

# Lumina 20 Traction Drive Battery Burnisher

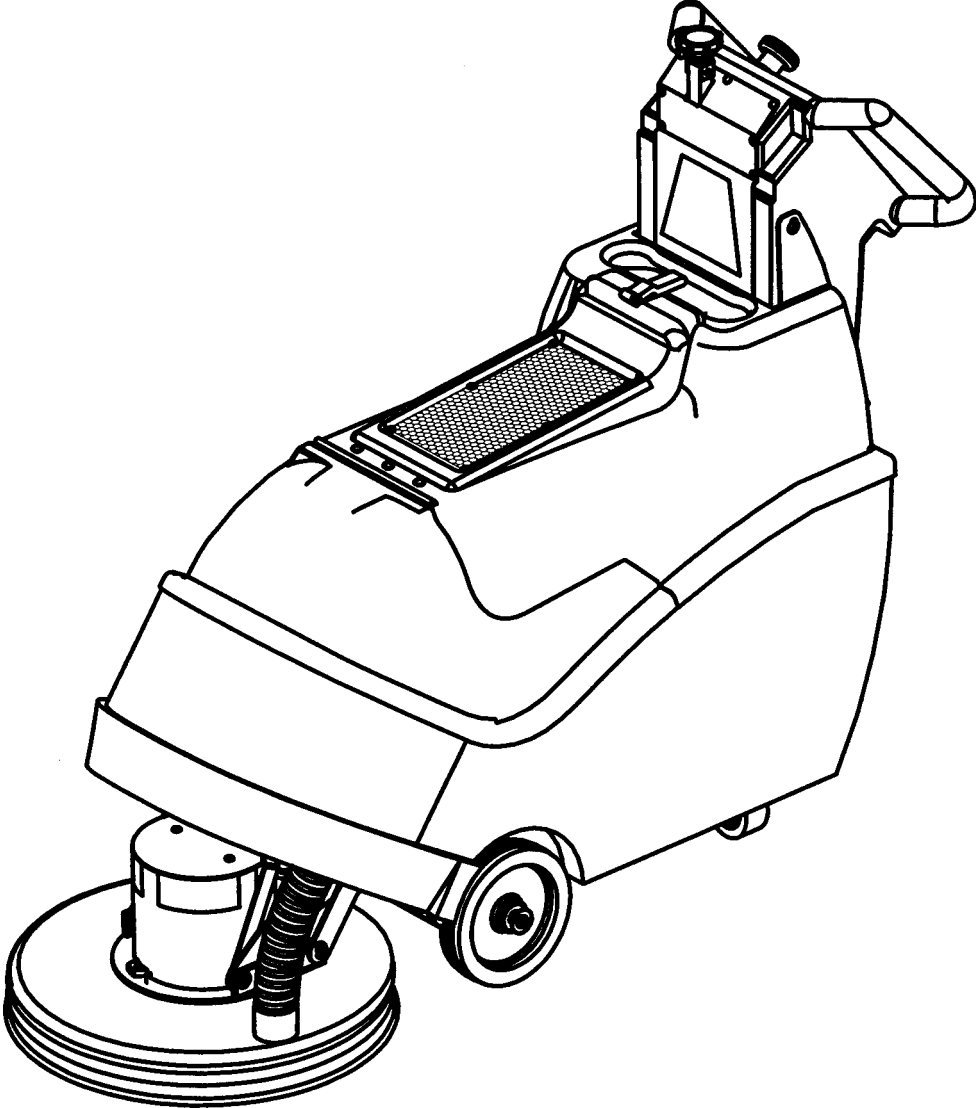
Model:  
M26036TD

OPERATION

SERVICE

PARTS

CARE



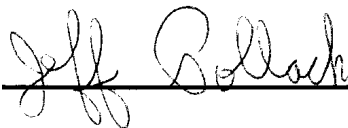
Revised 9/05

# EC Declaration of Conformity

according to Directives 72/23, 89/392, and 89/336

We, Minuteman International Incorporated, of 111 South Rohlwing Road Addison Illinois 60101 USA, declare under our sole responsibility that the product M26036TDCE, M26036TDQPIW, M26036CE, Lumina Burnisher to which this declaration relates corresponds to the relevant requirements of the EC Directives 72/23, 89/392 and 89/336. The following standards were used to determine compliance with the Directives: EN 292, EN 294, EN 811, EN 55014, EN 55104 and EN 60335-1.

<b>SOUND</b>		<b>VIBRATION</b>												
<b>73 dB Operator</b>	<b>69dB At 3m</b>	<b>.5 m/s<sup>2</sup> At Operators Handle</b>												
<p>Tests were conducted on 11/3/04 with calibrated sound and vibration equipment under the conditions noted below:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 33%;">General Condition:</td> <td style="width: 33%;">Indoors</td> <td style="width: 33%;">Wind:</td> <td style="width: 33%;">0 km/hr</td> </tr> <tr> <td>Temperature:</td> <td>25<sup>0</sup>C</td> <td>Humidity:</td> <td>70%</td> </tr> <tr> <td>Barometric Pressure:</td> <td>29.5</td> <td></td> <td></td> </tr> </table>			General Condition:	Indoors	Wind:	0 km/hr	Temperature:	25 <sup>0</sup> C	Humidity:	70%	Barometric Pressure:	29.5		
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Barometric Pressure:	29.5													

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*Jeff Pollack, Standards Engineer*

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*Date*

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# ***IMPORTANT SAFETY INSTRUCTIONS***

**CAUTION:** Operators must read and understand this manual before operating or maintaining this machine.

Keep hands and feet clear of moving parts while machine is in operation.

Disconnect the power to the machine by pressing the red Emergency Disconnect Button when charging batteries or during installation or removal of pads.

During operation, loose objects on the floor can become dangerous projectiles if struck by the high speed pad. Special attention should be paid in removing or avoiding loose floor tile, electrical cables, telephone connection boxes.

Electrical motors and components can cause an explosion when operated near explosive materials or vapors. Do not operate this machine near flammable materials such as solvents, thinners, fuels, grain dust, etc.

Keep machine moving to reduce the risk of damaging floor finish and floor.

Make sure the red Emergency Disconnect Button is pressed and the battery connector is unplugged from the machine before performing any maintenance procedures.

Store or park this machine on a level surface only.

These machines are designed for level floor operation only. *Do not operate on ramps or inclines.*

Battery acid can cause burns. When working on or around batteries, wear protective clothing and safety glasses. Remove metal jewelry. Do not lay tools or metal objects on top of batteries.

Charging batteries generates explosive gases. **DO NOT CHARGE BATTERIES WHEN OPEN FLAMES OR SPARKS ARE PRESENT. DO NOT SMOKE.** Make sure the charger is turned off before disconnecting it from the machine. Charge the batteries in a well-ventilated area with the battery cover removed completely.

Maintenance and repairs must be performed by authorized personnel.

## **SAVE THESE INSTRUCTIONS**

# OPERATING INSTRUCTIONS

## **INSPECTION**

Carefully unpack and inspect your burnisher for shipping damage. Each unit is tested and thoroughly inspected before shipment; any damage is the responsibility of the delivery carrier who should be notified immediately.

## **ELECTRICAL**

This machine is battery operated and designed to operate on 36 volts DC (3) 12 volt batteries.

## **BATTERIES**

Burnishers are shipped with batteries. (3 required)

Part No. 956210 12V 210AH 20 Hr. Rate (Optional)

*We do not recommend mixing AMP hour capacities. Any alternate battery sets can be used if they equal physical size and capacity. See next page for service and installation.*

## **OPERATION**

Before starting, familiarize yourself with the machine and its controls (see "Machine Overview" and "Control Panel" diagrams). To turn the machine ON, do the following:

1. Make sure 20" high speed pad is used. Make sure the pad is installed on the machine by following instructions under "Pad Installation."
2. Make sure that no battery charger is plugged into the recharge port.
3. Lift the red emergency disconnect button so it is in the up position.
4. Lower the pad driver assembly by pushing the pedal slightly outward on the machine (unlock it), and then release it slowly.
5. Turn the power switch to the ON position. The pad driver will then slowly adjust itself to the floor. Move forward in a straight line, check the reading on the Operating Range Meter and make sure you are in the Green Zone.
6. Place hands on the bails and squeeze the bail levers to start the operation of the machine. Move forward in a straight line, check the reading on the Operating Range Meter and make sure you are in the Green Zone.
7. Adjust the pad pressure as needed by turning the knob accordingly. (See Pad Pressure Adjustments.)
8. Adjust speed as needed by turning the speed control knob accordingly.

## **AFTER USE**

To raise the pad driver, push down until the pedal arm engages into the pedal catch. Turn machine off by turning the key switch on the control panel. Machine can be cleaned with a mild detergent and a damp cloth. Batteries should be charged after each use or when the battery condition meter shows a low charge. Once the battery charger reads 0 amps, the batteries are recharged. This should take approximately 8 hours if the batteries are completely discharged.

## **MAINTENANCE**

Periodically remove batteries from machine. Clean the batteries and battery tray with a solution of baking soda and water. Check all battery cables and wiring for signs of damage and wear. Replace as needed. Grease front wheel and rear caster zerks once a month for best operation.

## **FLOOR SEAL STRIP**

When the floor seal strip show signs of excessive wear, seal should be replaced. The strip can be removed by loosening the screw on the retainer strap until the seal can slide off of the pad shroud housing. To install new seal, slip the retainer strap over the new seal strip and pad shroud. Make sure the seal is seated equally around the perimeter and the holes on the floor seal are oriented towards the back portion of the shroud.

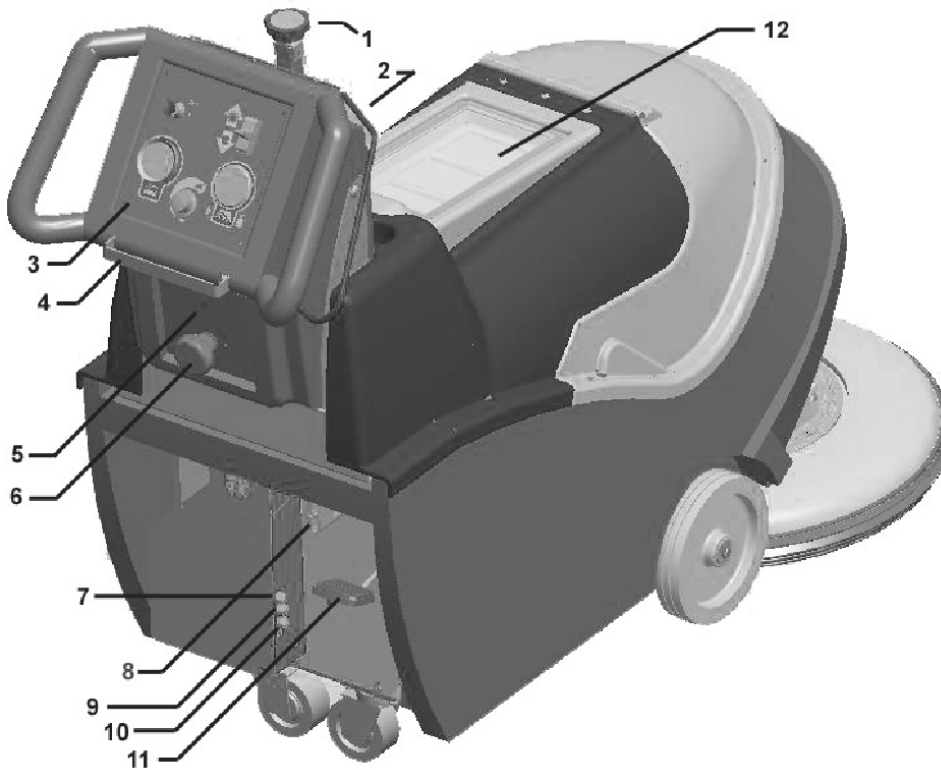
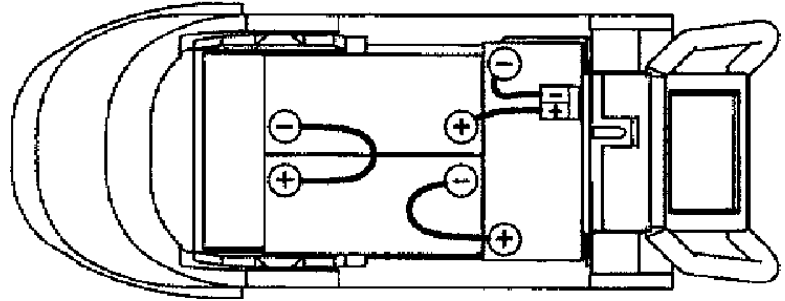
## BATTERY SERVICE AND INSTALLATION

**WARNING:** Battery acid can cause burns. When working on or around batteries, wear protective clothing and safety glasses. Remove metal jewelry. Do not lay tools or metal objects on top of batteries.

### CHARGING OF BATTERIES

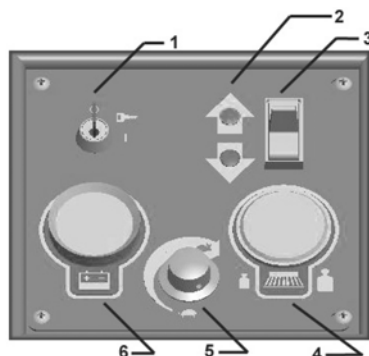
Charging batteries generates explosive gasses. **DO NOT CHARGE BATTERIES WHEN OPEN FLAMES OR SPARKS ARE PRESENT. DO NOT SMOKE.** Make sure the charger is turned off before disconnecting it from the batteries. Charge the batteries in a well-ventilated area with battery cover removed completely. Fluid levels should be checked before and after charging and maintained at the proper levels. If the burnisher is not used for extended periods of time, batteries should be kept fully charged with a boost charge once a week.

### BATTERY CABLE ROUTING



### Machine Overview

- 1 - Pad Pressure Adjustment Knob
- 2 - Bail Lever
- 3 - Dashboard Control Panel
- 4 - Emergency Belly Bar Stop
- 5 - Carbon Brush Indicator
- 6 - Emergency Stop Button
- 7 - Circuit Breaker, 70 AMP
- 8 - Power Connector
- 9 - Circuit Breaker, 3 AMP
- 10 - Circuit Breaker, 18 AMP
- 11 - Foot Pedal
- 12 - Dust Bag

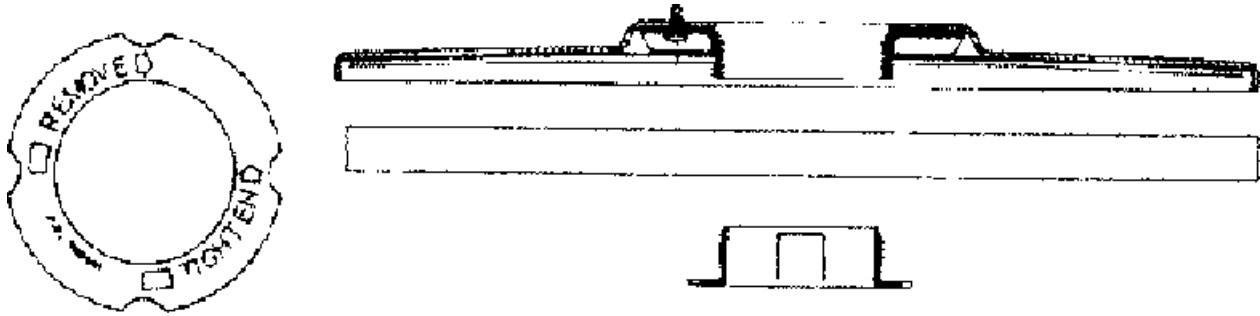


### Dashboard Control Panel

- 1 - On / Off Key Switch
- 2 - Traction Drive Direction Indicator
- 3 - Traction Drive Directional Switch
- 4 - Pad Pressure Gauge
- 5 - Traction Drive Speed Control
- 6 - Battery Gauge

### ***Pad Installation***

The red emergency disconnect button and power must be in the OFF position before installation and the pad driver assembly in the RAISED position. Remove center cup locking device by gripping on outer edges and turning clockwise. **NOTE:** Center cup cannot be pulled out; it must be unscrewed. After removing used pad, place new pad on pad driver assembly using outer flange of pad driver to center the pad. Push centering locking cup through the pad and into the pad driver assembly. The ratchet teeth on the center cup will engage into the pad driver assembly and should be pushed in as far as possible. If further tightening is needed, rotate the center-locking cup counter-clockwise.



### ***PAD PRESSURE ADJUSTMENTS***

The pad pressure adjust knob is located on the top of the control console. Counter-clockwise rotation increases pad pressure, the opposite rotation decreases. Different floors, conditions, and pads produce varying pad load conditions. Ideal burnishing conditions are maintained while the operating range meter remains in the Green Zone. If the meter reads in the Red Zone decrease the pad pressure. When the machine is operated in the Red Zone for a long period of time motor overload will occur and the 70-amp circuit breaker for the motor will trip. If the motor circuit trips:

1. Check pad condition.
2. Decrease pad pressure.
3. Reset circuit breaker.

### ***CIRCUIT BREAKER PROTECTION***

70 amp circuit breaker protects pad driver motor from excessive overload conditions.

3 amp circuit breaker protects control circuits against possible electrical shorts.

If either circuit breaker trips, first determine the cause and correct the condition before resetting the breakers.

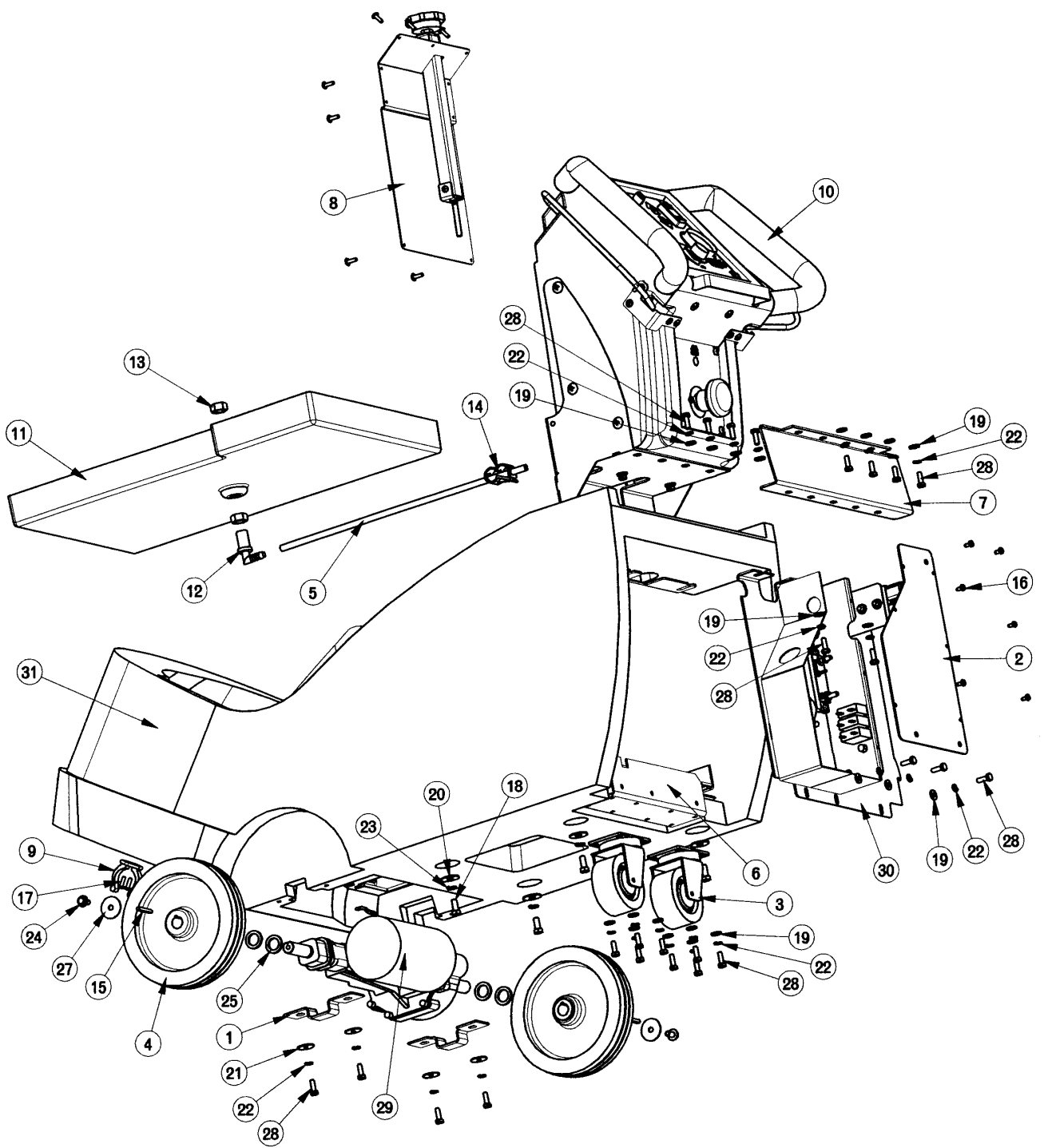
### ***CARBON BRUSH REPLACEMENT***

Design life of carbon brushes is between 1800-2000 hours. Replace brushes if worn to 3/8" or less, broken, or chipped. All carbon brushes should be replaced when motor is serviced. Four (4) are required, P/N 572003. Red indicator on control panel (above Emergency Disconnect Button, below the Dashboard) will glow when carbon brush service is required.

### ***CARBON BRUSH SERVICE***

1. Disconnect batteries from machine.
2. Remove two screws that hold dust control housing and motor cover to motor.
3. Blow out top of motor with air line.
4. Loosen screw and remove carbon brush lead.
5. Slide brush spring off the back of carbon brush and remove brush.
6. Reverse order for installation of new carbon brushes.

# Base Assembly

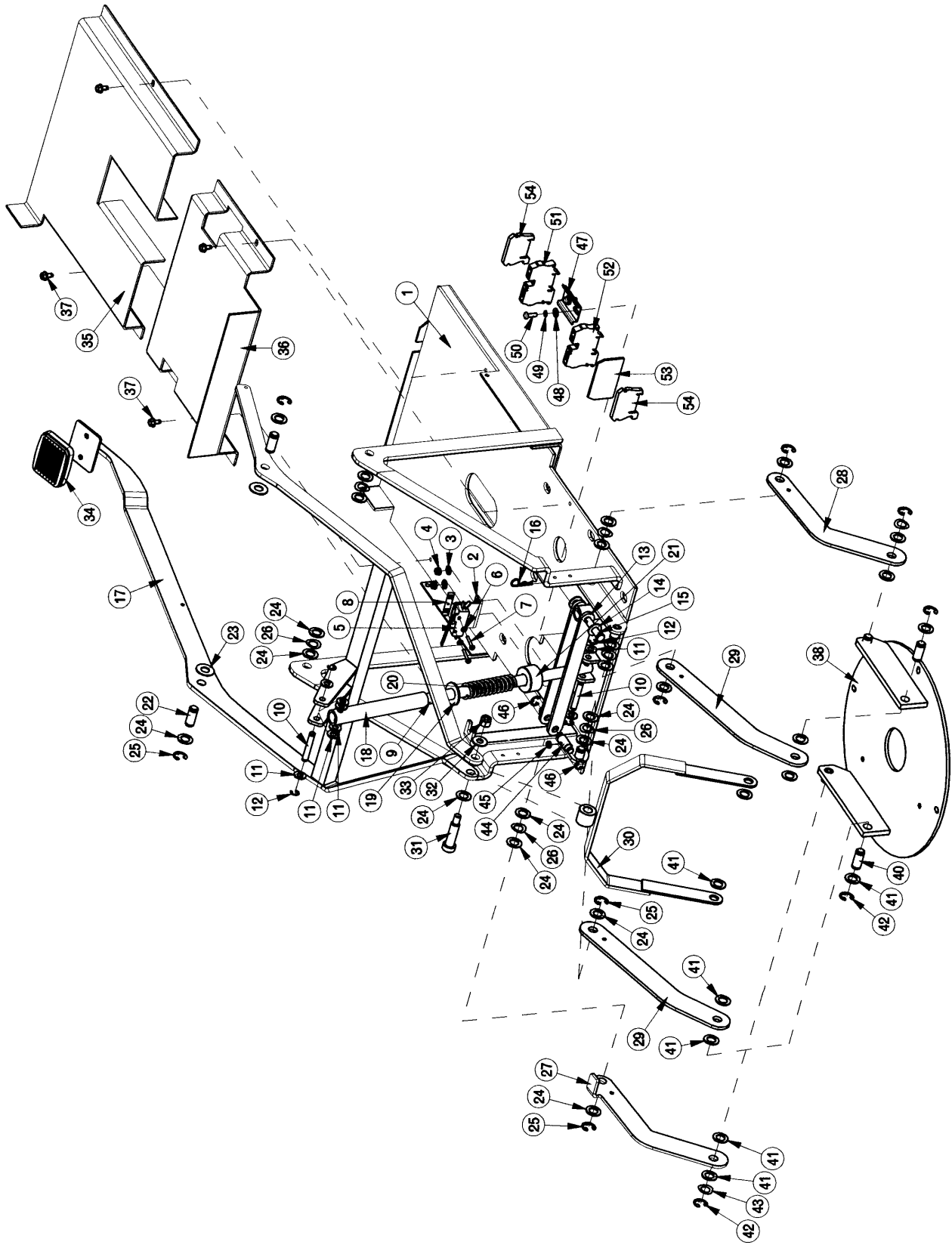




## Parts Listing

ITEM	PART NO.	REQ'D	DESCRIPTION
1	200126	2	MOUNT, TRANSAXLE
2	200154	1	PANEL COVER WELDMENT
3	200345	2	CASTER, 3-1/2 POLYURETHANE
4	210141	2	WHEEL 8 X 1.5 X .75 BORE
5	260224	1	18" HOSE
6	260536	1	BASE PLATE WELDMENT
7	260541	1	REAR HANDLE BRKT
8	260549	1	PRESSURE ADJ ASSEMBLY
9	260579	1	TOOL CLIP, 1.5" HOSE
10	260583	1	CONSOLE ASSEMBLY
11	260604	1	BATTERY BOX
12	320271	1	NOZZLE BODY-ELBOW
13	320272	2	NOZZLE BODY LOCKNUT
14	320273	1	HOSE SHUT-OFF CLAMP
15	361233	2	KEY, 3/16 SQ. X 1.50"
16	711124	6	PAN HEAD ST #10 X .37 NI
17	711160	11	#10 X 5/8 HI-LO
18	711228	4	BLT-HH 5/16-18 X .75 ST PL
19	711505	23	WSR-FLAT 1/4
20	711507	4	WSR-FLAT .37 X 1.12 X .06
21	711519	10	WSR- FLAT .25 X 1.01 X .06
22	711544	27	WSR-HELICAL 1/4
23	711545	4	WSR-HELICAL 5/16
24	712042	2	BLT-WSR HH 5/16-18 X .62
25	712318	4	WSR- FLAT.75 X 1.12 X .12 PL
26	712565	6	SCR-MC 1/4-20X.63 SS TR HD
27	712759	2	WSR- FLT .31 X 1.37 X .06 SS
28	713002	27	BLT-HH 1/4-20 UNC-2A X 3/4 STL#5
29	743800	1	TRANSAXLE 36V
30	743831	1	BURN ELECTRICAL ASSY
31	200102MCH	1	BASE MACHINED

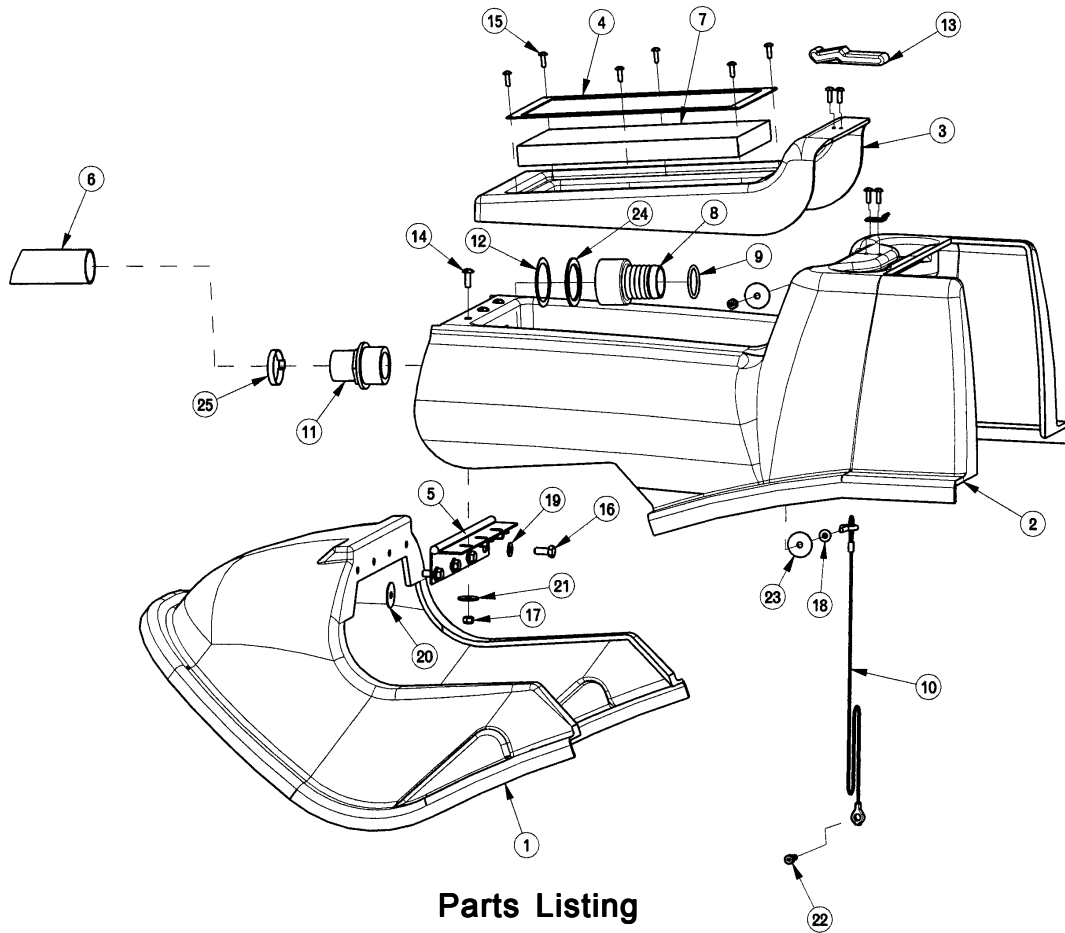
# Mainframe Assembly



## Parts Listing

ITEM NO.	PART NO.	QTY.	DESCRIPTION
1	260536	1	BASE PLATE WELDMENT
2	260577-1	1	SWITCH INTERLOCK BRACKET
3	711503	2	WSR, FLAT#10
4	711350	2	NUT NYLOC 10-32
5	740830	1	SWITCH SPST NC CONTACT
6	711501	2	WSR-FLAT # 6
7	710307	2	SCR-MC 6-32 X 1.0 ST PL PAN HD
8	711430	1	NUT-TINNERMAN TWIN 6-32
9	260522	1	SPRING GUIDE
10	670605	2	ROLLER PIN
11	711506	8	WSR-FLT .344 X .690 X .062 STL ZINC
12	711721	4	RET RING-E TYPE .312
13	260524	2	ADJUSTMENT LINK
14	711515	2	WSR-FLAT .406 X .812 X .0625
15	831965	1	3/8 x 1.63" CLEVIS PIN
16	711808	1	COTTER PIN-HAIR #13
17	260511	1	UPPER WMT
18	260521	1	GUIDE TUBE
19	711511	1	WSR-FLAT .62 X 1.31 X .09
20	762339	1	SPRING COMPRESSION
21	260523	1	SPRING SPACER 1.50 X .632 X .84
22	260519	2	PIVOT PIN
23	711592	2	WSR NYLON .5 X 1.06 X .06
24	712310	19	WSR- FLAT .52 X .87 X .06 PL
25	711713	6	RETAINING RING - "E" TYPE EXT .500
26	711524	6	WSR-WAVE .52 X .87 X .01
27	260576	1	LINK
28	260528	1	LINK
29	260529	2	TRAILING LINK
30	260513	1	MOTOR LIFT WELDMENT
31	712102	1	BLT- SHLDR 1/2 X 1-1/2
32	712301	1	WSR-FLAT .87 X .38 X .06
33	711380	1	NUT-NYLOC 3/8-16 NUT
34	210142	1	PEDAL PAD
35	260586	1	SUPPORT, BATTERY LOWER
36	260587	1	SUPPORT, BATTERY UPPER
37	712139	4	SCR-TR 1/4-20X 1.00 HWH
38	260615	1	MOTOR PLATE WELDMENT - NEW
39	000708	1	RTV SILICONE 10 OZ TUBE
40	260519	2	PIVOT PIN
41	712310	12	WSR- FLAT .52 X .87 X .06 PL
42	711713	4	RETAINING RING - "E" TYPE EXT .500
43	711524	2	WSR-WAVE .52 X .87 X .01
44	260525	1	ADJUSTMENT NUT
45	712905	1	NUT-HEX 10-24 NIPL
46	711717	2	RETAINING RING- E TYPE .37
47	743644	1	DIN RAIL, CUT - 2.00"
48	711503	2	WSR, FLAT#10
49	711543	2	WSR - HELICAL #10
50	710356	2	SCR-MC 10-32X.62 STPL
51	743640	1	TERMINAL BLOCK, RED (SPRING TYPE)
52	743641	1	TERMINAL BLOCK, BLACK (SPRING TYPE)
53	743642	1	TERM BLOCK, END PLATE
54	743643	2	TERM BLOCK, ANCHOR

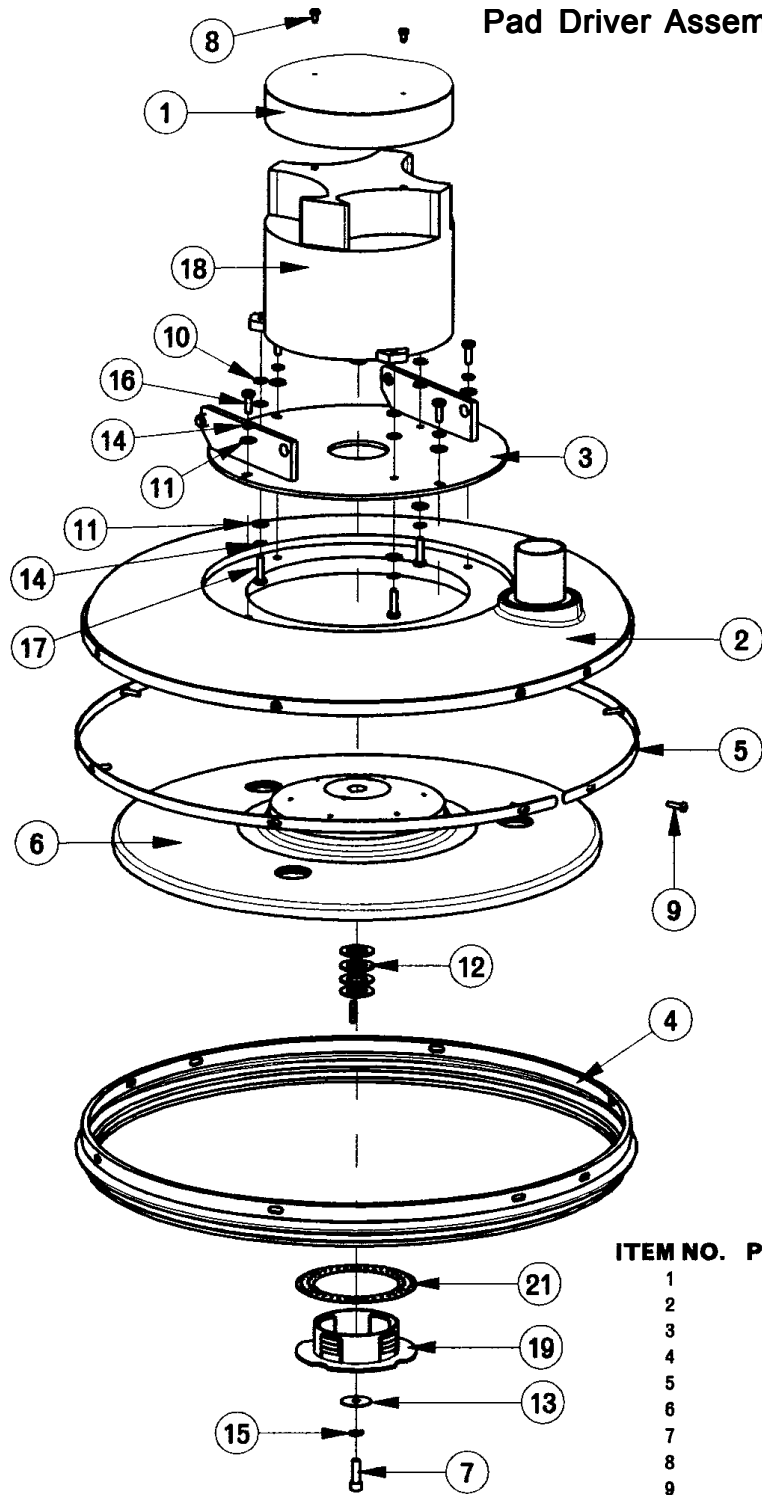
## Housing Assembly



### Parts Listing

ITEM NO.	PART NO.	QTY.	DESCRIPTION
1	260501	1	FIXED TOP COVER
2	260502	1	MOVING TOP COVER
3	260503	1	BAG COVER
4	260504	1	FILTER COVER WELDMENT
5	260560	1	HINGE 9.75"
6	260590	1	HOSE ASSY DUST CONTROL
7	260592	1	EXHAUST FILTER DUST CONTROL
8	260596	1	INSERT FITTING, 1-1/2" PVC, FPT
9	310008	1	O RING BUNA 2201510561
10	320246	1	TANK CABLE
11	450037	1	ADAPTER MACHINED
12	450081	1	WSR-SS 1.908 x 2.41 x .03
13	450207	1	LATCH, SOFT #C7-10
14	710180	3	SCR-MC TR HD 1/4-20x.75 STL ZINC
15	711160	10	#10 X 5/8 HI-LO
16	711228	4	BLT-HH 5/16-18 X .75 ST PL
17	711373	4	NUT-NYLOC 1/4-20
18	711425	1	NUT, HEX 1/4-20 WIZNUT
19	711506	4	WSR-FLT .344 X .690 X .062 STL ZINC
20	711516	4	WSR-FLAT .31 X 1.25 X .05
21	711519	3	WSR-FLAT .25 X 1.01 X .06
22	712041	1	BLT- SHLDR 1/4-20 X .44 X .37
23	712761	2	WSR-FLAT .28 X 1.25 X .059SS
24	828970	1	WSR-NEOP 1.87 X 2.4 X .125
25	831001	1	CRIMP CLAMP, 440R

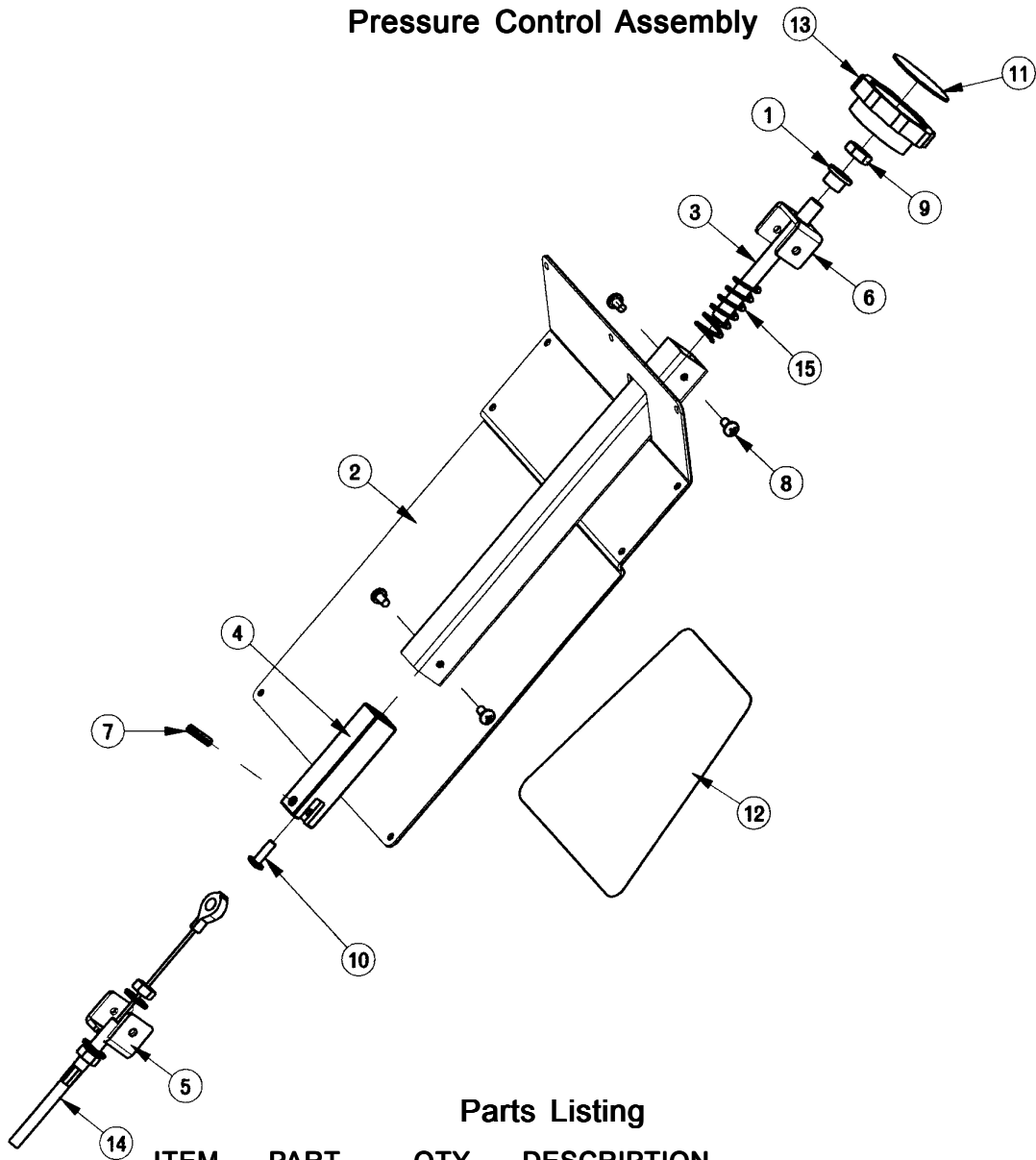
# Pad Driver Assembly



## Parts Listing

ITEM NO.	PART NO.	QTY.	DESCRIPTION
1	260573	1	MOTOR GRILL ASSY
2	260611	1	PAD DRIVER SHROUD - 20"
3	260615	1	MOTOR PLATE WELDMENT - NEW
4	260616	1	DUST SKIRT - NEW
5	260619	2	PAD DRIVER STRAP
6	670074	1	PAD DRIVER
7	710857	1	SCR-SC 5/16-24 X 1.00
8	711124	2	PAN HEAD ST #10 X .37 NI
9	711145	8	SCR-TR HD 10-24 X .75 NYLON
10	711504	6	WSR-FLAT 1/4 ID SS
11	711505	7	WSR-FLAT 1/4
12	711512	4	WSR-FLAT .75X1.37X.08
13	711516	1	WSR- FLAT .31 X 1.25 X .05
14	711544	7	WSR-HELICAL 1/4
15	711545	1	WSR-HELICAL 5/16
16	713002	4	BLT-HH 1/4-20 UNC-2A X 3/4 STL#5
17	713003	3	BLT-HH 1/4-20 X 1 #5
18	742461-2	1	MOTOR 66 FRAME 36V HI SPD
19	760401	1	CENTER CUP, NEW STYLE
20	833204	1	BOLT RETAINER
21	260581MCH	1	GRABBER RING, MACHINED

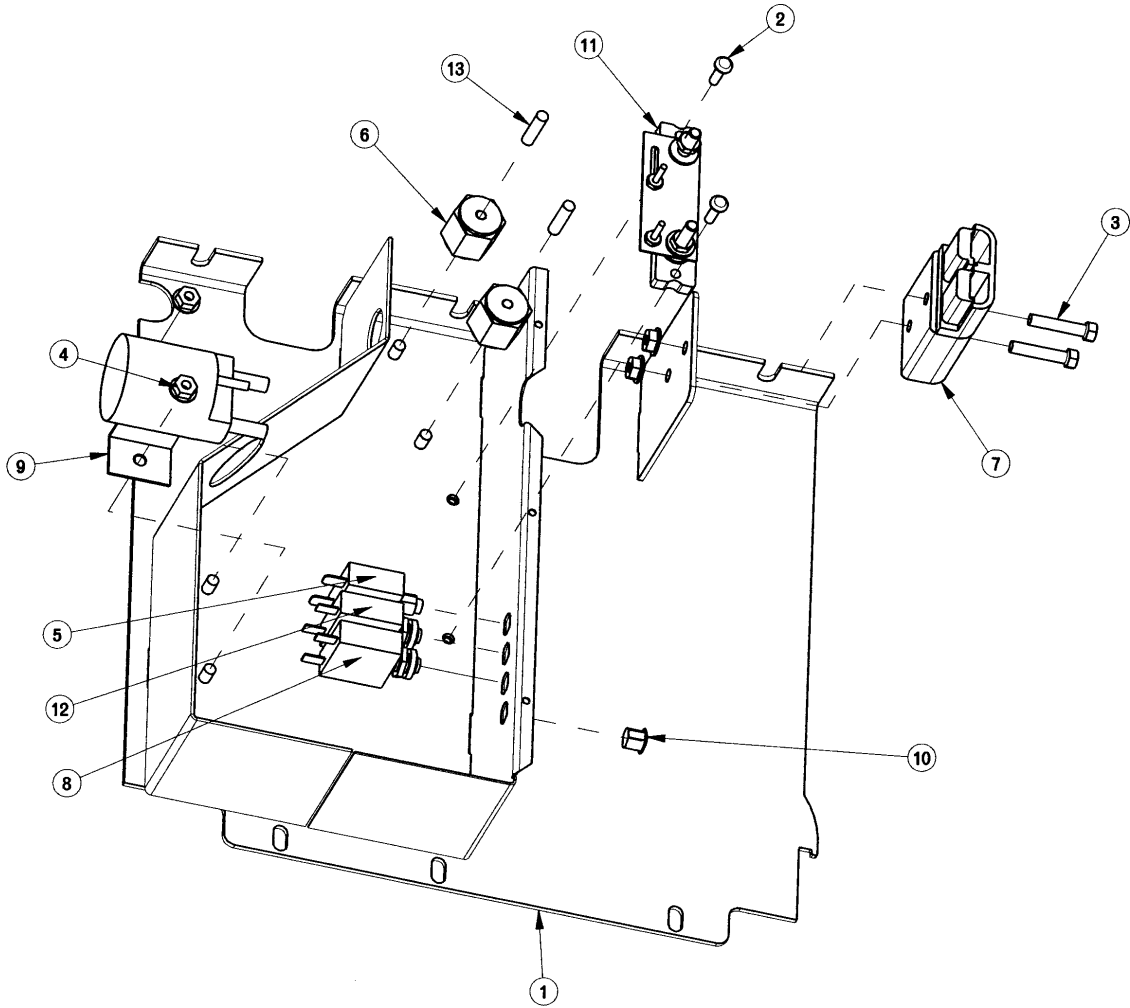
## Pressure Control Assembly



### Parts Listing

ITEM	PART	QTY	DESCRIPTION
1	260066	1	OILITE BUSHING
2	260547	1	PRESS ADJ MOUNT WELD
3	260554	1	PRESS ADJ SCREW
4	260557	1	PRESS ADJ SLIDE
5	260562	1	PRESS ADJ RET BRKT
6	260563	1	PRESS ADJ RET BRKT
7	260564	1	ROLL PIN 3/16"X3/4"
8	710353	4	SCR-MC 10-32 X .37 ST
9	711391	1	NUT-HEX JAM 3/8-16 ST
10	712536	1	SCR-MC 10-24 X .62 TH
11	715038	1	DECAL, PAD PRESSURE
12	715634	1	DECAL, MINUTEMAN ID
13	760034	1	KNOB, ADJ (SET SCREW)
14	762253	1	CABLE, ASSY PRESSURE
15	833102	1	SPRING, .62 X .75 X 1

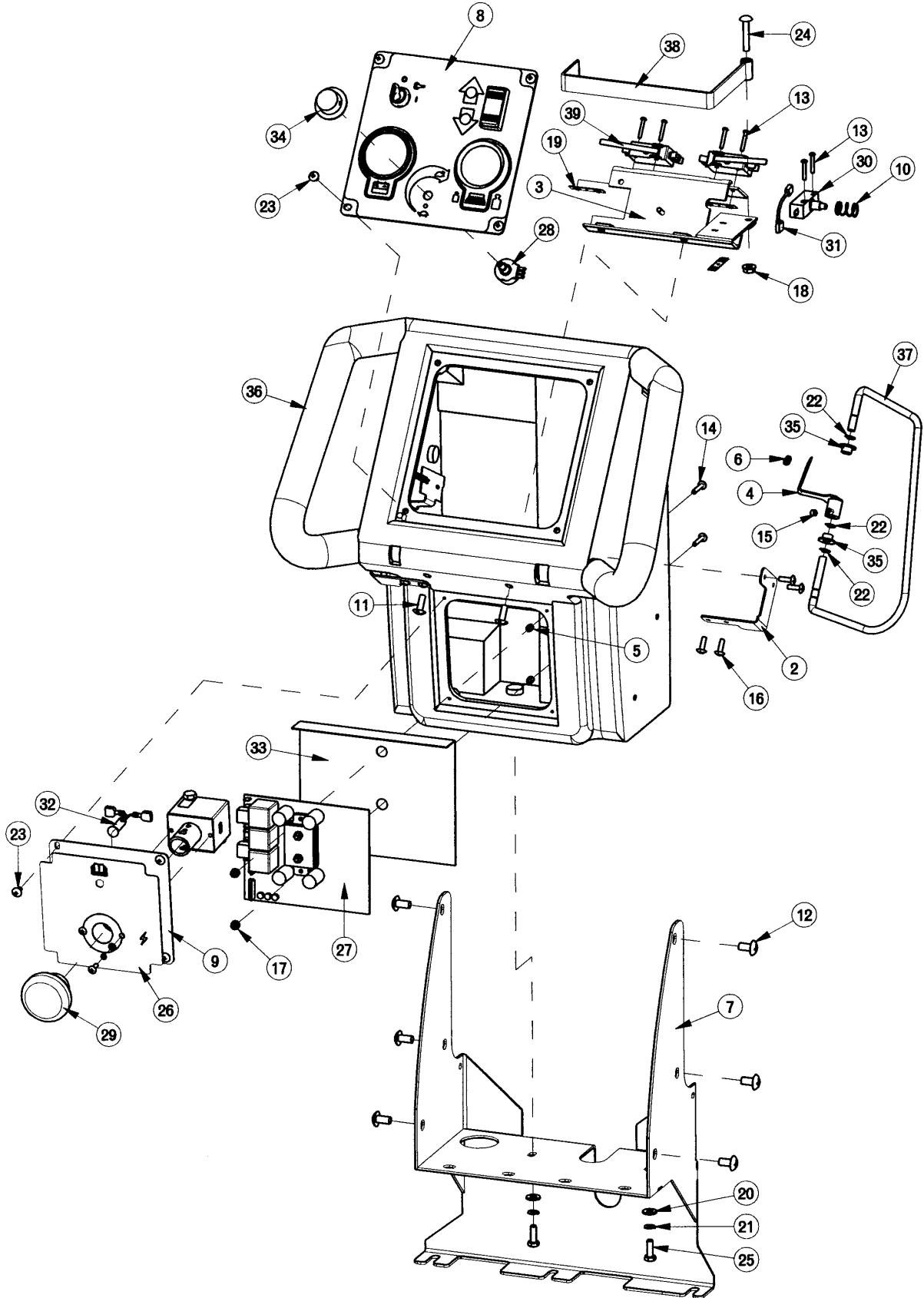
## Electrical Assembly



### Parts Listing

ITEM	PART	QTY	DESCRIPTION
1	260542	1	BACK PANEL WELDMENT
2	710356	2	SCR-MC 10-32X.62 STPL
3	711210	2	BLT-HH 1/4-20 X 1.25 STPL
4	711425	4	NUT, HEX 1/4-20 WIZNUT
5	740131	1	CIRCUIT BREAKER - 70AMP
6	740132	2	INSULATOR, GLASTIC
7	740147	1	CB 175 GRAY HOUSING
8	740238	1	CIRCUIT BREAKER - 3A
9	740243	1	CONTACTOR 36V 124-117111
10	742749	1	HEYCO, HOLE PLUG
11	743464	1	SHUNT CALIBRATED ASSY
12	746006	1	CIRCUIT BREAKER - 3A
13	833638	2	BRASS STUD

# Console Assembly

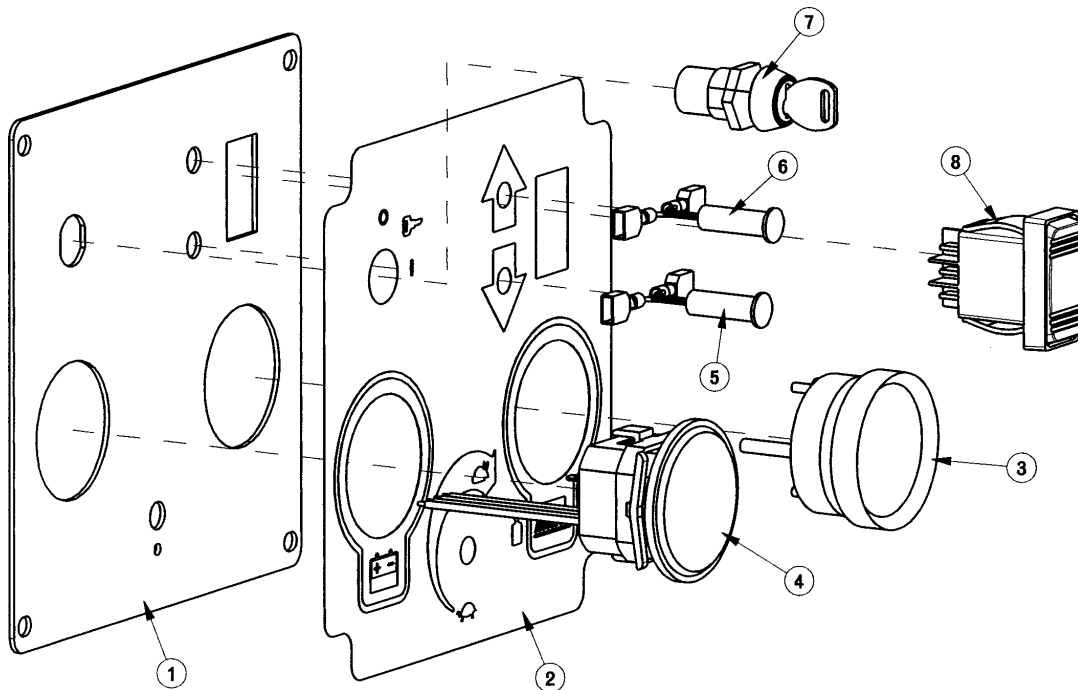




## Parts Listing

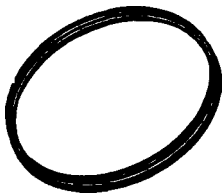
<b>ITEM NO.</b>	<b>PART NO.</b>	<b>QTY.</b>	<b>DESCRIPTION</b>
1	200039	1	BAIL STOP RH
2	200040	1	BAIL STOP LH
3	200184	1	SWITCH BRACKET WELDMENT
4	200338	2	CAM WELDMENT
5	200340	2	SPACER, SCR BOARD
6	220324	2	SPRING
7	260538	1	FRONT BRKT HANDLE WELDMT
8	260584	1	DASHBOARD ASSEMBLY
9	260589	1	PANEL COVER
10	670093	1	SPRING, COMPRESSION
11	710180	2	SCR-MC TR HD 1/4-20x.75 STL ZINC
12	710195	6	SCR- MC 5/16-18 X .50
13	710207	6	TBD
14	710534	2	SCR-MC TR HD 8-32 X 1.00 SS
15	711004	2	SK-CUP PT 1/4-20 X .25 STL BLACK
16	711160	8	#10 X 5/8 HI-LO
17	711372	2	NUT-NYLOC 8-32 STL ZINC
18	711425	1	NUT, HEX 1/4-20 WIZNUT
19	711430	3	NUT-TINNERMAN TWIN 6-32
20	711505	2	WSR-FLAT 1/4
21	711544	2	WSR-HELICAL 1/4
22	711721	6	RET RING-E TYPE .312
23	712540	8	SCR-MC TR HD 10-24 X .37 SS
24	712569	1	SCR-MC TR HD 1/4-20 X 1.50 SS
25	713002	2	BLT-HH 1/4-20 UNC-2A X 3/4 STL#5
26	715589	1	DECAL, PANEL COVER
27	740803-1	1	SPEED CONTROL 36V 1203A-304
28	740946	1	POTENTIOMETER 5K
29	742202	1	EMERGENCY STOP SWITCH
30	742472	1	SWITCH
31	743832	1	WIRE ASSEMBLY
32	747016-1	1	LED ASSY7 RED
33	805637	1	SCR INSULATOR
34	809874	1	KNOB, SPEED CONTROL
35	829052	4	BUSHING FLANGED NYLON .312 ID
36	200104MCH	1	HANDLE CONSOLE 200
37	200181CTD	2	HANDLE WIRE COATED
38	200190CTD	1	LEVER, SWITCH
39	833329SA	2	SWITCH, DPDT STAGGERED ACTION

## Dashboard Assembly



### Parts Listing

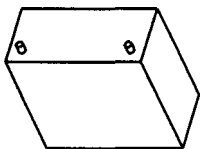
ITEM NO.	PART NO.	QTY.	DESCRIPTION
1	260506	1	PLATE, DASHBOARD
2	715440	1	DECAL, DASHBOARD
3	740135	1	METER, 100A DC (PRESSURE)
4	746102-1	1	GAUGE, BATTERY / HOUR METER 26
5	747016-1	1	LED ASSY7 RED
6	747017-1	1	LED ASSY AMBER
7	747024	1	KEYSWITCH, SPST ES2832 SOLDER
8	748151	1	SWITCH, ON-ON, DPDT



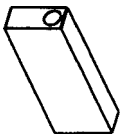
Dust Skirt  
P/N 260616



Carbon Brush Replacements  
P/N 572003 (Qty 4)

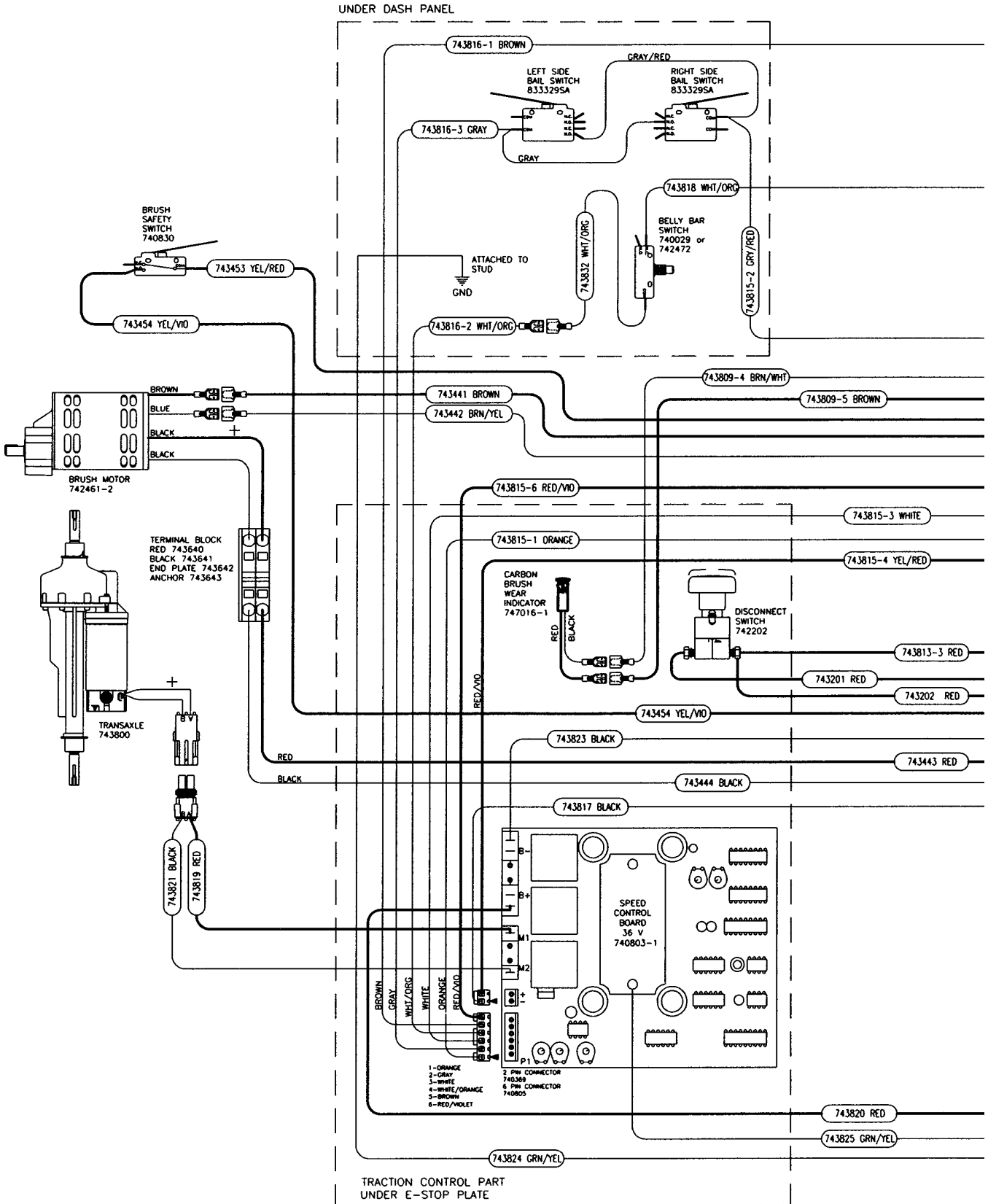


210 amp Hour Battery (Optional)  
P/N 956210



Paper Bag Replacements  
P/N 370202PKG

# SCHEMATIC DIAGRAM M26036QP

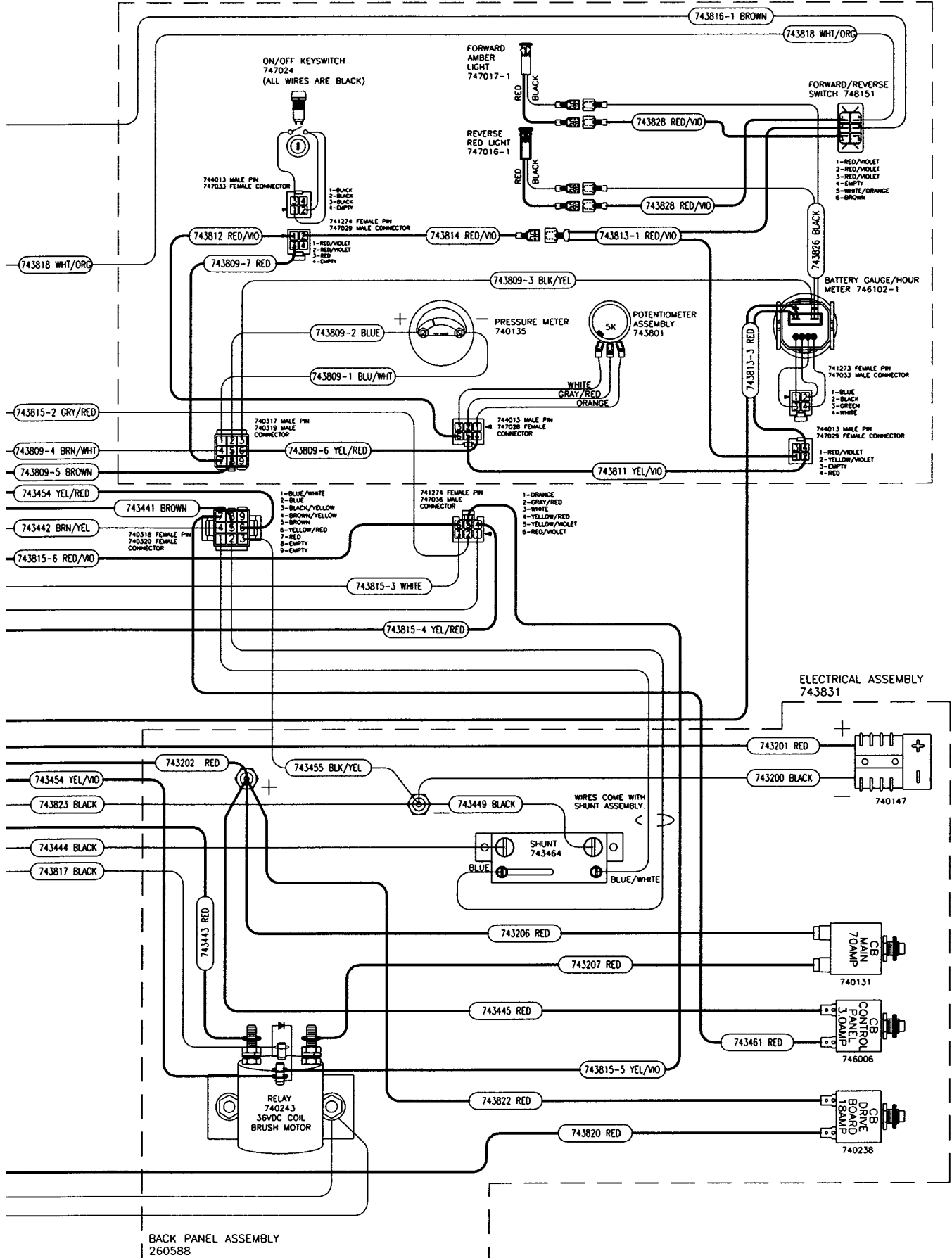


# SCHEMATIC DIAGRAM M26036QP, con't.

DASH PANEL COMPLETE  
743830

DASH PANEL ASSEMBLY  
260584

DASH PANEL HARNESS  
743806



# SCHEMATIC DIAGRAM M26036QP, con't.

FROM KEY SWITCH: 747024

PIN #	COLOR	FUNCTION
1	BLACK	TOGETHER WITH 2
2	BLACK	TOGETHER WITH 1
3	BLACK	ONE WIRE FROM 9 PIN:7 FROM 3A CB
4	EMPTY	-

TO KEY SWITCH

PIN #	HARNES COLOR	FUNCTION
1	RED/VIOLET	POSITIVE TO 6 PIN:6 TO TRACTION BOARD
2	RED/VIOLET	POSITIVE TO FOR LEDS TO REV SWITCH
3	RED	POSITIVE FROM 9 PIN:7 FROM 3A CB
4	EMPTY	-

FROM BATTERY GAUGE: 746102-1

PIN #	COLOR	FUNCTION
1	BLUE	KEY SWITCH ON/OFF LED
2	BLACK	START HOUR METER
3	GREEN	24V SYSTEM
4	WHITE	36V SYSTEM

TO BATTERY GAUGE: 743813

PIN #	COLOR	FUNCTION
1	RED/VIOLET	KEY SWITCH ON/OFF LED
2	YELLOW/VIOLET	START HOUR METER
3	EMPTY	-
4	RED	36V SYSTEM

REVERSE SWITCH: 748000

PIN #	COLOR	FUNCTION
1	RED/VIOLET	REVERSE LED POSITIVE(RED)
2	RED/VIOLET	KEY SWITCH ON/OFF
3	RED/VIOLET	FORWARD LED POSITIVE(RED)
4	WHITE/ORANGE	BELLY SWITCH-CONTROL 6 PIN:4/REVERSE TRACTION
5	BROWN	CONTROL 6 PIN:5/REVERSE TRACTION
6	EMPTY	-

6 PIN CONNECTOR: DASH SIDE 743809

PIN #	COLOR	FUNCTION
1	ORANGE	SPEED POTENTIOMETER
2	GRAY/RED	SPEED POTENTIOMETER
3	WHITE	SPEED POTENTIOMETER
4	YELLOW/RED	9 PIN: 6
5	YELLOW/VIOLET	BATTERY 4 PIN: 2
6	RED/VIOLET	KEY SWITCH 4 PIN: 1

6 PIN CONNECTOR

PIN #	COLOR	FUNCTION
1	ORANGE	CONTROL 6 PIN: 1
2	GRAY	CONTROL 6 PIN: 2
3	WHITE	CONTROL 6 PIN: 3
4	YELLOW/RED	CONTROL 2 PIN: 2 + BRAKE
5	YELLOW/VIOLET	BRUSH MOTOR SOLENOID: COIL
6	RED/VIOLET	CONTROL 6 PIN:6

9 PIN CONNECTOR: DASH SIDE

PIN #	COLOR	FUNCTION
1	BLUE/WHITE	- ON PRESSURE METER
2	BLUE	+ ON PRESSURE METER
3	BLACK/YELLOW	- ON BATTERY GAUGE/HOUR METER
4	BROWN/WHITE	BRUSH WEAR INDICATOR LED NEGATIVE(BLACK)
5	BROWN	BRUSH WEAR INDICATOR LED POSITIVE(RED)
6	YELLOW/RED	6 PIN:4/POSITIVE TO TURN ON MOTOR SOLENOID
7	RED	KEY SWITCH 4 PIN: 3/ POWER ON
8	EMPTY	-
9	EMPTY	-

9 PIN CONNECTOR

PIN #	COLOR	FUNCTION
1	BLUE/WHITE	SHUNT
2	BLUE	SHUNT
3	BLACK/YELLOW	OVDC POST
4	BROWN/YELLOW	BLUE ON MOTOR/BRUSH IN MOTOR 'WEAR INDICATE'
5	BROWN	BROWN ON MOTOR/BRUSH IN MOTOR 'WEAR INDICATE'
6	YELLOW/RED	BRUSH SAFETY SWITCH
7	RED	3.0 AMP CIRCUIT BREAKER/ POWER TO KEY
8	EMPTY	-
9	EMPTY	-

6 PIN CONNECTOR: SPEED CONTROL BOARD

PIN #	COLOR	FUNCTION
1	ORANGE	SPEED POTENTIOMETER/ CONTROL SPEED
2	GRAY	BAIL HANDLE SWITCHES/ TURNS ON TRANSAXLE
3	WHITE	SPEED POTENTIOMETER/ CONTROL SPEED
4	WHITE/ORANGE	REVERSE SWITCH:5/ FORWARD OR REVERSE
5	BROWN	REVERSE SWITCH 6:/ FORWARD OR REVERSE
6	RED/VIOLET	KEY SWITCH ON/ ENABLES TRANSAXLE BOARD

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Minuteman International, Inc. warrants to the original purchaser/user that this product is free from defects in workmanship and materials under normal use and service for a period of three years from date of purchase. In addition, Minuteman International, Inc. will, at its option, honor labor warranty claims for the first 12 months from date of sale, provided such claims are submitted through and approved by factory authorized repair stations. Minuteman International, Inc. will, at its option, repair or replace without charge, except for transportation costs, parts that fail under normal use and service when operated and maintained in accordance with the applicable operation and instruction manuals.

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, electrical motor components or adjustments. Parts not manufactured by Minuteman International, Inc. such as engines, batteries, battery chargers, hydraulic pumps, and tires are covered by and subject to the warranties and/or guarantees of their manufacturers. Please contact Minuteman International, Inc. for procedures in warranty claims against these manufacturers.

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

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