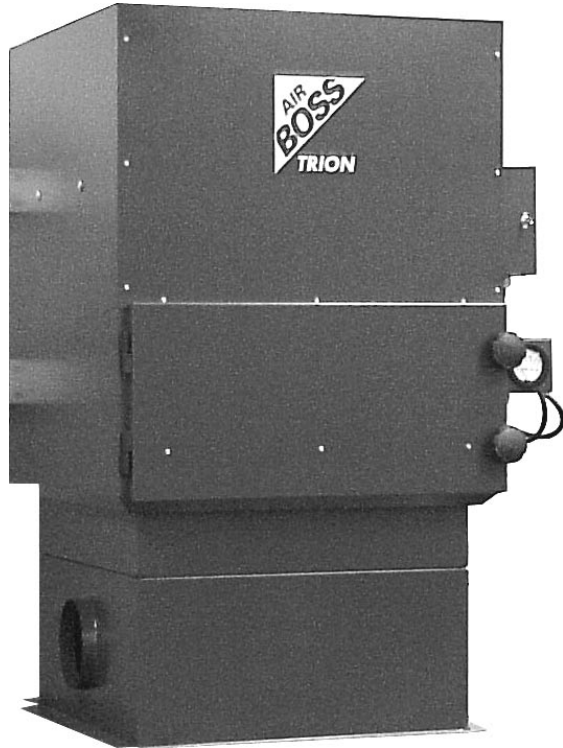




MP 600E



Installation • Operation • Maintenance

TRION[®]

A **FEDDERS**[®] ENGINEERED PRODUCTS COMPANY

INSTALLATION

Remove the unit from shipping pallet and inspect for damage. Any damage from shipping or which occurs when the unit is being removed or has been removed from the shipping pallet, is the responsibility of the consignee or his agent. Before installing the unit, remove the cell. Store in such a manner as not to damage it. The unit has a blast gate fitted (Item 5) to allow control of the air flow through the unit. Should it be necessary to reduce the flow, loosen the two lock nuts and slide the gate across the opening. It is recommended to only move the gate a small distance at a time until the ideal setting is achieved to suit requirements. The drain at the base of the unit which has a 3/4" NTP thread should be connected to a pipe in order that the oil collected can run off either back into the machine tool sump, or a suitable container. In order for the oil to run off while the fan is running, the pipe should be trapped and primed with oil.

NOTE:

The installation of the unit is the responsibility of the installation engineer, and as such, it is his responsibility to ensure that all anchorage points, and any other means of support are within safe working loads. Unit weight 125 Lbs.

ELECTRICAL CONNECTION

A wiring schematic is on the inside of the enclosure cover and in the instruction manual, figure 2, 3, and 4.

RATING LABEL

The unit rating label is fitted on the electrical access plate (Fig. 1).

NOTE:

The electrical connection of this unit is the responsibility of the electrical engineer. It is his responsibility to ensure that all circuit breakers, cables and connectors to and from the unit are compatible with the unit. Any external device which is connected to an operating electrical circuit, which in turn is connected to the unit, must fully comply with the applicable electrical codes.

WARNING

The unit must be grounded.

OPERATION

PERFORMANCE

The system performance curve without filters is shown in figure 5. Refer to this curve for the specific filter combination provided to ensure the operating characteristics are within the unit capabilities.

UNIT CONTROL

The unit is controlled by either a switch on the unit or is remote controlled. The switch controls the operation of the unit's electrical power supply. This electrical power is used to operate the high

voltage power pack and the blower/fan assembly. Before any routine maintenance work is carried out the unit control switch must be in the "OFF" position, and the integral L.E.D. light must be out.

INDICATING LIGHTS

The lights give an indication of the electrical operation of the electronic air cleaner. With the power switch in the "ON" position the built-in white neon indicates power is supplied to the unit. The red L.E.D. indicates the operation of the power pack. If the light fails to glow with the switch in the "ON" position refer to the "Fault Diagnosis" section.

CELL ACCESS PANEL INTERLOCK

The cell access panel interlock is activated by the cell access door. The interlock is designed to disconnect electrical power when the door is opened for routine maintenance.

NOTE:

Access to the unit for routine maintenance must only be made through the access door. Disconnect input power to the unit before carrying out any maintenance.

CELL CLEANING

Cleaning and inspection of ionizer-collector cell, impinger and filters

The ionizer-collector cell, impinger and aluminum filters require cleaning at least once each month. (Some environments may require cleaning more often.) Failure to clean these components on a regular basis will adversely affect the performance of your air cleaner.

When checking the ionizer-collector cell assembly, turn the unit off and wait approximately one minute before attempting to remove the assembly. This will allow any residual electrical charge to drain from the cell.

NOTE

Note the orientation of the ionizer-collector cell in the cabinet. (Observe Warning Labels.)

CAUTION

The cell assembly weighs 34 lbs.

Remove the ionizer-collector cell, impinger and filters.

CAUTION

In the following steps, do not pry between the cell plates with screwdrivers, pliers, etc. This will bend the plates

Clean these components by first rinsing with warm to hot water, then

immerse them in a good commercial grade detergent. (Make certain the detergent will not harm aluminum or cause residue buildup on the cell plates.)

For best results, the cleaning solution should be 140°F to 160°F. The components should be soaked in the solution for 1 to 2 hours (longer if extremely dirty). Thoroughly rinse the components with warm water; make sure to rinse the ionizer-collector cell from both sides.

NOTE:

The High Temperature of a steam cleaner may cause blade warpage and damage the cell.

Allow all components to thoroughly dry before re-installing into the air cleaner. After cleaning, inspect the ionizer-collector cell for bent plates or dirty insulators. Bent plates are difficult to repair, and if the bent plates cannot be straightened, the cell will need to be replaced.

Any foreign accumulation of dirt or debris should be washed out of the cell. A close inspection around the ceramic insulators should be made. This insulator may be cleaned by removing from the cell and hand washing in a detergent. (Refer to Parts List for location of insulators.)

Inspection of the cabinet should be made while the filtering components are drying. Remove all foreign debris and dirt accumulation on the blower wheel blades and clean if there is a buildup. Inspect all wiring for loose connections and cracked insulators. Tighten or replace if required.

Bearings of both blower and blower motor should be checked for signs of unusual wear.

In areas where liquids are being collected, check the drain fitting for proper draining.

Reinstall all components into the cabinet (make sure the ionize collector cell is thoroughly dry). Switch unit ON at the control switch. The blower motor should start and the indicator light should be ON. The indicator light shows the power is present at control switch, but does not indicate that there is high voltage from the power supply.

An occasional snapping or arcing indicates there is high voltage from the power supply. The air leaving the unit should be clean with no visible emissions. If it is not being cleaned there is a shorted condition within the ionizer-collector; cell assembly. (Refer to Troubleshooting Section.)

OIL APPLICATION

If a unit has an oil application, the unit becomes virtually self cleaning, needing infrequent washing. This occurs due to the fact that the oil, once collected, runs down the cell plates and is allowed to drain through the drain connection, into a suitable receptacle.

RECOMMENDED MAINTENANCE

REGULAR MAINTENANCE RECOMMENDATIONS:

Your Trion unit requires the following checks:

- 1) Red L.E.D. light, on the front of the unit should ALWAYS be illuminated when operating efficiently.

- This should be checked on a daily basis.
- 2) The unit should be inspected to see if excess contamination is building up. If dirty, clean in detergent and warm water solution. This should be checked every four weeks at least until maintenance schedule is determined.
 - 3) The ducting and drain connections should be checked for serviceability.

This should be checked every four weeks.

WARNING

To avoid the risk of collected contaminants, particularly oil, being blown from the drain pan of the unit back up into the filters, it is **ESSENTIAL** that the oil drain piping is trapped, at least 2 1/2 inches.

The unit should be inspected regularly and collected contaminant removed to prevent excessive accumulation which may result in flash over or fire damage.

TROUBLESHOOTING

SYMPTOM	POSSIBLE CAUSES	CORRECTIVE ACTION
Failure to start (motor does not start when unit is turned on)	Proper power not reaching unit	Check that unit is connected to live power line with good fuses, and that the voltage at the unit is correct
	Loose electrical connections	Check; tighten if necessary
	defective control switch	Replace control switch
	Defective safety switch	Replace safety switch
	Defective motor	Replace motor
Motor operates intermittently	Dirt on motor causing overheating	Clean Motor
	Motor requires lubrication	Lubricate motor
	Blower belt too tight	Loosen belt
	Improper wiring	Check Wiring according to wiring diagram
	Access door not closed	Close access door
Motor operates with little or no air volume	Blower wheel blades loaded with dirt	Clean blower wheel blades
	Blower wheel rotating in wrong direction	Check wiring according to wiring diagram
	Motor requires lubrication	Lubricate motor
	Blower wheel loose on motor shaft	Supply correct line voltage
On/Off switch not illuminated	Check power supply	Connect power
	Control switch off	Switch on
	Fuse/circuit breaker open	change fuse/reset
	Faulty Switch	Replace switch
Red L.E.D. out	Control switch off	switch on
	Broken cell insulator	Replace
	Extremely dirty cells	Wash
	Power supply failure	Replace
	Loose electrical connections	Tighten-if necessary
Electrostatic not working or Continuous arcing and flickering L.E.D.	Excessive dirt	Wash
	Object between plates	Remove
	Damaged (bent) plate	Straighten or replace
	Damaged (bent) ionizer	Straighten or replace
	Broken Insulator	Replace
	Defective power supply	Replace
	Bad contact to cell ionizer	check
Power Pack not working	No power	Check input to pack
	Defective power pack	Replace
Unit will not work	No power at service connection	Rectify
	Access panel not closed	Close
	Bad (open) safety switch	Replace
	Bad (open) wiring	Replace

TROUBLESHOOTING (CONTINUED)

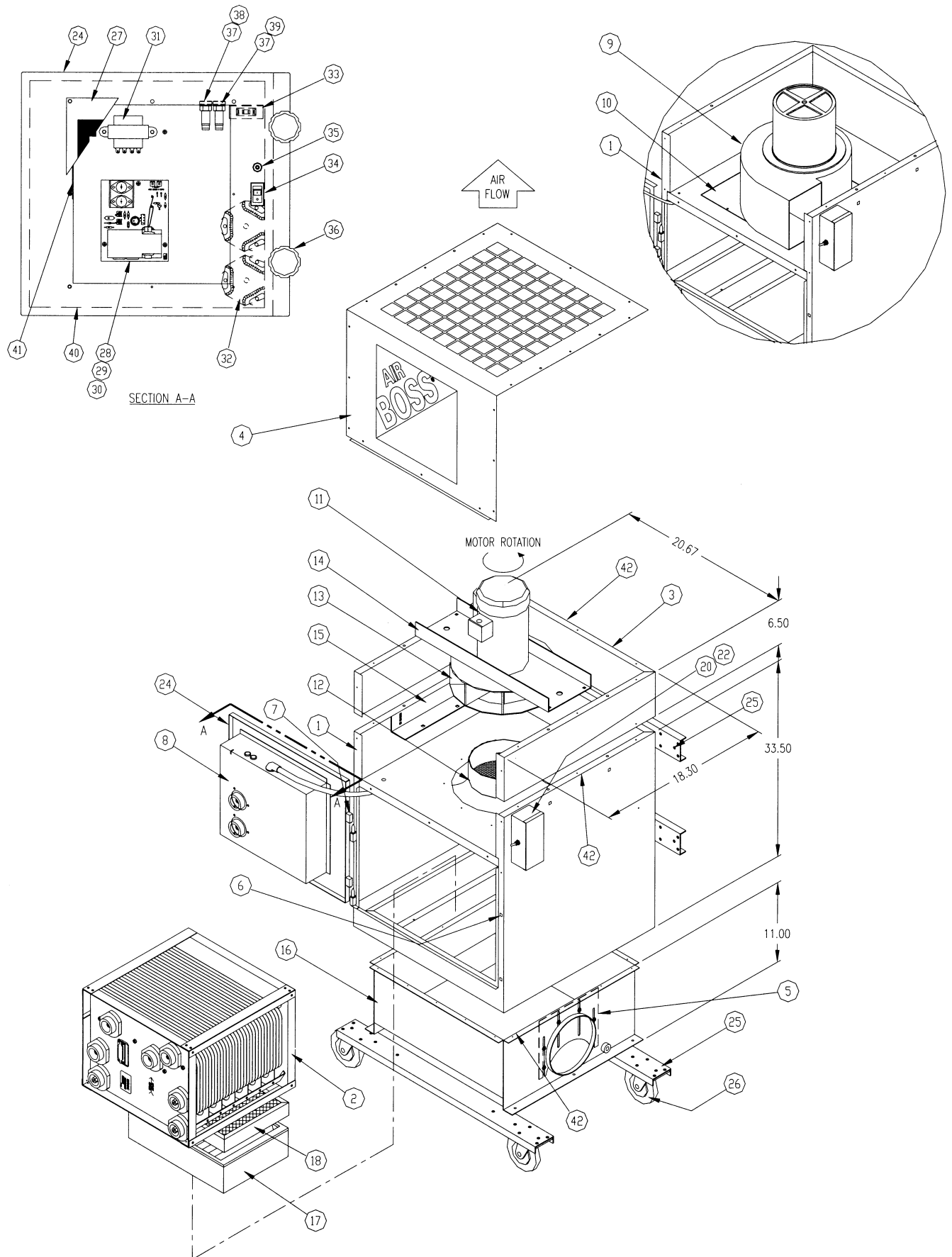
SYMPTOM	POSSIBLE CAUSES	CORRECTIVE ACTION
Heavy arcing after washing	Collector elements still wet	Allow more drying time
Loud hissing noise	Dirty Cell	Wash
	Loose high-voltage connection	Rectify
Radio and/or TV Interference	Improper earth connection	Wash
	Loose high-voltage connection	Rectify
	Cell "floating"	Clean cell rails
Visible dirty air penetration	Cells not working	Check as above
	Cell too dirty	Wash
	Air flow too great	Slow air speed (blast gate)
	Fault on electrostatics	Rectify (see above)

PARTS LIST • CONTINUED ON PAGE 5 (REFER TO FIGURE 1 - PG. 6)

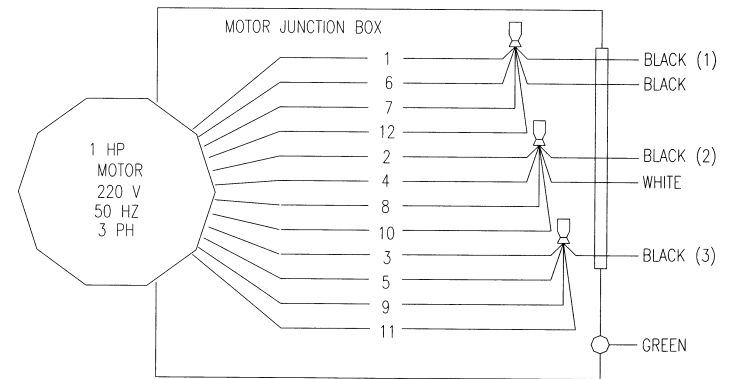
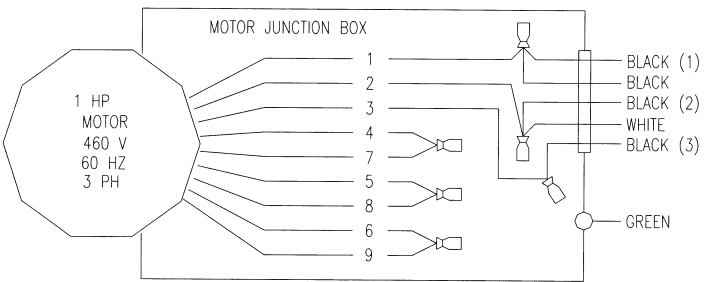
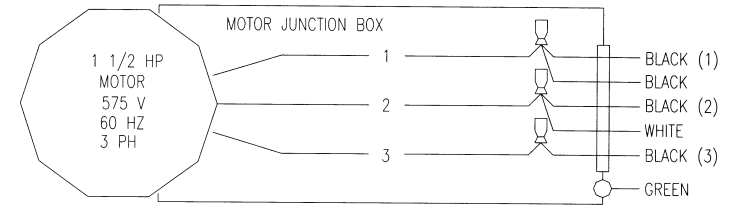
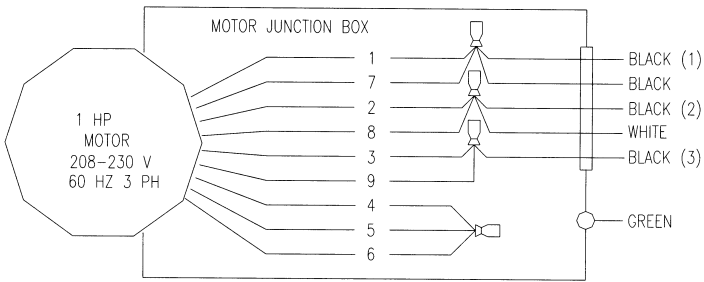
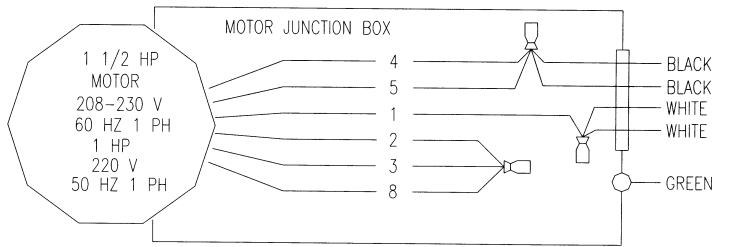
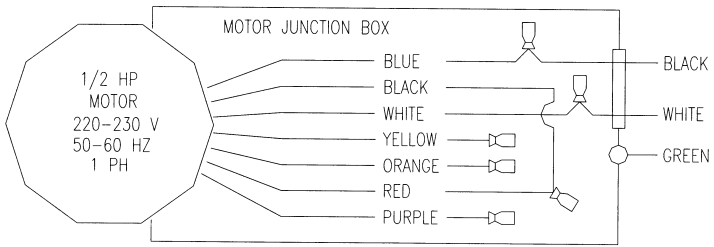
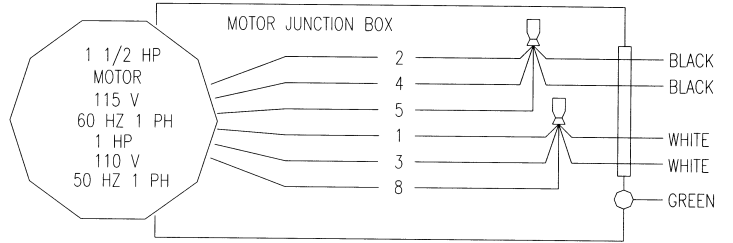
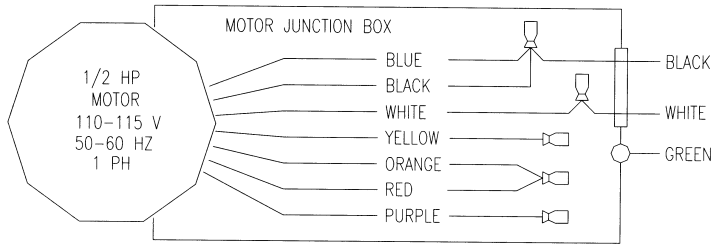
ITEM	PART NO.	DESCRIPTION
1	354584-001	CABINET ASSEMBLY
2	450568-004	IONIZING CELL
3	254610-001	CABINET EXTENSION
4	354609-001	BLOWER PLENUM COVER
4A	354609-002	BLOWER PLENUM COVER
5	354607-001	BLAST GATE
6	321449-002	NUT RETAINER
7	146442-002	HINGE
8	224779-013	GASKET, 3/4" X 1/4"
9	247350-101	BLOWER MOTOR ASS'Y (120 V / 240-50 / 60 Hz-1 PH)
10	253631-001	ADAPTER PLATE
11A	150825-001	MOTOR 115/208-230/460/1
11B	150825-003	MOTOR 208-230/460/60/3
11C	150825-004	MOTOR 575/60/3
11D	150825-005	MOTOR 110/220/50/1
11E	250819-006	MOTOR 220/380-440/50/1
12	250819-007	INLET CONE
13	250837-102	BLOWER WHEEL
14	253617-001	MOTOR MOUNT
15	253621-001	MOTOR ADJUSTING ANGLE
16A	354604-001	PLENUM - HOSE
16B	354604-002	PLENUM - ARM
17A	246901-014	IMPINGER 2"
17B	345392-007	PLEATED PREFILTER 4" - 35%
17C	345392-008	PLEATED PREFILTER 4" - 65%
18A	254630-001	PREFILTER ASS'Y 2"
18B	224451-023	ALUMINUM MESH FILTER 2"
20A	253625-002	SWTCH BOX ASS'Y 3Ø

PARTS LIST • CONTINUED (REFER TO FIGURE 1 - PG. 6)

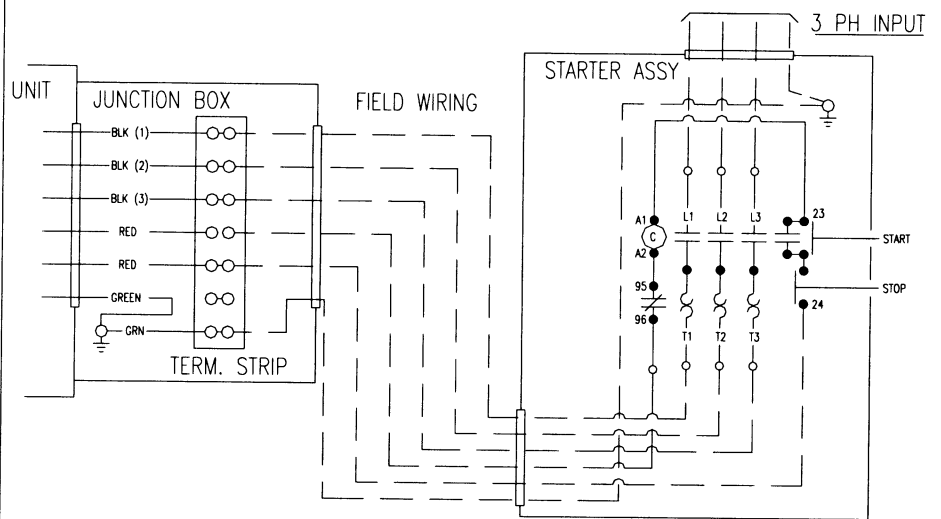
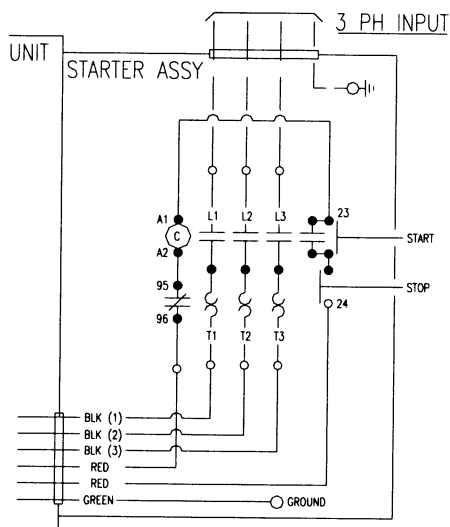
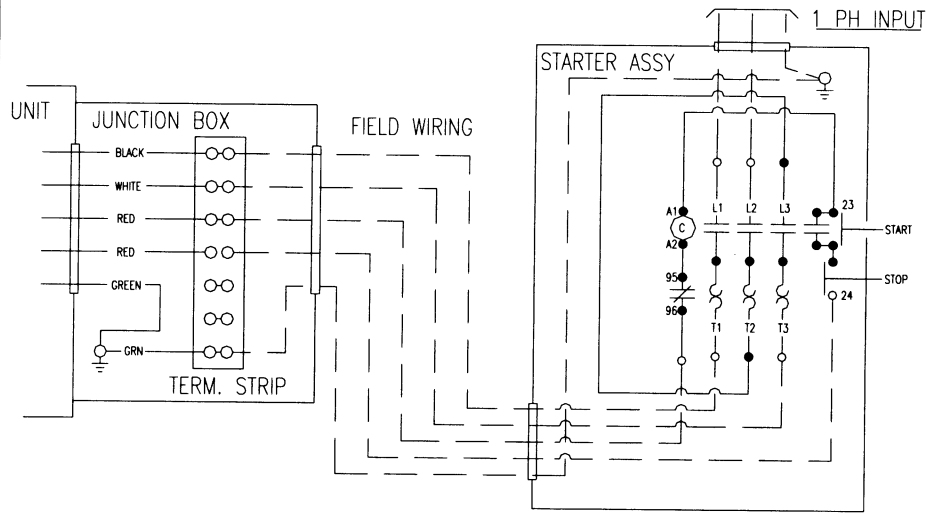
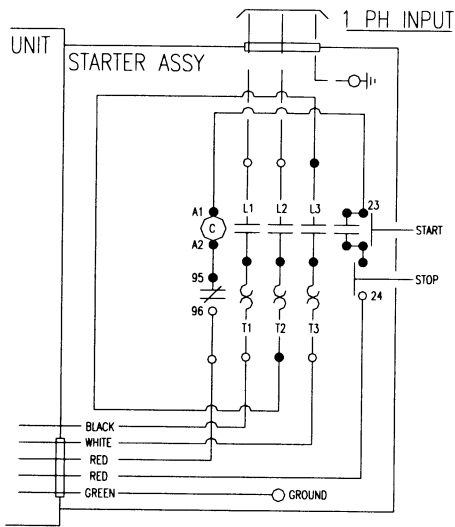
ITEM	PART NO.	DESCRIPTION
1	354584-001	CABINET ASSEMBLY
20B	253625-003	SWTCH BOX ASS'Y 1phase
20C	253625-004	SWTCH BOX ASS'Y 1 phase W/ CORD
20D	250928-006	COMPACT STARTER 1 phase
20E	250928-007	COMPACT STARTER 3 phase
20F	250929-023	COMPACT STARTER 3 phase
20G	250929-025	COMPACT STARTER 3 phase
22	253625-005	ARM ASSEMBLY 8" X 10' (NOT SHOWN)
23A	445500-001	ARM ASSEMBLY 8" X 14' (NOT SHOWN)
23B	445500-011	ACCESS DOOR ASSEMBLY
24A	354592-001	ACCESS DOOR ASSEMBLY
24B	354592-002	ACCESS DOOR ASSEMBLY
24C	354592-003	ACCESS DOOR ASSEMBLY
24D	354592-004	ACCESS DOOR ASSEMBLY
24E	354592-005	ACCESS DOOR ASSEMBLY
24F	354592-006	ACCESS DOOR ASSEMBLY
24G	354592-007	ACCESS DOOR ASSEMBLY
24H	354592-008	ACCESS DOOR ASSEMBLY
25	253761-001	MOUNTING BAR
26A	60000-0003-01-00	SWIVEL CASTER
26B	150821-001	RIGID CASTER
27	254597-001	COVER PLATE
28	347891-013	POWER SUPPLY
29	221441-042	INSULATOR ROUND PILLAR
30	149772-001	CHOKE ASS'Y
31A	248655-005	TRANSFORMER 120/208/24
31B	248655-008	TRANSFORMER 380/460
31C	248655-007	TRANSFORMER 575
32	353228-001	STAND OFF INSULATOR
33	250031-001	SAFETY SWITCH
34A	245844-001	SWITCH 240V
34B	245844-002	SWITCH 24V
34C	250033-001	SWITCH 240V (UK ONLY)
35	241101-016	LED ASS'Y
36	248956-002	CLAMPING KNOB
37	151677-001	FUSE HOLDER
38A	151678-001	FUSE 1.2A
38B	151678-003	FUSE 3.1A
39A	151678-002	FUSE 5.0A
39B	151678-004	FUSE 10.0A
40	224779-034	GASKET, 5/8 X 1/4
41	224779-003	GASKET, 1/4 X 1/16
42	254781-001	STAND



**EXPLODED VIEW
FIGURE 1**



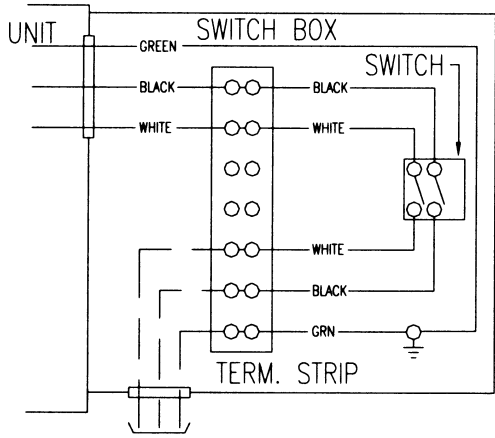
**WIRING SCHEMATIC
FIGURE 2**



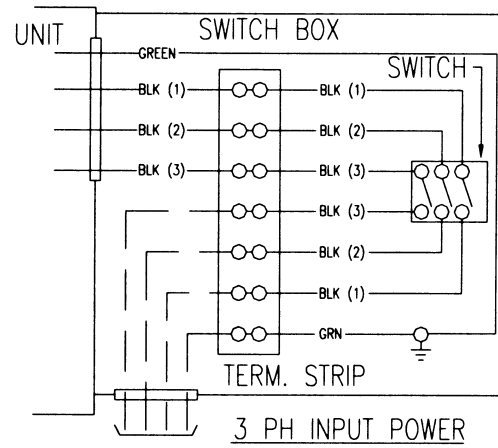
STARTER - UNIT MT. WIRING

STARTER - REMOTE MT. WIRING

FIGURE 3

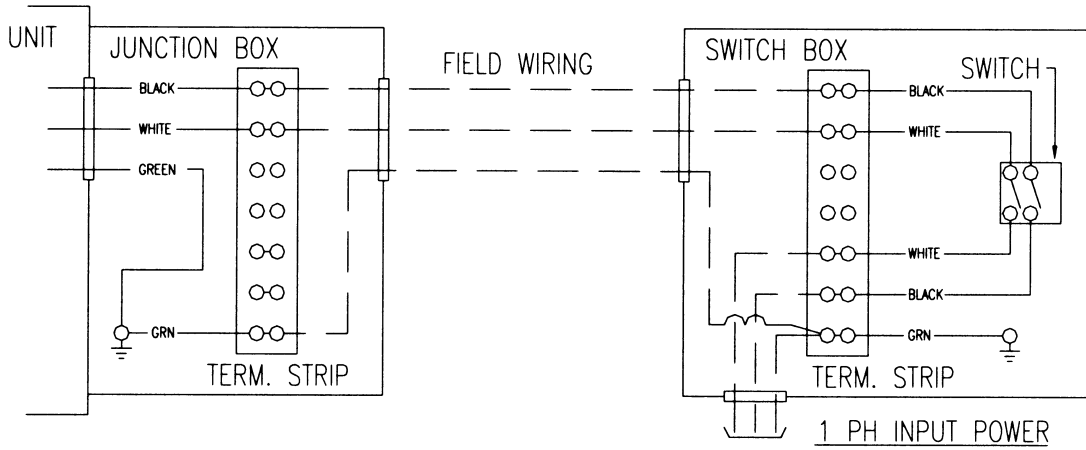


1 PH INPUT POWER

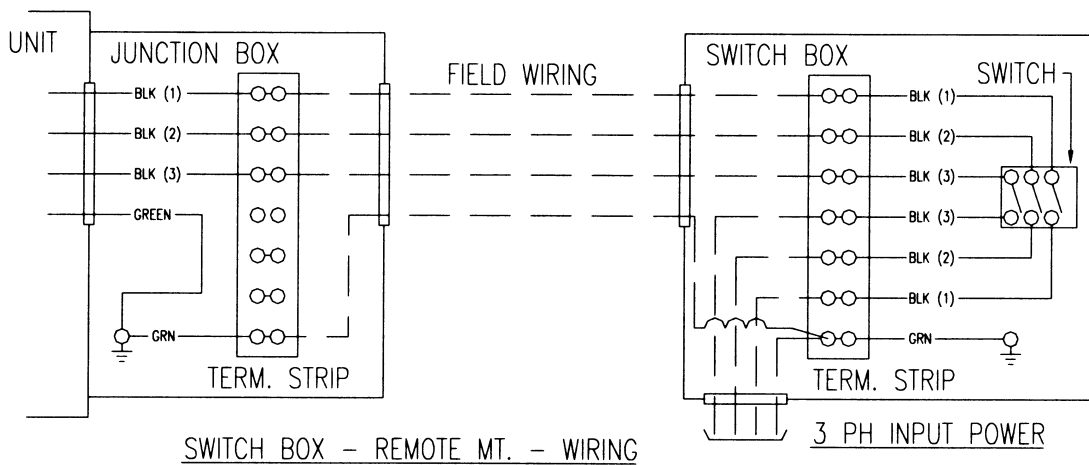


3 PH INPUT POWER

SWITCH BOX - UNIT MT. - WIRING



1 PH INPUT POWER



3 PH INPUT POWER

SWITCH BOX - REMOTE MT. - WIRING

FIGURE 4

WARRANTY

All Trion air cleaners are warranted for component failure and workmanship for a period of three years after purchase. Do not return defective parts without prior permission from the factory. Contact your local Trion Distributor or Trion Customer Service Department at 1-800-884-0002 or Fax 1-800-458-2379 to obtain material return authorizations and service information.

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www.trioninc.com • e-mail: sales@trioninc.com

101 McNeill Road • Sanford, North Carolina 27331-0760 • Customer Service: (800) 884-0002 • Fax: (800) 458-2379
Part No. 153632-002 • 02/01