USER MANUAL

MODEL:

BLX-800-GEN2

Compact Walkthrough Boot Scrubber

English (Original Instructions)
Updated: 09/18/24

BLX-800S
Sole Only

BLX-800V
Vertical

BLX-800R
Regular

Table of Contents



⚠ WARNING:

1. All personnel using this unit must be familiar with the information contained in this manual. Follow all installation and maintenance instructions.
2. Always wear appropriate footwear. Secure or remove loose items on footwear.
3. Ensure solid footing and use both hands when operating the unit.
4. Avoid contact of chemicals with skin and eyes. If contact occurs, see MSDS sheet for further first aid measures.
5. Follow safety instructions of chemical manufacturer (MSDS).
6. Always follow plant and OSHA guidelines about the use of equipment.
7. Disconnect power before servicing equipment.
8. Always follow safety precautions and obey warning labels. Failure to do so could result in injury or death.

Overview

The BLX-800-GEN2 is a compact walkthrough footwear scrubbing unit built to accommodate 1 user at a time with the ability to put through 15-25 user per minute.

The included user manual contains installation, operation, and maintenance instructions for all ***BLX-800-GEN2*** Boot Scrubbers (i.e. ***Regular***, ***Vertical***, and ***Sole-Only*** models). The reference images and diagrams contained within will vary by model, but are subject to the same procedures as outlined.

For further support or information please contact your sanitation representative, manufacturer, or Clean Logix technical support.

NOTE: Instructions and specifications are for standard units only. See page 34 for units equipped with Non-dilution kits (NDF).

Specifications

- Construction: 304L stainless steel, UHMW, Polypropylene
- Weight: 350-400 lb (159-182 kg)
- Dimensions: 60 3/4” x 43” x 54” (154 x 109 x 137 cm)
- Max grate load: 250 lbs. (113.4 kg.)
- Water Consumption: 0.75-1.5 GPM (2.8-3.8 L/m)
- Minimum Chemical Dilution Ratio: 1:230*

***NOTE:** Unit tested at 70°F using water with 30-50 psi injector inlet pressure and capillary-tube style injector metering tip.

⚠ WARNING:
DO NOT use flammable liquids (i.e. alcohol based solutions or similar) without dilution unless equipped with a non-dilution flojet kit.

System Requirements

Water Supply

- Flow: 1.5 GPM (3.8L/m) minimum*
- Pressure: 30-60 psi (207-414 kPa)**
- Temperature: 40-100°F (4-38°C)

Minimum 3/8" supply piping size recommended

⚠ WARNING:
DO NOT EXCEED maximum water temperature! Damage to brushes can result.

Minimum pressure must be maintained during specified water flow!

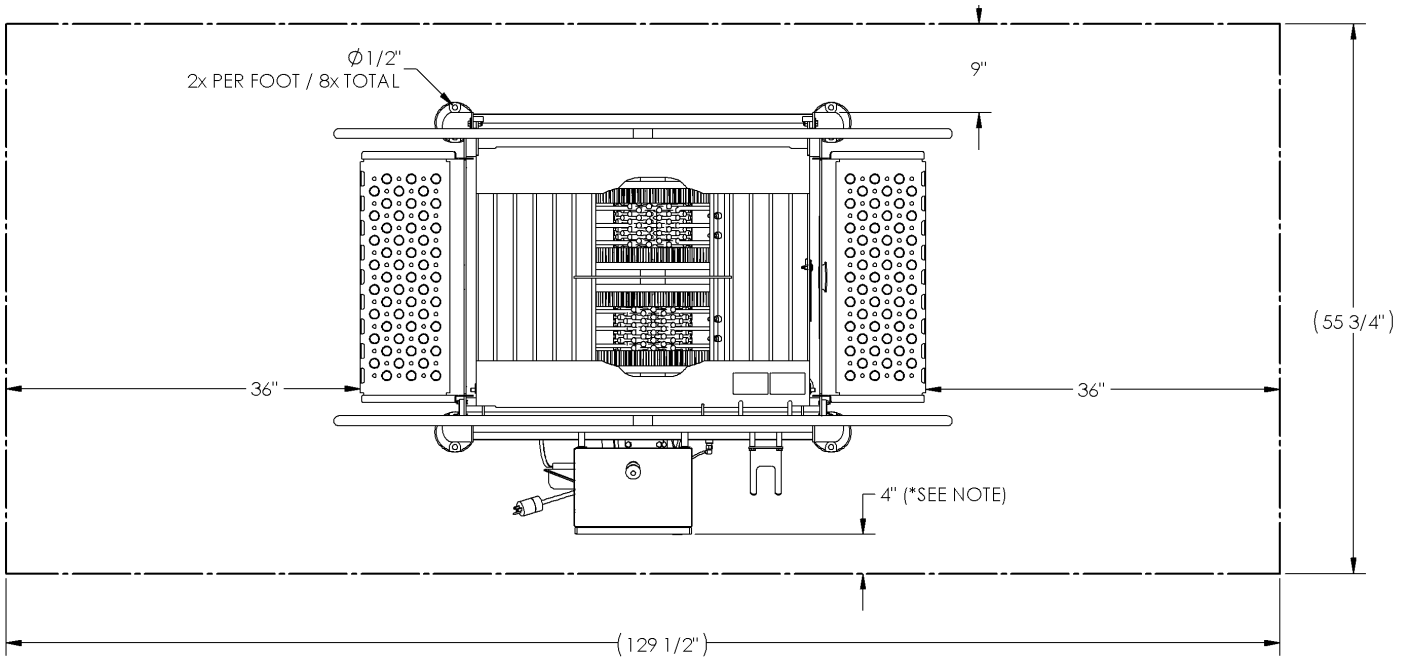
****For consistent operation of Venturi Injector and spray nozzles, a water pressure regulator and filter is recommended.***

NOTE: A back flow preventer must be installed in the water line to this unit. Check local codes to ensure proper installation.

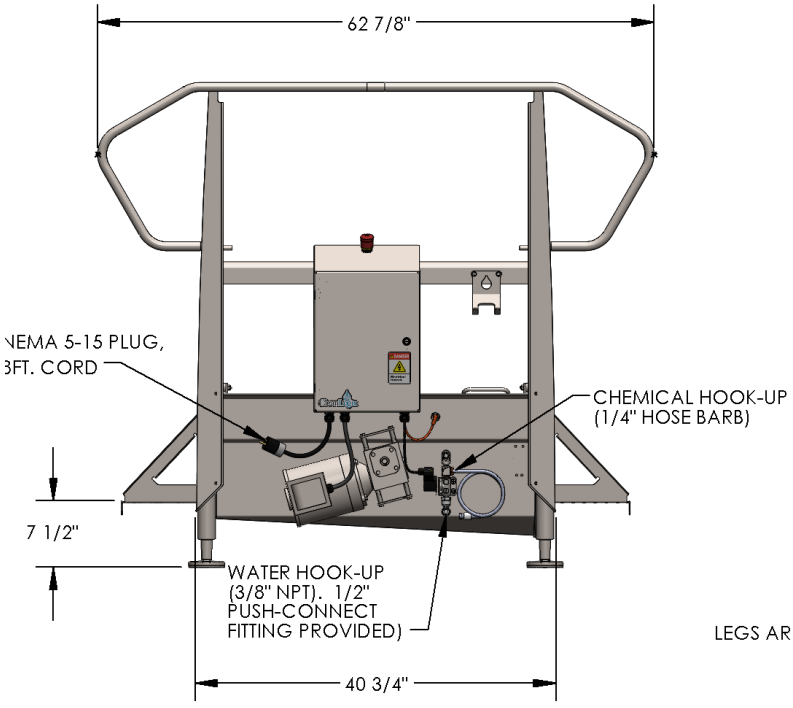
Electrical

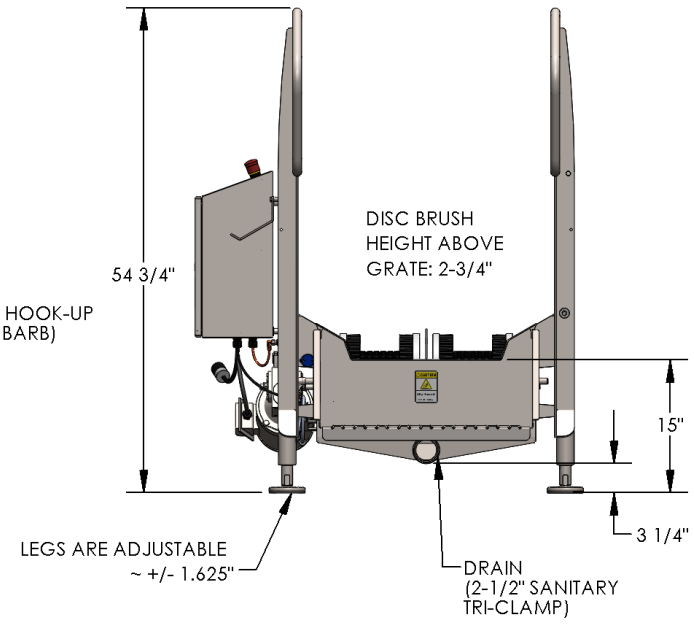
- 115VAC, single phase, 60Hz, 12.4A *(BLX-800_-GEN2)*
- 230VAC, single phase, 60Hz, 6.2A *(BLX-800_-GEN2-230V)*
- 480VAC, triple phase, 60Hz, 2.6A *(BLX-800_-GEN2-480V)*

Installation



NOTE: Installation images show BLX-800R (regular) - clearance parameters apply for all models. For fixed installations and/or remote mounted control boxes, area in front of electrical panel must be clear at least 36"





Installation

Physical Set Up:

1. Set unit in desired location.
2. Aspects to consider when deciding on placement:
   - Clearance for entering and exiting
   - Location of drain
   - Emergency exit paths or egress in case of emergency
   - Head room for personnel while using the unit
   - Access to control box
   - Connections for water and electricity

NOTE: To move the unit use a pallet jack or a hi-lo to lift from the bottom or using the handrails. Pad the forks to protect the finish.

3. Use a level to make sure the unit is stable and leveled at each end of the tub [Figure 5.1].
4. Connect unit to electrical supply.

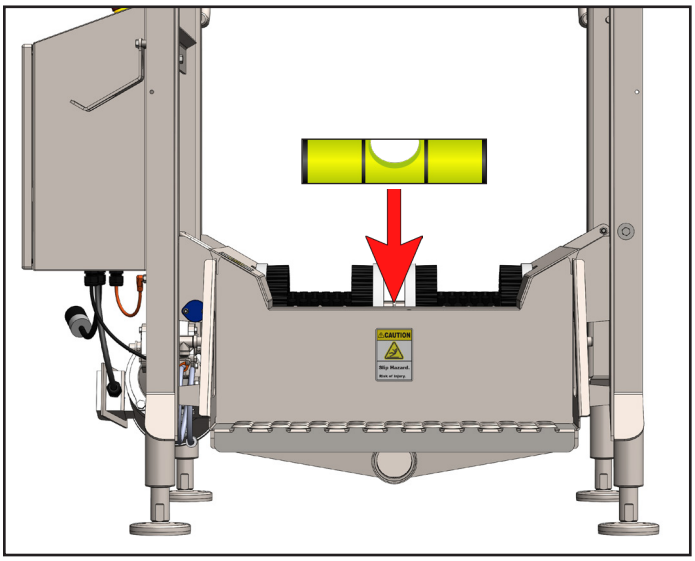


Fig. 5.1: Level and stabilize unit using level at each end of tub

Plumbing Connections:

1. Connect water source to solenoid valve quick fitting inlet using 1/2" Polyethylene tubing or similar [Figure 5.2].
2. If necessary, adjust the dilution ratio by selecting an appropriate metering tip (included) and test.
   - The smallest metering tip is a yellow tip with a small tube attached [Figure 5.3].
   - This tube can be trimmed to alter the dilution ratio.
   - Full length capillary tube results in a dilution ratio of approximately **1:230** at 30-50 psi water inlet pressure.
3. With the metering tip installed, connect solution source to orange hose barb of the Venturi Injector (located above water inlet) using 1/4" clear PVC tubing (included) [Figure 5.2].

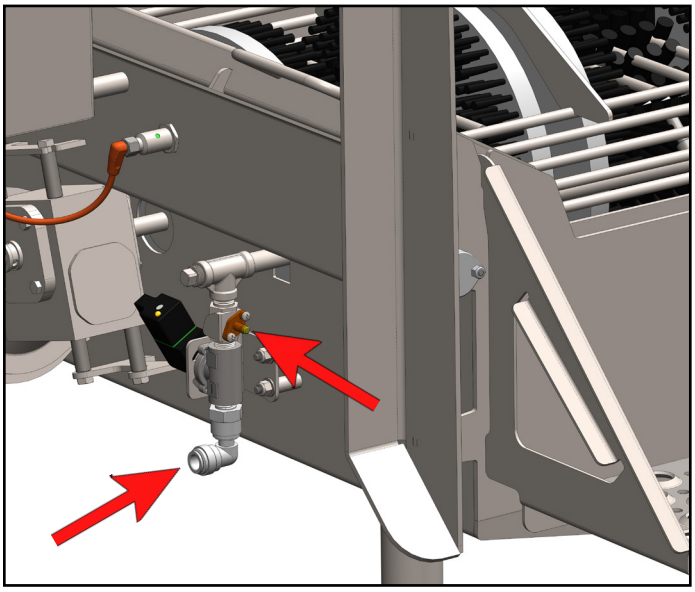


Fig. 5.2: Water and Venturi Injector (solution) inlets

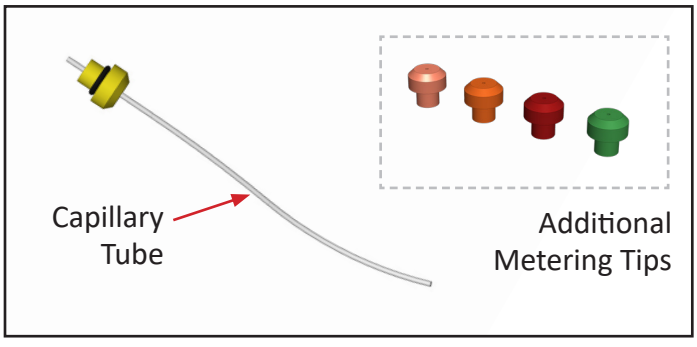


Fig. 5.3: Metering Tips and Capillary Tube

Installation (continued)

Motor Speed Adjustment

The speed of the motor(s) is controlled by the Variable Frequency Drive (VFD). To adjust the speed, turn the knob on the front of the VFD while the unit is under power and motor is running.

Default: 1750 RPM at 45 Hz

- ***Recommended speed:*** 45 Hz
- ***Minimum speed:*** 15 Hz
- ***Maxiumum Speed:*** 60 Hz

To adjust the speed:

1. Open the control box.

> **⚠ DANGER:**
> Only qualified personnel should open the control box while under power. NEVER open the control box during washdown or cleaning.

2. Activate the sensor to turn on the motor.
3. As the motor is spinning, the unit will display the operating speed in Hz.
4. Turn the knob counter clockwise to decrease the speed, or clockwise to increase speed. [Figure 6.1]

Fig. 6.1: Delta MS300 (AD GS20) Variable Frequency Drive

Operation

Start Up

1. Verify installation has been completed:
   - Brushes are secured
   - Walkway grate is lowered
   - Unit is plugged in and receiving power
   - Water and solution have been plumbed and lines are open
2. Pull the E-STOP switch up and engage power, when illuminated the unit has power [Figure 7.1].

NOTE: Prior to placing footwear into the unit, test that it is working properly by activating the sensor (put weight on the grate).

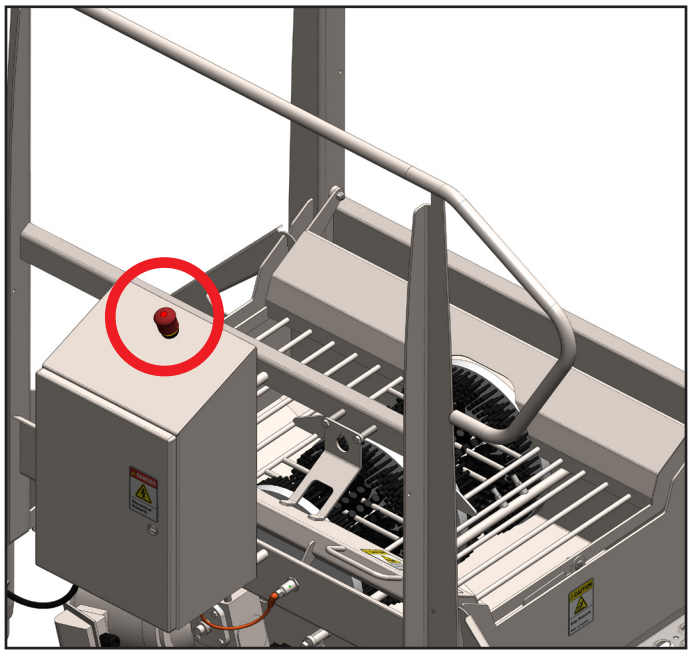


Fig. 7.1: E-Stop illumination

General Use

1. Step onto the walkway grate.

⚠ CAUTION:
When operating: always ensure solid footing and use both handrails for stability.

2. The walkway grate will depress, activating a proximity sensor which starts the brush rotation and solution spray [Figure 7.2].
3. Walk through the unit, allowing the rotating brushes to clean by moving the boot to make contact with hard to reach areas.
4. One second after the user steps off of the walkway grate the brushes and sanitizer will stop.

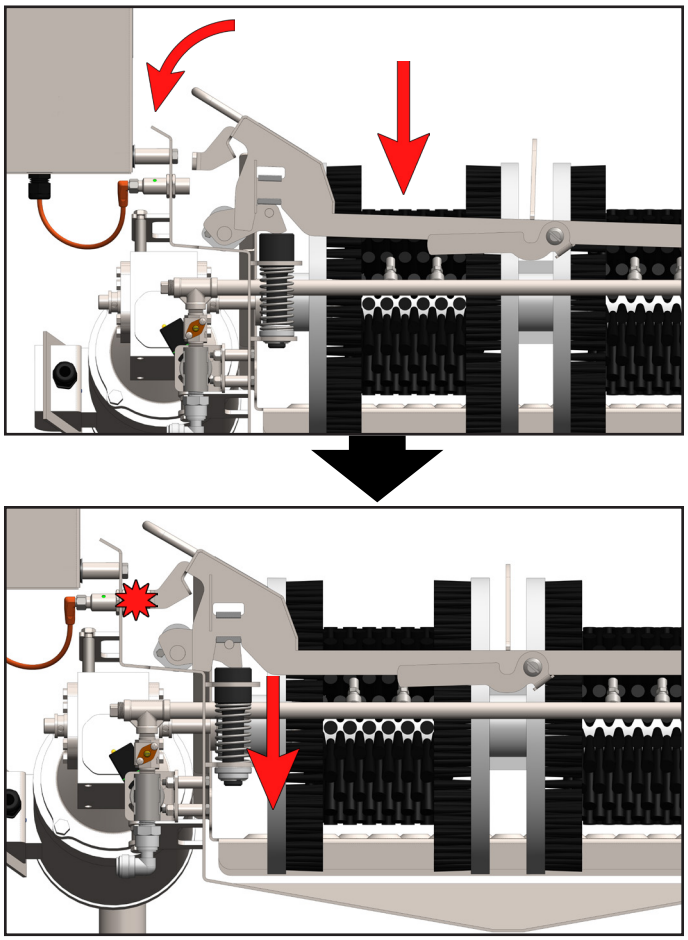


Fig. 7.2: Grate triggering Prox Switch, shown on BLX-800R

Shut Down

- Press the red E-STOP button on the control box.
- Disconnect power and follow lockout-tagout procedures as necessary.

Cleaning Procedures

Opening Grate

1. Shut down the unit (see pg. 7)
2. Use handle to lift the grate and swing the grate open completely [Figure 8.1].
3. Latch into place against the pin attached to the corner rail [Figure 8.2].

> **⚠ CAUTION:**
> Failure to latch the grate properly could result in grate falling closed unexpectedly.

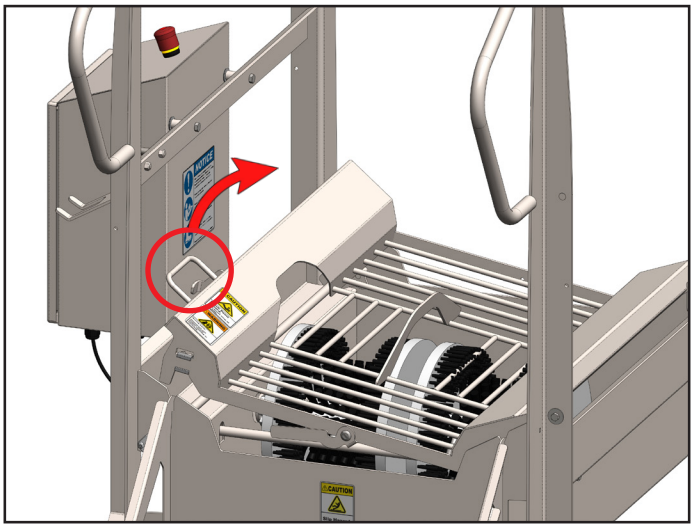


Fig. 8.1: Grate Lifting. shown with BLX-800R

Removing & Replacing Brushes (***R*** & ***S*** Models)

1. Shut down the unit and open the grate (see pg. 7 and previous steps above).
2. Lift the brush assembly out of the tub by grabbing the open end and lifting up [Figure 8.3 - Arrow 1].
3. With the open end lifted, the brush can be detached from its anchor [Figure 8.3 - Arrow 2].
4. Brushes can be washed individually in a COP tank or wash machine.

> **NOTE:** It is *NOT* recommended to use hot water (over 120°F) to clean brushes.

5. The tub can be washed by conventional means.

> **NOTE:** Chemistry used must be compatible with materials of construction (page 3).

Use Case	***Chemical Type***
Organic Soils	Chlorinated Alkaline or Alkaline based foaming cleaner
Mineral Buildup	Acid based foaming cleaner

> **⚠ CAUTION:**
> Use of high pressure (above 400 PSI) is not Recommended on sensitive areas such as electrical Components, motors, or gearboxes.

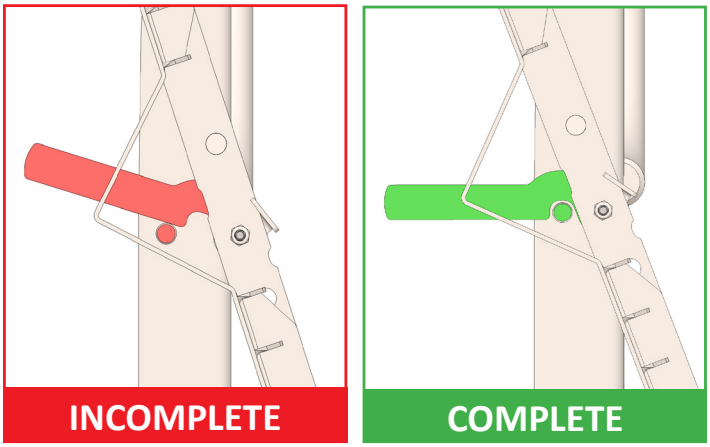


Fig. 8.2: Grate Latch Orientation

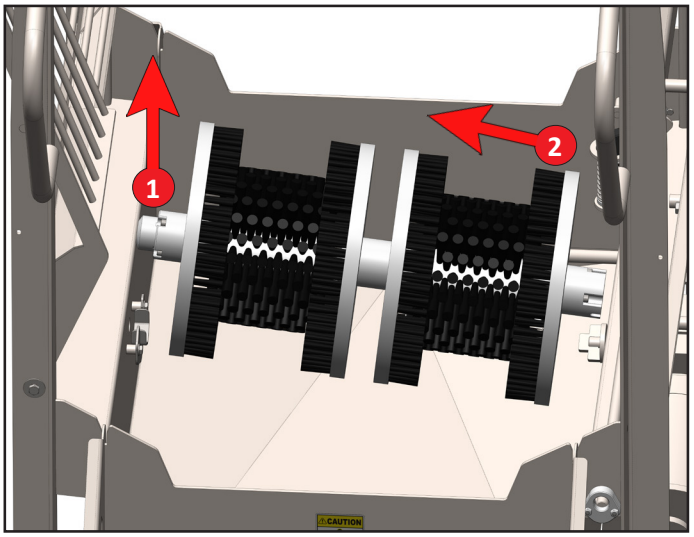
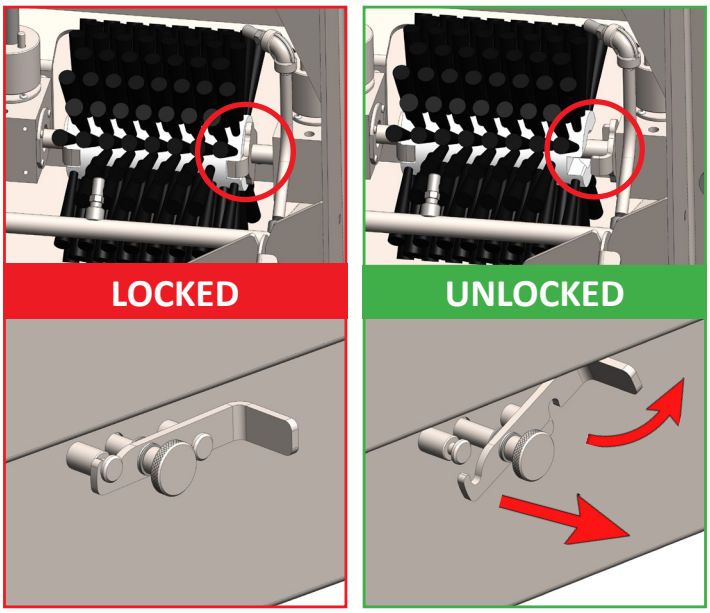


Fig. 8.3: Brush removal process, shown on BLX-800R

Cleaning Procedures (continued)

Removing & Replacing Brushes (***V*** Models)

1. Shut down the unit and open the grate (see pg. 7).
2. Remove the three vertical brushes by unscrewing the stainless knobs at the top of each brush and lifting them up and off of their shafts [Figure 9.1]
3. With the vertical brushes removed the sole brushes can be released from their anchors. To release the sole brushes: turn and pull the anchor lever located on the side of the tub (opposite side of control box) as shown below:



4. Lift the first sole brush out of the tub by grabbing the open end and lifting up to clear the opposing drive shaft anchor [Figure 9.2].
5. With the first sole brush removed, the second brush's drive shaft anchor can be shifted to release the final sole brush [Figure 9.3].
6. Brushes can be washed individually in a COP tank or wash machine.
7. The tub can be washed by conventional means.

NOTE: It is *NOT* recommended to use hot water (over 120°F) to clean brushes.

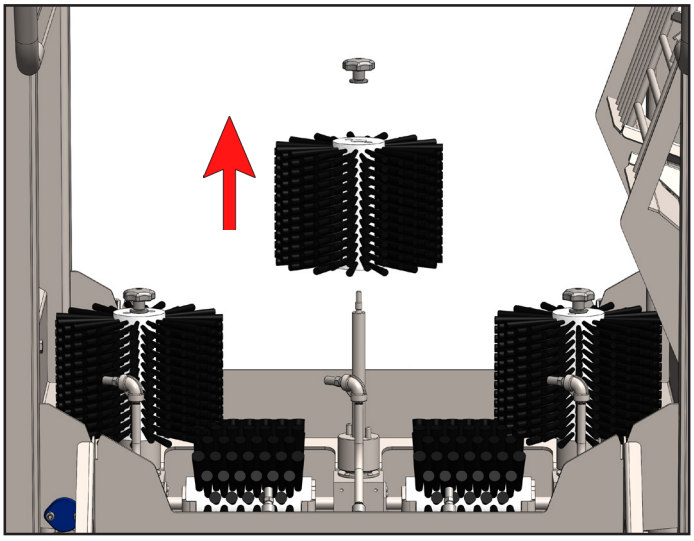


Fig. 9.1: Removing vertical brushes

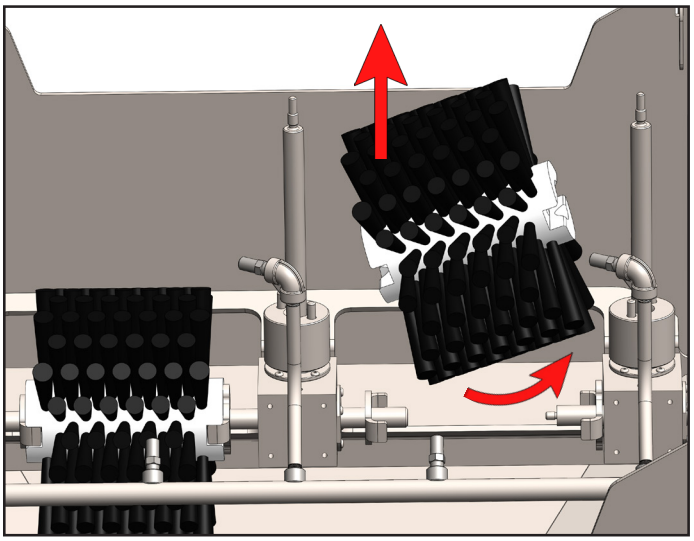


Fig. 9.2: Removing soles brushes (1 of 2)

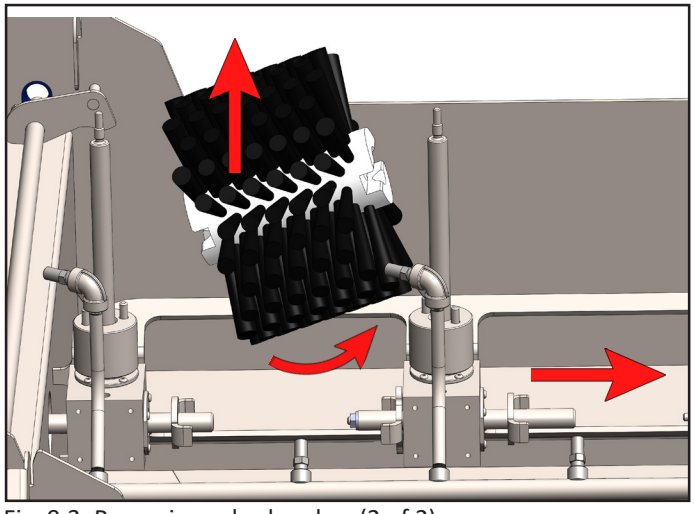


Fig. 9.3: Removing soles brushes (2 of 2)

Cleaning Procedures (continued)

Removing Steps

1. Grab either side of the step by the handles.
2. Lift up to remove from tub [Figure 9.1].
3. Steps can be washed individually in a COP tank or wash machine.
4. Replace steps before enabling power and/or use.

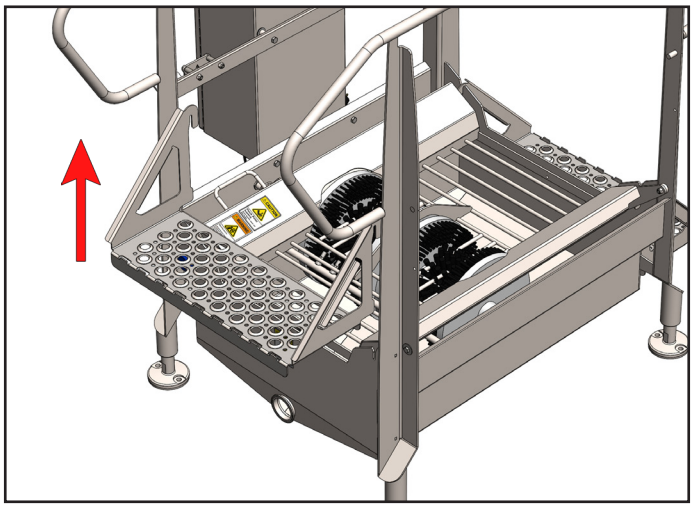


Fig. 9.1: Step removal, shown with BLX-800R

Removing Grate Springs & Balancer

1. Shut down the unit and open the grate (pgs. 7).
2. Lift the end of the Spring Balancer into the upper section of its keyhole. [Figure 9.2 - Arrow 1]
3. Slide the Spring Balancer through the upper section of the keyhole to release its other end. [Figure 9.2 - Arrow 2]
4. Lift the free end up while sliding the Spring Balancer out the keyhole to remove from the tub. [Figure 9.2 - Arrow 3]
5. Slide each spring up to remove them from the tub [Figure 9.3].
6. Springs and Balancer Weldment can be washed individually in a COP tank or wash machine.
7. Once clean, re-install in reverse order.

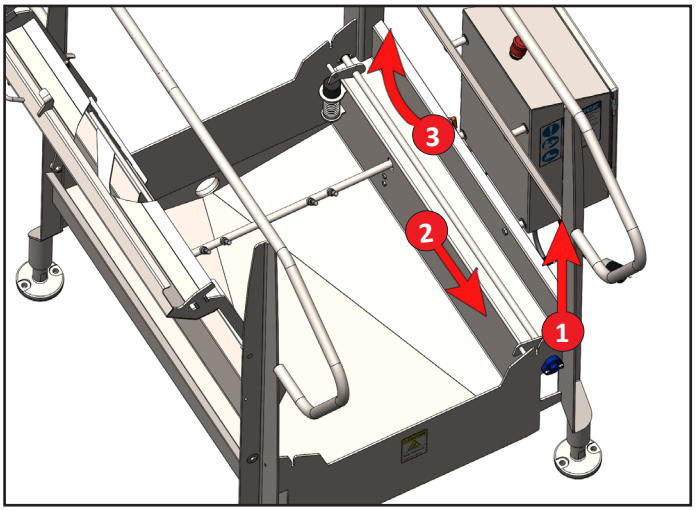
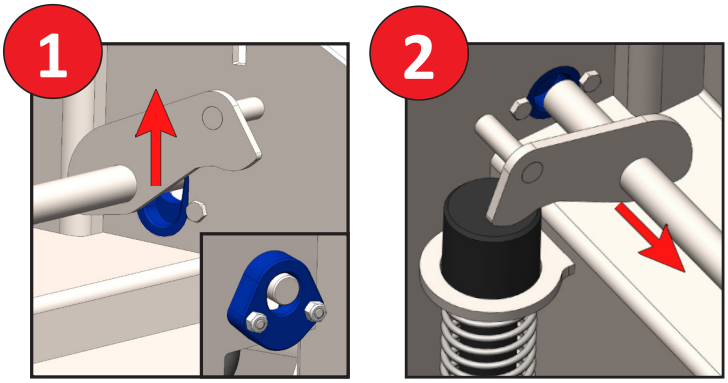


Fig. 9.2: Balancer Weldment removal procedure



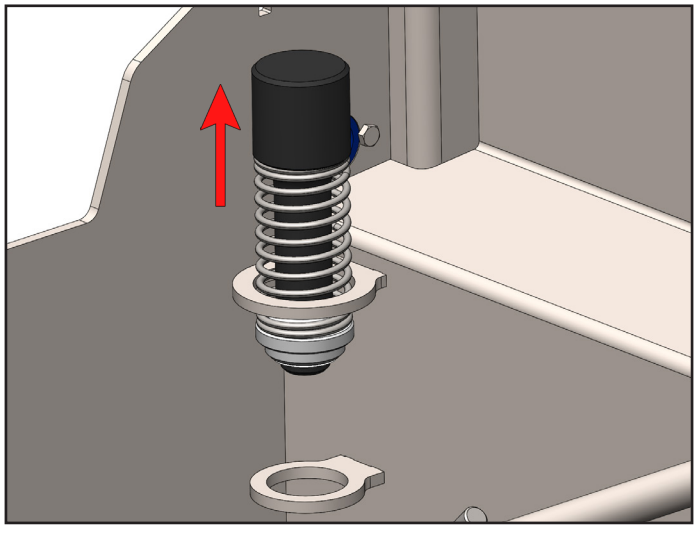


Fig. 9.3: Spring removal procedure

Advanced Configuration Options

Brush RPM Formula:

The formula for calculating Speed in RPM from Drive Frequency in Hertz is:

[Motor Nameplate RPM] x [Drive Frequency (Hz)] ÷ [Motor Nameplate Frequency (Hz)] ÷ [Gear Reduction]

Example:

- Motor Nameplate RPM = **1750**
- Motor Nameplate Frequency (Hz) = **60**
- Gear Reduction = **20**
- Drive Frequency (Hz) = **48**

1750 x 48 ÷ 60 ÷ 20 = **70 RPM**

The formula for calculating Drive Frequency in Hertz from Desired Speed in RPM is:

[Desired Speed RPM] x **[Gear Reduction]** x **[Motor Nameplate Frequency (Hz)]** ÷ **[Motor Nameplate RPM]**

Example:

- Desired Speed in RPM = **70**
- Gear Reduction = **20**
- Motor Nameplate Frequency (Hz) = **60**
- Motor Nameplate RPM = **1750**

70 x 20 x 60 ÷ 1750 = **48 Hz**

⚠ DANGER:
Only qualified personnel should open the control box while under power. NEVER open the control box during washdown or cleaning.

Brush Direction

Each brush rotation direction is set to a default orientation by Clean Logix. To reverse the direction switch 2 of the 3 motor lead wires (T1, T2, or T3).

See electrical schematics (pages 29-31) for more information.

Advanced Configuration Options (continued)

Drive Parameter Settings

Delta MS300 (AD GS20) Variable Frequency Drive

PARAMETER NUMBER	DESCRIPTION	115V SETTING	230V SETTING	480V SETTING
00-04	User Display	2	2	2
00-17	Carrier frequency	12*	4*	4*
00-20	Frequency command source	7	7	7
00-21	Operation command source	1	1	1
01-02	Output voltage of motor 1	230.0	230.0	460.0
01-09	Start-up frequency	15.0	0.5	0.5
01-10	Output frequency upper limit	60.00	60.00	60.00
01-11	Output frequency lower limit	15.00	15.00	15.00
01-12	Acceleration Time 1	1.00	1.00	1.00
01-13	Deceleration Time 1	2.00	2.00	2.00
02-13	Multi-function output 1	7	7	7
06-06	Over-torque detection selection	4	4	4
06-07	Over-torque detection level	90	90	90
06-08	Over-torque detection time	0.3	0.3	0.3
06-44	Remote Panel E-Stop STO Latch Connection	1	1	1

⚠ DANGER:
Only qualified personnel should open the control box while under power. NEVER open the control box during washdown or cleaning.

Timing Relay Settings

Eaton TRL04

- **Function:** R (Off Delay)
- **Time Range:** 1.0 sec.

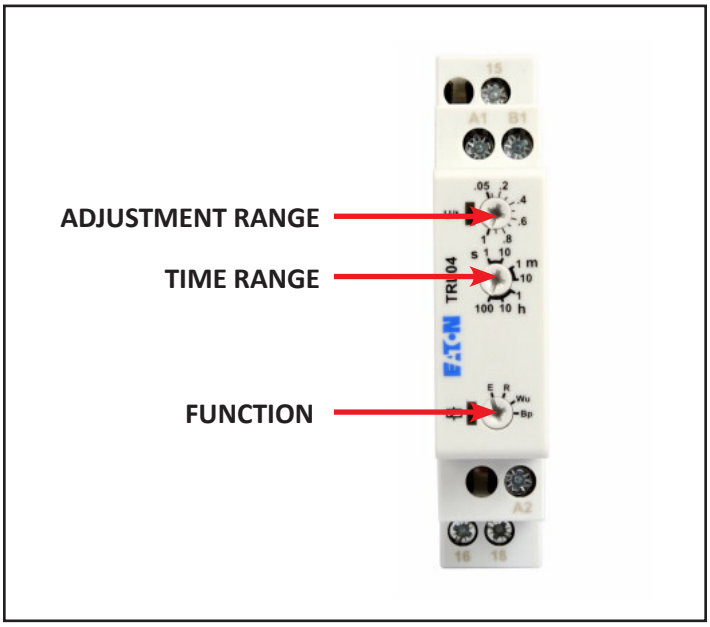


Fig. 12.1 Eaton TRL04 Setting Identification

Preventative Maintenance

The following maintenance procedures are recommended for normal use. Units which see a high amount of use should be inspected more frequently.

Weekly:

- Check unit for proper sensor function and brush rotation.
- Ensure spring loaded grate (if applicable) is functioning properly.
- Inspect brushes for damage or wear. Check for missing or deformed bristles.
- Inspect electrical cords and plumbing for damage.
- Inspect and test function of emergency stop switches.

Monthly:

- Check all fasteners to ensure they are tight.
- Ensure warning labels and decals are present and in good condition.
- Inspect grate spring assemblies (M1896) and spring balancer bearings (M1904, M1905) for wear
- Inspect motors, gearboxes, and reducers for signs of oil leakage.
- Inspect electrical enclosure for signs of water intrusion.
- Inspect sensors for damage.
- Inspect moving parts for damage or wear.

Quarterly:

- Inspect structure for cracked welds or bent components.

Gear Reducer:

- The gear reducer is supplied filled to capacity with **Mobil Cibus SHC 634 NSF H1 Food Grade** or equal synthetic oil.
  - The synthetic lubrication provided is good for ambient temperatures -10°F - 105°F and is compatible with standard compounded oil.
- Oil should be changed every 2 years (or 6,000 operating hrs.)
- Designed with a bladder type vent system:
  - Consists of an internal bladder that seals the oil chamber from the outside environment at all times - as pressure builds, the bladder contracts keeping the internal pressure to a minimum.
  - Advantage: The internal oil chamber is completely sealed, ensuring oil is not released causing contamination in the application.

Motor:

- Inspect at regular intervals.
- Verify the mounting bolts and couplings to ensure that they are tight and properly adjusted.
- Motor bearings are sealed and not re-greasable.
- Bearings should be replaced approximately every 5 years for 8 hr./day service.

Troubleshooting

Unit not operating & E-STOP not Illuminated:

- Verify unit is plugged in.
- Verify E-STOP is not pushed down.
- Verify main power going to the unit.
- Verify circuit breakers in the building have not been tripped.

Unit not operating & E-STOP is Illuminated:

- Check sensor is operating properly and is connected via orange M12 cable.
- Verify all physical connections to the brushes are in place.
- Restart unit by pushing down the E-STOP, waiting 10 seconds, then turning the unit on again.

Unit will not spray:

- Verify water pressure at the inlet to the water (30 psi min.)
- Verify water and solution lines are attached and firmly in place
- Inspect spray nozzles for clogging.
- Verify that the orange LED light on the solenoid valve connector illuminates when the brushes are rotating.

Unit is leaking onto floor:

- Check to make sure all joints are sealed.
- Verify water and solution inlets are attached and firmly in place.

Leaner Dilution Ratios Required:

- Verify metering tip is installed in the injector chemical inlet hose barb
- Use the yellow “Capillary Tube” style metering tip (see pg. 5 for further information)
- If the desired dilution ratio still cannot be achieved pre-dilution of the chemical may be necessary.

Troubleshooting

Venturi will not draw Chemical Solution:

- Verify water supply is sustaining 30 psi at the injector inlet while unit is running
- Elevate the chemical jug above the injector (a jug hook is provided for this purpose)
- Verify spray nozzles are not clogged. The nozzles supplied with the equipment are rated at 0.2GPM @ 10psi (0.28GPM @ 20 psi)
- Ensure the suction filter is not clogged, kinked or obstructed in any way that would restrict flow.

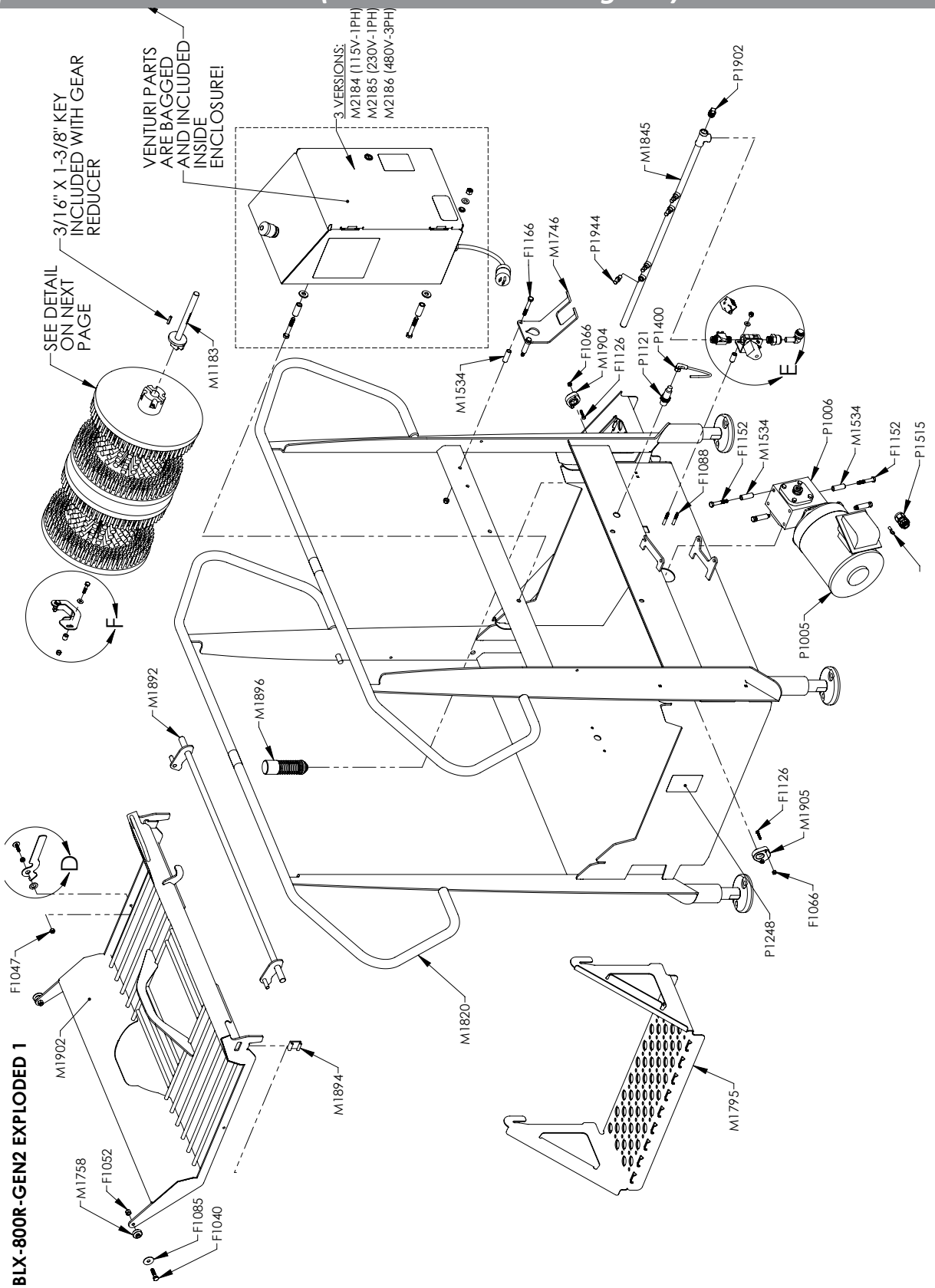
OT1 Fault Code "Over-Torque 1" on Variable Frequency Drive:

The fault occurs when the torque load on any brush exceeds the value set in parameter P06.03 [OCA Level]. The solution will stop spraying when a fault occurs.

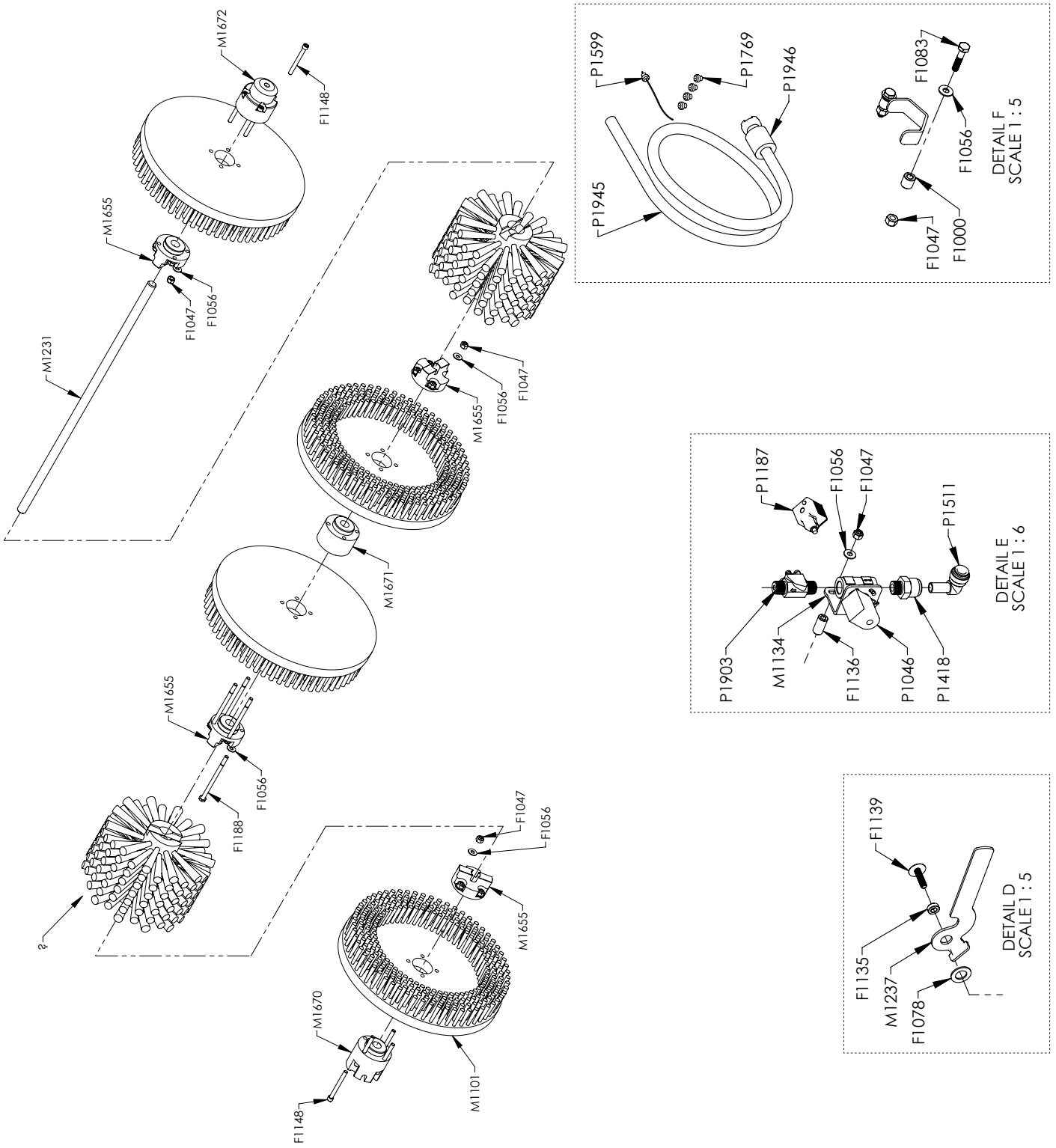
- Switch Disconnect to "OFF" or unplug the unit.
- Wait 20-30 seconds before re-applying power to cycle power and clear the fault.

More Information?
Please contact your equipment representative or manufacturer for further support.

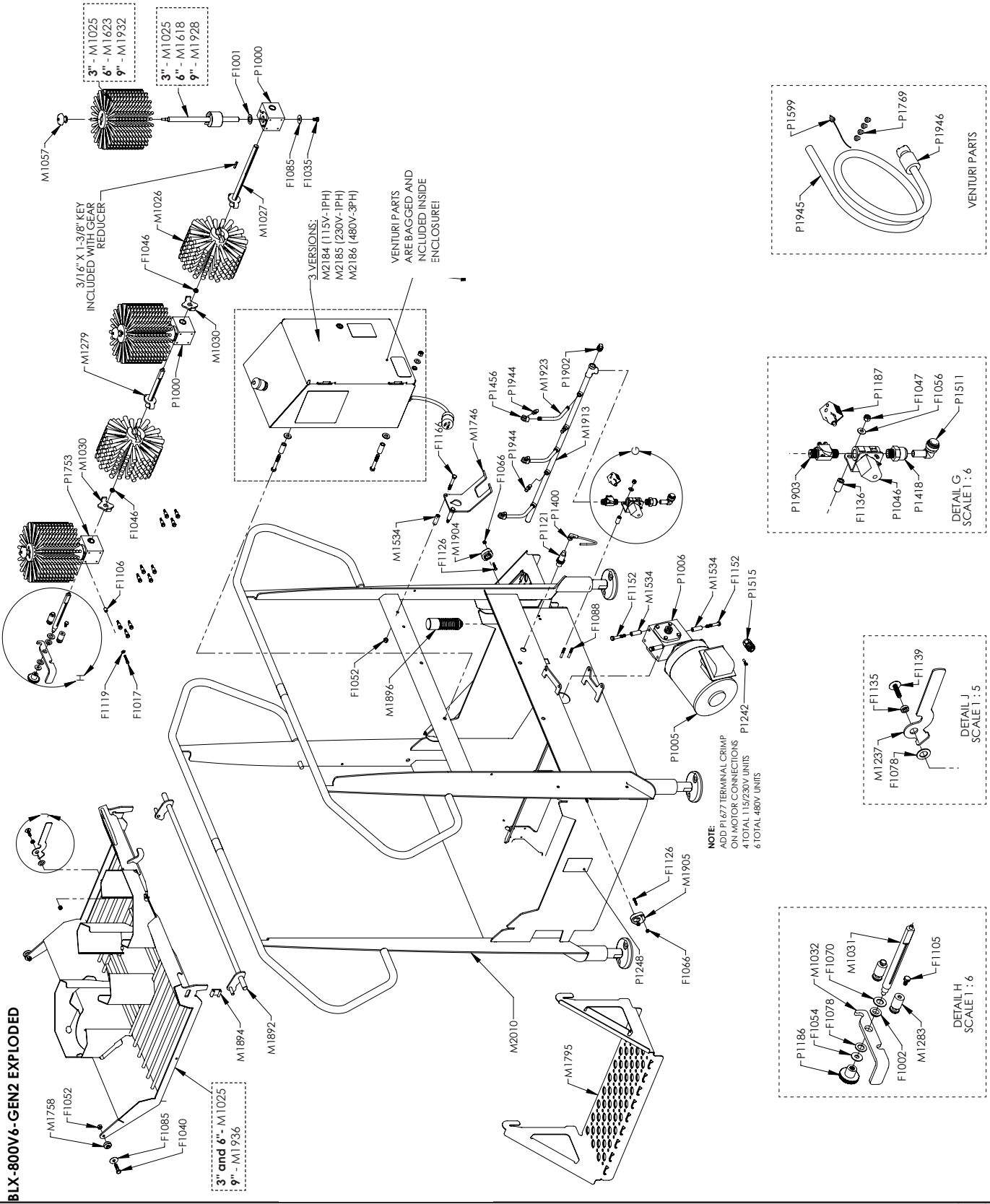
Appendix A - Parts Callout (BLX-800R-GEN2 : Regular)



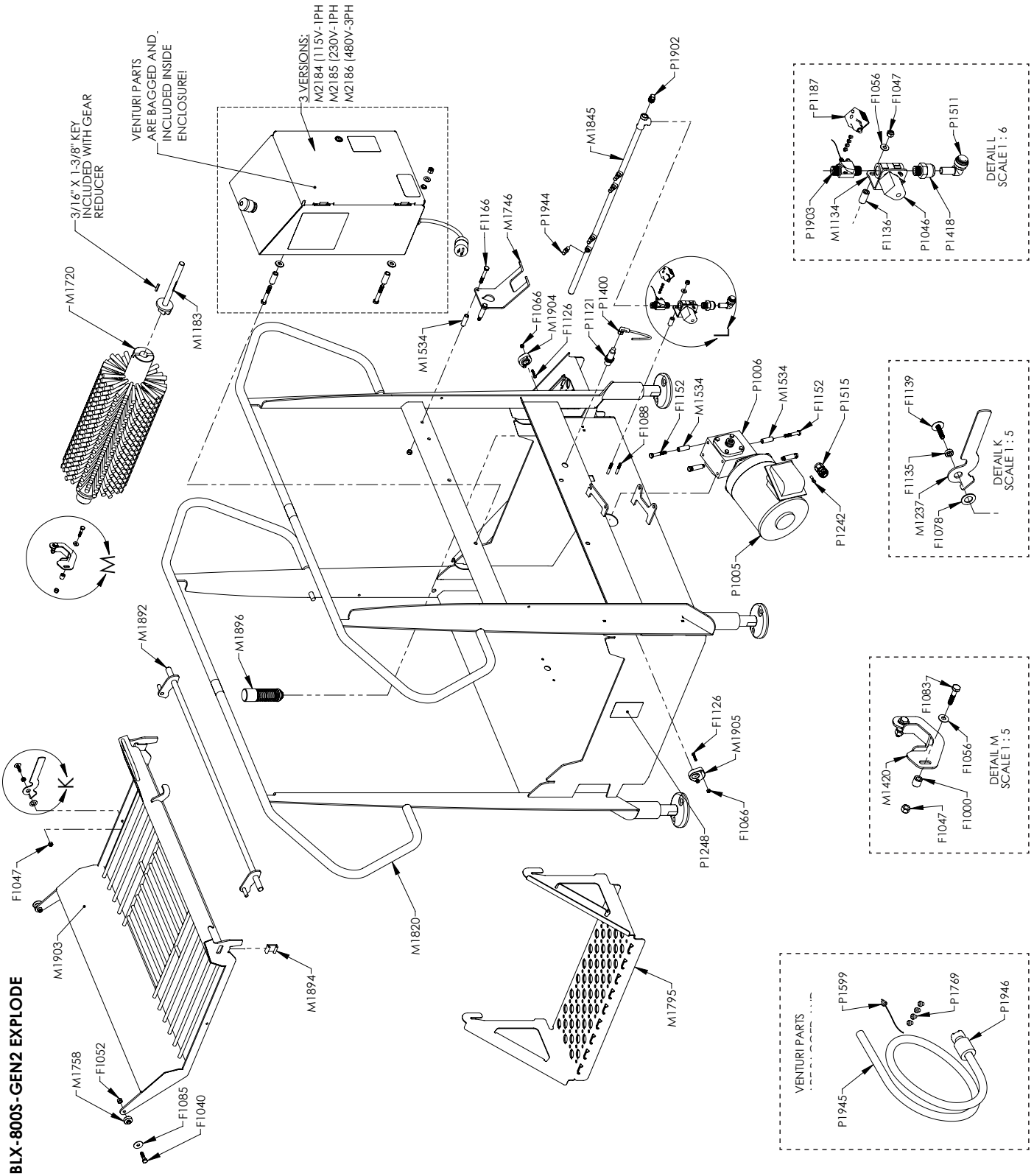
Appendix A - Parts Callout (BLX-800R-GEN2 : Regular)



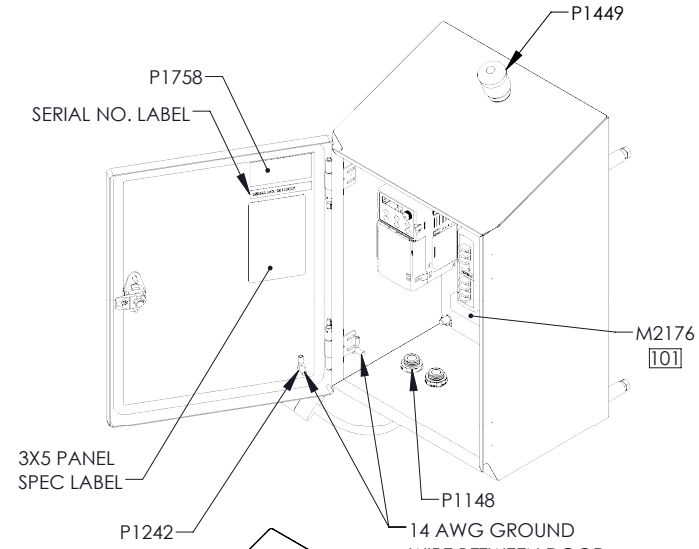
Appendix A - Parts Callout (BLX-800V-GEN2 : Vertical)

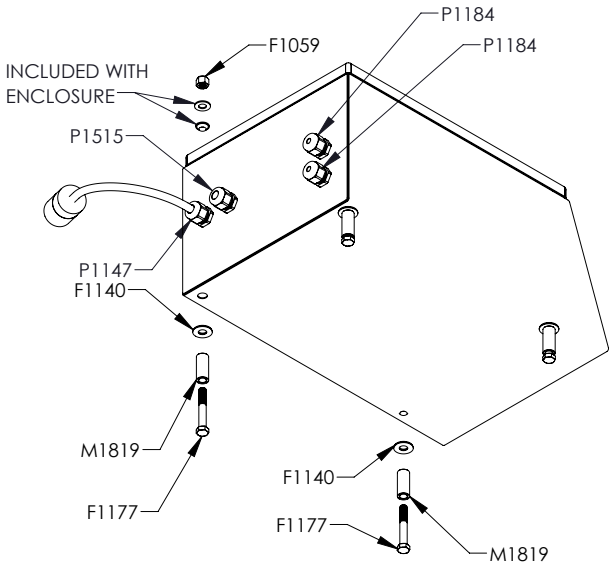


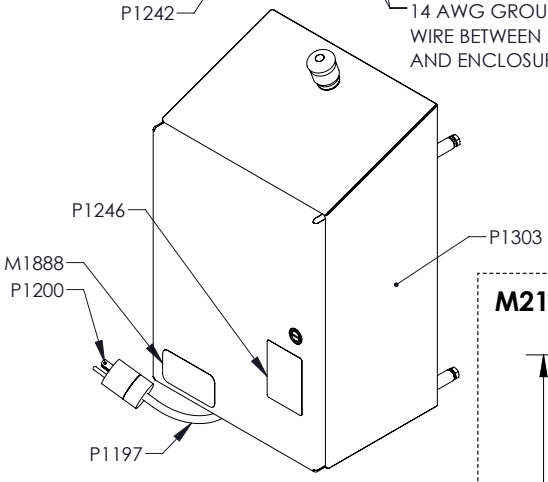
Appendix A - Parts Callout (BLX-800S-GEN2 : Sole Only)



Appendix B - Electrical Assembly Parts Callout (115V)



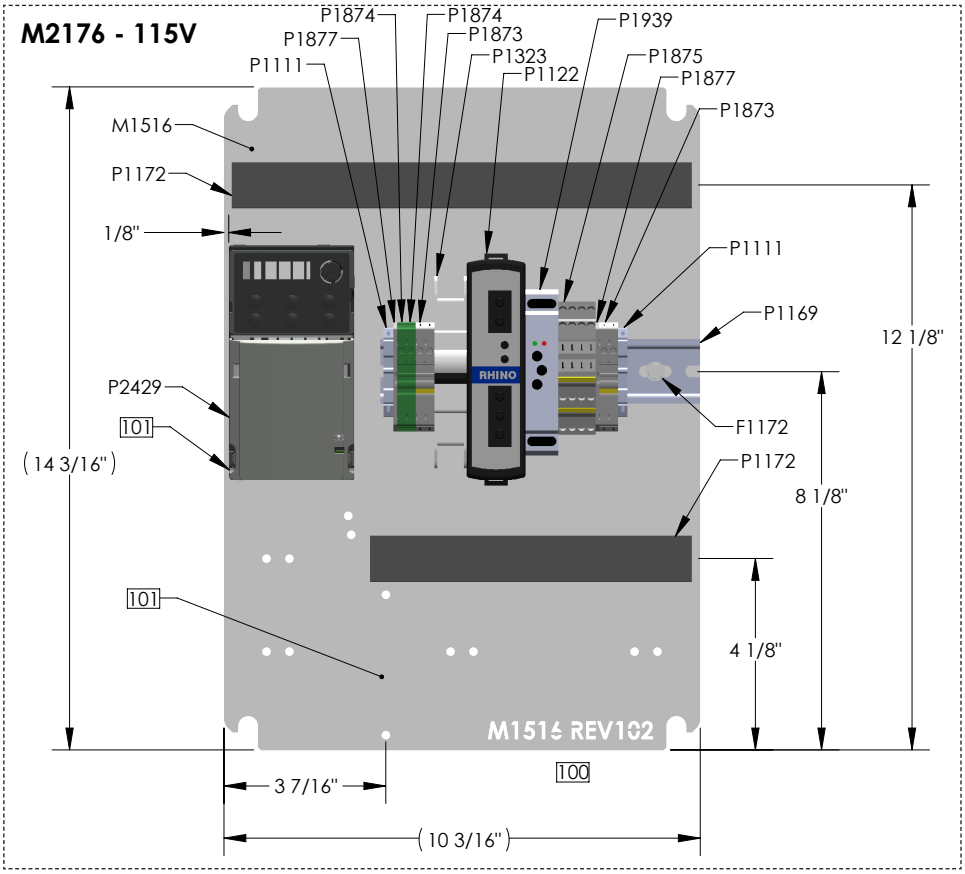




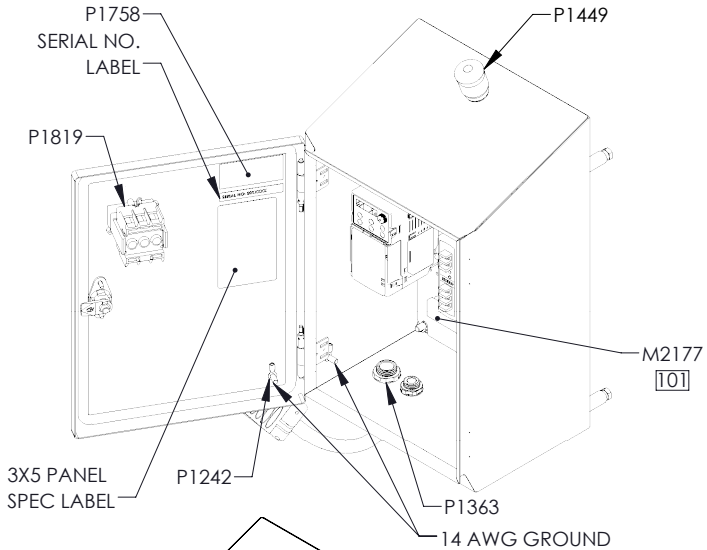
NOTES:

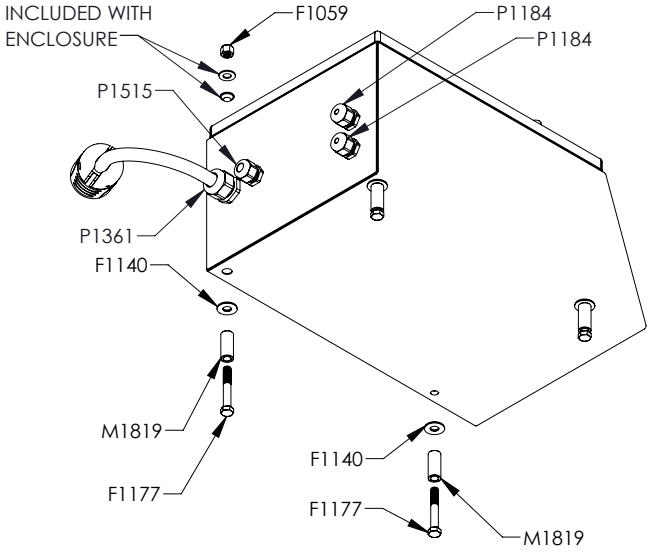
COMPLETED ASSEMBLY TO BE LABELED UL NEMA TYPE 4X ACCORDING TO UL508

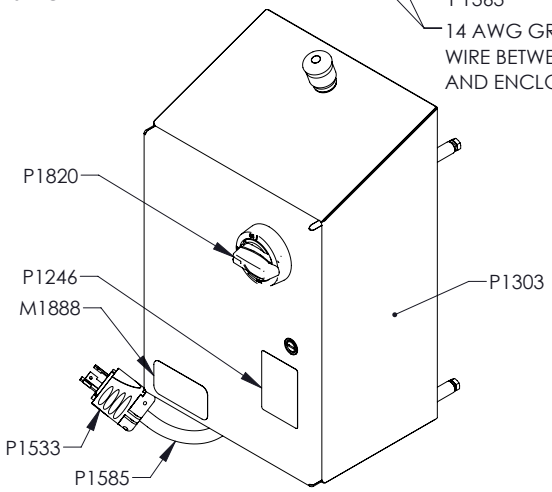
REFER TO DRAWINGS **M2176** (PANEL) AND **ES1037** (ELECTRICAL SCHEMATIC)



Appendix B - Electrical Assembly Parts Callout (230V)





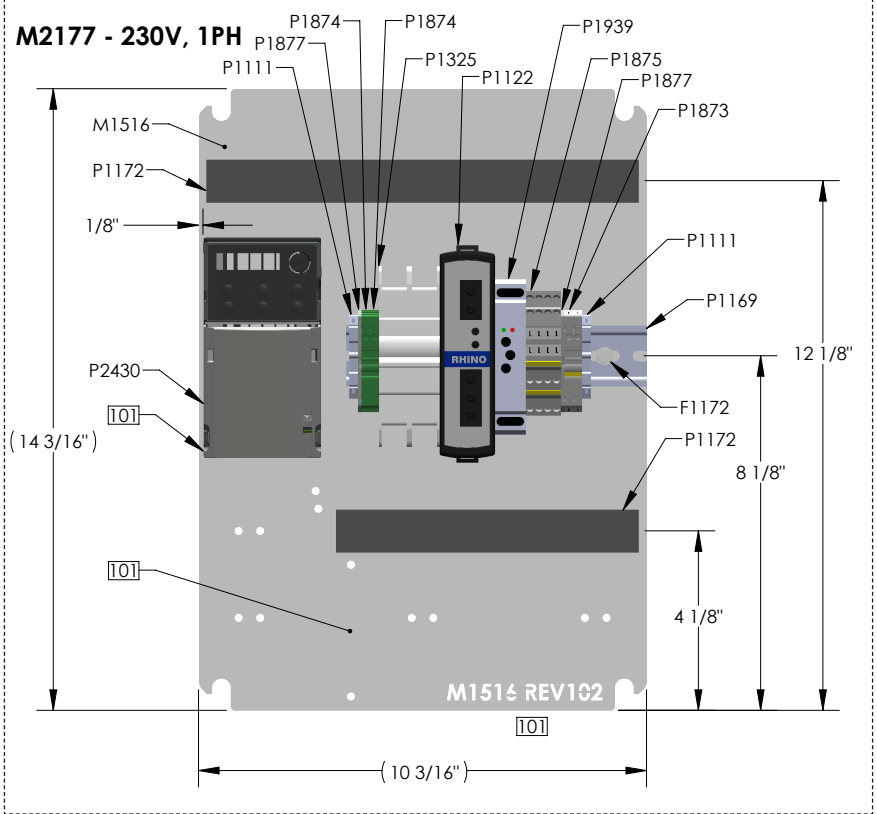


NOTES:

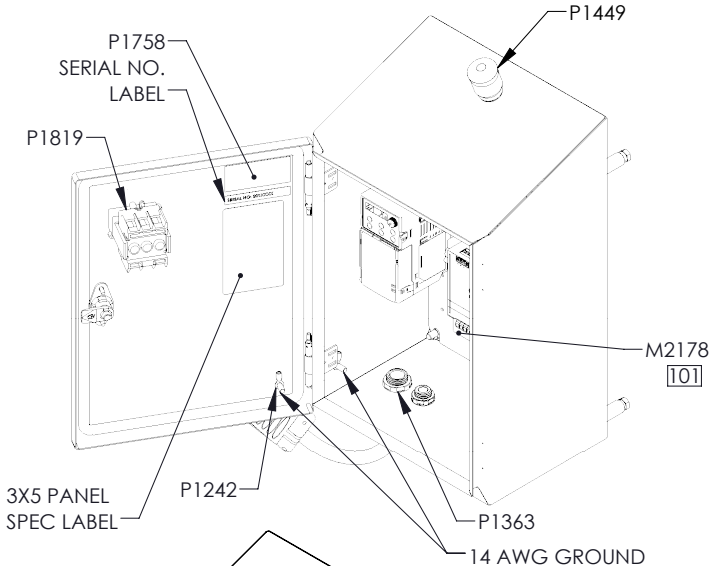
COMPLETED ASSEMBLY TO BE LABELED UL NEMA TYPE 4X ACCORDING TO UL508

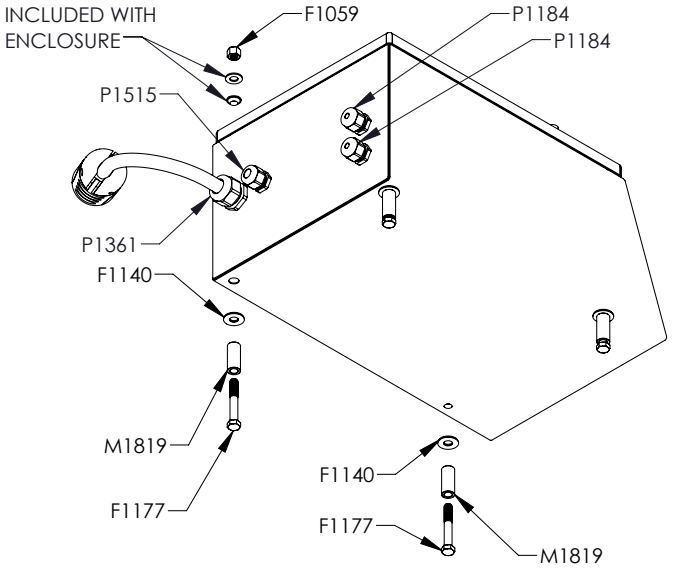
REFER TO DRAWINGS **M2177** (PANEL) AND **ES1038** (ELECTRICAL SCHEMATIC)

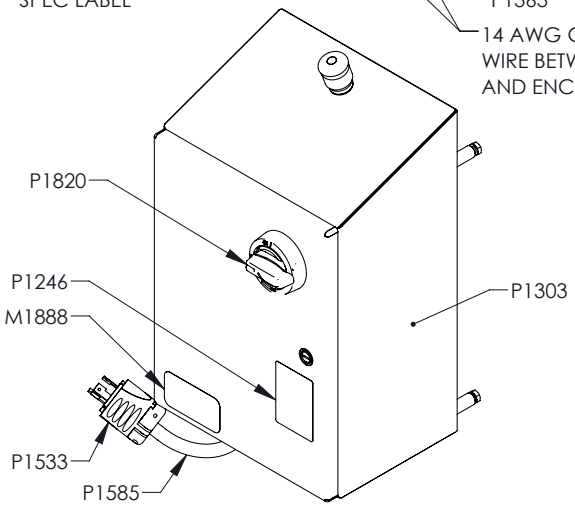
M2177 - 230V, 1PH



Appendix B - Electrical Assembly Parts Callout (480V)



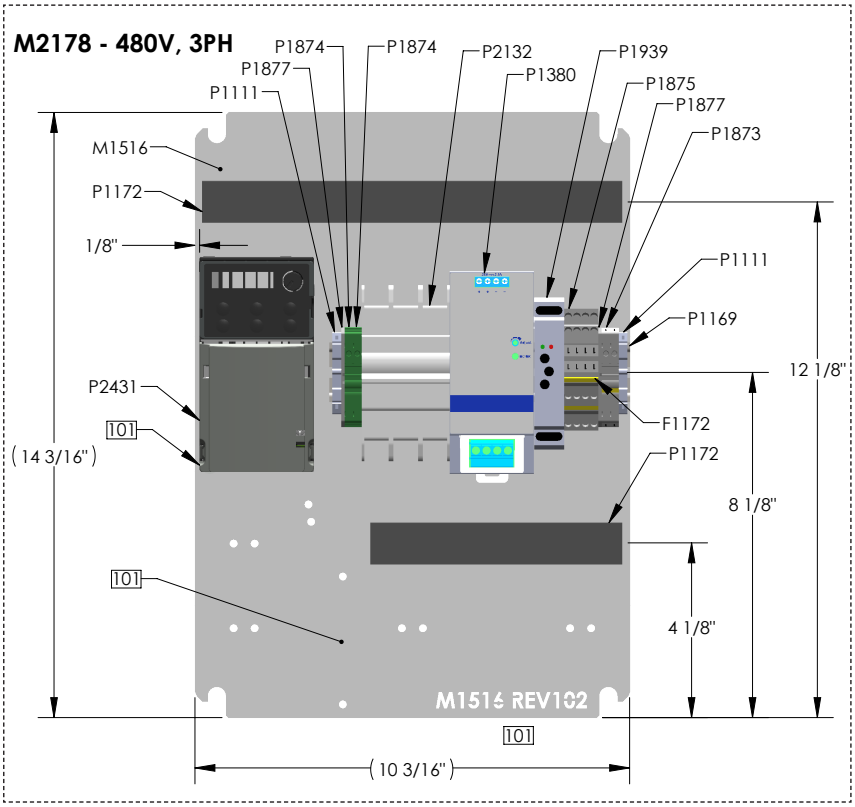




NOTES:

COMPLETED ASSEMBLY TO BE LABELED UL NEMA TYPE 4X ACCORDING TO UL508

REFER TO DRAWINGS **M2178** (PANEL) AND **ES1039** (ELECTRICAL SCHEMATIC)



Appendix C - Complete Parts List

PART #	DESCRIPTION
F1000	STANDOFF 1/4 X 1/2 X 1/2 SS
F1001	WASHER 3/4 X 1-1/4 X 1/16 PTFE
F1002	BEARING FLANGED 1/2" X 5/8" X 1/4" PTFE
F1017	BOLT HHC 10-32 X 1-1/4 SS
F1035	BOLT HHC 5/16-18 X 1/2 SS
F1040	BOLT SHCS 5/16-18 X 1-1/4 SS
F1046	NUT FLANGED 1/4-20 SS
F1047	NUT NYLOCK 1/4-20 SS
F1052	NUT NYLOCK 5/16-18 SS
F1054	WASHER 5/16 316SS TYPE B
F1056	WASHER 1/4 SS TYPE A
F1059	NUT NYLOCK 3/8-16 SS
F1066	NUT NYLOCK 10-32 SS
F1070	WASHER THIN 1/2 SS
F1078	WASHER1/2" X 7/8" X 1/16" UHMW
F1083	BOLT HHC 1/4-20 X 1-1/4 SS
F1085	WASHER FENDER 5/16 SS
F1088	BOLT HHC 1/4-20 X 1-3/4 SS
F1105	BOLT HHC 1/4-20 X 1/2 SS
F1106	STANDOFF #10 X 3/8 X 1/2 SS
F1119	WASHER #10 SS TYPE A
F1126	BOLT HHC 10-32 X 1 SS
F1135	STANDOFF 1/4 X 1/2 X 3/16 SS
F1136	STANDOFF 1/4 X 1/2 X 1 SS
F1139	BOLT SHUTTER 1/4-20 X 1 SS
F1140	WASHER SEALING 3/8 X 1 SS
F1148	BOLT SHC 1/4-20 X 2-1/2 SS
F1152	BOLT HHC 5/16-18 X 2 SS
F1166	BOLT HHC 5/16-18 X 2-1/4 SS
F1172	SCREW THEAD FORMING 10-32 X 1/2 HEX WASHER HEAD ZINC
F1177	BOLT HHC 3/8-16 X 2-1/2 SS
F1188	BOLT HHC 1/4-20 X 4 SS
M1021	BRUSH SHAFT WELDMENT BLX-600V3
M1025	BRUSH, CYLINDER, 8" DIA. X 3" LONG, BLACK PP FILAMENT
M1026	HORIZONTAL BRUSH 8" DIA. X 6" WIDE
M1027	DRIVE SHAFT 1 WELDMENT
M1030	BRUSH COUPLER
M1031	DRIVE SHAFT 2
M1032	SHAFT LATCH
M1057	BRUSH KNOB WELDMENT FEMALE
M1101	SIDE DISK BRUSH 12" DIA.
M1134	SOLENOID BRACKET
M1183	DRIVE SHAFT MOTOR-BRUSH WELDMENT
M1231	COMBO BRUSH BAR

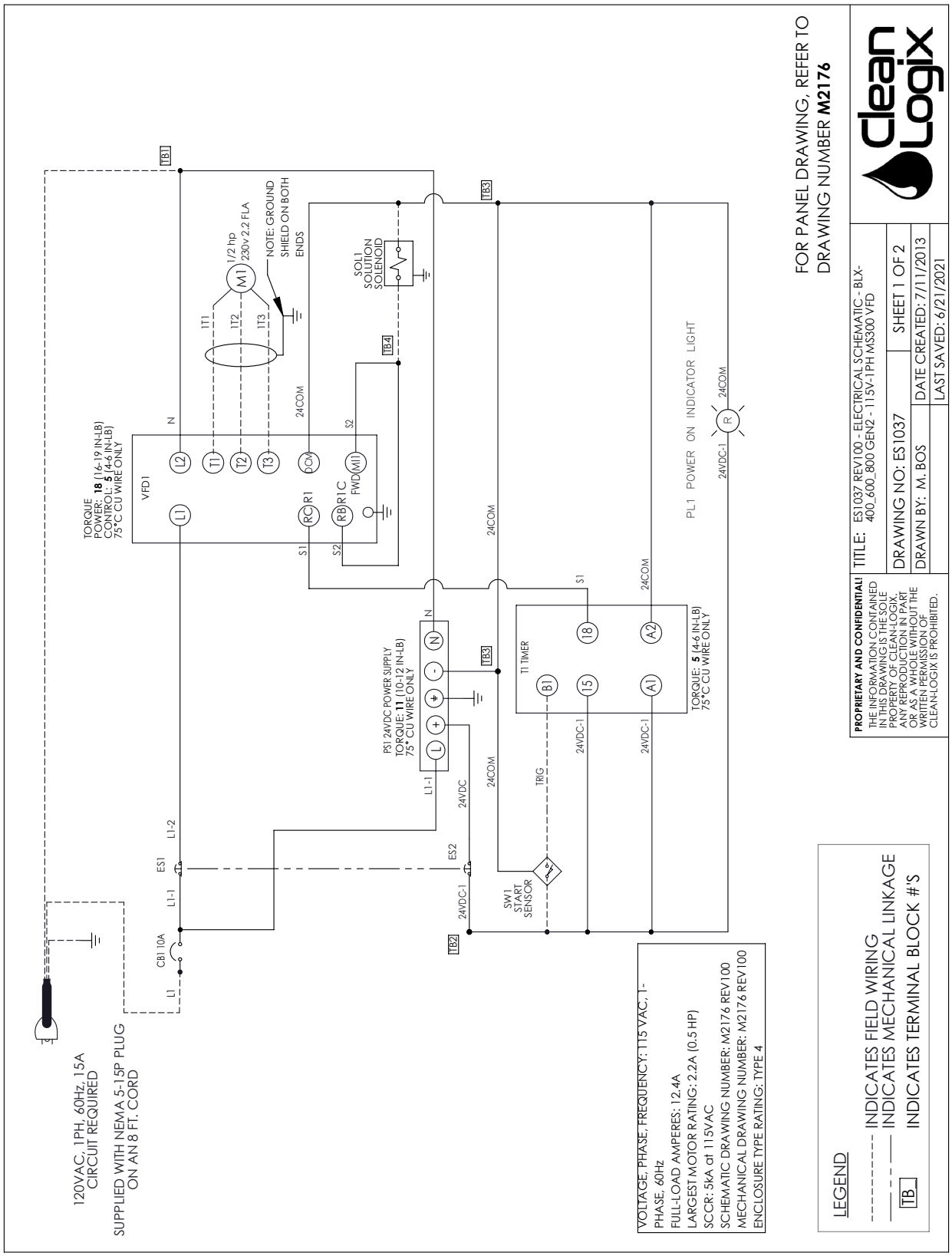
PART #	DESCRIPTION
M1237	GRATE LATCH
M1279	CENTER SHAFT WLDMNT
M1283	LATCH STUD THREADED
M1420	BRUSH SUPPORT WELDMENT
M1516	BACK PANEL CP1612
M1534	SPACER .313 X .5 X 1.5
M1618	BRUSH, CYLINDER, 8" DIA. X 6" LONG, BLACK PP FILAMENT
M1623	BRUSH SHAFT WLDMNT V-6
M1655	BRUSH DRIVE COUPLER
M1670	BRUSH HUB A
M1671	BRUSH HUB B
M1672	BRUSH HUB C
M1720	BRUSH BLX HORIZONTAL SOLE
M1746	JUG HOOK V2
M1758	GRATE STEPPED HINGE PIN
M1795	BLX FORMED STEP 24 INCH
M1819	SPACER 3/8" X 1-1/2" SS
M1820	BLX-800 GEN2 TUB WELDMENT
M1845	BLX GEN2 SPRAY MANIFOLD WELDMENT - R AND S MODELS
M1888	DECAL CLEAN LOGIX
M1892	BLX-800 GEN2 SPRING BALANCER WELDMENT V3
M1894	BLX C-CHANNEL GRATE LIFT PIN GLIDE
M1896	BLX GEN2 GRATE SPRING ASSEMBLY
M1902	BLX-800R GEN2 GRATE V3 WELDMENT
M1903	BLX-800S GEN2 GRATE V3 WELDMENT
M1904	BLX GEN2 SPRING BALANCER BEARING ROUND
M1905	BLX GEN2 SPRING BALANCER BEARING SLOTTED
M1912	BLX-800V GEN2 GRATE V3 WELDMENT
M1913	BLX GEN2 SPRAY MANIFOLD WELDMENT - V MODEL
M1923	BLX GEN2 V-MODEL SPRAY RISER 6" BENT
M1928	BRUSH, CYLINDER, 8" DIA. X 9" LONG, BLACK PP FILAMENT
M1932	BRUSH SHAFT WLDMNT V9
M1936	BLX-800V9 GEN2 GRATE V3 WELDMENT (9" VERSION)
M2010	BLX-800V GEN2 TUB WELDMENT, VERTICAL
M2176	BLX GEN2 PANEL ASSEMBLY 400-600-800 - 115V
M2177	BLX GEN2 PANEL ASSEMBLY 400-600-800 - 230V, 1PH
M2178	BLX GEN2 PANEL ASSEMBLY 400-600-800 - 480V, 3PH

Appendix C - Complete Parts List

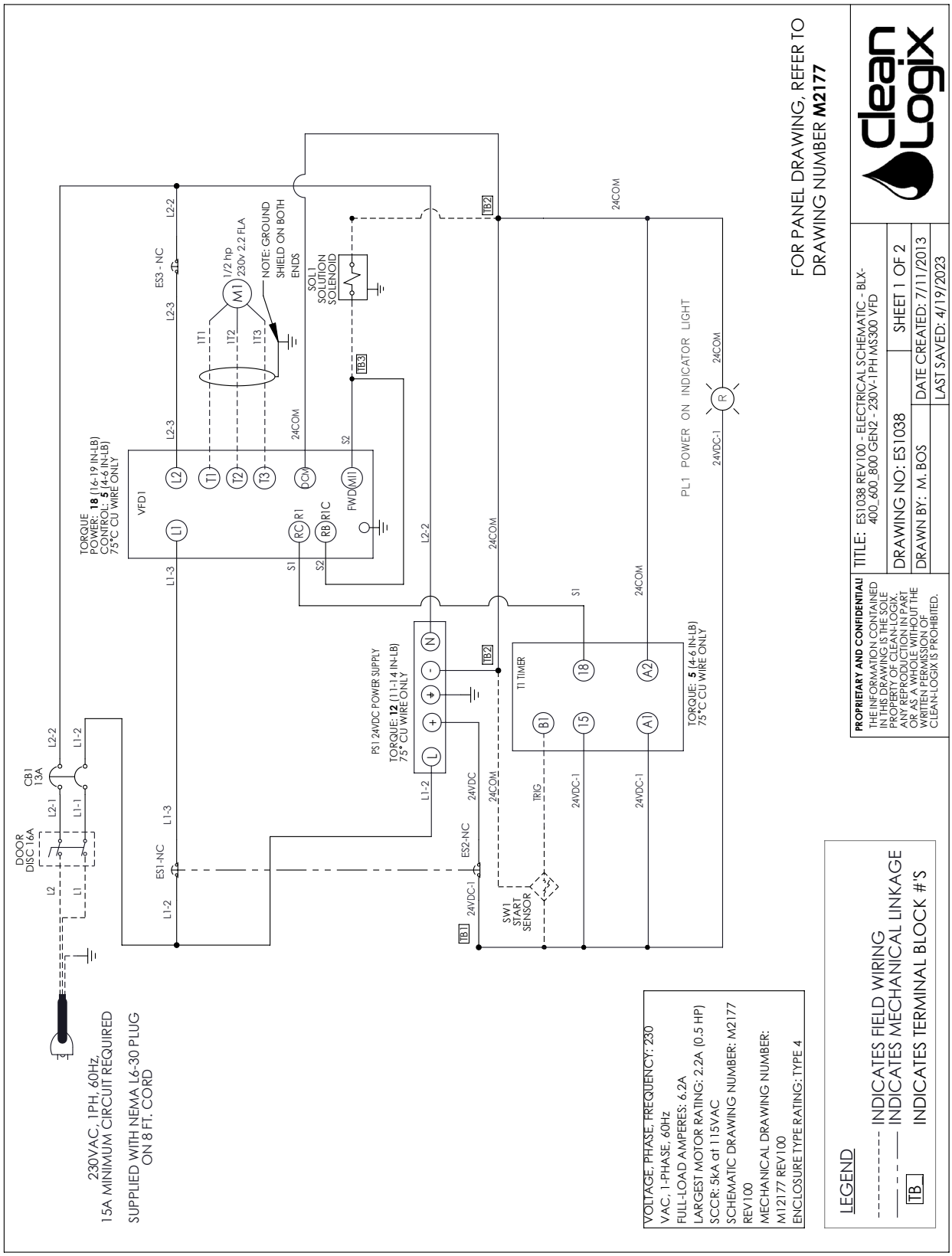
PART #	DESCRIPTION
M2184	ELECTRICAL ASSY BLX-800 115V
M2185	ELECTRICAL ASSY BLX-800 230V
M2186	ELECTRICAL ASSY BLX-800 480V
P1000	RIGHT ANGLE GEARBOX, 5/8" IN/OUT, RIGHT HAND ROTATION, SS
P1005	MOTOR 1/2 HP 1750RPM SS 56C
P1006	GEAR REDUCER 20:1 5/8 SS
P1046	SOLENIOD SS BODY 3/8"
P1111	END STOP TERMINAL BLOCK
P1121	PROXIMITY SENSOR 18mm
P1122	POWER SUPPLY 24VDC 60W
P1147	CORD GRIP 1/2 NPT X .170 - .450 BLK
P1148	CORD GRIP NUT 1/2 NPS NYL
P1164	CONTACT BLOCK 1NC FOR EATON M22 SERIES
P1169	DIN RAIL 35mm X 175mm LONG
P1172	WIRE DUCT 25X60 X 250mm LONG
P1184	CORD GRIP 1/2 NPT X .095-.260 BLK
P1186	KNOB 5/16-18 BLIND KNURLED SS
P1187	SOLENOID CABLE 18mm DIN 24V
P1197	CABLE 14-4 SJOOW
P1200	PLUG NEMA 5-15P
P1242	TERMINAL, 1/4" RING, 14-16 AWG INS
P1244	LABEL PINCH POINT HAZARD
P1245	LABEL MOVING PARTS
P1246	LABEL DANGER ELECTRICAL
P1247	LABEL NOTICE BLX
P1248	LABEL SLIP HAZARD
P1303	ENCLOSURE HOFFMAN CSD16128SSST
P1323	CIRCUIT BREAKER 10A SINGLE POLE
P1325	CIRCUIT BREAKER 13A DOUBLE POLE
P1361	CORD GRIP 3/4 NPT X .435-.705 BLK
P1363	CORD GRIP NUT 3/4 NPT NYLON
P1380	POWER SUPPLY 24V, 60W, 480-3PH
P1400	CABLE M12 4 POLE, 5m PVC IP69K
P1418	QUICK FIT 3/8 NPT X 1/2 TUBE
P1449	E-STOP PUSH PULL ILLUMINATED 22mm 2NC
P1456	PIPE ELBOW 1/8 X 90 SS
P1511	QUICK FIT STEM ELBOW 1/2" X 1/2"
P1515	CORD GRIP PG16 X .260-.545 GREY W/NUT
P1533	250V 30A L6-30 MALE PLUG

PART #	DESCRIPTION
P1585	WIRE SJOOW 12AWG 4 CONDUCTOR BLACK (0.650 OD) 600V 02726.41T.01
P1599	METERING TIP, CAPILLARY TUBE
P1677	SPLICE TERMINAL 10-16AWG NATURAL
P1753	RIGHT ANGLE GEARBOX, 5/8"" IN/OUT, LEFT HAND ROTATION, SS
P1758	LABEL - UL508 PANEL
P1769	METERING TIPS, ULTRA LEAN 100-15KU
P1819	DISCONNECT SWITCH 25A 3-POLE
P1820	DISCONNECT HANDLE KIT RED/YELLOW FOR P1819
P1828	WIRE, VFD-MOTOR, 14 AWG, 4-CONDUCTOR, SHIELDED, XLPE/PVC
P1873	TERMINAL BLOCK SPRING CLAMP 5.1mm GRAY
P1874	TERMINAL BLOCK SPRING CLAMP 5.1mm GROUND
P1875	TERMINAL BLOCK SPRING CLAMP 5.1mm DUAL-LEVEL GRAY
P1877	TERMINAL BLOCK END BARRIER L3 SERIES
P1880	TERMINAL JUMPER 5.1mm
P1881	TERMINAL BLOCK LABEL 5.1mm NUMBERS 1-10, 20 SETS/CARD
P1902	PIPE PLUG 3/8" NPT 304SS SQUARE HEAD
P1903	VENTURI INJECTOR DEMA ROCKET, ORANGE, .070", 1.3GPM AT 100PSI, SINGLE BARB
P1939	RELAY, TIMER, MULTIFUNCTION 24VDC (REPLACES P1115)
P1944	NOZZLE, FAN SPRAY, 110 DEGREE, 1/8 MNPT, 0.2 GPM AT 10PSI (1/8KSS-2)
P1945	VENTURI INJECTOR 1/4" SUCTION LINE AND STRAINER
P1946	VENTURI INJECTOR SUCTION WEIGHT CERAMIC FOR 1/4" TUBE
P2132	CIRCUIT BREAKER 3-POLE 2A FAZ-D2-3- NA
P2429	VARIABLE FREQUENCY DRIVE MS300 0.5HP 115-1PH
P2430	VARIABLE FREQUENCY DRIVE MS300 0.5HP 230-1PH
P2431	VARIABLE FREQUENCY DRIVE MS300 0.5HP 480-3PH

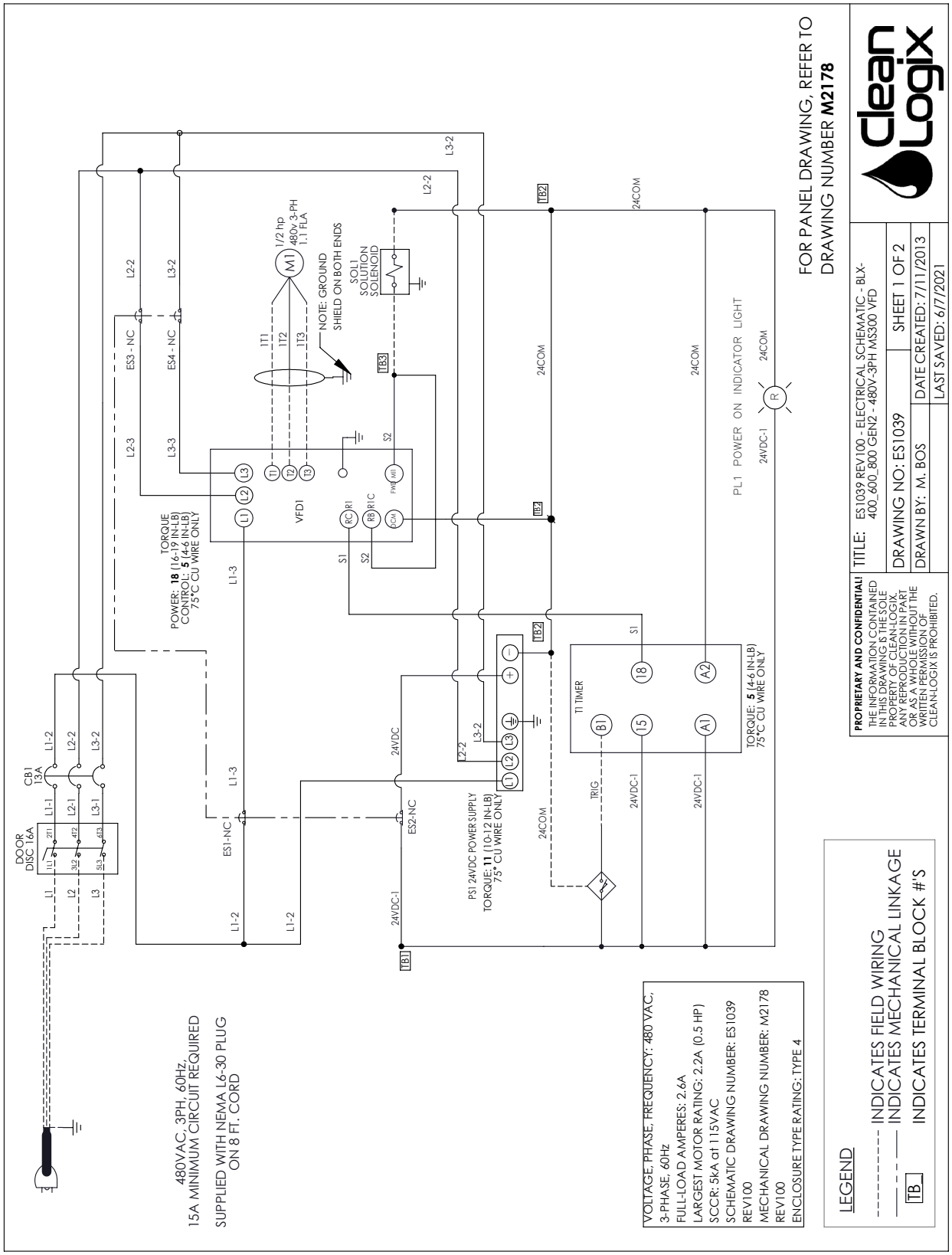
Appendix D - Electrical Schematic (115V)



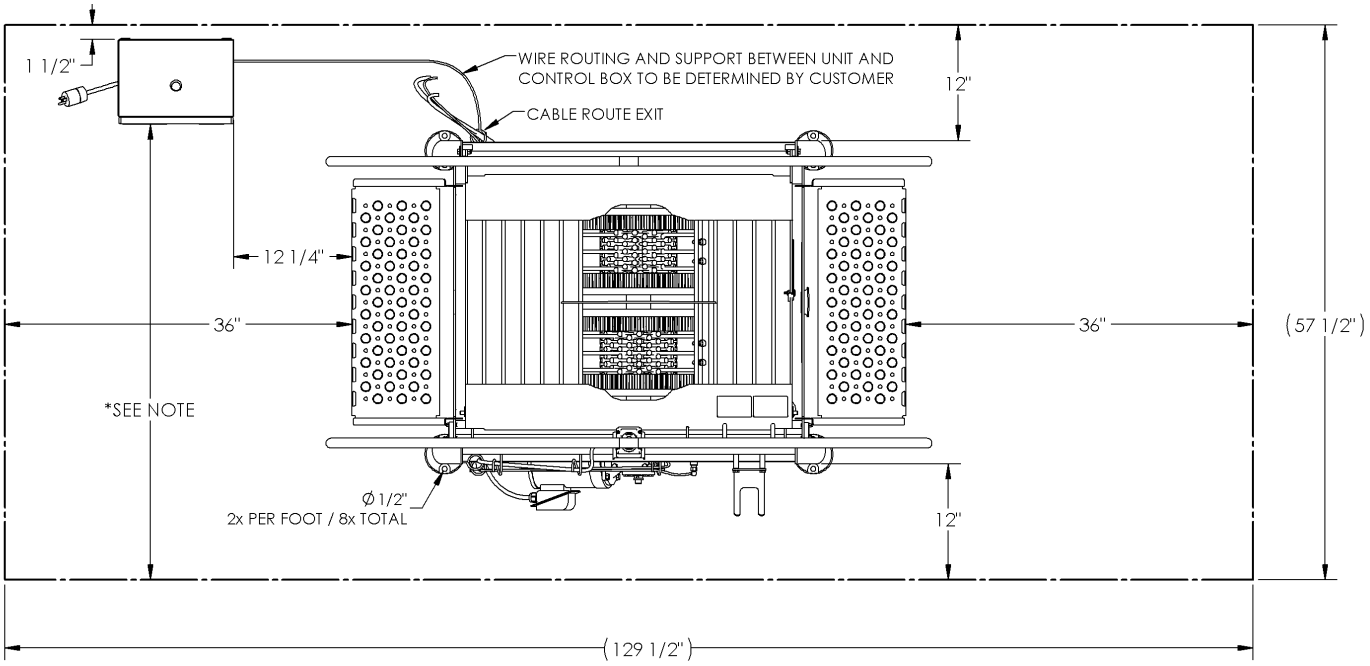
Appendix D - Electrical Schematic (230V)



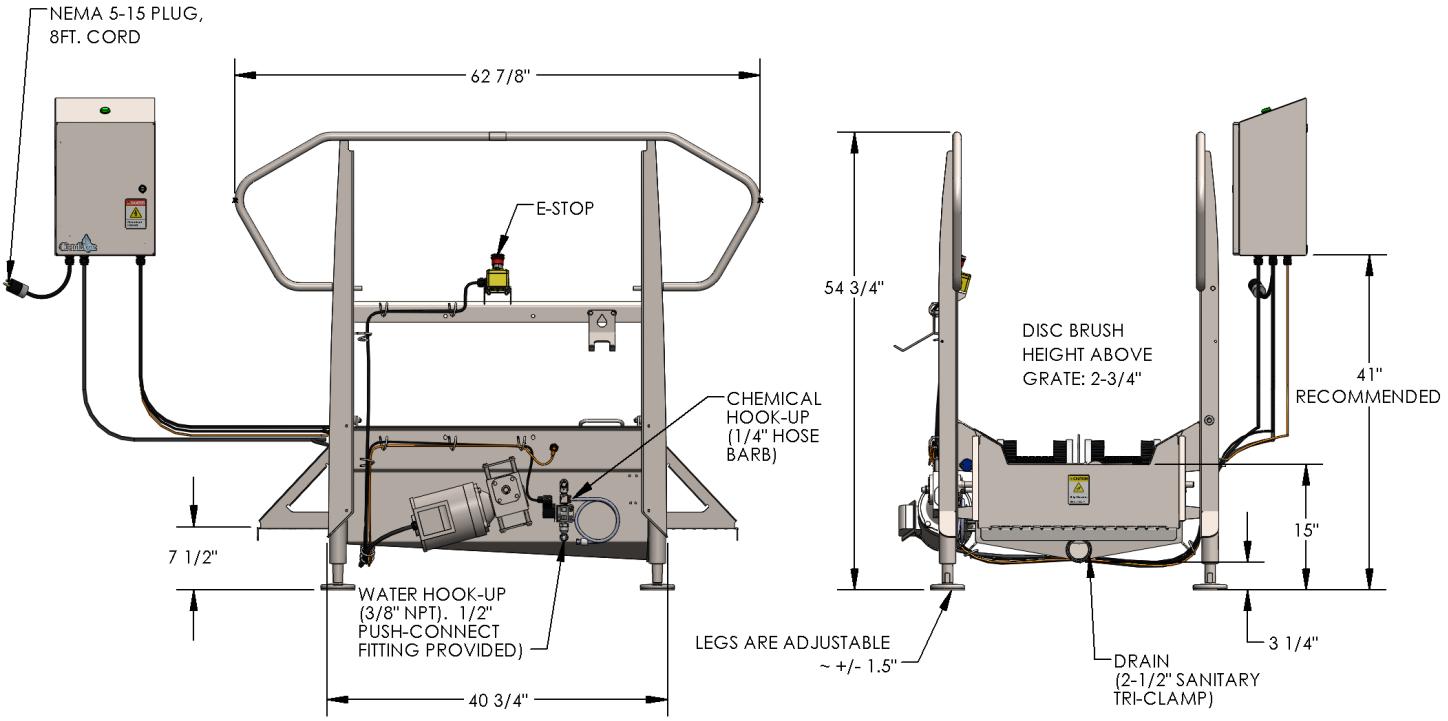
Appendix D - Electrical Schematic (480V)



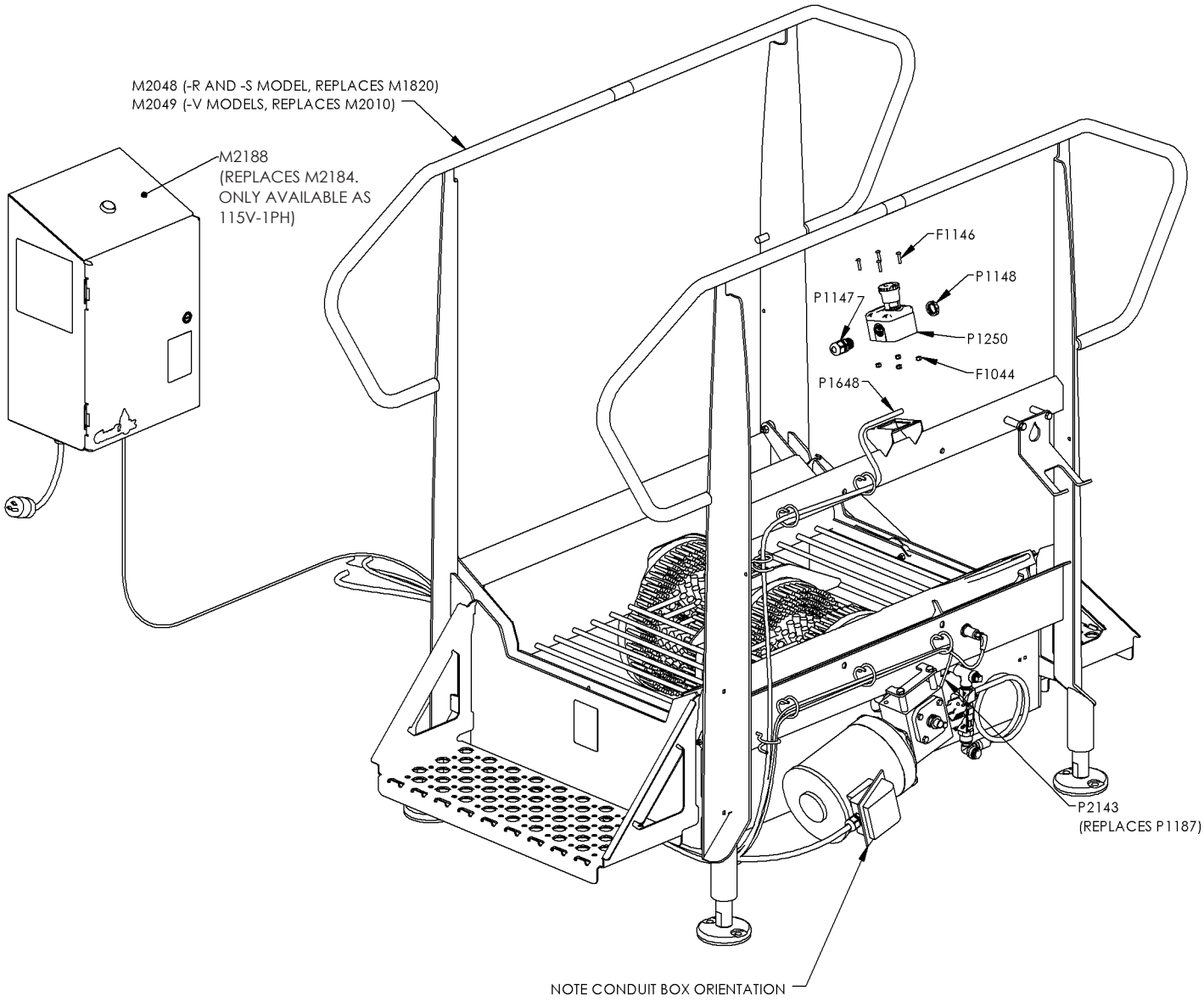
Appendix E - Remote Panel Installations



NOTE: Installation images show BLX-800R (regular) - clearance parameters apply for all models. For fixed installations and/or remote mounted control boxes, area in front of electrical panel must be clear at least 36"



Appendix E - Remote Panel Installations



NOTE: Installation images show BLX-800R-GEN2-RP (Regular Remote Panel). Spare parts for all remote panel installation will contain the above. For model specific parts, consult Appendix A for the appropriate model.

Appendix F - Non-Dilution Flojet

The following instructions overview installation, set-up, and general use for BLX boot scrubbers equipped with a Non-Dilution Flojet kit, for use with sanitizer solutions that do not require dilution. Follow standard instructions for other sections (i.e. cleaning, brush removal, motor adjustments, etc.)

Physical Set Up:

1. Set unit in desired location.

   NOTE: To move the unit use a pallet jack or a hi-lo to lift from the bottom or using the handrails. Pad the forks to protect the finish.

2. Aspects to consider when deciding on placement:
   - Clearance for entering and exiting
   - Location of drain
   - Emergency exit paths or egress in case of emergency
   - Head room for personnel while using the unit
   - Access to control box
   - Connections for air and electricity
3. Use a level to make sure the unit is stable and leveled at each end of the tub [Figure 34.1].
4. Connect unit to electrical supply.

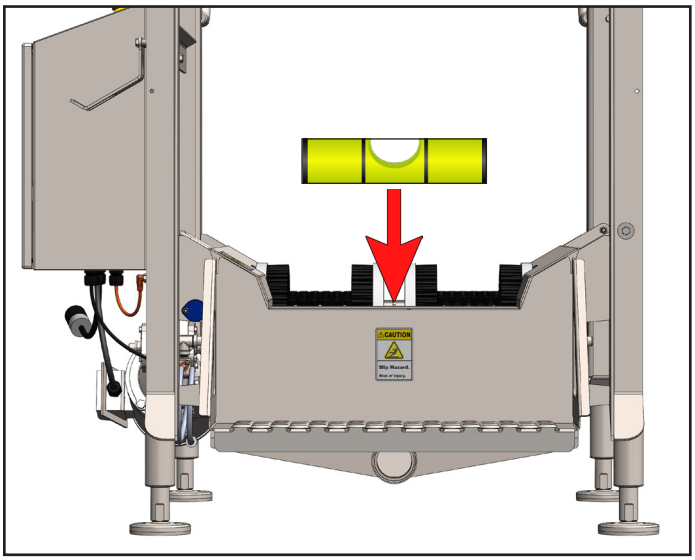


Fig. 34.1: Level and stabilize unit using level at each end of tub

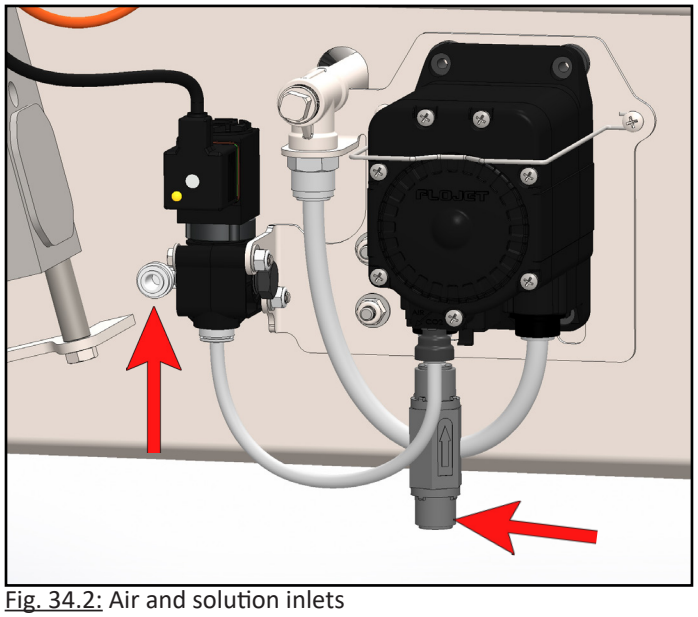


Fig. 34.2: Air and solution inlets

Plumbing Connections:

1. Connect compressed air (40 psi min.) to solenoid valve quick fitting inlet using 3/8" LDPE tubing or similar [Figure 34.2].

   NOTE: Compressed air should be regulated at 40 psi. A stand-alone air regulator is included with NDF kits for this purpose.

2. Connect solution source to check valve of pump inlet using 3/8" clear LDPE tubing (included) [Figure 34.2].

Appendix F - Non-Dilution Flojet

General Use

1. Step onto the walkway grate.
2. The walkway grate will depress, activating a proximity sensor which starts the brush rotation and triggers the solenoid to activate the pump.

   NOTE: The pump will spray solution for a specified amount of time and will stop.
3. Walk through the unit, allowing the rotating brushes to clean by moving the boot to make contact with hard to reach areas.
4. One second after the user steps off of the walkway grate the brushes will stop.

Altering Spray Amount

1. Power down the unit and open the electrical enclosure.

   ⚠ DANGER:
   Only authorized personnel should open the control box.
2. Locate the timer relay for the solenoid valve (see electrical schematic) and adjust the value as necessary
   - **Default Function:** Wu (Single Shot)
   - **Defaul Time Range:** 1 sec.

Air Pressure	Spray Time	Consumption
40 psi	1.0/s	0.66/oz
40 psi	0.8/s	0.61/oz
40 psi	0.6/s	0.48/oz

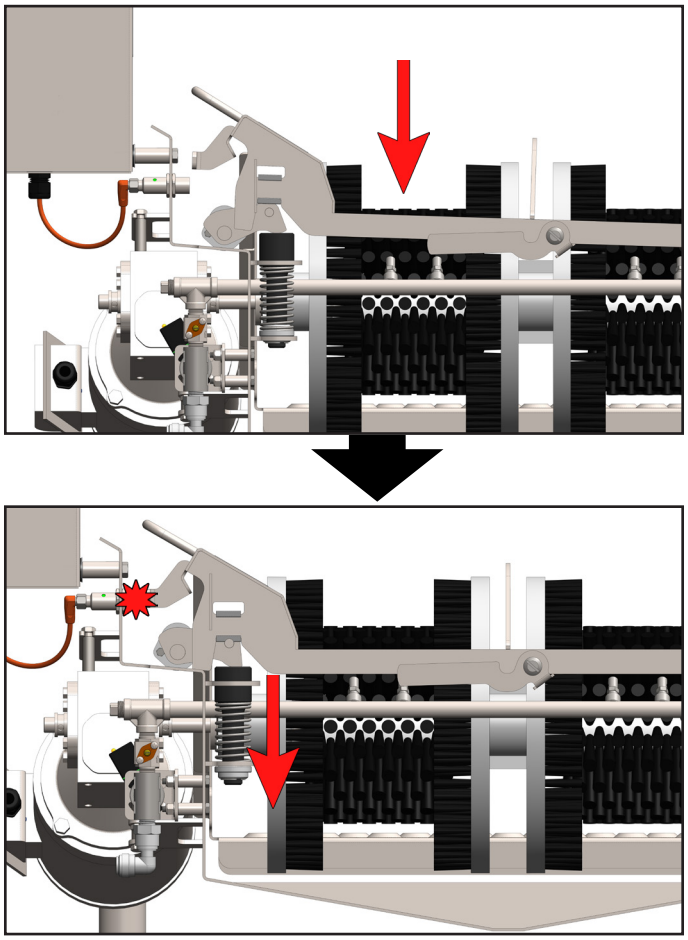


Fig. 35.1: Grate triggering Prox Switch, shown on BLX-800R

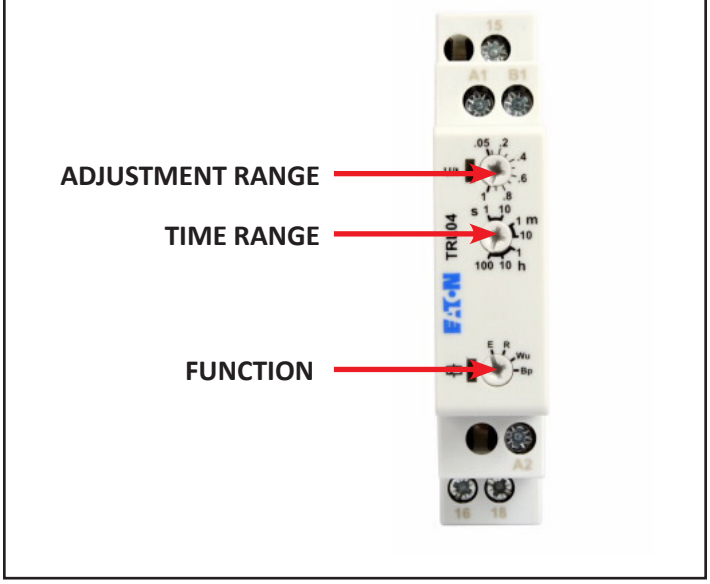
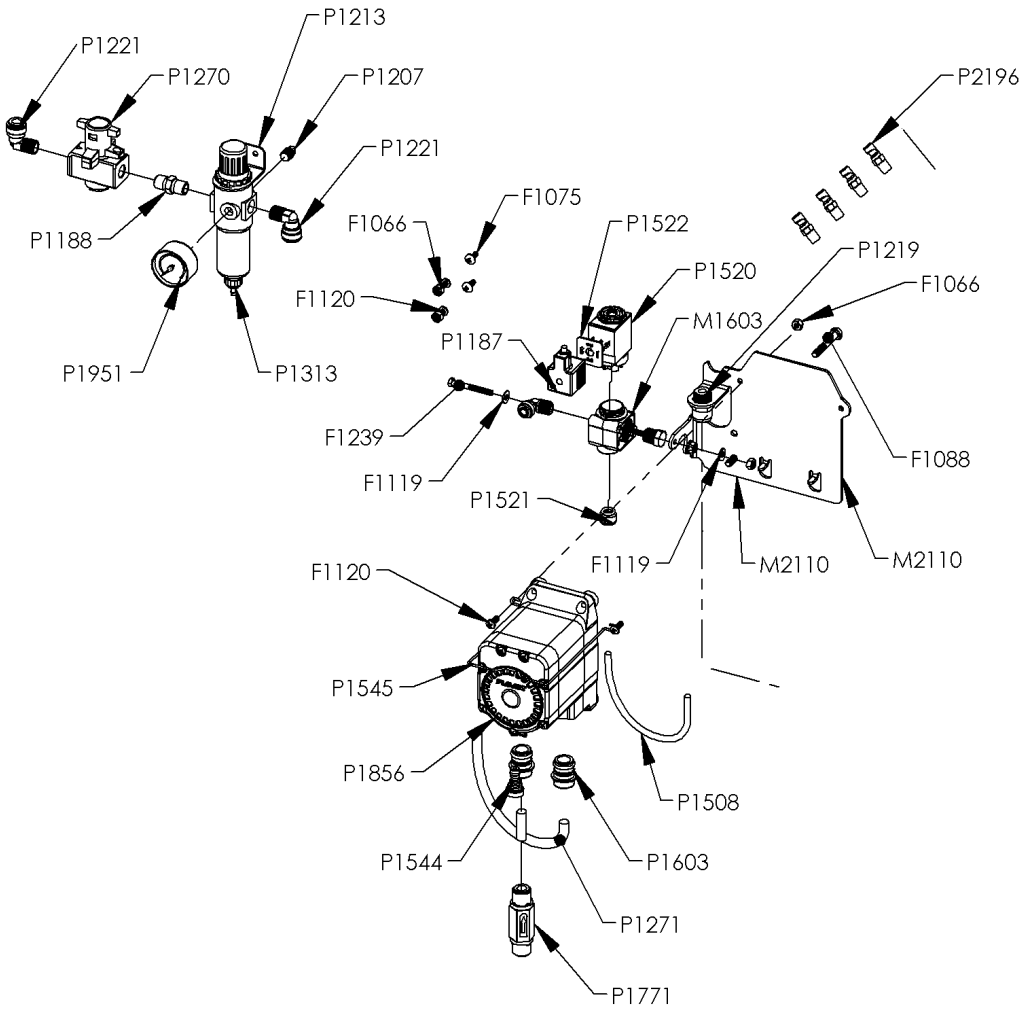


Fig. 35.2: Eaton TRL04 Setting Identification

Appendix F - Non-Dilution Flojet (Parts Callout)



NOTE: P2199 check valve only necessary for Vertical models.

Part No.	Description
F1066	NUT NYLOCK 10-32 SS
F1075	SCREW SELF TAP 10-16 X 1/2 SS
F1088	BOLT HHC 1/4-20 X 1-3/4 SS
F1119	WASHER #10 SS TYPE A
F1120	SCREW MACHINE 10-32 X 1/2 SS PHILLIPS PAN HD
F1239	BOLT HHC 10-32 x 1-3/4" SS
M1603	VALVE BODY 3-WAY
M2110	BLX 800-900-1000 NDF BRACKET SS
P1187	SOLENOID CABLE 18mm DIN 24V
P1188	PIPE HEX NIPPLE 1/4 SS
P1207	PIPE PLUG 1/8 SQUARE SS
P1213	MOUNTING BRACKET A33-82
P1219	QUICK FIT 3/8 NPT X 3/8 TUBE
P1270	SHUTOFF/LOCKOUT VALVE 1/4 NPT
P1271	3/8" OD POLYETHYLENE TUBING - NATURAL
P1313	REGULATOR 1/4"
P1360	QUICK FIT ELBOW 1/4 NPT X 1/4" TUBE

Part No.	Description
P1494	PIPE PLUG 1/4" HEX PP
P1508	1/4" OD POLYETHYLENE TUBING - NATURAL
P1520	VALVE COMPONENT KIT 3-WAY 3mm
P1521	PUSH CONNECT CARTRIDGE 3/8" PP2812W
P1522	GASKET DIN COIL FORM A EPDM
P1544	QUICK FIT AIR INLET 1/4" FLOWJET P56
P1545	CLIP P56 PUMP
P1603	QUICK DISCONNECT INLET/OUTLET FOR FLOJET PUMPS 3/8"
P1771	CHECK VALVE, 3/8 QUICK FIT X 3/8 QUICK FIT
P1856	FLOJET P56 PUMP SANTO
P1951	GAUGE, PRESSURE, 1-1/2" 0-100psi 1/8 NPT SS CENTER BACK MOUNT
P2196	"NOZZLE, FAN SPRAY, 110 DEGREE, 1/8 MNPT, 304SS, FLOODJET TYPE K, 0.03 GPM"
P2199	CHECK VALVE 1/8"F X 1/8"M SS

Appendix F - Non-Dilution Flojet (Electrical Schematic - 115V)