

# ICE USA

A DIVISION OF ICE COBOTICS

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## Operator & Parts Manual

Ride-on Auto Sweeper



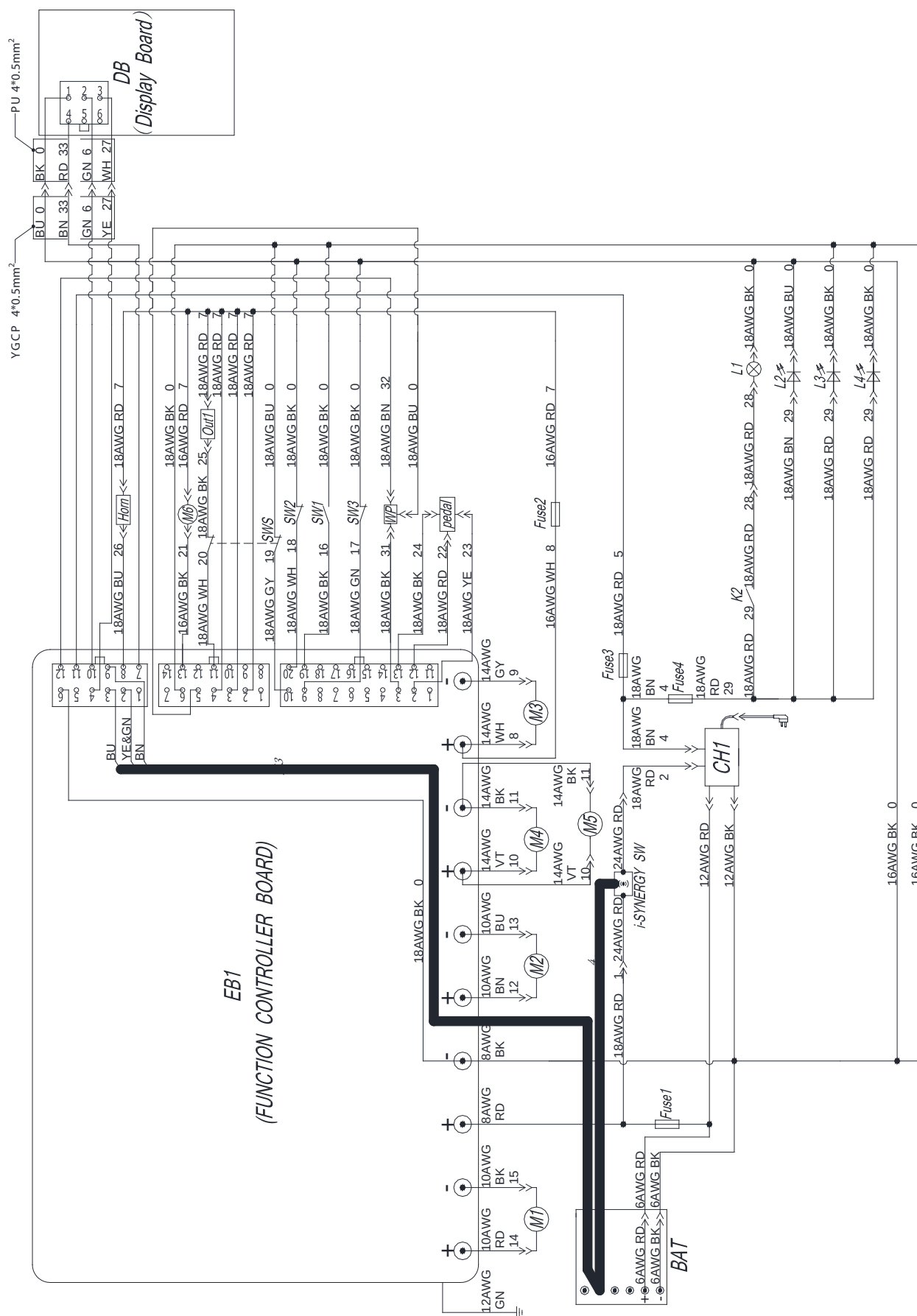
**iS1100L+**

**i-SYNERGY**  
Cleaning Management in Motion

7000474U  
REV.01(05-2020)

**INTELLIGENT CLEANING EQUIPMENT**

## ICE iS1100L+



## WIRING DIAGRAM

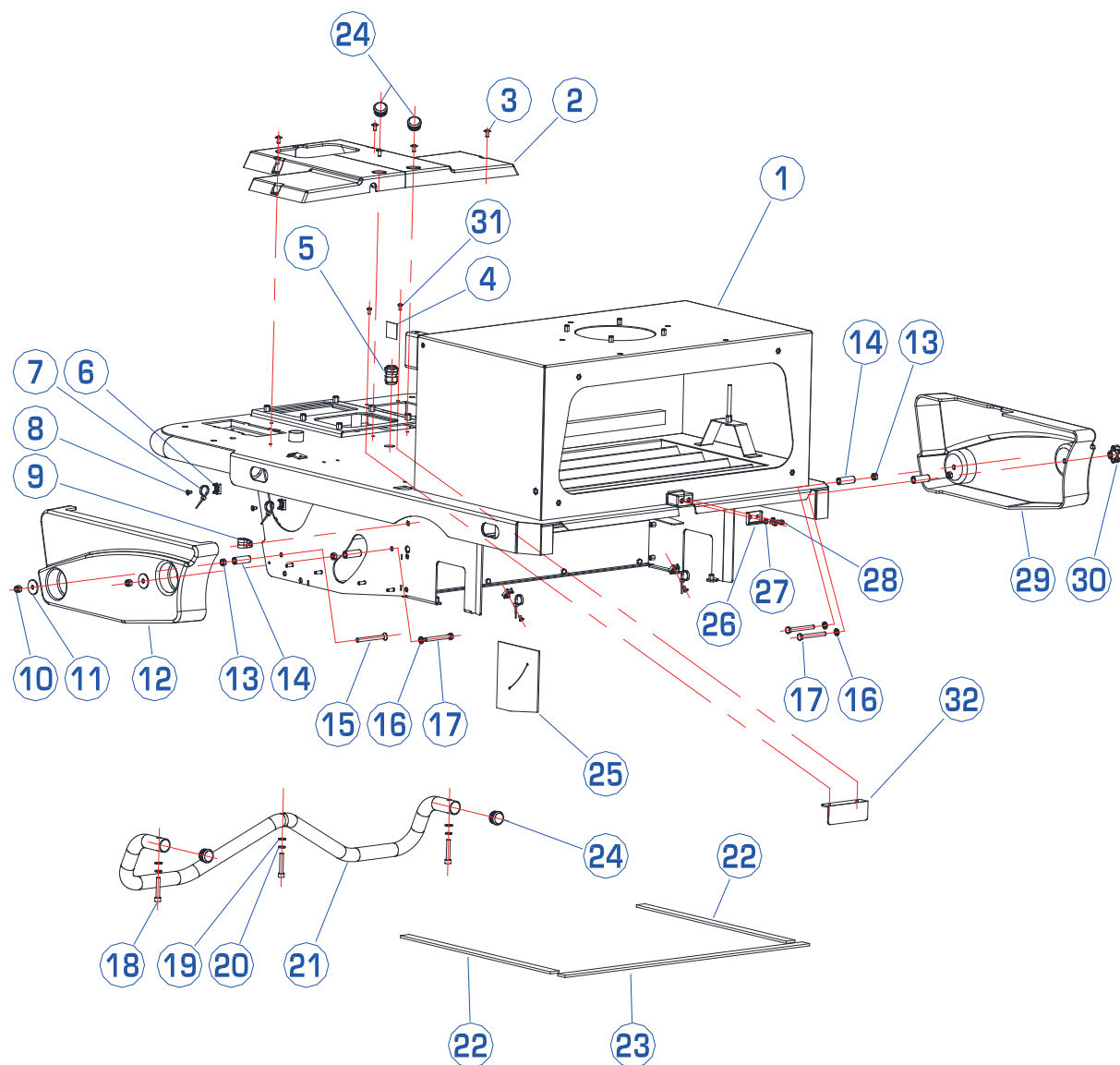
### Key

|              |                                          |
|--------------|------------------------------------------|
| BAT          | Batteries, 24V                           |
| CH1          | Battery charger                          |
| DB           | Display board                            |
| EB1          | Function controller board                |
| Fuse1        | Main fuse (150A)                         |
| Fuse2        | Vacuum fan&Horn&Electrobrake (15A)       |
| Fuse3        | Display card fuse (5A)                   |
| Fuse4        | Working light & flashing light fuse (3A) |
| i-SYNERGY SW | i-SYNERGY starting up switch             |
| K2           | Working light switch                     |
| L1           | Working light                            |
| L2           | Led light                                |
| L3           | Flashing light (left)                    |
| L4           | Flashing light (right)                   |
| M1           | Drive system motor                       |
| M2           | Main brush motor                         |
| M3           | Vacuum fan                               |
| M4           | Right side brush motor                   |
| M5           | Left side brush motor                    |
| M6           | Filter shaker motor                      |
| Pedal        | Drive speed potentiometer (pedal)        |
| Out1         | Electrobrake output                      |
| SWS          | Emergency push-button                    |
| SW1          | Driver's seat safety microswitch         |
| SW2          | Main brush microswitch                   |
| SW3          | Side brush microswitch                   |
| WP           | Cleaning area sensor                     |

### Color code

|    |        |
|----|--------|
| BK | Black  |
| BU | Blue   |
| BN | Brown  |
| GN | Green  |
| GY | Grey   |
| RD | Red    |
| VT | Violet |
| WH | White  |
| YE | Yellow |

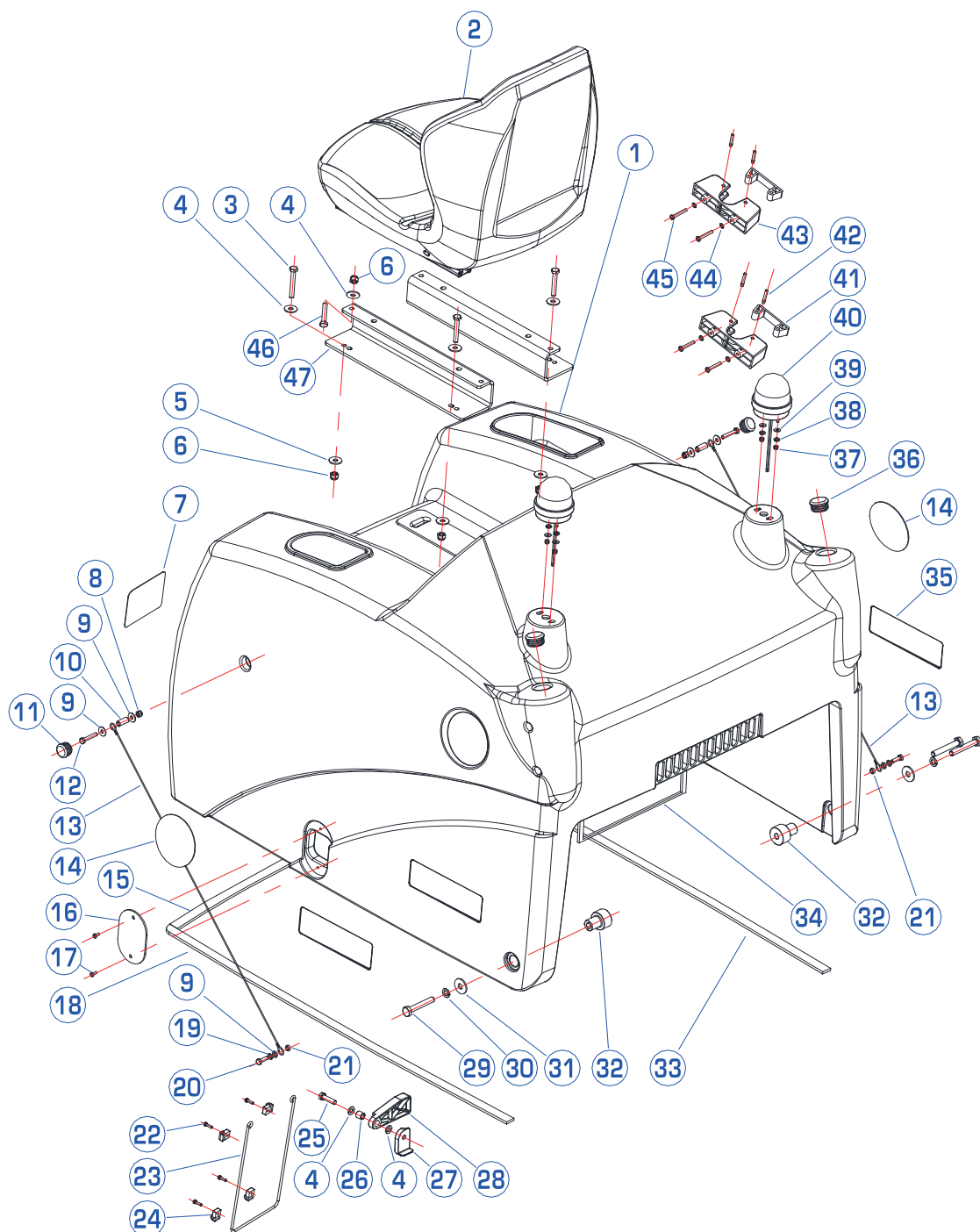
# CHASSIS ASSEMBLY



## PARTS LIST

| DIA NO | PART NUMBER | DESCRIPTION                           | NO REQ'D |
|--------|-------------|---------------------------------------|----------|
| 1      | 7000000     | Chassis Assembly                      | 1        |
| 2      | 7000028     | Foot Borad                            | 1        |
| 3      | 1221614     | Screw,Ph,M6X14                        | 6        |
| 4      | 7000712     | Decal,Main Brush Adjustment           | 1        |
| 5      | 7000277     | Strain Relief                         | 1        |
| 6      | 7000275     | Clamp Support                         | 4        |
| 7      | 1914080     | Plastic Clamp                         | 4        |
| 8      | 1513510     | Countersunk Hex Screw,M5X10           | 5        |
| 9      | 6150712     | Clamp                                 | 1        |
| 10     | 1123810     | Nut,Lock,SS,M8                        | 2        |
| 11     | 1421828     | Washer,Plain, $\phi$ 8X $\phi$ 28X3   | 2        |
| 12     | 7000414     | Left Cover                            | 1        |
| 13     | 1121807     | Nut,SS,M8                             | 4        |
| 14     | 7000033     | Spacer                                | 4        |
| 15     | 1513880     | Countersunk Hex Screw,M8X80           | 1        |
| 16     | 1434800     | Spring Lock Washer, $\phi$ 8          | 1        |
| 17     | 1021870     | Screw, RHM, M8X70, SST                | 3        |
| 18     | 1022845     | Screw, RHM, M8X45, SST                | 3        |
| 19     | 1411816     | Washer,Plain, $\phi$ 8X $\phi$ 16X1.6 | 3        |
| 20     | 1422821     | Washer, Lock, $\phi$ 8                | 3        |
| 21     | 7000269     | Front Bumper                          | 1        |
| 22     | 7000271     | Gasket                                | 2        |
| 23     | 7000270     | Gasket                                | 1        |
| 24     | 7000283     | Cap                                   | 4        |
| 25     | 7000286     | Gasket                                | 1        |
| 26     | 7000181-4   | Hook                                  | 1        |
| 27     | 1021616     | Washer, Lock, $\phi$ 6                | 2        |
| 28     | 1521612     | Socket Head, M6X12, SST               | 2        |
| 29     | 7000415     | Right Cover                           | 1        |
| 30     | 7000180     | Knob                                  | 2        |
| 31     | 1221508     | Screw,Ph,M5X8                         | 2        |
| 32     | 7000225     | Plate,Front                           | 1        |

# BODY ASSEMBLY



## PARTS LIST

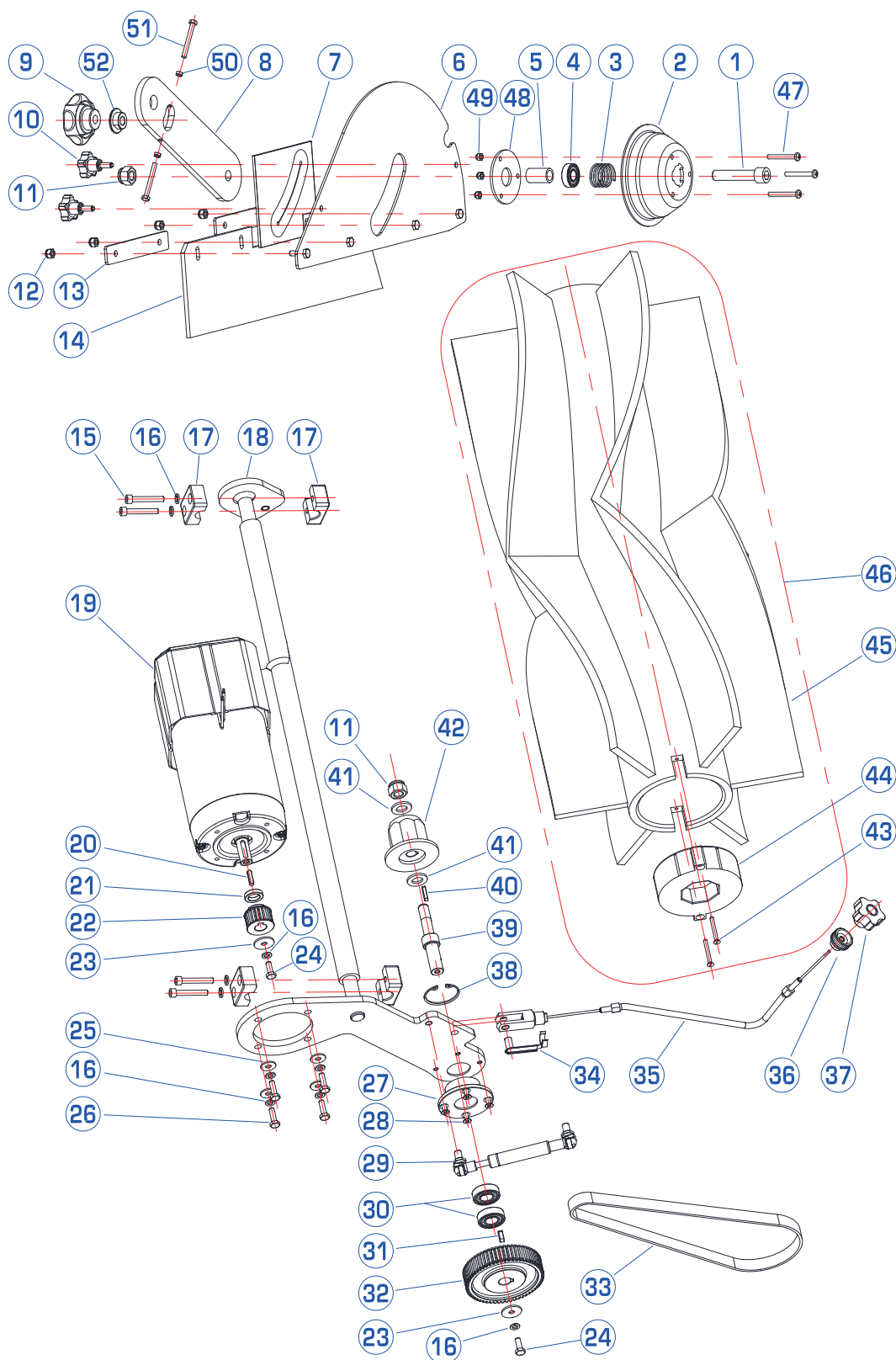
| DIA NO | PART NUMBER | DESCRIPTION                              | NO REQ'D |
|--------|-------------|------------------------------------------|----------|
| 1      | 7000311     | Body                                     | 1        |
| 2      | 7000276A    | Seat                                     | 1        |
| 3      | 1021855     | Screw, RHM, M8X55, SST                   | 4        |
| 4      | 1411816     | Washer, Plain, $\phi$ 8X $\phi$ 16X1.6   | 10       |
| 5      | 1421828     | Washer, Plain, $\phi$ 8X $\phi$ 28X3     | 4        |
| 6      | 1123810     | Nut, Lock, SS, M8                        | 8        |
| 7      | 7000709     | Warning Decal                            | 1        |
| 8      | 1123608     | Nut, Lock, SS, M6                        | 2        |
| 9      | 1421618     | Washer, Plain, $\phi$ 6.4X $\phi$ 18X1.6 | 6        |
| 10     | 7000308     | Tube                                     | 2        |
| 11     | 7000318     | Cap                                      | 2        |
| 12     | 1021635     | Screw, RHM, M6X35, SST                   | 2        |
| 13     | 7000416     | Rope                                     | 2        |
| 14     | 4010316     | ICE Logo                                 | 2        |
| 15     | 7000305     | Middle Gasket                            | 1        |
| 16     | 8210114     | Clear Window                             | 1        |
| 17     | 1221410     | Screw, Ph, M4X10                         | 2        |
| 18     | 7000306     | Left Gasket                              | 1        |
| 19     | 1422616     | Washer, Lock, $\phi$ 6                   | 2        |
| 20     | 1021616     | Screw, RHM, M6X16, SST                   | 2        |
| 21     | 7000295     | Tube                                     | 2        |
| 22     | 1222416     | Screw, M4X16, SST                        | 4        |
| 23     | 8133501     | Mesh                                     | 1        |
| 24     | 8133502     | Clip, Mesh                               | 4        |
| 25     | 1021830     | Screw, RHM, M8X30, SST                   | 1        |
| 26     | 8115404     | Bushing                                  | 1        |
| 27     | 8111008     | Stopper                                  | 1        |
| 28     | 8111007     | Bracket                                  | 1        |
| 29     | 1021065     | Screw, RHM, M10X65, SST                  | 2        |
| 30     | 1422026     | Washer, Lock, $\phi$ 10                  | 2        |
| 31     | 1421030     | Washer, Plain, $\phi$ 10X $\phi$ 30X2.5  | 2        |
| 32     | 7000025     | Pin                                      | 2        |
| 33     | 7000307     | Right Gasket                             | 1        |
| 34     | 7000165     | Gasket                                   | 1        |
| 35     | 8130099     | Decal (only for i-Synergy)               | 2        |
| 36     | 7000287     | Cap                                      | 2        |
| 37     | 1121403     | Nut, SS, M4                              | 4        |
| 38     | 1422411     | Washer, Lock, $\phi$ 4                   | 4        |
| 39     | 1421412     | Washer, Plain, $\phi$ 4X $\phi$ 12X1     | 4        |

## PARTS LIST

| DIA<br>NO | PART<br>NUMBER | DESCRIPTION                          | NO<br>REQ'D |
|-----------|----------------|--------------------------------------|-------------|
| 40        | 7000313A       | Flash Light                          | 2           |
| 41        | 7000316        | Clamp                                | 2           |
| 42        | 7000317        | Pin                                  | 4           |
| 43        | 7000315        | Bracket                              | 2           |
| 44        | 1421511        | Washer, Plain, $\phi$ 5X $\phi$ 12X1 | 4           |
| 45        | 1221535        | Screw, Ph, M5X35                     | 4           |
| 46        | 1021820        | Screw, RHM, M8X30, SST               | 4           |
| 47        | 7000268        | Bracket                              | 2           |



# MAIN BRUSH ASSEMBLY



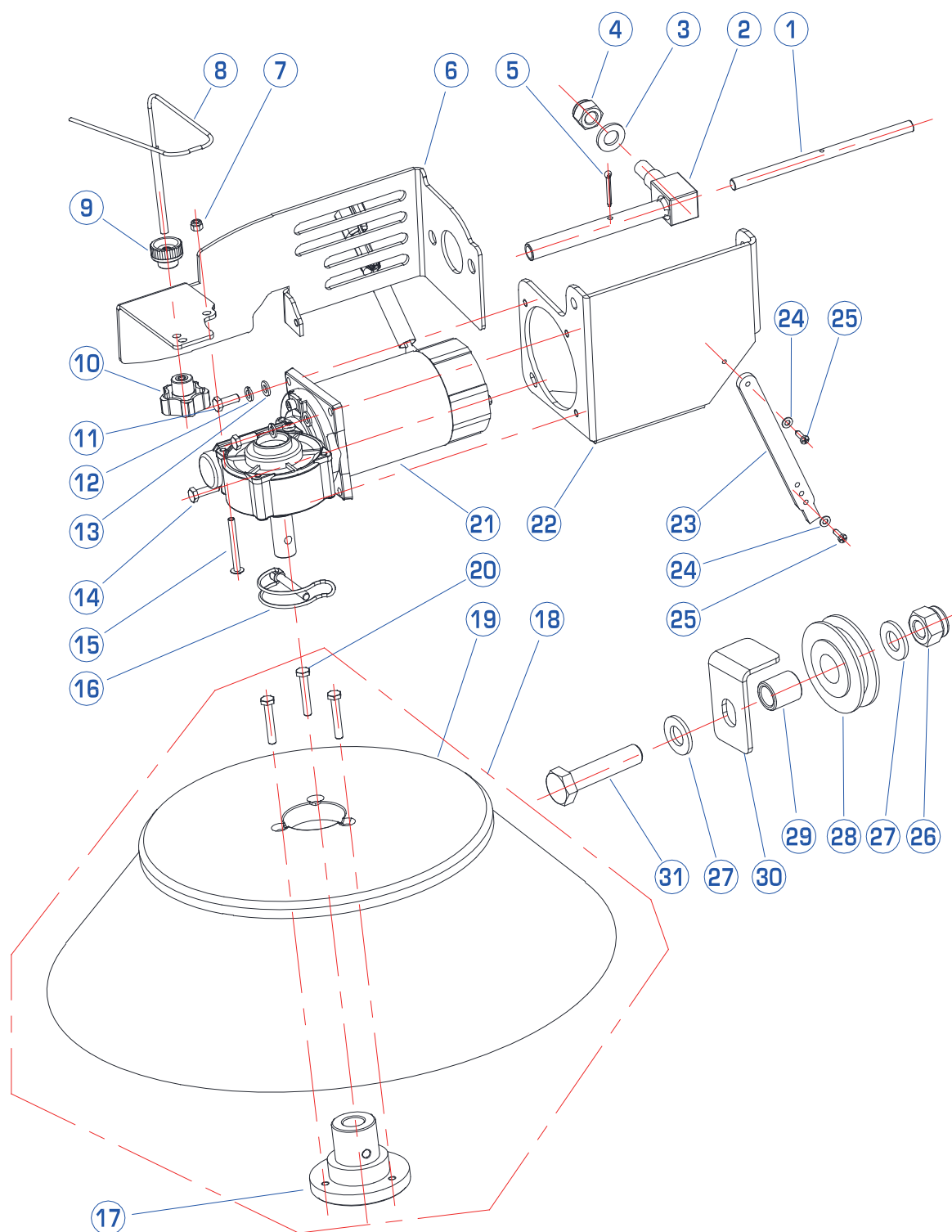
## PARTS LIST

| DIA NO | PART NUMBER | DESCRIPTION                   | NO REQ'D |
|--------|-------------|-------------------------------|----------|
| 1      | 1521260     | Socket Head, M12X60, SST      | 1        |
| 2      | 7000069     | Free Hub                      | 1        |
| 3      | 7000070     | Spring                        | 1        |
| 4      | 7000185     | Ball Bearing                  | 1        |
| 5      | 7000068     | Spacer                        | 1        |
| 6      | 7000133     | Support,Right Skirt           | 1        |
| 7      | 7000285     | Gasket Adhesive               | 1        |
| 8      | 7000067     | Plate                         | 1        |
| 9      | 7000174     | Knob,M10                      | 1        |
| 10     | 7000179     | Knob,M6                       | 2        |
| 11     | 1123115     | Nut,Lock,SS,M12               | 2        |
| 12     | 1123608     | Nut,Lock,SS,M6                | 4        |
| 13     | 7000135     | Plate,Side Skirt              | 2        |
| 14     | 7000134     | Side Skirt                    | 1        |
| 15     | 1521640     | Screw, RHM, M6X40, SST        | 4        |
| 16     | 1422616     | Washer, Lock, Ø6              | 10       |
| 17     | 7000053     | Support,Main Brush Shaft      | 4        |
| 18     | 7000055     | Shaft,Main Brush              | 1        |
| 19     | 7000324A    | Main Brush Motor              | 1        |
| 20     | 1655020     | Key,5X5X20                    | 1        |
| 21     | 7000064     | Spacer                        | 1        |
| 22     | 7000065     | Pulley,HTD20 5M 15 6F         | 1        |
| 23     | 1621624     | Washer,Plain, φ 6.6X φ 22X2   | 2        |
| 24     | 1021616     | Screw, RHM, M6X16, SST        | 2        |
| 25     | 1421618     | Washer,Plain, φ 6.4X φ 18X1.6 | 4        |
| 26     | 1021620     | Screw, RHM, M6X20, SST        | 4        |
| 27     | 7000060     | Flange                        | 1        |
| 28     | 1222512     | Screw, HH, M5X12, SST         | 4        |
| 29     | 7000190     | Gas,Spring                    | 1        |
| 30     | 7000186     | Ball Bearing,6002 2RS         | 2        |
| 31     | 1655015     | Key,5X5X15                    | 1        |
| 32     | 7000062     | Pulley,HTD60 5M 15 6W         | 1        |
| 33     | 7000192     | Belt                          | 1        |
| 34     | 7000512     | Clips                         | 1        |
| 35     | 7000513     | Cable,Main Brush              | 1        |
| 36     | 7000177     | Knob                          | 1        |
| 37     | 7000178     | Knob                          | 1        |
| 38     | 1437032     | Ring Retaining                | 1        |
| 39     | 7000061     | Pin                           | 1        |

## PARTS LIST

| DIA NO | PART NUMBER | DESCRIPTION                            | NO REQ'D |
|--------|-------------|----------------------------------------|----------|
| 40     | 1644020     | Key,4X4X20                             | 1        |
| 41     | 1421124     | Washer,Plain, $\phi$ 13X $\phi$ 25X2.5 | 2        |
| 42     | 7000063     | Traction Hub                           | 1        |
| 43     | 1321240     | Screw,ST4.2X40, SST                    | 2        |
| 44     | 7000073     | Hub                                    | 1        |
| 45     | 7000072     | Main Brush (Poly)                      | 1        |
|        | 7000620-1   | Main Brush (Poly / Wire)               | 1        |
|        | 7000621-1   | Main Brush (Mix Fibres)                | 1        |
|        | 7000631-1   | Main Brush Assembly (Pa66)             | 1        |
| 46     | 7000071     | Main Brush Assembly (Poly)             | 1        |
|        | 7000620     | Main Brush Assembly (Poly / Wire)      | 1        |
|        | 7000621     | Main Brush Assembly (Mix Fibres)       | 1        |
|        | 7000631     | Main Brush Assembly (Pa66)             | 1        |
| 47     | 1221540     | Screw,Ph,M5X40                         | 3        |
| 48     | 7000069-1   | Plate                                  | 1        |
| 49     | 1123507     | Nut,Lock,SS,M5                         | 3        |
| 50     | 1121505     | Nut,SS,M5                              | 2        |
| 51     | 1021530     | Screw, RHM, M5X30, SST                 | 2        |
| 52     | 7000067-1   | Bushing                                | 1        |

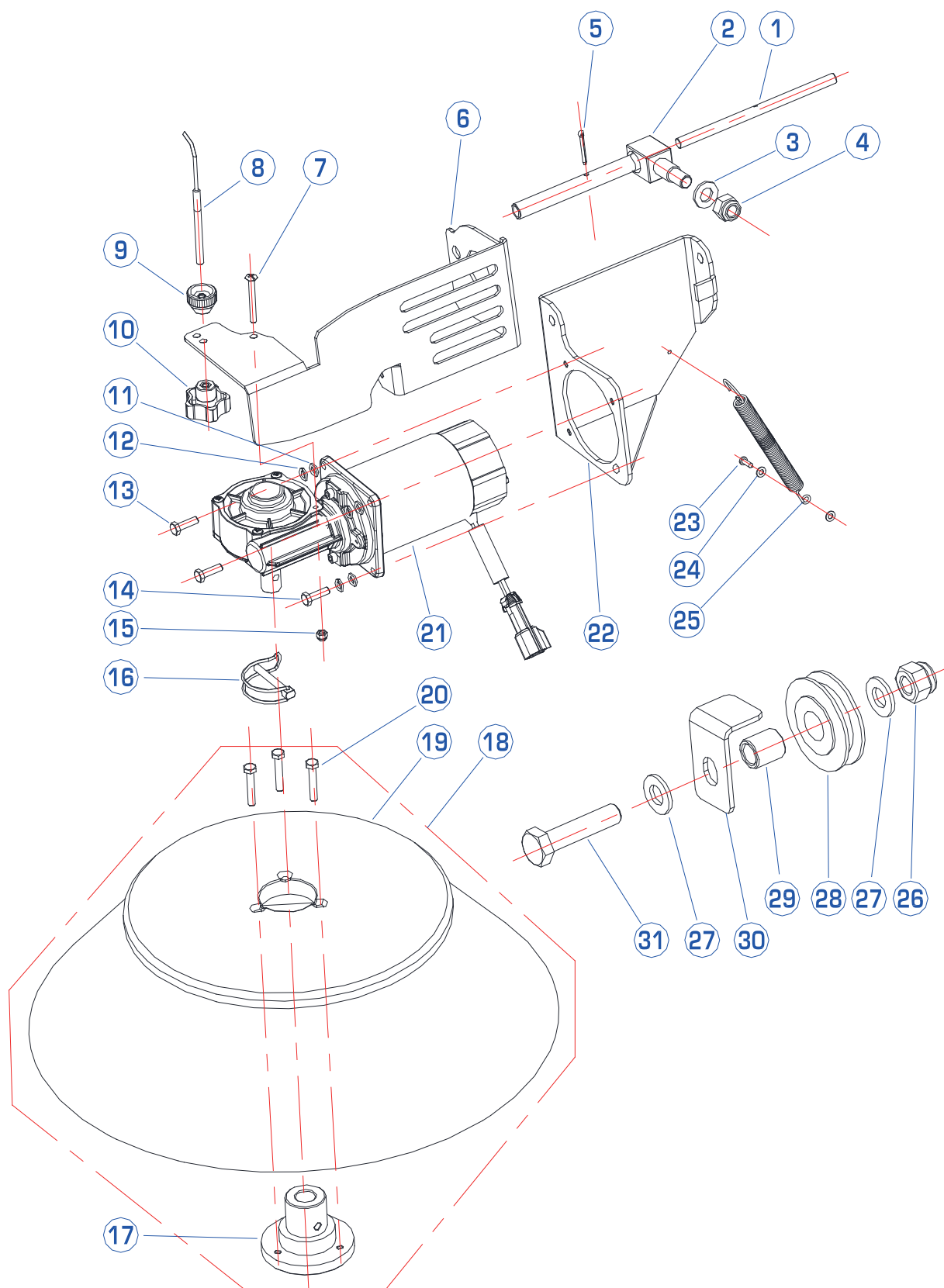
# RIGHT SIDE BRUSH ASSEMBLY



## PARTS LIST

| DIA NO | PART NUMBER | DESCRIPTION                            | NO REQ'D |
|--------|-------------|----------------------------------------|----------|
| 1      | 7000080     | Shaft, Side Brush                      | 1        |
| 2      | 7000077     | Linkage Assembly, Side Brush           | 1        |
| 3      | 1421124     | Washer,Plain, $\phi$ 24X $\phi$ 13X2.5 | 1        |
| 4      | 1123115     | Nut,Lock,SS,M 6                        | 1        |
| 5      | 1645324     | Split Pin, $\phi$ 3.2X24               | 1        |
| 6      | 7000267     | Plate                                  | 1        |
| 7      | 1123507     | Nut,Lock,SS,M 5                        | 1        |
| 8      | 7000503     | Cable,Right Side Brush                 | 1        |
| 9      | 7000177     | Knob                                   | 1        |
| 10     | 7000178     | Knob                                   | 1        |
| 11     | 1021616     | Screw, RHM, M6X16, SST                 | 3        |
| 12     | 1422616     | Washer, Lock, $\phi$ 6                 | 4        |
| 13     | 1421612     | Washer,Plain, $\phi$ 6X $\phi$ 12X1.6  | 4        |
| 14     | 1021625     | Screw, RHM, M6X25, SST                 | 1        |
| 15     | 1221550     | Screw,Ph,M5X50                         | 1        |
| 16     | 7000274     | Split Pin                              | 1        |
| 17     | 7000085     | Hub,Side Brush                         | 1        |
| 18     | 7000083     | Side Brush Assembly(Poly)              | 1        |
|        | 7000622     | Side Brush Assembly(Poly / Wire)       | 1        |
|        | 7000623     | Side Brush Assembly(Mix Fibres)        | 1        |
| 19     | 7000084     | Side Brush (Poly)                      | 1        |
|        | 7000622-1   | Side Brush (Poly / Wire)               | 1        |
|        | 7000623-1   | Side Brush (Mix Fibres)                | 1        |
| 20     | 1513626     | Countersunk Hex Screw,M6X25            | 3        |
| 21     | 7000194A    | Right Side Brush Motor                 | 1        |
| 22     | 7000075     | Support,Right Side Brush               | 1        |
| 23     | 7000323     | Spring                                 | 1        |
| 24     | 1421412     | Washer,Plain, $\phi$ 4X $\phi$ 12X1    | 2        |
| 25     | 1311417     | Screw,ST4X14                           | 1        |
| 26     | 1123810     | Nut,Lock,SS,M 8                        | 1        |
| 27     | 1411816     | Washer,Plain, $\phi$ 8X $\phi$ 16X1.6  | 2        |
| 28     | 7000032     | Pulley                                 | 1        |
| 29     | 7000031     | Spacer                                 | 1        |
| 30     | 7000030     | Bracker,Cable Fixing                   | 1        |
| 31     | 1021835     | Screw, RHM, M8X35, SST                 | 1        |

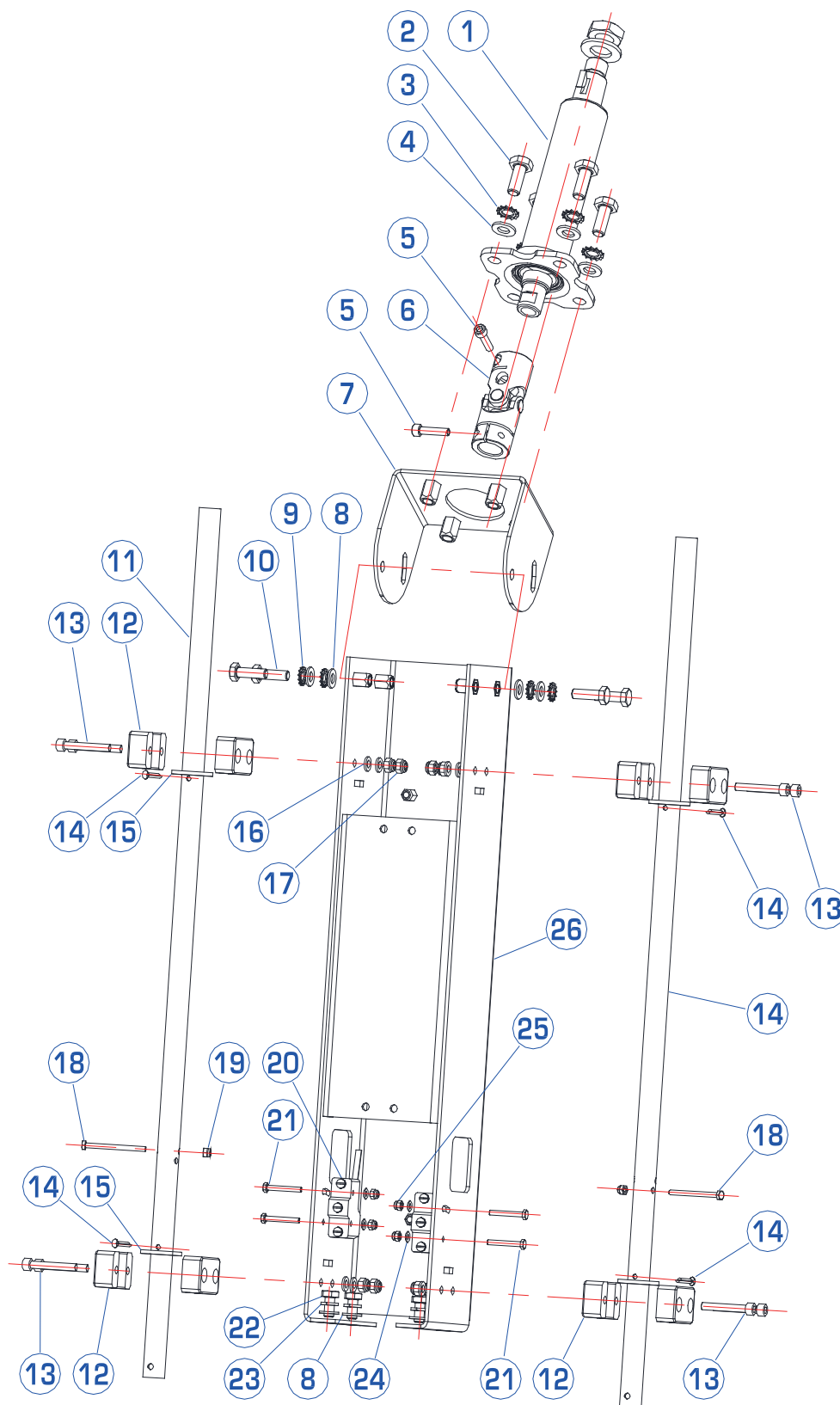
# LEFT SIDE BRUSH ASSEMBLY



## PARTS LIST

| DIA NO | PART NUMBER | DESCRIPTION                             | NO REQ'D |
|--------|-------------|-----------------------------------------|----------|
| 1      | 7000080     | Shaft, Side Brush                       | 1        |
| 2      | 7000077     | Linkage Assembly, Side Brush            | 1        |
| 3      | 1421124     | Washer, Plain, $\phi$ 24X $\phi$ 13X2.5 | 1        |
| 4      | 1123115     | Nut, Lock, SS, M6                       | 1        |
| 5      | 1645324     | Split Pin, $\phi$ 3.2X24                | 1        |
| 6      | 7000266     | Plate                                   | 1        |
| 7      | 1221550     | Screw, Ph, M5X50                        | 1        |
| 8      | 7000504     | Cable, Left Side Brush                  | 1        |
| 9      | 7000177     | Knob                                    | 1        |
| 10     | 7000178     | Knob                                    | 1        |
| 11     | 1421612     | Washer, Plain, $\phi$ 6X $\phi$ 12X1.6  | 4        |
| 12     | 1422616     | Washer, Lock, $\phi$ 6                  | 4        |
| 13     | 1021616     | Screw, RHM, M6X16, SST                  | 3        |
| 14     | 1021625     | Screw, RHM, M6X25, SST                  | 1        |
| 15     | 1123507     | Nut, Lock, SS, M5                       | 1        |
| 16     | 7000274     | Split Pin                               | 1        |
| 17     | 7000085     | Hub, Side Brush                         | 1        |
| 18     | 7000083     | Side Brush Assembly(Poly)               | 1        |
|        | 7000622     | Side Brush Assembly(Poly / Wire)        | 1        |
|        | 7000623     | Side Brush Assembly(Mix Fibres)         | 1        |
| 19     | 7000084     | Side Brush (Poly)                       | 1        |
|        | 7000622-1   | Side Brush (Poly / Wire)                | 1        |
|        | 7000623-1   | Side Brush (Mix Fibres)                 | 1        |
| 20     | 1513626     | Countersunk Hex Screw, M6X25            | 3        |
| 21     | 7000193A    | Left Side Brush Motor                   | 1        |
| 22     | 7000082     | Support, Left Side Brush                | 1        |
| 23     | 1311417     | Screw, ST4X14                           | 1        |
| 24     | 1421412     | Washer, Plain, $\phi$ 4X $\phi$ 12X1    | 2        |
| 25     | 7000323     | Spring                                  | 1        |
| 26     | 1123810     | Nut, Lock, SS, M8                       | 1        |
| 27     | 1411816     | Washer, Plain, $\phi$ 8X $\phi$ 16X1.6  | 2        |
| 28     | 7000032     | Pulley                                  | 1        |
| 29     | 7000031     | Spacer                                  | 1        |
| 30     | 7000030     | Bracker, Cable Fixing                   | 1        |
| 31     | 1021835     | Screw, RHM, M8X35, SST                  | 1        |

# STEERING ASSEMBLY

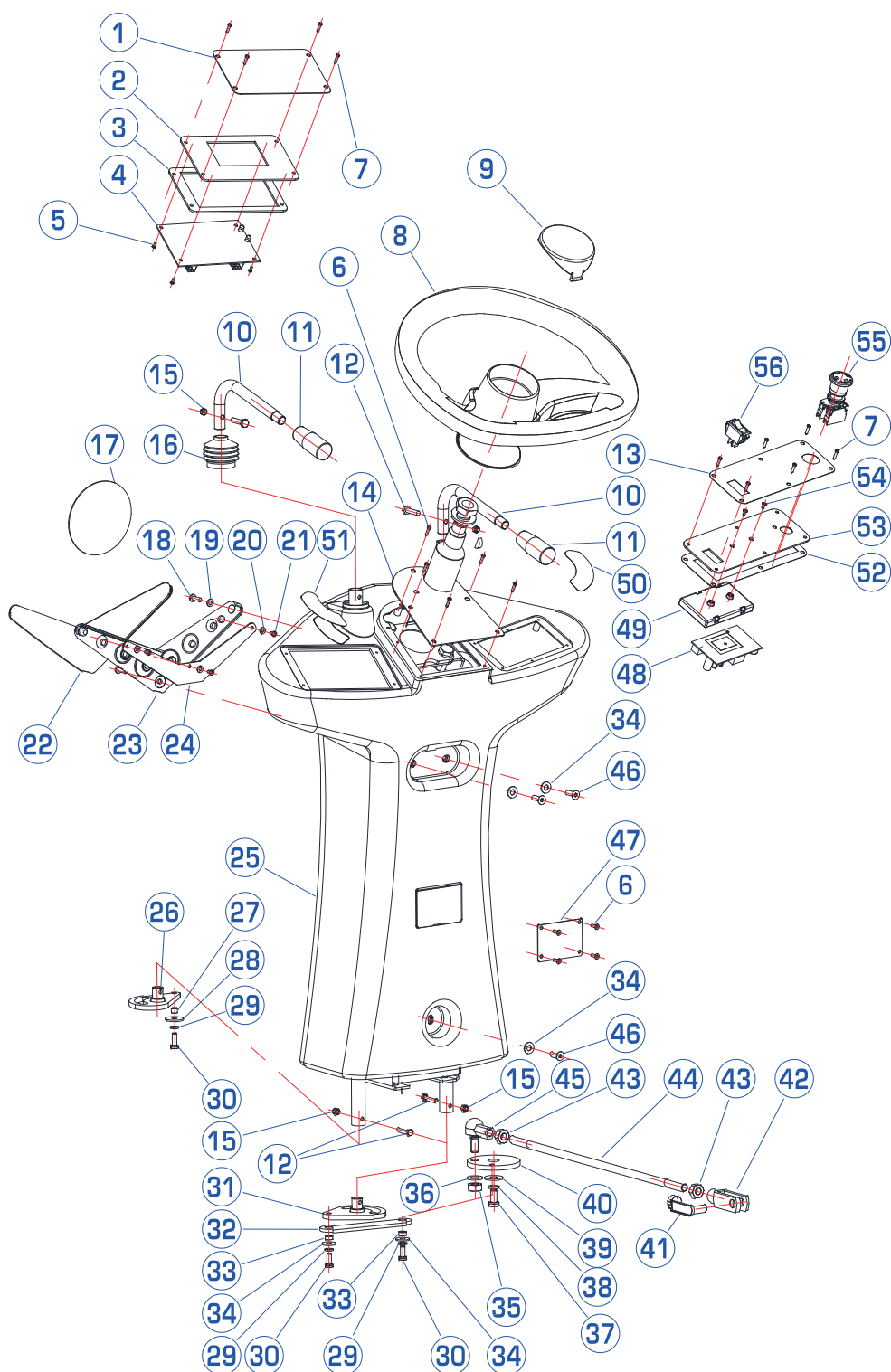




## PARTS LIST

| DIA NO | PART NUMBER | DESCRIPTION                            | NO REQ'D |
|--------|-------------|----------------------------------------|----------|
| 1      | 7000410     | Steering Column                        | 1        |
| 2      | 1021025     | Screw, RHM, M10X25, SST                | 4        |
| 3      | 1434100     | Spring Lock Washer, $\phi$ 10          | 4        |
| 4      | 1421020     | Washer, Plain, $\phi$ 10X $\phi$ 20X2  | 4        |
| 5      | 1521625     | Socket Head, M6X25, SST                | 2        |
| 6      | 7000411     | Joint                                  | 1        |
| 7      | 7000113     | Support                                | 1        |
| 8      | 1411816     | Washer, Plain, $\phi$ 8X $\phi$ 16X1.6 | 4        |
| 9      | 1434800     | Spring Lock Washer, $\phi$ 8           | 4        |
| 10     | 1021816     | Screw, RHM, M8X16, SST                 | 4        |
| 11     | 7000051     | Lever Shaft                            | 2        |
| 12     | 7000053     | Support, Main Brush Shaft              | 4        |
| 13     | 1521640     | Socket Head, M6X40, SST                | 8        |
| 14     | 1645425     | Elastic Pin, $\phi$ 4X25               | 4        |
| 15     | 1421334     | Washer, Plain, $\phi$ 19X $\phi$ 34X3  | 4        |
| 16     | 1421612     | Washer, Plain, $\phi$ 6X $\phi$ 12X1.6 | 8        |
| 17     | 1123608     | Nut, Lock, SS, M6                      | 8        |
| 18     | 7000051-1   | Hex Head Screw, SST                    | 2        |
| 19     | 1123507     | Nut, Lock, SS, M5                      | 2        |
| 20     | 7000412     | Micro Switch                           | 2        |
| 21     | 1021430     | Screw, RHM, M4X30, SST                 | 4        |
| 22     | 1021816     | Screw, RHM, M8X16, SST                 | 4        |
| 23     | 1422821     | Washer, Lock, $\phi$ 8                 | 4        |
| 24     | 1421412     | Washer, Plain, $\phi$ 4.3X $\phi$ 12X1 | 5        |
| 25     | 1123406     | Nut, Lock, SS, M4                      | 4        |
| 26     | 7000112     | Column                                 | 1        |

# STEERING ASSEMBLY



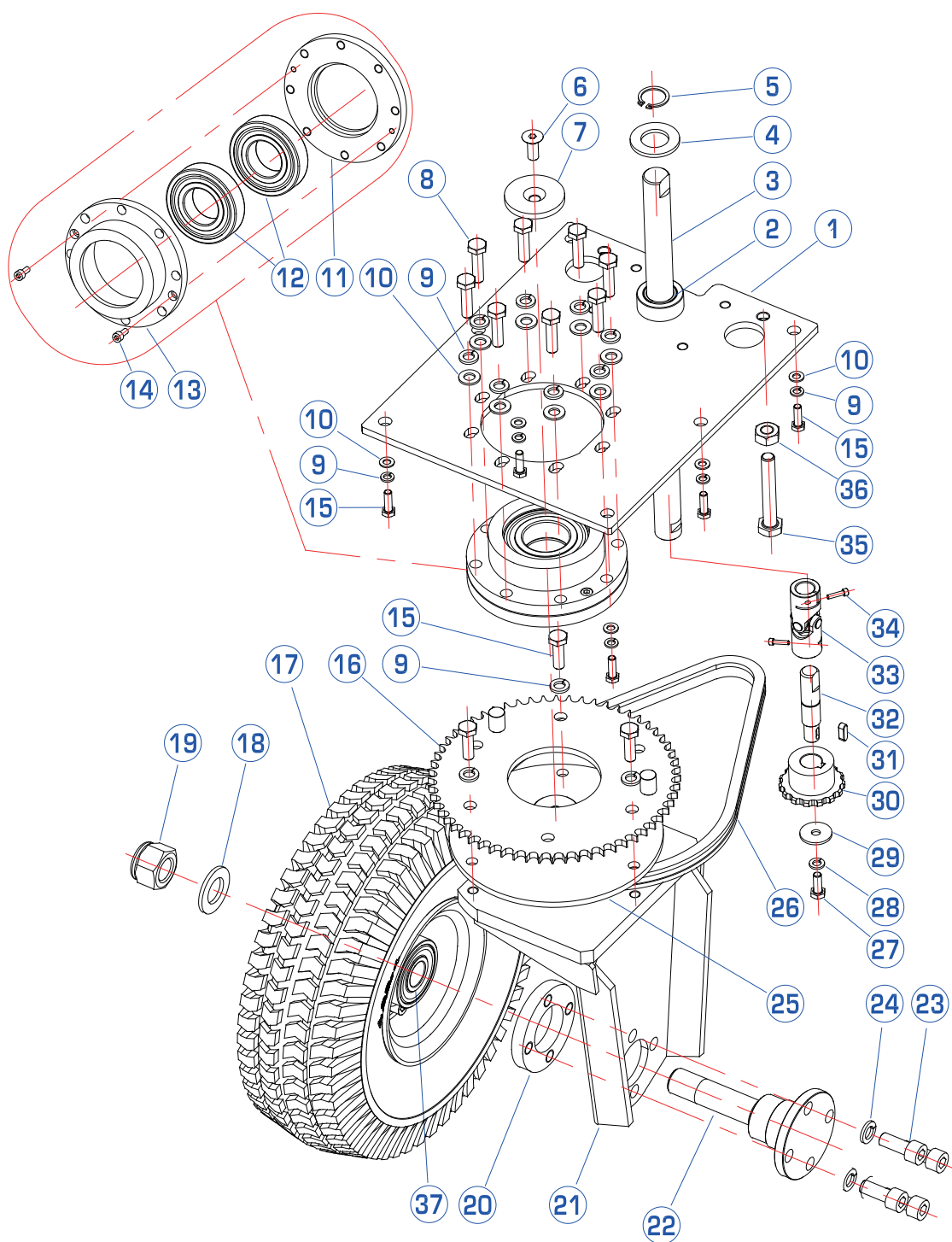
# **PARTS LIST**

| <b>DIA<br/>NO</b> | <b>PART<br/>NUMBER</b> | <b>DESCRIPTION</b>            | <b>NO<br/>REQ'D</b> |
|-------------------|------------------------|-------------------------------|---------------------|
| 1                 | 7000454                | Decal,Dash Board              | 1                   |
| 2                 | 7000451                | Plate,Electronic Board        | 1                   |
| 3                 | 7000453                | Gasket                        | 1                   |
| 4                 | 8134903                | Electronic Board              | 1                   |
| 5                 | 1221306                | Screw, PH, M3X6, SST          | 4                   |
| 6                 | 1310016                | Screw,ST2.9X16                | 9                   |
| 7                 | 1221310                | Screw, PH, M3X10, SST         | 10                  |
| 8                 | 7000401                | Steering Wheel                | 1                   |
| 9                 | 7000428                | Cover, Steering Wheel         | 1                   |
| 10                | 7000293                | Lever                         | 2                   |
| 11                | 7000293-1              | Cover, Lever                  | 2                   |
| 12                | 1021525                | Screw, RHM, M5X25, SST        | 4                   |
| 13                | 7000457                | Decal, Switch                 | 1                   |
| 14                | 7000426                | Support, Switch               | 1                   |
| 15                | 1123507                | Nut,Lock,SS,M5                | 2                   |
| 16                | 7000314                | Rubber Cover                  | 2                   |
| 17                | 4010316                | ICE Logo                      | 1                   |
| 18                | 1221516                | Screw, PH, M5X16, SST         | 3                   |
| 19                | 1421510                | Washer,Plain, φ 5.3X φ 10X1   | 3                   |
| 20                | 1421409                | Washer,Plain, φ 4.3X φ 9X0.8  | 3                   |
| 21                | 1321110                | Screw,ST3.5X10                | 3                   |
| 22                | 8133602                | Cover,Led Lighter             | 1                   |
| 23                | 8133601                | Support,Led Lighter           | 1                   |
| 24                | 8133610                | Led Lighter                   | 1                   |
| 25                | 7000407                | Cover,Steering Column         | 1                   |
| 26                | 7000116                | Return Lever,Side Brush       | 1                   |
| 27                | 7000115                | Spacer                        | 1                   |
| 28                | 1621624                | Washer,Plain, φ 6.6X φ 22X2   | 1                   |
| 29                | 1422616                | Washer, Lock, Ø6              | 3                   |
| 30                | 1021616                | Screw, RHM, M6X16, SST        | 1                   |
| 31                | 7000119                | Return Lever,Main Brush       | 1                   |
| 32                | 7000171                | Lever                         | 1                   |
| 33                | 7000172                | Spacer                        | 2                   |
| 34                | 1421618                | Washer,Plain, φ 6.4X φ 18X1.6 | 5                   |
| 35                | 1123012                | Nut,Lock,SS,M10               | 1                   |
| 36                | 1421020                | Washer,Plain, φ 10.5X φ 20X2  | 1                   |
| 37                | 1021816                | Screw, RHM, M8X16, SST        | 1                   |
| 38                | 1422821                | Washer, Lock, Ø8              | 1                   |
| 39                | 1421824                | Washer,Plain, φ 8X φ 24X2     | 1                   |

## PARTS LIST

| DIA NO | PART NUMBER | DESCRIPTION             | NO REQ'D |
|--------|-------------|-------------------------|----------|
| 40     | 7000170     | Disk Plate              | 1        |
| 41     | 7000502     | Clips                   | 1        |
| 42     | 7000501     | Fork(long)              | 1        |
| 43     | 1121008     | Nut,SS,M10              | 2        |
| 44     | 7000173     | Bar                     | 1        |
| 45     | 7000294     | Joint-head              | 1        |
| 46     | 1521625     | Socket Head, M6X25, SST | 3        |
| 47     | 7000484     | Serial Decal            | 1        |
| 48     | 8134768     | RFID PCB                | 1        |
| 49     | 8134769     | Box, PCB                | 1        |
| 50     | 7000423     | Decal, Main brush       | 1        |
| 51     | 7000427     | Decal, Side brush       | 1        |
| 52     | 7000458     | Gasket                  | 1        |
| 53     | 7000456     | Support, Switch         | 1        |
| 54     | 1222305     | Screw, FH, M3X5, SST    | 2        |
| 55     | 8310707     | Emergency Switch        | 1        |
| 56     | 6210503     | Switch                  | 1        |

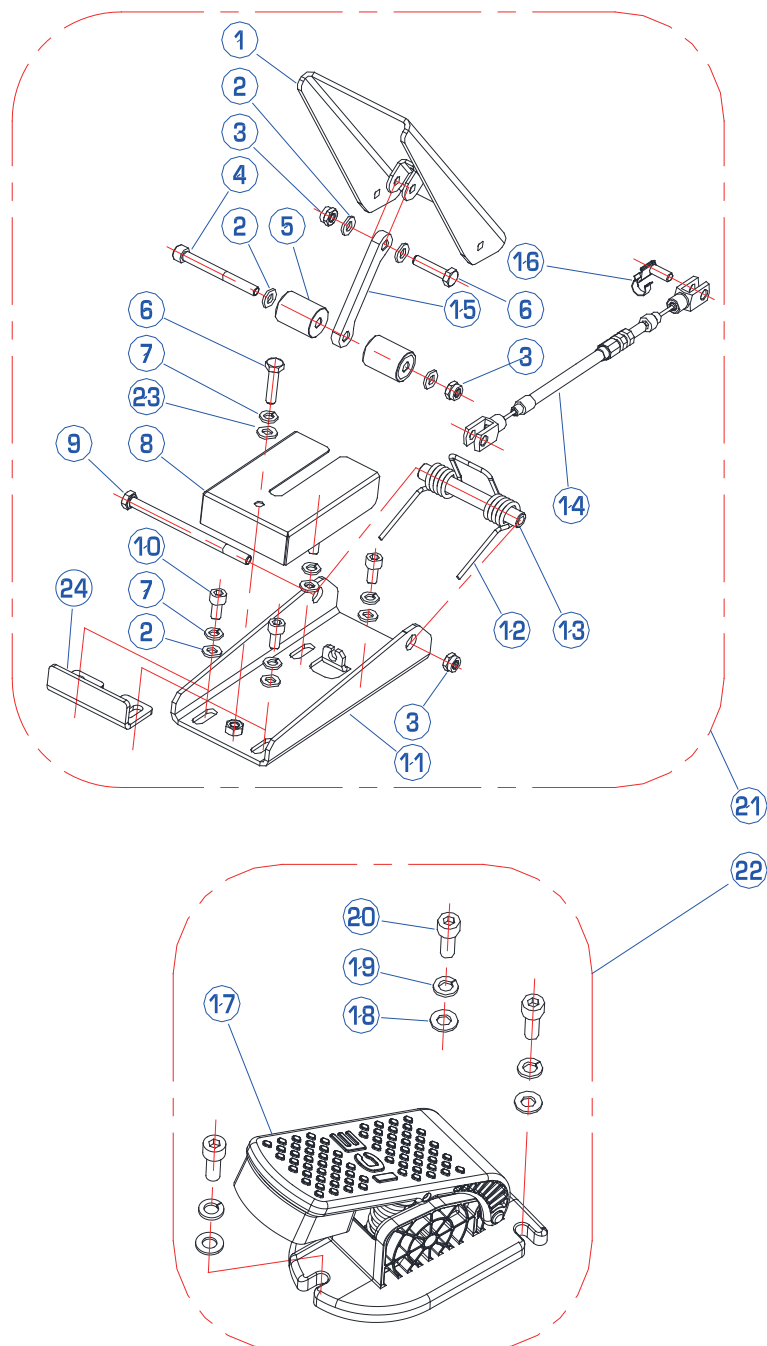
# FRONT WHEEL ASSEMBLY



## PARTS LIST

| DIA NO | PART NUMBER | DESCRIPTION                           | NO REQ'D |
|--------|-------------|---------------------------------------|----------|
| 1      | 7000099     | Plate Supporting                      | 1        |
| 2      | 7000103     | Bushing                               | 1        |
| 3      | 7000107     | Shaft                                 | 1        |
| 4      | 1421330     | Washer,Plain, $\phi$ 21X $\phi$ 37X3  | 1        |
| 5      | 1436020     | Ring Retaining                        | 1        |
| 6      | 1513825     | Countersunk Hex Screw,M8X25           | 1        |
| 7      | 7000106     | Bearing Retainer                      | 1        |
| 8      | 1021830     | Screw, RHM, M8X30, SST                | 8        |
| 9      | 1422821     | Washer, Lock, $\phi$ 8                | 17       |
| 10     | 1411816     | Washer,Plain, $\phi$ 8X $\phi$ 16X1.6 | 14       |
| 11     | 7000098     | Flange                                | 1        |
| 12     | 7000187     | Ball Bearing,6207 2RS                 | 2        |
| 13     | 7000097     | Flange                                | 1        |
| 14     | 1521512     | Socket Head, M5X12, SST               | 2        |
| 15     | 1021825     | Screw, RHM, M8X25, SST                | 9        |
| 16     | 7000093     | Crown                                 | 1        |
| 17     | 7000198     | Front Wheel                           | 1        |
| 18     | 1421330     | Washer,Plain, $\phi$ 21X $\phi$ 37X3  | 1        |
| 19     | 1123020     | Nut,Lock,SS,M20                       | 1        |
| 20     | 7000104     | Flange                                | 1        |
| 21     | 7000087     | Support,Front Wheel                   | 1        |
| 22     | 7000105     | Shaft,Front Wheel                     | 1        |
| 23     | 1521025     | Socket Head, M10X25, SST              | 4        |
| 24     | 1422026     | Washer, Lock, $\phi$ 10               | 4        |
| 25     | 7000092     | Plate                                 | 1        |
| 26     | 7000110     | Chain                                 | 1        |
| 27     | 1021616     | Screw, RHM, M6X16, SST                | 1        |
| 28     | 1422616     | Washer, Lock, $\phi$ 6                | 1        |
| 29     | 1621624     | Washer,Plain, $\phi$ 6.6X $\phi$ 22X2 | 1        |
| 30     | 7000109     | Sprocket                              | 1        |
| 31     | 1655015     | Key,5X5X15                            | 1        |
| 32     | 7000108     | Steering Shaft                        | 1        |
| 33     | 7000411     | Joint                                 | 1        |
| 34     | 1521625     | Socket Head, M6X25, SST               | 2        |
| 35     | 1022065     | Screw, RHM, M10X65, SST               | 2        |
| 36     | 1121008     | Nut,SS,M10                            | 2        |
| 37     | 7000198-3   | Ball Bearing,6204 2RS                 | 2        |

## PEDAL ASSEMBLY

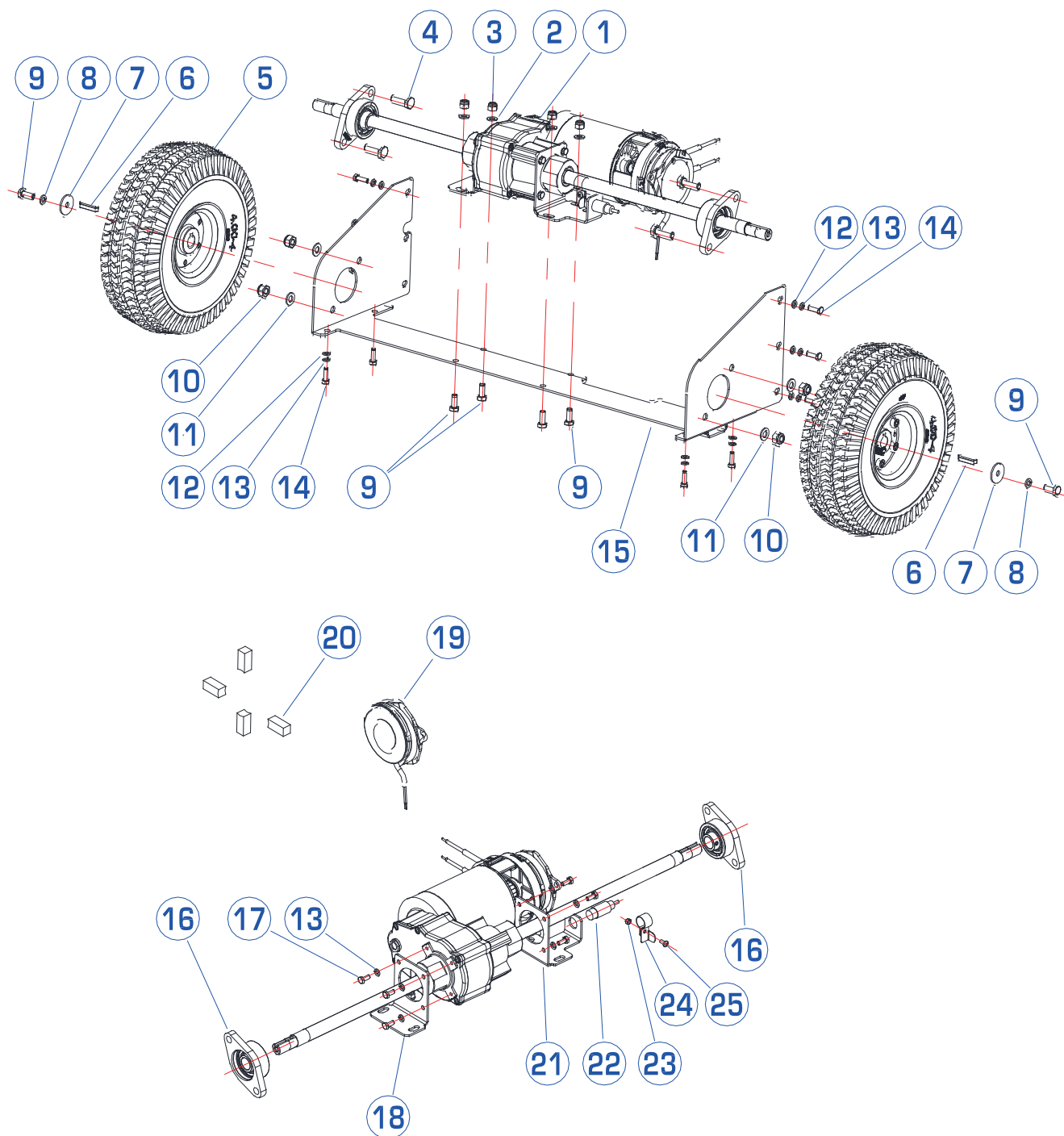


## PARTS LIST

| DIA NO | PART NUMBER | DESCRIPTION                           | NO REQ'D |
|--------|-------------|---------------------------------------|----------|
| 1      | 7000214     | Pedal                                 | 1        |
| 2      | 1421612     | Washer,Plain, $\phi$ 6X $\phi$ 12X1.6 | 8        |
| 3      | 1123608     | Nut,Lock,SS,M6                        | 3        |
| 4      | 1521655     | Socket Head, M6X55, SST               | 1        |
| 5      | 7000220     | Roller                                | 1        |
| 6      | 1021625     | Screw, RHM, M6X25, SST                | 2        |
| 7      | 1021616     | Washer, Lock, $\phi$ 6                | 5        |
| 8      | 7000221     | Cover                                 | 1        |
| 9      | 1222690     | Screw, RHM, M6X90, SST                | 1        |
| 10     | 1521612     | Socket Head, M6X12, SST               | 4        |
| 11     | 7000211     | Pedal Support                         | 1        |
| 12     | 7000217     | Spring                                | 1        |
| 13     | 7000213     | Spacer                                | 1        |
| 14     | 7000508     | Cable,Front Skirt Lift-up             | 1        |
| 15     | 7000219     | Lever                                 | 1        |
| 16     | 7000507     | Clips                                 | 1        |
| 17     | 7000162     | Speed Control Pedal                   | 1        |
| 18     | 1411816     | Washer,Plain, $\phi$ 8X $\phi$ 16X1.6 | 3        |
| 19     | 1422821     | Washer, Lock, $\phi$ 8                | 3        |
| 20     | 1521820     | Socket Head, M8X20, SST               | 3        |
| 21     | 7000210     | Front Skirt Raising Pedal Kit         | 1        |
| 22     | 7000161     | Speed Control Pedal Kit               | 1        |
| 23     | 1621624     | Washer,Plain, $\phi$ 6X $\phi$ 22X2   | 1        |
| 24     | 7000218     | Stopper                               | 1        |



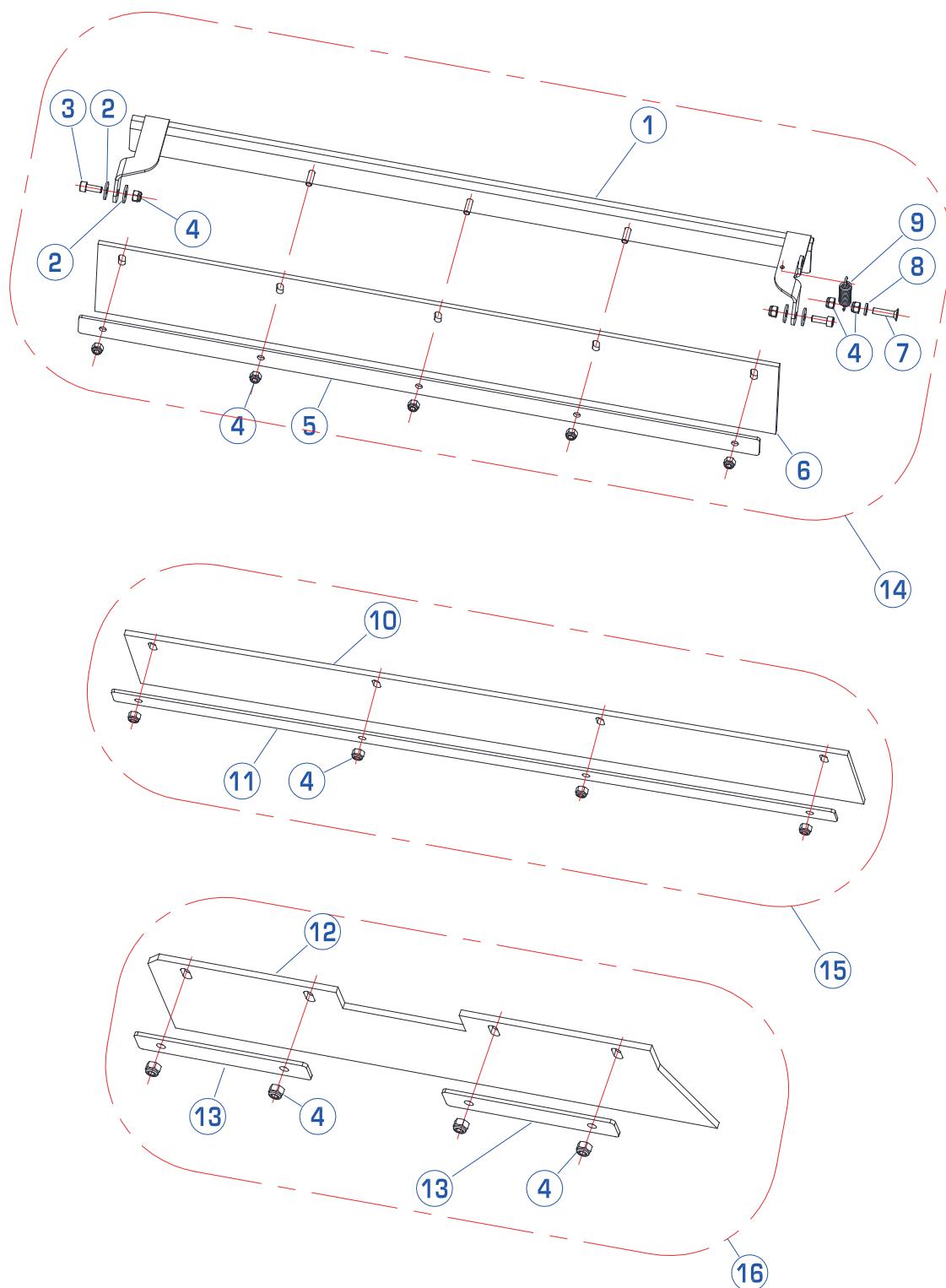
# DRIVE ASSEMBLY



## PARTS LIST

| DIA NO | PART NUMBER | DESCRIPTION                                 | NO REQ'D |
|--------|-------------|---------------------------------------------|----------|
| 1      | 7000325A    | Transaxle( CCL)                             | 1        |
| 2      | 1421824     | Washer,Plain, $\phi$ 8X $\phi$ 24X2         | 4        |
| 3      | 1123810     | Nut,Lock,SS,M8                              | 4        |
| 4      | 1021030     | Screw, RHM, M10X30, SST                     | 4        |
| 5      | 7000199     | Traction Wheel                              | 2        |
| 6      | 1666035     | Key,6X6X35                                  | 2        |
| 7      | 1421828     | Washer,Plain, $\phi$ 8X $\phi$ 28X3         | 2        |
| 8      | 1422821     | Washer, Lock, $\phi$ 8                      | 2        |
| 9      | 1021820     | Screw, RHM, M8X20, SST                      | 6        |
| 10     | 1123012     | Nut,Lock,SS,M10                             | 4        |
| 11     | 1411020     | Washer,Plain, $\phi$ 10X $\phi$ 20X2        | 4        |
| 12     | 1421612     | Washer,Plain, $\phi$ 6X $\phi$ 12X1.6       | 10       |
| 13     | 1422616     | Washer, Lock, $\phi$ 6                      | 18       |
| 14     | 1021620     | Screw, RHM, M6X20, SST                      | 10       |
| 15     | 7000037     | Support,Transaxle                           | 1        |
| 16     | 7000188     | Ball Bearing with Flange                    | 2        |
| 17     | 1021616     | Screw, RHM, M6X16, SST                      | 8        |
| 18     | 7000040     | Bracket,Transaxle                           | 1        |
| 19     | 7000327A    | Electric brake kit (for CCL motor 7000325A) | 1        |
| 20     | 7000325-1   | Carbon brushes (for CCL motor 7000325A)     | 4        |
| 21     | 7000227     | Right Bracket,Transaxle                     | 1        |
| 22     | 8134709A    | Approach Switch                             | 1        |
| 23     | 1123507     | Nut,Lock,SS,M5                              | 1        |
| 24     | 7000228     | Bracket                                     | 1        |
| 25     | 1221510     | Screw, PH, M5X10, SST                       | 1        |

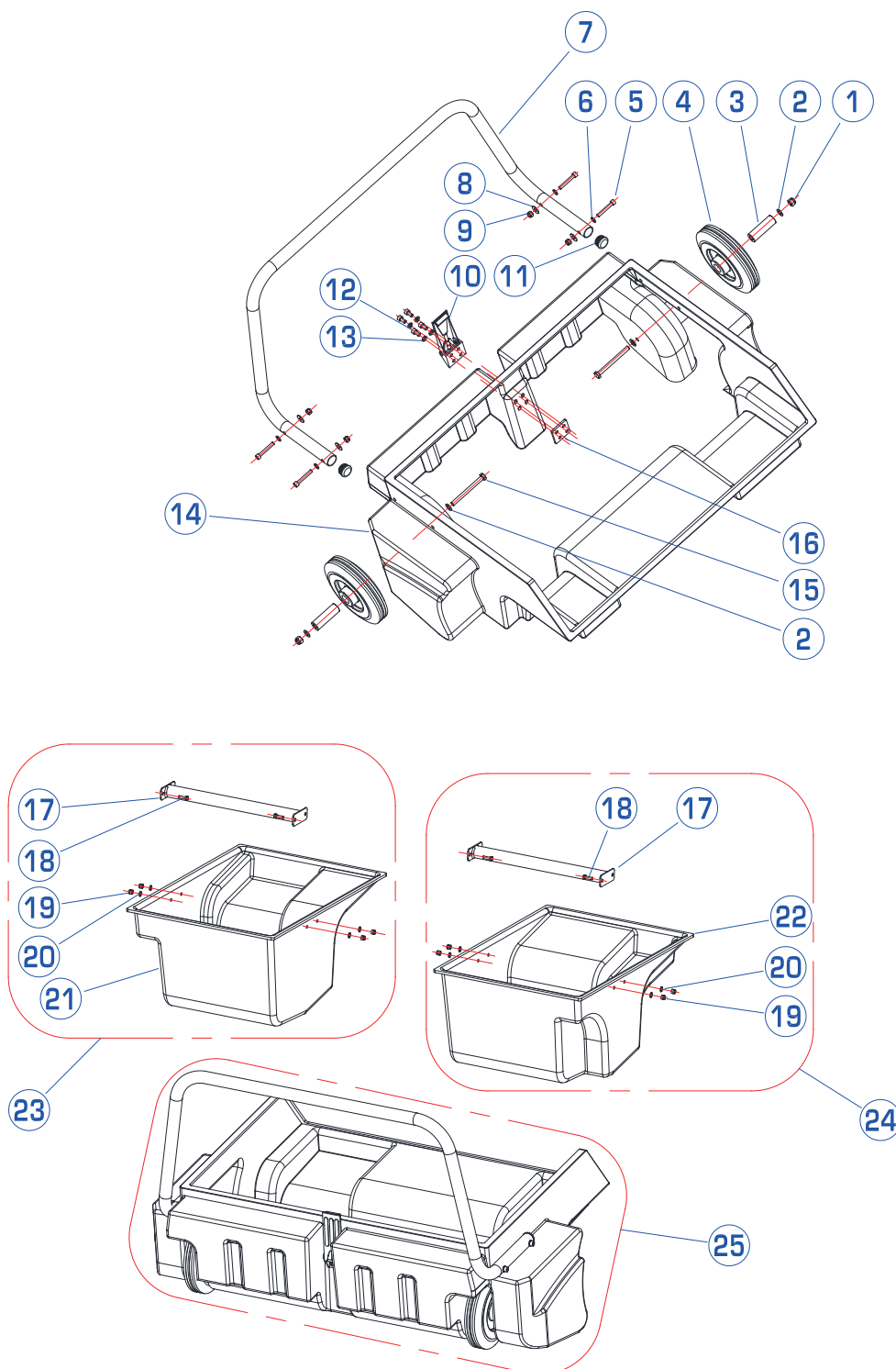
# SKIRTS ASSEMBLY



## PARTS LIST

| DIA NO | PART NUMBER | DESCRIPTION                             | NO REQ'D |
|--------|-------------|-----------------------------------------|----------|
| 1      | 7000123     | Frame,Front Skirt                       | 1        |
| 2      | 1421618     | Washer,Plain, $\phi$ 6.4X $\phi$ 18X1.6 | 4        |
| 3      | 1521616     | Socket Head, M6X16, SST                 | 2        |
| 4      | 1123608     | Nut,Lock,SS,M6                          | 16       |
| 5      | 7000128     | Plate,Front Skirt                       | 1        |
| 6      | 7000127     | Front Skirt                             | 1        |
| 7      | 1513626     | Countersunk Hex Screw,M6X25             | 1        |
| 8      | 1421612     | Washer,Plain, $\phi$ 6X $\phi$ 12X1.6   | 1        |
| 9      | 7000147     | Spring                                  | 1        |
| 10     | 7000130     | Rear Skirt                              | 1        |
| 11     | 7000131     | Plate,Rear Skirt                        | 1        |
| 12     | 7000134     | Side Skirt                              | 1        |
| 13     | 7000135     | Plate,Side Skirt                        | 2        |
| 14     | 7000122     | Front Skirt Assembly                    | 1        |
| 15     | 7000129     | Rear Skirt Assembly                     | 1        |
| 16     | 7000136     | Left Skirt Assembly                     | 1        |

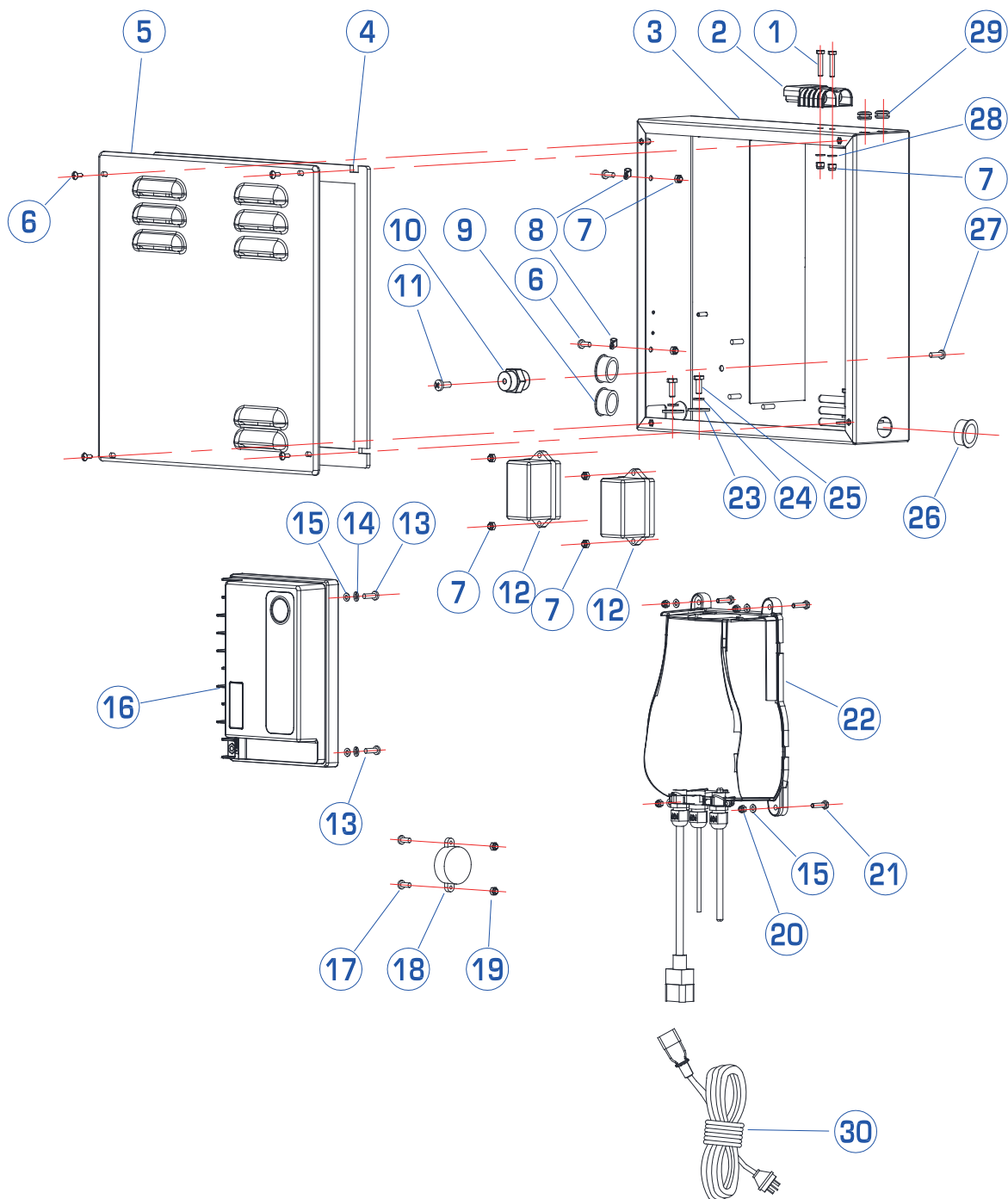
# HOPPER ASSEMBLY



## PARTS LIST

| DIA NO | PART NUMBER | DESCRIPTION                           | NO REQ'D |
|--------|-------------|---------------------------------------|----------|
| 1      | 1123810     | Nut,Lock,SS,M8                        | 2        |
| 2      | 1411816     | Washer,Plain, $\phi$ 8X $\phi$ 16X1.6 | 4        |
| 3      | 7000146     | Spacer                                | 2        |
| 4      | 7000139     | Hopper Wheel                          | 2        |
| 5      | 1521640     | Socket Head, M6X40, SST               | 4        |
| 6      | 1421612     | Washer,Plain, $\phi$ 6X $\phi$ 12X1.6 | 4        |
| 7      | 7000145     | Handle                                | 1        |
| 8      | 1421618     | Washer,Plain, $\phi$ 6X $\phi$ 18X1.6 | 4        |
| 9      | 1123608     | Nut,Lock,SS,M6                        | 4        |
| 10     | 7000181     | Latch                                 | 1        |
| 11     | 7000140     | Cap                                   | 2        |
| 12     | 1521612     | Socket Head, M6X12, SST               | 2        |
| 13     | 1422616     | Washer, Lock, $\phi$ 6                | 2        |
| 14     | 7000138     | Hopper                                | 1        |
| 15     | 1022890     | Screw, RHM, M8X90, SST                | 2        |
| 16     | 7000141     | Plate                                 | 1        |
| 17     | 7000232     | Handle Assembly                       | 2        |
| 18     | 1021516     | Screw, RHM, M5X16, SST                | 8        |
| 19     | 1123507     | Nut,Lock,SS,M5                        | 8        |
| 20     | 1421510     | Washer,Plain, $\phi$ 5.3X $\phi$ 10X1 | 8        |
| 21     | 7000238     | Left Bocket                           | 1        |
| 22     | 7000236     | Right Bocket                          | 1        |
| 23     | 7000237     | Kit Left Bocket                       | 1        |
| 24     | 7000235     | Kit Right Bocket                      | 1        |
| 25     | 7000137     | Hopper Assembly                       | 1        |

## ELECTRONIC BOX ASSEMBLY



## PARTS LIST

| DIA NO | PART NUMBER | DESCRIPTION                              | NO REQ'D |
|--------|-------------|------------------------------------------|----------|
| 1      | 1221425     | Screw, PH, M4X25, SST                    | 2        |
| 2      | 7000746     | Connector                                | 1        |
| 3      | 7000463     | Electronic Box                           | 1        |
| 4      | 7000155     | Gasket                                   | 1        |
| 5      | 7000154     | Cover,Electronic Box                     | 1        |
| 6      | 1221412     | Screw, PH, M4X12, SST                    | 8        |
| 7      | 1123406     | Nut,Lock,SS,M4                           | 6        |
| 8      | 2320236     | Clamp                                    | 2        |
| 9      | 7000321     | Snap Bushing                             | 2        |
| 10     | 8114705     | Pillar                                   | 1        |
| 11     | 1023612     | Screw, PH, M6X12,                        | 1        |
| 12     | 8312420     | Contacto                                 | 2        |
| 13     | 1021512     | Screw, RHM, M5X12, SST                   | 2        |
| 14     | 1422513     | Washer, Lock, Ø5                         | 2        |
| 15     | 1421510     | Washer,Plain, φ 5.3X φ 10X1              | 6        |
| 16     | 7000466     | Control Unit                             | 1        |
| 17     | 1021314     | Screw, RHM, M3X14, SST                   | 2        |
| 18     | 8310708A    | Buzzer                                   | 1        |
| 19     | 1123305     | Nut,Lock,SS,M3                           | 2        |
| 20     | 1123507     | Nut,Lock,SS,M5                           | 2        |
| 21     | 1021516     | Screw, RHM, M5X16, SST                   | 4        |
| 22     | 8134610     | Li_ion Battery Charge,110V,16A           | 1        |
| 23     | 1621624     | Washer,Plain, φ 6.6X φ 22X2              | 4        |
| 24     | 1422616     | Washer, Lock, Ø6                         | 4        |
| 25     | 1021616     | Screw, RHM, M6X16, SST                   | 4        |
| 26     | 7000321     | Snap Bushing                             | 1        |
| 27     | 1021610     | Screw, RHM, M6X10, SST                   | 1        |
| 28     | 1421409     | Washer,Plain, φ 4.3X φ 9X0.8             | 2        |
| 29     | 7000273     | Grommet                                  | 2        |
| 30     | 8112030     | Powr cord,Battery charger ,US (Optional) | 1        |
|        | 8112040     | Powr cord,Battery charger, EU (Optional) | 1        |
|        | 8112050     | Powr cord,Battery charger, JP (Optional) | 1        |
|        | 8112060     | Powr cord,Battery charger, CH (Optional) | 1        |
|        | 8112070     | Powr cord,Battery charger, UK (Optional) | 1        |