

# FRED JR/01



Manual for:

Installation • Operation • Maintenance

**TRION®**



## I. EQUIPMENT CHECKLIST

### FRED JR/01

Qty	Description
• 1	FRED JR/01 OWNER'S MANUAL
• 1	FRED JR or FRED 01 Unit
• 1	1-1/2 lb [750g] precoat material

## II. MECHANICAL INSTALLATION

- Install cabinet in a safe and nonhazardous location.
- Mount capture arm on unit by bolting arm base on inset support plate (see Fig. 1).
- Make sure that front and rear doors are properly sealed.

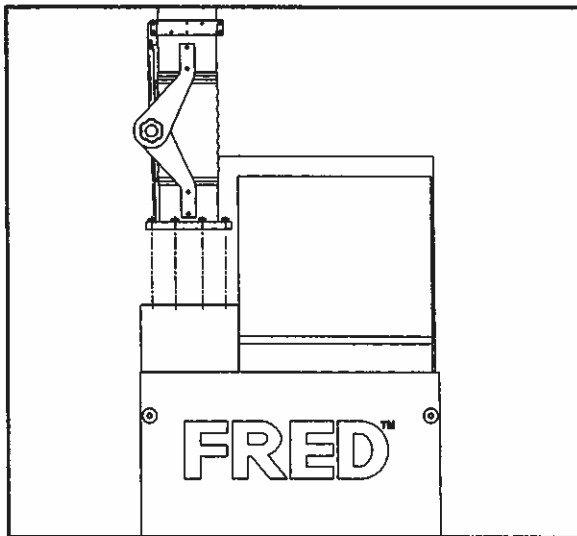


Figure 1 - Capture Arm Installation

## III. ELECTRICAL INSTALLATION

**NOTE:**  
All electrical connections must be made by a qualified electrician.

### FRED JR

- The unit is supplied with 15 ft. [4.5 m] of electrical cord and a 120V/60Hz. [220V/50Hz] wall plug. This is to be inserted in to a standard wall outlet.

- Electrical information regarding your FRED can be found on the name plate located on the top of your unit. Please refer to wiring diagram 251217-001.

### FRED 01

**NOTE:**  
All electrical connections must be made by a qualified electrician.

- Electrical information regarding your equipment can be found on the name plate located on top of your unit. Please refer to wiring diagram on page 3.
- Correctly size electrical supply cable according to motor horsepower and voltage.
- Supply voltage must be connected to the line side of the contactor (L1, L2, L3). The ground wire must also be grounded to the cabinet (see Table1).
- The supply cable must be pulled through an air tight connector and tightly secured.

Contactor Terminal	NORTH AMERICA	EUROPE
L1	Red (phase A)	Black
L2	Black (phase B)	Black
L3	White (phase C)	Black
Ground	Green	Green/Yellow
Neutral (if present)	-----	Blue

Table 1: Electrical Line Connections

**NOTE:**  
This is a 3-phase motor starter. To ensure you have proper motor rotation, refer to the directional arrow on the motor plate.

- E) Switching two (2) of the 3-phase connections will reverse the direction of rotation of the motor. Your unit will be blowing the air at about one third of its efficiency if the blower is turning in the incorrect direction. It will also be making more noise than it should.

#### IV. START-UP

- A) Press the GREEN START button located on the starter box on the top or side of the unit.
- B) Check amperage. Amperage should never exceed the rated motor amperage for more than a few moments.
- C) If all above is in order, FRED is ready to be put to use.

#### V. MAINTENANCE

##### FILTER CARTRIDGE

The filter cartridge should be cleaned as required. This cleaning should take place when suction is insufficient.

In order to clean the cartridge, it must be removed. To do so, remove the door panel further set from the inlet and release the cartridge locking mechanism located under the filter cartridge. The cartridge should then be turned horizontally and tapped lightly on a solid surface. (This can be done directly into a plastic garbage bag.)

As a second step the cartridge should be cleaned with compressed air. The air should travel radially inward (from the outside of the cartridge to the interior). We suggest that this be done outside or in a well ventilated area.

##### **Important**

**Do not wet or clean this cartridge with any liquid, as it may cause the forming of unwanted blockage on the filter media. Or it may weaken the cartridge which could cause breakage and ultimately damage the blower.**

If after cleaning the filter cartridge the system rapidly loses performance again it might be a sign that the filter cartridge needs to be replaced. The cartridge life is estimated to be 6 to 12 months depending on the application and frequency of usage.

##### PRE-COATING

When replacing filters, the new filters need to be pre-coated with silica based cellulose or other acceptable pre-coat

material available on the market. This is done by turning the machine ON, and feeding 1-1/2 lbs. of pre-coat through a capture arm or hood. Bags of pre-coat can be obtained through your distributor or from Trion.

It is recommended that the flow be dampered down somewhat for this operation so that the pre-coat will not impregnate the filter media; but form a cake on the surface of the media. This can be done by blocking off 3/4 of the inlet.

##### CARBON FILTER

The carbon filter is located in the rear mesh door panel. This panel aids in adsorbing most gases and odours out of the airstream. This panel needs to be replaced every 12-18 months or when the odours become apparent. As a good practice, this filter should be replaced every time the main filter cartridge is replaced. To replace, remove mesh door from unit, tear out old carbon panel, and install new panel by applying a couple dabs of contact cement or other glue on the outside edge of the panel facing the door. The glue is only necessary to hold the panel up when re-installing the mesh door.

##### CAPTURE ARM

Adjustment to arm friction joints can be made by turning knobs on sides of arm. This will permit the arm to hold the desired position. Further adjustments at the hood can be made by tightening the eye bolt to loosen or tighten the hood movement.

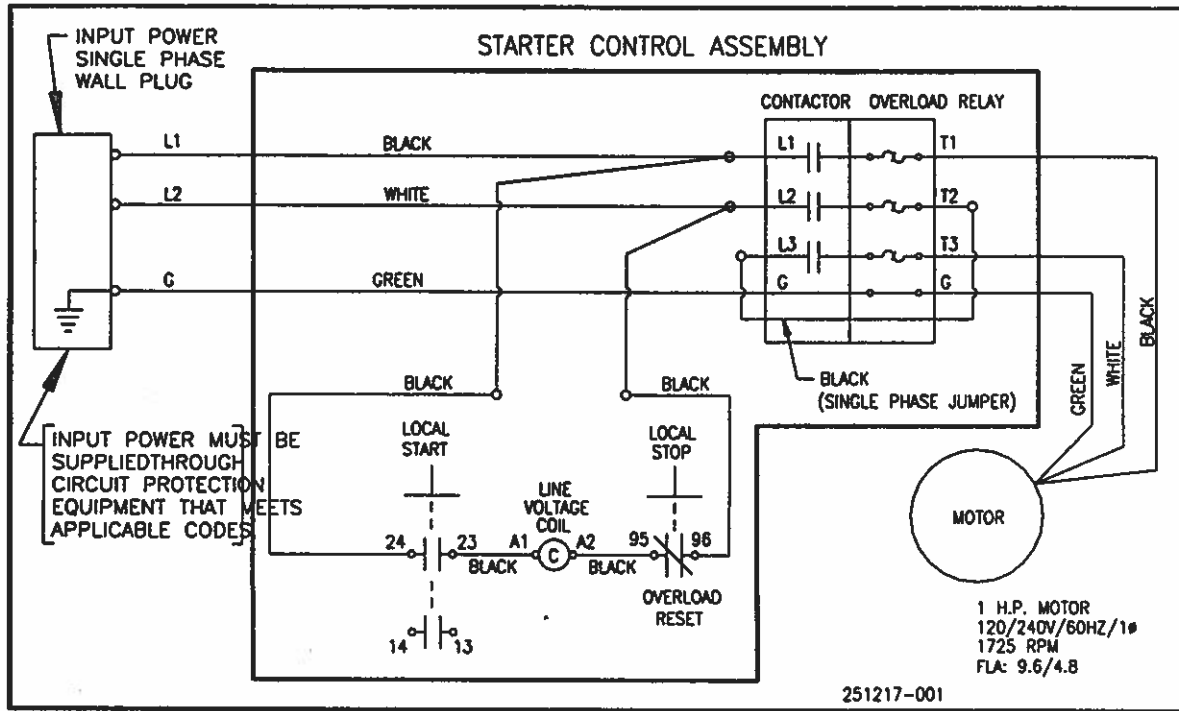
##### HEPA FILTER (option only)

For units equipped with a HEPA filter, it is necessary to pay attention to change in emissions to determine filter efficiency. The filter will need to be changed when its loading capacity will have been reached. This will be apparent when having poor suction at the capture arm even after going through a complete main cartridge cleaning cycle. To make a definite determination of the filter loading, remove the HEPA filter from the unit. If the performance improves, the HEPA filter is at fault. If not, the main cartridge is to be properly cleaned or replaced.

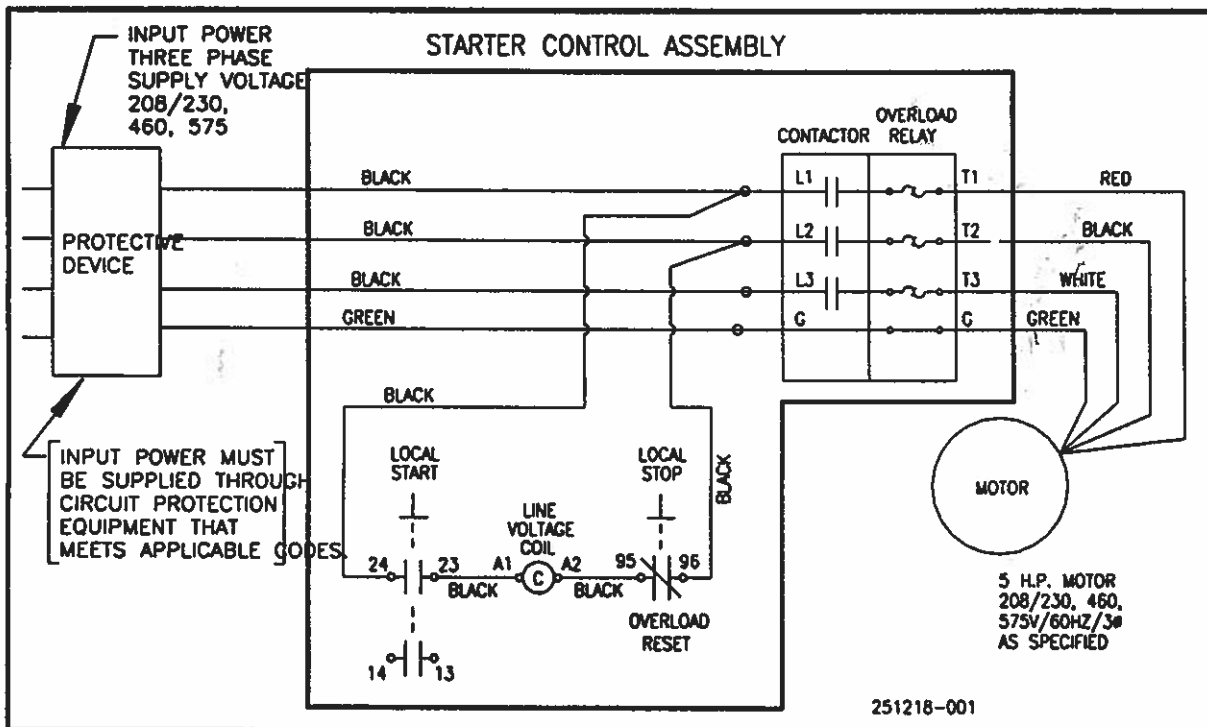
##### **NOTE:**

**Do NOT clean a HEPA filter. When completely loaded, this filter must be disposed of carefully. The particulate matter it contains should not be allowed to return to the atmosphere.**

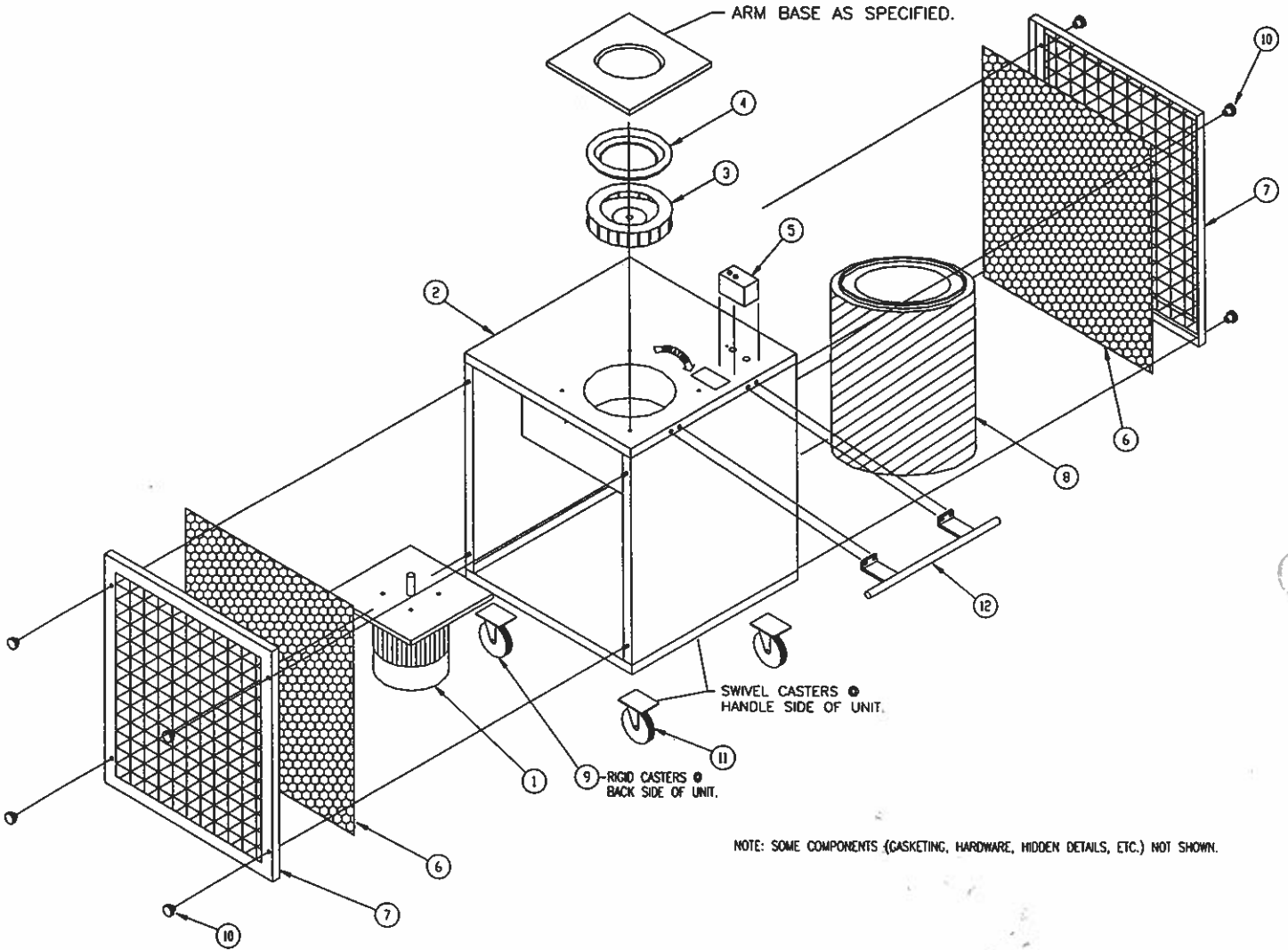
**VI. WIRING DIAGRAM FRED JR**  
**120/240V**  
**DRAWING NO. 251217-001REV. A**



**WIRING DIAGRAM FRED 01**  
**208-230/460V, 575V**  
**DRAWING NO. 251218-001REV. A**



VII. REPLACEMENT PARTS - UNIT  
DRAWING NO. 252725



Item	Part No.	Description
FRED JR	FRED JR	FRED JR
1	150825-002	Motor 1 hp 1ph
2	351141-001	Bare Cabinet
3	251144-001	Blower Wheel 11 <sup>5</sup> / <sub>8</sub> dia.
4	251146-011	Inlet Ring
5	250928-003 250928-004	Compact Starter 115V/60hz/1ph Compact Starter 230V/60hz/1ph
6	151067-001	Carbon Panel
7	351208-001	Mesh Door
8	251151-001	Filter Cartridge
9	252122-001	5" Duraplas Castors Rigid
10	250823-001	Door Knob
11	252122-002	5" Swivel Castors
12	251084-001	Handle Ass'y
FRED 01	FRED 01	FRED 01
1	142396-003	Motor 5 hp 208-230/460V, 3ph
	142396-011	Motor 5 hp 575V, 3ph
2	351141-002	Bare Cabinet
3	251145-001	Blower Wheel 9 <sup>1</sup> / <sub>8</sub> " dia.
4	251146-008	Inlet Ring
5	250929-012 250929-011 250929-010 250929-009	Compact Starter 208V/60hz/3ph Compact Starter 230V/60hz/3ph Compact Starter 460V/60hz/3ph Compact Starter 575V/60hz/3ph