCRIPTION                      | QTY |
|------|----------|----------------------------------|-----|
| 1    | 501-1560 | EZ-Mount Pivot Offset Mount - 4" | 1   |

REV. 10/01/20 WLH



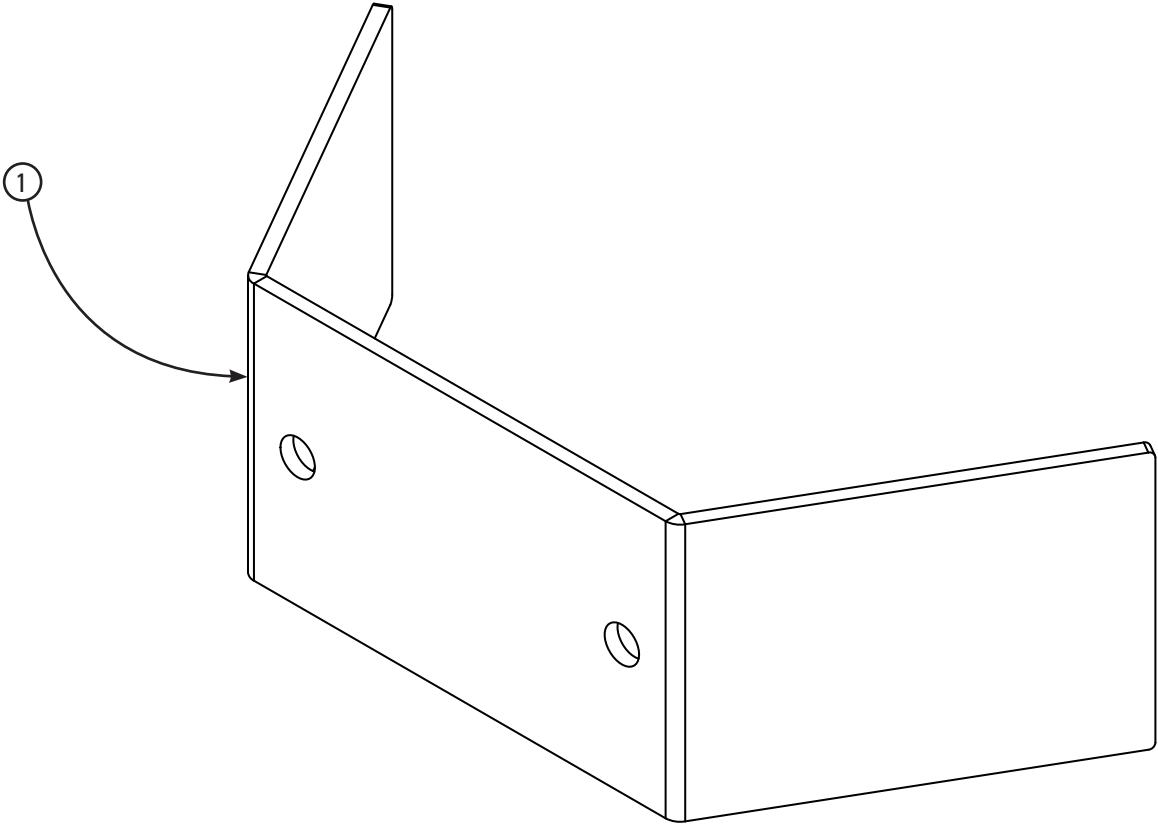
(Can be used with Manual and Automatic Arm Systems)



Offset Bracket - 6 Inch #501-1561

| ITEM | PART #   | DESCRIPTION                      | QTY |
|------|----------|----------------------------------|-----|
| 1    | 501-1561 | EZ-Mount Pivot Offset Mount - 6" | 1   |

REV. 10/01/20 WLH



(Can be used with Manual and Automatic Arm Systems)



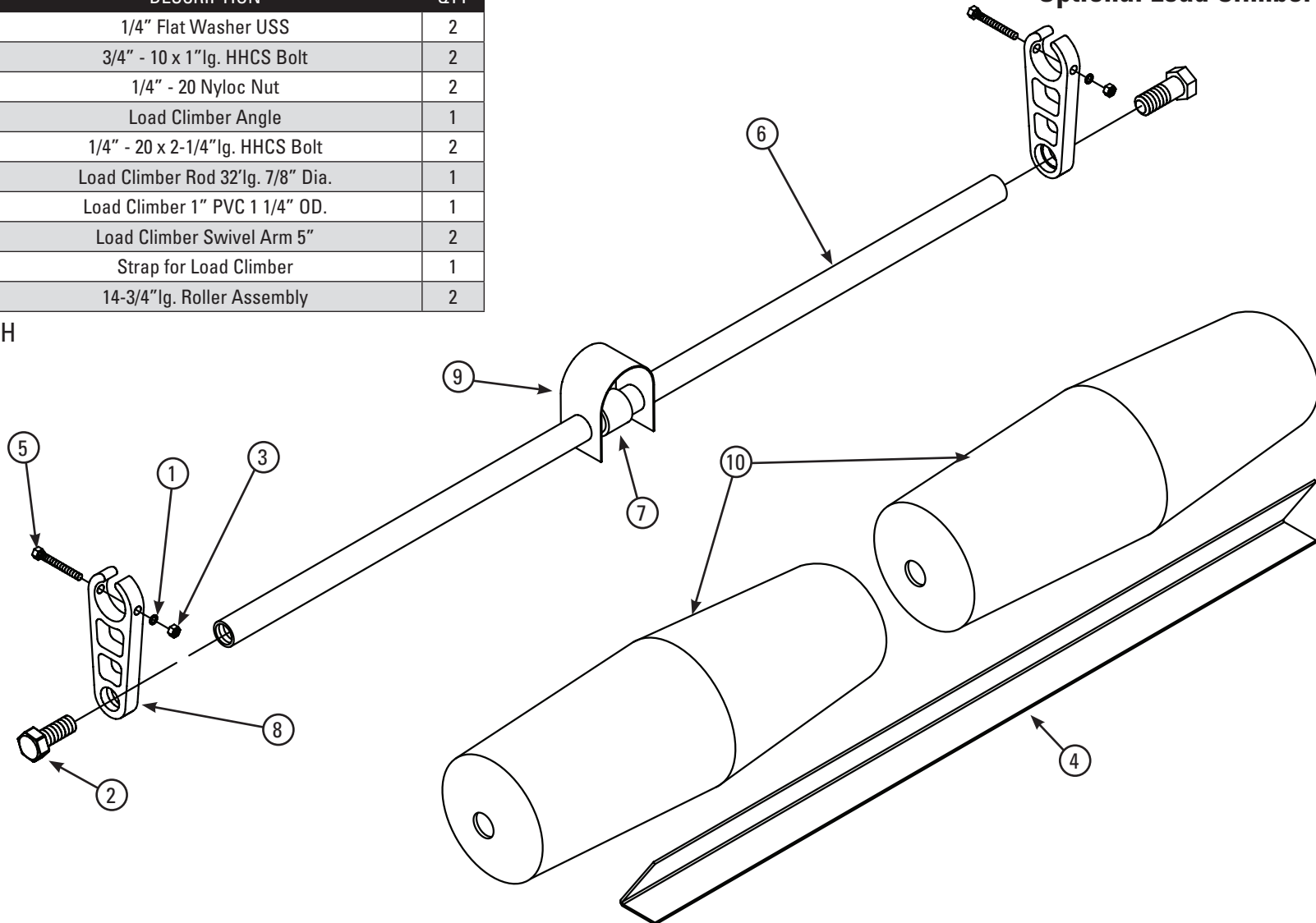
## PARTS SCHEMATICS

## Semi-Automatic System Options

| ITEM | PART #   | DESCRIPTION                       | QTY |
|------|----------|-----------------------------------|-----|
| 1    | 505-2502 | 1/4" Flat Washer USS              | 2   |
| 2    | 503-7501 | 3/4" - 10 x 1"lg. HHCS Bolt       | 2   |
| 3    | 504-2503 | 1/4" - 20 Nyloc Nut               | 2   |
| 4    | 501-0905 | Load Climber Angle                | 1   |
| 5    | 503-2514 | 1/4" - 20 x 2-1/4"lg. HHCS Bolt   | 2   |
| 6    | 501-0902 | Load Climber Rod 32'lg. 7/8" Dia. | 1   |
| 7    | 501-0909 | Load Climber 1" PVC 1 1/4" OD.    | 1   |
| 8    | 501-0903 | Load Climber Swivel Arm 5"        | 2   |
| 9    | 501-0912 | Strap for Load Climber            | 1   |
| 10   | 501-0910 | 14-3/4"lg. Roller Assembly        | 2   |

REV. 10/14/16 WLH

### Optional Load Climber #501-0901





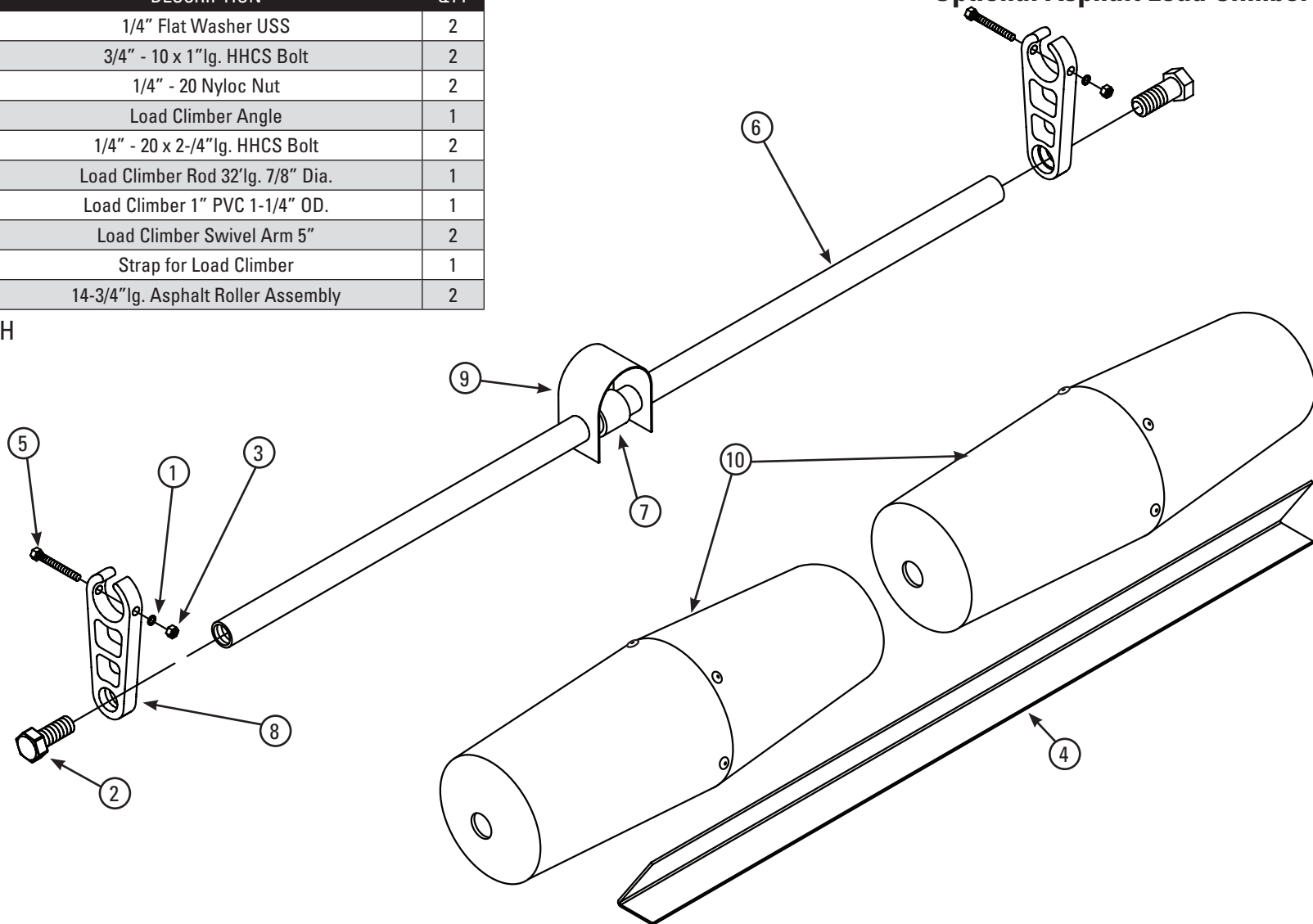
## PARTS SCHEMATICS

## Semi-Automatic System Options

| ITEM | PART #   | DESCRIPTION                        | QTY |
|------|----------|------------------------------------|-----|
| 1    | 505-2502 | 1/4" Flat Washer USS               | 2   |
| 2    | 503-7501 | 3/4" - 10 x 1"lg. HHCS Bolt        | 2   |
| 3    | 504-2503 | 1/4" - 20 Nyloc Nut                | 2   |
| 4    | 501-0905 | Load Climber Angle                 | 1   |
| 5    | 503-2514 | 1/4" - 20 x 2-1/4"lg. HHCS Bolt    | 2   |
| 6    | 501-0902 | Load Climber Rod 32'lg. 7/8" Dia.  | 1   |
| 7    | 501-0909 | Load Climber 1" PVC 1-1/4" OD.     | 1   |
| 8    | 501-0903 | Load Climber Swivel Arm 5"         | 2   |
| 9    | 501-0912 | Strap for Load Climber             | 1   |
| 10   | 501-0914 | 14-3/4"lg. Asphalt Roller Assembly | 2   |

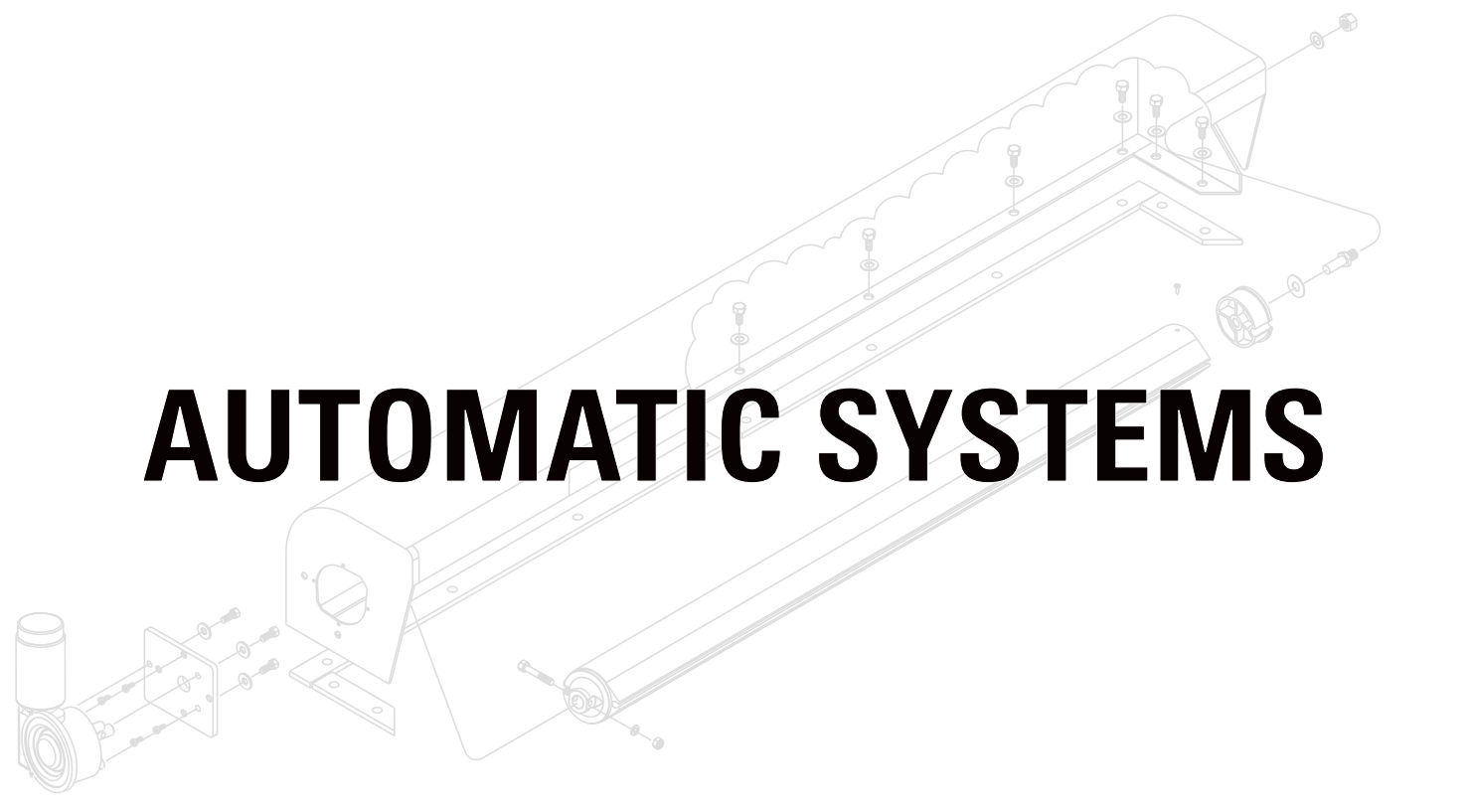
## Optional Asphalt Load Climber #501-0913

REV. 10/14/16 WLH





# AUTOMATIC SYSTEMS





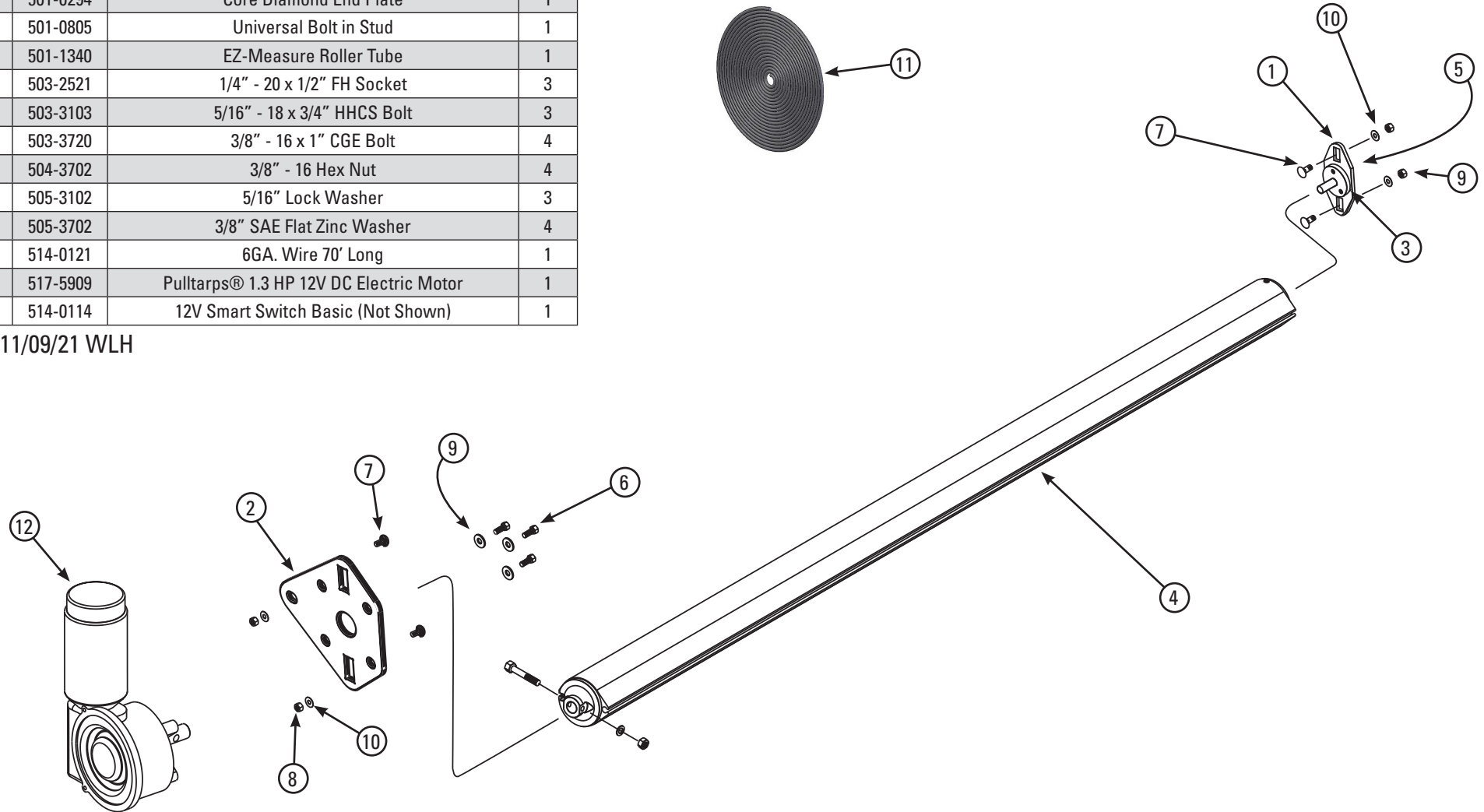
## PARTS SCHEMATICS

## Automatic Systems

| ITEM | PART #   | DESCRIPTION                             | QTY |
|------|----------|-----------------------------------------|-----|
| 1    | 501-0293 | Core End Plate                          | 1   |
| 2    | 501-0294 | Core Diamond End Plate                  | 1   |
| 3    | 501-0805 | Universal Bolt in Stud                  | 1   |
| 4    | 501-1340 | EZ-Measure Roller Tube                  | 1   |
| 5    | 503-2521 | 1/4" - 20 x 1/2" FH Socket              | 3   |
| 6    | 503-3103 | 5/16" - 18 x 3/4" HHCS Bolt             | 3   |
| 7    | 503-3720 | 3/8" - 16 x 1" CGE Bolt                 | 4   |
| 8    | 504-3702 | 3/8" - 16 Hex Nut                       | 4   |
| 9    | 505-3102 | 5/16" Lock Washer                       | 3   |
| 10   | 505-3702 | 3/8" SAE Flat Zinc Washer               | 4   |
| 11   | 514-0121 | 6GA. Wire 70' Long                      | 1   |
| 12   | 517-5909 | Pulltarps® 1.3 HP 12V DC Electric Motor | 1   |
| --   | 514-0114 | 12V Smart Switch Basic (Not Shown)      | 1   |

## Core (Automatic) #285-3017 & 531-2850 (EZ-Fit) (Cut-to-Fit)

REV. 11/09/21 WLH



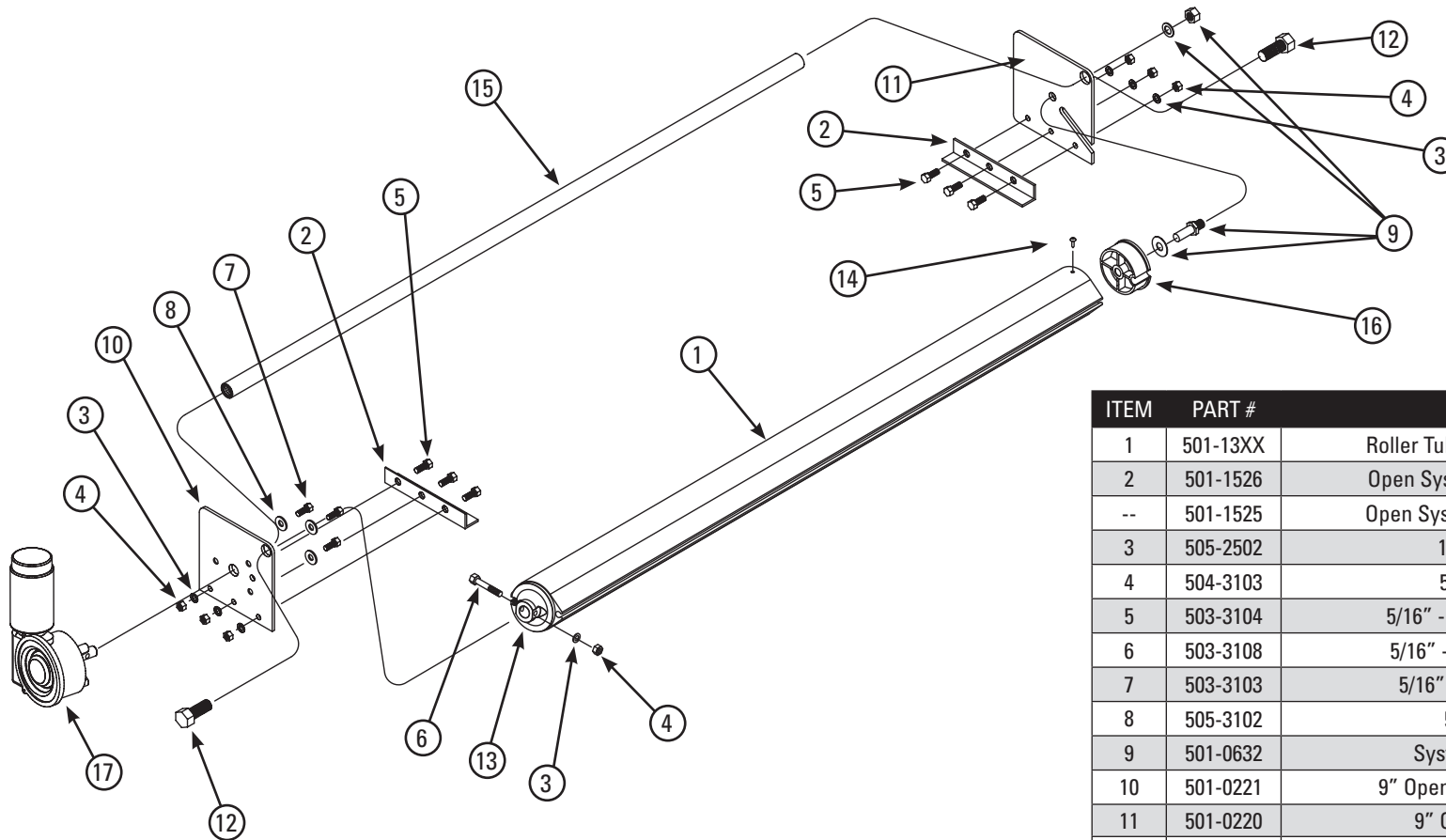




## PARTS SCHEMATICS

Automatic Systems

Open 9000E #201-0215



| ITEM | PART #   | DESCRIPTION                                    | QTY |
|------|----------|------------------------------------------------|-----|
| 1    | 501-13XX | Roller Tube 80, 84, 87, 89, 93, 96, 100"       | 1   |
| 2    | 501-1526 | Open System Mount Bracket (Steel)              | 2   |
| --   | 501-1525 | Open System Mount Bracket (Alum.)              | 2   |
| 3    | 505-2502 | 1/4" Flat Washer USS                           | 7   |
| 4    | 504-3103 | 5/16" - 18 Nyloc Nut                           | 7   |
| 5    | 503-3104 | 5/16" - 18 x 3/4"lg. Carriage Bolt             | 6   |
| 6    | 503-3108 | 5/16" - 18 x 1-3/4"lg. HHCS Bolt               | 1   |
| 7    | 503-3103 | 5/16" - 18 x 3/4"lg. HHCS Bolt                 | 3   |
| 8    | 505-3102 | 5/16" Lock Washer                              | 3   |
| 9    | 501-0632 | System End Plate Stud Kit                      | 1   |
| 10   | 501-0221 | 9" Open End Plate, Electric (Drvr.)            | 1   |
| 11   | 501-0220 | 9" Open End Plate (Pass.)                      | 1   |
| 12   | 503-7501 | 3/4" - 10 x 1"lg. HHCS Bolt                    | 2   |
| 13   | 501-9915 | Roller Drive Aluminum End Cap                  | 1   |
| 14   | 506-9916 | Screw #8 - 18 x 3/4" Self Drilling             | 1   |
| 15   | 501-980X | Spacer Rod 7/8" - 80, 84, 87, 89, 93, 96, 100" | 1   |
| 16   | 517-0102 | Flanged End Cap                                | 1   |
| 17   | 517-5909 | Pulltarps® 1.3 HP 12V DC Electric Motor        | 1   |

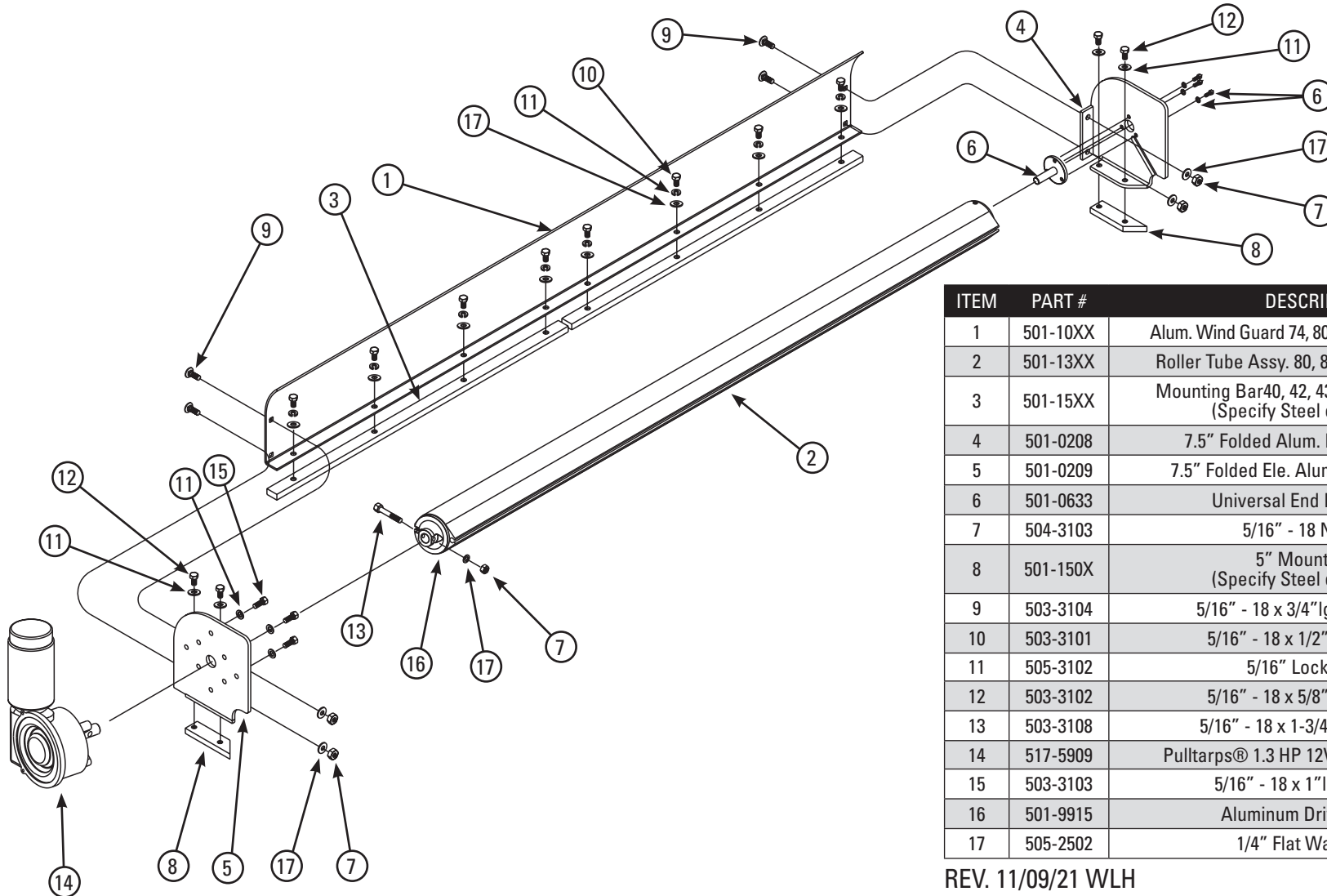
REV. 11/09/21 WLH



## PARTS SCHEMATICS

Automatic Systems

### Aluminator™ 7000E #204-0215



| ITEM | PART #   | DESCRIPTION                                                                   | QTY |
|------|----------|-------------------------------------------------------------------------------|-----|
| 1    | 501-10XX | Alum. Wind Guard 74, 80, 84, 87, 89, 96, 96, 100"                             | 1   |
| 2    | 501-13XX | Roller Tube Assy. 80, 84, 87, 89, 93, 96, 100"                                | 1   |
| 3    | 501-15XX | Mounting Bar 40, 42, 43.5, 44.5, 46.5, 48, 50"<br>(Specify Steel or Aluminum) | 2   |
| 4    | 501-0208 | 7.5" Folded Alum. End Plate (Pass.)                                           | 1   |
| 5    | 501-0209 | 7.5" Folded Ele. Alum. End Plate (Drvr.)                                      | 1   |
| 6    | 501-0633 | Universal End Plate Stud Kit                                                  | 1   |
| 7    | 504-3103 | 5/16" - 18 Nyloc Nut                                                          | 5   |
| 8    | 501-150X | 5" Mounting Bar<br>(Specify Steel or Aluminum)                                | 2   |
| 9    | 503-3104 | 5/16" - 18 x 3/4"lg. Carriage Bolt                                            | 4   |
| 10   | 503-3101 | 5/16" - 18 x 1/2"lg. HHCS Bolt                                                | 8   |
| 11   | 505-3102 | 5/16" Lock Washer                                                             | 15  |
| 12   | 503-3102 | 5/16" - 18 x 5/8"lg. HHCS Bolt                                                | 4   |
| 13   | 503-3108 | 5/16" - 18 x 1-3/4"lg. HHCS Bolt                                              | 1   |
| 14   | 517-5909 | Pulltarps® 1.3 HP 12V DC Electric Motor                                       | 1   |
| 15   | 503-3103 | 5/16" - 18 x 1"lg. HHCS Bolt                                                  | 3   |
| 16   | 501-9915 | Aluminum Driver End Cap                                                       | 1   |
| 17   | 505-2502 | 1/4" Flat Washer USS                                                          | 13  |

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## PARTS SCHEMATICS

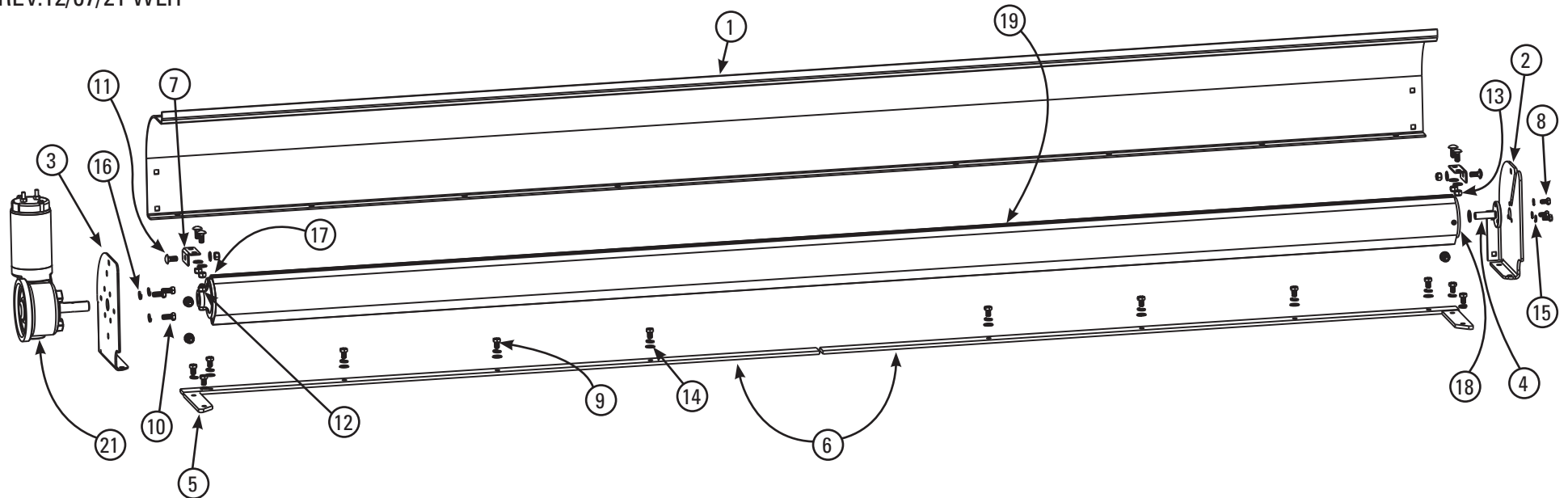
Automatic Systems

### Aluminator™ 8500E #234-0215

| ITEM | PART #   | DESCRIPTION                      | QTY |
|------|----------|----------------------------------|-----|
| 1    | 501-0175 | 80" Aluminum 8.5" Housing        | 1   |
| 2    | 501-1051 | 8.5" Right Aluminum End Plate    | 1   |
| 3    | 501-1052 | 8.5" Electric Aluminum End Plate | 1   |
| 4    | 501-0805 | Universal Bolt in Stud           | 1   |
| 5    | 501-1506 | 6" Large Steel Mounting          | 2   |
| 6    | 501-1507 | 40" Mounting Bar-Steel           | 2   |
| 7    | 501-9934 | Galvanized Steel Bracket         | 2   |
| 8    | 503-2503 | 1/4" - 20 x 1/2" HHD Bolt        | 3   |
| 9    | 503-3101 | 5/16" - 18 x 1/2" Hex Bolt       | 12  |
| 10   | 503-3103 | 5/16" - 18 x 3/4" HHCS Bolt      | 3   |
| 11   | 503-3104 | 5/16" - 18 x 3/4" Carriage Bolt  | 10  |

| ITEM | PART #   | DESCRIPTION                             | QTY |
|------|----------|-----------------------------------------|-----|
| 12   | 503-3108 | 5/16" - 18 x 1-3/4" HHCS Hex Bolt       | 1   |
| 13   | 504-3103 | 5/16" - 18 Nylock Nut Steel             | 11  |
| 14   | 505-2502 | 1/4" USS Washer 5/16"                   | 19  |
| 15   | 505-2503 | 1/4" Lock Washer - Plated               | 3   |
| 16   | 505-3102 | 5/16" Lock Washer                       | 15  |
| 17   | 501-9915 | Roller Drive Aluminum End Cap           | 1   |
| 18   | 517-0102 | Flanged End Cap                         | 1   |
| 19   | 517-0502 | 78mm Roller Tube Galvanized             | 1   |
| 20   | 506-9916 | Screw, #8 - 18 x 3/4" Self (Not Shown)  | 1   |
| 21   | 517-5909 | Pulltarps® 1.3 HP 12V DC Electric Motor | 1   |

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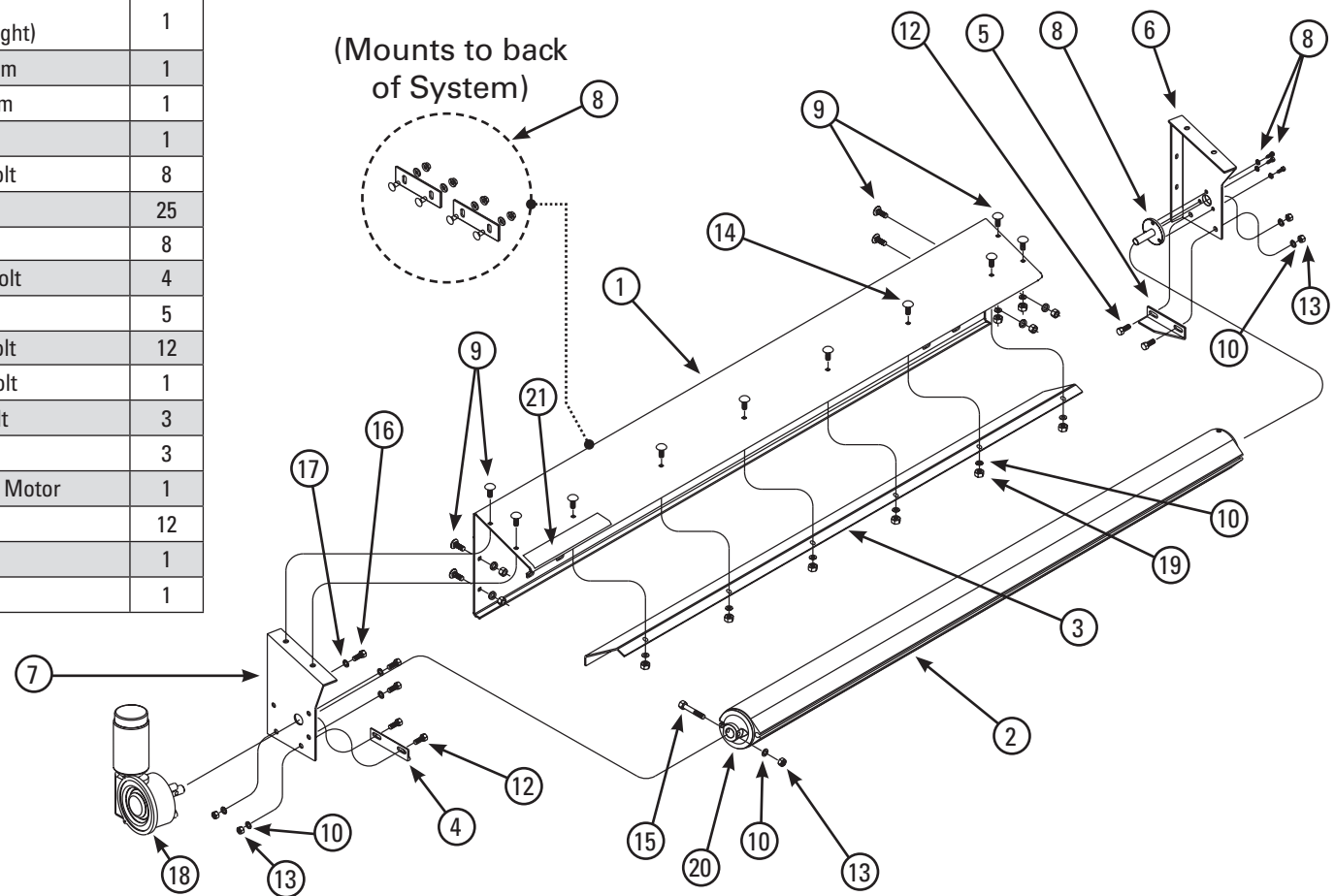
## PARTS SCHEMATICS

## Automatic Systems

### Steel Protector™ #208-0215

| ITEM | PART #   | DESCRIPTION                                                 | QTY |
|------|----------|-------------------------------------------------------------|-----|
| 1    | 501-01XX | Galv. Steel Protector Hsg. 80, 84, 87, 89, 96, 96, 100"     | 1   |
| 2    | 501-13XX | Roller Tube Assy. 80, 84, 87, 89, 93, 96, 100"              | 1   |
| 3    | 501-0138 | 48" x 5 1/2" Galvanized Insert                              | 1   |
| 4    | 501-152X | System Mount Bracket<br>(Specify Steel or Aluminum - Left)  | 1   |
| 5    | 501-152X | System Mount Bracket<br>(Specify Steel or Aluminum - Right) | 1   |
| 6    | 501-0254 | Right End Plate for "N" System                              | 1   |
| 7    | 501-0255 | Electric End Plate "N" System                               | 1   |
| 8    | 501-0633 | Universal Bolt In Stud Kit                                  | 1   |
| 9    | 503-2505 | 1/4" - 20 x 3/4"lg. Carriage Bolt                           | 8   |
| 10   | 505-2502 | 1/4" Flat Washer USS                                        | 25  |
| 11   | 504-2503 | 1/4" - 20 Nyloc Nut                                         | 8   |
| 12   | 503-3104 | 5/16" - 18 x 3/4"lg. Carriage Bolt                          | 4   |
| 13   | 504-3103 | 5/16" - 18 Nyloc Nut                                        | 5   |
| 14   | 503-2501 | 1/4" - 20 x 1/2"lg. Carriage Bolt                           | 12  |
| 15   | 503-3108 | 5/16" - 18 x 1-3/4"lg. HHCS Bolt                            | 1   |
| 16   | 503-3103 | 5/16" - 18 x 3/4"lg. HHCS Bolt                              | 3   |
| 17   | 505-3102 | 5/16" Lock Washer                                           | 3   |
| 18   | 517-5909 | Pulltarps® 1.3 HP 12V DC Electric Motor                     | 1   |
| 19   | 504-2506 | 1/4" - 20 x Nyloc Nut (Thin)                                | 12  |
| 20   | 501-9915 | Driver Aluminum End Cap                                     | 1   |
| 21   | 607-0061 | Pulltarps Decal                                             | 1   |

| ITEM | PART #   | DESCRIPTION                                                    | QTY |
|------|----------|----------------------------------------------------------------|-----|
| 22   | 501-06XX | Steel Protector System Hardware<br>(Specify Steel or Aluminum) | 1   |



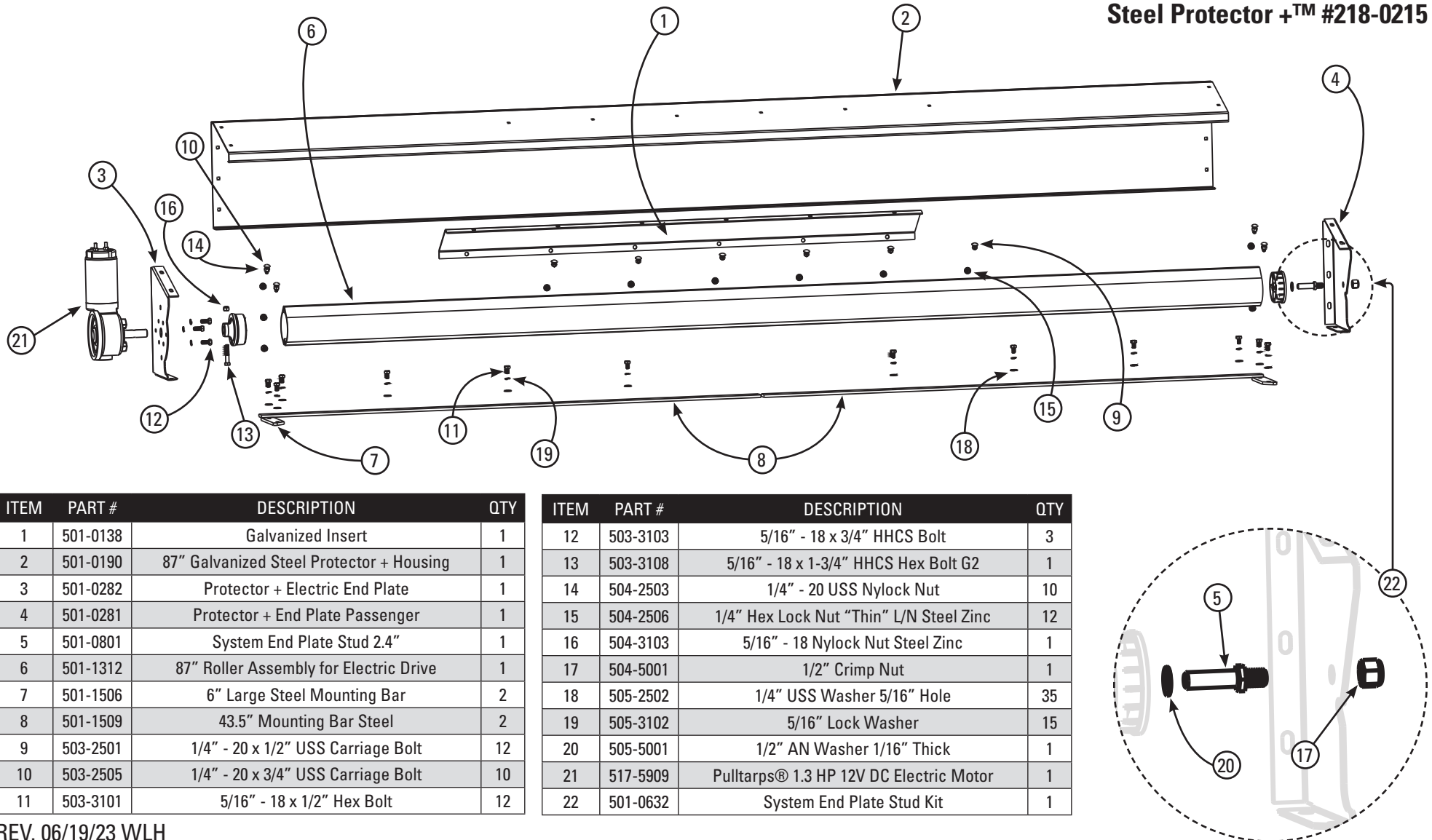
REV. 11/18/21 WLH



## PARTS SCHEMATICS

## Automatic Systems

### Steel Protector +™ #218-0215



| ITEM | PART #   | DESCRIPTION                              | QTY |
|------|----------|------------------------------------------|-----|
| 1    | 501-0138 | Galvanized Insert                        | 1   |
| 2    | 501-0190 | 87" Galvanized Steel Protector + Housing | 1   |
| 3    | 501-0282 | Protector + Electric End Plate           | 1   |
| 4    | 501-0281 | Protector + End Plate Passenger          | 1   |
| 5    | 501-0801 | System End Plate Stud 2.4"               | 1   |
| 6    | 501-1312 | 87" Roller Assembly for Electric Drive   | 1   |
| 7    | 501-1506 | 6" Large Steel Mounting Bar              | 2   |
| 8    | 501-1509 | 43.5" Mounting Bar Steel                 | 2   |
| 9    | 503-2501 | 1/4" - 20 x 1/2" USS Carriage Bolt       | 12  |
| 10   | 503-2505 | 1/4" - 20 x 3/4" USS Carriage Bolt       | 10  |
| 11   | 503-3101 | 5/16" - 18 x 1/2" Hex Bolt               | 12  |

| ITEM | PART #   | DESCRIPTION                             | QTY |
|------|----------|-----------------------------------------|-----|
| 12   | 503-3103 | 5/16" - 18 x 3/4" HHCS Bolt             | 3   |
| 13   | 503-3108 | 5/16" - 18 x 1-3/4" HHCS Hex Bolt G2    | 1   |
| 14   | 504-2503 | 1/4" - 20 USS Nylock Nut                | 10  |
| 15   | 504-2506 | 1/4" Hex Lock Nut "Thin" L/N Steel Zinc | 12  |
| 16   | 504-3103 | 5/16" - 18 Nylock Nut Steel Zinc        | 1   |
| 17   | 504-5001 | 1/2" Crimp Nut                          | 1   |
| 18   | 505-2502 | 1/4" USS Washer 5/16" Hole              | 35  |
| 19   | 505-3102 | 5/16" Lock Washer                       | 15  |
| 20   | 505-5001 | 1/2" AN Washer 1/16" Thick              | 1   |
| 21   | 517-5909 | Pulltarps® 1.3 HP 12V DC Electric Motor | 1   |
| 22   | 501-0632 | System End Plate Stud Kit               | 1   |

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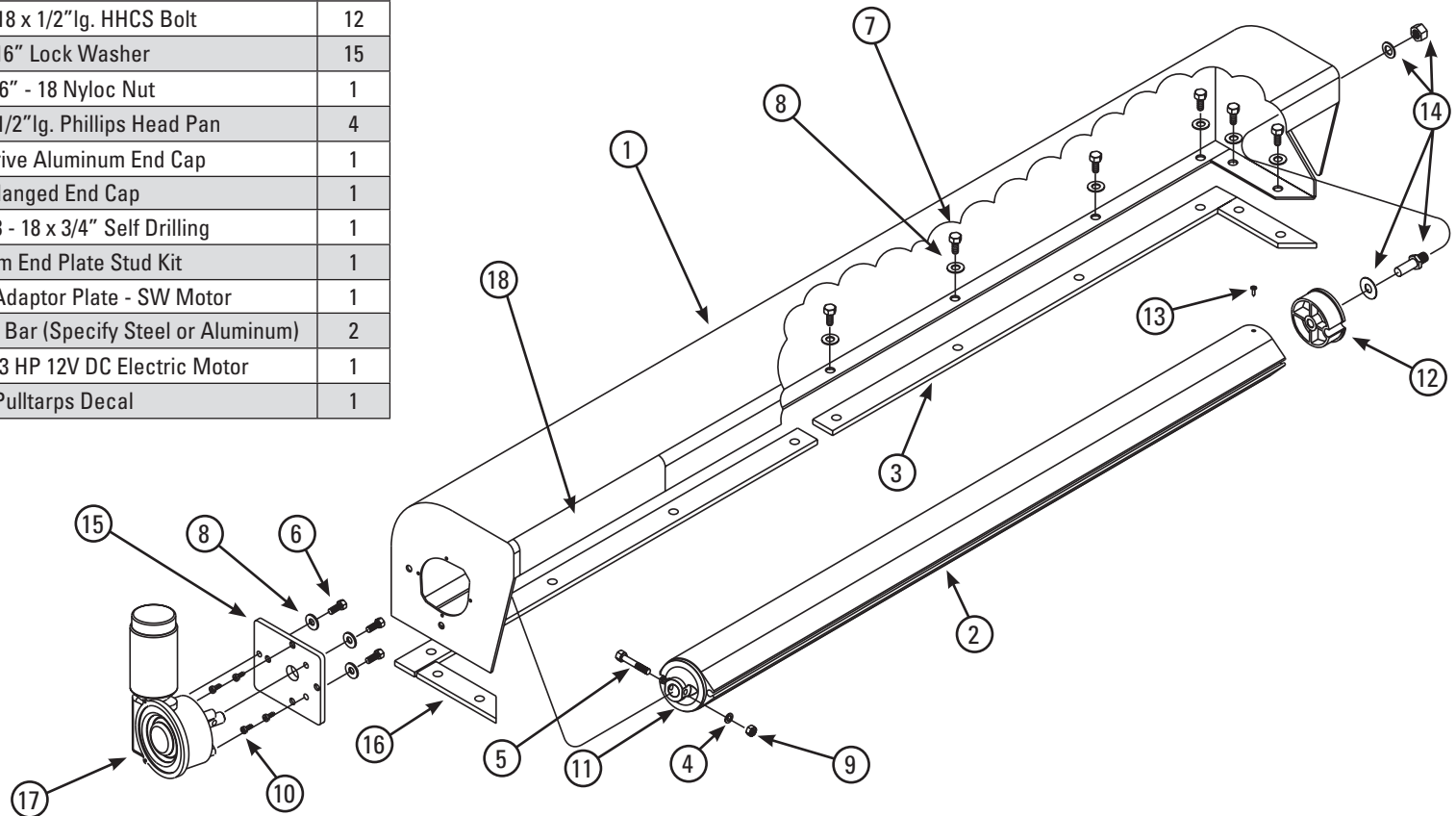


## PARTS SCHEMATICS

Automatic Systems

SuperShield™ 9500E #210-0215

| ITEM | PART #   | DESCRIPTION                                                                   | QTY |
|------|----------|-------------------------------------------------------------------------------|-----|
| 1    | 501-01XX | 9.5" Super Shield Hsg. 80, 84, 87, 89, 93, 96, 100"                           | 1   |
| 2    | 501-13XX | Roller Tube Assy. 80, 84, 87, 89, 93, 96, 100"                                | 1   |
| 3    | 501-15XX | Mounting Bar 40, 42, 43.5, 44.5, 46.5, 48, 50"<br>(Specify Steel or Aluminum) | 2   |
| 4    | 505-2502 | 1/4" Flat Washer USS                                                          | 1   |
| 5    | 503-3108 | 5/16" - 18 x 1-3/4"lg. HHCS Bolt                                              | 1   |
| 6    | 503-3105 | 5/16" - 18 x 1"lg. HHCS Bolt                                                  | 3   |
| 7    | 503-3101 | 5/16" - 18 x 1/2"lg. HHCS Bolt                                                | 12  |
| 8    | 505-3102 | 5/16" Lock Washer                                                             | 15  |
| 9    | 504-3103 | 5/16" - 18 Nyloc Nut                                                          | 1   |
| 10   | 506-9905 | #10 - 32 x 1/2"lg. Phillips Head Pan                                          | 4   |
| 11   | 501-9915 | Roller Drive Aluminum End Cap                                                 | 1   |
| 12   | 517-0102 | Flanged End Cap                                                               | 1   |
| 13   | 506-9916 | Screw #8 - 18 x 3/4" Self Drilling                                            | 1   |
| 14   | 501-0632 | System End Plate Stud Kit                                                     | 1   |
| 15   | 501-1235 | Aluminum Adaptor Plate - SW Motor                                             | 1   |
| 16   | 501-150X | 6" Large Mounting Bar (Specify Steel or Aluminum)                             | 2   |
| 17   | 517-5909 | Pulltarps® 1.3 HP 12V DC Electric Motor                                       | 1   |
| 18   | 607-0061 | Pulltarps Decal                                                               | 1   |



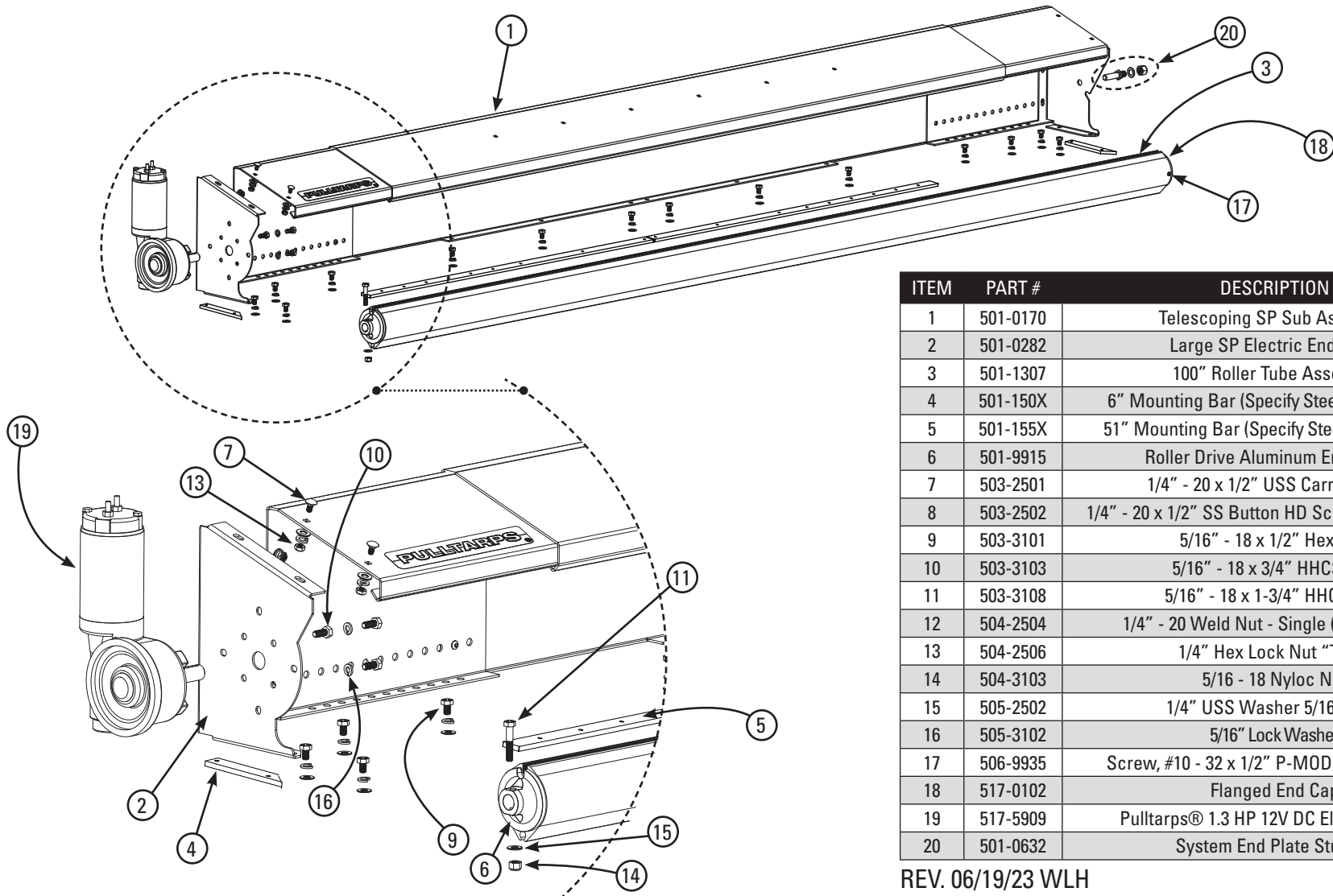
REV. 11/09/21 WLH



## PARTS SCHEMATICS

## Automatic Systems

### X-Pando (Adjustable) #218-0215



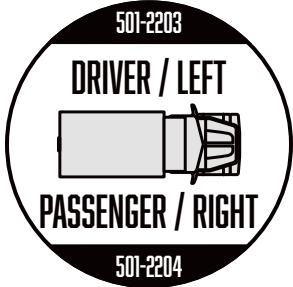
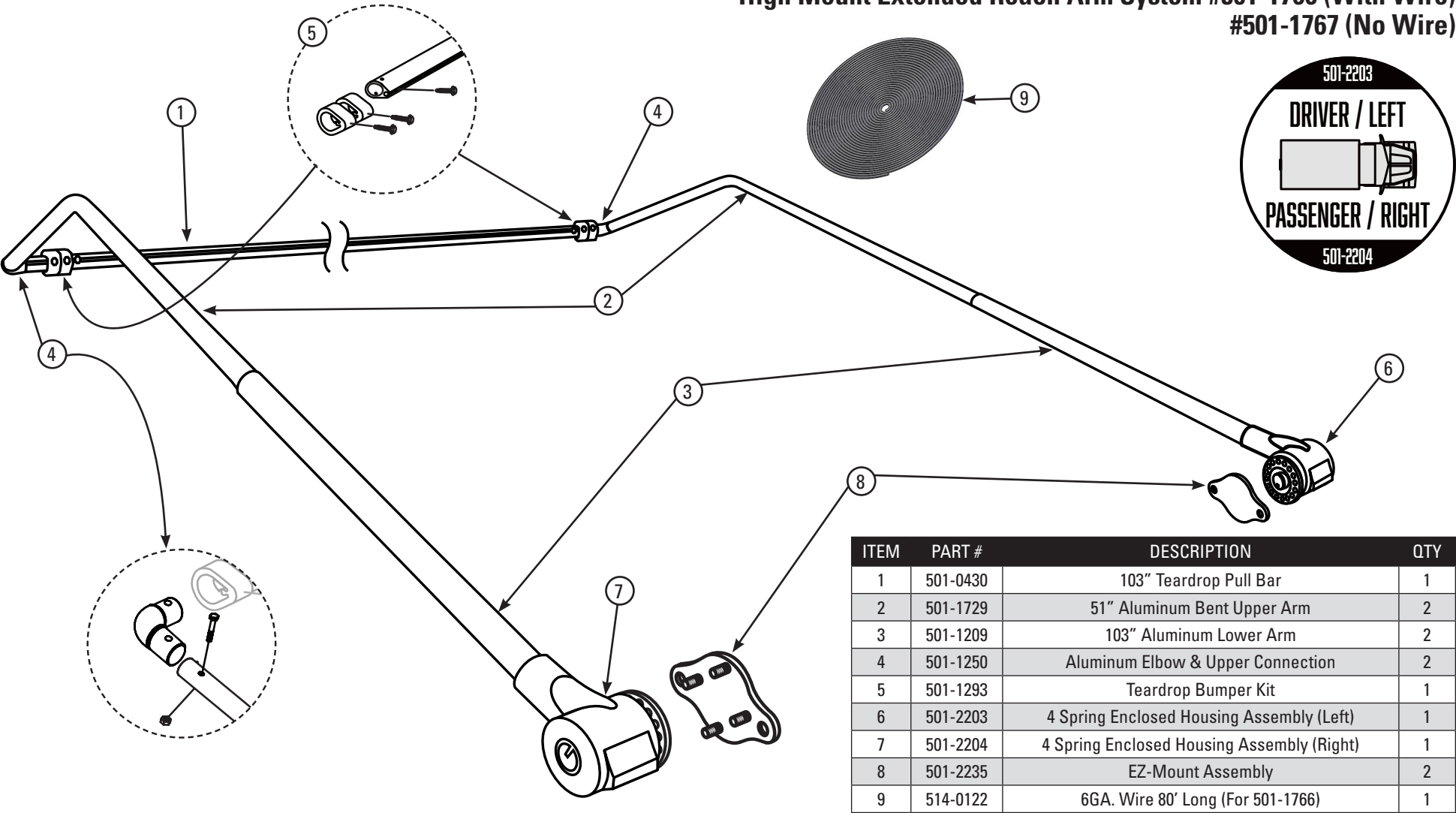
| ITEM | PART #   | DESCRIPTION                                       | QTY |
|------|----------|---------------------------------------------------|-----|
| 1    | 501-0170 | Telescoping SP Sub Assembly                       | 1   |
| 2    | 501-0282 | Large SP Electric End Plate                       | 1   |
| 3    | 501-1307 | 100\" Roller Tube Assembly                        | 1   |
| 4    | 501-150X | 6\" Mounting Bar (Specify Steel or Aluminum)      | 2   |
| 5    | 501-155X | 51\" Mounting Bar (Specify Steel or Aluminum)     | 2   |
| 6    | 501-9915 | Roller Drive Aluminum End cap 3\"                 | 1   |
| 7    | 503-2501 | 1/4\" - 20 x 1/2\" USS Carriage Bolt              | 5   |
| 8    | 503-2502 | 1/4\" - 20 x 1/2\" SS Button HD Screw (Not Shown) | 4   |
| 9    | 503-3101 | 5/16\" - 18 x 1/2\" Hex Bolt                      | 14  |
| 10   | 503-3103 | 5/16\" - 18 x 3/4\" HHCS Bolt                     | 3   |
| 11   | 503-3108 | 5/16\" - 18 x 1-3/4\" HHCS Bolt                   | 1   |
| 12   | 504-2504 | 1/4\" - 20 Weld Nut - Single (Not Shown)          | 4   |
| 13   | 504-2506 | 1/4\" Hex Lock Nut \"Thin\"                       | 5   |
| 14   | 504-3103 | 5/16 - 18 Nyloc Nut                               | 1   |
| 15   | 505-2502 | 1/4\" USS Washer 5/16\" Hole                      | 6   |
| 16   | 505-3102 | 5/16\" Lock Washer                                | 17  |
| 17   | 506-9935 | Screw, #10 - 32 x 1/2\" P-MOD Truss Self Drl.     | 1   |
| 18   | 517-0102 | Flanged End Cap                                   | 1   |
| 19   | 517-5909 | Pulltarps® 1.3 HP 12V DC Electric Motor           | 1   |
| 20   | 501-0632 | System End Plate Stud Kit                         | 1   |

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High Mount Extended Reach Arm System #501-1766 (With Wire)  
#501-1767 (No Wire)



| ITEM | PART #   | DESCRIPTION                                | QTY |
|------|----------|--------------------------------------------|-----|
| 1    | 501-0430 | 103" Teardrop Pull Bar                     | 1   |
| 2    | 501-1729 | 51" Aluminum Bent Upper Arm                | 2   |
| 3    | 501-1209 | 103" Aluminum Lower Arm                    | 2   |
| 4    | 501-1250 | Aluminum Elbow & Upper Connection          | 2   |
| 5    | 501-1293 | Teardrop Bumper Kit                        | 1   |
| 6    | 501-2203 | 4 Spring Enclosed Housing Assembly (Left)  | 1   |
| 7    | 501-2204 | 4 Spring Enclosed Housing Assembly (Right) | 1   |
| 8    | 501-2235 | EZ-Mount Assembly                          | 2   |
| 9    | 514-0122 | 6GA. Wire 80' Long (For 501-1766)          | 1   |

Illustration view shown looking from passenger side to rear of vehicle.

REV. 09/09/20 WLH





EZ-Mount 4 Spring Arm System #501-1768 (With Wire)

#501-1769 (No Wire)

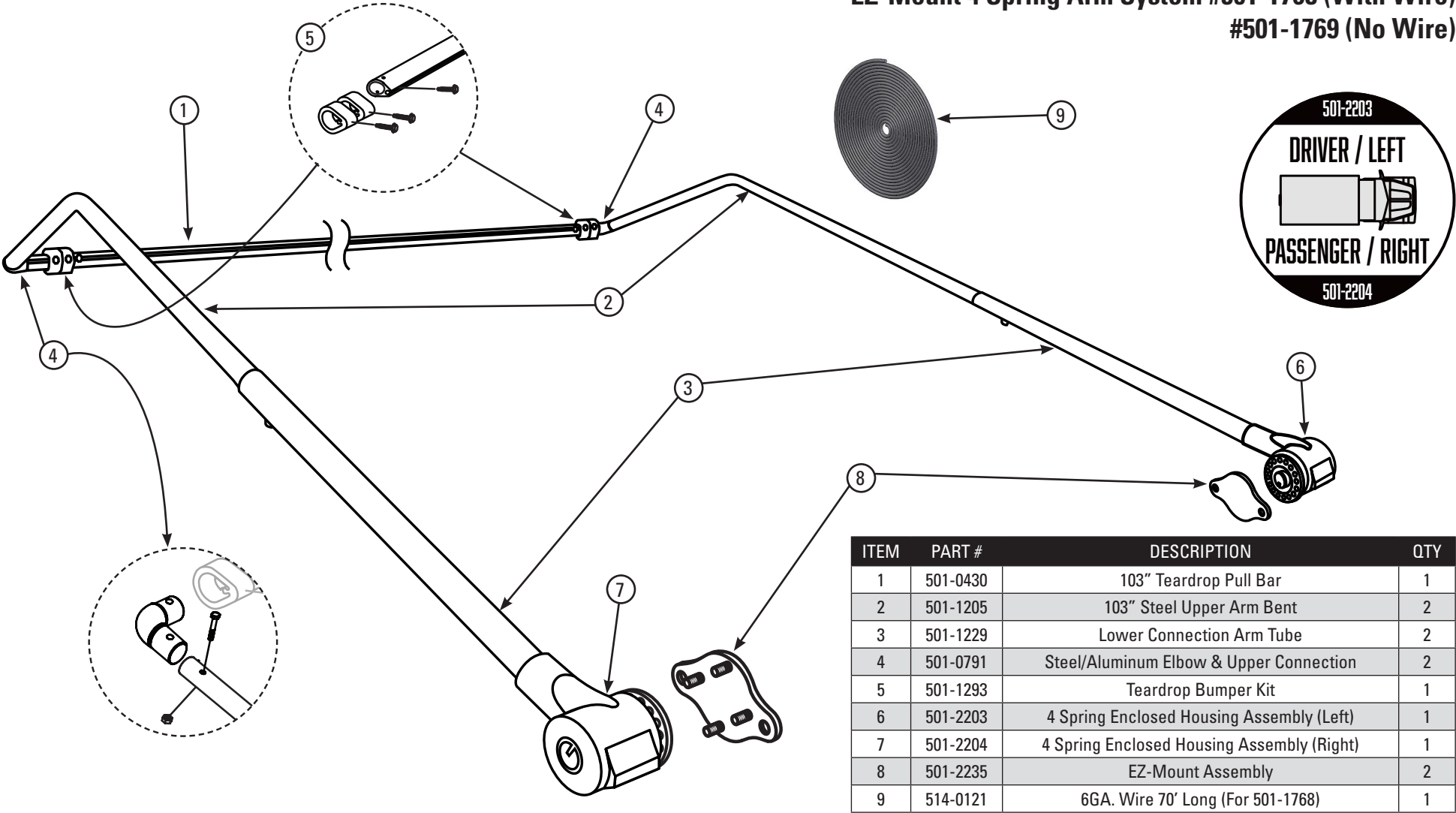


Illustration view shown looking from passenger side to rear of vehicle.

REV. 09/09/20 WLH



## PARTS SCHEMATICS

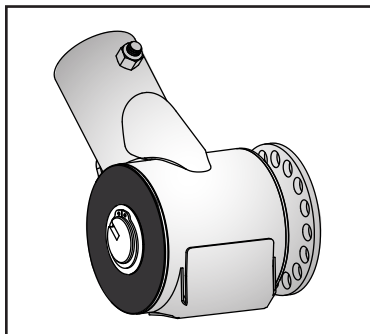
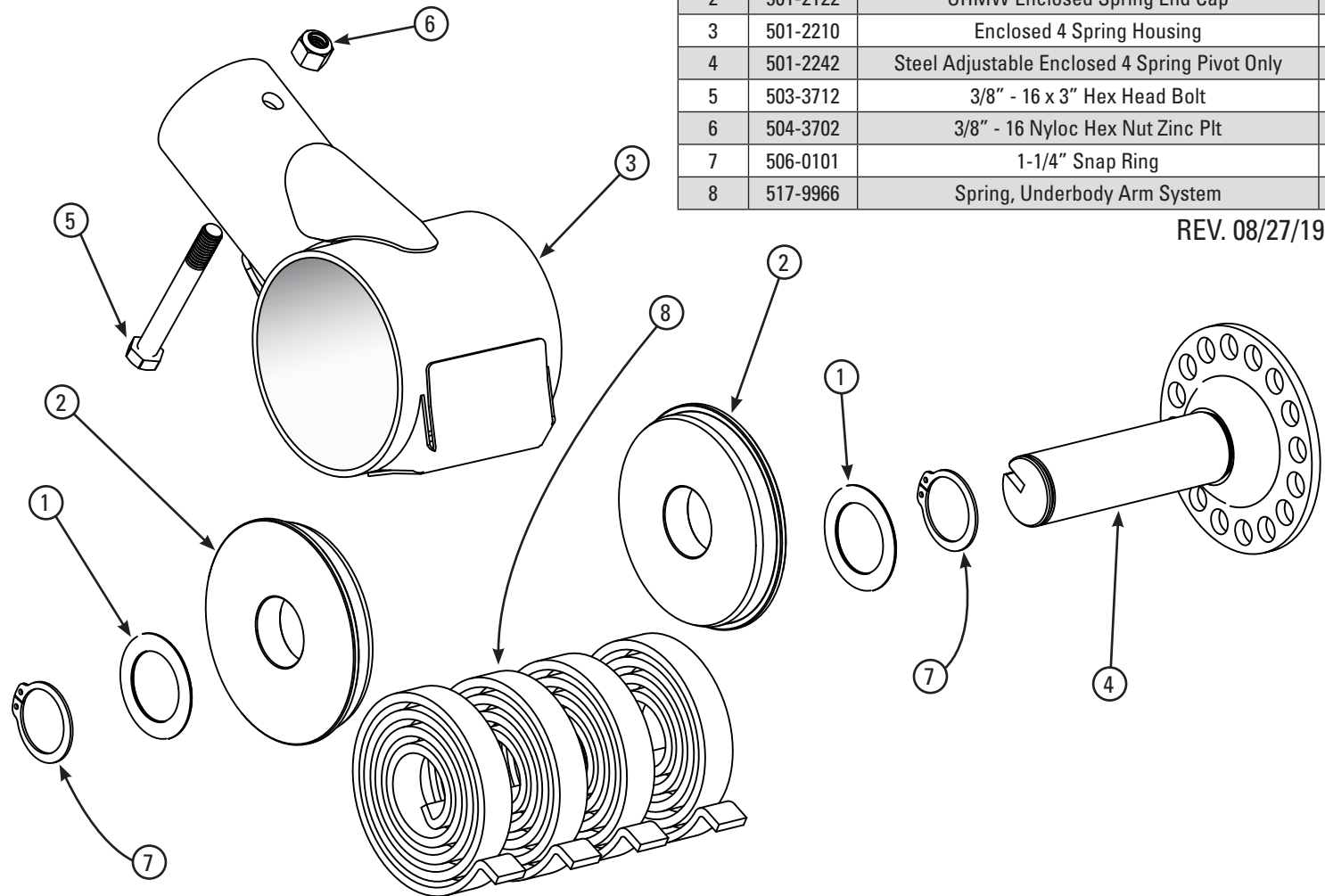
## Automatic Systems

### 4 Spring Enclosed Housing Assembly Right #501-2204 (not shown) & Left #501-2203 (shown)



| ITEM | PART #   | DESCRIPTION                                   | QTY |
|------|----------|-----------------------------------------------|-----|
| 1    | 501-1162 | Washer 1-7/8" x 1-1/4" Narrow Rim Bushing     | 2   |
| 2    | 501-2122 | UHMW Enclosed Spring End Cap                  | 2   |
| 3    | 501-2210 | Enclosed 4 Spring Housing                     | 1   |
| 4    | 501-2242 | Steel Adjustable Enclosed 4 Spring Pivot Only | 1   |
| 5    | 503-3712 | 3/8" - 16 x 3" Hex Head Bolt                  | 1   |
| 6    | 504-3702 | 3/8" - 16 Nyloc Hex Nut Zinc Plt              | 1   |
| 7    | 506-0101 | 1-1/4" Snap Ring                              | 2   |
| 8    | 517-9966 | Spring, Underbody Arm System                  | 4   |

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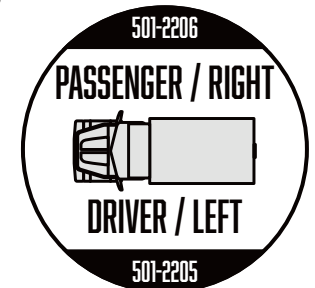
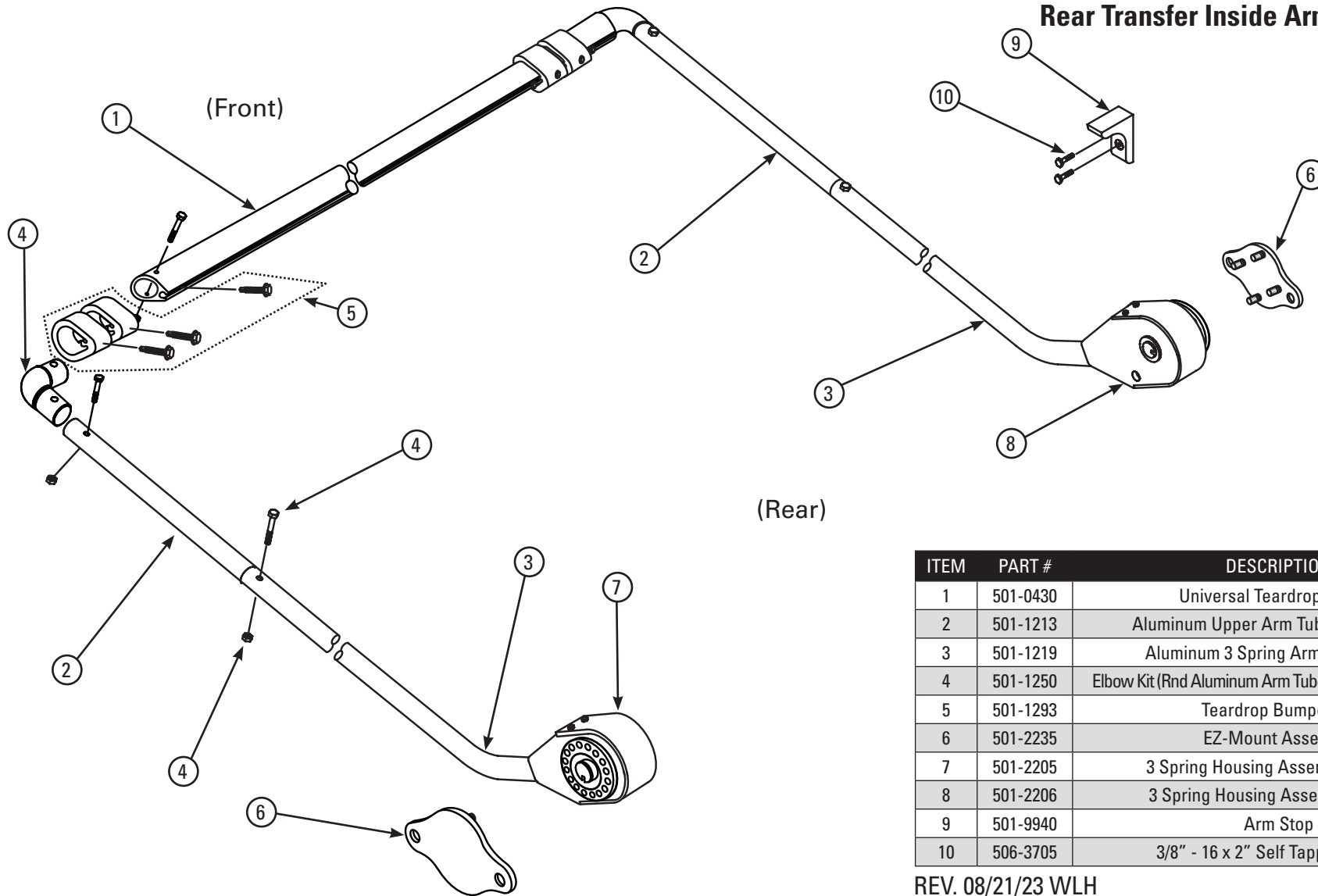
Assembled View of 501-2203



## PARTS SCHEMATICS

## Automatic Systems

### Rear Transfer Inside Arm System #501-1780



| ITEM | PART #   | DESCRIPTION                                           | QTY |
|------|----------|-------------------------------------------------------|-----|
| 1    | 501-0430 | Universal Teardrop Pullrod                            | 1   |
| 2    | 501-1213 | Aluminum Upper Arm Tubing, 51-3/8"lg.                 | 2   |
| 3    | 501-1219 | Aluminum 3 Spring Arm Tube, 55"lg.                    | 2   |
| 4    | 501-1250 | Elbow Kit (Rnd Aluminum Arm Tubes & Teardrop Pullbar) | 2   |
| 5    | 501-1293 | Teardrop Bumper Kit                                   | 1   |
| 6    | 501-2235 | EZ-Mount Assembly                                     | 2   |
| 7    | 501-2205 | 3 Spring Housing Assembly (Driver)                    | 1   |
| 8    | 501-2206 | 3 Spring Housing Assembly (Pass.)                     | 1   |
| 9    | 501-9940 | Arm Stop                                              | 2   |
| 10   | 506-3705 | 3/8" - 16 x 2" Self Tapping Screw                     | 4   |

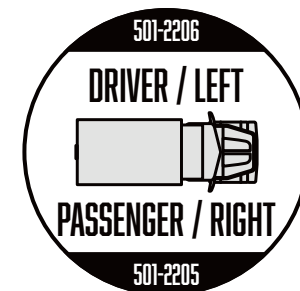
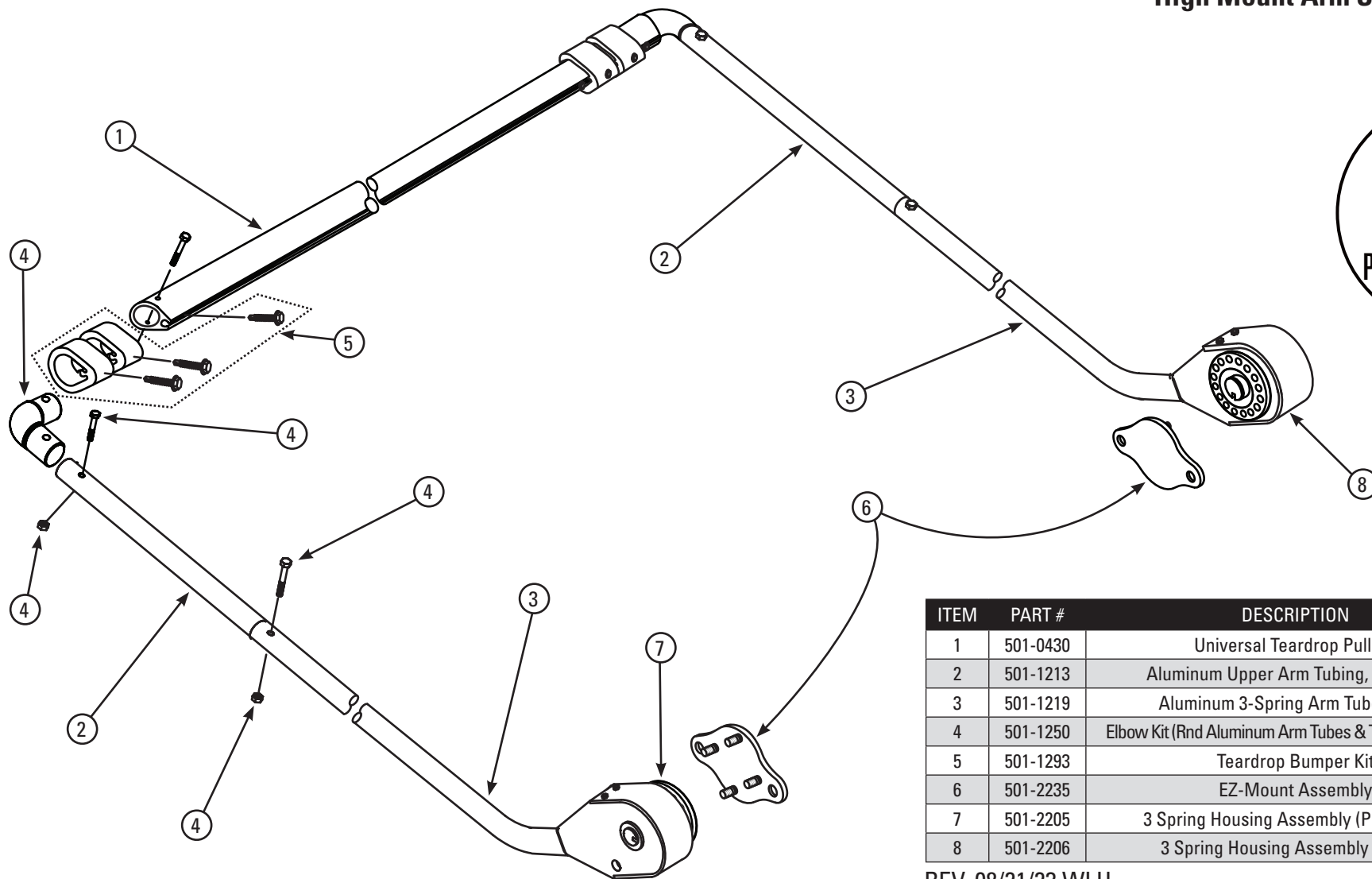
REV. 08/21/23 WLH



## PARTS SCHEMATICS

Automatic Systems

### High Mount Arm System #501-1781



| ITEM | PART #   | DESCRIPTION                                           | QTY |
|------|----------|-------------------------------------------------------|-----|
| 1    | 501-0430 | Universal Teardrop Pullrod                            | 1   |
| 2    | 501-1213 | Aluminum Upper Arm Tubing, 51-3/8"lg.                 | 2   |
| 3    | 501-1219 | Aluminum 3-Spring Arm Tube, 55"lg.                    | 2   |
| 4    | 501-1250 | Elbow Kit (Rnd Aluminum Arm Tubes & Teardrop Pullbar) | 2   |
| 5    | 501-1293 | Teardrop Bumper Kit                                   | 1   |
| 6    | 501-2235 | EZ-Mount Assembly                                     | 1   |
| 7    | 501-2205 | 3 Spring Housing Assembly (Passenger)                 | 1   |
| 8    | 501-2206 | 3 Spring Housing Assembly (Driver)                    | 1   |

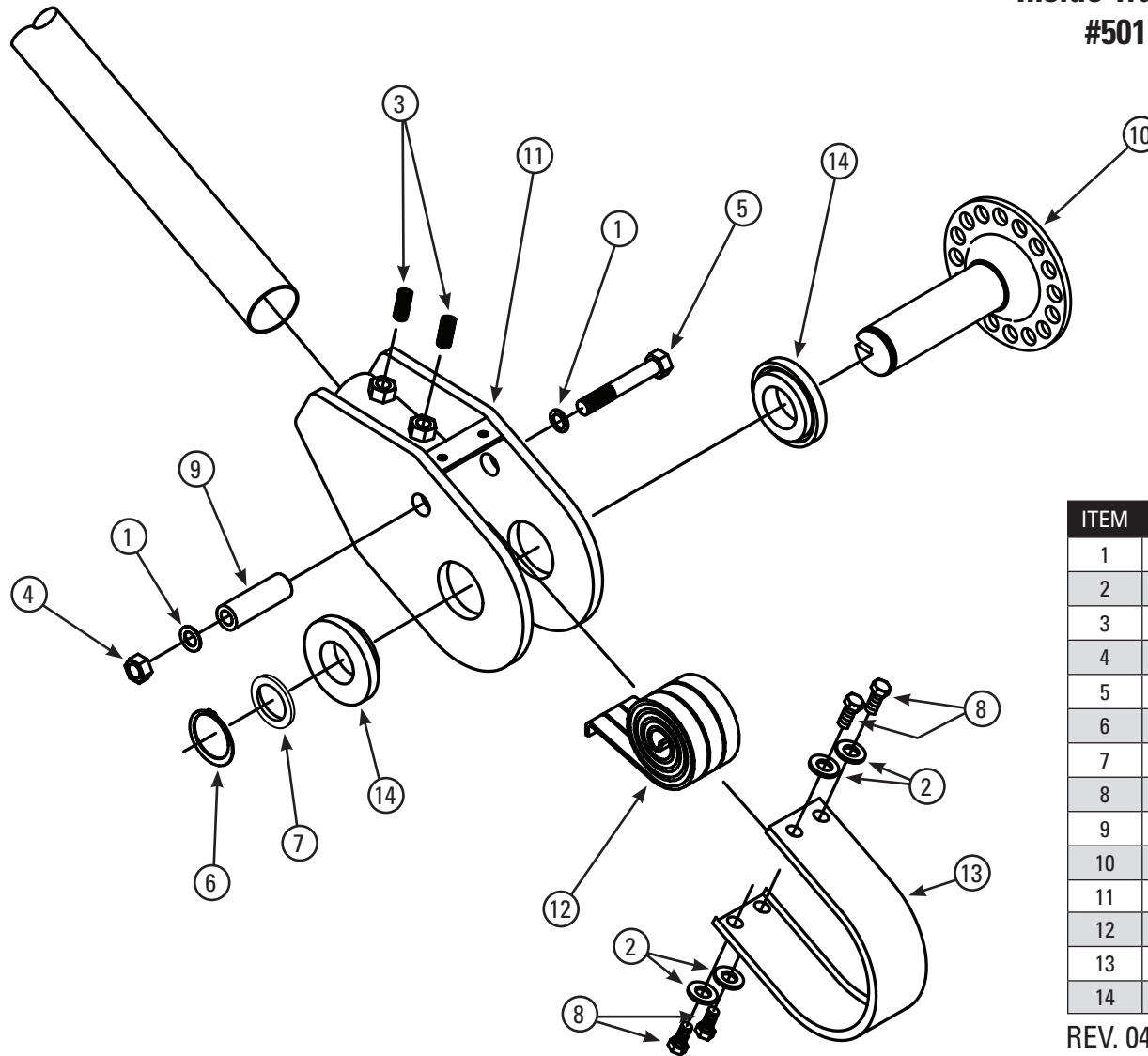
REV. 08/21/23 WLH



## PARTS SCHEMATICS

## Automatic Systems

### Inside Transfer / Hight Mount 3 Spring Housing Assembly #501-2205 (Driver-Opposite), 501-2206 (Pass.-Shown)



| ITEM | PART #   | DESCRIPTION                              | QTY |
|------|----------|------------------------------------------|-----|
| 1    | 505-5001 | 1/2" AN Flat Washer                      | 2   |
| 2    | 505-2502 | 1/4" Flat Washer USS                     | 4   |
| 3    | 503-5008 | 1/2" - 13 x 3/4" Set Screw               | 2   |
| 4    | 504-5004 | 1/2" - 13 Nyloc Nut                      | 1   |
| 5    | 503-5011 | 1/2" - 13 x 3-1/4"lg. HHCS Bolt          | 1   |
| 6    | 506-0101 | 1-1/4" Snap Ring                         | 1   |
| 7    | 501-1162 | Washer, 1-7/8" x 1-1/4" Narrow Rim Bush  | 1   |
| 8    | 503-2503 | 1/4" - 20 x 1/2"lg. HHCS Bolt            | 4   |
| 9    | 501-1158 | Spring Connection - Arm System           | 1   |
| 10   | 501-2243 | Steel Adjustable 3 & 4 Spring Pivot Only | 1   |
| 11   | 501-1109 | Spring Side Plate Assembly               | 1   |
| 12   | 517-9921 | Small Spring for Arm System              | 3   |
| 13   | 501-1151 | Arm Dust Cover                           | 1   |
| 14   | 501-1155 | UHMW Pivot Retainer 2-1/2" Dia.          | 2   |

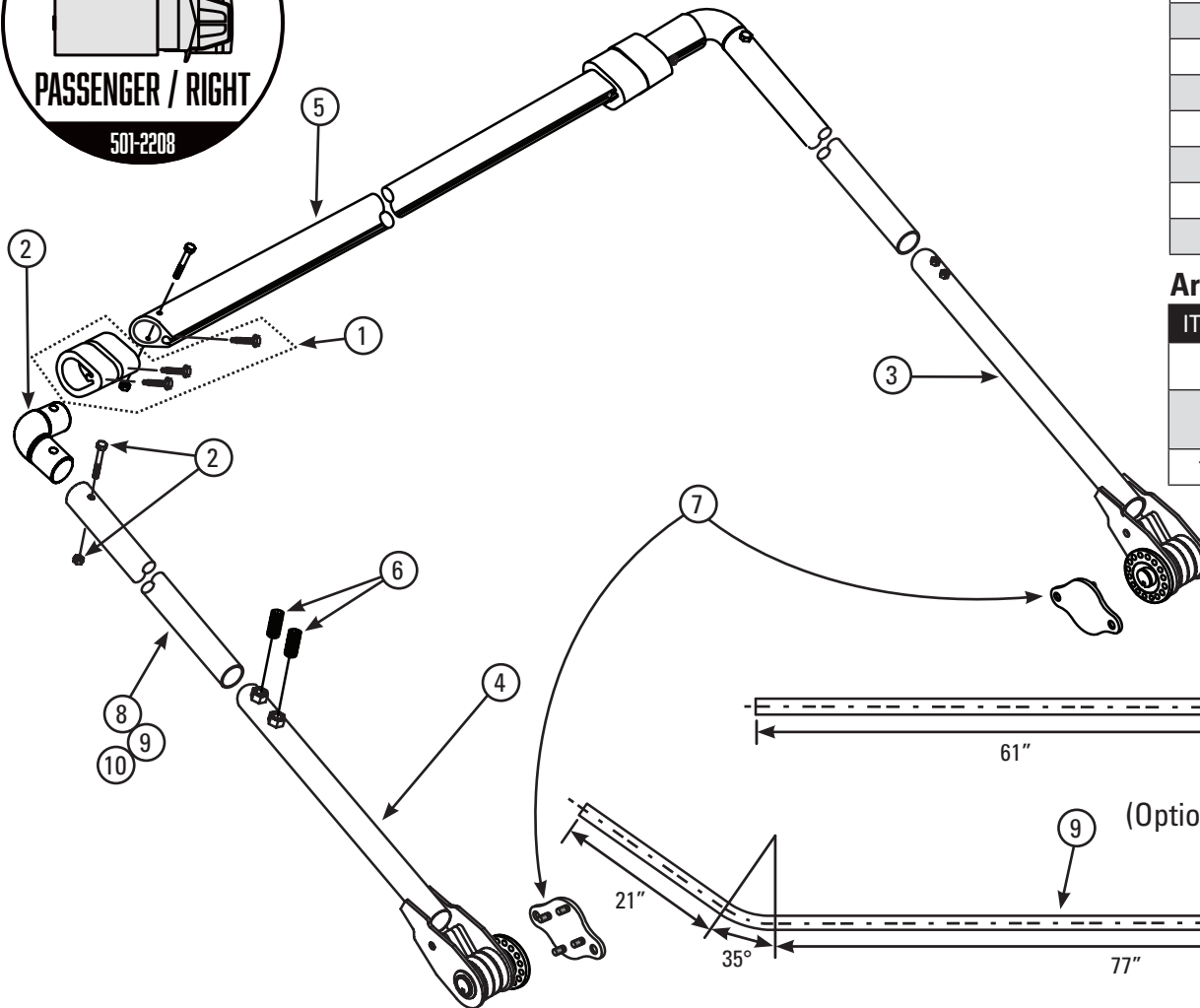
REV. 04/18/19 WLH



## PARTS SCHEMATICS

## Automatic Systems

### Steel Arms to 22' #501-1756, 501-1755



| ITEM | PART #   | DESCRIPTION                    | QTY |
|------|----------|--------------------------------|-----|
| 1    | 501-1293 | Teardrop Bumper Kit            | 1   |
| 2    | 501-1251 | Elbow Kit (For Steel)          | 1   |
| 3    | 501-2207 | 4 Spring Housing (Driver Side) | 1   |
| 4    | 501-2208 | 4 Spring Housing (Pass. Side)  | 1   |
| 5    | 501-0430 | Universal Teardrop Pullrod     | 1   |
| 6    | 506-5008 | 1/2" - 13 x 3/4"lg. Set Screw  | 4   |
| 7    | 501-2235 | EZ-Mount Assembly              | 1   |
| --   | 514-0120 | 6 Ga. Electric Wire            | 60' |

### Arm Options

| ITEM | PART #   | DESCRIPTION                                               | QTY |
|------|----------|-----------------------------------------------------------|-----|
| 8    | 501-1202 | Steel Upper Arm Tubing (Included in 501-0782)             | 2   |
| 9    | 501-1205 | Upper Arm Tubing, Drilled and Bent (Included in 501-0749) | 2   |
| 10   | 501-1207 | Offset Upper Arm Tube                                     | 2   |

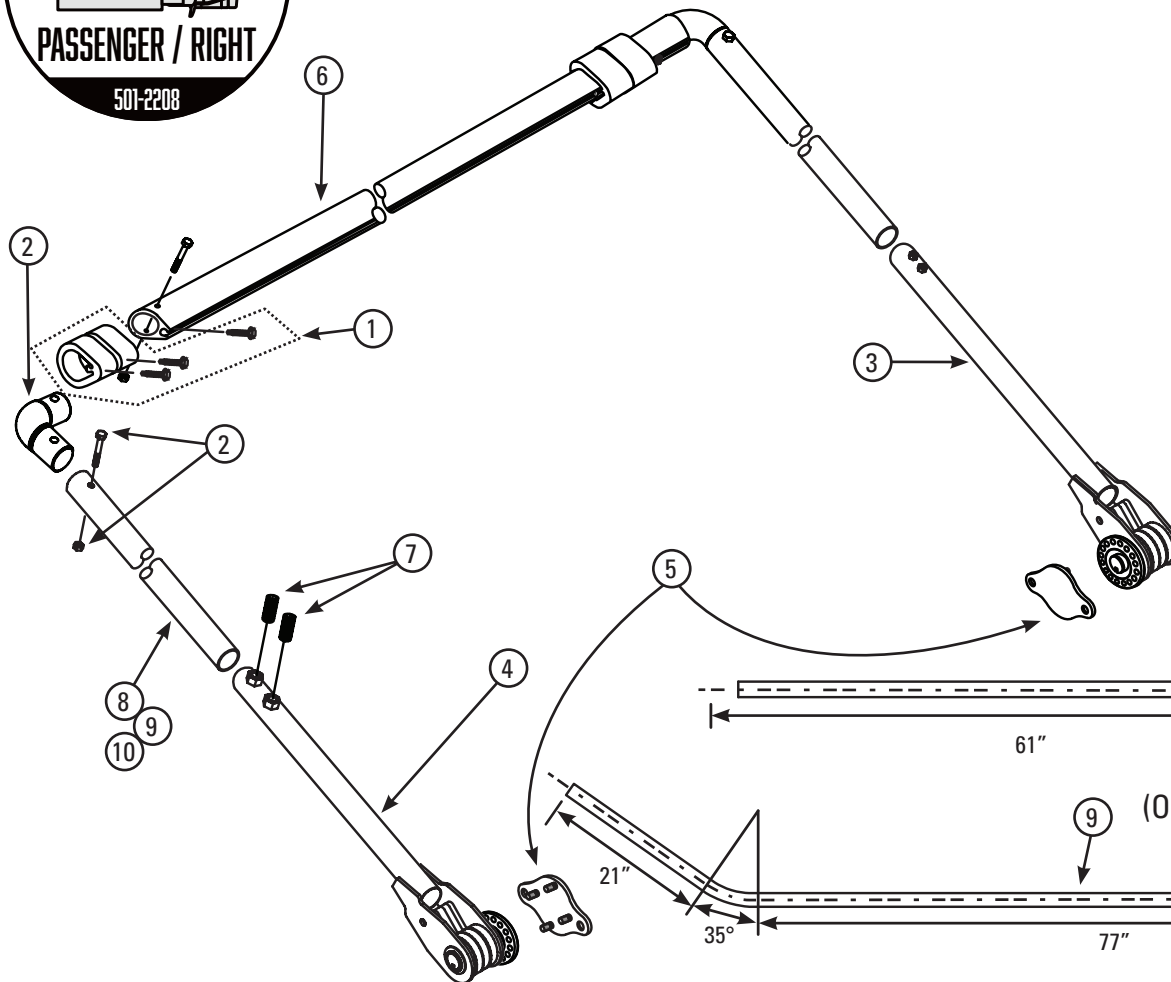
REV. 08/21/19 WLH



## PARTS SCHEMATICS

## Automatic Systems

### Steel Arms to 22' #501-1703, 501-1704



| ITEM | PART #   | DESCRIPTION                              | QTY |
|------|----------|------------------------------------------|-----|
| 1    | 501-1293 | Teardrop Bumper Kit                      | 1   |
| 2    | 501-1251 | Elbow Kit (For Steel)                    | 1   |
| 3    | 501-2207 | 4 Spring Housing (Driver Side)           | 1   |
| --   | 501-1253 | Steel Offset 4 Spring Hsg. (Driver Side) | 1   |
| 4    | 501-2208 | 4 Spring Housing (Pass. Side)            | 1   |
| --   | 501-1254 | Steel Offset 4 Spring Hsg. (Pass. Side)  | 1   |
| 5    | 501-2235 | EZ-Mount Assembly                        | 1   |
| 6    | 501-0430 | Universal Teardrop Pullrod               | 1   |
| 7    | 506-5008 | 1/2" - 13 x 3/4"lg. Set Screw            | 4   |
| --   | 514-0120 | 6 Ga. Electric Wire                      | 60' |

### Arm Options

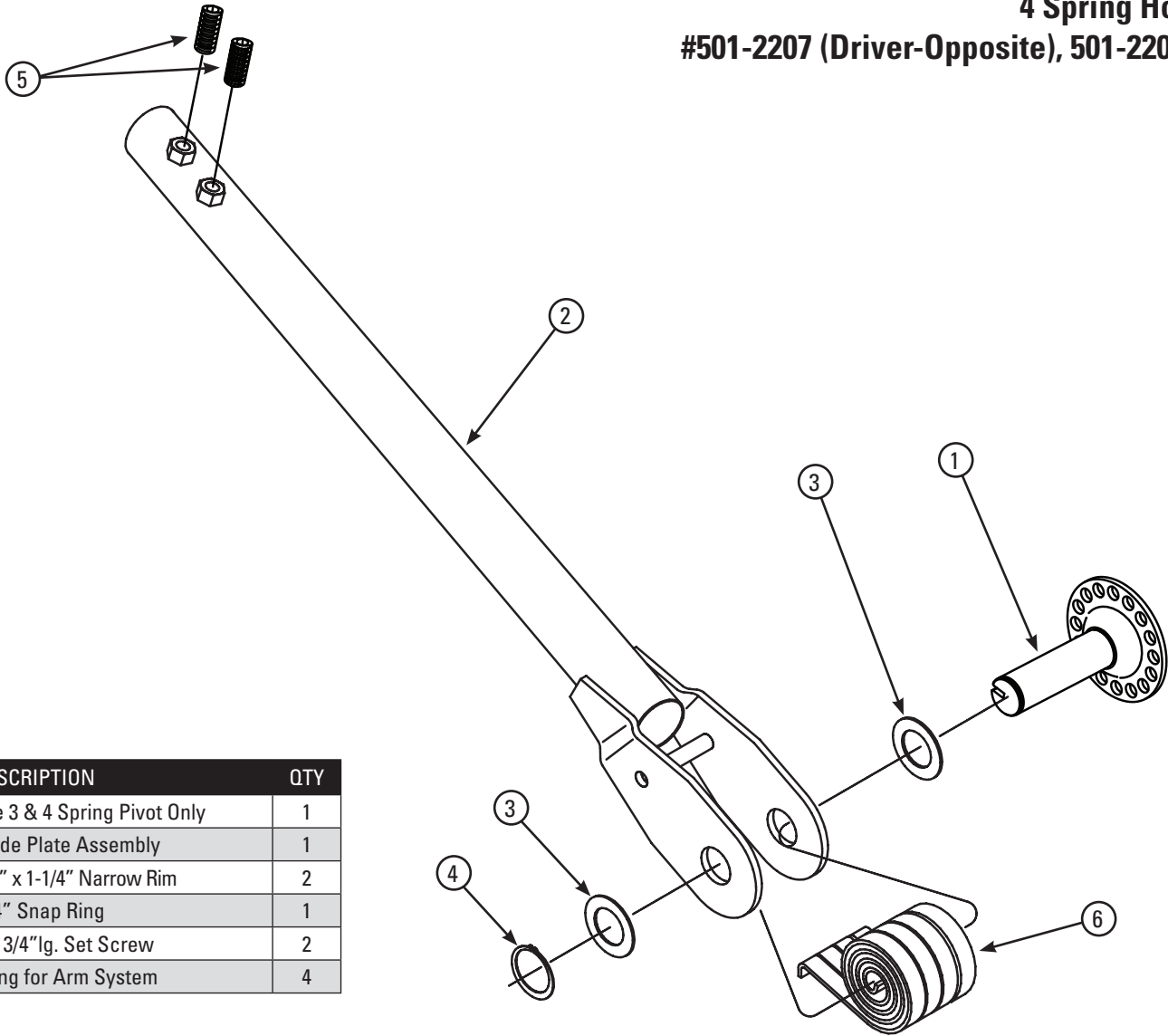
| ITEM | PART #   | DESCRIPTION                        | QTY |
|------|----------|------------------------------------|-----|
| 8    | 501-1202 | Steel Upper Arm Tubing             | 2   |
| 9    | 501-1205 | Upper Arm Tubing, Drilled and Bent | 2   |
| 10   | 501-1207 | Offset Upper Arm Tube              | 2   |

REV. 08/21/19 WLH



4 Spring Housing Assembly

#501-2207 (Driver-Opposite), 501-2208 (Pass.-Shown)



| ITEM | PART #   | DESCRIPTION                              | QTY |
|------|----------|------------------------------------------|-----|
| 1    | 501-2243 | Steel Adjustable 3 & 4 Spring Pivot Only | 1   |
| 2    | 501-1110 | 4 Spring Side Plate Assembly             | 1   |
| 3    | 501-1162 | Washer, 1 7/8" x 1-1/4" Narrow Rim       | 2   |
| 4    | 506-0101 | 1 1/4" Snap Ring                         | 1   |
| 5    | 503-5008 | 1/2" - 13 x 3/4"lg. Set Screw            | 2   |
| 6    | 517-9921 | Small Spring for Arm System              | 4   |

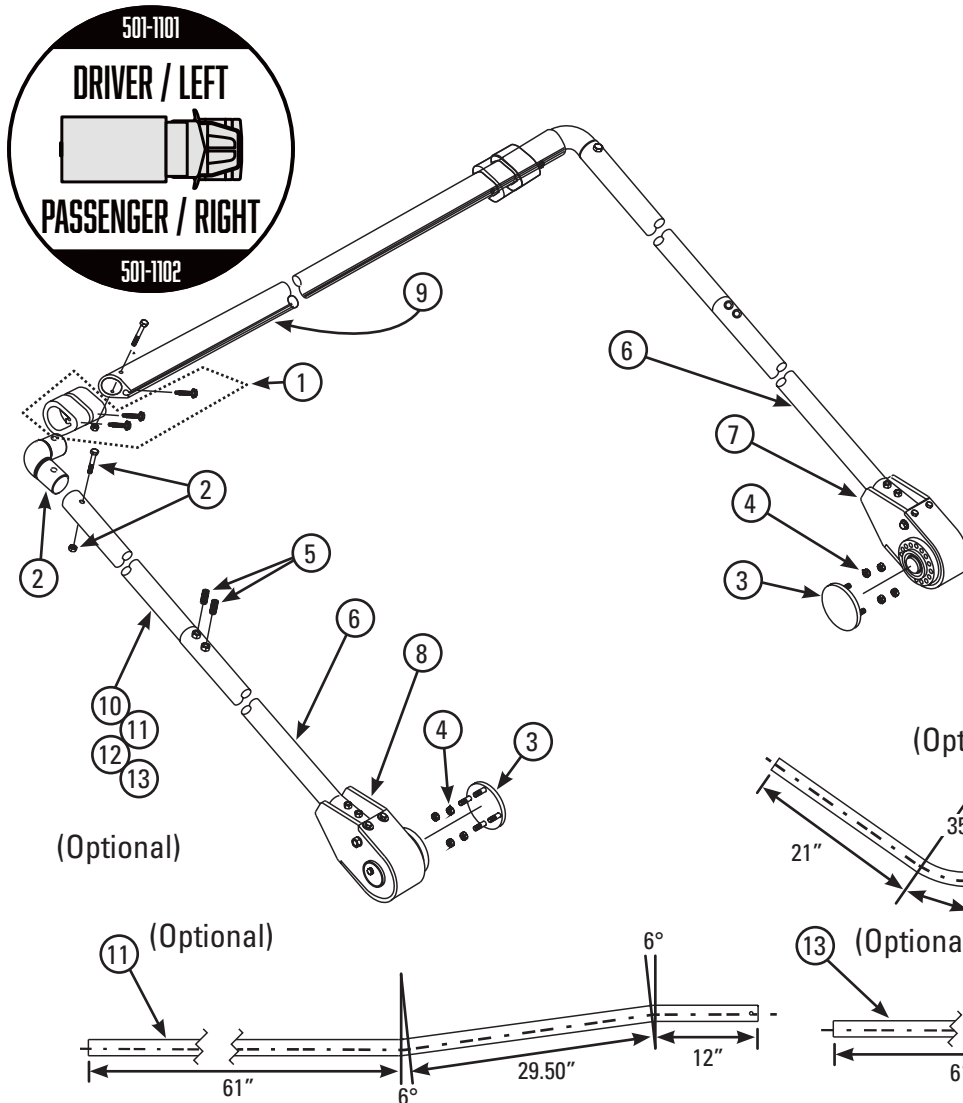
REV. 04/12/19 WLH





## PARTS SCHEMATICS

## Automatic Systems



## Single Spring Pivots with Steel Arms #501-0713, 501-1763

| ITEM | PART #   | DESCRIPTION                       | QTY |
|------|----------|-----------------------------------|-----|
| 1    | 501-1293 | Teardrop Bumper Kit               | 1   |
| 2    | 501-1251 | Elbow Kit (For Steel)             | 1   |
| 3    | 501-2237 | 4\" Arm Adaptor Plate Assembly    | 2   |
| 4    | 504-3705 | 3/8\" - 16 Nyloc Nut (Thin)       | 8   |
| 5    | 506-5008 | 1/2\" - 13 x 3/4\"lg. Set Screw   | 4   |
| 6    | 501-1201 | Lower Arm with Nuts               | 2   |
| 7    | 501-1101 | Single Spring Housing (Driver)    | 1   |
| 8    | 501-1102 | Single Spring Housing (Passenger) | 1   |
| 9    | 501-0430 | Universal Teardrop Pullbar        | 1   |
| --   | 514-0213 | 6Ga. Electric Wire                | 90' |

## Arm Options

| ITEM | PART #   | DESCRIPTION                        | QTY |
|------|----------|------------------------------------|-----|
| 10   | 501-1202 | Steel Upper Arm Tubing             | 2   |
| 11   | 501-1204 | Offset Upper Arm Tube              | 2   |
| 12   | 501-1205 | Upper Arm Tubing, Drilled and Bent | 2   |
| 13   | 501-1207 | Offset Upper Arm Tube              | 2   |

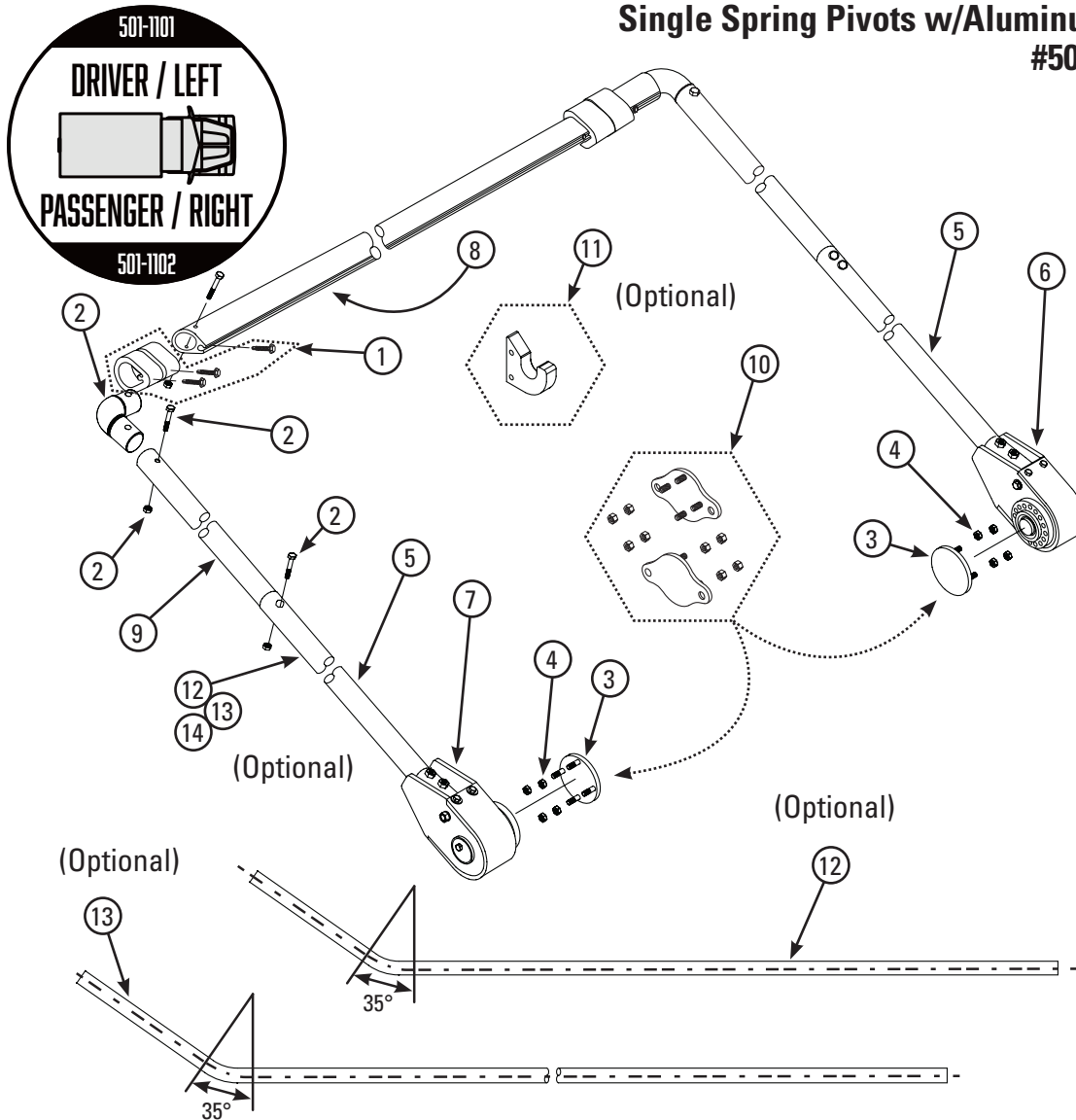
REV. 12/20/21 WLH



## PARTS SCHEMATICS

## Automatic Systems

### Single Spring Pivots w/Aluminum Arms #501-0714, 501-0731, 501-1764, 501-1765 (No Wire) #501-0764, 501-0765, 501-0785, 501-0786 (With Wire 90' & 100')



| ITEM | PART #   | DESCRIPTION                         | QTY |
|------|----------|-------------------------------------|-----|
| 1    | 501-1293 | Teardrop Bumper Kit                 | 1   |
| 2    | 501-0791 | Elbow Kit (For Alum. with Teardrop) | 1   |
| 3    | 501-2237 | 4" Arm Adaptor Plate Assembly       | 2   |
| 4    | 504-3705 | 3/8" - 16 Nyloc Nut (Thin)          | 8   |
| 5    | 501-1209 | Aluminum Lower Arm Tube             | 2   |
| 6    | 501-1101 | Single Spring Housing (Driver)      | 1   |
| 7    | 501-1102 | Single Spring Housing (Passenger)   | 1   |
| 8    | 501-0430 | Universal Teardrop Pullbar          | 1   |

### Options

| ITEM | PART #   | DESCRIPTION                        | QTY |
|------|----------|------------------------------------|-----|
| 9    | 501-1211 | Aluminum Upper Arm or Pullrod      | 2   |
| 10   | 501-2235 | EZ-Mount Assembly                  | 2   |
| 11   | 501-1247 | Arm Catcher Assembly (Optional)    | 1   |
| 12   | 501-1214 | Upper Arm Tubing, Drilled and Bent | 2   |
| 13   | 501-1216 | Aluminum Upper Arm Tube Bent - 12' | 2   |
| 14   | 501-1212 | Aluminum Upper Arm Tube - 12'      | 2   |

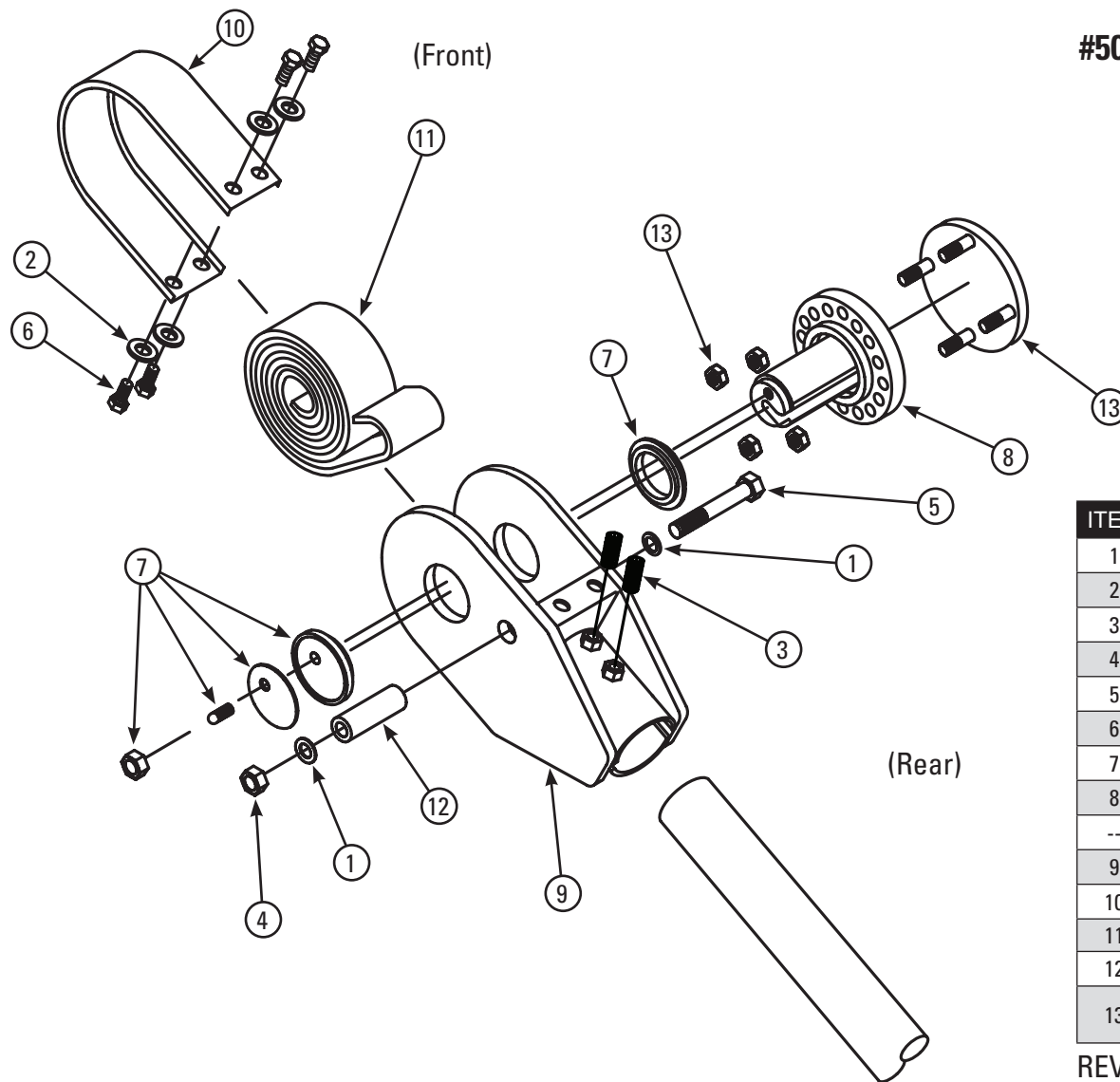
REV. 03/03/23 WLH



## PARTS SCHEMATICS

Automatic Systems

### Single Spring Housing Assembly #501-1101 (Driver-Shown), #501-1102 (Pass.-Opposite)

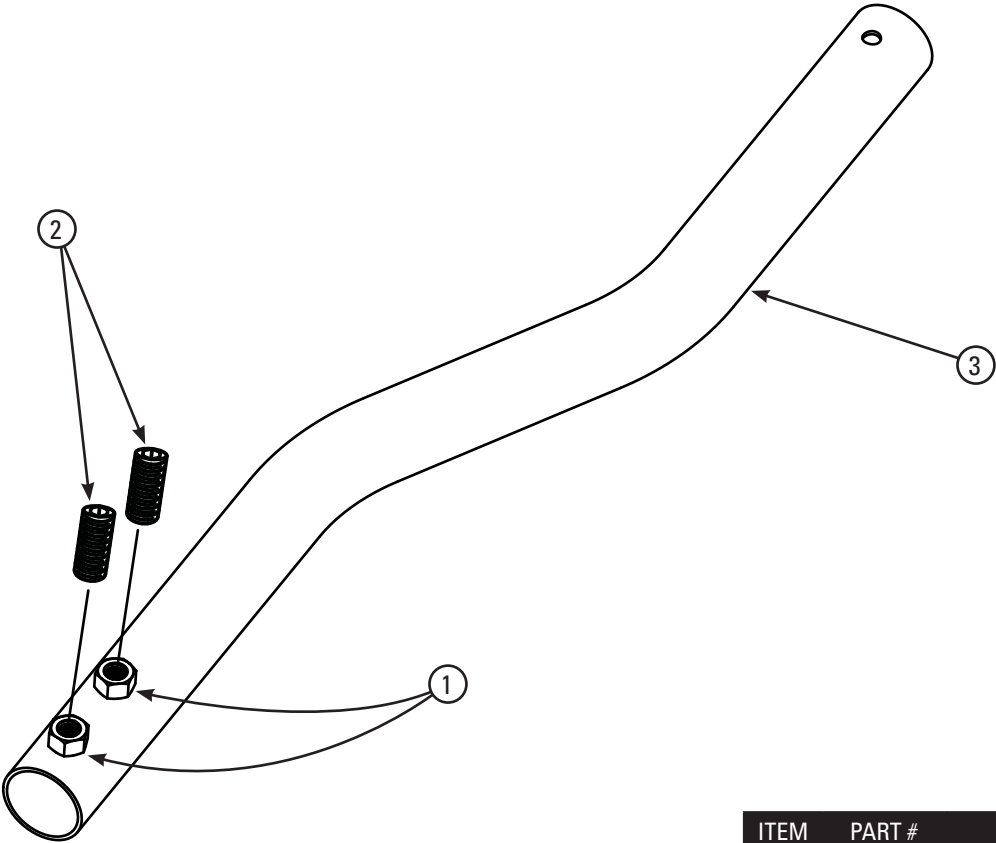


| ITEM | PART #   | DESCRIPTION                                                                      | QTY |
|------|----------|----------------------------------------------------------------------------------|-----|
| 1    | 505-5001 | 1/2" AN Flat Washer                                                              | 2   |
| 2    | 505-2502 | 1/4" Flat Washer USS                                                             | 4   |
| 3    | 506-5008 | 1/2" - 13 x 3/4" Set Screw                                                       | 2   |
| 4    | 504-5004 | 1/2" - 13 Nyloc Nut                                                              | 1   |
| 5    | 503-5011 | 1/2" - 13 x 3-1/4"lg. HHCS Bolt                                                  | 1   |
| 6    | 503-2503 | 1/4" - 20 x 1/2"lg. HHCS Bolt                                                    | 4   |
| 7    | 501-1181 | Bushing Kit                                                                      | 1   |
| 8    | 501-1119 | Pivot Assembly (Driver)                                                          | 1   |
| --   | 501-1120 | Pivot Assembly (Passenger-Not Shown)                                             | 1   |
| 9    | 501-1109 | Spring Side Plate Assembly                                                       | 1   |
| 10   | 501-1151 | Arm Dust Cover                                                                   | 1   |
| 11   | 501-1156 | Rolled Spring Assembly with Strip                                                | 1   |
| 12   | 501-1158 | Spring Connection (Arm System)                                                   | 1   |
| 13   | 501-2237 | 4" Arm Adaptor Plate Assembly<br>(Not part of Kit - Must be ordered separately.) | 1   |

REV. 10/13/16 WLH



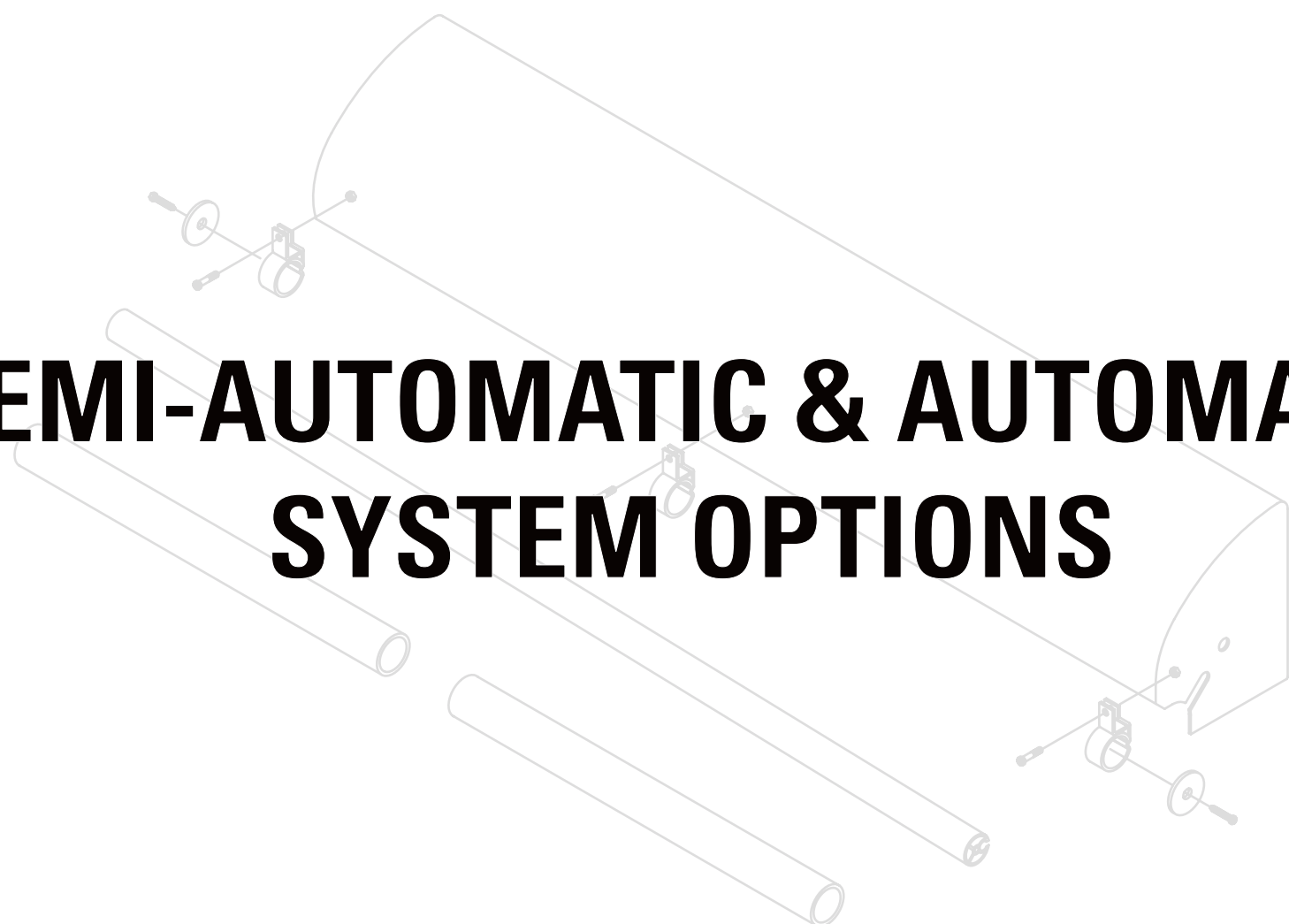
34" Steel Offset Arm #501-1203 (Left), 501-1204 (Right)



(Left Offset Arm Shown)

| ITEM | PART #   | DESCRIPTION                   | QTY |
|------|----------|-------------------------------|-----|
| 1    | 504-5003 | 1/2" - 13 Nut - Unplated      | 2   |
| 2    | 506-5008 | 1/2" - 13 x 3/4" Set Screw    | 2   |
| 3    | 517-0343 | Tubing, Galvanized 1.9X .090X | 1   |

REV. 04/12/19 WLH



# SEMI-AUTOMATIC & AUTOMATIC SYSTEM OPTIONS



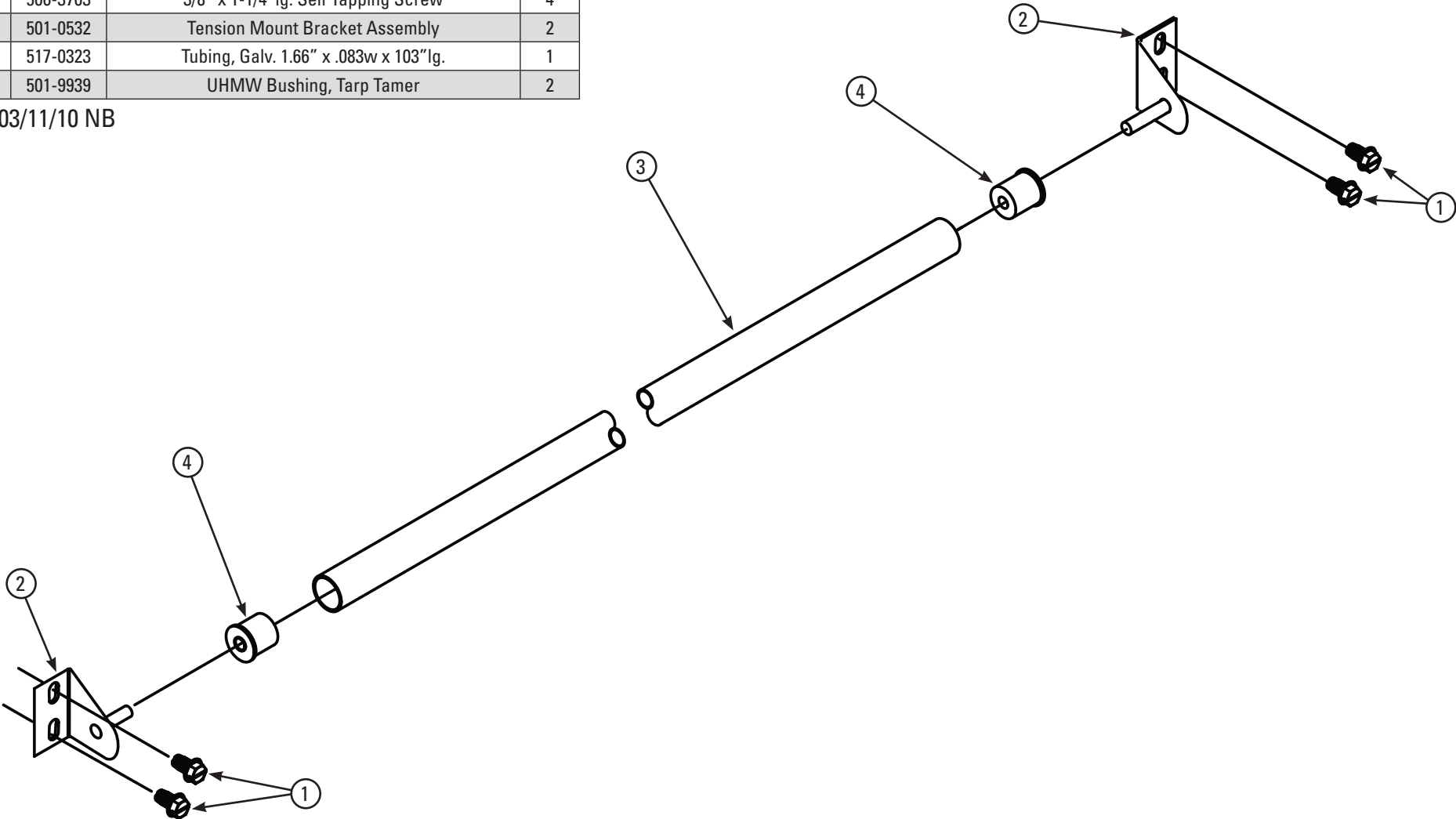
PARTS SCHEMATICS

Semi-Automatic & Automatic Options

| ITEM | PART #   | DESCRIPTION                           | QTY |
|------|----------|---------------------------------------|-----|
| 1    | 506-3703 | 3/8" x 1-1/4"lg. Self Tapping Screw   | 4   |
| 2    | 501-0532 | Tension Mount Bracket Assembly        | 2   |
| 3    | 517-0323 | Tubing, Galv. 1.66" x .083w x 103"lg. | 1   |
| 4    | 501-9939 | UHMW Bushing, Tarp Tamer              | 2   |

REV. 03/11/10 NB

Tarp Tamer #501-0701



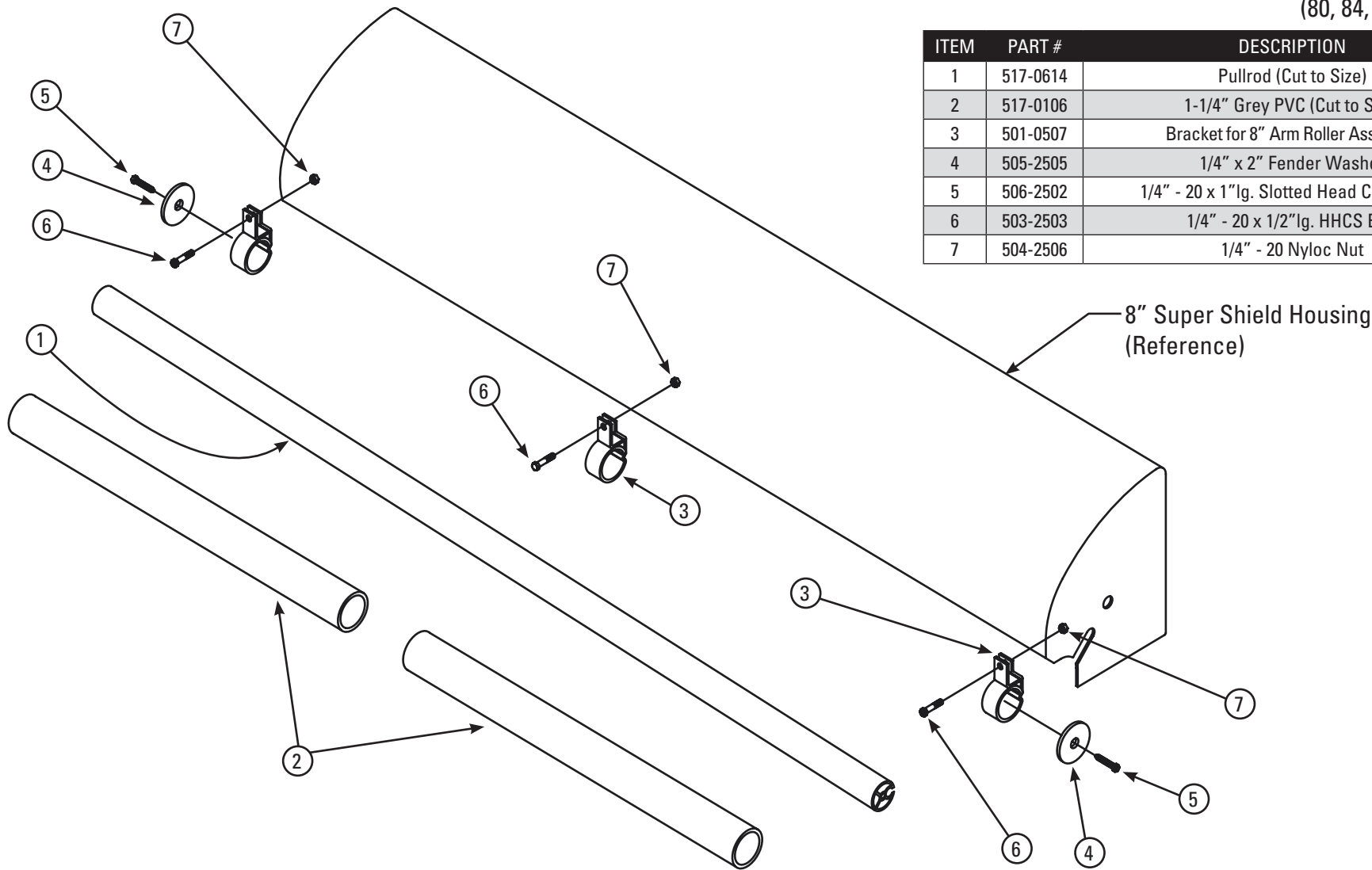


PARTS SCHEMATICS

Semi-Automatic & Automatic Options

S8 Roller Conversion #501-070X

(80, 84, 87, 89, 93, 96, 100")



| ITEM | PART #   | DESCRIPTION                              | QTY |
|------|----------|------------------------------------------|-----|
| 1    | 517-0614 | Pullrod (Cut to Size)                    | 1   |
| 2    | 517-0106 | 1-1/4" Grey PVC (Cut to Size)            | 2   |
| 3    | 501-0507 | Bracket for 8" Arm Roller Assembly       | 3   |
| 4    | 505-2505 | 1/4" x 2" Fender Washer                  | 2   |
| 5    | 506-2502 | 1/4" - 20 x 1"lg. Slotted Head Cap Screw | 2   |
| 6    | 503-2503 | 1/4" - 20 x 1/2"lg. HHCS Bolt            | 3   |
| 7    | 504-2506 | 1/4" - 20 Nyloc Nut                      | 3   |

REV. 10/24/16 WLH



PARTS SCHEMATICS

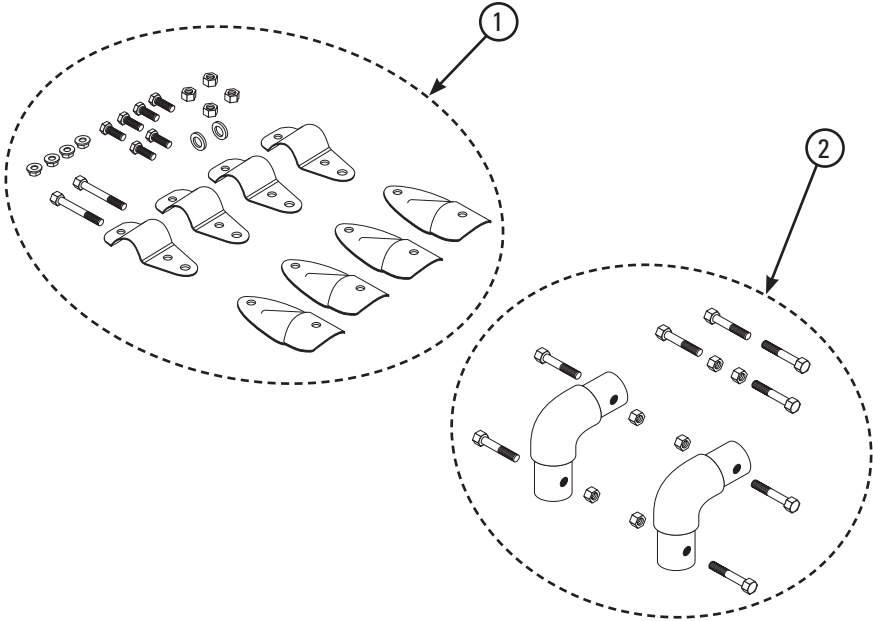
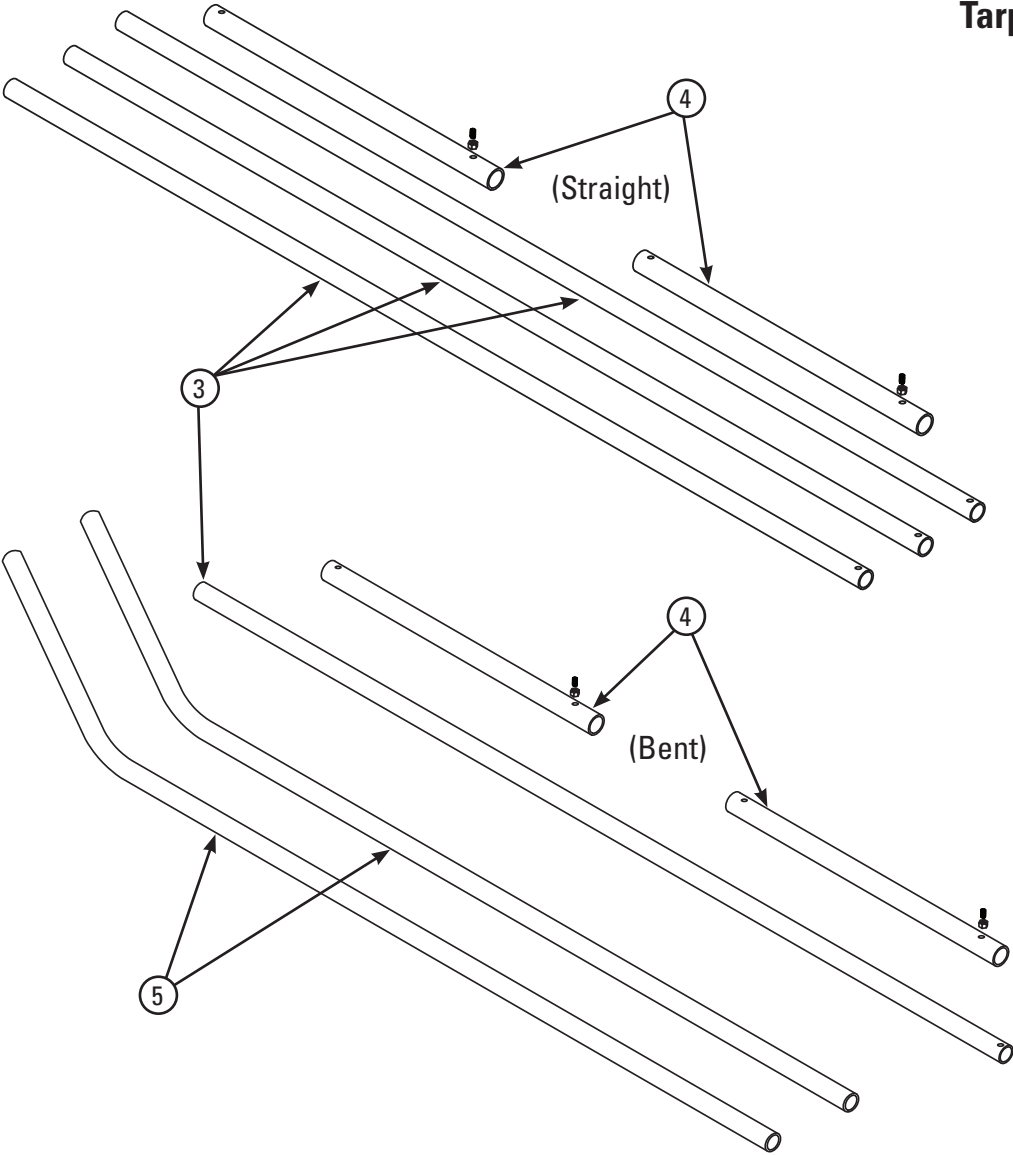
Semi-Automatic & Automatic Options

Tarp Tamer Bow to 21' Steel #501-1800 (Straight), #501-1801 (Bent)

Straight & Bent

| ITEM | PART #   | DESCRIPTION                                     | QTY |
|------|----------|-------------------------------------------------|-----|
| 1    | 501-0796 | Tarp Tamer Bow Hardware Kit (Straight)          | 1   |
| --   | --       | Tarp Tamer Bow Hardware Kit (Bent)              | 1   |
| 2    | 501-1251 | Elbow & Upper Conn. Hardware (Straight) - Steel | 1   |
| --   | --       | Elbow & Upper Conn. Hardware (Bent) - Steel     | 1   |
| 3    | 501-1202 | Steel Upper Arm Tubing (Straight) - Drilled     | 3   |
| --   | --       | Steel Upper Arm Tubing (Bent) - Drilled         | 1   |
| 4    | 501-1229 | Lower Connection Arm Tube (Straight) - 34.25"   | 2   |
| --   | --       | Lower Connection Arm Tube (Bent) - 34.25"       | 2   |
| 5    | 501-1205 | Upper Arm Tubing (Bent) - Drilled               | 2   |

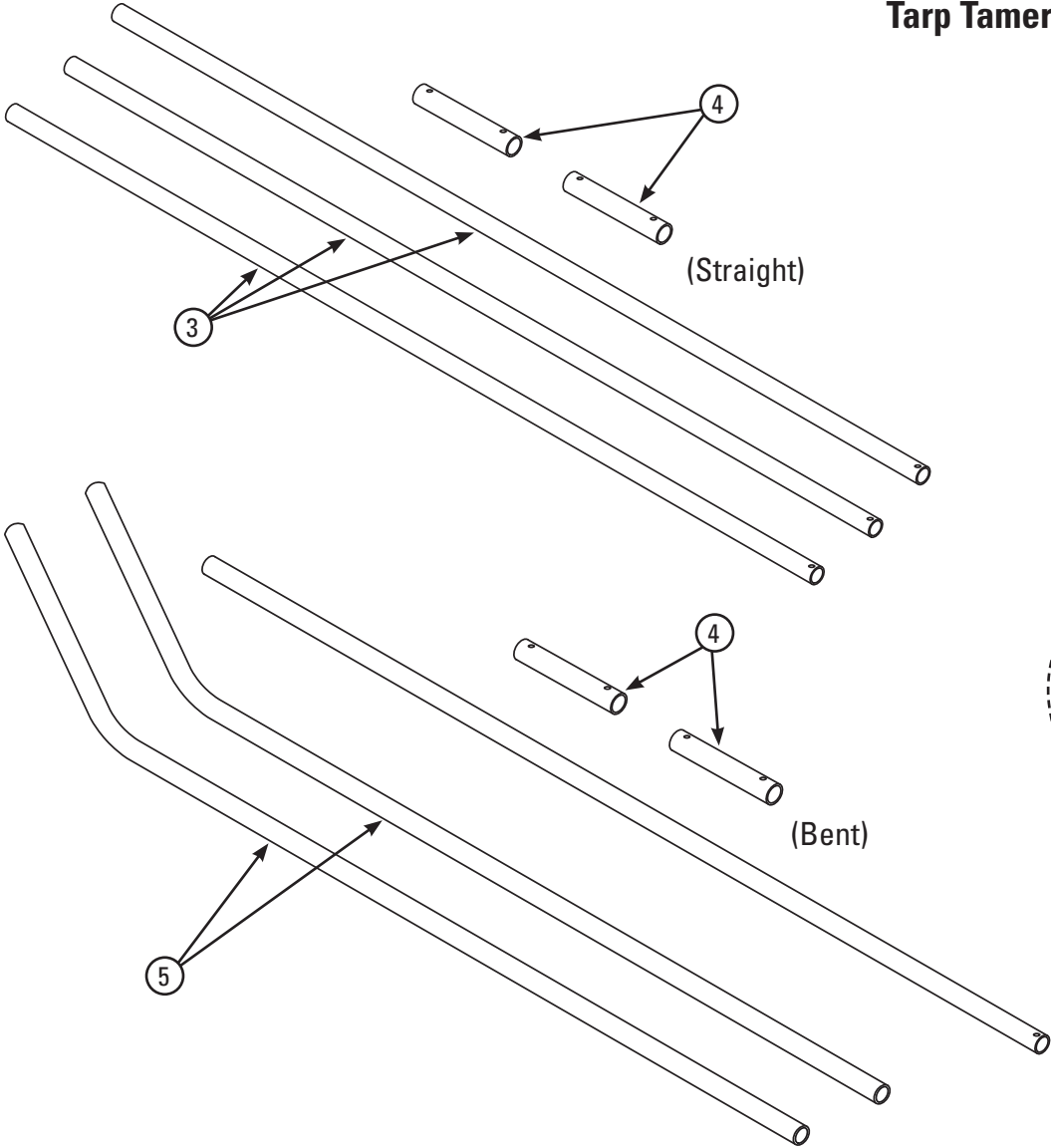
REV. 12/19/16 WLH







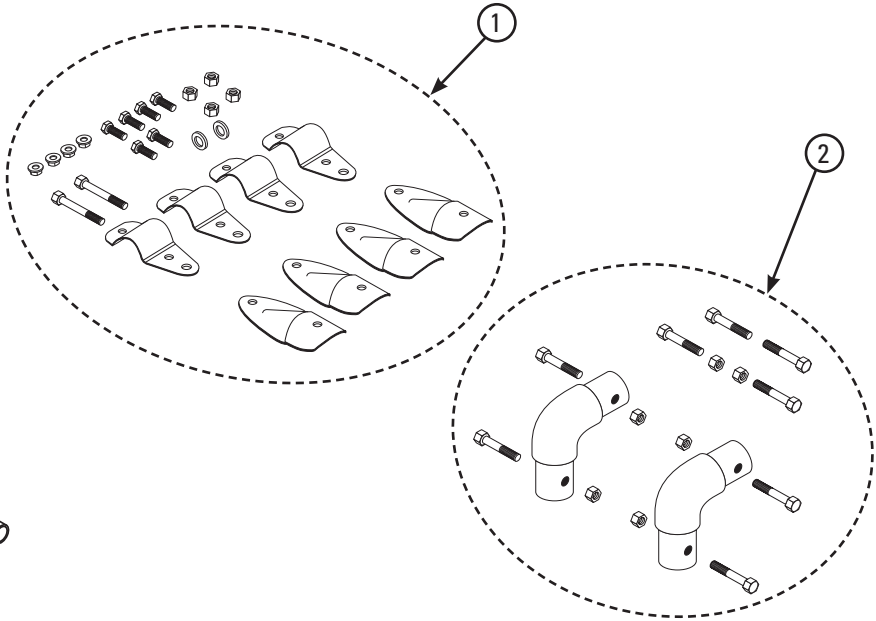
Tarp Tamer Bow to 21' Aluminum #501-1802 (Straight), #501-1803 (Bent)



Straight & Bent

| ITEM | PART #   | DESCRIPTION                                    | QTY |
|------|----------|------------------------------------------------|-----|
| 1    | 501-0796 | Tarp Tamer Bow Hardware Kit (Straight)         | 1   |
| --   | --       | Tarp Tamer Bow Hardware Kit (Bent)             | 1   |
| 2    | 501-1250 | Elbow & Upper Conn. Hardware (Straight) - Alum | 1   |
| --   | --       | Elbow & Upper Conn. Hardware (Bent) - Alum     | 1   |
| 3    | 501-1211 | Aluminum Upper Arm or Pullrod (Straight)       | 3   |
| --   | --       | Aluminum Upper Arm or Pullrod (Bent)           | 1   |
| 4    | 501-1217 | Aluminum 4 Spring Arm Tube 30" Long (Straight) | 2   |
| --   | --       | Aluminum 4 Spring Arm Tube 30" Long (Bent)     | 2   |
| 5    | 501-1214 | Aluminum Upper Arm (Bent) - Up to 33'          | 2   |

REV. 12/19/16 WLH





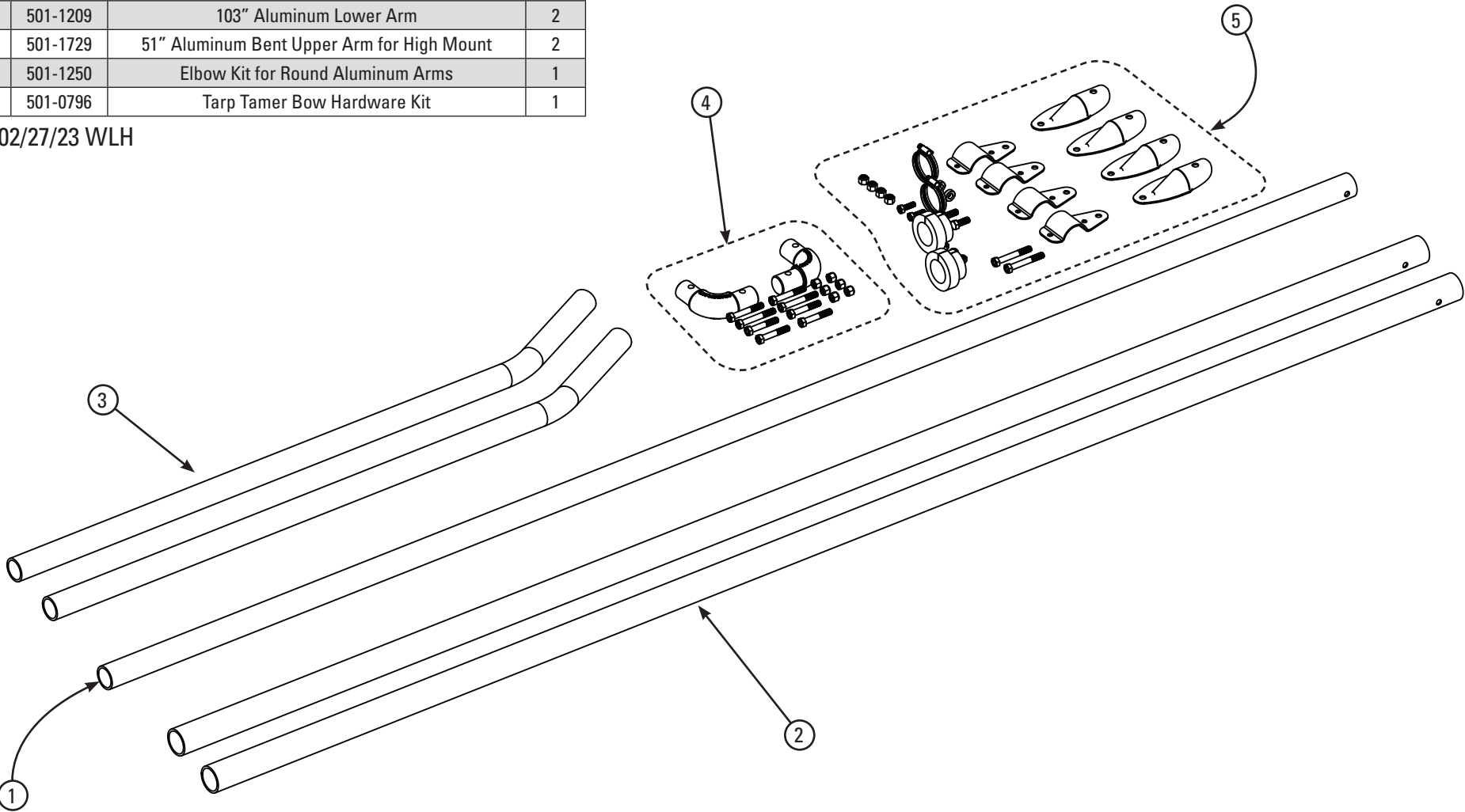
PARTS SCHEMATICS

Semi-Automatic & Automatic Options

| ITEM | PART #   | DESCRIPTION                                | QTY |
|------|----------|--------------------------------------------|-----|
| 1    | 501-1211 | Aluminum Upper Arm                         | 1   |
| 2    | 501-1209 | 103" Aluminum Lower Arm                    | 2   |
| 3    | 501-1729 | 51" Aluminum Bent Upper Arm for High Mount | 2   |
| 4    | 501-1250 | Elbow Kit for Round Aluminum Arms          | 1   |
| 5    | 501-0796 | Tarp Tamer Bow Hardware Kit                | 1   |

REV. 02/27/23 WLH

High Mount Tarp Tamer Bows #501-1807 (Bent)





## PARTS SCHEMATICS

## Semi-Automatic & Automatic Options

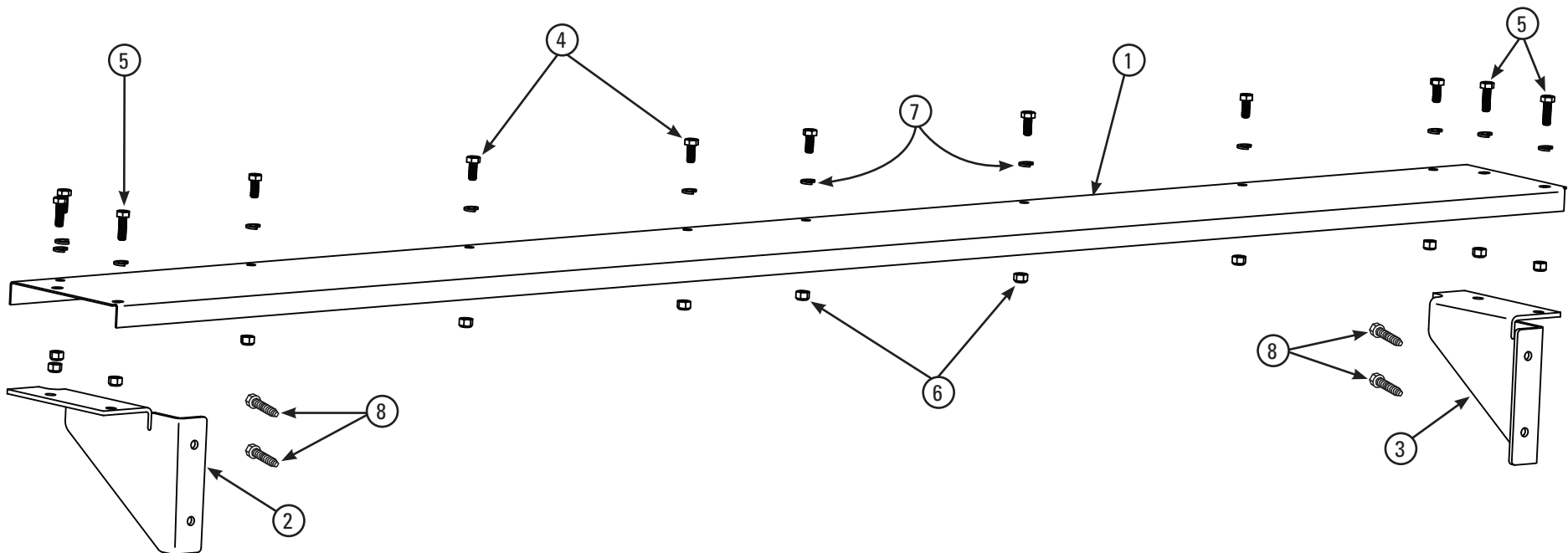
### 80" Wind Tray Kit / Aluminator 8500 Housing #501-1030 (Shown)

Width Options: #501-1031 (84"), #501-1032 (87"), #501-1033 (89"), #501-1034 (93"), 501-1035 (96") & 501-1036 (100")

| ITEM | PART #   | DESCRIPTION                     | QTY |
|------|----------|---------------------------------|-----|
| 1    | 501-1037 | 8.5 Aluminum Tray 80"           | 1   |
| ---  | 501-1038 | 8.5 Aluminum Tray 84" (Option)  | 1   |
| ---  | 501-1039 | 8.5 Aluminum Tray 87" (Option)  | 1   |
| ---  | 501-1040 | 8.5 Aluminum Tray 89" (Option)  | 1   |
| ---  | 501-1041 | 8.5 Aluminum Tray 93" (Option)  | 1   |
| ---  | 501-1042 | 8.5 Aluminum Tray 96" (Option)  | 1   |
| ---  | 501-1043 | 8.5 Aluminum Tray 100" (Option) | 1   |

| ITEM | PART #   | DESCRIPTION                         | QTY |
|------|----------|-------------------------------------|-----|
| 2    | 501-1044 | Left Aluminum Tray Support          | 1   |
| 3    | 501-1045 | Right Aluminum Tray Support         | 1   |
| 4    | 503-3103 | 5/16"-18 x 3/4" HHCS Bolt           | 8   |
| 5    | 503-3105 | 5/16"-18 x 1" HHCS Bolt G2          | 4   |
| 6    | 504-3103 | 5/16"-18 Nylock Nut                 | 12  |
| 7    | 505-3102 | 5/16" Lock Washer                   | 12  |
| 8    | 506-3703 | 3/8" - 16 x 1-1/4" Full Thread Stud | 4   |

REV. 02/04/20 WLH





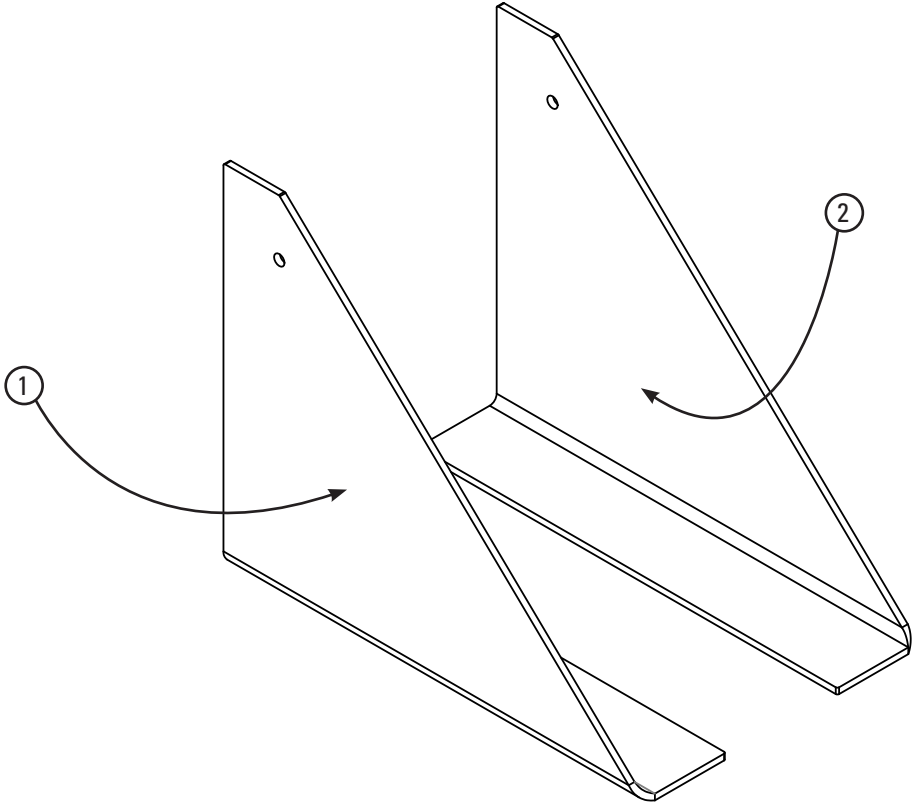
**PARTS SCHEMATICS**

**Semi-Automatic & Automatic Options**

**“B” Bracket Kit #501-0501**

| ITEM | PART #   | DESCRIPTION                         | QTY |
|------|----------|-------------------------------------|-----|
| 1    | 501-0503 | Right Mounting Bracket “B” Position | 1   |
| 2    | 501-0504 | Left Mounting Bracket “B” Position  | 1   |

REV. 06/25/20 WLH

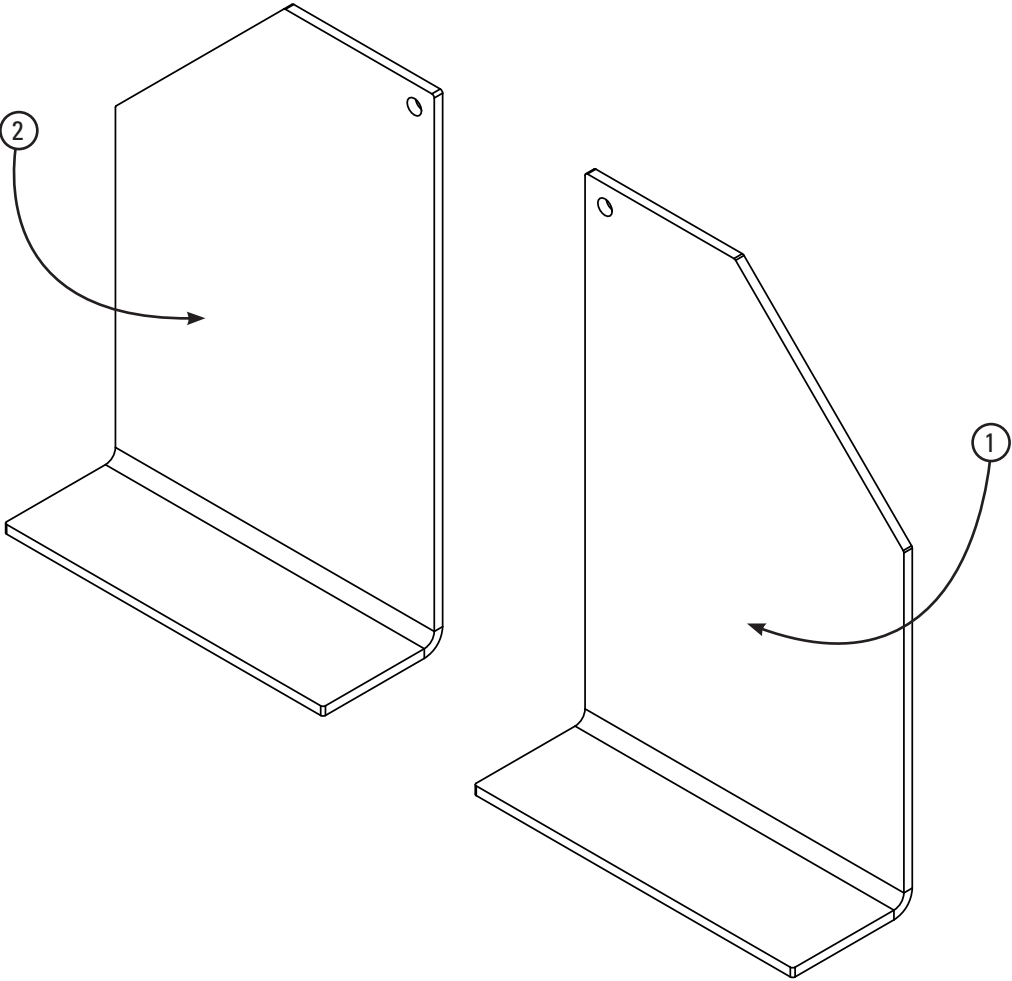




“B” Bracket Kit for “N” Style #501-0502

| ITEM | PART #   | DESCRIPTION                                    | QTY |
|------|----------|------------------------------------------------|-----|
| 1    | 501-0505 | Left Mounting Bracket “B” Position “N” Style T | 1   |
| 2    | 501-0506 | Right Mounting Bracket “B” Position “N” Style  | 1   |

REV. 06/25/20 WLH





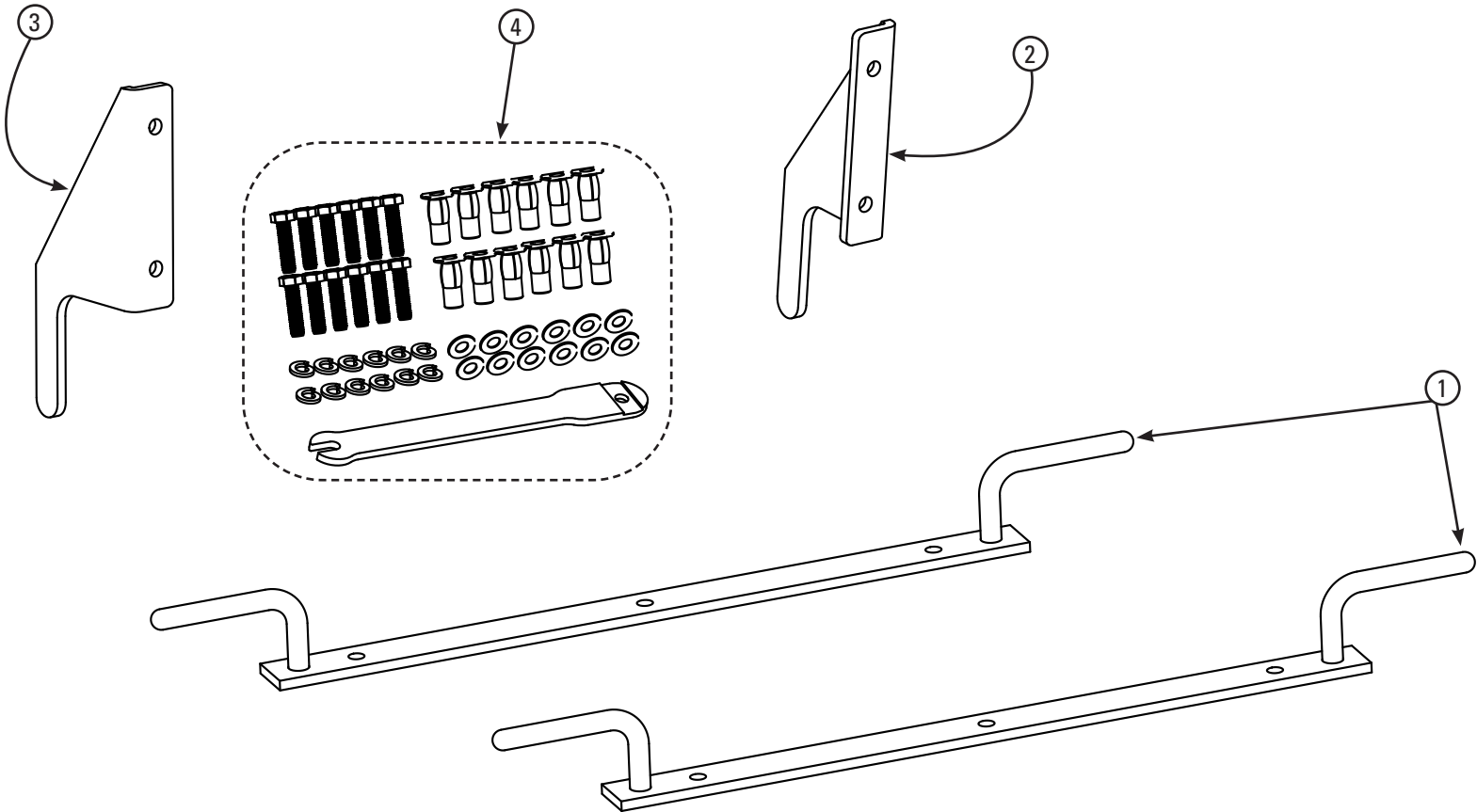
PARTS SCHEMATICS

Semi-Automatic & Automatic Options

Bolt-On Return Ramp H/W Kit #501-0648

| ITEM | PART #   | DESCRIPTION               | QTY |
|------|----------|---------------------------|-----|
| 1    | 501-0554 | Rope Hook Assembly Welded | 2   |
| 2    | 501-0345 | 3" Tarp Return - Left     | 1   |
| 3    | 501-0346 | 3" Tarp Return - Right    | 1   |
| 4    | 501-0611 | Plus-Nut System Mount Kit | 1   |

REV. 06/25/20 WLH





# WASTE SYSTEMS DUAL STAGE TOWER AUTOMATIC & SEMI-AUTOMATIC





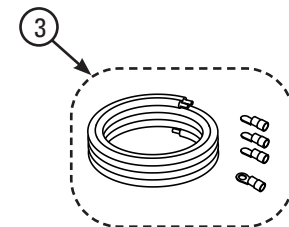
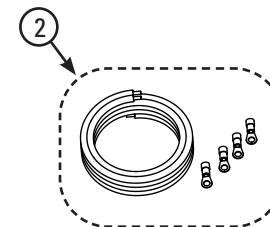
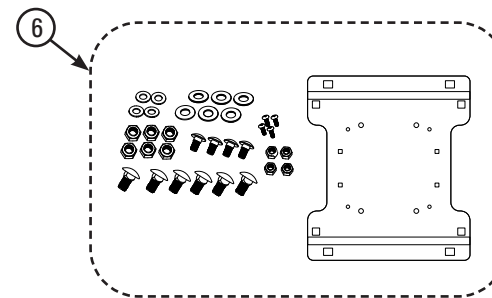
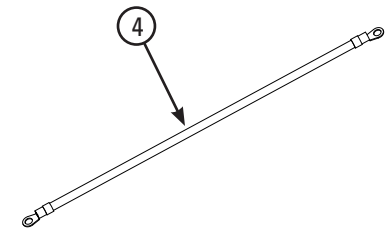
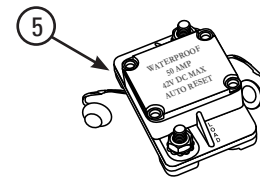
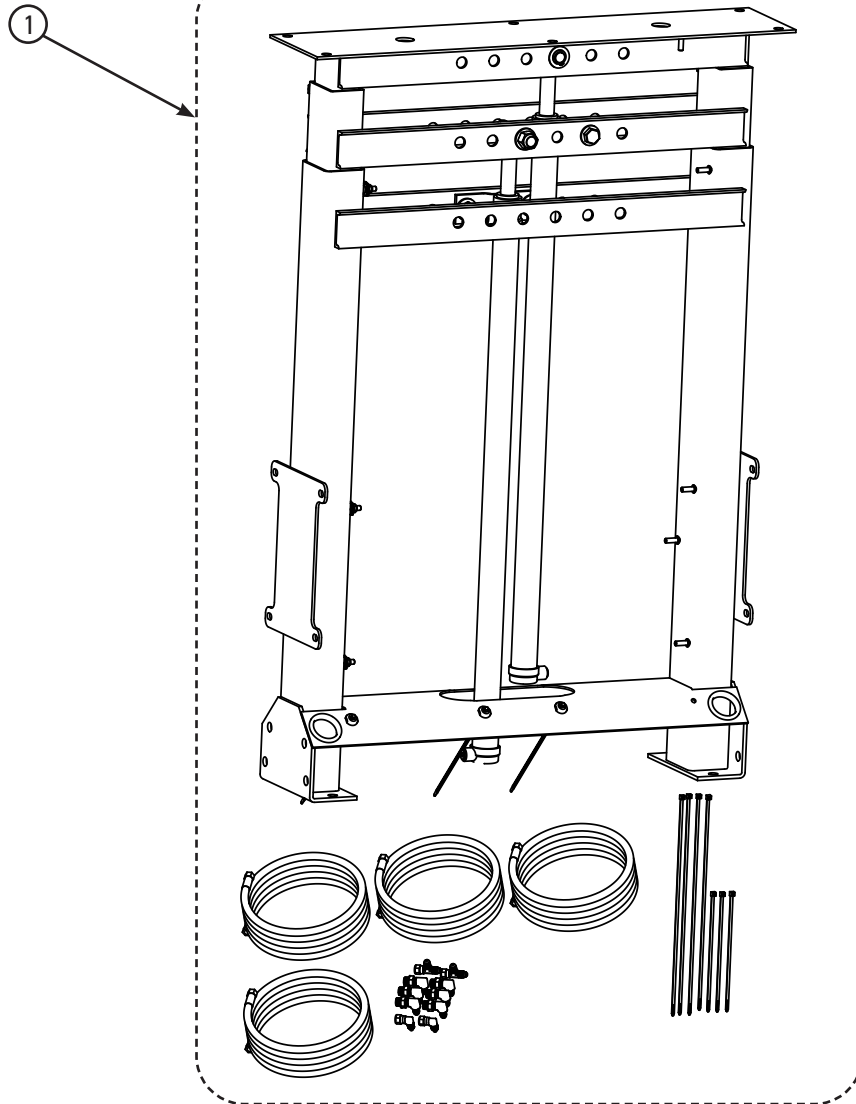
## PARTS SCHEMATICS

## Waste Systems - Dual Stage Tower Automatic & Semi-Automatic

### Dual Stage Electric Tower #513-0014

| ITEM | PART #   | DESCRIPTION               | QTY |
|------|----------|---------------------------|-----|
| 1    | 513-0080 | Dual Stage Electric Tower | 1   |
| 2    | 514-9986 | 10' Pump Power Wire       | 1   |
| 3    | 514-9989 | 10' Switch Power Wire     | 1   |
| 4    | 514-9987 | 18" Battery Wire          | 1   |
| 5    | 514-0432 | 50 Amp Type 1 Breaker     | 1   |
| 6    | 501-0687 | Tower Tray Hardware Kit   | 1   |

REV. 08/31/18 WLH







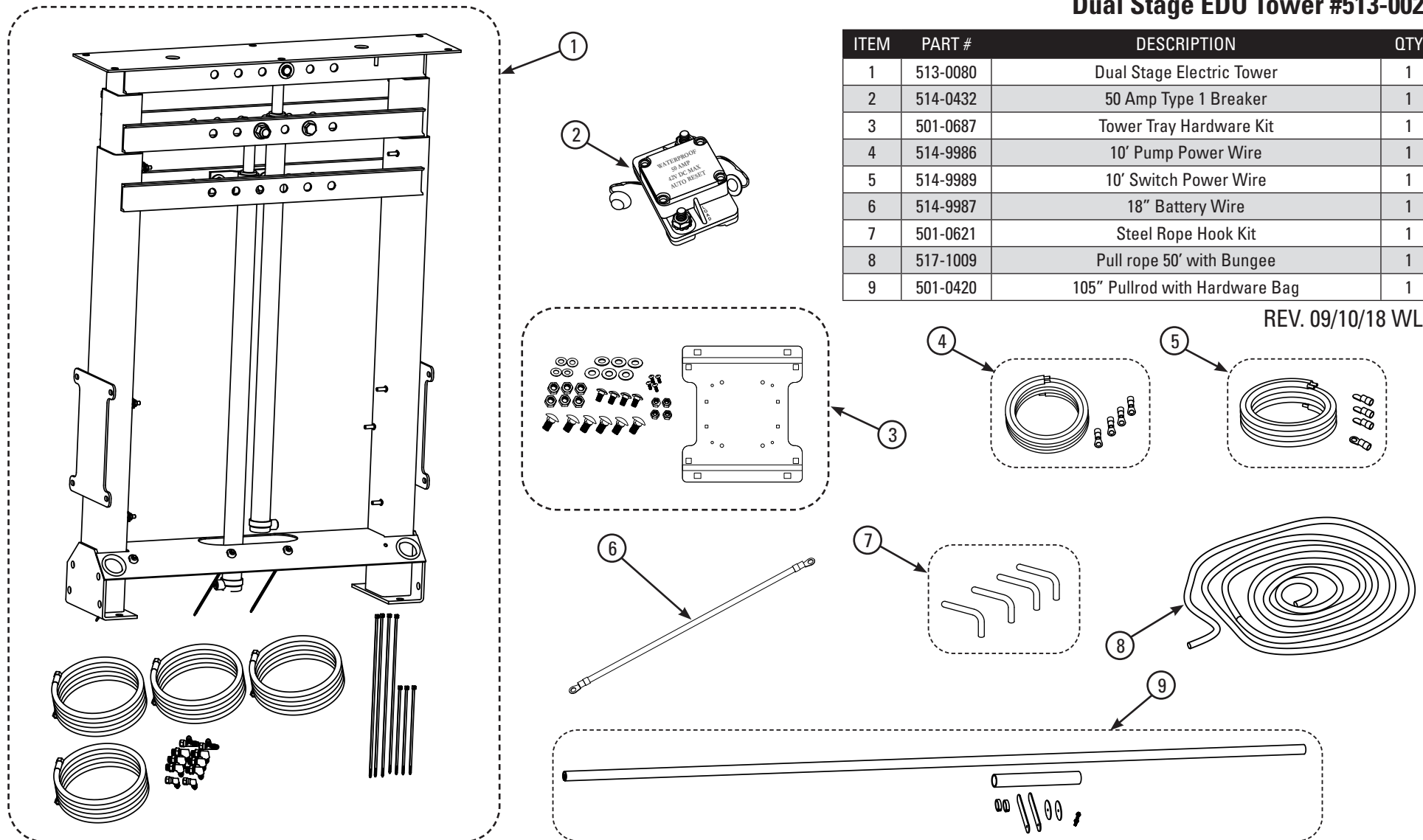
## PARTS SCHEMATICS

## Waste Systems - Dual Stage Tower Automatic & Semi-Automatic

### Dual Stage EDU Tower #513-0020

| ITEM | PART #   | DESCRIPTION                    | QTY |
|------|----------|--------------------------------|-----|
| 1    | 513-0080 | Dual Stage Electric Tower      | 1   |
| 2    | 514-0432 | 50 Amp Type 1 Breaker          | 1   |
| 3    | 501-0687 | Tower Tray Hardware Kit        | 1   |
| 4    | 514-9986 | 10' Pump Power Wire            | 1   |
| 5    | 514-9989 | 10' Switch Power Wire          | 1   |
| 6    | 514-9987 | 18" Battery Wire               | 1   |
| 7    | 501-0621 | Steel Rope Hook Kit            | 1   |
| 8    | 517-1009 | Pull rope 50' with Bungee      | 1   |
| 9    | 501-0420 | 105" Pullrod with Hardware Bag | 1   |

REV. 09/10/18 WLH





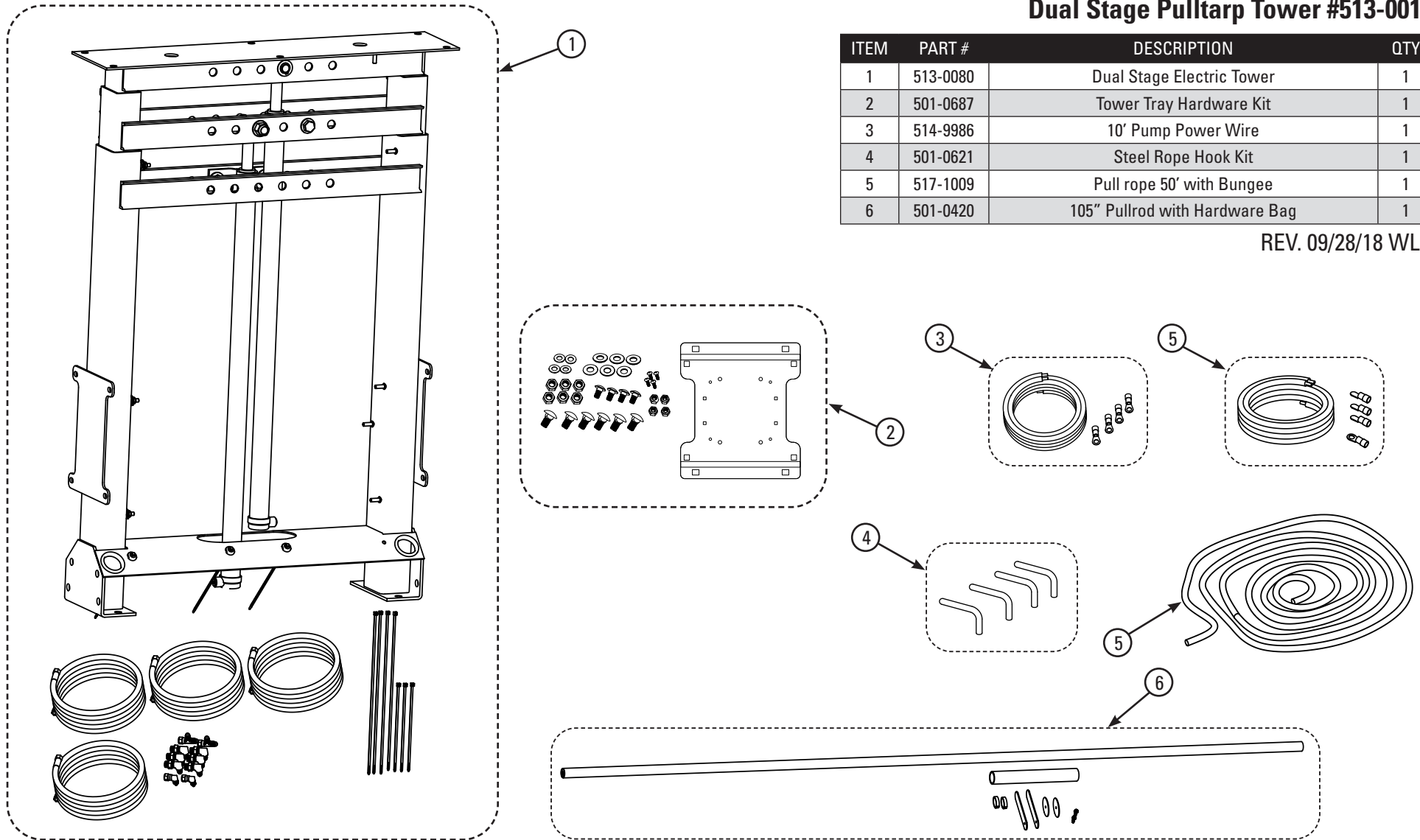
## PARTS SCHEMATICS

## Waste Systems - Dual Stage Tower Automatic & Semi-Automatic

### Dual Stage Pulltarp Tower #513-0019

| ITEM | PART #   | DESCRIPTION                    | QTY |
|------|----------|--------------------------------|-----|
| 1    | 513-0080 | Dual Stage Electric Tower      | 1   |
| 2    | 501-0687 | Tower Tray Hardware Kit        | 1   |
| 3    | 514-9986 | 10' Pump Power Wire            | 1   |
| 4    | 501-0621 | Steel Rope Hook Kit            | 1   |
| 5    | 517-1009 | Pull rope 50' with Bungee      | 1   |
| 6    | 501-0420 | 105" Pullrod with Hardware Bag | 1   |

REV. 09/28/18 WLH





## PARTS SCHEMATICS

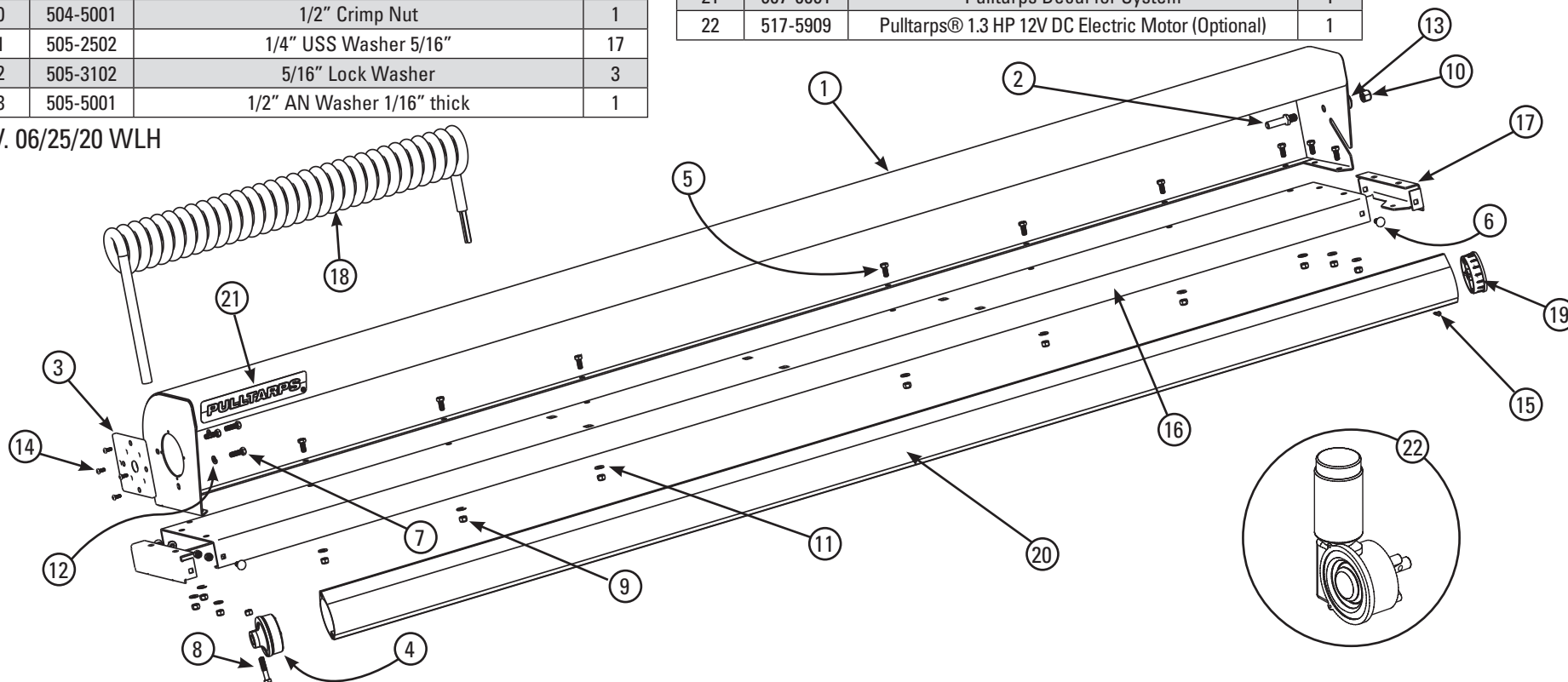
## Waste Systems - Dual Stage Tower Automatic & Semi-Automatic

### SuperShield™ 9500E 100" Tower Assembly with Tray #513-0081

| ITEM | PART #   | DESCRIPTION                        | QTY |
|------|----------|------------------------------------|-----|
| 1    | 501-0121 | 9.5" x 100" SuperShield™ Housing   | 1   |
| 2    | 501-0801 | System End Plate Stud              | 1   |
| 3    | 501-1235 | Aluminum Adapter Plate             | 1   |
| 4    | 501-9915 | Roller Drive Aluminum End Cap 3"   | 1   |
| 5    | 503-3103 | 5/16" - 18 x 3/4" Hex Bolt         | 12  |
| 6    | 503-3104 | 5/16" - 18 x 3/4" Carriage Bolt    | 4   |
| 7    | 503-3105 | 5/16" - 18 x 1" HHCS Bolt G2       | 3   |
| 8    | 503-3108 | 5/16" - 18 1-3/4" HHCS Hex Bolt G2 | 1   |
| 9    | 504-3103 | 5/16" - 18 Nylock Nut Steel        | 17  |
| 10   | 504-5001 | 1/2" Crimp Nut                     | 1   |
| 11   | 505-2502 | 1/4" USS Washer 5/16"              | 17  |
| 12   | 505-3102 | 5/16" Lock Washer                  | 3   |
| 13   | 505-5001 | 1/2" AN Washer 1/16" thick         | 1   |

| ITEM | PART #   | DESCRIPTION (Continued)                            | QTY |
|------|----------|----------------------------------------------------|-----|
| 14   | 506-9905 | 10 - 32 x 1/2" Philips Pan Head Screw              | 4   |
| 15   | 506-9916 | Screw, #8 - 18 x 3/4" Self Drilling                | 1   |
| 16   | 513-0079 | 100" R/R Tower Tray                                | 1   |
| 17   | 513-0090 | Tower End Support Insert                           | 2   |
| 18   | 514-0216 | 110" 2 Stage Tower Coil Wire                       | 1   |
| 19   | 517-0102 | Flanged End Cap                                    | 1   |
| 20   | 517-0511 | SuperShield 9500 100" Electric Galv. Roller Tube   | 1   |
| 21   | 607-0061 | Pulltarps Decal for System                         | 1   |
| 22   | 517-5909 | Pulltarps® 1.3 HP 12V DC Electric Motor (Optional) | 1   |

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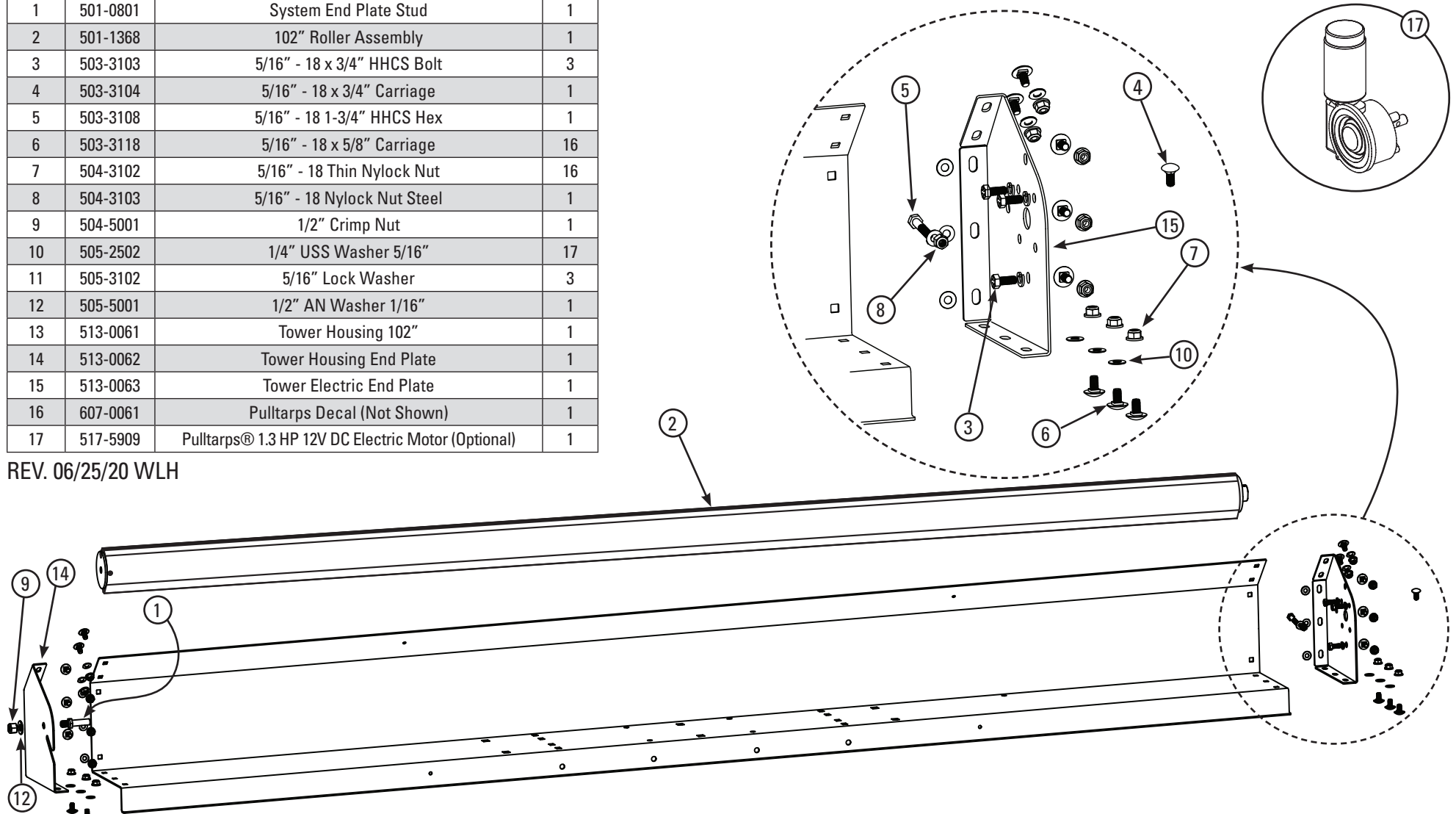
## PARTS SCHEMATICS

## Waste Systems - Dual Stage Tower Automatic & Semi-Automatic

### Open 9000E 102" Tower Assembly with Tray #513-0017

| ITEM | PART #   | DESCRIPTION                                        | QTY |
|------|----------|----------------------------------------------------|-----|
| 1    | 501-0801 | System End Plate Stud                              | 1   |
| 2    | 501-1368 | 102" Roller Assembly                               | 1   |
| 3    | 503-3103 | 5/16" - 18 x 3/4" HHCS Bolt                        | 3   |
| 4    | 503-3104 | 5/16" - 18 x 3/4" Carriage                         | 1   |
| 5    | 503-3108 | 5/16" - 18 1-3/4" HHCS Hex                         | 1   |
| 6    | 503-3118 | 5/16" - 18 x 5/8" Carriage                         | 16  |
| 7    | 504-3102 | 5/16" - 18 Thin Nylock Nut                         | 16  |
| 8    | 504-3103 | 5/16" - 18 Nylock Nut Steel                        | 1   |
| 9    | 504-5001 | 1/2" Crimp Nut                                     | 1   |
| 10   | 505-2502 | 1/4" USS Washer 5/16"                              | 17  |
| 11   | 505-3102 | 5/16" Lock Washer                                  | 3   |
| 12   | 505-5001 | 1/2" AN Washer 1/16"                               | 1   |
| 13   | 513-0061 | Tower Housing 102"                                 | 1   |
| 14   | 513-0062 | Tower Housing End Plate                            | 1   |
| 15   | 513-0063 | Tower Electric End Plate                           | 1   |
| 16   | 607-0061 | Pulltarps Decal (Not Shown)                        | 1   |
| 17   | 517-5909 | Pulltarps® 1.3 HP 12V DC Electric Motor (Optional) | 1   |

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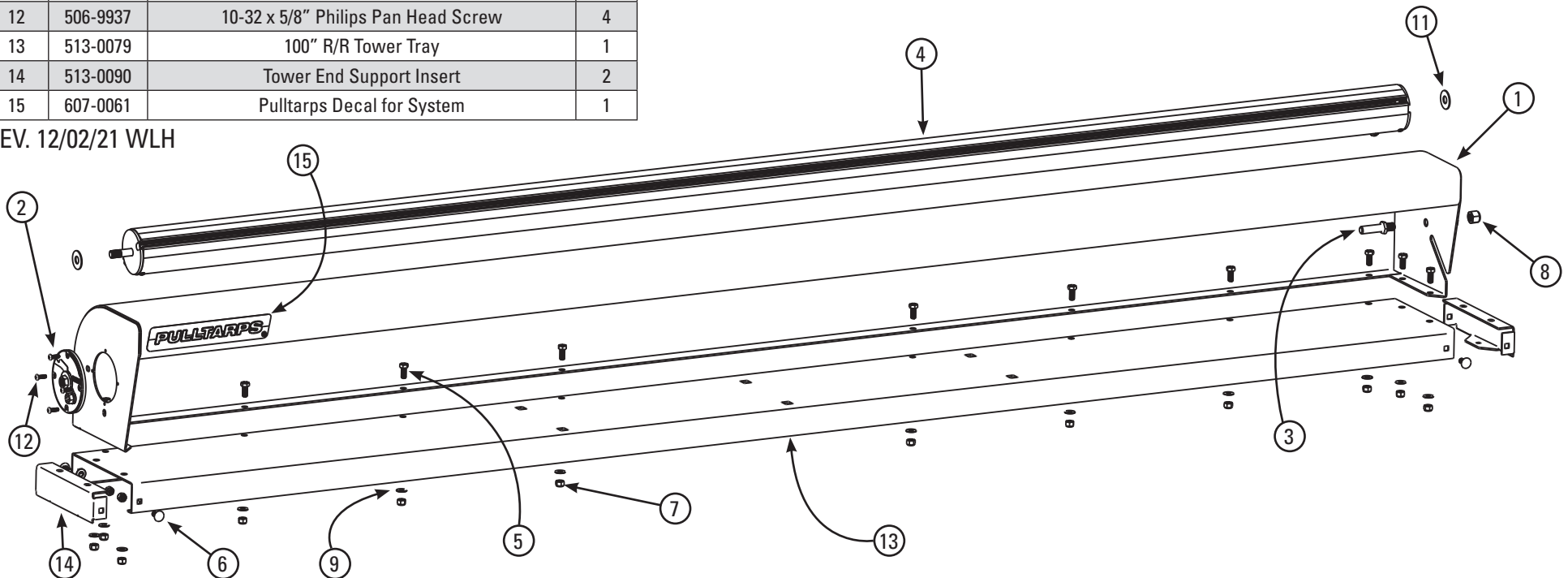
## PARTS SCHEMATICS

## Waste Systems - Dual Stage Tower Automatic & Semi-Automatic

### SuperShield™ 9500M 100" Tower Assembly with Tray #513-0082

| ITEM | PART #   | DESCRIPTION                            | QTY |
|------|----------|----------------------------------------|-----|
| 1    | 501-0121 | 9.5" x 100" SuperShield™ Housing       | 1   |
| 2    | 501-0647 | System End Plate Ratchet               | 1   |
| 3    | 501-0801 | System End Plate Stud                  | 1   |
| 4    | 501-1307 | 100" Spring Roller Tube                | 1   |
| 5    | 503-3101 | 5/16" - 18 x 1/2" Hex Bolt             | 12  |
| 6    | 503-3104 | 5/16" - 18 x 3/4" Carriage Bolt        | 4   |
| 7    | 504-3103 | 5/16" - 18 Nylock Nut Steel            | 16  |
| 8    | 504-5001 | 1/2" Crimp Nut                         | 1   |
| 9    | 505-2502 | 1/4" USS Washer 5/16"                  | 16  |
| 10   | 505-5001 | 1/2" AN Washer 1/16" Thick (Not Shown) | 1   |
| 11   | 505-5002 | Washer Nylon .51D x 1.25OD             | 2   |
| 12   | 506-9937 | 10-32 x 5/8" Philips Pan Head Screw    | 4   |
| 13   | 513-0079 | 100" R/R Tower Tray                    | 1   |
| 14   | 513-0090 | Tower End Support Insert               | 2   |
| 15   | 607-0061 | Pulltarps Decal for System             | 1   |

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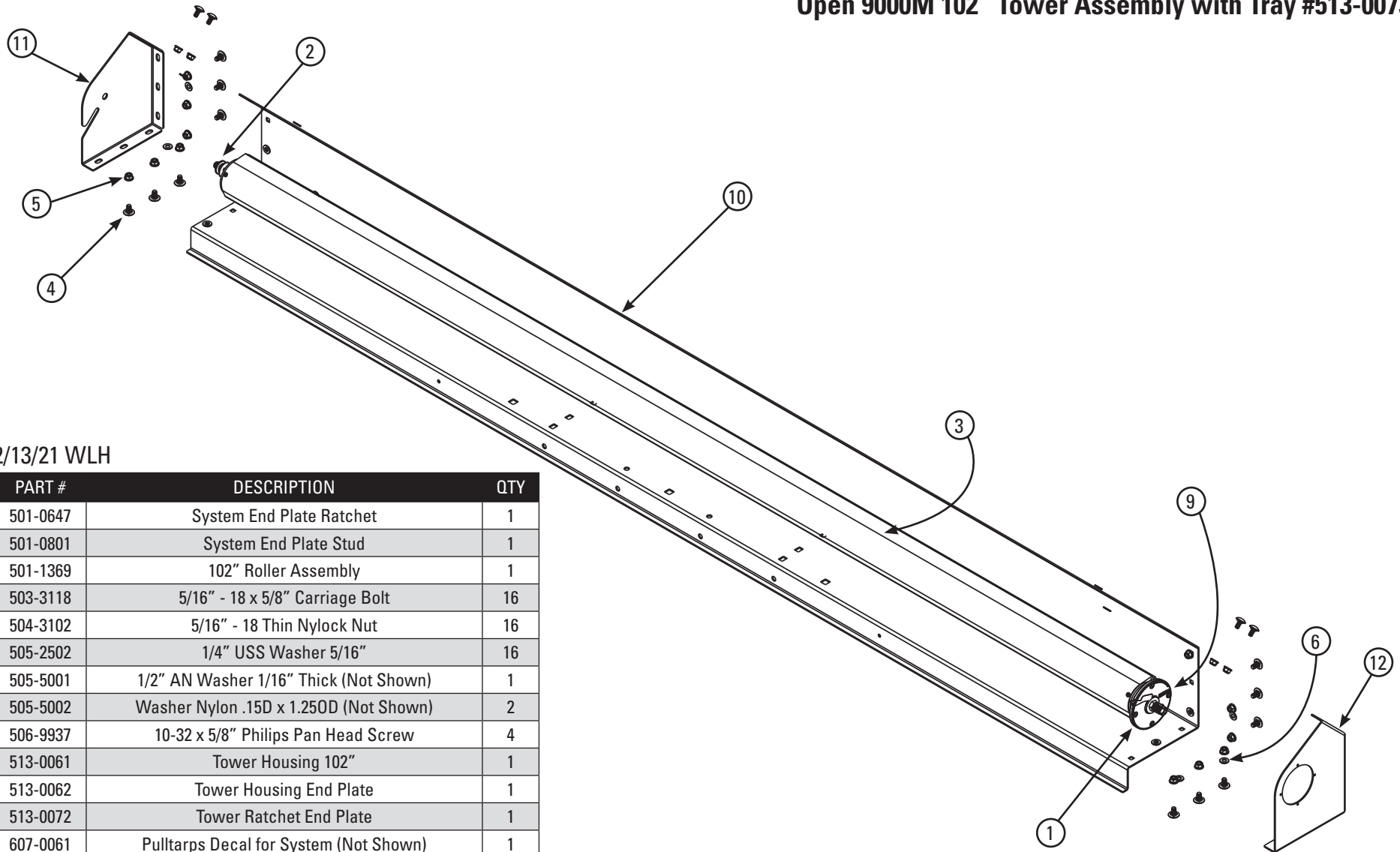




## PARTS SCHEMATICS

## Waste Systems - Dual Stage Tower Automatic & Semi-Automatic

### Open 9000M 102" Tower Assembly with Tray #513-0073



REV. 12/13/21 WLH

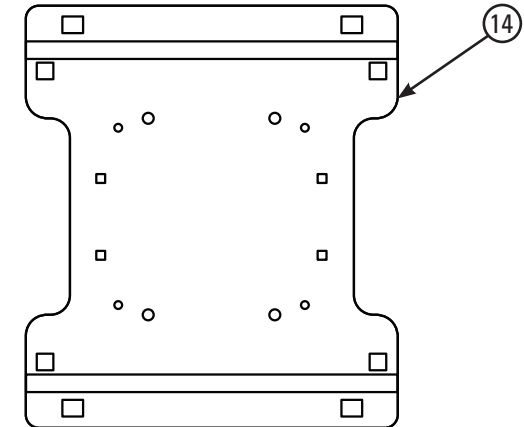
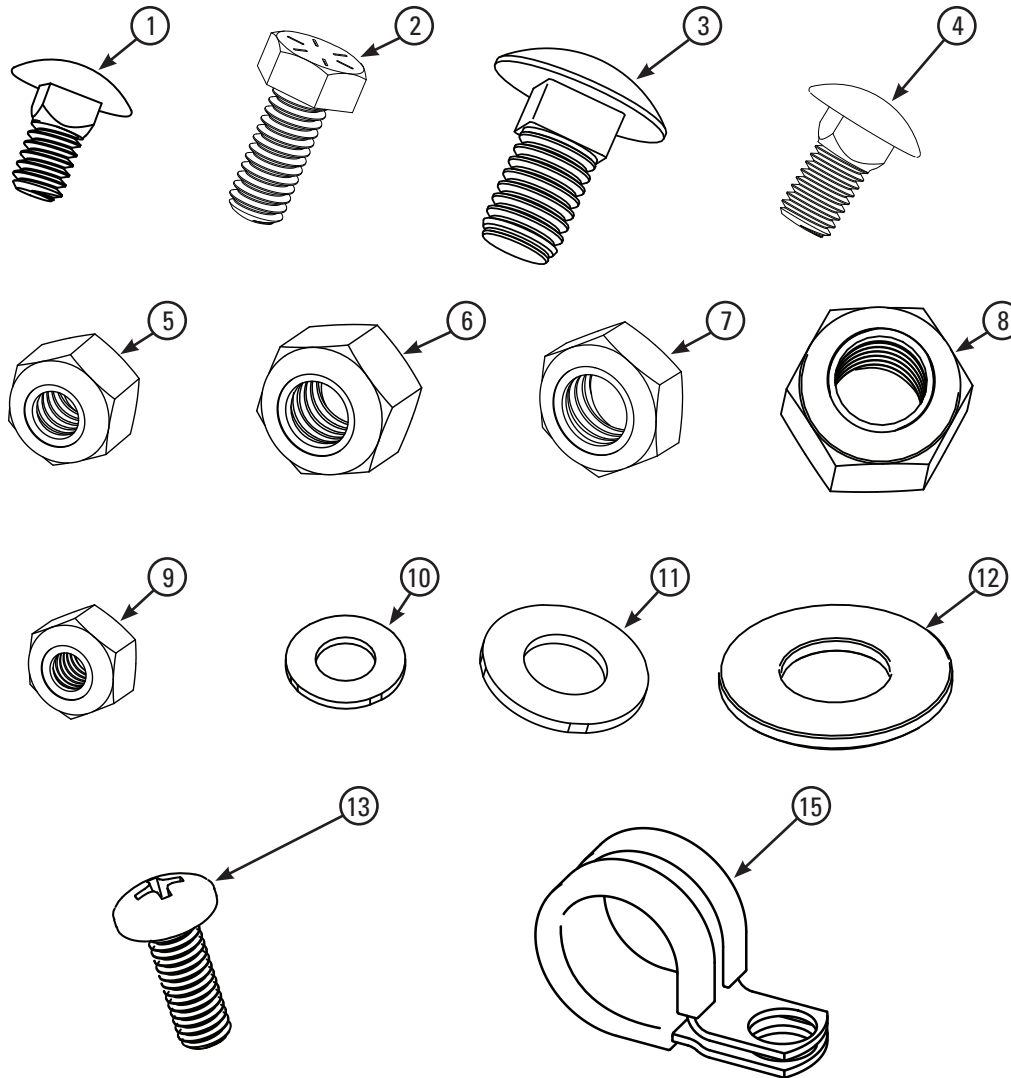
| ITEM | PART #   | DESCRIPTION                            | QTY |
|------|----------|----------------------------------------|-----|
| 1    | 501-0647 | System End Plate Ratchet               | 1   |
| 2    | 501-0801 | System End Plate Stud                  | 1   |
| 3    | 501-1369 | 102" Roller Assembly                   | 1   |
| 4    | 503-3118 | 5/16" - 18 x 5/8" Carriage Bolt        | 16  |
| 5    | 504-3102 | 5/16" - 18 Thin Nylock Nut             | 16  |
| 6    | 505-2502 | 1/4" USS Washer 5/16"                  | 16  |
| 7    | 505-5001 | 1/2" AN Washer 1/16" Thick (Not Shown) | 1   |
| 8    | 505-5002 | Washer Nylon .15D x 1.25OD (Not Shown) | 2   |
| 9    | 506-9937 | 10-32 x 5/8" Philips Pan Head Screw    | 4   |
| 10   | 513-0061 | Tower Housing 102"                     | 1   |
| 11   | 513-0062 | Tower Housing End Plate                | 1   |
| 12   | 513-0072 | Tower Ratchet End Plate                | 1   |
| 13   | 607-0061 | Pulltarps Decal for System (Not Shown) | 1   |



## PARTS SCHEMATICS

## Waste Systems - Dual Stage Tower Automatic & Semi-Automatic

### Tower Tray Hardware Kit #501-0687 (Illustrations not to scale)



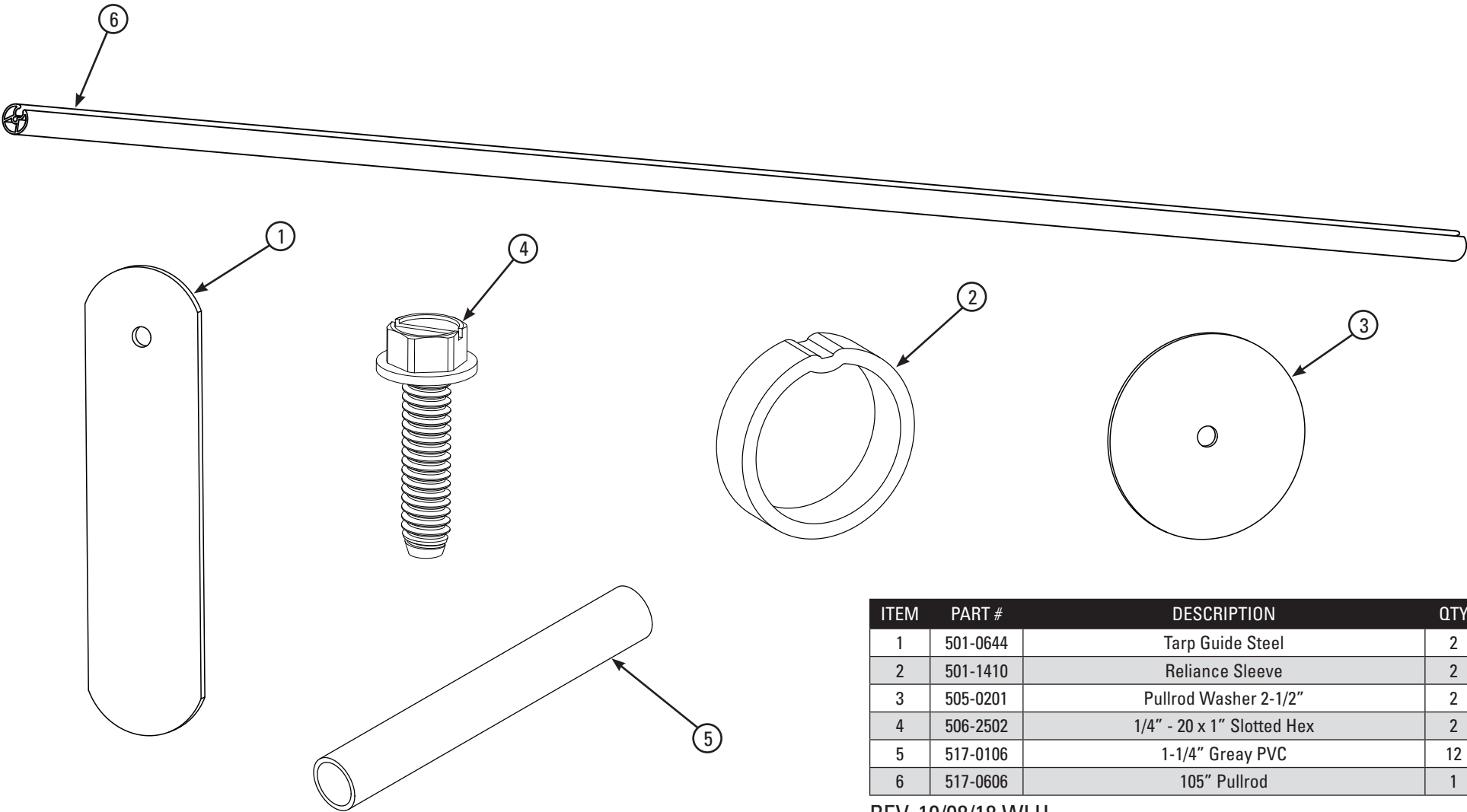
| ITEM | PART #   | DESCRIPTION                           | QTY |
|------|----------|---------------------------------------|-----|
| 1    | 503-2501 | 1/4" - 20 x 1/2" USS Carriage Bolt    | 2   |
| 2    | 503-3103 | 5/16" - 18 x 3/4" HHCS Bolt           | 2   |
| 3    | 503-3717 | 3/8" - 16 x 3/4" Carriage Bolt        | 8   |
| 4    | 503-5020 | 1/2" - 13 x 1" Carriage Bolt          | 6   |
| 5    | 504-2503 | 1/4" - 20 USS Nylock Nut              | 2   |
| 6    | 504-3103 | 5/16" - 18 Nylock Nut Steel Zinc      | 2   |
| 7    | 504-3705 | 3/8" - 16 Nylock Nut "Thin"           | 8   |
| 8    | 504-5004 | 1/2" - 13 Nylock Nut                  | 6   |
| 9    | 504-9903 | 10 - 32 Nylock Nut                    | 4   |
| 10   | 505-2502 | 1/4" USS Washer 5/16" Hole            | 4   |
| 11   | 505-3702 | Washer 3/8" SAE Flat Zinc             | 8   |
| 12   | 505-5004 | 1/2" USS Flat Washer                  | 6   |
| 13   | 506-9905 | 10 - 32 x 1/2" Philips Pan Head Screw | 4   |
| 14   | 513-0093 | Universal Tower Switch Plate          | 1   |
| 15   | 514-9977 | Wire Clamps 3/4" ID                   | 2   |

REV. 09/13/18 WLH





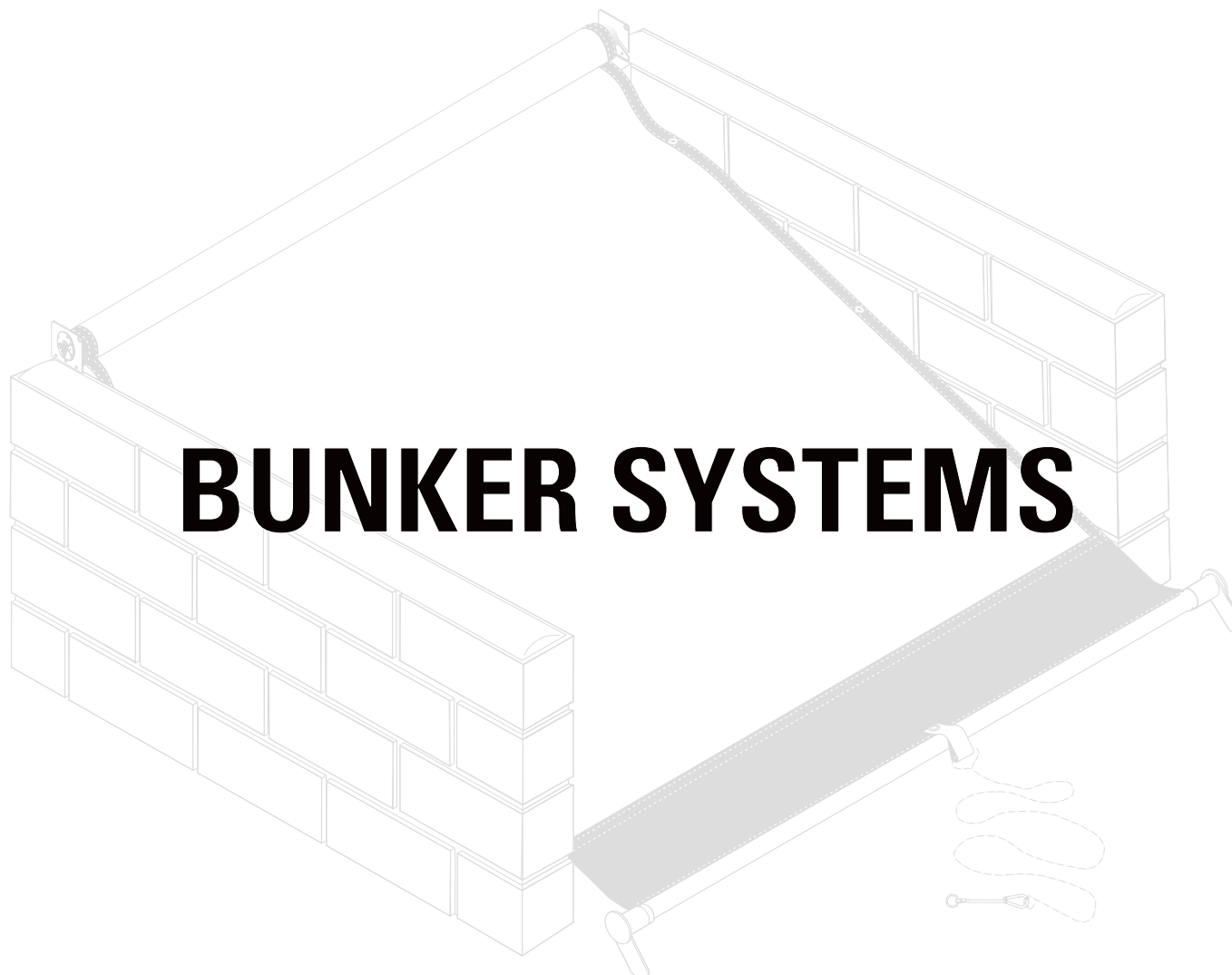
105" Pullrod with Hardware #501-0420 (Illustrations not to scale)



| ITEM | PART #   | DESCRIPTION                | QTY |
|------|----------|----------------------------|-----|
| 1    | 501-0644 | Tarp Guide Steel           | 2   |
| 2    | 501-1410 | Reliance Sleeve            | 2   |
| 3    | 505-0201 | Pullrod Washer 2-1/2"      | 2   |
| 4    | 506-2502 | 1/4" - 20 x 1" Slotted Hex | 2   |
| 5    | 517-0106 | 1-1/4" Greay PVC           | 12  |
| 6    | 517-0606 | 105" Pullrod               | 1   |

REV. 10/08/18 WLH







## PARTS SCHEMATICS

## Bunker Systems

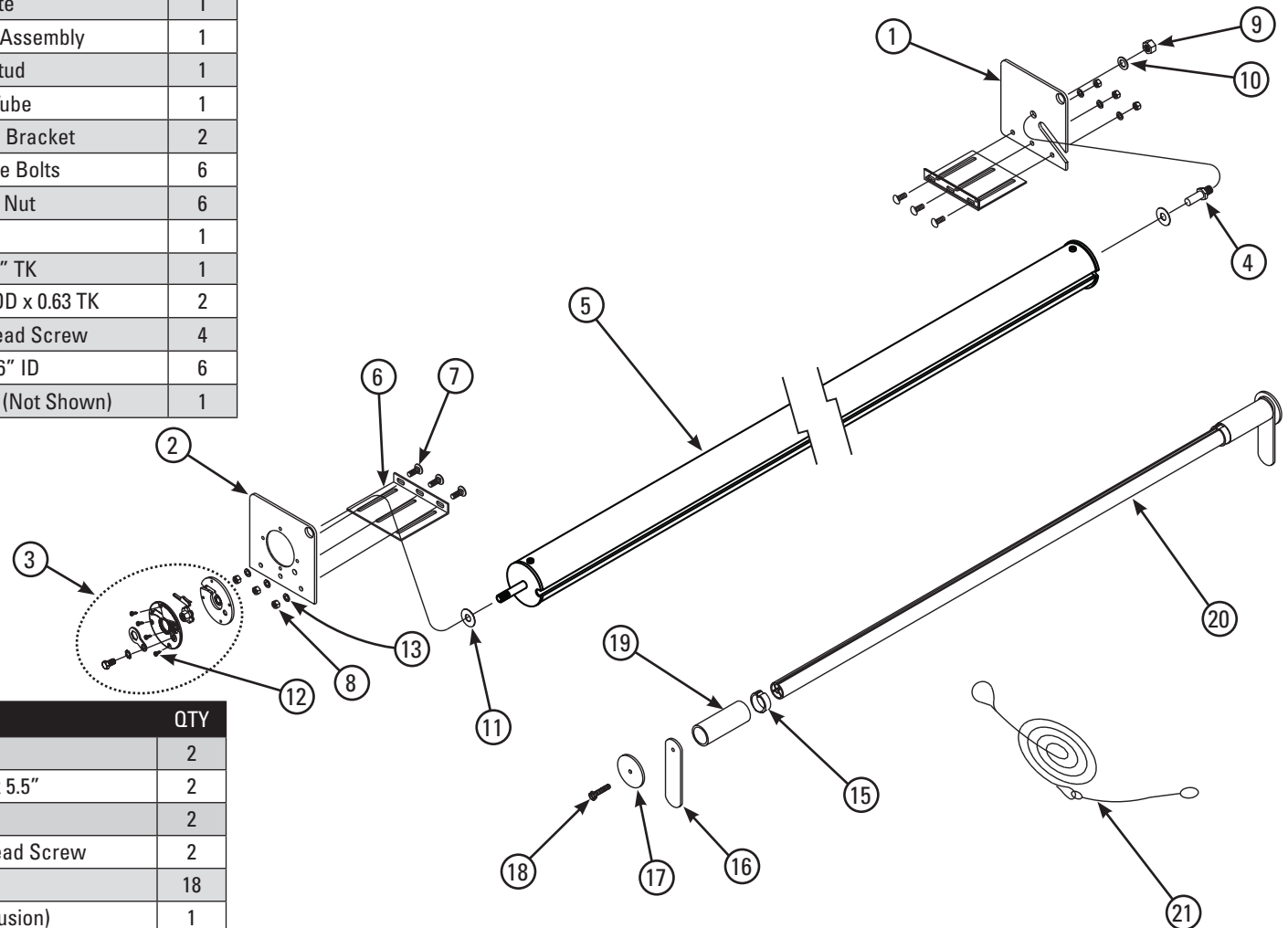
| ITEM | PART #   | DESCRIPTION                             | QTY |
|------|----------|-----------------------------------------|-----|
| 1    | 501-0220 | 9" End Plate without Stud               | 1   |
| 2    | 501-0289 | 9" Bunker End Plate                     | 1   |
| 3    | 501-0647 | System End Plate Ratchet Assembly       | 1   |
| 4    | 501-0801 | System End Plate Stud                   | 1   |
| 5    | 501-1371 | 183" Bunker Roller Tube                 | 1   |
| 6    | 501-1555 | Bunker System Mounting Bracket          | 2   |
| 7    | 503-3104 | 5/16" - 18 x 3/4" Carriage Bolts        | 6   |
| 8    | 504-3102 | 5/16" - 18 Jam Nyloc Nut                | 6   |
| 9    | 504-5001 | 1/2" Crimp Nut                          | 1   |
| 10   | 505-5001 | 1/2" AN Washer 1/16" TK                 | 1   |
| 11   | 505-5002 | Washer Nylon 0.5 ID x 1.25 OD x 0.63 TK | 2   |
| 12   | 506-9937 | 10-32 x 5/8" Phillips Pan Head Screw    | 4   |
| 13   | 505-2502 | 1/4" USS Washer 5/16" ID                | 6   |
| 14   | 501-0649 | Bolt-On Bunker Hardware Kit (Not Shown) | 1   |

REV. 06/17/22 WLH

### Pullrod Hardware

| ITEM | PART #   | DESCRIPTION                           | QTY |
|------|----------|---------------------------------------|-----|
| 15   | 501-1410 | Reliance Sleeve                       | 2   |
| 16   | 501-0644 | Tarp Guide Steel 1.5" x 5.5"          | 2   |
| 17   | 505-0201 | Pull Rod Washer                       | 2   |
| 18   | 506-2502 | 1/4" - 20 x 1" Slotted Hex Head Screw | 2   |
| 19   | 517-0106 | 1-1/4" Grey PVC                       | 18  |
| 20   | 517-0610 | Pull Rod 204" Only (Extrusion)        | 1   |
| 21   | 517-1006 | 35' Pull Rope with Bungee             | 1   |

## Bunker Open 9000M #105-1830 (Width of 183")





## PARTS SCHEMATICS

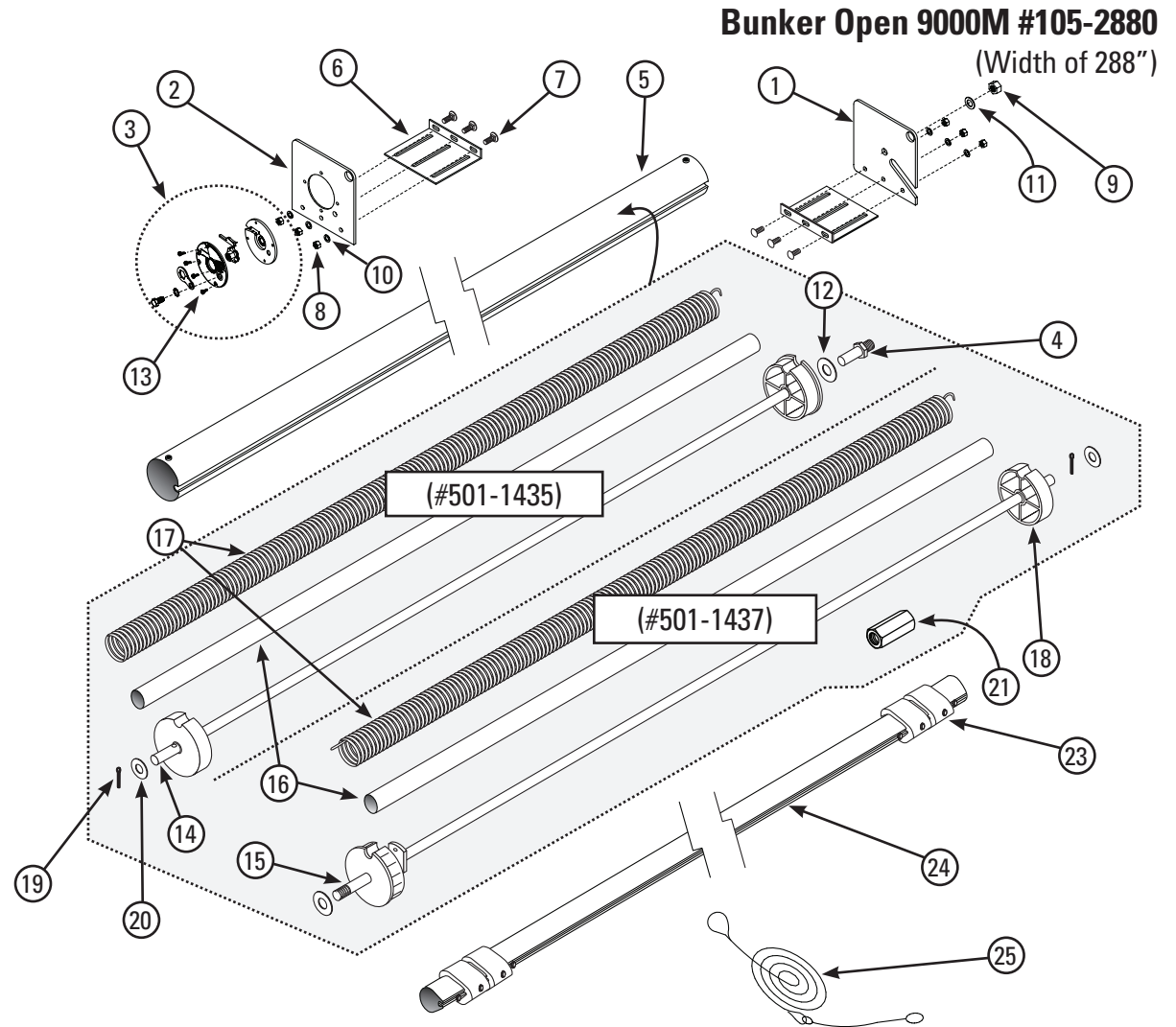
## Bunker Systems

| ITEM | PART #   | DESCRIPTION                             | QTY |
|------|----------|-----------------------------------------|-----|
| 1    | 501-0220 | 9" End Plate without Stud               | 1   |
| 2    | 501-0289 | 9" Bunker End Plate                     | 1   |
| 3    | 501-0647 | System End Plate Ratchet Assembly       | 1   |
| 4    | 501-0801 | System End Plate Stud                   | 1   |
| 5    | 501-1370 | 288" Bunker Roller Tube                 | 1   |
| 6    | 501-1555 | Bunker System Mounting Bracket          | 2   |
| 7    | 503-3104 | 5/16" - 18 x 3/4" Carriage Bolts        | 6   |
| 8    | 504-3102 | 5/16" - 18 Jam Nyloc Nut                | 6   |
| 9    | 504-5001 | 1/2" Crimp Nut                          | 1   |
| 10   | 505-2502 | 1/4" USS Washer 5/16" ID                | 6   |
| 11   | 505-5001 | 1/2" AN Washer 1/16" TK                 | 1   |
| 12   | 505-5002 | Washer Nylon 0.5 ID x 1.25 OD x 0.63 TK | 4   |
| 13   | 506-9937 | 10-32 x 5/8" Phillips Pan Head Screw    | 4   |
| 14   | 501-1420 | 1/2" x 66" Spring Shaft with CAD        | 1   |
| 15   | 501-1403 | 1/2" x 66" Spring Shaft with CAD        | 1   |
| 16   | 501-1411 | 1/2" x 59.5" PVC SCH 40 Spacer          | 2   |
| 17   | 517-9916 | Main Spring                             | 2   |
| 18   | 517-0104 | Torque Block                            | 2   |
| 19   | 506-1201 | 1/8" x 1" Cotter Pin                    | 2   |
| 20   | 505-5001 | 1/2" AN Washer 1/16" TK                 | 2   |
| 21   | 504-5007 | 1/2" - 13 x 1-3/4" Coupling Nut         | 1   |
| 22   | 501-0649 | Bolt-On Bunker Hardware Kit (Not Shown) | 1   |

REV. 06/17/22 WLH

## Universal Teardrop Pullrod Hardware

| ITEM | PART #   | DESCRIPTION              | QTY |
|------|----------|--------------------------|-----|
| 23   | 501-1293 | Teardrop Bumper Kit      | 1   |
| 24   | 517-0636 | 288" Teardrop Pull Bar   | 1   |
| 25   | 517-1009 | 50' Pull Rod with Bungee | 1   |



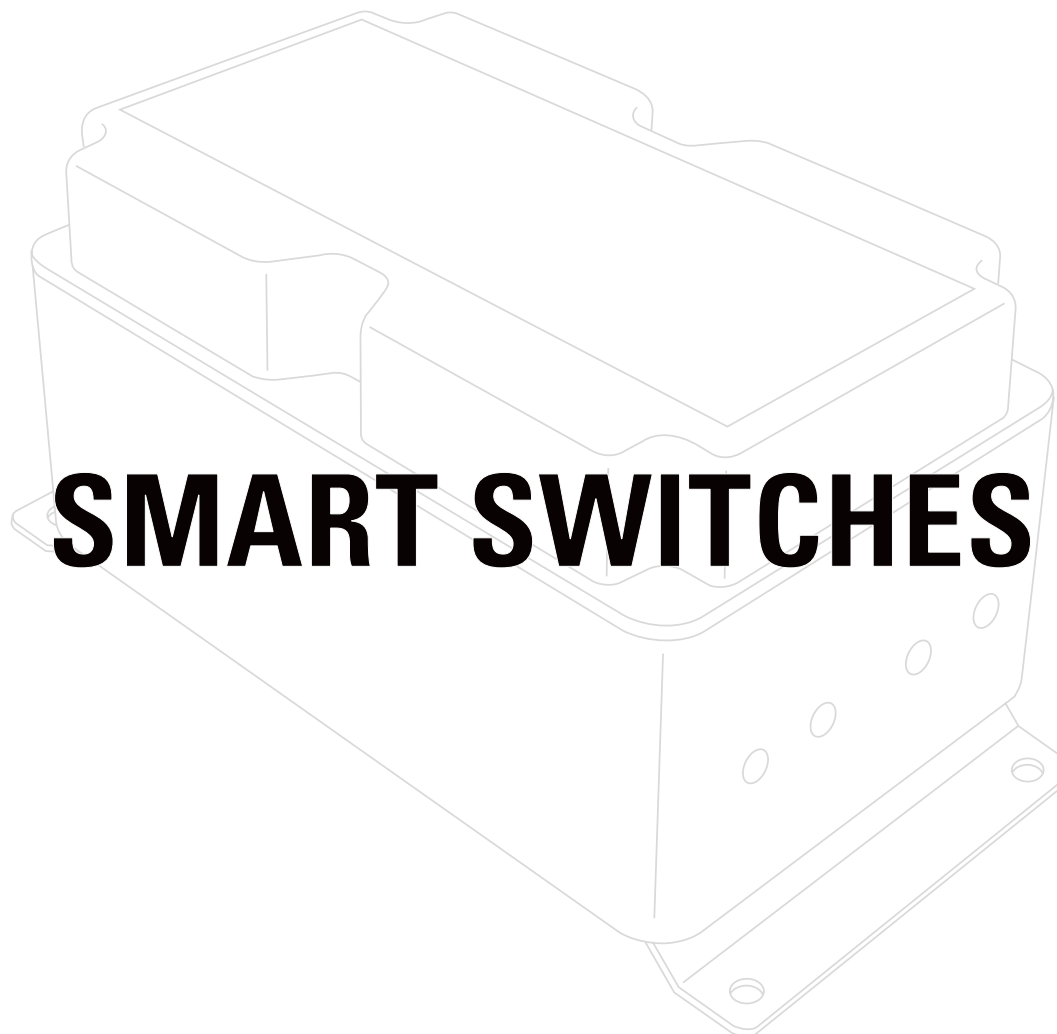


A Safe Fleet Brand



**PARTS SCHEMATICS**

**Smart Switches**

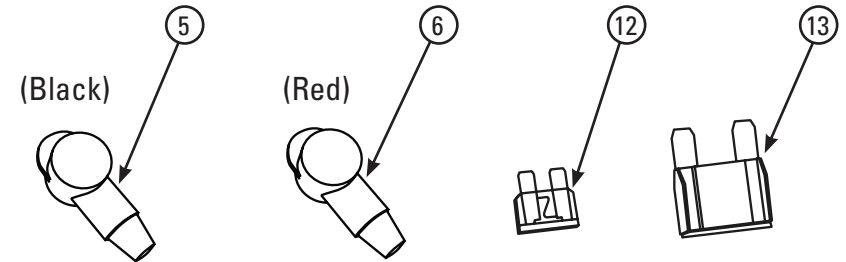
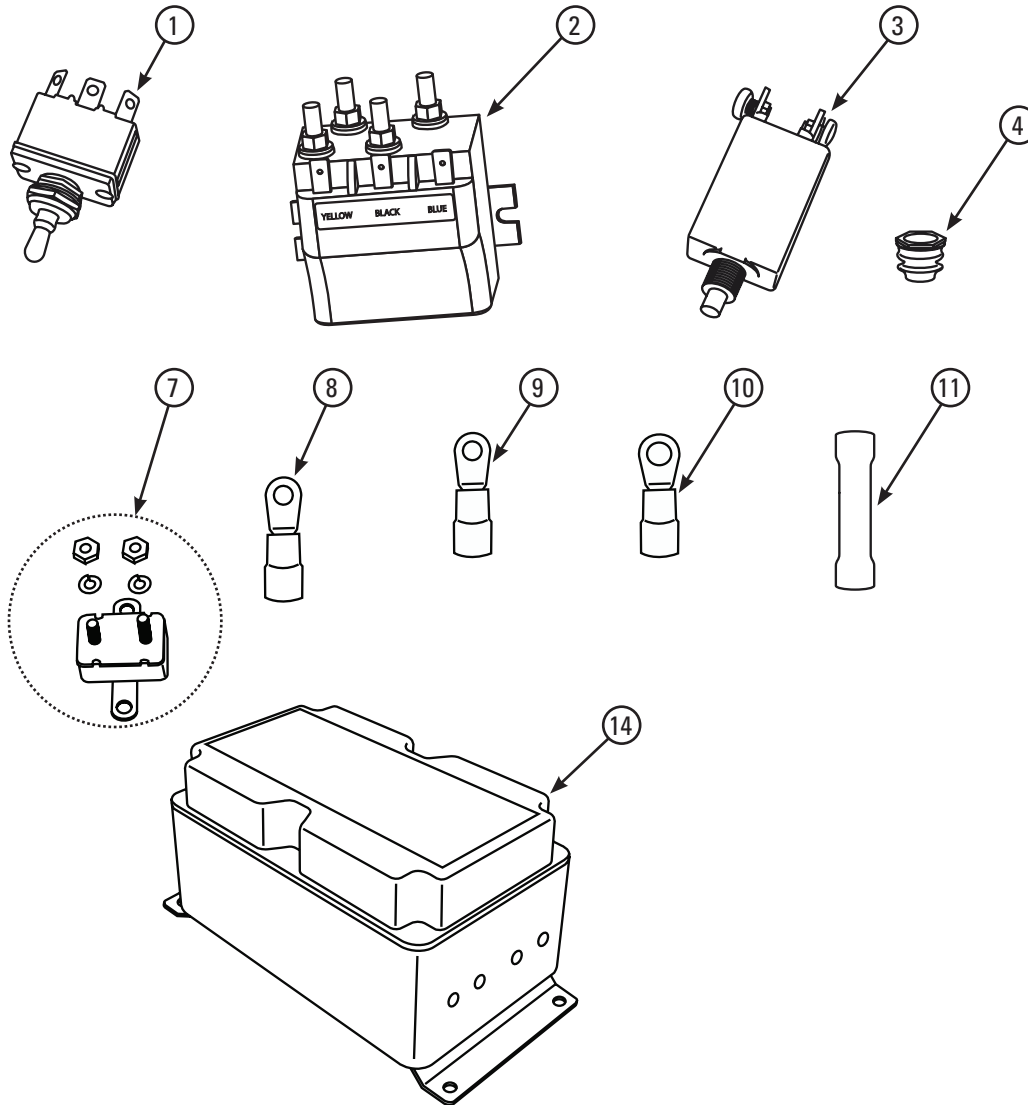




## PARTS SCHEMATICS

## Smart Switches

### Smart Switch with External Switch - 24 Volt #501-9949



| ITEM | PART #   | DESCRIPTION                          | QTY |
|------|----------|--------------------------------------|-----|
| 1    | 514-0130 | Sealed Toggle Switch                 | 1   |
| 2    | 514-9958 | Solenoid 24 Volt                     | 1   |
| 3    | 514-0407 | 50 Amp Circuit Breaker               | 1   |
| 4    | 419      | Boot for 50 Amp Circuit Breaker      | 1   |
| 5    | 514-0317 | Black Terminal Boot                  | 2   |
| 6    | 514-0319 | Red Terminal Boot                    | 2   |
| 7    | 514-0413 | 24V Amp type III Breaker             | 6   |
| 8    | 514-0307 | Connector 6 Ga. #10 Stud             | 4   |
| 9    | 514-0308 | Connector 6 Ga. Lug with 1/4" Eyelet | 6   |
| 10   | 514-0309 | Connector 6 Ga. Lug with 3/8" Eyelet | 2   |
| 11   | 514-0318 | Butt Connector 6 Ga.                 | 1   |
| 12   | 514-0415 | 15 Amp 32V DC Blade Fuse             | 1   |
| 13   | 514-0417 | 80 Amp Blade Fuse                    | 1   |
| 14   | 517-9923 | Plastic Flanged Solenoid Box         | 1   |

REV. 12/19/17 WLH



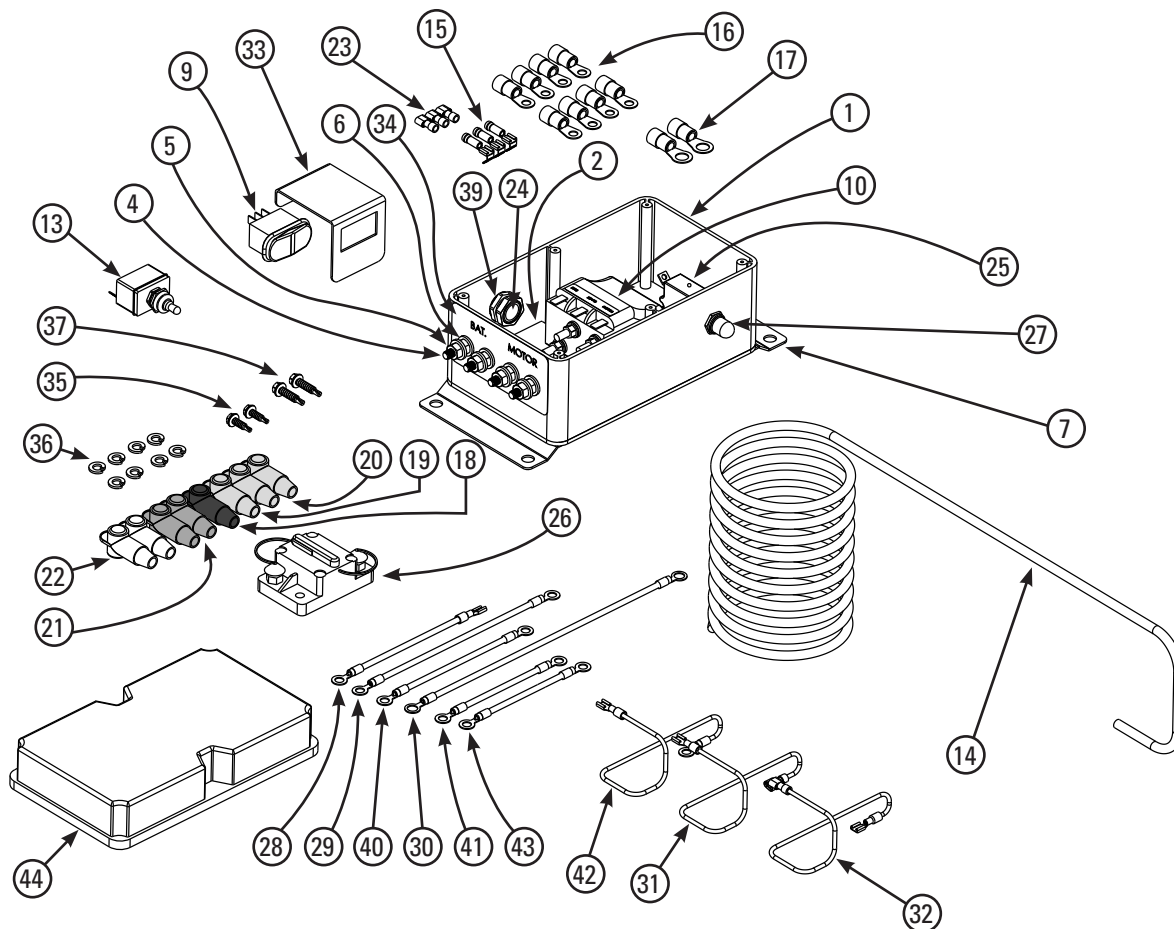
## PARTS SCHEMATICS

## Smart Switches

| ITEM | PART #   | DESCRIPTION                                          | QTY |
|------|----------|------------------------------------------------------|-----|
| 1    | 517-9934 | Plastic Flanged Solenoid Box                         | 1   |
| 2    | 501-9947 | Solenoid Inside Mounting Plate                       | 1   |
| 3    | 503-2501 | 1/4 - 20 X 1/2" USS Carriage Bolt (Not shown)        | 4   |
| 4    | 503-2508 | 1/4 - 20 X 1" HHCS GR5                               | 4   |
| 5    | 504-2502 | 1/4 - 20 Brass Nut                                   | 8   |
| 6    | 505-2501 | 1/4 SAE Thin Zinc Washer                             | 8   |
| 7    | 501-9948 | Solenoid Mounting Plate                              | 1   |
| 8    | 504-2506 | 1/4" Hex Lock Nut "Thin" L/N Std Znc (Not shown)     | 4   |
| 9    | 514-0117 | Rocker Switch 3 Position Momentary                   | 1   |
| 10   | 514-9996 | Reversing High AMP Contactor                         | 1   |
| 11   | 506-9905 | 10-32 X 1/2" Philips Pan Head Screw (Not shown)      | 2   |
| 12   | 504-9903 | 10-32 Nylock Nut (Not shown)                         | 2   |
| 13   | 514-0130 | Sealed Toggle Switch                                 | 1   |
| 14   | 514-0211 | #16-3 Wire PVC 27 # Copper                           | 1   |
| 15   | 514-0306 | Push On Spade Term. 22-18 Pigback                    | 3   |
| 16   | 514-0308 | Connector 6 GA Lug with 1/4" Hole                    | 8   |
| 17   | 514-0309 | Connector 6 GA Lug with 3/8" Hole                    | 2   |
| 18   | 514-0317 | Black Terminal Boot for 6 GA                         | 1   |
| 19   | 514-0319 | Red Terminal Boot for 6 GA                           | 1   |
| 20   | 514-0336 | 8-2 GA Red Boot Small                                | 2   |
| 21   | 514-0342 | Blue Terminal Boot for 6 GA                          | 2   |
| 22   | 514-0343 | Yellow Terminal Boot for 6 GA                        | 2   |
| 23   | 514-0321 | Push-On Femal Term 16 GA .25 Wide                    | 3   |
| 24   | 514-0323 | Strain Relief 1/2" NPT                               | 1   |
| 25   | 514-0407 | 50 AMP "Push to Reset"                               | 1   |
| 26   | 514-0434 | 50 AMP Type III Breaker HIGH-AMP                     | 1   |
| 27   | 514-0420 | Boot for Breaker                                     | 1   |
| 28   | 514-9921 | 4" Black 10 GA Jumper with 1/4" Eyelets              | 1   |
| 29   | 514-9918 | 6" Red 10 GA Jumper with Eyelets                     | 1   |
| 30   | 514-9932 | 9" Red 10 GA Jumper with Loop/Loop                   | 1   |
| 31   | 514-9941 | 12" Orange 14 GA Jumper Spade/Spade                  | 1   |
| 32   | 514-9943 | 12" Blue 14 GA Jumper 1/4" Spade - 1/4" Spade Insul  | 1   |
| 33   | 514-9954 | Rocker Switch Bracket - Large                        | 1   |
| 34   | 607-0214 | Electric Switch Label                                | 1   |
| 35   | 506-9904 | #10-16 X 3/4" Self Drilling Screw Hrd Std Znc Hex HD | 2   |
| 36   | 505-2503 | 1/4" Lock Washer - Plated                            | 8   |
| 37   | 506-9929 | 12-14 X 1 Self Tapping TEK                           | 2   |
| 38   | 514-0325 | Strain Relief Seal Ring (Not shown)                  | 1   |
| 39   | 514-0324 | Strain Relief Lock Nut                               | 1   |

REV. 05/07/20 WLH

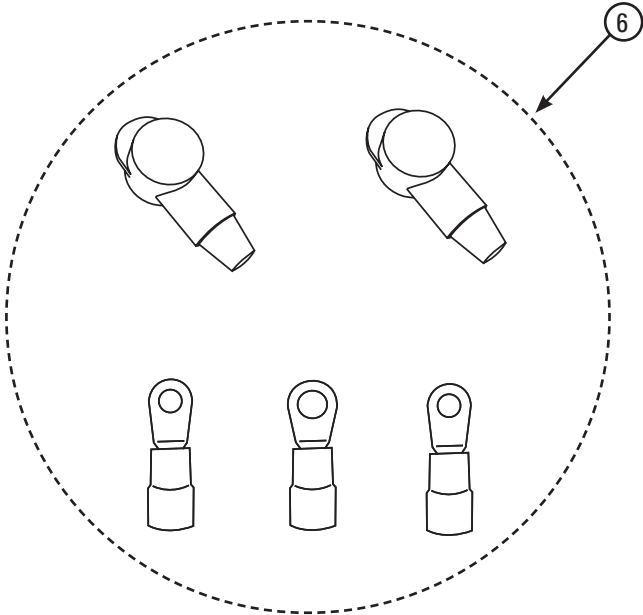
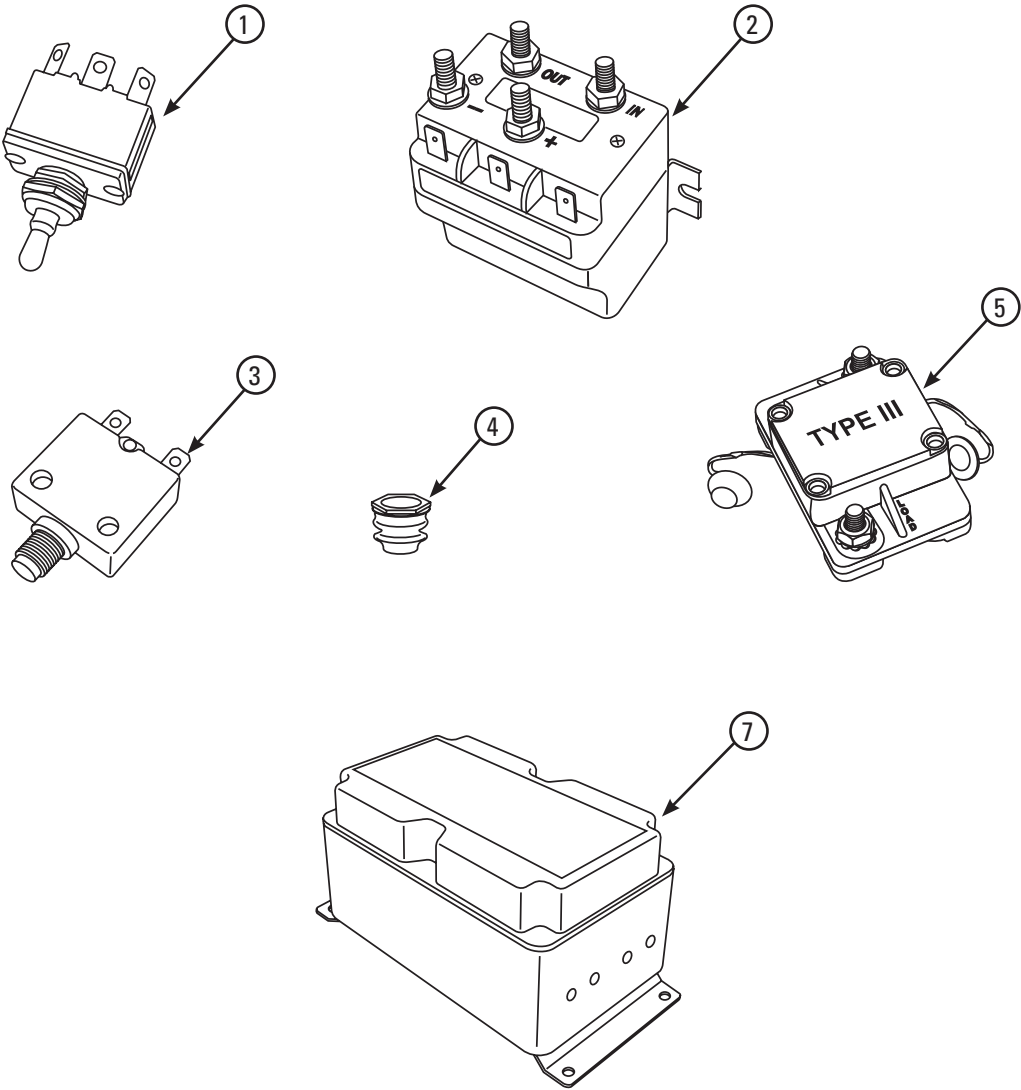
## Cab External Switch 12 Volt #501-9952 & 501-9952C



| ITEM | PART #   | DESCRIPTION                              | QTY |
|------|----------|------------------------------------------|-----|
| 40   | 514-9953 | 4" Black 10 GA Jumper with 1/4" Eyelets  | 1   |
| 41   | 514-9963 | 3" Orange 10 GA Jumper with 1/4" Eyelets | 1   |
| 42   | 514-9964 | 12" Red 14 GA Jumper with Spade/Ring     | 1   |
| 43   | 514-9966 | 3" Blue 10 GA Jumper with Loop/Loop      | 1   |
| 44   | 517-9923 | Plastic Flanged Solenoid Box (Cover)     | 1   |



Smart Switch with External Switch - 12 Volt #501-9953



| ITEM | PART #   | DESCRIPTION                    | QTY |
|------|----------|--------------------------------|-----|
| 1    | 514-0130 | Sealed Toggle Switch           | 1   |
| 2    | 514-9996 | 50 Amp 12V Reversing Solenoid  | 1   |
| 3    | 514-0407 | 50 Amp "Push To Reset" Breaker | 1   |
| 4    | 514-0420 | Breaker Reset Boot             | 1   |
| 5    | 514-0434 | 50 AMP Type III Breaker        | 1   |
| 6    | 106870   | Electrical Terminal Kit        | 1   |
| 7    | 517-9923 | Plastic Housing                | 1   |

REV. 12/21/21 WLH

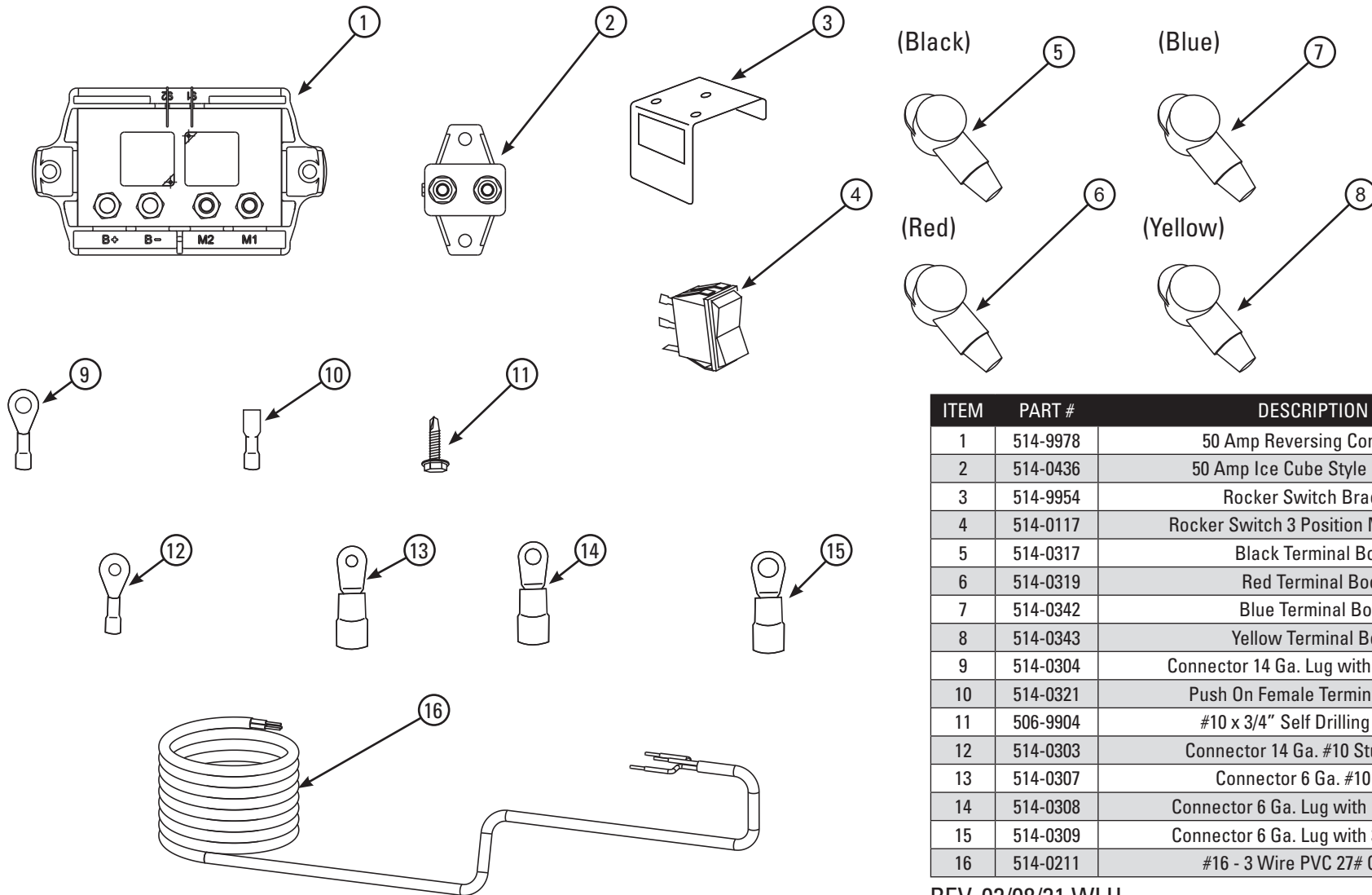




## PARTS SCHEMATICS

## Smart Switches

### Smart Switch Basic Kit #514-0114



| ITEM | PART #   | DESCRIPTION                           | QTY |
|------|----------|---------------------------------------|-----|
| 1    | 514-9978 | 50 Amp Reversing Contactor            | 1   |
| 2    | 514-0436 | 50 Amp Ice Cube Style Breaker         | 1   |
| 3    | 514-9954 | Rocker Switch Bracket                 | 1   |
| 4    | 514-0117 | Rocker Switch 3 Position Momentary    | 1   |
| 5    | 514-0317 | Black Terminal Boot                   | 1   |
| 6    | 514-0319 | Red Terminal Boot                     | 3   |
| 7    | 514-0342 | Blue Terminal Boot                    | 2   |
| 8    | 514-0343 | Yellow Terminal Boot                  | 2   |
| 9    | 514-0304 | Connector 14 Ga. Lug with 1/4" Eyelet | 1   |
| 10   | 514-0321 | Push On Female Terminal 16 Ga.        | 5   |
| 11   | 506-9904 | #10 x 3/4" Self Drilling Screw        | 6   |
| 12   | 514-0303 | Connector 14 Ga. #10 Stud Eyelet      | 2   |
| 13   | 514-0307 | Connector 6 Ga. #10 Stud              | 2   |
| 14   | 514-0308 | Connector 6 Ga. Lug with 1/4" Eyelet  | 4   |
| 15   | 514-0309 | Connector 6 Ga. Lug with 3/8" Eyelet  | 2   |
| 16   | 514-0211 | #16 - 3 Wire PVC 27# Copper           | 25' |

REV. 02/08/21 WLH

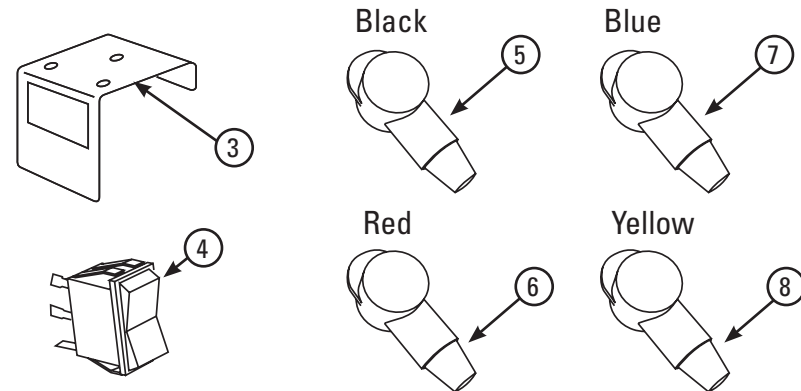
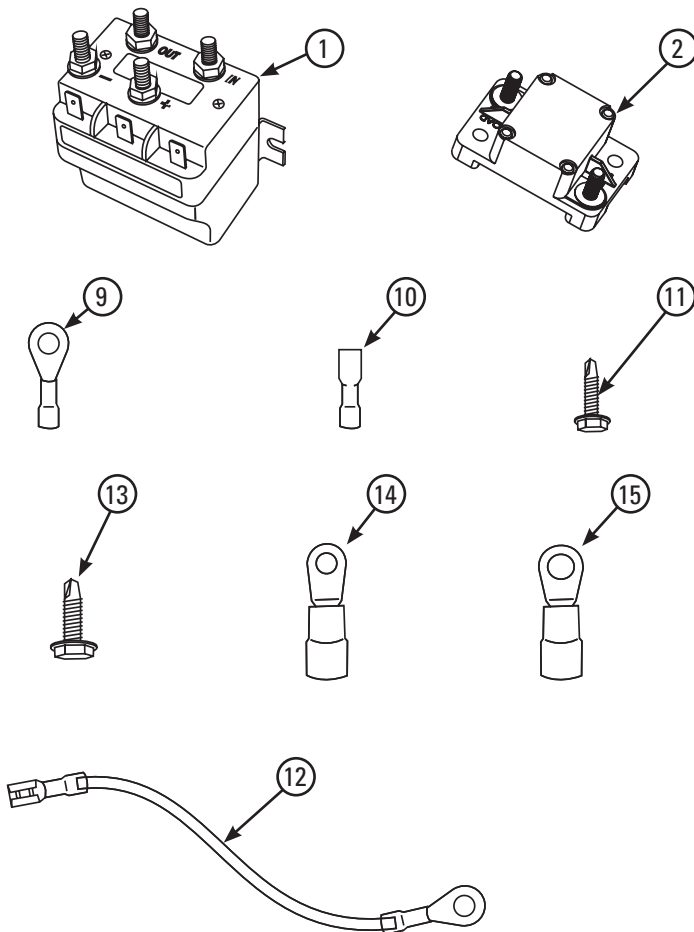




## PARTS SCHEMATICS

## Smart Switches

### Deluxe High Amp Switch Kit - 12 Volt #514-0139



| ITEM # | PART #   | DESCRIPTION                           | QTY   |
|--------|----------|---------------------------------------|-------|
| 1      | 514-9996 | Reversing Polarity 12v Solenoid       | 1     |
| 2      | 514-0434 | 50 AMP Type III Breaker HIGH-AMP      | 1     |
| 3      | 514-9954 | Rocker Switch Bracket                 | 1     |
| 4      | 514-0117 | Rocker Switch 3 Position Momentary    | 1     |
| 5      | 514-0337 | Black Terminal Boot                   | 1     |
| 6      | 514-0336 | Red Terminal Boot                     | 3     |
| 7      | 514-0342 | Blue Terminal Boot                    | 2     |
| 8      | 514-0343 | Yellow Terminal Boot                  | 2     |
| 9      | 514-0304 | Connector 14 ga. Lug with 1/4" Eyelet | 1     |
| 10     | 514-0321 | Push On Female Terminal 16 ga.        | 5     |
| 11     | 506-9904 | #10 x 3/4" Self Drilling Screw        | 4     |
| 12     | 514-9921 | 4" Black 10ga. Jumper Wire            | 1     |
| 13     | 506-9929 | #12-14 Self Drilling TEK Screw        | 2     |
| 14     | 514-0308 | Connector 6 ga. Lug with 1/4" Eyelet  | 8     |
| 15     | 514-0309 | Connector 6 ga. Lug with 3/8" Eyelet  | 2     |
| --     | 514-0211 | #16-3 Wire PVC 27# Copper             | 25Ft. |

REV. 10/01/20 WLH