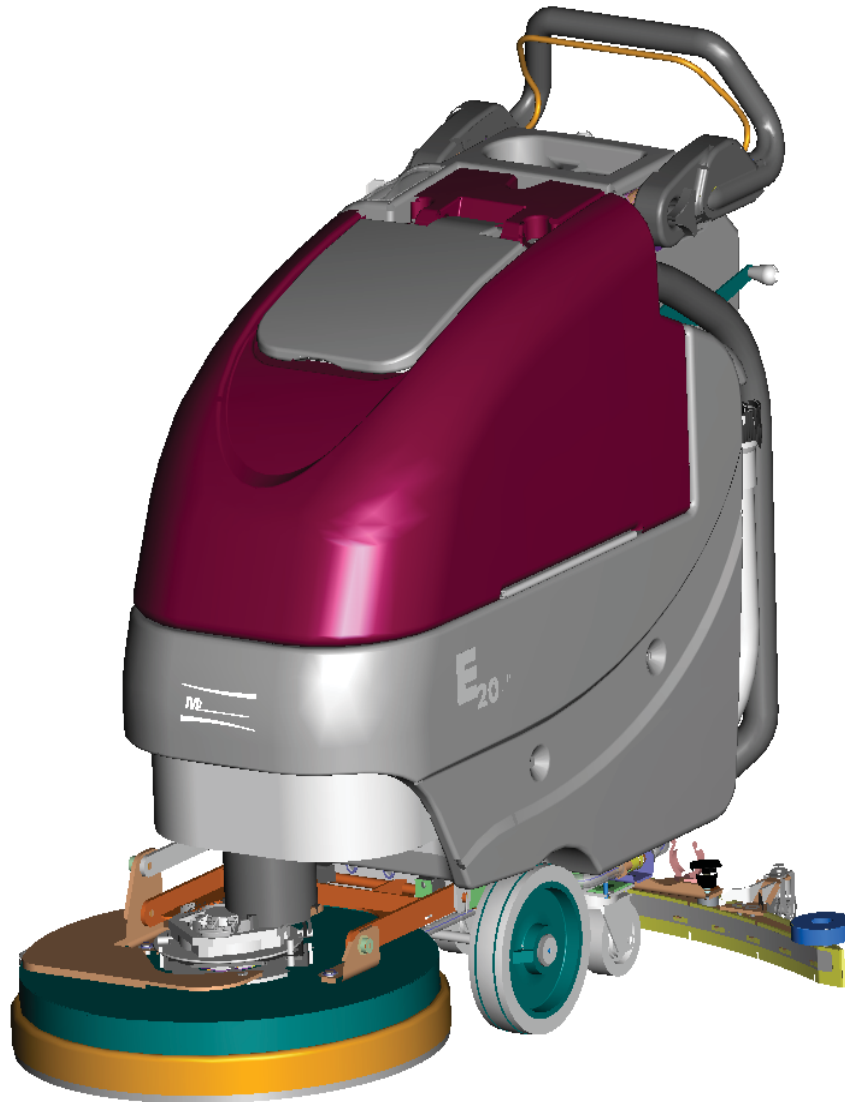


E17/E20/H20 Floor Scrubber Disc Brush Drive



PREFACE

Thank you for your purchase of the new industry standard for scrubbers. Minuteman International takes great pride in offering the most dependable, reliable and best value in industrial power sweepers and sweeper / scrubbers. We set the standard.

Our Customer Service Department would like to hear from you. If you see any errors, omissions or something that needs clarification in this Parts Catalog please let us know. We are working hard towards continually improving our processes to bring you the best you deserve. Please copy the form below, fill out and comment on how you found our catalog.

Thank you!
The Minuteman International Team

Name: _____

Title: _____

Company Name: _____

Address: _____

Country: _____

Type of equipment or model number: _____

Comments: _____

Please return to:
Customer Service Manager
Minuteman International, Inc.
14N845 U.S. Route 20
Pingree Grove, Illinois 60140 USA

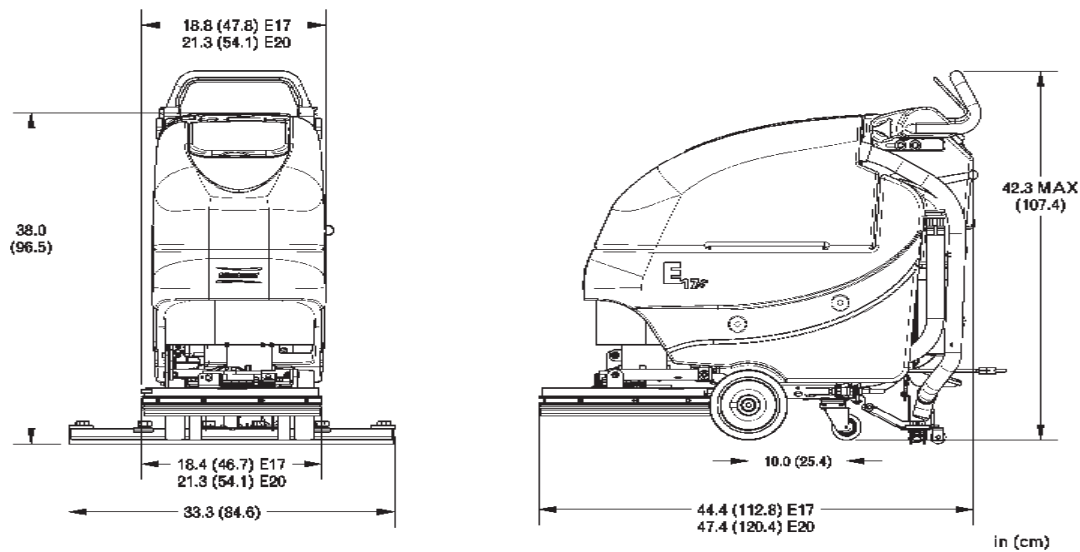
Phone: (800) 323-9420
Email: tech@minutemanintl.com

Technical Specifications

Model **E17 / E20 / H20**

All Models Beginning with: **E17BD / E20BD / H20BD**

| | E17BD | E20BD / H20BD |
|--------------------------|---|---|
| Current (Max) | 32 amps | 32 amps |
| Sound Level | 69 dBA | 69 dBA / 65.5 dBA |
| Cleaning path width | 17 in (43 cm) | 20 in (51 cm) |
| Squeegee width | 30 in (76 cm) | 34 in (86 cm) |
| Theoretical productivity | 17,000 ft ² /hr (1,579 m ²) | 20,000 ft ² /hr (1,858 m ²) |
| Working speed | 2.3 mph (3.7 km per hr) | 2.3 mph (3.7 km per hr) |
| Rated voltage | 24 volts | 24 volts |
| Vacuum flow | 65 cfm (110 m ³ /hr) | 65 cfm (110 m ³ /hr) |
| Vacuum waterlift | 45 inches (112mbar) | 45 inches (112mbar) / 46 INCHES (115mbar) |
| Vacuum power | .60 HP (450 W) | .60 HP (450 W) |
| Brush type | Disc | Disc |
| Brush motor(s) power | 3/4 HP (560W) | 3/4 HP (560W) |
| Number of brushes | 1 | 1 |
| Brush RPM | 180 RPM | 180 RPM |
| Aqua-Stop equipped | Available | Available |
| Solution capacity | 12Gal (45 liters) | 12 Gal (45 liters) |
| Recovery capacity | 13 Gal (49 liters) | 13 Gal (49 liters) |
| Working Grade | 2% | 2% |
| Weight with batteries | 306 lbs (139 kg) | 313 lbs (142 kg) |
| Weight without batteries | 196 lbs (89 kg) | 203lbs (92 kg) |
| Dimensions (LxWxH) | 44.4 x 18.8 x 42.3 (112.8 x 47.8 x 107.4 cm) | 47.4 x 21.3 x 42.3 (120.4 x 54.1 107.4 cm) |





DECLARATION OF CONFORMITY

MANUFACTURER'S NAME: Minuteman International Inc.

MANUFACTURER'S ADDRESS: 111 South Rohlwing Road
Addison, IL. 60101

EQUIPMENT DESCRIPTION: E17/ E20 Walk-Behind Scrubber

EQUIPMENT MODEL DESIGNATION: E17BDQPCE, E17BDQPGCE,
E17BDCE, E20BDCE, E20BDQPCE,
E20BDQPGCE

Application of Council Directives: 98/37/EC, 89/336/EEC

Harmonized standards complied with: EN 60335-2-72, EN 60335-1,
EN 61000-6-2, EN 61000-6-3

I, the undersigned, hereby declare that the equipment specified above conforms to the above Directive(s) and Standard(s).

SIGNATURE:

DATE:

9.11.2007

**PRINTED NAME:
TITLE:**

**Ruediger Schroeder
Exec. VP and COO**

Form: ECO 200 *

Brush Options

| BRUSH OPTIONS - E17 | | | |
|---------------------|--------------------------------------|-------------------|--|
| | | AQUA STOP BRUSHES | |
| 762394 | PAD RETAINER, FIXED | 7943-01 | BRUSH, 17" LIGHT-MEDIUM PP.5 A/S, (WHITE) |
| 762370 | PAD RETAINER, REMOVEABLE | 7943-02 | BRUSH, 17" LIGHT-MEDIUM A/S K901 (BLACK) |
| 172517-1 | BRUSH-DISC, 17" NYLON, BLACK | 7943-03 | BRUSH, 17" MEDIUM NYLON 600GR. A/S, (GREY) |
| 172517-3 | BRUSH-DISC, 17" NYLO-GRIT 80GR GREEN | 7943-04 | BRUSH, 17" MEDIUM-HEAVY PP.8 A/S (WHITE) |
| 172517-6 | BRUSH-DISC 17"SCRUB GRIT II 120GR | 7943-05 | BRUSH, 17" HEAVY NYLON 180GR. A/S (GRAY) |
| | | 7943-06 | BRUSH, 17" HEAVY-2 NYL 120GR. A/S, GREEN |

| BRUSH OPTIONS - E20/H20 | | | |
|-------------------------|---|-------------------|--|
| | | AQUA STOP BRUSHES | |
| 762394 | PAD RETAINER, FIXED | 7951-01 | BRUSH, 20" LIGHT-MED PP.5 A/S, WHITE |
| 762370 | PAD RETAINER, REMOVEABLE | 7951-02 | BRUSH, 20" LIGHT-MEDIUM A/S, K901, BLACK |
| 172520-1 | BRUSH, 20" NYLON | 7951-03 | BRUSH, 20" MEDIUM NYLON 600GR. A/S, GREY |
| 172520-3 | BRUSH-DISC, 20" NYLO-GRIT 80GR, GREEN | 7951-04 | BRUSH, 20" MEDIUM-HEAVY PP.8 A/S, WHITE |
| 172520-6 | DISC BRUSH 20", SCRUB GRIT 2, 120GR RED | 7951-05 | BRUSH, 20" HEAVY NYLON 180GR. A/S, GREY |
| | | 7951-06 | BRUSH, 20" HEAVY-2 NYL 120GR. A/S, GREEN |

Note: Models with the black tri-lobe brush hub will require the conversion kit part number K-E1720HUB before using the brushes listed above

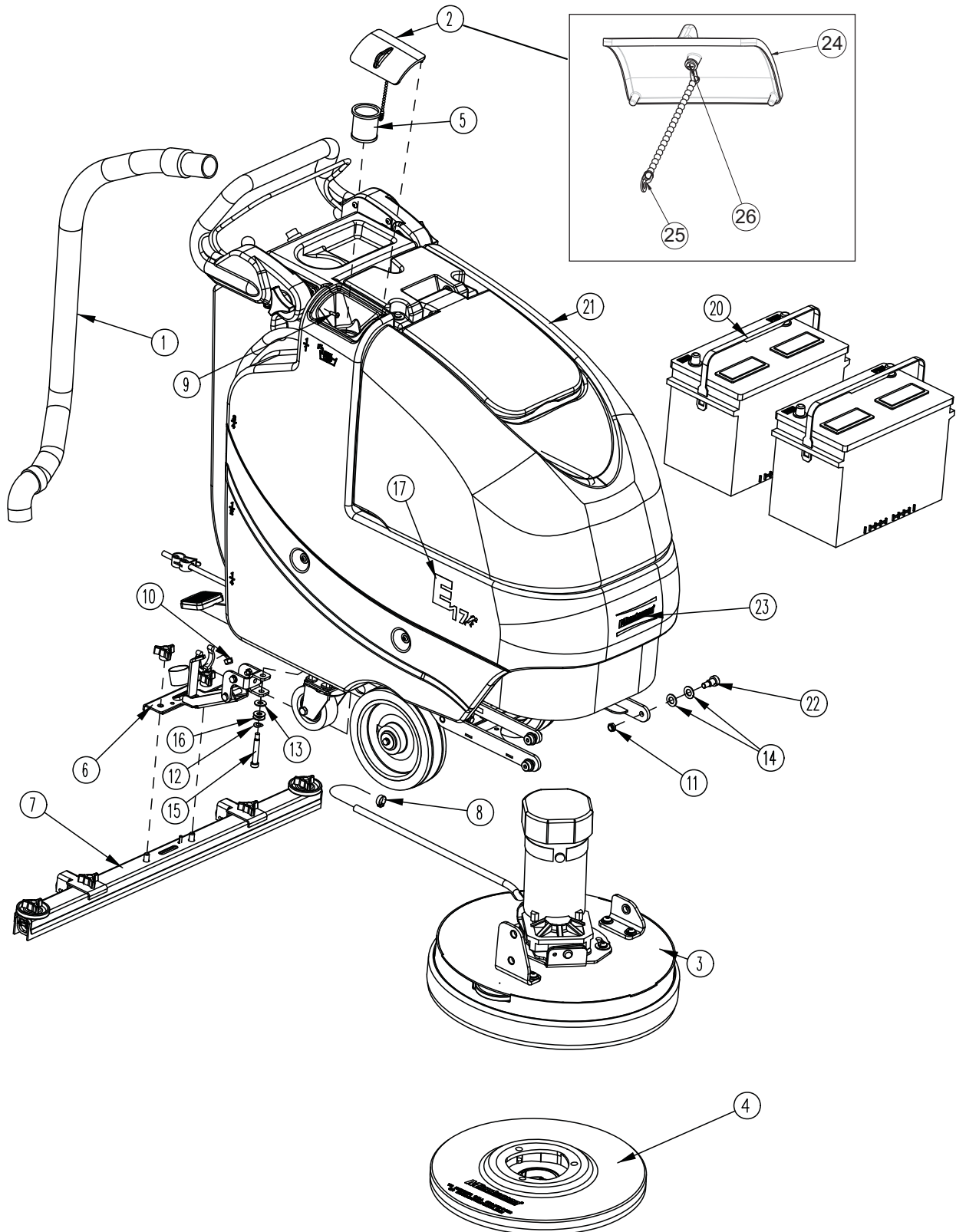
Batteries, Chargers and Cords

| BATTERIES, CHARGERS & CORDS | | | |
|--|---------|---------|----------|
| MODEL | BATTERY | CHARGER | CORD |
| E17BDQPGCE, E20BDQPGCE | 956157 | 957939 | 748680CE |
| E17BDQPG, E20BDQPG | 956157 | 957939 | |
| E17BDQPCE, E20BDQPCE | 956716 | 957939 | 748680CE |
| E17BDQP, E20BDQP | 957916 | 957939 | |
| E17BDCE-SA, E20BDCE-SA | *** | 957939 | 742481 |
| E17BDCE, E17BDCEUK, E20BDCE, E20BDCEUK | *** | 957939 | 748680CE |
| E17BD, E20BD | *** | 957939 | |

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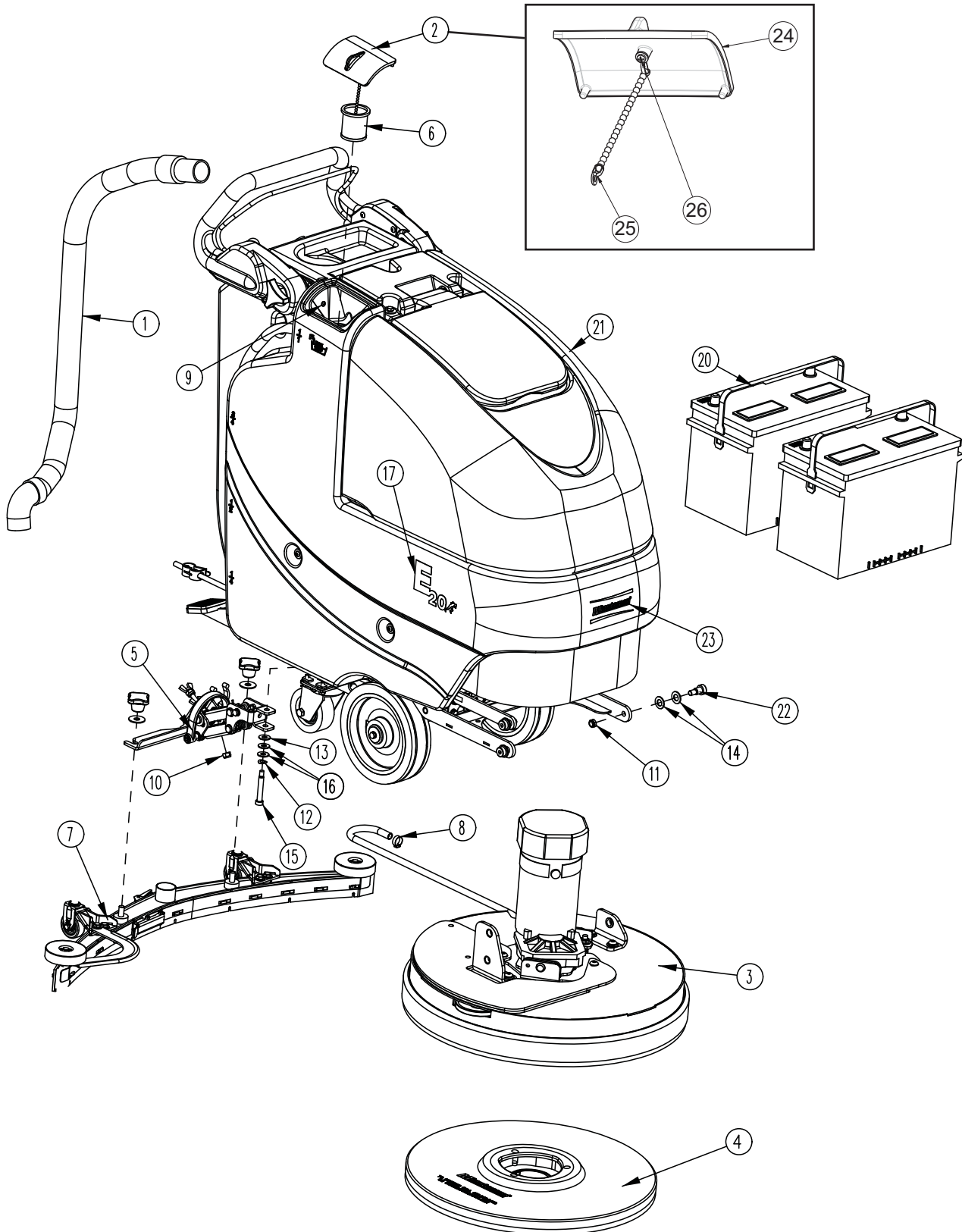
E17 Main Assembly



E17 Main Assembly BOM

| ITEM | PART NO. | QTY | DESCRIPTION |
|------|--------------|-----|--|
| 1 | 172010 | 1 | HOSE, CLEAR VAC W/ 45 CUFF |
| 2 | 172018 | 1 | SOLUTION TANK LID ASSY |
| 3 | 172090 | 1 | BRUSH DECK ASSY 17" |
| 4 | 172517-2 | 1 | 17" PAD DRIVER - SEE BELOW FOR RETAINER |
| 5 | 172159 | 1 | FILTER, FILL PORT, ES1720 |
| 6 | 172170 | 1 | BD SQUEEGEE LIFT MECH ASSY |
| 6KT | 172150 | 1 | SQUEEGEE LIFT MECH ASSY |
| 7 | 210080 | 1 | SQUEEGEE ASY COMP 20" STR |
| 7KT | 172530-1 | 1 | SQUEEGEE ASSY BD 30" (760) |
| 8 | 450076 | 1 | CLAMP-CRIMP 185R SS |
| 9 | 711118 | 1 | SCR-ST-A 10 X .75 SS |
| 10 | 711374 | 1 | NUT-NYLOC 5/16-18 |
| 11 | 711375 | 3 | NUT-NYLOC 3/8-16 X 1/2 NUT |
| 12 | 711523 | 1 | WSR-WAVE .37X .68 X .08 |
| 13 | 711569 | 1 | WSR-FLT .390 X .880 X .062 NYL |
| 14 | 711592 | 6 | WSR-FLAT .506 X .9 X .064 NYL |
| 15 | 712143 | 1 | BLT-SHLD 3/8 X 2.0, 5/16-18 |
| 16 | 712301 | 2 | WSR-FLAT .37 X .87 X .06 |
| 17 | 715917 | 2 | DECAL, E17 |
| 18 | 740164-1 | 1 | JUMPER CABLE ASSY, RED 4G 12" |
| 19 | 747649 | 1 | CABLE ASSY, BATTERY E17 |
| 20 | 956712 | 2 | BATTERY, 12V 115AH |
| 20G | 956100 | 2 | GEL BATTERY 12V 100AH |
| 20T | 956754 | 2 | BATTERY 12V 105AH WET TROJAN |
| 21 | 172001BD-120 | 1 | BRUSH DRVMAIN ASSY-120V CHARGER |
| 21CE | 172001BD-230 | 1 | BRUSH DRVMAIN ASSY-230V CHARGER |
| 22 | 712099PLT | 3 | BLT- SHLDR 1/2 X 1/2 ZINC PLT |
| 23 | 715914W | 1 | DECAL, MINUTEMAN W/SWOOSHES, WHITE |
| 24 | 172008 | 1 | SOLUTION TANK LID |
| 25 | 172123 | 1 | CHAIN, BEADED SS W/EYELET S |
| 26 | 712145 | 1 | SCR-MC 6-32 X .37 PPH SS |

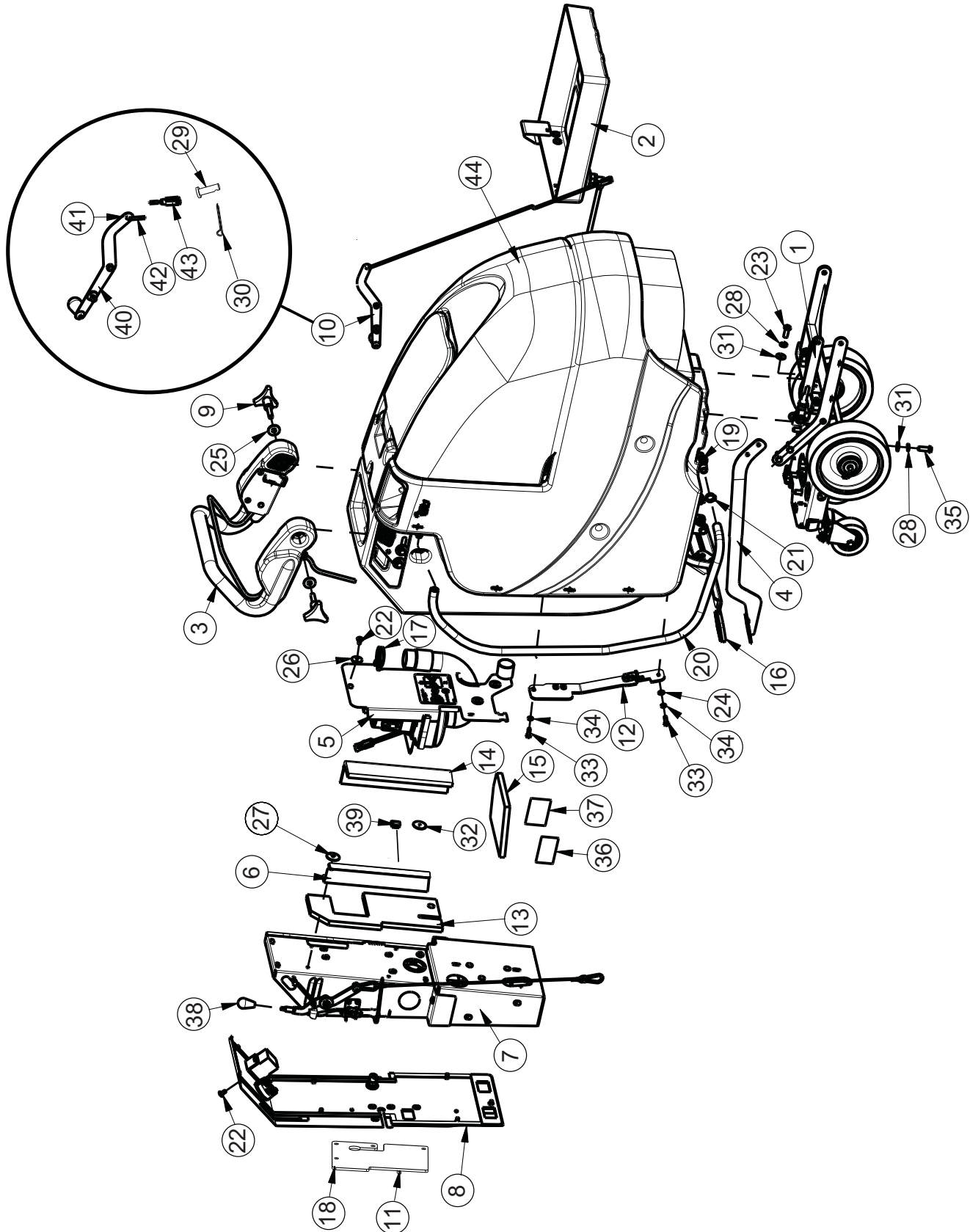
E20/H20 Main Assembly



E20/H20 Main Assembly BOM

| ITEM | PART NO. | QTY | DESCRIPTION |
|------|--------------|-----|--|
| 1 | 172010 | 1 | HOSE, CLEAR VAC W/ 45 CUFF, E20 |
| | 172340 | | HOSE, PU RECOVERY, CLEAR, H20 |
| 2 | 172018 | 1 | SOLUTION TANK LID ASSY |
| 3 | 172100 | 1 | BRUSH DECK ASSY 20" |
| 4 | 172520-2 | 1 | 20" PAD DRIVER - 230V-SEE BELOW FOR RETAINER |
| 5 | 172150 | 1 | SQUEEGEE LIFT MECH ASSY |
| 6 | 172159 | 1 | FILTER, FILL PORT, ES1720 |
| 7 | 172534-1 | 1 | SQUEEGEE, 34" (860) |
| 8 | 450076 | 1 | CLAMP-CRIMP 185R SS |
| 9 | 711118 | 1 | SCR-ST-A 10 X .75 SS |
| 10 | 711374 | 1 | NUT-NYLOC 5/16-18 |
| 11 | 711375 | 3 | NUT-NYLOC 3/8-16 X 1/2 NUT |
| 12 | 711523 | 1 | WSR-WAVE .37X .68 X .08 |
| 13 | 711569 | 1 | WSR-FLT .390 X .880 X .062 NYL |
| 14 | 711592 | 6 | WSR-FLAT .506 X .9 X .064 NYL |
| 15 | 712143 | 1 | BLT-SHLD 3/8 X 2.0, 5/16-18 |
| 16 | 712301 | 2 | WSR-FLAT .37 X .87 X .06 |
| 17 | 715920 | 2 | DECAL, E20 |
| | 715684 | | DECAL, H20 |
| 18 | 740164-1 | 1 | JUMPER CABLE ASSY, RED 4G 12" |
| 19 | 747649 | 1 | CABLE ASSY, BATTERY E17 |
| 20 | | 2 | BATTERY, SEE PAGE 5 |
| 21 | 172001BD-120 | 1 | BRUSH DRV MAIN ASSY-120VCHARGER |
| 21CE | 172001BD-230 | 1 | BRUSH DRV MAIN ASSY-230VCHARGER |
| 22 | 712099PLT | 3 | BLT- SHLDR 1/2 X 1/2 ZINC PLT |
| 23 | 715914W | 1 | DECAL, MINUTEMAN W/SWOOSHES, WHITE |
| 24 | 172008 | 1 | SOLUTION TANK LID |
| 25 | 172123 | 1 | CHAIN, BEADED SS W/EYELETS |
| 26 | 712145 | 1 | SCR-MC 6-32 X .37 PPH SS |

Brush Drive Base Assembly

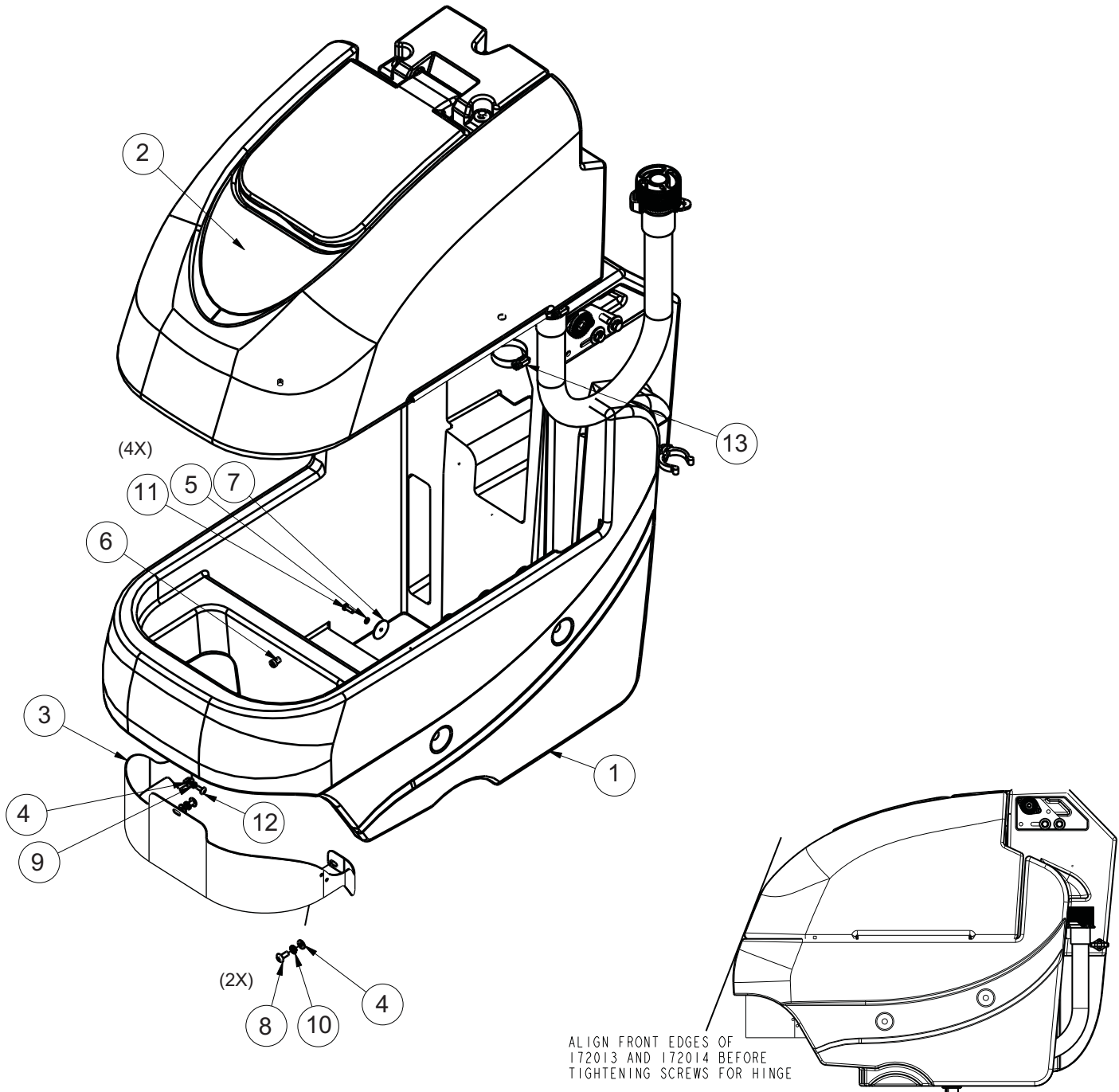


Brush Drive Base Assembly BOM

BILL OF MATERIAL - 172001BD - 120/230

| ITEM | PART NO | QTY | DESCRIPTION | ITEM | PART NO | QTY | DESCRIPTION |
|------|------------|-----|--------------------------------|------|------------|-----|---------------------------------|
| 1 | 172002 | 1 | E1720 BD CHASSIS ASSY | 23 | 710985 | 2 | SCR-BHSCS 3/8-16 X .625 ZP |
| 2 | 172012 | 1 | BATTERY TRAY ASSY, ES1720 | 24 | 711504 | 1 | WASHER-FLAT 1/4 SS |
| 3 | 172016 | 1 | BD HANDLE ASSY, E1720 | 25 | 711507 | 2 | WASHER-FLAT 3/8 X 1.12 X .06 |
| 4 | 172032 | 1 | LIFT PEDAL WMT | 26 | 711519 | 3 | WASHER-FLAT 1/4 X 1.00 X .06 ZP |
| 5 | 172050 | 1 | VAC MOTOR ASSY | 27 | 711543 | 2 | WASHER-LOCK #10 SPLIT ZP |
| 6 | 172055 | 1 | BKT, VAC AREA INSIDE COVER | 28 | 711546 | 6 | WASHER-LOCK 3/8 SPLIT ZP |
| 7 | 172070-120 | 1 | ELEC BOXBD ASSY 120V | 29 | 711803 | 1 | PIN-COTTER .06 X .75 |
| 7CE | 172070-230 | | ELEC BOXBD ASSY 230V | 30 | 712117 | 1 | PIN-CLEVIS 3/16 X .593 |
| 8 | 172073 | 1 | BD ELEC BOXCOVER ASSY | 31 | 712301 | 8 | WASHER-FLAT 3/8 X .87 X .06 ZP |
| 9 | 172085 | 2 | KNOB, 3/8-16 STUD, 3LOBE | 32 | 712312 | 2 | WASHER-BALANCING .187 X 1.25 |
| 10 | 172112 | 1 | SOL CONTROL ASSY | 33 | 712562 | 2 | SCR-HH 1/4-20 X .75, 18-8 SS |
| 11 | 172129 | 1 | BKT, PWR CORD MOUNT, 5/8 HOLE | 34 | 712758 | 2 | WASHER-LOCK 1/4 SPLIT SS |
| 12 | 172157 | 1 | LIFT PEDAL STOP ASSY | 35 | 713042 | 4 | SCR-HH 3/8-16 X 1.00 ZP GR 5 |
| 13 | 172184 | 1 | FOAM COVER W/ ADHESIVE | 36 | 715029 | 1 | DECAL-NAME PLATE MODEL ID |
| 14 | 172185 | 1 | FOAM COVER REAR 2, 1/2" THICK | 37 | 715047 | 1 | DECAL-CLEAR LAMINATE 2X3 |
| 15 | 172187 | 1 | FOAM COVER FRONT 2, 1/2" THICK | 38 | 760592 | 1 | KNOB-OVAL TAPERED |
| 16 | 210142 | 1 | PEDAL PAD | 39 | 809443 | 1 | CLIP-WIRE & CORD |
| 17 | 3303255 | 1 | CLAMP-HOSE 1.75 DIA NOMI-NAL | 40 | 172115 | 1 | SOLUTION CTRL LEVER ASSY |
| 18 | 293080 | 1 | STRAIN RELIEF | 41 | 172122 | 1 | NUT, PUSH-ON WSR CAP, 3/16 |
| 19 | 342440 | 1 | FTG-TEE 3/4 MPT X 1/2 HB NYLON | 42 | 172069 | 1 | SOLUTION CONTROL ROD |
| 20 | 430156 | 1 | HOSE, CLEAR 1/2 ID X 39.75" | 43 | 172062 | 1 | YOKE, 3/16 CLEVIS X 10-32 THD |
| 21 | 450093 | 1 | CLAMP-CRIMP 3/4" OD STEP-LESS | 44 | 172001BASE | 1 | E1720 BASE ASSY |
| 22 | 710178 | 10 | SCR-THMS 1/4-20 X .50 ZP | | | | |

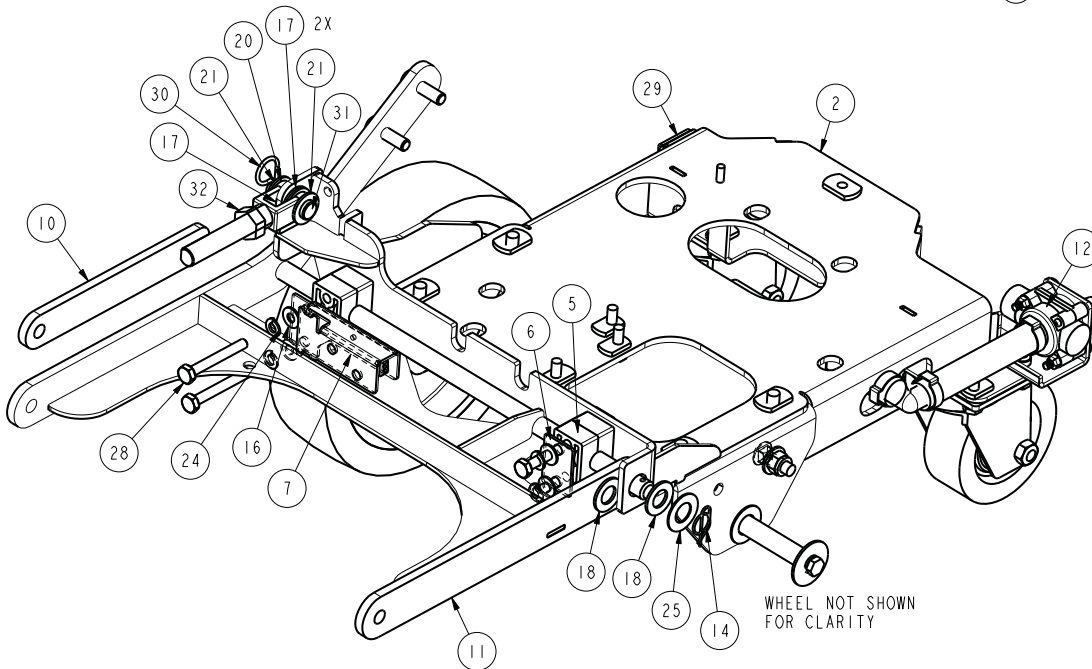
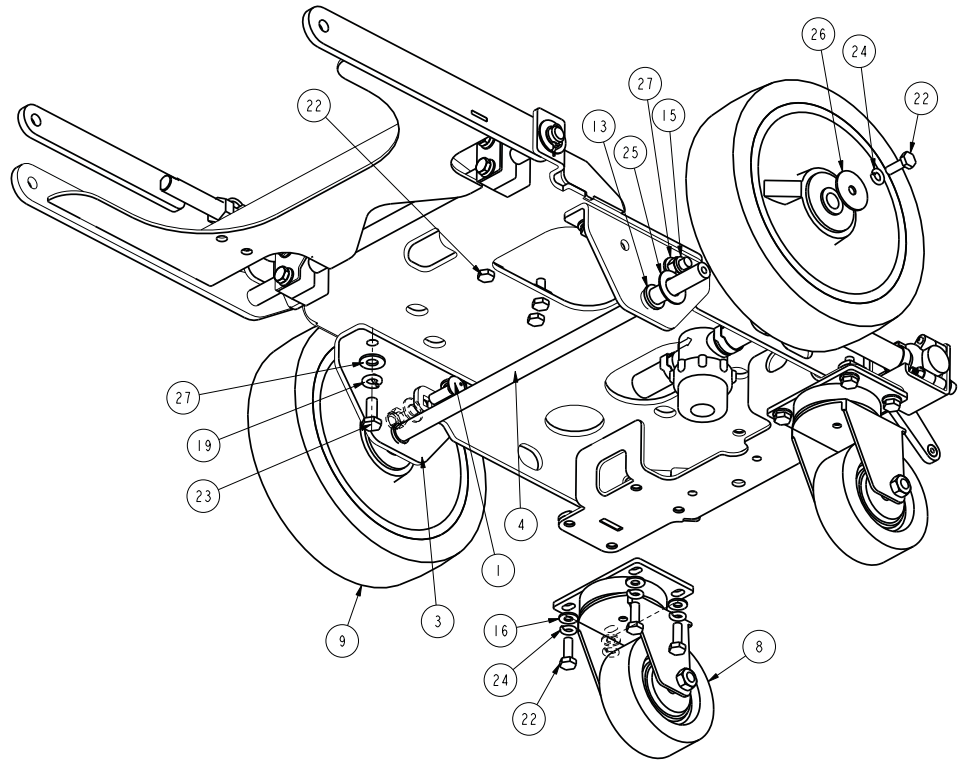
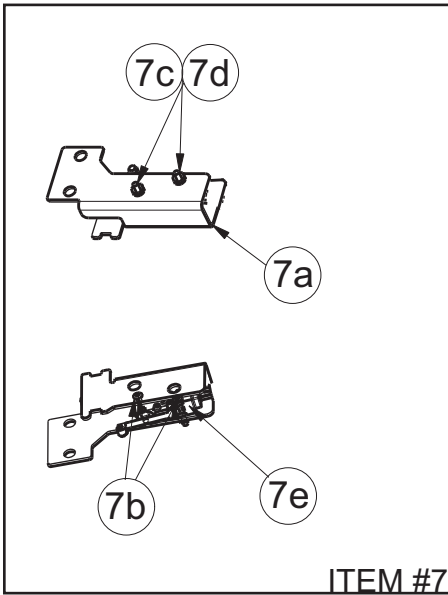
E17/20/H20 Base Assembly



E17/20/H20 Base Assembly BOM

| BILL OF MATERIAL - 172001BASE | | | |
|--------------------------------------|-----------------|------------|--|
| ITEM | PART NO. | QTY | DESCRIPTION |
| 1 | 172013 | 1 | SOLUTION TANK ASSY |
| 2 | 172014 | 1 | RECOVERY TANK ASSEMBLY |
| 3 | 172144 | 1 | COVER, FRONT PANEL E1720 |
| 4 | 711504 | 3 | WASHER-FLAT 1/4 SS |
| 5 | 711543 | 4 | WASHER-LOCK #10 SPLIT ZP |
| 6 | 712041 | 1 | BLT-SHOULDER 5/16 X .375 LG X 1/4-20 BLK |
| 7 | 712312 | 4 | WASHER-BALANCING .187 X 1.25 |
| 8 | 712565 | 2 | SCR-THMS 1/4-20 X .62 SS |
| 9 | 712757 | 1 | WASHER-LOCK #10 SPLIT SS |
| 10 | 712758 | 2 | WASHER-LOCK 1/4 SPLIT SS |
| 11 | 712812 | 4 | SCR-PHMS 10-24 X .62 ZP |
| 12 | 712822 | 1 | SCR-THMS 10-24 X .50 SS |
| 13 | 3303255 | 1 | CLAMP-HOSE 1.75 DIA NOMINAL |

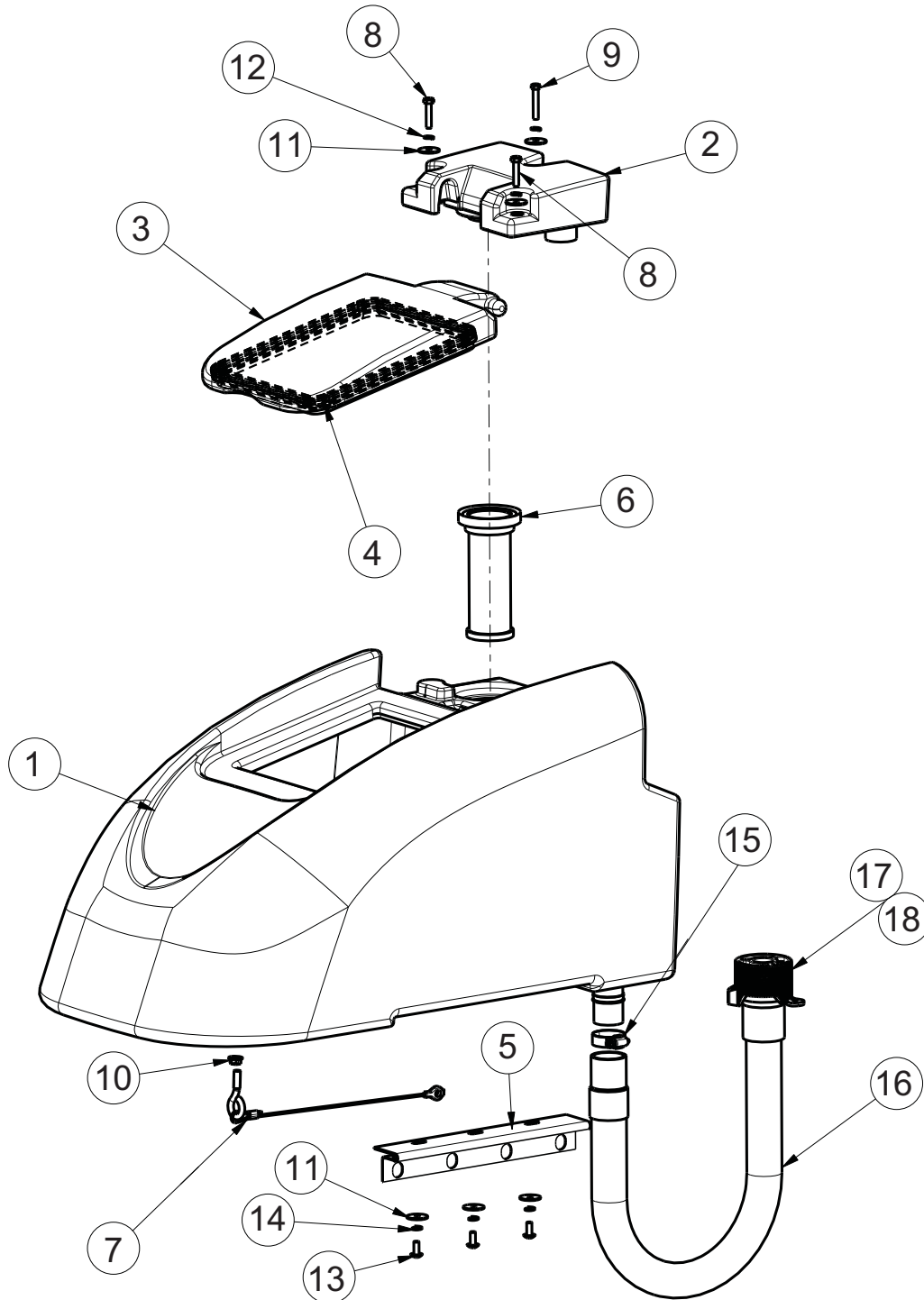
Chassis Assembly



Chassis Assembly BOM

| BILL OF MATERIAL - 172002 | | | |
|---------------------------|-----------|-----|---|
| ITEM | PART NO. | QTY | DESCRIPTION |
| 1 | 70-516-16 | 2 | BLT-CARR 5/16-18 X 1 ZP |
| 2 | 172020 | 1 | E1720 MAIN FRAME WMT |
| 3 | 172024 | 2 | BKT, WHEEL, E1720BD |
| 4 | 172035 | 1 | ROD, .5" E1720 AXLE |
| 5 | 172038 | 4 | BEARING BLOCK |
| 6 | 172039 | 1 | BEARING BLOCK PLATE |
| 7 | 172110 | 1 | DECK SWITCH ASSY |
| 7a | 172111 | 1 | BEARING BLOCK/SWITCH PLATE |
| 7b | 710493 | 2 | SCR-RHMS 4-40 X .75 ZP |
| 7c | 711428 | 2 | NUT-HEX 4-40 ZP |
| 7d | 712326 | 2 | WASHER-INT LOCK #4 SS |
| 7e | 747603-2 | 1 | SWITCH ASY, MICRO ROLLER W/PACK/CONDUIT |
| 8 | 172167 | 2 | CASTER, 3 1/2" PU WHEEL |
| 9 | 172265 | 2 | WHEEL, 8X2X.5ID, 75A W/ GROOVES |
| 10 | 172368 | 1 | UPPER LIFT ARM |
| 11 | 172370 | 1 | DISC DECK LIFT WMT, E1720 |
| 12 | 172571 | 1 | ASSY-SOLUTION VALVE E1720 |
| 13 | 260041 | 2 | BUSHING-FLG .502 X .627 X .375 OILITE |
| 14 | 600578 | 1 | RING-RUE .50 ZP |
| 15 | 711374 | 2 | NUT-NYLOC 5/16-18 ZP |
| 16 | 711504 | 12 | WASHER-FLAT 1/4 SS |
| 17 | 711569 | 3 | WASHER-FLAT .390 X .880 X .062 NYL |
| 18 | 711592 | 2 | WASHER-FLAT 1/2 X .90 X .064 NYLON |
| 19 | 712140 | 4 | WASHER-LOCK 5/16 SPLIT SS |
| 20 | 712265 | 1 | CLEVIS-YOKE, 1/2-20 WITH .375 PIN |
| 21 | 712301 | 2 | WASHER-FLAT 3/8 X .87 X .06 ZP |
| 22 | 712562 | 13 | SCR-HH 1/4-20 X .75, 18-8 SS |
| 23 | 712575 | 4 | SCR-HH 5/16-18 X .75 18-8 SS |
| 24 | 712758 | 14 | WASHER-LOCK 1/4 SPLIT SS |
| 25 | 712760 | 3 | WASHER-FLAT .56 X 1.06 X .04 SS |
| 26 | 712761 | 2 | WASHER-FENDER 1/4 X 1.25 X .059 SS |
| 27 | 712772 | 6 | WASHER-FLAT .344 X .75 X .06 SS |
| 28 | 713007 | 4 | SCR-HH 1/4-20 X 2.00 ZP GR 5 |
| 29 | 809444 | 1 | CLIP-CORD |
| 30 | 833374 | 1 | PIN-HAIRPIN COTTER 3/8 |
| 31 | 833833 | 1 | PIN-CLEVIS 3/8 X 1.25 |
| 32 | 3400449 | 1 | NUT-JAM 1/2-20 ZP |

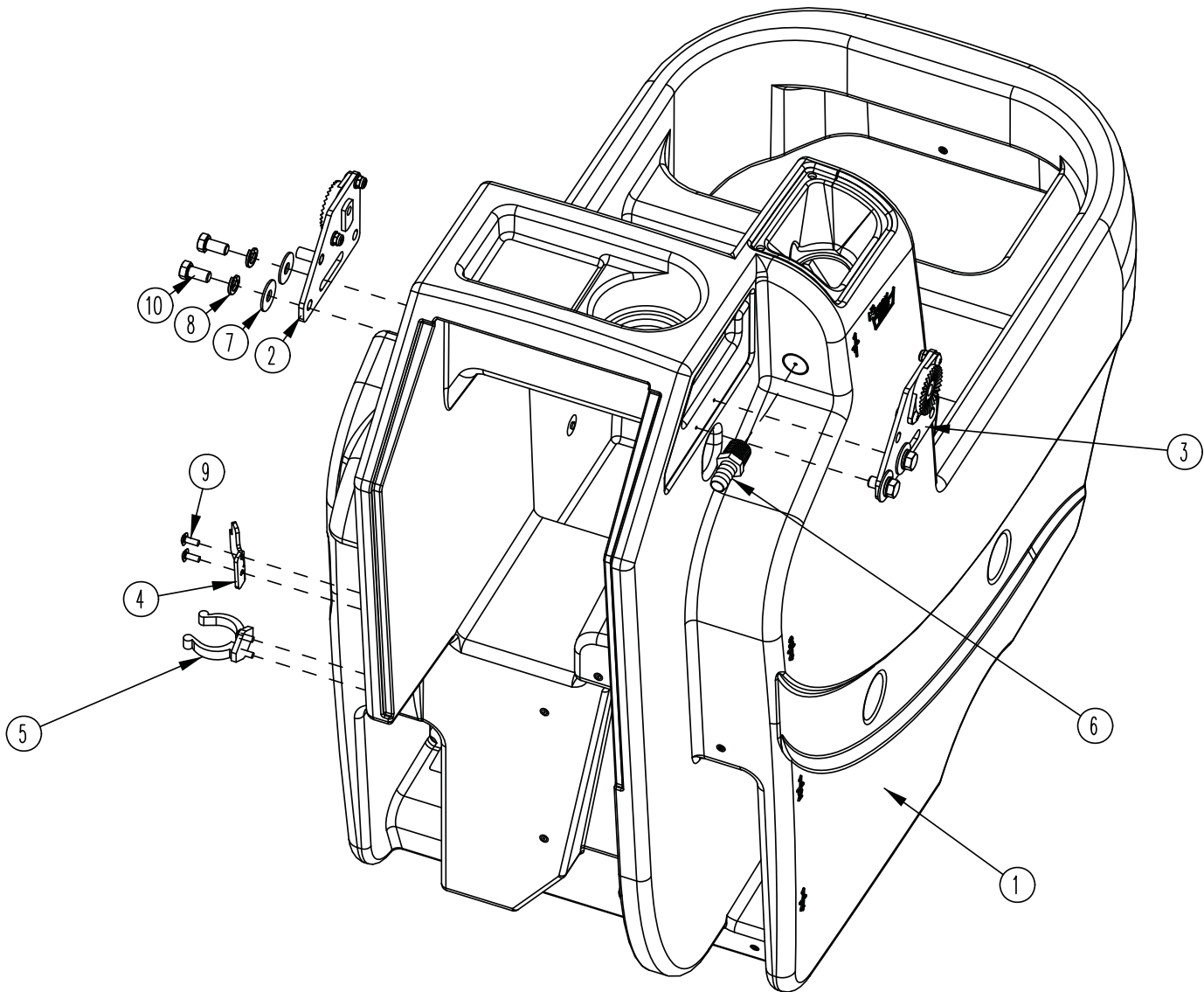
Recovery Tank Assembly



Recovery Tank Assembly BOM

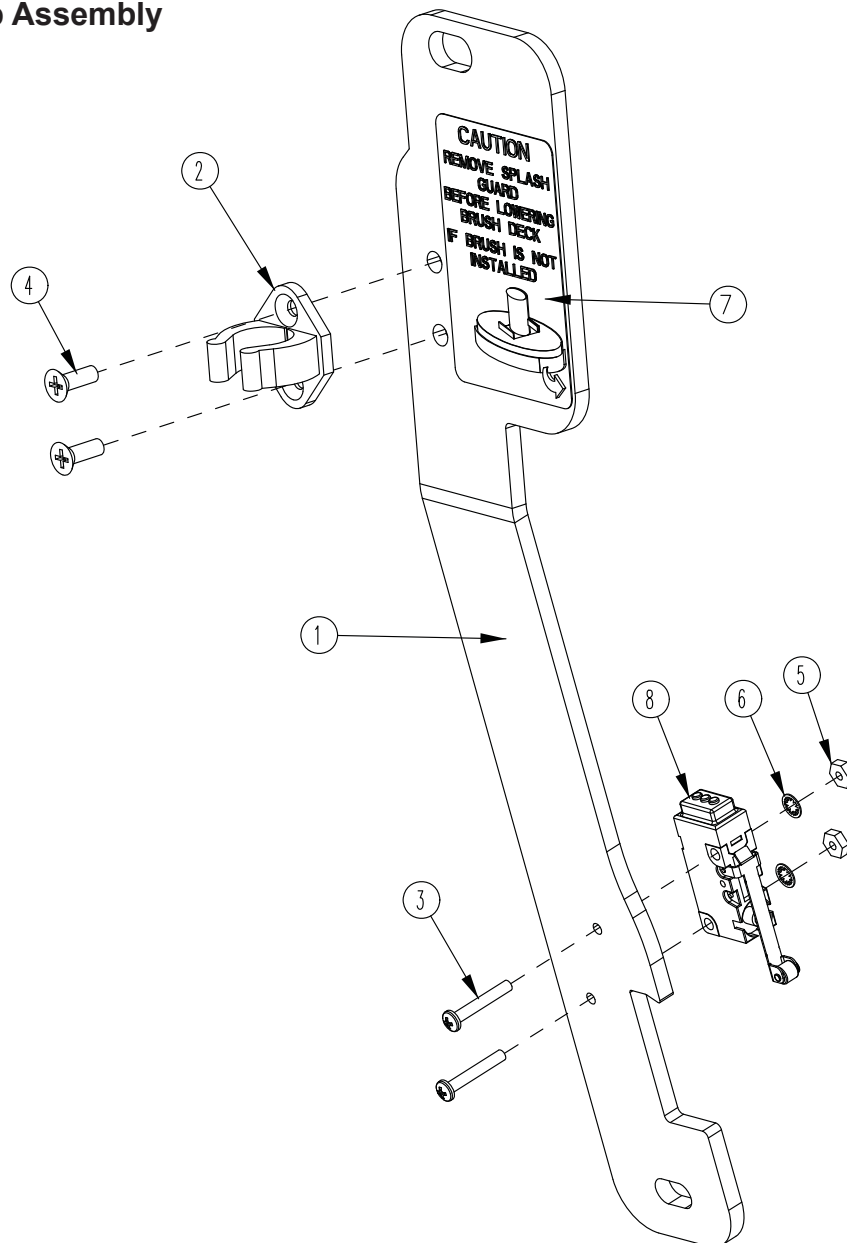
| BILL OF MATERIAL - 172014 | | | |
|----------------------------------|-----------------|------------|---|
| ITEM | PART NO. | QTY | DESCRIPTION |
| 1 | 172004 | 1 | ES1720 RECOVERY TANK |
| | 172004HSP | | E17/E20 REC TANK HOSPITAL VERSION |
| 2 | 172005 | 1 | ES1720 VACUUM MANIFOLD |
| | 172005HSP | | MANIFOLD, VAC - GREEN, HOSPITAL VERSION |
| 3 | 172007 | 1 | LID, ES1720 |
| 4 | 172017 | 1 | GASKET, ES1720 LID |
| 5 | 172049 | 1 | HINGE, RECOVERY TANK |
| 6 | 172132 | 1 | FLOAT, SCREENED |
| 7 | 172394 | 1 | CABLE, REC TANK 12.0 |
| 8 | 711210 | 2 | SCR-HH 1/4-20 X 1.25 ZP GR 5 FULL THRD |
| 9 | 711212 | 1 | SCR-HH 1/4-20 X 1.50 ZP GR 5 |
| 10 | 711379 | 1 | NUT-FLANGED WIZZ 5/16-18 ZP |
| 11 | 711519 | 6 | WASHER-FLAT 1/4 X 1.00 X .06 ZP |
| 12 | 711544 | 3 | WASHER-LOCK 1/4 SPLIT ZP |
| 13 | 712565 | 3 | SCR-THMS 1/4-20 X .62 SS |
| 14 | 712758 | 3 | WASHER-LOCK 1/4 SPLIT SS |
| 15 | 3303255 | 1 | CLAMP-HOSE 1.75 DIA NOMINAL |
| 16 | 97090096 | 1 | DRAIN HOSE ASSY, RECOVERY TANK |
| 17 | 15282072 | 1 | REPLACEMENT O-RING |
| 18 | 90304528 | 1 | CAP |

Solution Tank Assembly



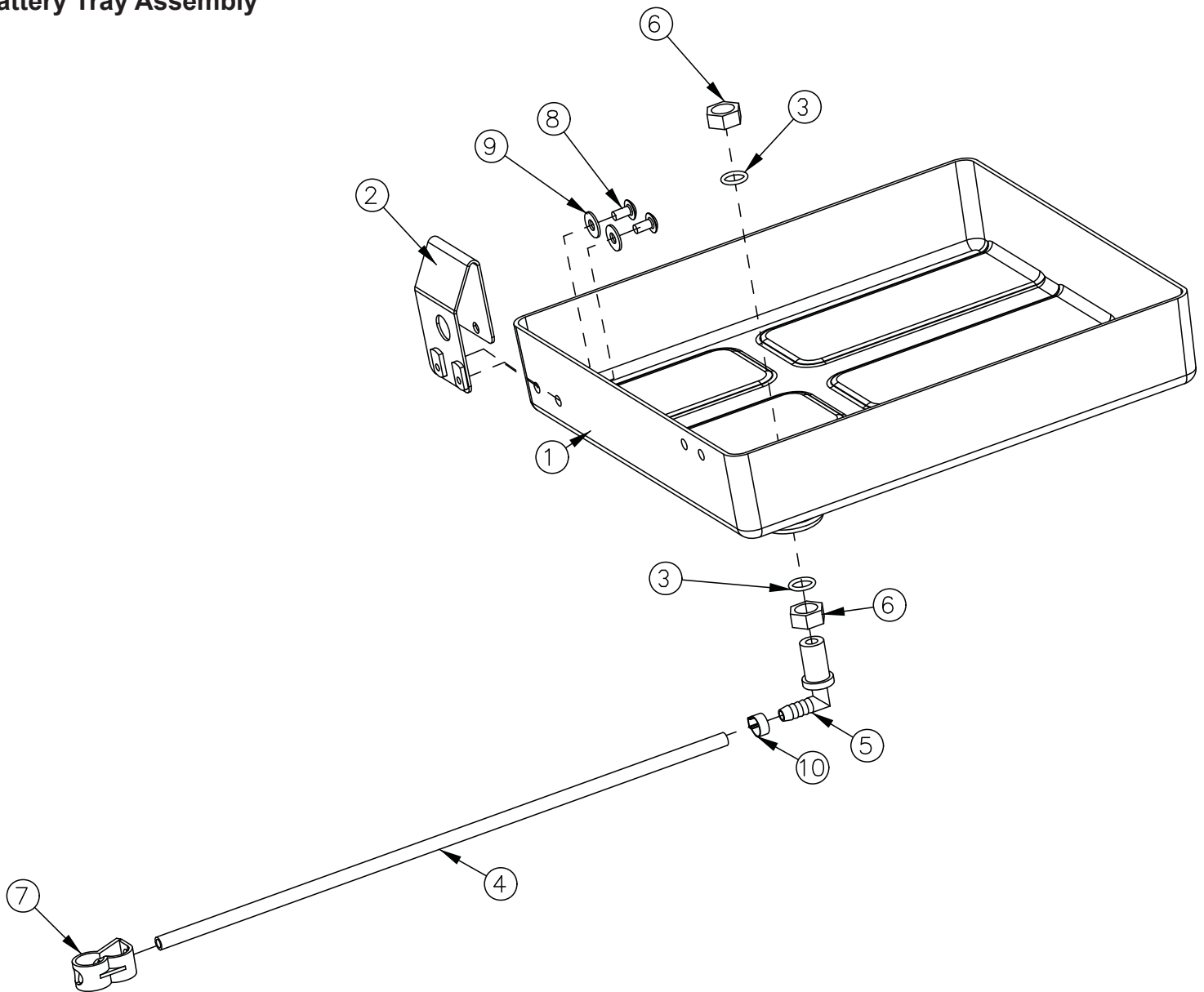
| BILL OF MATERIAL - 172013 | | | |
|---------------------------|----------|-----|-----------------------------------|
| ITEM | PART NO. | QTY | DESCRIPTION |
| 1 | 172003 | 1 | SOLUTION TANK |
| 2 | 172080 | 1 | HANDLE MOUNT ASSY, LEFT |
| 3 | 172082 | 1 | HANDLE MOUNT ASSY, RIGHT |
| 4 | 172341 | 1 | HOOK, DRAIN HOSE WITH TWIST VALVE |
| 5 | 260579 | 1 | TOOL CLIP, 1.5" HOSE |
| 6 | 342438 | 1 | FITTING, 1/2 MPT 1/2 HB BRASS |
| 7 | 711507 | 4 | WSR-FLAT .37 X 1.12 X .06 |
| 8 | 711546 | 4 | WSR-HELICAL 3/8 |
| 9 | 712822 | 4 | SCR-MC TR HD 10-24 X .50 SS |
| 10 | 713041 | 4 | BLT-HH 3/8-16 X 3/4 #5 |

Lift Pedal Stop Assembly



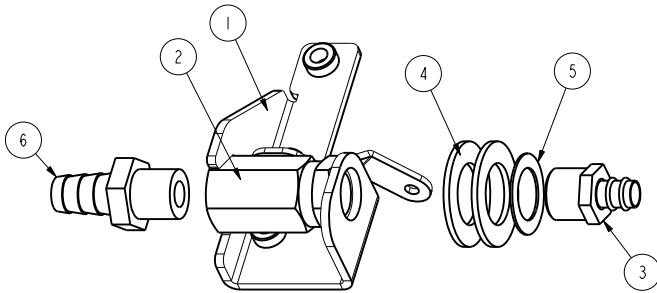
| BILL OF MATERIAL - 172157 | | | |
|---------------------------|----------|-----|---|
| ITEM | PART NO. | QTY | DESCRIPTION |
| 1 | 172036 | 1 | BKT, PEDAL STOP |
| 2 | 172065 | 1 | CLIP, FOR 1/2" ID HOSE |
| 3 | 710493 | 2 | SCR-MC 4-40 X .75 PAN HD |
| 4 | 710530 | 2 | SCR-MC FL HD 8-32 X .50 BRS |
| 5 | 711428 | 2 | NUT-HEX 4-40 |
| 6 | 712326 | 2 | WSR-INT LOCK #4 |
| 7 | 715685 | 1 | DECAL, REMOVE SPLASH GUARD |
| 8 | 747603-2 | 1 | SWITCH ASY, MICRO ROLLER W/PACK/CONDUIT |

Battery Tray Assembly



| BILL OF MATERIAL - 172012 | | | |
|---------------------------|----------|-----|--------------------------------|
| ITEM | PART NO. | QTY | DESCRIPTION |
| 1 | 172116 | 1 | BATTERY BOX |
| 2 | 172213 | 1 | BKT, SPACER FOR BATTERIES |
| 3 | 210414 | 2 | O RING 2-113 |
| 4 | 260224 | 1 | 18" HOSE |
| 5 | 320271 | 1 | NOZZLE BODY-ELBOW |
| 6 | 320272 | 2 | NOZZLE BODY LOCKNUT |
| 7 | 320273 | 1 | HOSE SHUT-OFF CLAMP |
| 8 | 710178 | 2 | SCR-MC 1/4-20 X .50 TRUSS STPL |
| 9 | 711575 | 2 | WSR-FLT .31x.75x.06ST |
| 10 | 828490 | 1 | CRIMP CLAMP 140R |

Old Style - Solution Valve Assembly



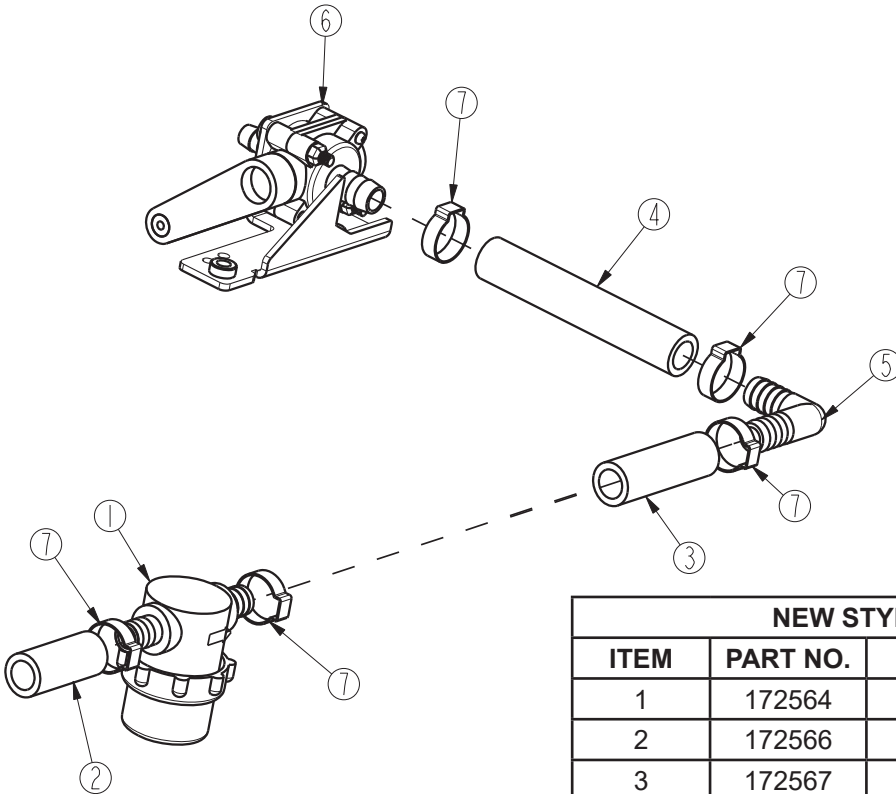
*****REPLACING OLD STYLE BRASS SOLUTION VALVE ASSEMBLY 172514 WITH 172571 PLASTIC SOLUTION VALVE ASSEMBLY**

WILL REQUIRE THE PURCHASE OF KIT K-172571

NO LONGER AVAILABLE

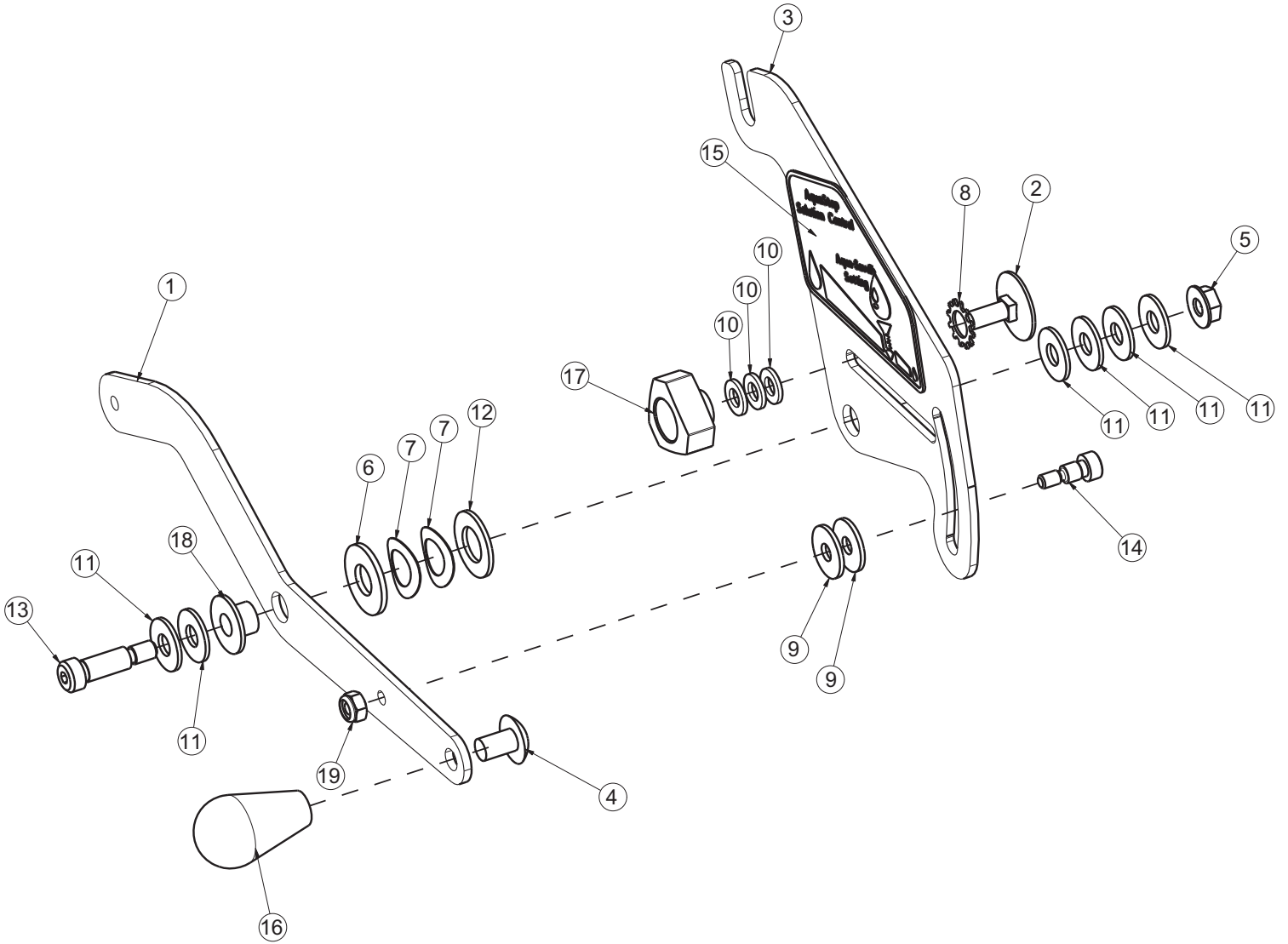
| OLD STYLE - BILL OF MATERIAL - 172514 | | | |
|---------------------------------------|----------|-----|---|
| ITEM | PART NO. | QTY | DESCRIPTION |
| 1 | 172513 | 1 | BRKT, SOL VALVE MOUNT |
| 2 | 172515 | 1 | BALL VALVE, BRASS, 3/8FNPT, CUST HANDLE |
| 3 | 320265 | 1 | FTG-ADAPTER 3/8 MPT X 3/8 HB BRASS |
| 4 | 711512 | 2 | WASHER-FLAT 3/4 X 1.37 X .08 ZP |
| 5 | 711513 | 1 | WASHER-FLAT .689 X 1.06 X .029-SS |
| 6 | 827008 | 1 | FTG-ADAPTER 3/8 MPT 1/2 HB BRASS |

New Style - Solution Valve Assembly



| NEW STYLE - BILL OF MATERIAL - 172571 | | | |
|---------------------------------------|----------|-----|------------------------------------|
| ITEM | PART NO. | QTY | DESCRIPTION |
| 1 | 172564 | 1 | FILTER-SOLUTION E1720 |
| 2 | 172566 | 1 | HOSE- 1/2"ID X 1.75" NYLOBRAID |
| 3 | 172567 | 1 | HOSE-1/2"ID X 2.375" NYLOBRAID |
| 4 | 172568 | 1 | HOSE-WIRE REINF 1/2"ID X 4.25" |
| 5 | 172569 | 1 | FTG-ELBOW 90 1/2 HB X 1/2 HB NYLON |
| 6 | 172579 | 1 | SOLUTION CNTRL VALVE, WITH BRKT |
| 7 | 383347 | 5 | CLAMP-CRIMP 1/2 HOSE |

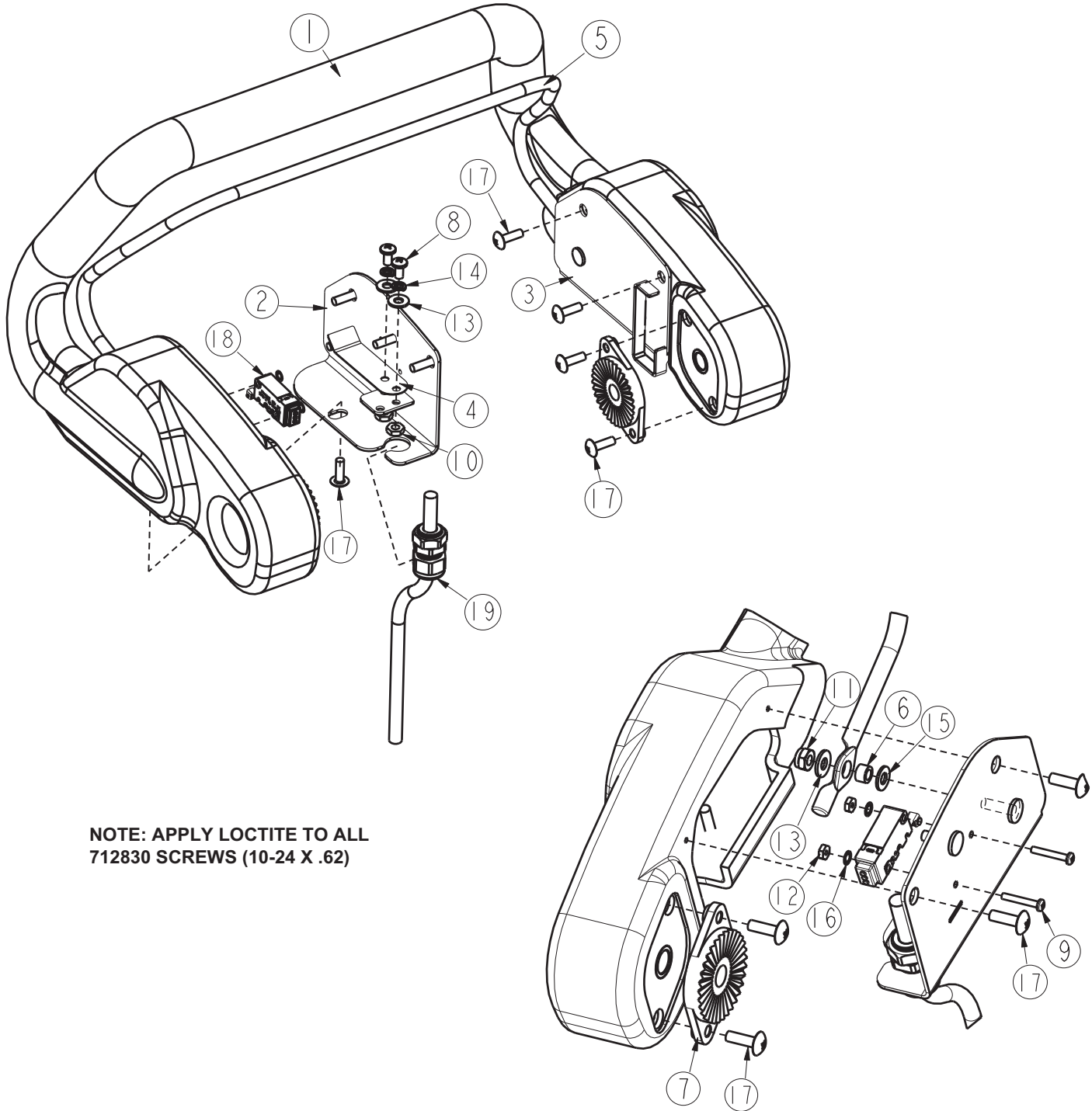
Solution Control Handle Assembly



Solution Control Handle Assembly BOM

| BILL OF MATERIAL - 172577 | | | |
|----------------------------------|-----------------|------------|---|
| ITEM | PART NO. | QTY | DESCRIPTION |
| 1 | 172061 | 1 | LEVER, SOLUTION CONTROL BRK'T |
| 2 | 172424 | 1 | BLT-ELEVATOR 1/4-20 x .75 ZINC |
| 3 | 172575 | 1 | BRKT, AQUASTOP SOL CNTRL |
| 4 | 710195 | 1 | SCR-PHMS 5/16-18 X .50 ZP |
| 5 | 711425 | 1 | NUT-FLANGED WIZZ 1/4-20 ZP |
| 6 | 711508 | 1 | WASHER-FLAT 3/8 X 1.00 X .08 ZP |
| 7 | 711524 | 2 | WASHER-FLAT 3/8 X 1.00 X .08 ZP |
| 8 | 711539 | 1 | WASHER-EXT LOCK 3/8 ZP |
| 9 | 711550 | 2 | WASHER-FLAT 1/4 X .75 NYLON |
| 10 | 711566 | 3 | WASHER-FLAT #12 X .50 X .065 ZP |
| 11 | 711575 | 6 | WASHER-FLAT 1/4 X .75 X .06 ZP |
| 12 | 711592 | 1 | WASHER-FLAT 1/2 X .90 X .064 NYLON |
| 13 | 712070 | 1 | BLT-SHOULDER 5/16 X .75 LG X 1/4-20 BLK |
| 14 | 713598 | 1 | BLT-SHOULDER 1/4 X .313 LG X 10-24 SS |
| 15 | 715690 | 1 | DECAL, AQUASTOP SOLUTION CONTROL |
| 16 | 760592 | 1 | KNOB-OVAL TAPERED |
| 17 | 833214 | 1 | KNOB-3 SIDED 1/4-20 INSERT |
| 18 | 840202 | 1 | BUSHING-FLG .31 X .435 X .325 NYL |
| 19 | 3400399 | 1 | NUT-NYLOC 10-24 SS |

Handle Assembly



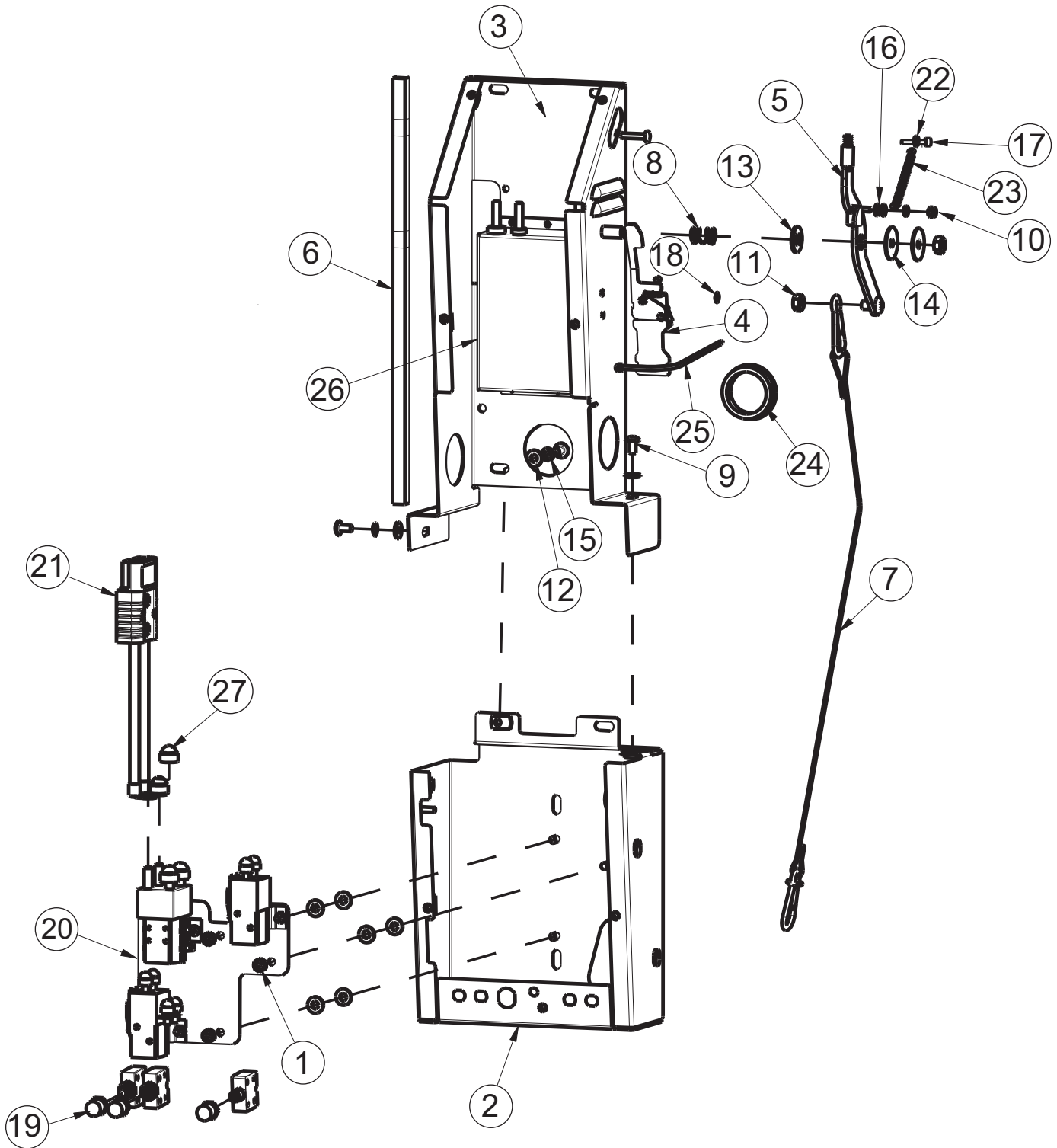
**NOTE: APPLY LOCTITE TO ALL
712830 SCREWS (10-24 X .62)**

Handle Assembly BOM

| BILL OF MATERIAL - 172016 | | | |
|----------------------------------|-----------------|------------|-----------------------------------|
| ITEM | PART NO. | QTY | DESCRIPTION |
| 1 | 172006 | 1 | HANDLE, ES1720 |
| 2 | 172053 | 1 | BAIL PLATE WMT RH |
| 3 | 172054 | 1 | BAIL PLATE WMT LH |
| 4 | 172057 | 2 | LEAF SPRING, ES1720 |
| 5 | 172059 | 1 | ES1720 BAIL, HANDLE |
| 6 | 172074 | 2 | SPACER, 5/16OD X 17GA, ALUM |
| 7 | 270143 | 2 | HANDLE PIVOT JAW |
| 8 | 710353 | 4 | SCR-PHMS 10-32 X .37 ZP |
| 9 | 710493 | 2 | SCR-RHMS 4-40 X .75 ZP |
| 10 | 711310 | 4 | NUT-HEX 10-32 ZP |
| 11 | 711350 | 2 | NUT-NYLOC 10-32 ZP |
| 12 | 711428 | 2 | NUT-HEX 4-40 ZP |
| 13 | 711503 | 6 | WASHER-FLAT #10 X .50 ZP |
| 14 | 711543 | 4 | WASHER-LOCK #10 SPLIT ZP |
| 15 | 712320 | 2 | WASHER-FLAT 20 X .45 X .048 NYLON |
| 16 | 712326 | 2 | WASHER-INT LOCK #4 SS |
| 17 | 712830 | 10 | SCR-THMS 10-24 X .62 ZP |
| 18 | 747603-3 | 1 | SWITCH ASY, MICRO ROLLER W/PACK |
| 19 | 747715 | 1 | ABLE ASY, 5 COND 18G CONSOLE |

Electrical Box Assembly

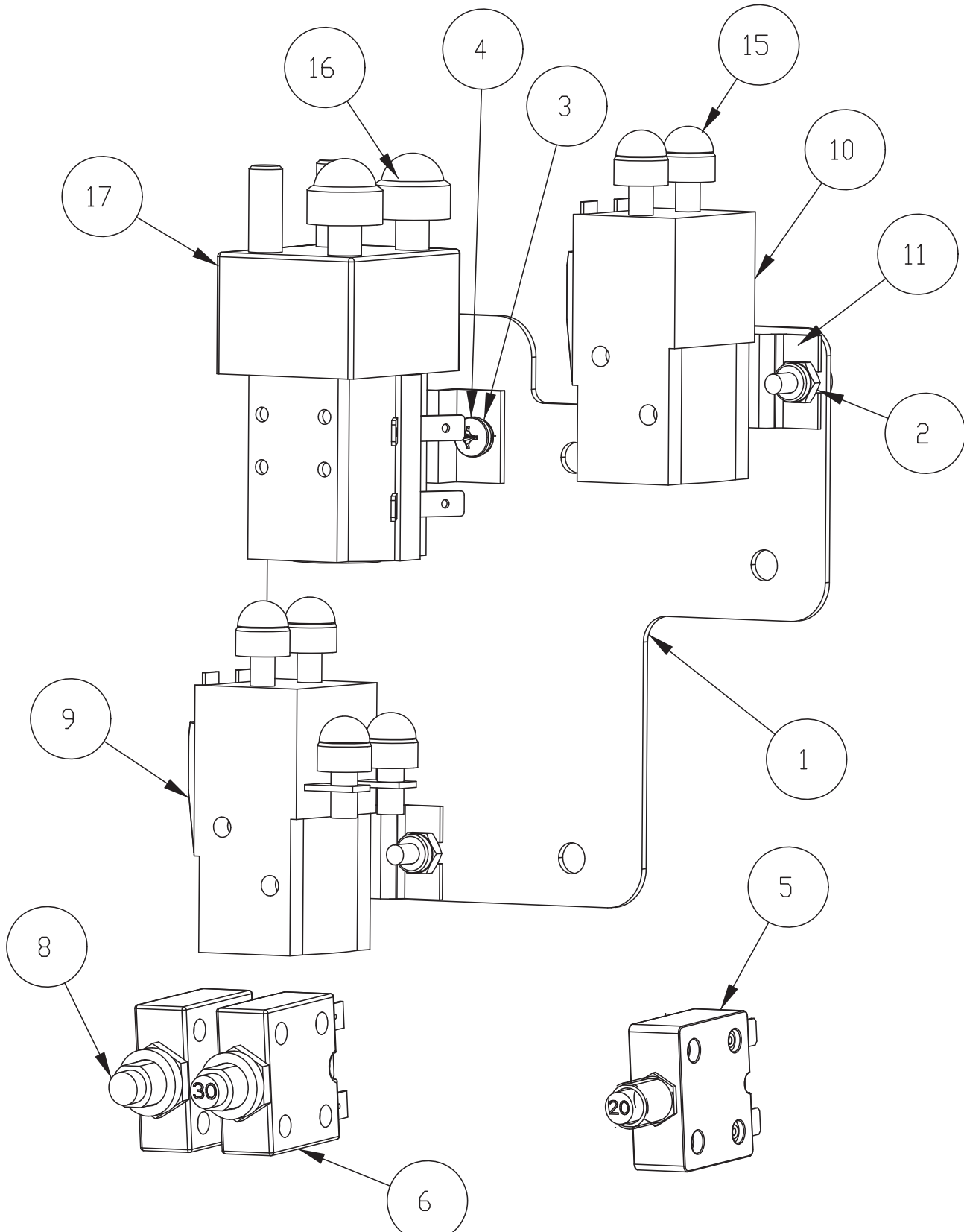
For machines with
Curved Squeegee



Electrical Box Assembly BOM

| BILL OF MATERIAL | | | |
|------------------|----------|-----|--|
| ITEM | PART NO. | QTY | DESCRIPTION |
| 1 | 369-416 | 3 | NUT-HEX 1/4-20 ZP DOUBLE SERRATED |
| 2 | 172077 | 1 | ELEC BOX BOTTOM WMT |
| 3 | 172088 | 1 | ELEC BOX TOP WMT |
| 4 | 172141 | 1 | VAC SWITCH ASSY |
| 5 | 172152 | 1 | WELDMENT-VAC LEVER |
| 6 | 172188 | 1 | FOAM TAPE, 1/2" SQ X 16.5" |
| 7 | 172381 | 1 | SQUEEGEE CABLE ASSY |
| 8 | 670093 | 1 | SPRING-COMP .502 X .6 X 1 ZINC |
| 9 | 710178 | 3 | SCR-THMS 1/4-20 X .50 ZP |
| 10 | 711372 | 1 | NUT-NYLOC 8-32 ZP |
| 11 | 711383 | 2 | NUT-HEX 5/16-18 ZP REVERSE LOC |
| 12 | 711505 | 9 | WASHER-FLAT 1/4 ZP |
| 13 | 711508 | 1 | WASHER-FLAT 3/8 X 1.00 X .08 ZP |
| 14 | 711516 | 2 | WASHER-FLAT 5/16 X 1.25 X .05 ZP |
| 15 | 711544 | 2 | WASHER-LOCK 1/4 SPLIT ZP |
| 16 | 712320 | 2 | WASHER-FLAT 20 X .45 X .048 NYLON |
| 17 | 712533 | 1 | SCR-PHMS 10-24 X 1.25 SS |
| 18 | 712770 | 2 | WASHER-INT TOOTH LOCK #10 SS |
| 19 | 742748 | 3 | CIRCUIT BREAKER-BOOT |
| 20 | 747630 | 1 | ELECTRICAL PANEL ASY, E1720BD |
| 20a | 172189 | 1 | PANEL, RELAY MOUNT |
| 20b | 747609 | 1 | CIRCUIT BREAKER-4.0AMP PUSH BUTTON |
| 20c | 740247 | 1 | CIRCUIT BREAKER-30AMP BUTTON |
| 20d | 740220 | 1 | CIRCUIT BREAKER-20AMP PUSH BUTTON |
| 21 | 747637 | 1 | WIRE ASY, MACHINE-BATTERY E1720 |
| 22 | 760134 | 2 | MOUNT RING |
| 23 | 762084 | 1 | SPRING-EXT .25OD X 2" F.L. MUSIC |
| 24 | 762400 | 1 | BUSH -HEYCO 1-5/8 X 2-1/8 X 29/64 2400 B |
| 25 | 828062 | 1 | CABLE TIE LARGE |
| 26 | *** | 1 | CHARGERS ON PAGE 5 |
| 27 | 15592033 | 2 | CAP, SAFETY NUT COVER M8 |

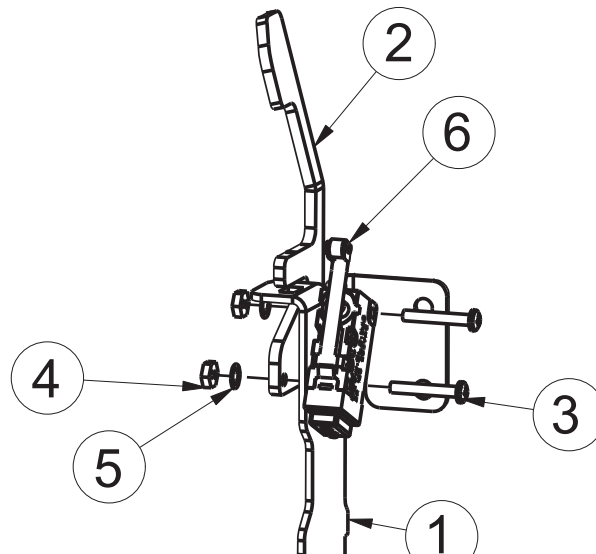
Electrical Panel Assembly



Electrical Panel Assembly BOM

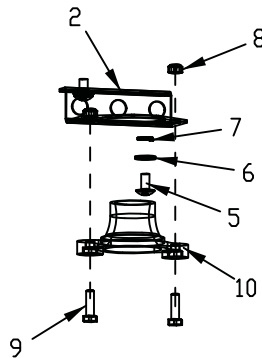
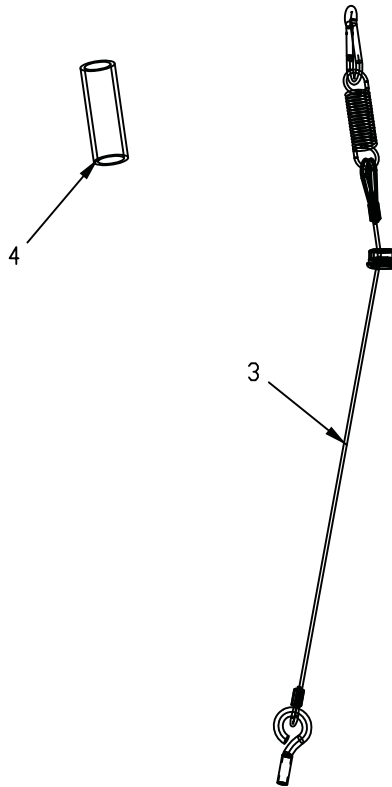
| BILL OF MATERIAL - 747630 | | | |
|----------------------------------|-----------------|--------------|--|
| ITEM | PART NO. | REQ'D | DESCRIPTION |
| 1 | 172189 | 1 | PANEL, RELAY MOUNT |
| 2 | 711350 | 4 | NUT -NYLOC 10-32 |
| 3 | 711543 | 2 | WSR-HELICAL #10 |
| 4 | 712800 | 2 | SCR-MC 10-24 X .25 ST PL |
| 5 | 740220 | 1 | CIRCUIT BREAKER-20AMP 2-T ERMIN |
| 6 | 740247 | 1 | CIRCUIT BREAKER-30AMP PUSH BUT |
| 7 | 740482 | 2 | DIODE ASY, 1N4007 W/PIGGY (NOT SHOWN) |
| 8 | 747609 | 1 | CIRCUIT BREAKER-4.0AMP PUSHBUT |
| 9 | 747615 | 1 | RELAY, 2 POLE CURT IS (1720) |
| 10 | 747616 | 1 | RELAY, 1 POLE CURT IS (1720) |
| 11 | 747619 | 2 | BRACKET , RELAY 747615 & 747616 |
| 12 | 747640 | 1 | WIRE ASY, 10G RED 13" (NOT SHOWN) |
| 13 | 747641 | 1 | WIRE ASY, 10G RED 7" (NOT SHOWN) |
| 14 | 747653 | 1 | WIRE HARNESS, E1720BD MAIN (NOT SHOWN) |
| 15 | 15592025 | 6 | CAP, SAFETY NUT COVER M 6 |
| 16 | 15592033 | 2 | CAP, SAFETY NUT COVER M 8 |
| 17 | 90331026 | 1 | RELAY, 24VDC 2 POLE 100A (HAKO) |

Vacuum Switch Assembly



| BILL OF MATERIAL - 172141 | | | |
|---------------------------|----------|-----|---|
| ITEM | PART NO. | QTY | DESCRIPTION |
| 1 | 172140 | 1 | BKT, VAC SWITCH MOUNT |
| 2 | 172337 | 1 | VAC SWITCH COVER |
| 3 | 710493 | 2 | SCR-RHMS 4-40 X .75 ZP |
| 4 | 711428 | 2 | NUT-HEX 4-40 ZP |
| 5 | 712326 | 2 | WASHER-INT LOCK #4 SS |
| 6 | 747603-2 | 1 | SWITCH ASY, MICRO ROLLER W/PACK/CONDUIT |

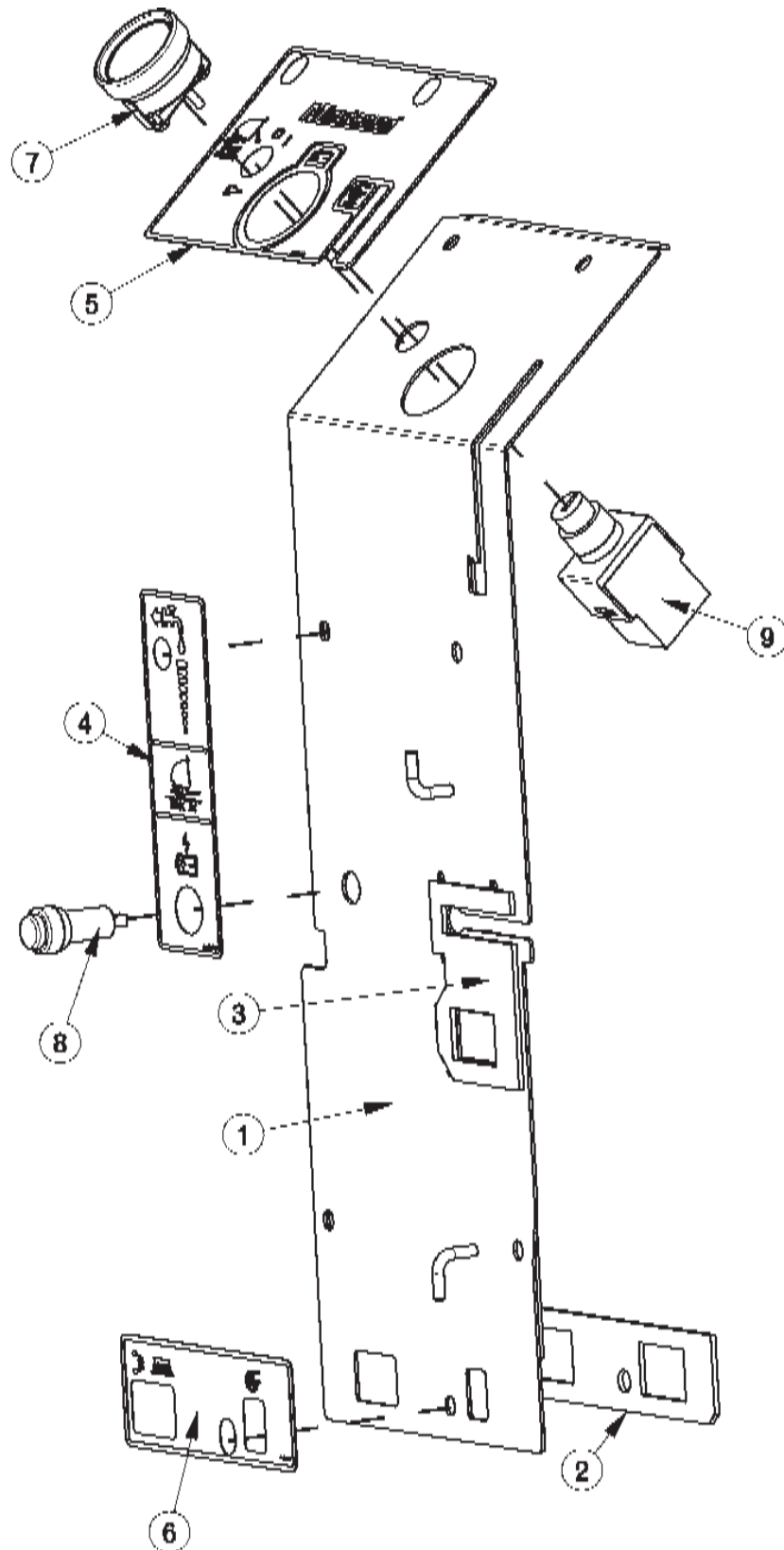
For machines with
Straight Squeegee



For machines with **Straight Squeegee**
Replace Cable Assembly and reference these additional parts

| ITEM | PART NO. | QTY | DESCRIPTION | ITEM | PART NO. | QTY | DESCRIPTION |
|------|----------|-----|----------------------------------|------|----------|-----|---------------------------------|
| 1 | 719 | 1 | LOCTITE | 6 | 711505 | 2 | WASHER-FLAT 1/4 ZP |
| 2 | 172128 | 1 | BKT, LOWER BUSHING MOUNT | 7 | 711544 | 2 | WASHER-LOCK 1/4 SPLIT ZP |
| 3 | 172149 | 1 | CABLE, SQUEEGEE LIFT ASSY, E17BD | 8 | 717018 | 2 | NUT-NYLOC M6 X 1.0 ZP |
| 4 | 172331 | 1 | PIPE, 3/4 X 3.0" SCHD 40 PVC | 9 | 717022 | 2 | SCR-HH M6-1.0 X 20 ZP CLASS 8.8 |
| 5 | 710178 | 2 | SCR-THMS 1/4-20 X .50 ZP | 10 | 90508391 | 1 | BUSHING, CABLE GUIDE, HAKO |

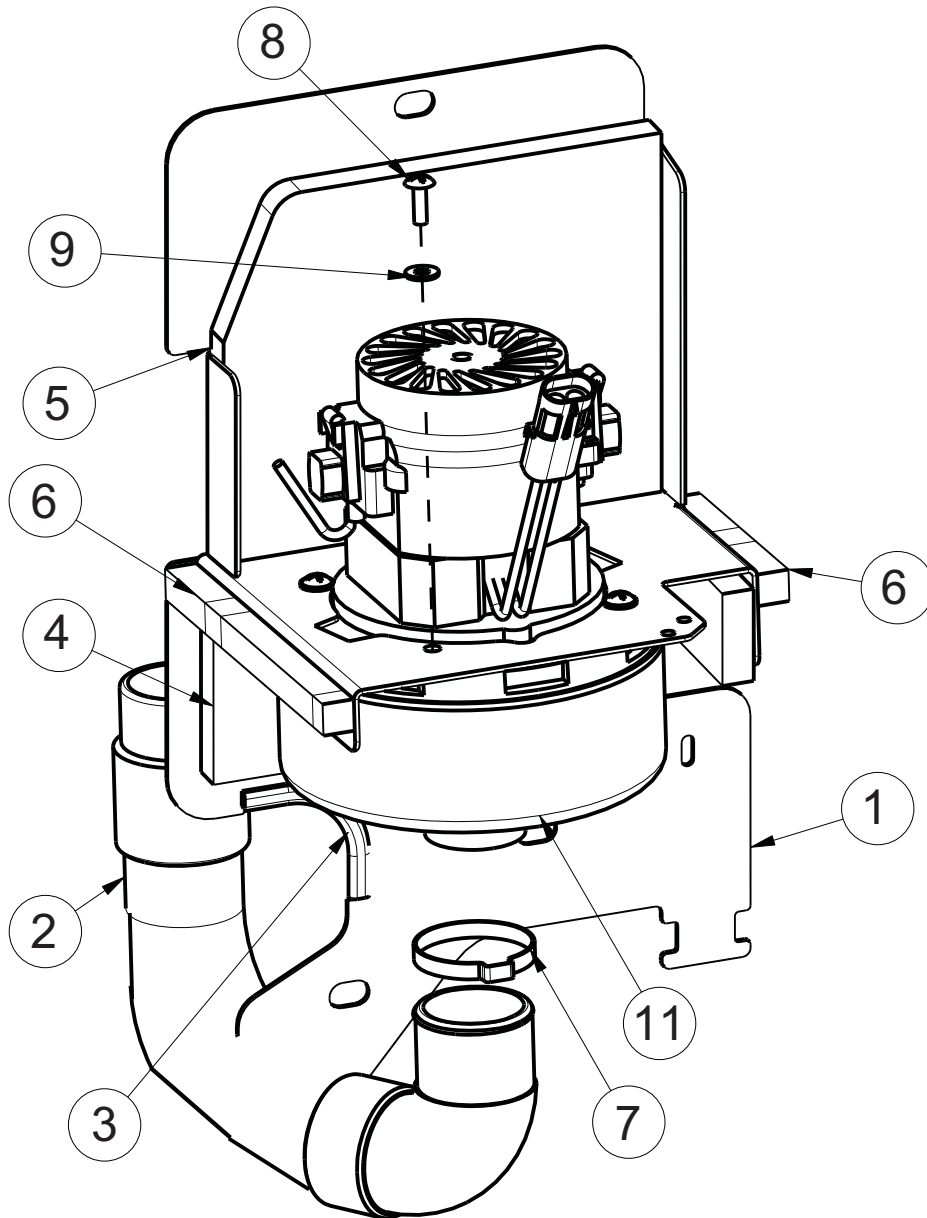
Electrical Box Cover Assembly



Electrical Box Cover Assembly BOM

| BILL OF MATERIAL - 172073 | | | |
|----------------------------------|-----------------|------------|--|
| ITEM | PART NO. | QTY | DESCRIPTION |
| 1 | 172181 | 1 | ELEC BOX, COVER, WMT |
| 2 | 172193 | 1 | GASKET, CB OUTLINE |
| 3 | 172194 | 1 | GASKET, CHARGER CORD PLATE |
| 4 | 715672 | 1 | DECAL, 1720 BD ELEC BOX |
| 5 | 715673 | 1 | DECAL, 1720 BD DASHBOARD |
| 6 | 715675 | 1 | DECAL, BD CIRC BKRS |
| 7 | 740216 | 1 | VOLT METER |
| 8 | *** | 1 | CHARGE STATUS INDICATOR (<i>INCLUDED WITH CHARGER</i>) |
| 9 | 747617-1 | 1 | KEYSWITCH ASY, KEYSWITCH + WIR |

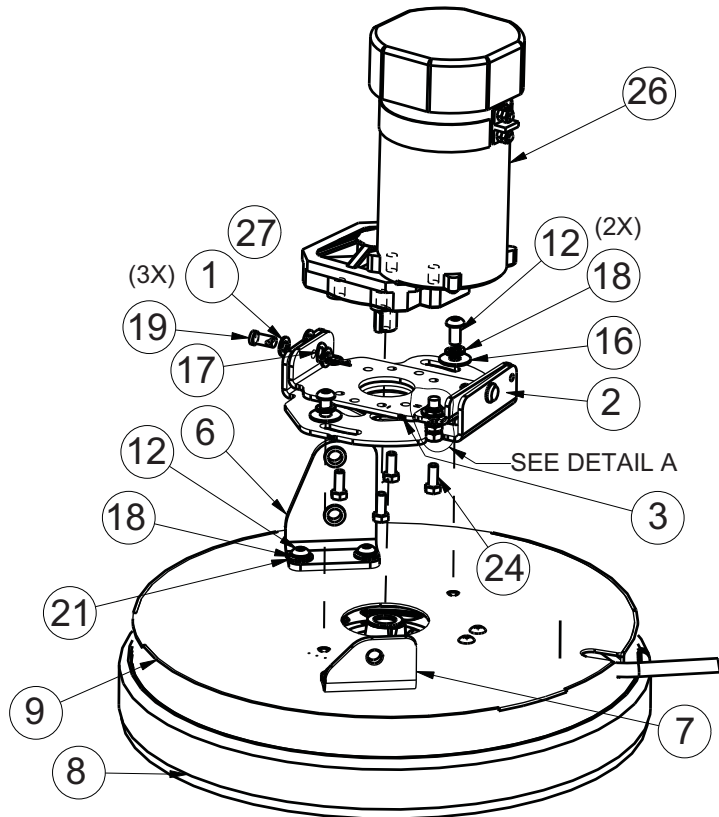
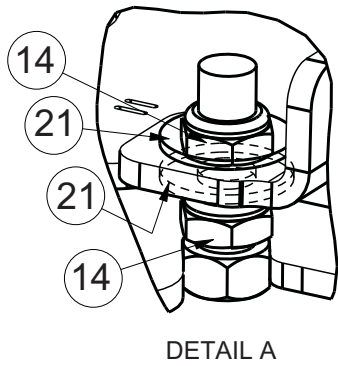
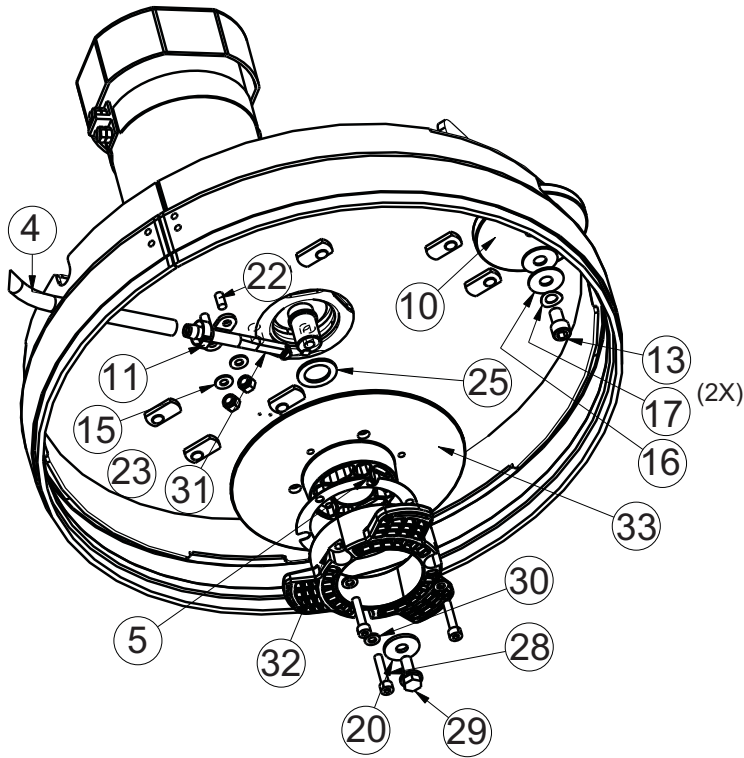
Vac Motor Assembly



Vac Motor Assembly BOM

| BILL OF MATERIAL - 172050 | | | |
|----------------------------------|-----------------|------------|---|
| ITEM | PART NO. | QTY | DESCRIPTION |
| 1 | 172045 | 1 | VAC MOUNT WMT |
| 2 | 172048 | 1 | HOSE, STRETCH 13", 90 CUFF |
| 3 | 172124 | 1 | EDGE TRIM, .063 X 3.0, BLACK |
| 4 | 172186 | 1 | FOAM COVER FRONT 1, 1/2 THICK |
| 5 | 172187 | 1 | FOAM COVER FRONT 2, 1/2" THICK |
| 6 | 172188 | .5 | FOAM TAPE, 1/2" SQ X 16.5" |
| 7 | 450095 | 1 | CLAMP-CRIMP 1.75" OD |
| 8 | 711160 | 4 | SCR-HI/LO 10 X .625 BLACK ZINC |
| 9 | 711503 | 4 | WASHER-FLAT #10 X .50 ZP |
| 10 | 715967 | 1 | DECAL - WARNING, DO NOT PICK UP (NOT SHOWN) |
| 11 | 747607-1 | 1 | VAC MOTOR ASY, 24V PERIF BYPASS |
| | 747665-1 | | VAC MOTOR ASSY, HOSP VERSION |

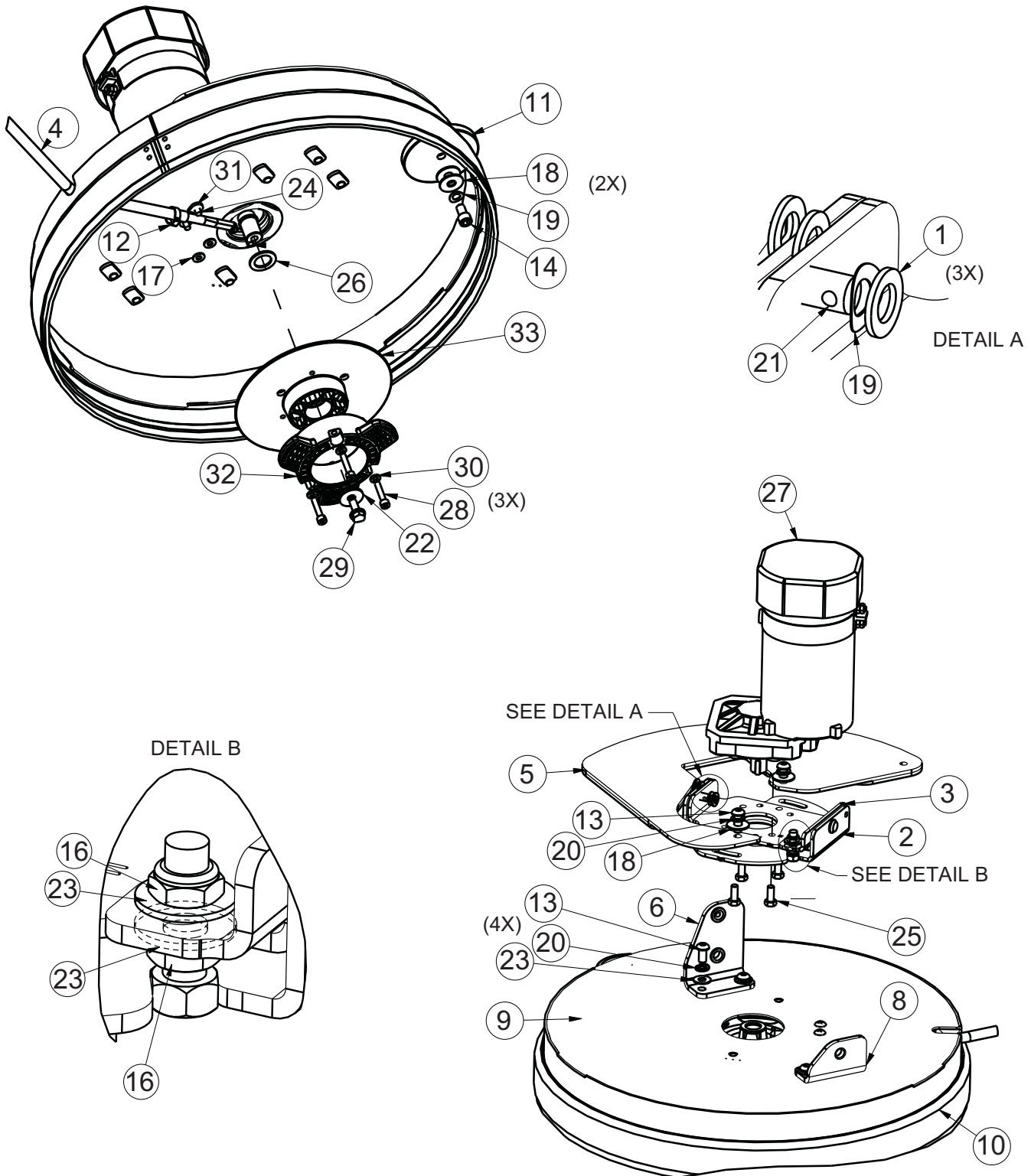
17" Brush Deck Assembly



17" Brush Deck Assembly BOM

| BILL OF MATERIAL - 172090 | | | |
|---------------------------|-----------|-----|--|
| ITEM | PART NO. | QTY | DESCRIPTION |
| 1 | 3400087 | 6 | WASHER-FLAT .390 X .687 ZP |
| 2 | 172040 | 1 | WELDMENT-DECK ANGLE ADJUST |
| 3 | 172044 | 1 | PLATE MOTOR MOUNT |
| 4 | 241097 | 1 | HOSE-WIRE REINF 3/8 X 31" |
| 5 | 172210 | 1 | SPACER, HUB |
| 6 | 172296 | 1 | BKT, E1720 DECK MOUNT RT |
| 7 | 172297 | 1 | BKT, E1720 DECK MOUNT LEFT |
| 8 | 172363-1 | 1 | E17 DECK SKIRT |
| 9 | 172365 | 1 | 17" BRUSH DECK WMT |
| 10 | 210153 | 1 | ROLLER WHEEL |
| 11 | 450076 | 1 | CLAMP-HOSE 5/8 (.590-.791) SS |
| 12 | 710990 | 6 | SCR-BHSCS 3/8-24 X .75 ZP |
| 13 | 710991 | 1 | SCR-HH 3/8-24 X .62 ZP GR 5 |
| 14 | 711375 | 2 | NUT-NYLOC 3/8-16 ZP |
| 15 | 711504 | 2 | WASHER-FLAT 1/4 SS |
| 16 | 711507 | 4 | WASHER-FLAT 3/8 X 1.12 X .06 |
| 17 | 711523 | 3 | WASHER-WAVE .37 X .68 X .08 |
| 18 | 711546 | 6 | WASHER-LOCK 3/8 SPLIT ZP |
| 19 | 711679 | 2 | PIN-CLEVIS 3/8 X .750 ZP |
| 20 | 711855 | 1 | WASHER-FENDER 3/8 X 1.12 X .10 ZP HARD |
| 21 | 712301 | 6 | WASHER-FLAT 3/8 X .87 X .06 ZP |
| 22 | 712565 | 2 | SCR-THMS 1/4-20 X .62 SS |
| 23 | 712667 | 2 | NUT-NYLOC 1/4-20 SS |
| 24 | 717024 | 4 | SCR-HH M8-1.25 X 20 ZP GRADE 8.8 |
| 25 | 717025 | 1 | WASHER-FLAT 13/16 X 1.25 X .08 ZP |
| 26 | 747600 | 1 | MOTOR, 24VDC PM 600W |
| 27 | 3400125 | 2 | RING-RUE 3/8 |
| 28 | 11127000 | 3 | SCR-SHCS M6X30 SS, ISO4762 |
| 29 | 11717203 | 1 | BLT-HH FLG M8X1.25X20 PRECOTE, ZD 10.9 |
| 30 | 12310256 | 3 | WSR-FLT 6.4X12X1.6, SS DIN125 |
| 31 | 90311663 | 1 | FITTING, WATER NOZZLE W/ MOUNT HOLES |
| 32 | 90541814 | 1 | DRIVE HUB, PLASTIC, 3-LOBE |
| 33 | 172096MCH | 1 | HUB BASE MACHINED |

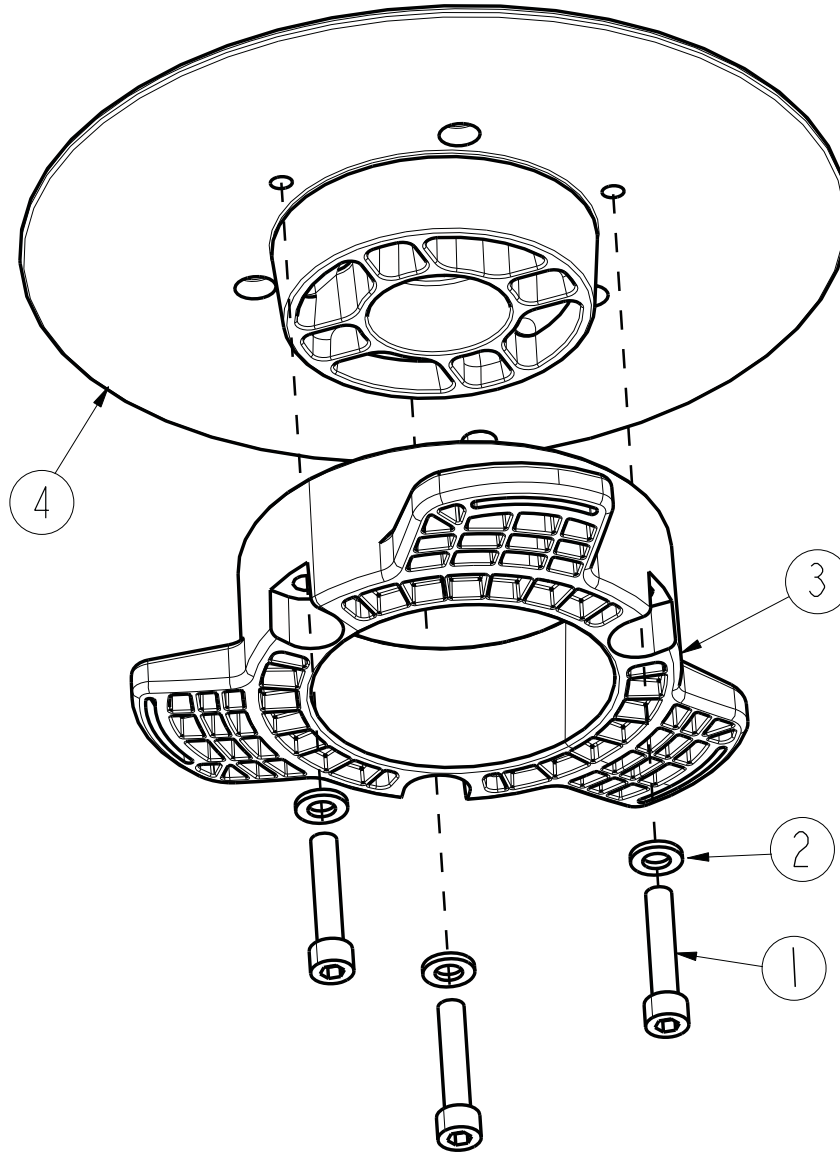
20" Brush Deck Assembly



20" Brush Deck Assembly BOM

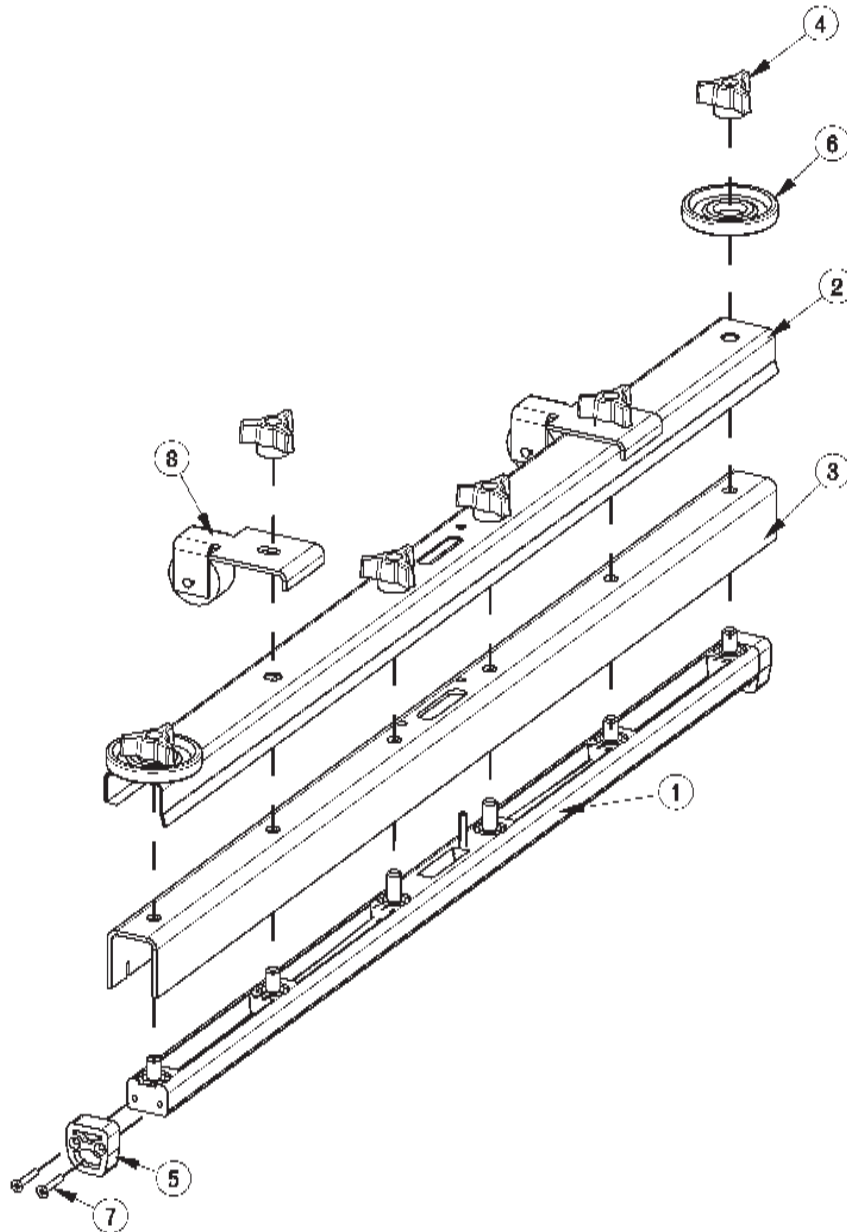
| BILL OF MATERIAL - 172100 | | | |
|---------------------------|-----------|-----|--|
| ITEM | PART NO. | QTY | DESCRIPTION |
| 1 | 3400087 | 6 | WASHER-FLAT .390 X .687 ZP |
| 2 | 172040 | 1 | WELDMENT-DECK ANGLE ADJUST |
| 3 | 172044 | 1 | PLATE MOTOR MOUNT |
| 4 | 241097 | 1 | HOSE-WIRE REINF 3/8 X 31" |
| 5 | 172208-1 | 1 | E20 BRUSH DECK PLATE |
| 6 | 172296 | 1 | BKT, E1720 DECK MOUNT RT |
| 8 | 172297 | 1 | BKT, E1720 DECK MOUNT LEFT |
| 9 | 172375 | 1 | DECK COVER WMT, 20" |
| 10 | 172384 | 1 | E20 FLOATING BRUSH DECK SKIRT |
| 11 | 210153 | 1 | ROLLER WHEEL |
| 12 | 450076 | 1 | CLAMP-HOSE 5/8 (.590-.791) SS |
| 13 | 710990 | 6 | SCR-BHSCS 3/8-24 X .75 ZP |
| 14 | 710991 | 1 | SCR-HH 3/8-24 X .62 ZP GR 5 |
| 16 | 711375 | 2 | NUT-NYLOC 3/8-16 ZP |
| 17 | 711504 | 2 | WASHER-FLAT 1/4 SS |
| 18 | 711507 | 4 | WASHER-FLAT 3/8 X 1.12 X .06 |
| 19 | 711523 | 3 | WASHER-WAVE .37 X .68 X .08 |
| 20 | 711546 | 6 | WASHER-LOCK 3/8 SPLIT ZP |
| 21 | 711679 | 2 | PIN-CLEVIS 3/8 X .750 ZP |
| 22 | 711855 | 1 | WASHER-FENDER 3/8 X 1.12 X .10 ZP HARD |
| 23 | 712301 | 6 | WASHER-FLAT 3/8 X .87 X .06 ZP |
| 24 | 712565 | 2 | SCR-THMS 1/4-20 X .62 SS |
| 25 | 717024 | 4 | SCR-HH M8-1.25 X 20 ZP GRADE 8.8 |
| 26 | 717025 | 1 | WASHER-FLAT 13/16 X 1.25 X .08 ZP |
| 27 | 747600 | 1 | MOTOR, 24VDC PM 600W |
| 28 | 11127000 | 3 | SCR-SHCS M6X30 SS, ISO4762 |
| 29 | 11717203 | 1 | BLT-HH FLG M8X1.25X20 PRECOTE, ZD 10.9 |
| 30 | 12310256 | 3 | WSR-FLT 6.4X12X1.6, SS DIN125 |
| 31 | 90311663 | 1 | FITTING, WATER NOZZLE W/ MOUNT HOLES |
| 32 | 90541814 | 1 | DRIVE HUB, PLASTIC, 3-LOBE |
| 33 | 172096MCH | 1 | HUB BASE MACHINED |

E17/20/H20 Brush Hub Assembly



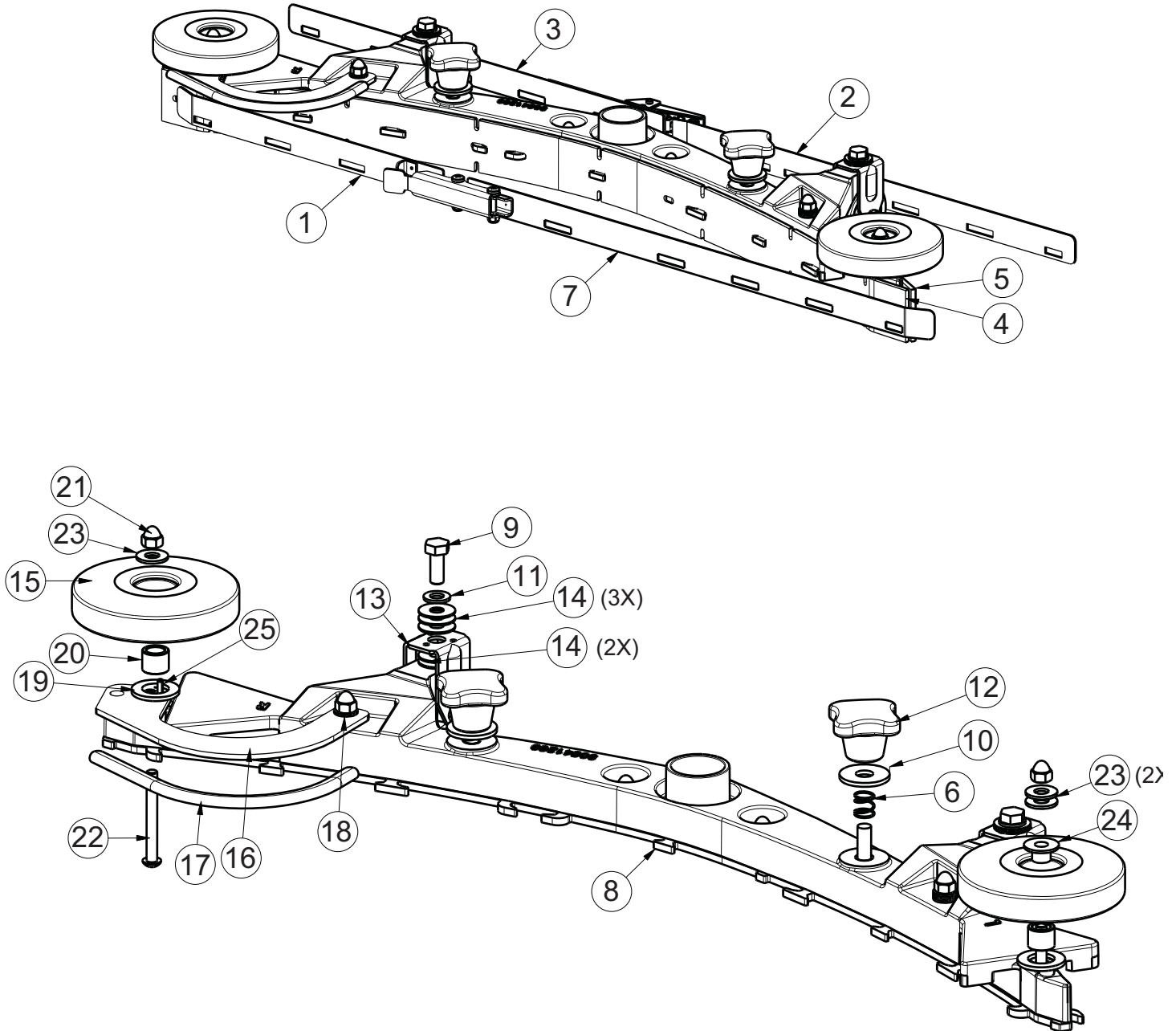
| BILL OF MATERIAL - 172510 | | | |
|---------------------------|-----------|-----|-------------------------------|
| ITEM | PART NO. | QTY | DESCRIPTION |
| 1 | 11127000 | 3 | SCR-SHCS M6X30 SS, ISO4762 |
| 2 | 12310256 | 3 | WSR-FLT 6.4X12X1.6, SS DIN125 |
| 3 | 90541814 | 1 | DRIVE HUB, PLASTIC 3 LOBE |
| 4 | 172096MCH | 1 | BASE, DRIVE HUB WITH KEYWAY |

E17 Rear Squeegee Assembly (Straight)



| BILL OF MATERIAL - 210080 | | | |
|---------------------------|----------|-----|-----------------------------|
| ITEM | PART NO. | QTY | DESCRIPTION |
| 1 | 210023 | 1 | SQUEEGEE CASTING ASY |
| 2 | 210024 | 1 | SQUEEGEE MOUNT BKT |
| 3 | 210065 | 1 | SQUEEGEE BLADE 200 GUM |
| 4 | 430074 | 6 | ADJUSTING NUT 17B/E |
| 5 | 430076 | 2 | NYLON SQUEEGEE INSERT |
| 6 | 430085 | 2 | SQUEEGEE BUMPER WHEEL |
| 7 | 712517 | 4 | SCR-MC 8-32 X 1" ST PL - PH |
| 8 | 831400 | 2 | WHEEL ASSY |

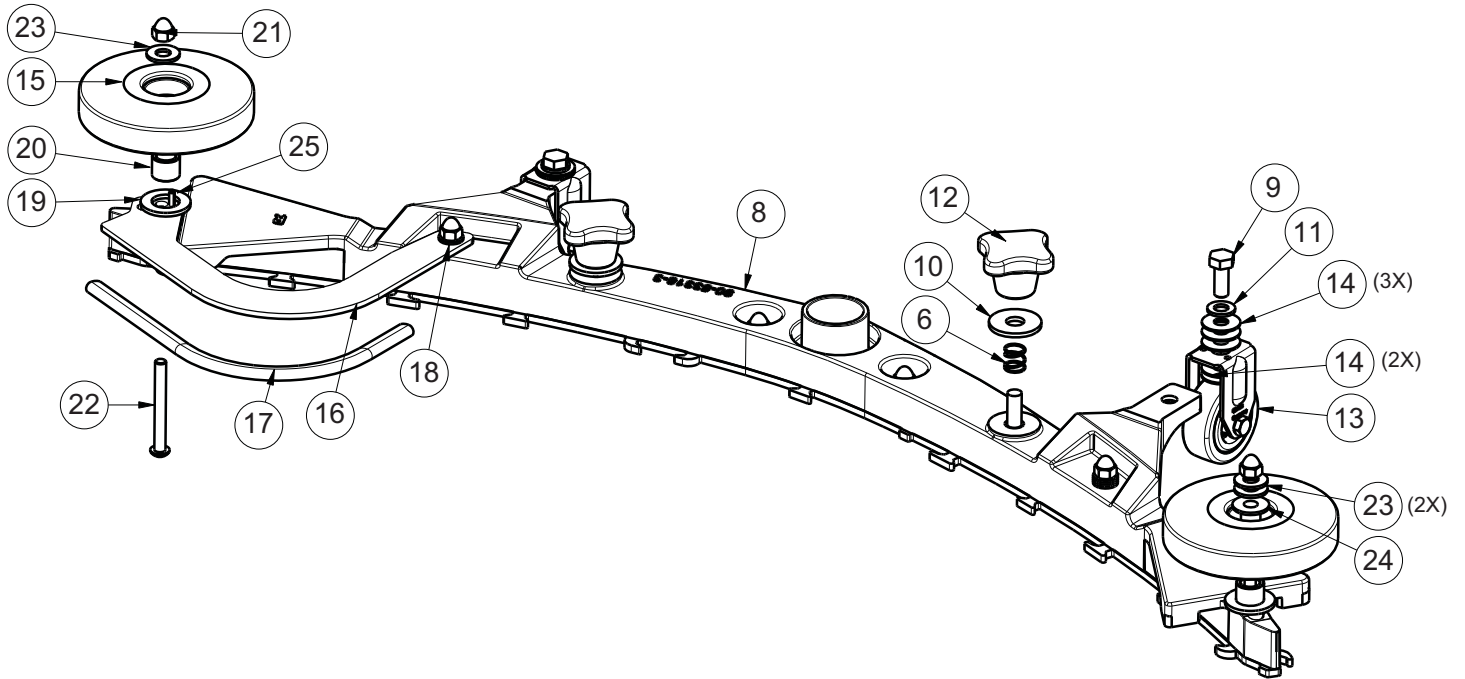
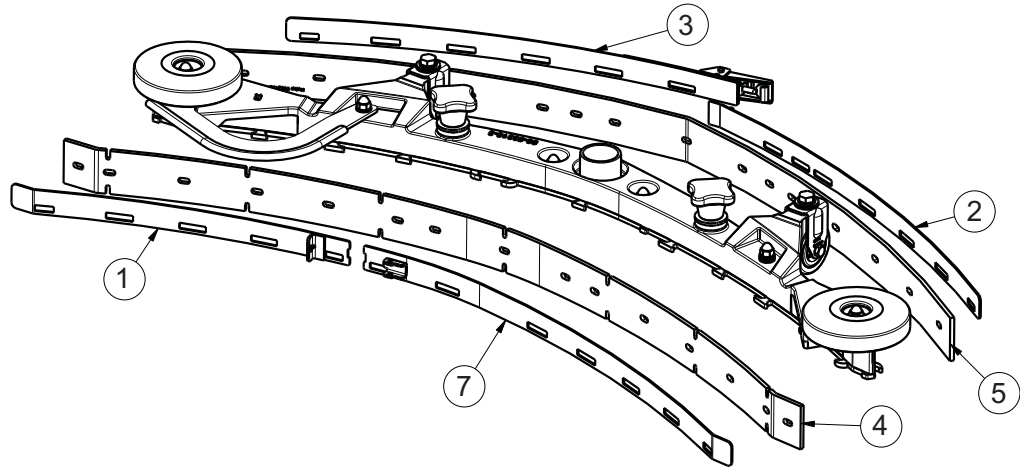
E17 Rear Squeegee Assembly (Curved)



E17 Rear Squeegee Assembly (Curved) BOM

| BILL OF MATERIAL - 172530-1 | | | |
|------------------------------------|-----------------|------------|---|
| ITEM | PART NO. | QTY | DESCRIPTION |
| 1 | 172224 | 1 | STRAP WMT, FRT RT - 30" (760) |
| 2 | 172226 | 1 | STRAP WMT, REAR LEFT - 30" (760) |
| 3 | 172227 | 1 | STRAP WMT, REAR RT - 30" (760) |
| 4 | 172258 | 1 | SQUEEGEE-FRONT BLADE 30", 1/8 PU |
| 5 | 172259 | 1 | SQUEEGEE-REAR BLADE 30", 1/8 PU |
| 6 | 172429 | 2 | SPRING, COMP .4 ID X .5FL SS |
| 7 | 172443 | 1 | STRAP ASM W/ LATCH, FRONT, 30" SQG |
| 8 | 172531 | 1 | 30" SQUEEGEE BASE ASM |
| 9 | 717030 | 2 | SCR-HH M8-1.25 X 20 SS |
| 10 | 717040 | 2 | WASHER-FLAT M10.5 X 30 X 2.5 SS |
| 11 | 730609 | 2 | WSR-FLT M8.4 X 16 X 1.6 A2 SS 140HV DIN |
| 12 | 17133026 | 2 | STAR HANDLE, M10, BLACK |
| 13 | 90513094 | 2 | FIXED CASTER |
| 14 | 90531112 | 10 | WASHER-FLAT 8.3 x 22 x 1.00mm STAINLESS |
| 15 | 90548397 | 2 | ROLLER - PLASTIC, 100mm DIA. (4") |
| 16 | 172257 | 1 | BUMPER, 30" SQG |
| 17 | 172275 | 1 | EDGE TRIM, 5/16 X 8" BLACK |
| 18 | 711504 | 5 | WASHER-FLAT 1/4 SS |
| 19 | 711527 | 2 | WASHER-FLAT .63 X 1.12 X .09 |
| 20 | 430322 | 2 | BUSHING-.435 X .625 X .50 ZINC |
| 21 | 712591 | 6 | NUT-ACORN 1/4-20 SS |
| 22 | 712592 | 2 | SCR-BHSCS 1/4-20 X 2.25 SS |
| 23 | 712772 | 3 | WASHER-FLAT .344 X .75 X .06 SS |
| 24 | 840202 | 1 | BUSHING-FLG .31 X .435 X .325 NYL |
| 25 | 3400727 | 1 | PIN-ROLL 1/8 X .50 ZINC |

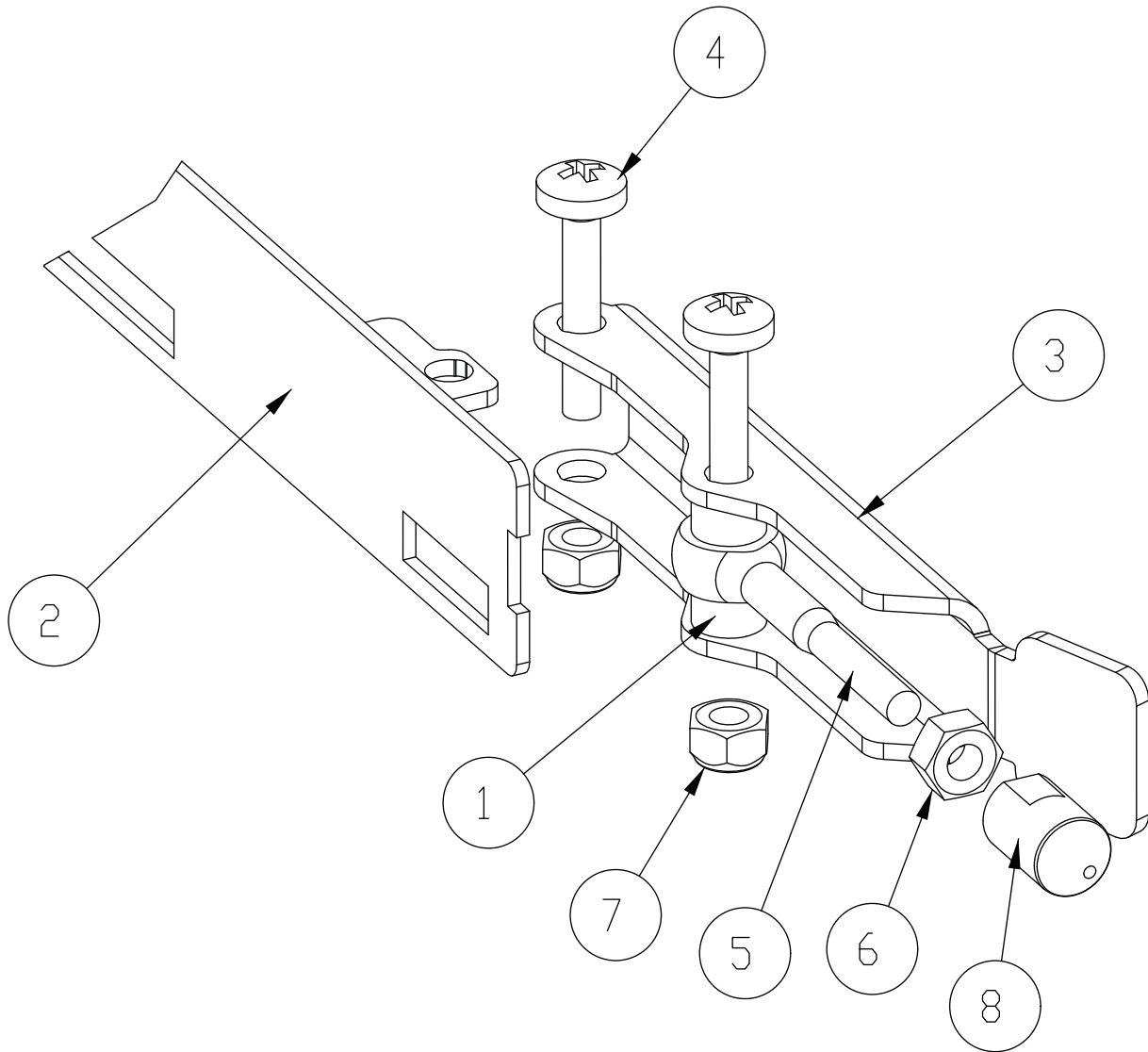
E20/H20 Rear Squeegee Assembly (Curved)



E20/H20 Rear Squeegee Assembly (Curved) BOM

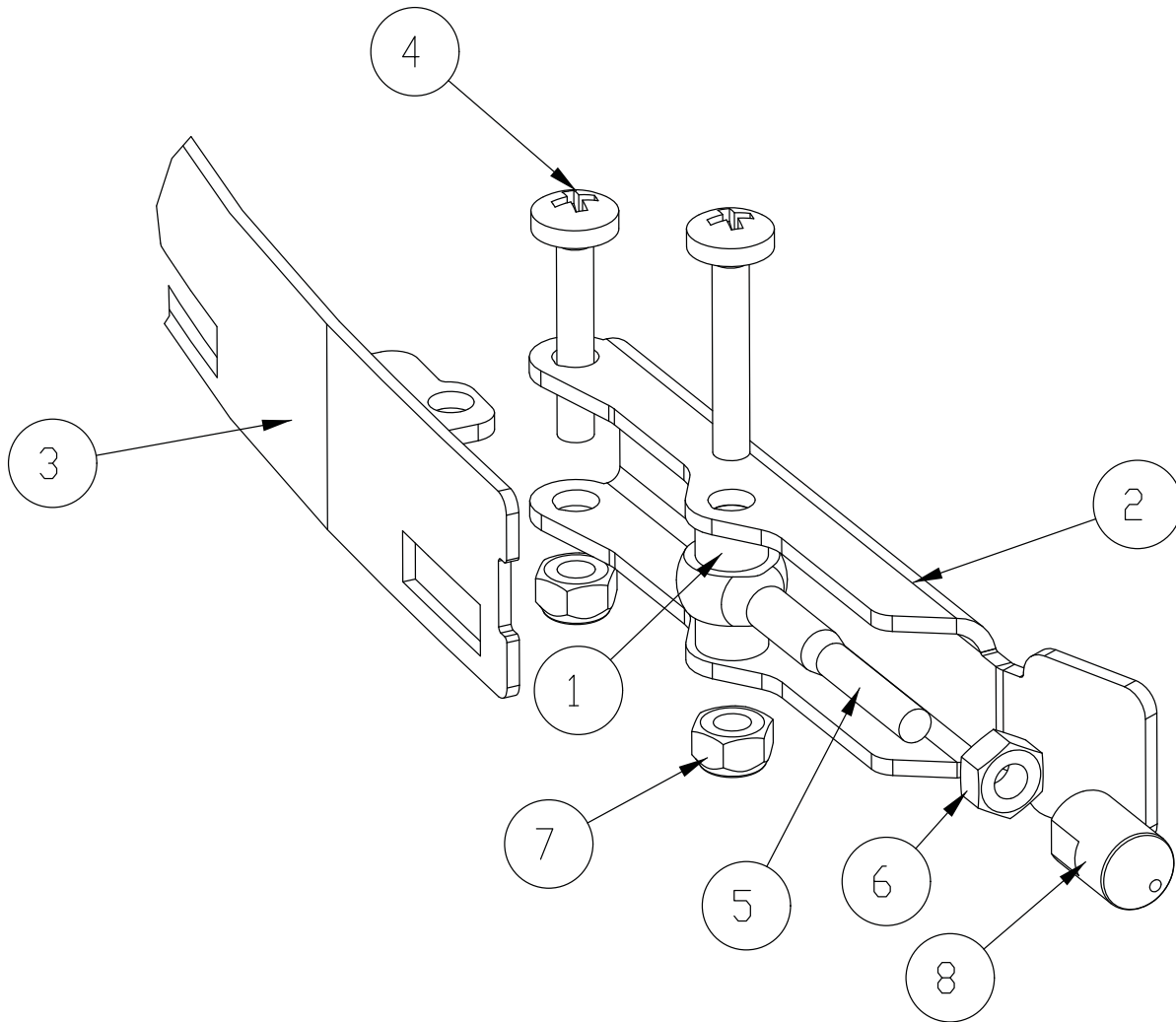
| BILL OF MATERIAL - 172534-1 | | | |
|------------------------------------|-----------------|------------|---|
| ITEM | PART NO. | QTY | DESCRIPTION |
| 1 | 172241 | 1 | STRAP WMT, FRONT RT - 34" (860) SQG |
| 2 | 172245 | 1 | STRAP WMT, REAR LEFT - 34" (860) SQG |
| 3 | 172246 | 1 | WELD-STRAP REAR RT - 34" (860) SQG |
| 4 | 172272 | 1 | SQUEEGEE-FRONT BLADE 34", 1/8 PU |
| 5 | 172273 | 1 | SQUEEGEE-REAR BLADE 34", 1/8 PU |
| 6 | 172429 | 2 | SPRING, COMP .4 ID X .5FL SS |
| 7 | 172440 | 1 | STRAP W/ LATCH, FRONT LEFT, 34" SQG |
| 8 | 90533183 | 1 | CASTING, SQG BODY 34" (860MM) |
| 9 | 717030 | 2 | SCR-HH M8-1.25 X 20 SS |
| 10 | 717040 | 2 | WASHER-FLAT M10.5 X 30 X 2.5 SS |
| 11 | 730609 | 2 | WSR-FLT M8.4 X 16 X 1.6 A2 SS 140HV DIN |
| 12 | 17133026 | 2 | STAR HANDLE, M10, BLACK |
| 13 | 90513094 | 2 | FIXED CASTER |
| 14 | 90531112 | 10 | WASHER-FLAT 8.3 x 22 x 1.00mm STAINLESS |
| 15 | 90548397 | 2 | ROLLER - PLASTIC, 100mm DIA. (4") |
| 16 | 172271 | 1 | BUMPER, 34" SQG |
| 17 | 172274 | 1 | EDGE TRIM, 5/16 X 10" BLACK |
| 18 | 711504 | 5 | WASHER-FLAT 1/4 SS |
| 19 | 711527 | 2 | WASHER-FLAT .63 X 1.12 X .09 |
| 20 | 430322 | 2 | USHING-.435 X .625 X .50 ZINC |
| 21 | 712591 | 6 | NUT-ACORN 1/4-20 SS |
| 22 | 712592 | 2 | SCR-BHSCS 1/4-20 X 2.25 SS |
| 23 | 712772 | 3 | WASHER-FLAT .344 X .75 X .06 SS |
| 24 | 840202 | 1 | BUSHING-FLG .31 X .435 X .325 NYL |
| 25 | 3400727 | 1 | PIN-ROLL 1/8 X .50 ZINC |

E17 Tension Band Sub-Assembly



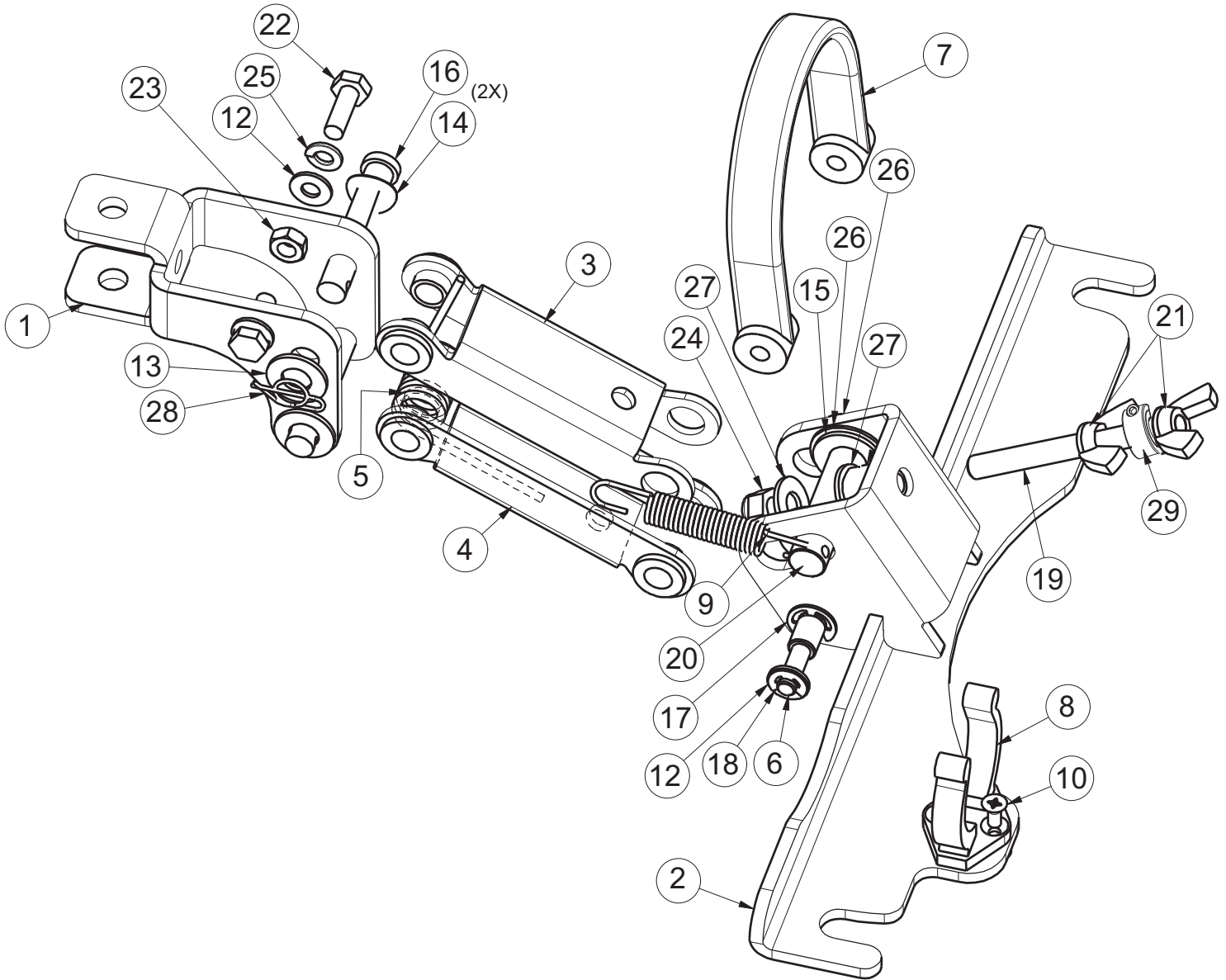
| BILL OF MATERIAL - 172443 | | | |
|---------------------------|----------|-----|------------------------------------|
| ITEM | PART NO. | QTY | DESCRIPTION |
| 1 | 172074 | 2 | SPACER, 5/16OD X 17GA, ALUM |
| 2 | 172223 | 1 | STRAP WMT, FRT LEFT-30" (760) |
| 3 | 172234 | 1 | LEVER, 90535758 |
| 4 | 11175494 | 2 | SCR-MC M5 X 25 SS DIN7985 |
| 5 | 11518313 | 1 | BLT-EYE M5 X 40 SS |
| 6 | 12022430 | 1 | NUT- HEX, M5, SS DIN934 |
| 7 | 12040283 | 2 | NUT- HEX, M5 NYLON LOCK, SS DIN985 |
| 8 | 90513631 | 1 | PIN, THD 90513631 |

E20/H20 Tension Band Sub-Assembly



| BILL OF MATERIAL - 172440 | | | |
|---------------------------|----------|-----|------------------------------------|
| ITEM | PART NO. | QTY | DESCRIPTION |
| 1 | 172074 | 2 | SPACER, 5/16OD X 17GA, ALUM |
| 2 | 172234 | 1 | LEVER, 90535758 |
| 3 | 172240 | 1 | STRAP WMT, FRONT LEFT |
| 4 | 11175494 | 2 | SCR-MC M5 X 25 SS DIN7985 |
| 5 | 11518313 | 1 | BLT-EYE M5 X 40 SS |
| 6 | 12022430 | 1 | NUT- HEX, M5, SS DIN934 |
| 7 | 12040283 | 2 | NUT- HEX, M5 NYLON LOCK, SS DIN985 |
| 8 | 90513631 | 1 | PIN, THD 90513631 |

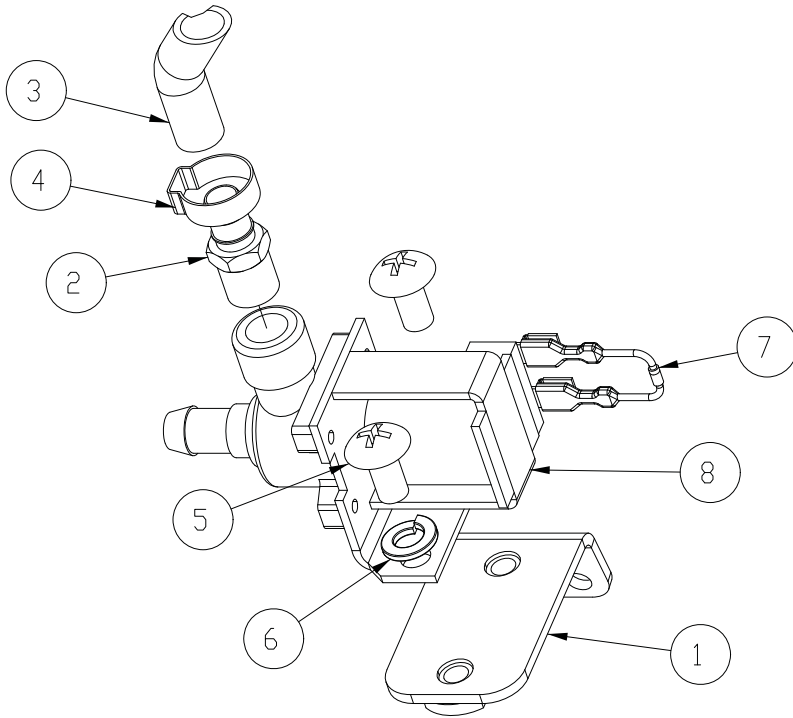
E17/E20/H20 Squeegee Mechanism Assembly



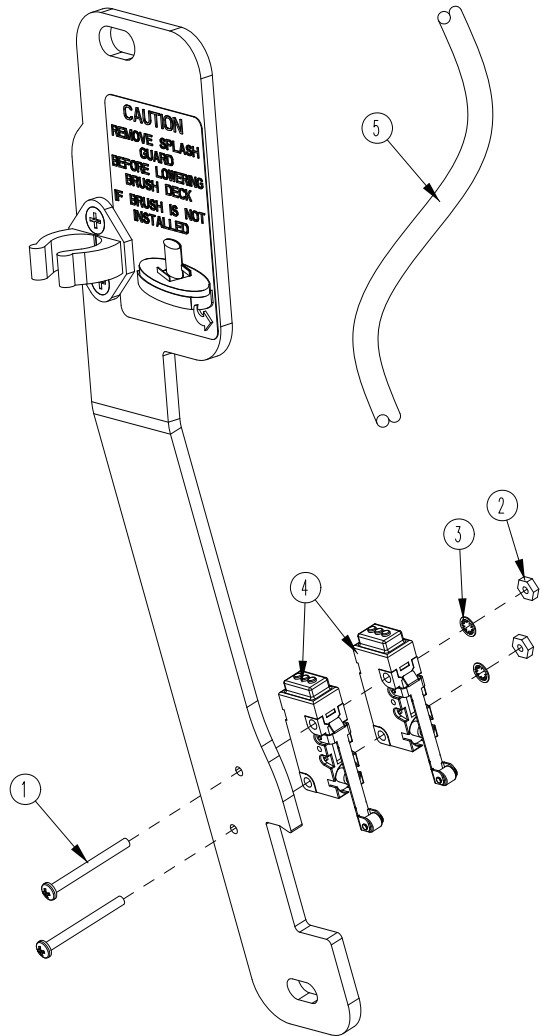
E17/E20/H20 Squeegee Mechanism Assembly BOM

| BILL OF MATERIAL - 172150 | | | |
|---------------------------|----------|-----|--|
| ITEM | PART NO. | QTY | DESCRIPTION |
| 1 | 172134 | 1 | BKT, SQG HINGE |
| 2 | 172155 | 1 | SQUEEGEE MOUNT WMT |
| 3 | 172196 | 1 | UPPER SQG LINK |
| 4 | 172197 | 1 | LOWER SQG LINK |
| 5 | 172261 | 1 | SPRING, TORSION 1720 SQG |
| 6 | 172352 | 1 | PIN, 3/8 X 3.0, SQG STRAP |
| 7 | 172357 | 1 | STRAP, 9" PU, BLACK |
| 8 | 260579 | 1 | CLIP-TOOL 1.5 INCH HOSE |
| 9 | 430051 | 1 | SPRING-RETURN .313 X .438 X 2.93 SS |
| 10 | 710528 | 2 | SCR-FHMS 8-32 X .37 BRASS |
| 11 | 711420 | 1 | NUT-JAM 5/16-18 ZP |
| 12 | 711504 | 4 | WASHER-FLAT 1/4 SS |
| 13 | 712767 | 2 | WASHER-FLAT .406 X .75 X .035 SS |
| 14 | 711523 | 2 | WASHER-WAVE .37 X .68 X .08 |
| 15 | 711592 | 2 | WASHER-FLAT 1/2 X .90 X .064 NYLON |
| 16 | 711678 | 2 | PIN-CLEVIS 3/8 X 2 1/4 ZP |
| 17 | 711717 | 2 | RET RING-E EXT .37 |
| 18 | 711720 | 2 | RET RING-E EXT .25 |
| 19 | 712147 | 1 | ROD-THD 5/16-18 X 3.25 SS |
| 20 | 712148 | 1 | PIN-CLEVIS 1/2 X 2.25 WITH HOLE |
| 21 | 712157 | 2 | NUT-WING 5/16-18 SS |
| 22 | 712562 | 2 | SCR-HH 1/4-20 X .75, 18-8 SS |
| 23 | 712665 | 2 | NUT-HEX 1/4-20 SS |
| 24 | 712683 | 1 | NUT-NYLOC 5/16-18 SS |
| 25 | 712758 | 2 | WASHER-LOCK 1/4 SPLIT SS |
| 26 | 712760 | 3 | WASHER-FLAT .56 X 1.06 X .04 SS |
| 27 | 712772 | 2 | WASHER-FLAT .344 X .75 X .06 SS |
| 28 | 3400125 | 1 | RING-RUE 3/8 |
| 29 | 713528 | 1 | COLLAR-THREADED CLAMP 5/16-18X5/16-BK OX |

Kit K-E1720S - Water Solenoid Valve



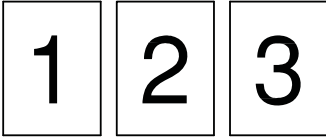
| BILL OF MATERIAL - 172169 | | | |
|---------------------------|----------|-----|---------------------------------------|
| ITEM | PART NO. | QTY | DESCRIPTION |
| 1 | 172168 | 1 | BKT, BD SOLENOID MOUNT |
| 2 | 320264 | 1 | FITTING BRASS - 3/8 DBL BARB X 1/4MPT |
| 3 | 450055 | 1 | HOSE-NYLO REINF 3/8 X 9" |
| 4 | 450076 | 1 | CLAMP-CRIMP 185R SS |
| 5 | 710196 | 2 | SCR-MC 5/16-18 X .62 |
| 6 | 711545 | 2 | WSR-HELICAL 5/16 |
| 7 | 740482 | 1 | DIODE ASY, 1N4007 W/PIGGY |
| 8 | 740493 | 1 | WATER VALVE 24VDC |



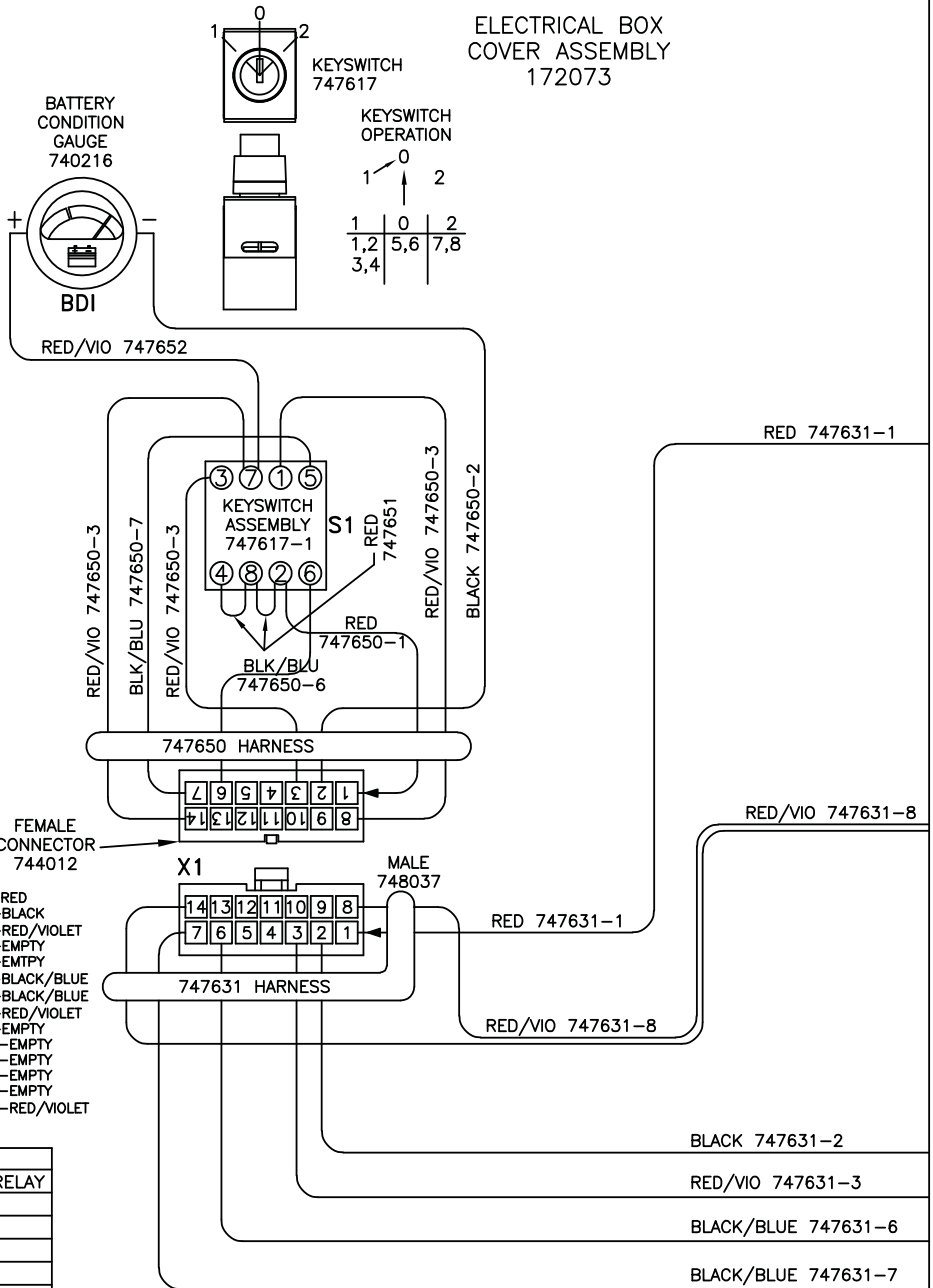
| BILL OF MATERIAL - | | | |
|--------------------|----------|-----|---|
| ITEM | PART NO. | QTY | DESCRIPTION |
| 1 | 710495 | 2 | SCR-MC 4-40 X 1.25 STL Z |
| 2 | 711428 | 2 | NUT-HEX 4-40 |
| 3 | 712326 | 2 | WSR-INT LOCK #4 |
| 4 | 747603-2 | 2 | SWITCH ASY, MICRO ROLLER W/PACK/CONDUIT |
| 5 | 747660 | 1 | HARNESS, SOLENOID KIT E1720BD |

1 Wiring Diagrams

PAGE LAYOUT



PAGES GO TOGETHER AS SHOWN TO SEE THE ENTIRE SCHEMATIC AS ONE.



- 1-RED
- 2-BLACK
- 3-RED/VIOLET
- 4-EMPTY
- 5-EMPTY
- 6-BLACK/BLUE
- 7-BLACK/BLUE
- 8-RED/VIOLET
- 9-EMPTY
- 10-EMPTY
- 11-EMPTY
- 12-EMPTY
- 13-EMPTY
- 14-RED/VIOLET

X1:MAIN KEYSWITCH ASSEMBLY: 747617-1

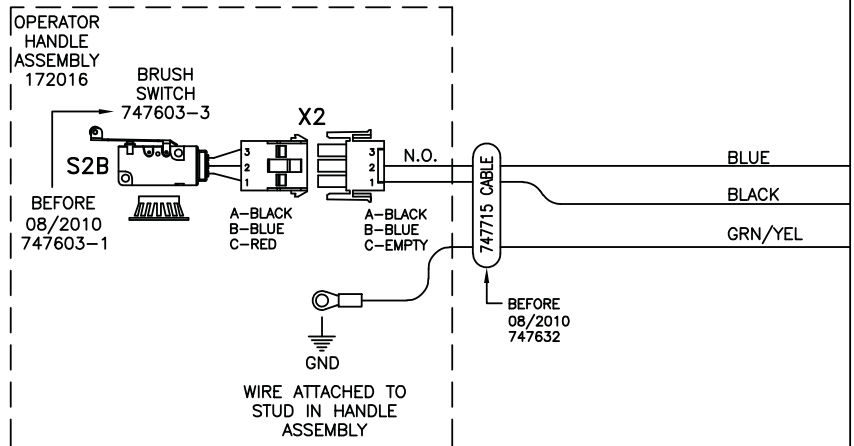
| PIN # | COLOR | WHERE TO/FROM |
|-------|------------|-------------------------------------|
| 1 | RED | X13: BATTERY CHARGER INTERNAL RELAY |
| 2 | BLACK | RELAY COILS: 0V |
| 3 | RED/VIOLET | BRUSH MOTOR RELAY COIL: 24VDC |
| 4 | - | - |
| 5 | - | - |
| 6 | BLACK/BLUE | BRUSH RELAY NORMALLY CLOSED |
| 7 | BLACK/BLUE | BRUSH UNLOAD SWITCH P:B |
| 8 | RED/VIOLET | X12: MAIN RELAY COIL: 24VDC |
| 9 | - | - |
| 10 | - | - |
| 11 | - | - |
| 12 | - | - |
| 13 | - | - |
| 14 | RED/VIOLET | X12: MAIN RELAY COIL: 24VDC |

BATTERY CHARGER: 957937, 957938 or 957939

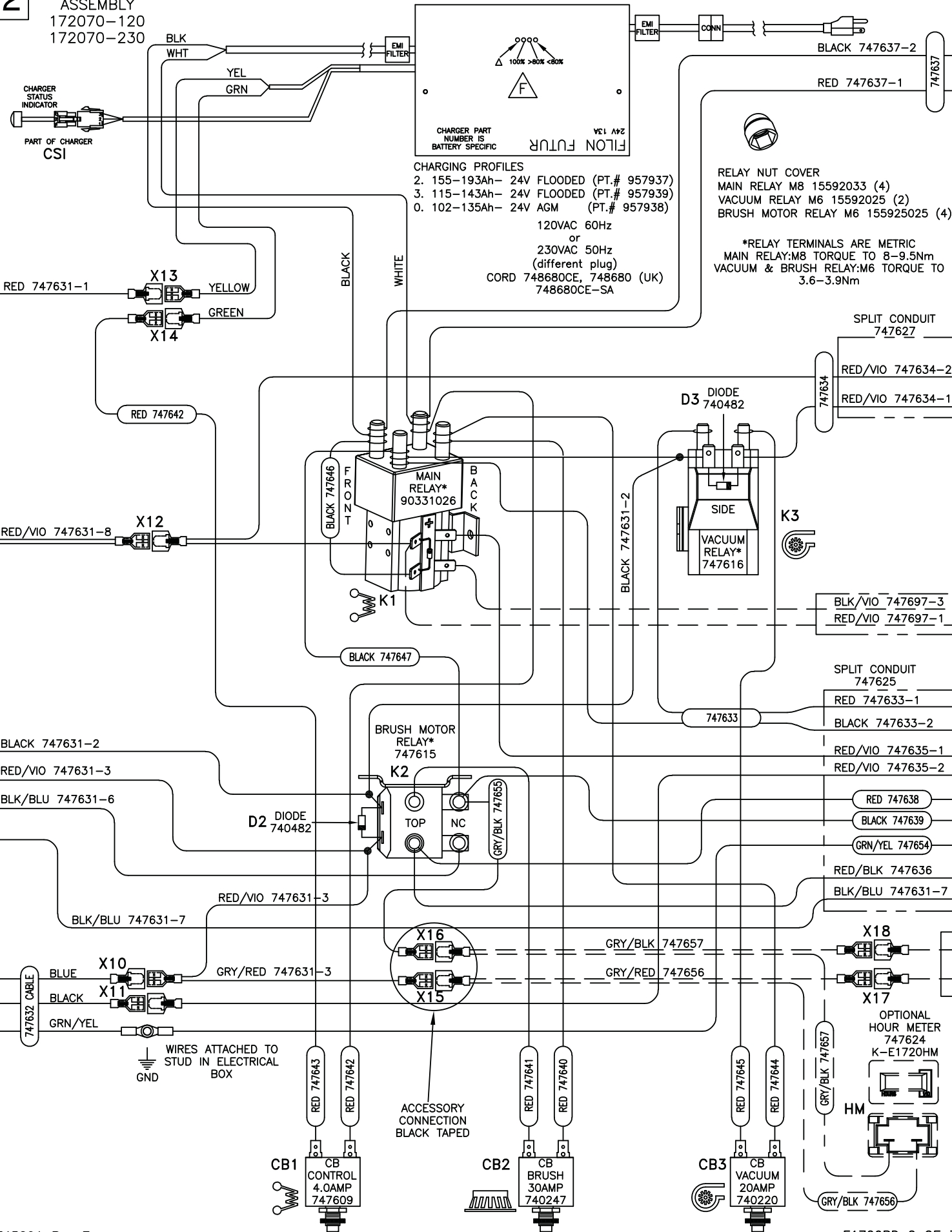
| | COLOR | WHERE TO/FROM |
|------|--------|--------------------------------|
| X13 | YELLOW | X13: KEYSWITCH P:1 |
| X14 | GREEN | X14: CONTROL CB 4.0A |
| 14GA | WHITE | MAIN RELAY + (REAR LEFT POST) |
| 14GA | BLACK | MAIN RELAY - (FRONT LEFT POST) |

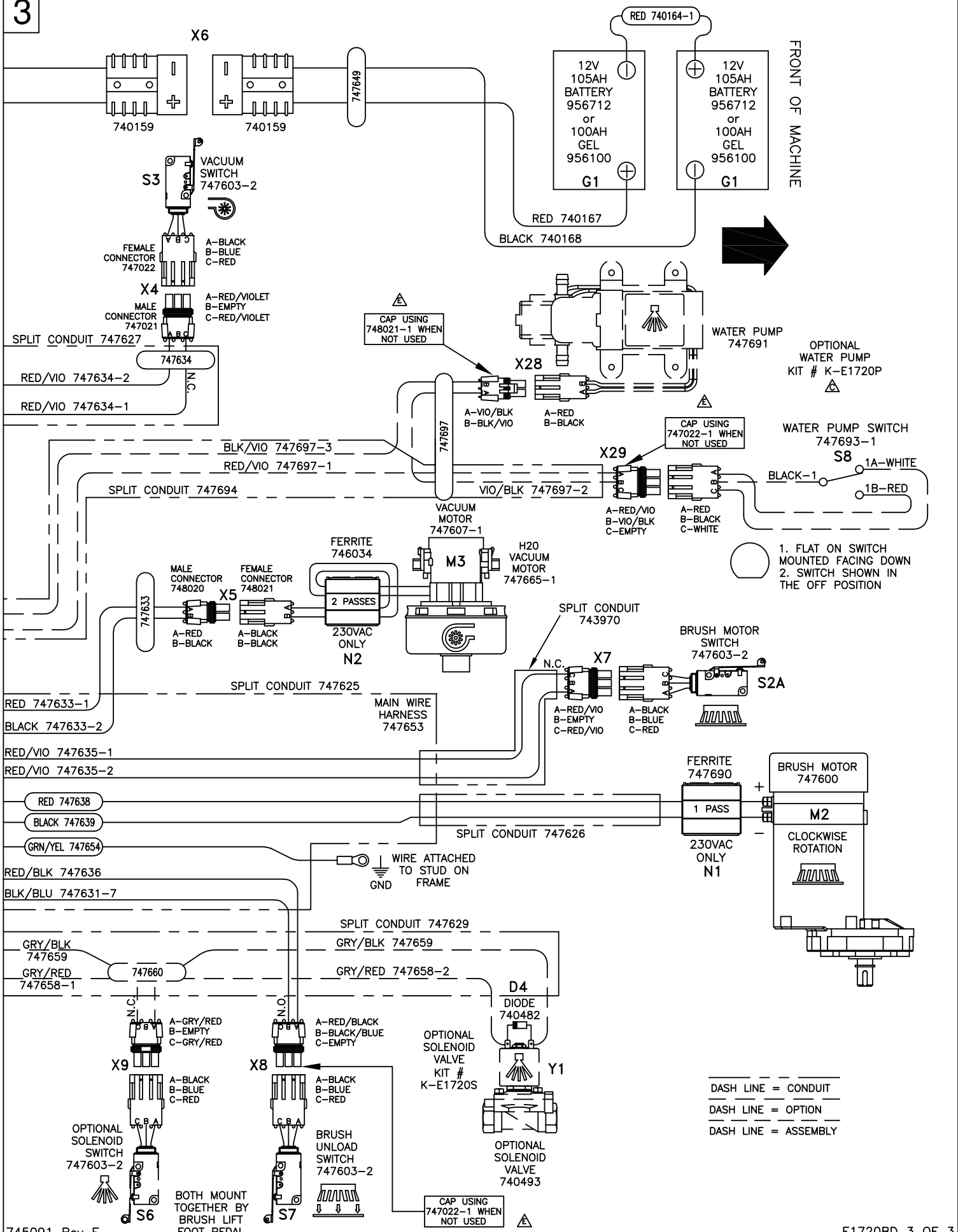
OTHER WIRE COLORS

| | | |
|-----|--------------|-----------------------------------|
| - | RED | BATTERY 24VDC: + |
| - | BLACK | BATTERY 0VDC: - |
| - | GREEN/YELLOW | GROUND |
| - | BLACK/BLUE | BRUSH UNLOAD CIRCUIT |
| - | RED/BLACK | BRUSH UNLOAD CIRCUIT:MICRO SWITCH |
| - | RED/VIOLET | 24VDC AFTER MAIN KEYSWITCH |
| X15 | GREY/RED | OPTIONAL POWER 24VDC: 3A MAX |
| X16 | GREY/BLACK | OPTIONAL POWER 0VDC: 3A MAX |



2 ELECTRICAL BOX ASSEMBLY
172070-120
172070-230





E1720BD PART REFERENCE LIST
Schematic 745091

| REFERENCE # | COMPONENT NAME | PART NUMBER |
|---------------------|--|--------------------|
| M1 (optional) | PUMP, WATER (KIT K-E1720P) | 747691 |
| M2 | MOTOR, BRUSH | 747600 |
| M3 | MOTOR, VACUUM ASSEMBLY | 747607-1 |
| M3 (model specific) | MOTOR, VACUUM ASSEMBLY (H2O only) | 747665-1 |
| Y1 (optional) | SOLENOID VALVE, WATER (KIT K-E1720S) | 740493 |
| K1 | RELAY, MAIN | 90331026 |
| K2 | RELAY, BRUSH MOTOR | 747615 |
| K3 | RELAY, VACUUM | 747616 |
| CB1 | CIRCUIT BREAKER 4.0A, CONTROL | 747609 |
| CB2 | CIRCUIT BREAKER 30A, BRUSH MOTOR | 740247 |
| CB3 | CIRCUIT BREAKER 20A, VACUUM MOTOR | 740220 |
| S1 | KEYSWITCH | 747617 |
| S2A | SWITCH, BRUSH MOTOR (at motor) | 747603-2 |
| S2B | SWITCH, BRUSH MOTOR (handle) | 747603-1 |
| S3 | SWITCH, VACUUM MOTOR | 747603-2 |
| S6 | SWITCH, BRUSH UNLOAD | 747603-2 |
| S7 (optional) | SWITCH, SOLENOID (KIT K-1720S) | 747603-2 |
| S8 (optional) | SWITCH, PUMP- OFF AISLE WAND (KIT K-1720P) | 747693-1 |
| CSI | CHARGER STATUS INDICATOR | 747614 |
| HM (optional) | HOUR METER (KIT K-E1720HM) | 747624 |
| BC (model specific) | BATTERY CHARGER 115VAC (battery type specific) | 957761 (-1 or G-4) |
| BC (model specific) | BATTERY CHARGER 230VAC (battery type specific) | 957760 (-1 or G-4) |
| G1 | BATTERY, 12V 105AH (2 REQUIRED) | 956712 |
| G1 (optional) | BATTERY, GEL 12V 100AH (2 REQUIRED) | 956100 |
| N1 | FERRITE, BRUSH MOTOR | 747690 |
| N2 | FERRITE, VACUUM MOTOR | 746034 |
| D1 | DIODE, MAIN RELAY | Part of K1 |
| D2 | DIODE ASM, BRUSH MOTOR RELAY | 740482 |
| D3 | DIODE ASM, VACUUM MOTOR RELAY | 740482 |
| D4 (optional) | DIODE ASM, SOLENOID VALVE (KIT K-E1720S) | 740482 |

| REFERENCE # | CONNECTOR FUNCTION | PART # -female | PART # -male |
|----------------|---|----------------|--------------|
| X1 | KEYSWITCH (S1) | 744012 | 748037 |
| X2 | SWITCH, BRUSH MOTOR (S2B) | 747022 | 747021 |
| X3 | CHARGER STATUS INDICATOR (CSI) | Part of CSI | Part of BC |
| X4 | SWITCH, VACUUM (S3) | 747022 | 747021 |
| X5 | MOTOR, VACUUM (M3) | 748021 | 748020 |
| X6 | BATTERY CONNECTOR | 740159 | 740159 |
| X7 | SWITCH, BRUSH MOTOR (S2A) | 747022 | 747021 |
| X8 | SWITCH, BRUSH UNLOAD (S4) | 747022 | 747021 |
| X9 | SOLENOID VALVE, WATER (Y1) | 747022 | 747021 |
| X10 | OPERATOR HANDLE CABLE | 741093 | 740697 |
| X11 | OPERATOR HANDLE CABLE | 740366 | 740697 |
| X12 | KEYSWITCH (S1)- MAIN RELAY COIL (K1) | 741093 | 741165 |
| X13 | BATTERY CHARGER (BC)- INTERNAL RELAY | 740366 | 740697 |
| X14 | BATTERY CHARGER (BC)-INTERNAL RELAY | 740366 | 740697 |
| X15 | SOLENOID (Y1) /HOUR METER CONNECTION (HM) | 740366 | 741165 |
| X16 | SOLENOID (Y1) /HOUR METER CONNECTION (HM) | 740366 | 741165 |
| X17 | OPTIONAL HOUR METER (HM) WIRE-747656 | 740366 | 741165 |
| X18 | OPTIONAL HOUR METER (HM) WIRE-747657 | 740366 | 741165 |
| X28 (optional) | SWITCH, TOGGLE WATER PUMP (S8) | 747022 | 747021 |
| X29 (optional) | PUMP, OFF AISLE WAND (M1) | 748021 | 748020 |

Warranty

Minuteman International Made Simple Commercial Limited Warranty

REVISION Q EFFECTIVE 4/10/18

Minuteman International, Inc. warrants to the original purchaser/user that the product is free from defects in workmanship and materials under normal use. Minuteman will, at its option, repair or replace without charge, parts that fail under normal use and service when operated and maintained in accordance with the applicable operation and instruction manuals. All warranty claims must be submitted through and approved by factory authorized repair stations.

This warranty does not apply to normal wear, or to items whose life is dependent on their use and care, such as belts, cords, switches, hoses, rubber parts, brushes, electrical motor components or adjustments. Parts manufactured by Minuteman are covered by and subject to the warranties and/or guarantees of their manufacturers. Please contact Minuteman for procedures in warranty claims against these manufacturers.

Special warning to purchaser -- Use of replacement filters and/or pre-filters not manufactured by Minuteman or its designated licensees, will void all warranties expressed or implied. A potential health hazard exists without original equipment replacement.

All warranted items become the sole property of Minuteman or its original manufacturer, whichever the case may be.

Minuteman disclaims any implied warranty, including the warranty of merchantability and the warranty of fitness for a particular purpose. Minuteman assumes no responsibility for any special, incidental or consequential damages.

This limited warranty is applicable only in the U.S.A. and Canada, and is extended only to the original user/purchaser of this product. Customers outside the U.S.A. and Canada should contact their local distributor for export warranty policies. Minuteman is not responsible for costs or repairs performed by persons other than those specifically authorized by Minuteman. This warranty does not apply to damage from transportation, alterations by unauthorized persons, misuse or abuse of the equipment, use of non-compatible chemicals, or damage to property, or loss of income due to malfunctions of the product.

If a difficulty develops with this machine, you should contact the dealer from whom it was purchased.

This warranty gives you specific legal rights, and you may have other rights which vary from state to state. Some states do not allow the exclusion or limitation of special, incidental or consequential damages, or limitations on how long an implied warranty lasts, so the above exclusions and limitations may not apply to you.

| Model | Parts | Labor | Poly | Travel** |
|---|--------------|--------------|-------------|-----------------|
| Cord Electric Group | 5yrs | 3yrs | 12yrs | 90 days |
| Battery Auto Scrubbers (incl. on board charger) | 5yrs | 3yrs | 12yrs | 90 days |
| Battery and Manual Sweepers | 3yrs | 3yrs | 12yrs | 90 days |

Exceptions.....

| Model | Parts | Labor | Poly | Travel** |
|---|--------------|--------------|-------------|-----------------|
| Port A Scrub, all models (incl. on board charger) | 1yr | 6months | 12yrs | 90 days |
| A3S Blower | 1yr | 1yr | 0 | 0 |
| Phenom Dual Motor Upright Vacuums | 2yrs | 2yrs | 0 | 0 |
| Explosion Proof Vacuum | 1yr | 1yr | 0 | 0 |
| Propane Burnisher | 1yr | 1yr | 0 | 90 days |
| E14BQP and E14115 scrubber | 1yr | 1yr | 12yrs | 90 days |
| EZ-Mop | 1yr | 1yr | 0 | 90 days |
| ROS-17 | 1yr | 1yr | 0 | 90 days |
| **Travel, 2 hours max | | | | |

| | |
|--------------------------------------|---|
| <i>Stand-alone Battery Chargers:</i> | One year |
| <i>Replacement Parts:</i> | Ninety days |
| <i>Batteries:</i> | 0-3 months full replacement, 4-12 months pro-rate |
| <i>Polypropylene Plastic Tanks:</i> | 12yr warranty, no additional labor |

“Excellence Meets Clean”

**Minuteman is a Full Line Manufacturer of Sweepers and Scrubbers,
for Industrial Facilities.**