



Lumina 20 Traction Drive Battery Burnisher Parts and Instruction Manual

Technical Specifications

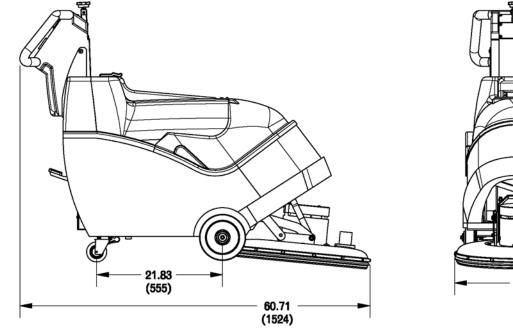


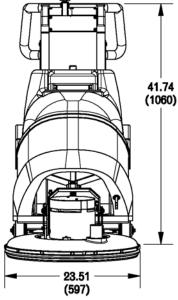
Model

Model No. Brush Speed Motor Voltage, Batteries Battery Capacity Gross Weight

Lumina 20 Traction Drive

M26036TDQP / / M26036TDQPIW / M26036TDCE 2600 RPM 2.5HP 36 volts, 3-12volt 165 AH 916 lbs (415 kg) with batteries 638 lbs (290 kg) without batteries





For Safety When Servicing or Maintaining Machine

- · Stop on level surface.
- Disconnect the power to the machine by pulling the red Battery Connector located under the recovery tank near the batteries.
- Avoid moving parts. Do not wear loose jackets, shirts, or sleeves when working on machine.
- Avoid contact with battery acid. 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.
- Do not clean machine with a pressure washer.
- · Authorized personnel must perform repairs and maintenance. Use Minuteman supplied replacement parts.



- D EG-Konformitätserklärung (entsprechend der EG-Richtlinie 2006/42/EG)
- **GB EC Declaration of Conformity** (according to Directive 2006/42/EC)
- F Déclaration de conformité pour la CEE (conforme à la directive de la CEE 2006/42/CEE)
- I Dichiarazione CE di Conformità (ai sensi della direttiva CEE 2006/42)
- E CEE Declaración de Conformidad (según la normativa de la CEE 2006/42/CE)

Minuteman International, Inc. erklären in alleiniger Verantwortung, daß das Produkt, declare under our sole responsibility, that the product, déclarons sous notre seule responsabilité que le produit, Dichiara sotto la propria responsabilità che il prodotto, declaramos bajo responsibilidad propia que el producto,

Machine Lumina 20 Traction Drive

M26036TDCE

D auf das sich diese Erklärung bezieht, den einschlägigen grundlegenden Sicherheits- und Gesundheitsanforderungen der EG-Richtlinie 2006/42/EG, sowie den Anforderungen gemäß 2014/30 /EG entspricht. Zur sachgerechten Umsetzung der in den EG-Richtlinien genannten Sicherheits- und Gesundheitsanforderungen wurde(n) folgende Norm(en) und /oder technische Spezifikation(en) herangezogen:

GB to which this declaration relates corresponds to the relevant basic safety and health requirements of the Directive 2006/42/EC, and to the requirements of the other relevant Directives 2014/30 /EC. For the relevant implementation of the safety and health requirements mentioned in the Directives, the following standard(s) and/or technical specification(s) has (have) been respected:

F faisant l'objet de la déclaration est conforme aux prescriptions fondamentales en matière de sécurité et de santé stipulées dans la Directive de la CEE 2006/42/CEE, ainsi qu'aux prescriptions des autres Directives de la CEE établies dans ce domaine 2014/ 30 /CEE. Pour mettre en pratique dans les règles de l'art les prescriptions en matière de sécurité et de santé stipulées dans les Directives de la CEE, il a été tenu compte de la/des norme(s) et/ou de la/des spécification(s) technique(s) suivante(s):

I é conforme ai requisiti essenziali di sicurezza e di tutela della salute di cui alla Direttiva CEE 2006/42 e sue successive modifiche, nonché ai requisiti di cui alle seguenti Direttive CEE 2014/30. Per la verifica della Conformità di cui alle Direttive sopra menzionate, sono state consultate le seguenti, Norme Armonizzate EN:

E al cual se refiere la presente declaración corresponde a las exigencias básicas de la normativa de la CEE 2006/42/CE y referentes a la seguridad y a la sanidad, asi como a las exigencias de la demás normativas de la CEE 2014/30 /CE. Con el fin de realizar de forma adecuada las exigencias referentes a la seguridad y a la sanidad mencionadas en las normativas de la CEE fué(ron) consultada(s) la(s) siguiente(s) normativa(s) y especificación(es) técnicas(s):

EN 60335-1, EN60335-2-72, EN55012, EN55014-2

Date 04/24/2017

Jack Hill

Managing Director

Name der autorisierten Person, die für Minuteman die technischen Unterlagen zusammenstellt: Name of the person authorized for Minuteman to compile the technical file: Personne chargée du suivi du dossier technique: Nome della persona autorizzata da Minuteman a compilare il file tecnico:

Nombre de la persona autorizada por Minuteman para la creación del fichero técnico: Ludger Luettel

D, GB, F, I, E



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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 and 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

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 "Dashboard 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 key switch to the ON position. The pad driver will then slowly adjust itself to the floor. Make sure the machine is set to move forward indicated by the light on the dashboard control panel.
- 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.

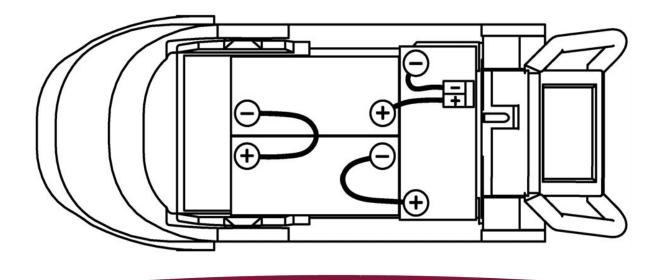
Battery Service and Installation

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.

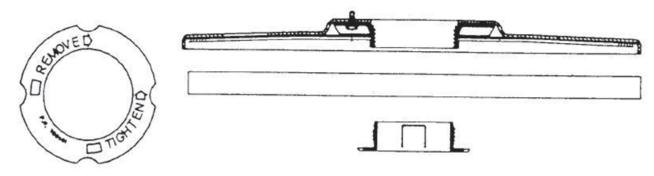
Battery Cable Routing





Pad Installation

The red emergency disconnect button and the key switch 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 carrying 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. 3.0 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

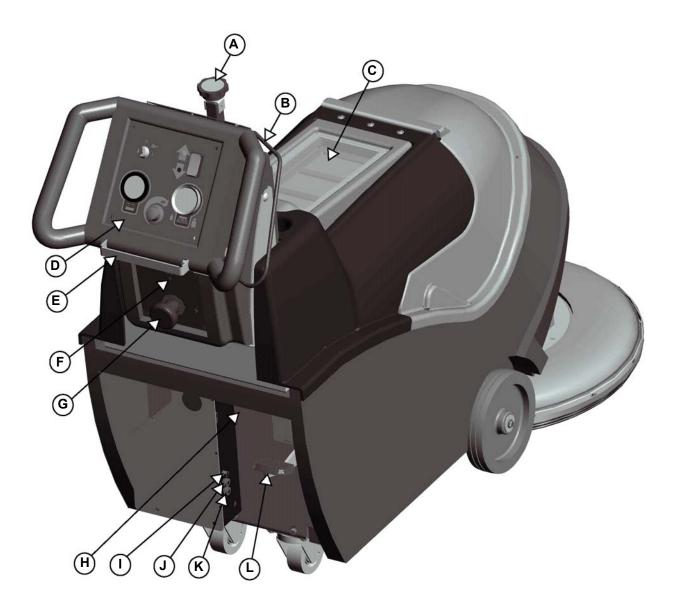
Design life of carbon brushes is between 1800-2000 hours. Replace brushes if worn to 3/8" or less, broken, or chipped. All carbon brushes should be replaced when motor is serviced. Four (4) are required, P/N 572003. Red indicator on control panel (above Emergency Disconnect Button, below the Dashboard)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

Machine Overview

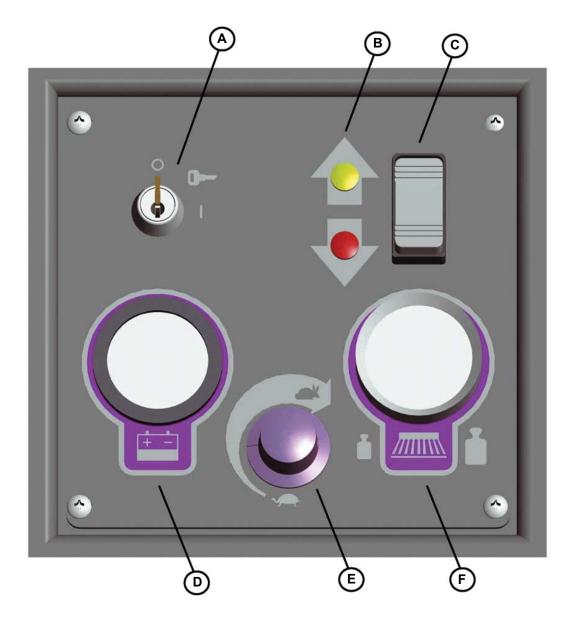




- A PAD PRESSURE ADJUSTMENT
- **B** BAIL LEVER
- C DUST BAG
- D DASHBOARD CONTROL PANEL
- E EMERGENCY BELLY BAR STOP
- F CARBON BRUSH INDICATOR
- G EMERGENCY STOP BUTTON
- H POWER CONNECTOR
- I CIRCUIT BREAKER, 70 AMP
- J CIRCUIT BREAKER, 3 AMP
- K CIRCUIT BREAKER, 18 AMP
- L FOOT PEDAL



Dashboard Control Panel



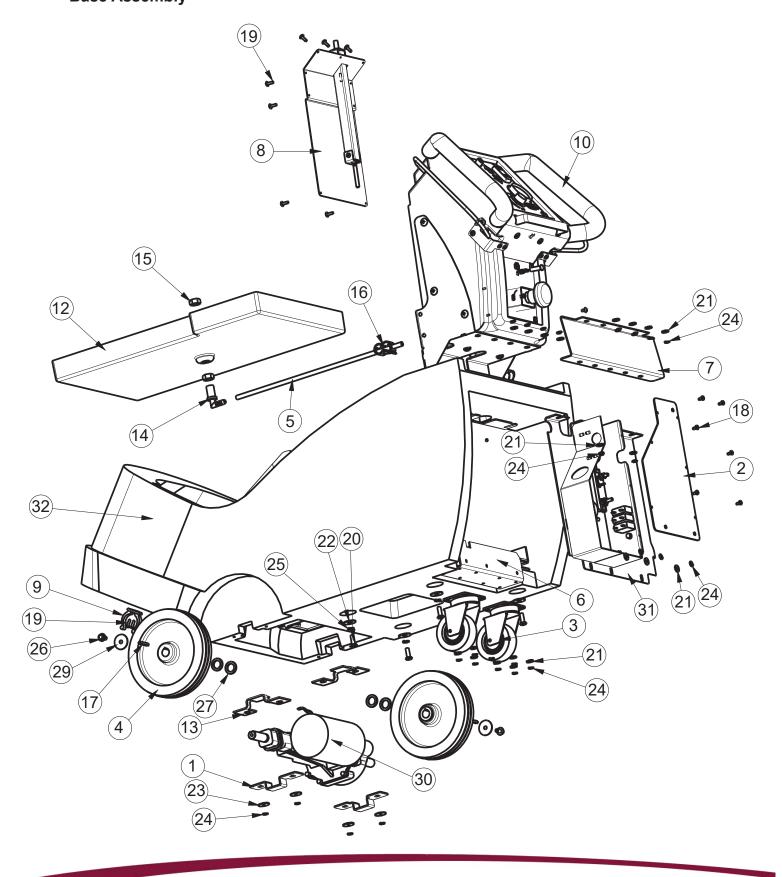
- A ON / OFF KEY SWITCH
- **B** TRACTION DRIVE DIRECTION INDICATOR
- **C** TRACTION DRIVE DIRECTIONAL SWITCH
- D BATTERY GUAGE
- E TRACTION DRIVE SPEED CONTROL
- F PAD PRESSURE GUAGE

Notes



Base Assembly





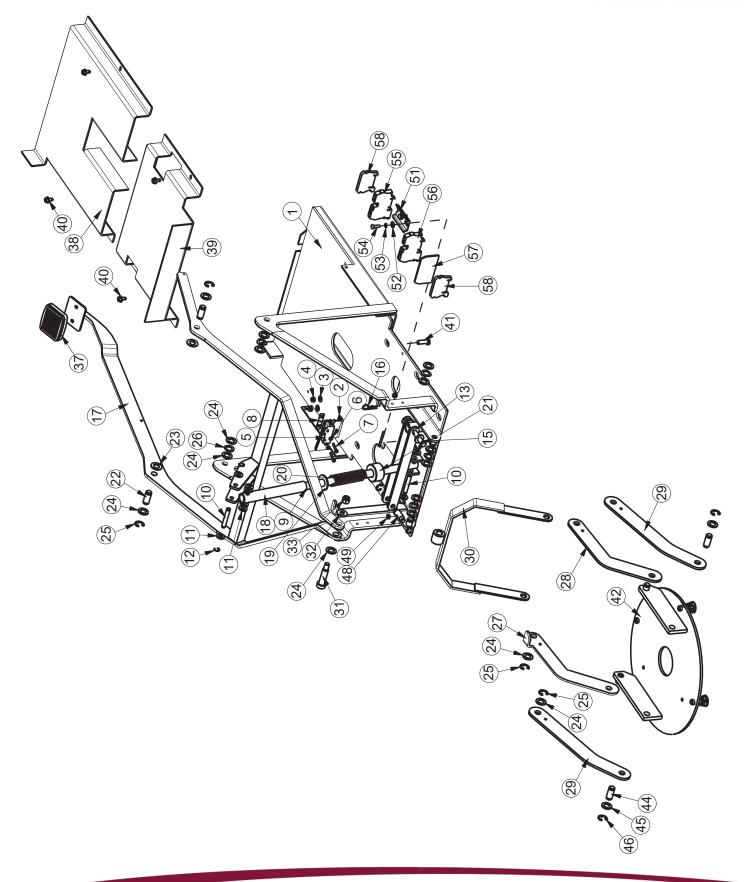


Base Assembly BOM

	BILL OF MATERIAL				
ITEM	PART NO.	QTY	DESCRIPTION		
1	200126	2	TRANSAXLE MOUNT 11GA		
2	200154	1	ELECTRICAL BOX COVER 14GA		
3	172167	2	CASTER, 3 1/2" PU WHEEL		
4	210141	2	WHEEL-8 X 1.5 X .75 BORE		
5	260224	1	DRAIN HOSE 1/4 X 18 SILICONE		
6	260536	1	WELD-PLATE BASE		
7	260541	1	REAR HANDLE BRKT		
8	260549	1	PRESS ADJ ASSY		
9	260579	1	CLIP-TOOL 1.5 INCH HOSE		
10	260683	1	CONSOLE ASY, 2600TD SPE BAT GAUGE		
12	260604	1	TRAY, BATTERY		
13	260676	2	SPACER, TRANSAXLE		
14	320271	1	FITTING-PP 90 11/16-16UNC X 3/8HOSE		
15	320272	2	NOZZLE BODY LOCKNUT		
16	320273	1	CLAMP-HOSE SHUT-OFF		
17	361233	2	KEY-SQ 3/16 X 1-1/2		
18	711124	6	SCR-PHSMS 10 X .37 ZP B POINT		
19	711160	11	SCR-HI/LO 10 X .625 BLACK ZINC		
20	711229	4	SCR-HH 5/16-18 X .87 ZP GR 5		
21	711505	23	WASHER-FLAT 1/4 ZP		
22	711507	4	WASHER-FLAT 3/8 X 1.12 X .06		
23	711519	10	WASHER-FLAT 1/4 X 1.00 X .06 ZP		
24	711544	27	WASHER-LOCK 1/4 SPLIT ZP		
25	711545	4	WASHER-LOCK 5/16 SPLIT ZP		
26	712042	2	SCR-HH 5/16-18 X.62 ZP GR 5 FLANGE		
27	712318	4	WASHER-FLAT 3/4 X 1.12 X .12 ZP		
29	712759	2	WASHER-FLAT .31 X 1.37 X .06 SS		
30	743800	1	TRANSAXLE- 36VDC		
31	743847	1	ELEC ASSY, BATTERY BURN		
32	200102MCH	1	2600 BASE		

Mainframe Assembly

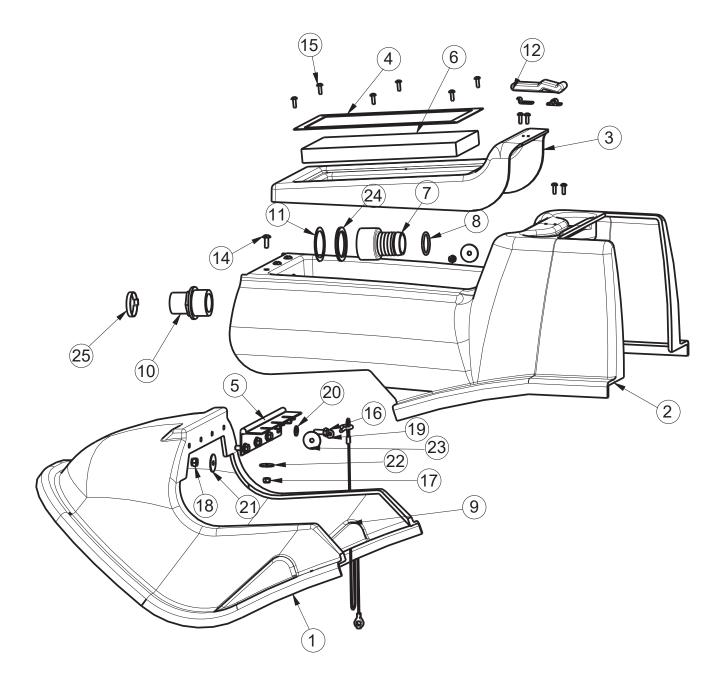






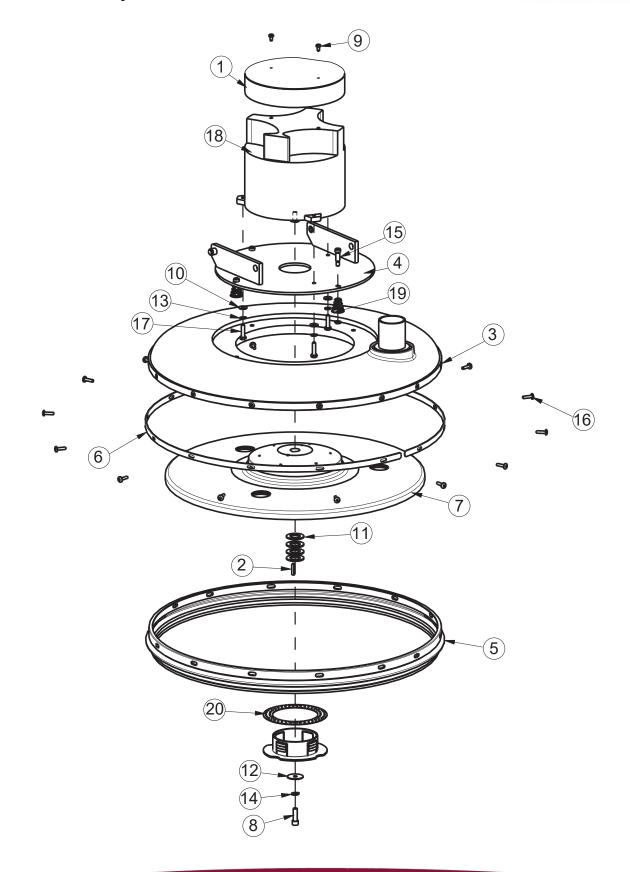
	BILL OF MATERIAL							
ITEM	PART #	QTY	DESCRIPTION	ITEM	PART #	QTY	DESCRIPTION	
1	260536	1	WELD-PLATE BASE	28	260528	1	LINK	
2	260577-1	1	SWITCH INTERLOCK BRKT NEW	29	260529	2	TRAILING LINK	
3	711503	2	WSR-FLAT #10 X .50 ZP	30	260513	1	WELD-LIFT MOTOR	
4	711350	2	NUT-NYLOC 10-32 ZP	31	712102	1	BLT-SHLDR 1/2 X 1.5 LG X 3/8-16	
5	740830	1	SW-SNAP SPST NO/NC CONTACTS FLAT LEVER	32	712301	1	WSR-FLAT 3/8 X .87 X .06 ZP	
6	711501	2	WSR-FLAT #6 X .375 ZP	33	711380	1	NUT-NYLOC 3/8-16 ZP	
7	710307	2	SCR-PHMS 6-32 X 1.00 ZP	37	210142	1	PEDAL PAD	
8	711430	1	NUT-TINNERMAN 6-32	38	260586	1	SUPPORT, BATTERY LOWER	
9	260522	1	SPRING GUIDE	39	260587	1	SUPPORT, BATTERY UPPER	
10	670605	2	ROLLER PIN	40	712139	4	SCR-HH 1/4-20 X .50 ZP THREAD ROLLING	
11	711506	8	WSR-FLAT 5/16 X .688 ZP	41	711229	4	SCR-HH 5/16-18 X .87 ZP GR 5	
12	711721	4	RET RING-E TYPE .312	42	260615	1	WELD-PLATE MOTOR NEW	
13	260524	2	ADJUSTMENT LINK	44	260519	2	PIVOT PIN	
15	831965	1	PIN-CLEVIS 3/8 X 1.63	45	712310	12	WSR-FLAT .52 X .87 X .06 ZP	
16	711808	1	PIN-HAIRPIN COTTER #13	46	711713	6	RET RING-E EXT .50	
17	260511	1	WELD-UPPER	48	260525	1	ADJUSTMENT NUT	
18	260521	1	GUIDE TUBE	49	712905	1	NUT-HEX 10-24 SS	
19	711511	1	WSR-FLAT 5/8 X 1.31 X .09 SS	51	743644	1	DIN RAIL, CUT- 2"	
20	762339	1	SPRING-COMP	52	711503	2	WSR-FLAT #10 X .50 ZP	
21	260523	1	SPACER-1.5 X .632 X .84	53	711543	2	WSR-LOCK #10 SPLIT ZP	
22	260519	2	PIVOT PIN	54	710356	2	SCR-RHMS 10-32 X .62 ZP	
23	711592	2	WSR-FLAT 1/2 X .90 X .064 NYLON	55	743640	1	TERMINAL BLOCK-60A RED (SPRING ACTION)	
24	712310	19	WSR-FLAT .52 X .87 X .06 ZP	56	743641	1	TERMINAL BLOCK-60A BLACK (SPRING ACTION)	
25	711713	6	RET RING-E EXT .50	57	743642	1	TERMINAL BLOCK-END PLATE (SPRING ACTION)	
26	711524	6	WSR-WAVE .52 X .87 X .01	58	743643	2	TERM BLOCK-END ANCHOR (SPRING ACTION)	
27	260576	1	LINK, SWITCH BRKT					







	BILL OF MATERIAL					
ITEM	PART NO.	QTY	DESCRIPTION			
1	260501	1	FIXED TOP COVER			
2	260502	1	TOP COVER REAR			
3	260503	1	BAG COVER TOP			
4	260504	1	PLATE-FILTER COVER			
5	260560	1	HINGE-9.75"			
6	260592	1	EXHAUST FILTER DUST CONTROL			
7	260596	1	INSERT FITTING 1-1/2" PVC FPT FEM ADAP			
8	310008	1	O-RING-BUNA 1.375 ID			
9	320246	1	SOLUTION TNK CABLE			
10	450037	1	ADAPTER MACHINED			
11	450081	1	WASHER-FLAT 1.908 X 2.41 X .03 SS			
12	450207	1	LATCH-SOFT			
14	710180	3	SCR-THMS 1/4-20 X .75 ZP			
15	711160	10	SCR-HI/LO 10 X .625 BLACK ZINC			
16	711228	4	SCR-HH 5/16-18 X .75 ZP GR 5			
17	711373	4	NUT-NYLOC 1/4-20 ZP			
18	711374	4	NUT-NYLOC 5/16-18 ZP			
19	711425	1	NUT-FLANGED WIZZ 1/4-20 ZP			
20	711506	4	WASHER-FLAT 5/16 X .688 ZP			
21	711516	4	WASHER-FLAT 5/16 X 1.25 X .05 ZP			
22	711519	3	WASHER-FLAT 1/4 X 1.00 X .06 ZP			
23	712761	2	WASHER-FENDER 1/4 X 1.25 X .059 SS			
24	828970	1	WSR NEOP 1.87X2.4X.125			
25	831001	1	CLAMP-CRIMP 440R			

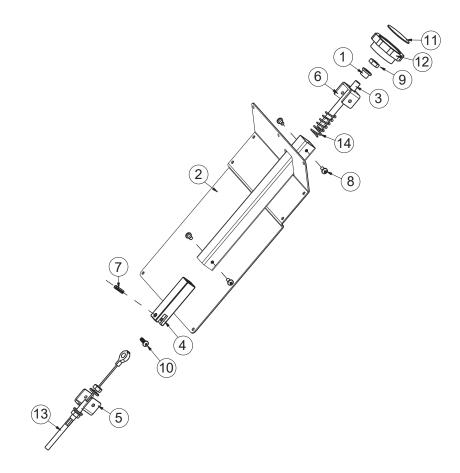




	BILL OF MATERIAL - 260610					
ITEM	PART NO.	QTY	DESCRIPTION			
1	260573	1	MOTOR GRILL ASSY			
2	260597	1	KEY, 3/6 X .906			
3	260611	1	PAD DRIVER SHROUD - 20"			
4	260615	1	WELD-PLATE MOTOR NEW			
5	260616	1	DUST SKIRT - NEW			
6	260619	2	PAD DRIVER STRAP			
7	670075	1	MULTIFLEX PADRVR ASSY-BATTERY BURNISHER			
8	710857	1	SCR-SHCS 5/16-24 X 1.00 BLL OX			
9	711124	2	SCR-PHSMS 10 X .37 ZP B POINT			
10	711505	3	WASHER-FLAT 1/4 ZP			
11	711512	4	WASHER-FLAT 3/4 X 1.37 X .08 ZP			
12	711516	1	WASHER-FLAT 5/16 X 1.25 X .05 ZP			
13	711544	7	WASHER-LOCK 1/4 SPLIT ZP			
14	711545	1	WASHER-LOCK 5/16 SPLIT ZP			
15	712070	4	BLT-SHOULDER 5/16 X .75 LG X 1/4-20 BLK			
16	712537	14	SCR-THMS 10-24 X .75 SS			
17	713003	3	SCR-HH 1/4-20 X 1.00 ZP GR 5			
18	742461-2	1	MOTOR ASSEMBLY			
19	809857	4	SPRING-CONICAL STL			
20	260581MCH	1	PAD GRABBER, RING MACHINED			



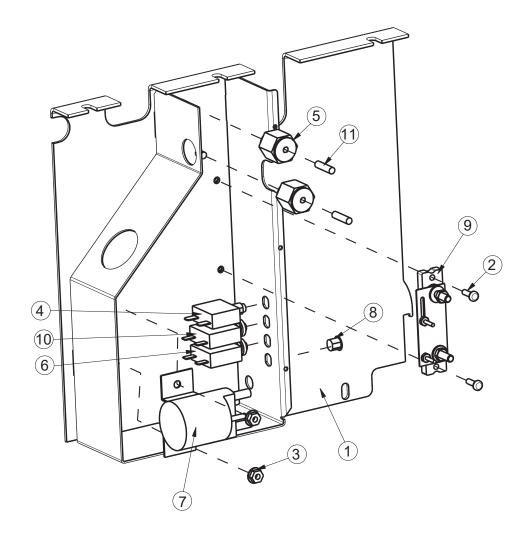




	BILL OF MATERIAL - 260549					
ITEM	PART NO.	QTY	DESCRIPTION			
1	260066	1	BUSHING-FLG .377 X .50 X .31 OILITE			
2	260547	1	WELD-PRESS ADJUST			
3	260554	1	PRESS ADJ SCREW			
4	260557	1	PRESS ADJ SLIDE			
5	260562	1	PRESS ADJ RET BRKT			
6	260563	1	PRESS ADJ RET BRKT			
7	260564	1	PIN-ROLL 3/16 X 3/4			
8	710353	4	SCR-PHMS 10-32 X .37 ZP			
9	711391	1	NUT-JAM 3/8-16 ZP			
10	712536	1	SCR-THMS 10-24 X .62 SS			
11	715038	1	DECAL-PAD PRESSURE			
12	760034	1	KNOB-ADJ 3/8-16 THREAD			
13	762253	1	CABLE-PRESSURE ADJ ASSY			
14	833102	1	SPRING-KNOB .60 X .73 X 1.75 ZINC			

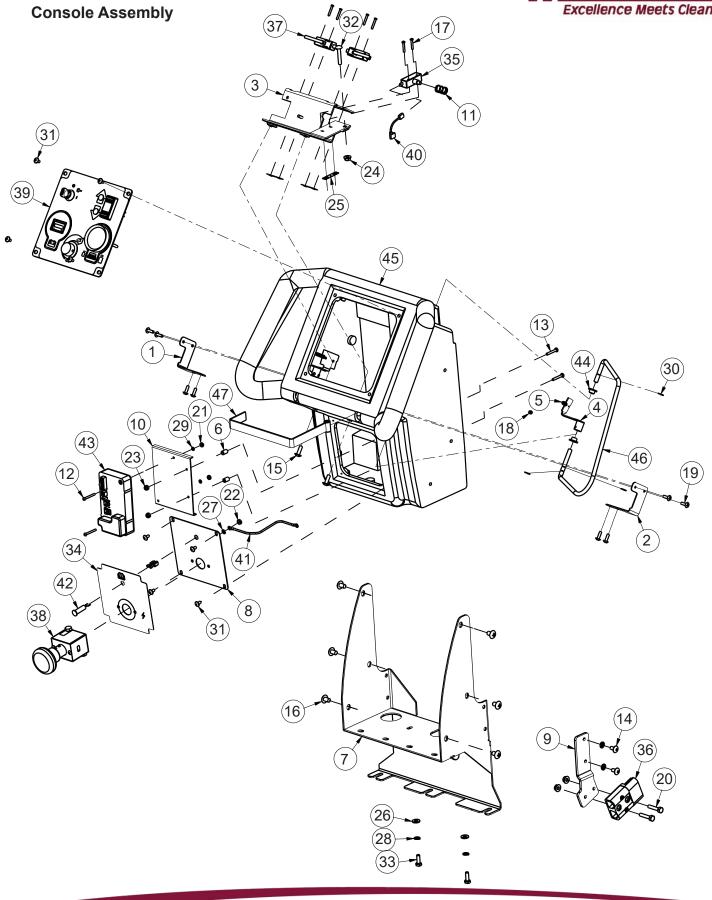


Electrical Assembly



	BILL OF MATERIAL - 260588					
ITEM	PART NO.	QTY	DESCRIPTION			
1	260542	1	WELD-BACK PANEL			
2	710356	2	SCR-RHMS 10-32 X .62 ZP			
3	711425	2	NUT-FLANGED WIZZ 1/4-20 ZP			
4	740131	1	CIRCUIT BREAKER-70AMP PUSH BUTTON			
5	740132	2	INSULATOR (ELECTRICAL)- 1/4-20 INSERT			
6	740238	1	CIRCUIT BREAKER-18AMP PUSH BUTTON			
7	740243	1	CONTACT-36V SPNO 100A CONTINUOUS			
8	742749	1	CIRCUIT BREAKER, HOLE PLUG			
9	743464	1	SHUNT ASSY 100MV X 100A			
10	746006	1	CIRCUIT BREAKER-3.0AMP PUSH BUTTON			
11	833638	2	BRASS STUD- 1/4-20 X 1"			



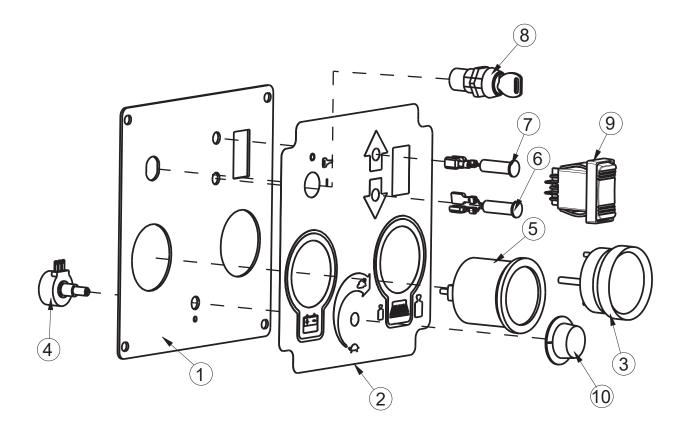




	BILL OF MATERIAL 260683							
ITEM	PART #	QTY	DESCRIPTION	ITEM	PART #	QTY	DESCRIPTION	
1	200039	1	BAIL STOP LH	25	711430	3	NUT-TINNERMAN 6-32	
2	200040	1	BAIL STOP RH	26	711505	2	WASHER-FLAT 1/4 ZP	
3	200184	1	WELD-BRACKET SWITCH	27	711534	1	WASHER-EXT LOCK #10 ZP	
4	200338	2	WELD-CAM	28	711544	4	WASHER-LOCK 1/4 SPLIT ZP	
5	220324	2	SPRING-EXT 1.125L	29	711551	2	WASHER-INT LOCK #6	
6	255045	2	SPACER19 X .31 X .47	30	711721	6	RET RING-E TYPE .312	
7	260538	1	FRONT HANDLE BRACKET WMT	31	712540	8	SCR-THMS 10-24 X .37 SS	
8	260589	1	PANEL, LUMINA 20 E-STOP	32	712569	1	SCR-THMS 1/4-20 X 1.50 SS	
9	260605	1	LUMINA 20" AND. PLUG BRK'T	33	713002	2	SCR-HH 1/4-20 X .75 ZP 5	
10	260682	1	MOUNTING PLATE, I-DRIVE	34	715589	1	DECAL-PANEL COVER	
11	670093	1	SPRING-COMP .502 X .6 X 1 ZINC	35	740029	1	SWITCH, SNAP SPST PB NO/ NC 1.5 HP	
12	710008	2	SCR-RHMS 6-32 X 1.25 ZP	36	740147	1	CONNECTOR-SB175 GREY HOUSING ONLY	
13	710035	2	SCR-PHMS 8-32 X 1.125 ZP	37	740830	2	SW-SNAP SPST NO/NC CON- TACTS FLAT LEVER	
14	710178	2	SCR-THMS 1/4-20 X .50 ZP	38	742202	1	SWITCH, DISCONNECT- E- STOP 1 POLE 125A	
15	710180	2	SCR-THMS 1/4-20 X .75 ZP	39	743830-1	1	DASHBOARD ASY. COMPLETE, W/HARNESS	
16	710195	6	SCR-PHMS 5/16-18 X .50 ZP	40	743832	1	WIRE ASSY, WHITE/ORANGE 18GA	
17	710207	6	SCR-PHMS 6-32 X .87 ZP	41	743966	1	WIRE ASSY-16G GREEN/ YELLOW 16" B=12	
18	711004	2	SCR-SET 1/4-20 X .25 BLK OX CP	42	747016-1	1	LED ASSY, RED 36VDC W/ FEMALE QC	
19	711160	8	SCR-HI/LO 10 X .625 BLACK ZINC	43	747731	1	I-DRIVE, 24-36V, 70A	
20	711210	2	SCR-HH 1/4-20 X 1.25 ZP GR 5 FULL THRD	44	829052	4	BUSHING-FLG .312 X .437 X .31 NYL	
21	711301	2	NUT-HEX 6-32 ST PL	45	200104MCH	1	CONSOLE MACHINED	
22	711310	1	NUT-HEX 10-32 ZP	46	200181CTD	2	HANDLE, WIRE COATED	
23	711372	2	NUT-NYLOC 8-32 ZP	47	200190CTD	1	LEVER, SWITCH, COATED	
24	711425	3	NUT-FLANGED WIZZ 1/4-20 ZP					

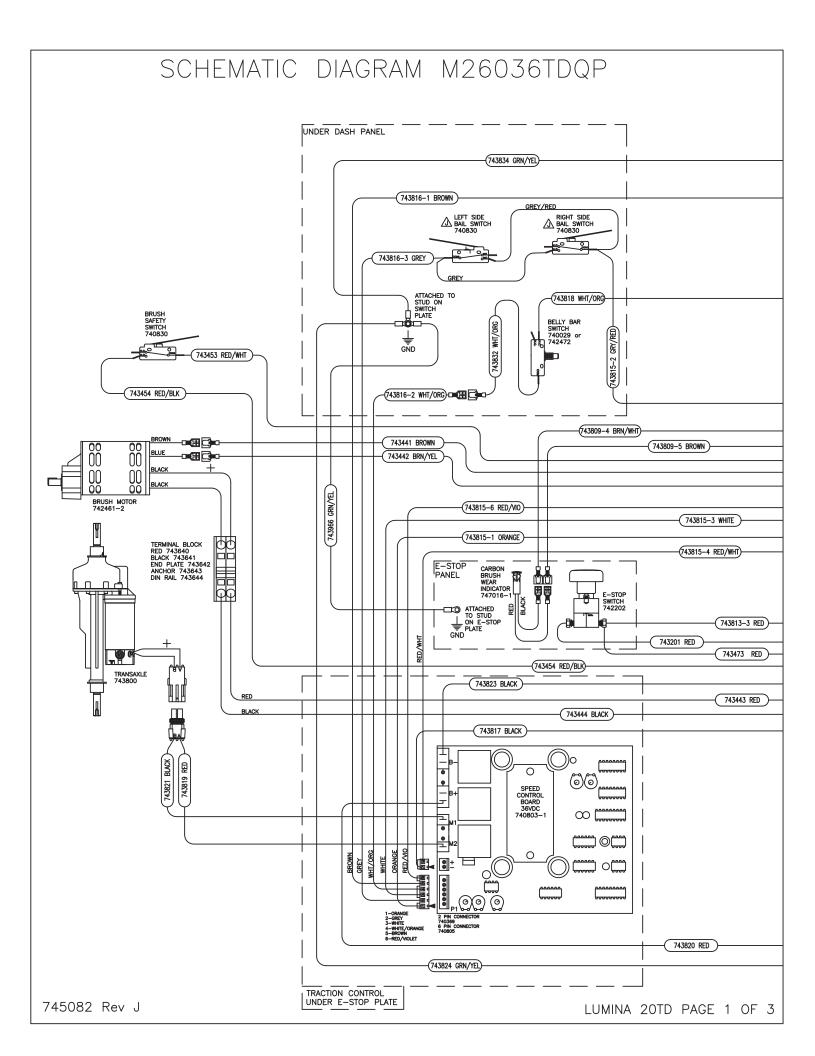


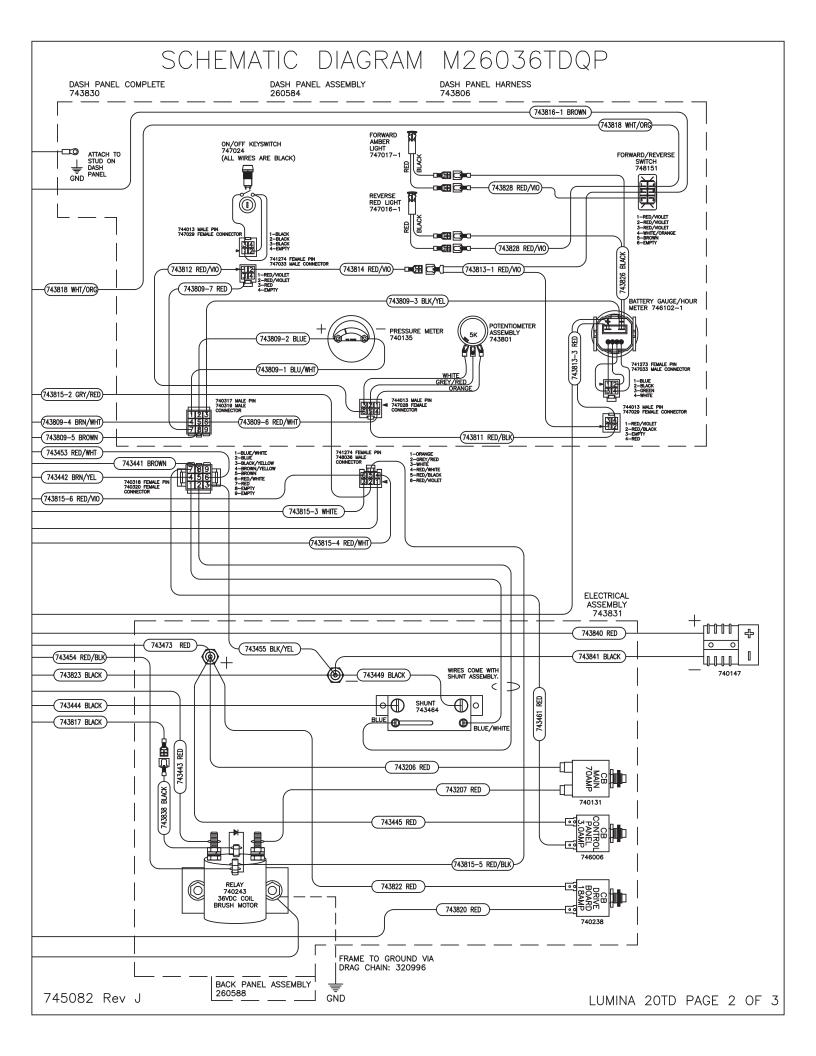




	BILL OF MATERIAL - 743830-1					
ITEM	PART NO.	QTY	DESCRIPTION			
1	260506-1	1	PLATE, DASHBOARD SPE			
2	715440	1	DECAL-LUMINA 20TD			
3	740135	1	METER-PRESSURE 100A DC			
4	740946	1	POTENTIOMETER 5K			
5	746103	1	GAUGE, BATTERY/HOUR W/RELAY			
6	747016-1	1	LED ASSY, RED 36VDC W/FEMALE QC			
7	747017-1	1	LED ASSY, AMBER 36VDC W/FEMALE QC			
8	747024	1	SW-KEY SPST SOLDER LEADS W/ 4 PIN MOLEX			
9	748151	1	SWITCH, ON-ON DPDT (FWD/REV)			
10	809874	1	KNOB-SPEED CONTROL			







SCHEMATIC DIAGRAM M26036TDQP

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 I	KEY SWITCH	
PIN # HADNESS COLOD		FUNCTION

PIN	#	HARNESS 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

RED

REVERSE SWITCH: 748000

RED/VIOLET

RED/VIOLET

RED/VIOLET

WHITE/ORANGE

BROWN

EMPTY

COLOR

ORANGE

GREY/RED

WHITE RED/WHITE

RED/BLACK

RED/VIOLET

6 PIN CONNECTOR: DASH SIDE 743809

COLOR

4

PIN #

1

2

3

4

5

PIN #

1

2

3

4

5

6

6

PIN #	COLOR	FUNCTION					
1	BLUE	KEY SWITCH ON/OFF LED					
2	BLACK	START HOUR METER					
3	GREEN	24V SYSTEM					
4	WHITE	36V SYSTEM					
TO E	TO BATTERY GAUGE: 743813						
PIN #	COLOR	FUNCTION					
1	RED/VIOLET	KEY SWITCH ON/OFF LED					
2	RED/BLACK	START HOUR METER					
3	EMPTY	-					

36V SYSTEM

FUNCTION

FUNCTION

9 PIN: 6

REVERSE LED POSITIVE(RED)

FORWARD LED POSITIVE(RED)

CONTROL 6 PIN:5/REVERSE TRACTION

BELLY SWITCH-CONTROL 6 PIN:4/REVERSE TRACTION

KEY SWITCH ON/OFF

SPEED POTENTIOMETER

SPEED POTENTIOMETER

SPEED POTENTIOMETER

BATTERY 4 PIN: 2 KEY SWITCH 4 PIN:

6 PIN CONNECTOR: SPEED CONTOL BOARD

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

9 PIN CONNECTOR: DASH SIDE

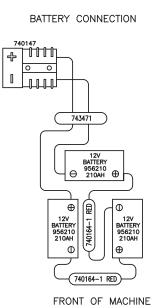
PIN #	COLOR	FUNCTION
1	BLUE/WHITE	- ON PRESSURE METER
2	BLUE	+ ON PRESSURE METER
3	BLACK/YELLOW	– ON BATTERY GAUGE/HOUR METER
4	BROWN/WHITE	BRUSH WEAR INDICTOR LED NEGATIVE(BLACK)
5	BROWN	BRUSH WEAR INDICTOR LED POSITIVE(RED)
6	RED/WHITE	6 PIN:4/POSITIVE TO TURN ON MOTOR SOLENOID
7	RED	KEY SWITCH 4 PIN: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

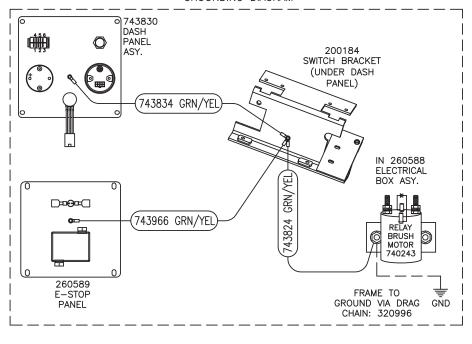
9 PIN CONNECTOR

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	RED/WHITE	BRUSH SAFETY SWITCH	
7	RED	3.0 AMP CIRCUIT BREAKER/ POWER TO KEY	
8	EMPTY	-	
9	EMPTY	-	

6 PIN CONNECTOR: SPEED CONTROL BOARD

COLOR	FUNCTION
ORANGE	SPEED POTENTIOMETER/ CONTROL SPEED
GREY	BAIL HANDLE SWITCHES/ TURNS ON TRANSAXLE
WHITE	SPEED POTENTIOMETER/ CONTROL SPEED
WHITE/ORANGE	REVERSE SWITCH:5/ FORWARD OR REVERSE
BROWN	REVERSE SWITCH 6:/ FORWARD OR REVERSE
RED/VIOLET	KEY SWITCH ON/ ENABLES TRANSAXLE BOARD
	ORANGE GREY WHITE WHITE/ORANGE BROWN





GROUNDING DIAGRAM



Minuteman International Made Simple Commercial Limited Warranty

REVISION P EFFECTIVE 5/1/2017

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.

14N845 U.S. Route 20, Pingree Grove, IL 60140 USA Phone (800) 323-9420 - www.minutemanintl.com A Member of the Hako Group



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
	•	*	*Travel, 2 ł	nours max

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



"Excellence Meets Clean"

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

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Lumina 20 Traction Drive Battery Burnisher 988172 Rev H 05/17