

# Owner's Manual — Phoenix FireBird Fury

## Installation, Operation and Service Instructions

### *Important Instructions – Read and Save These Instructions*

The FireBird Fury portable electric heater features multiple power receptacles for connection to common 120VAC outlets, 240VAC range/dryer type outlets, or both. The Fury can output up to 62,000 BTU's of clean, safe heat at 750 CFM. The Fury's remote thermostat provides a means to control the temperature in the drying chamber, while its internal temperature cutout ensures safe operation.

#### The Phoenix FireBird Fury

- ETL Certified, UL Listed, NEC Compliant
- 30/50 Amp Operation at 240VAC (18,000 BTU / 32,000 BTU)
- 15 Amp Operation at 120VAC up to 6 independent circuits (30,000 BTU)
- Two 8' Power Cords (1 dryer, 1 range) included
- Remote Thermostat with 25' connecting wire included
- Standard MERV-11 air filter included
- Multiple ducting options
- 12" Inlet, 12" Outlet
- Stainless Steel Cabinet



Phoenix FireBird Fury  
PN 4030480

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Serial No. \_\_\_\_\_

Purchase Date \_\_\_\_/\_\_\_\_/\_\_\_\_

Dealer's Name \_\_\_\_\_

***Read the operation and maintenance instructions carefully before using this unit. Proper adherence to these instructions is essential to obtain maximum benefit from your Phoenix FireBird Fury.***

## WARNING

- Unit Intended for INDOOR USE ONLY; DO NOT USE OUT-DOORS.
- Device is HOT when in use. To prevent burns, avoid skin contact with hot surfaces.
- Use handle when moving device.
- Maintain 36" minimum clearance between device outlet and any combustible materials such as furniture, pillows, bedding, papers, clothes and curtains. Keep such items away from sides and rear of device.
- Extreme caution is necessary when device is used by or near children or invalids and whenever device is left operating unattended.
- Always unplug unit when not in use.
- DO NOT OPERATE with damaged cord, plug, or after unit malfunctions, has been dropped or damaged in any manner. Return to authorized service facility for adjustment or repair.
- Device not intended for use directly in an area where it may fall into a bathtub or other water container.
- DO NOT run cord under carpeting or other floor covering. Arrange cord away from traffic area and where it will not be tripped over.
- To disconnect device, turn controls off, then remove plug from outlet.
- Connect ONLY to properly grounded outlets.
- DO NOT insert or allow foreign objects to enter any ventilation or exhaust openings as this may cause an ELECTRIC SHOCK or FIRE, or damage the heater.
- To prevent a possible fire, do not block air intakes or exhaust in any manner. Do not use on soft surfaces, like a bed, where openings may become blocked.
- Device has hot and arcing or sparking parts inside. Do not use in areas where gasoline, paint, or flammable liquids are used or stored.
- Use device only as described in this manual. Any other use not recommended by the manufacturer may cause fire, electric shock, or injury to persons.
- Avoid use of an extension cord for 240V service because the extension cord may overheat and cause a risk of fire. However, if an extension cord is required, the cord shall be No. 6 AWG minimum size and rated not less than 9600 Watts. Cords used for 120V service shall be No. 12 AWG minimum size rated not less than 1440 Watts.

# 1 Specifications

<b>Part No.</b>	4030480
<b>Power</b>	Blower Circuit: 2 Amp at 120VAC 60Hz, 1 Phase  220/240VAC 60Hz, 1 Phase Heater Circuit:  User Selectable 30/50 Amp Operation  30 Amp = 30°F temperature rise: 18,000 BTU  50 Amp = 54°F temperature rise: 32,000 BTU  120VAC 60Hz, 1 Phase Heater Circuits (up to 6):  12 Amp / circuit = 9°F temperature rise / circuit: 5,000 BTU  At Maximum Airflow and Maximum Heat:  62,000 BTU with 80°F Temperature Rise at 750CFM
<b>Blower</b>	750 CFM
<b>Filters</b>	Pleated Media MERV-11
<b>Duct Options</b>	Inlet – 12" Flex-Duct Outlet – 12" Flex-Duct
<b>Warranty</b>	1 year 100% of Parts and Labor

## Dimensions

	Unit	Shipping
Width	20.25"	27.5"
Height	40"	45.25"
Depth	21.4"	25.5"
Weight	105 lb	130 lb

# 2 Operation

## 2.1 Transporting

The Phoenix FireBird Fury must always be upright when transported by vehicle. It may be tipped onto its handle and back for loading and moving by hand. The Phoenix FireBird Fury features a high-impact plastic skid plate which protects the unit while navigating obstacles such as curbs, stairways, and while loading into vehicles.

## 2.2 Electrical Requirements

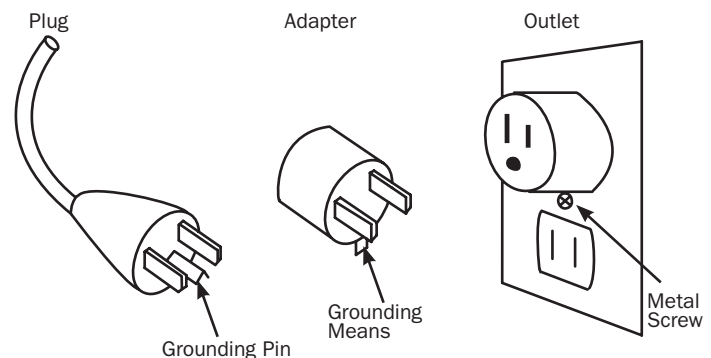
The Phoenix FireBird Fury requires a 120VAC outlet to power the onboard blower and control circuit. Heating elements are separately powered by additional cords and receptacles.

For the 240VAC heating elements, the FireBird Fury is fitted with a 240VAC grounded receptacle. When used with the appropriate cord, it provides a ground connection through the cord to the heater to protect the operator from electric shock. The Phoenix FireBird Fury comes equipped with two 8' long cords for connection to grounded

residential range and dryer receptacles. These cords have plugs as shown. Note that no adapters are available for these blade configurations, and none should be used.



120VAC heating elements each require cord connection to appropriate receptacles rated at 15A or more. One cord and receptacle are required per heating element. Power cords should be appropriately sized (typically #12 minimum). Each heater cord should have a three-blade grounding-type plug as shown. An adapter is available for connecting to two-slot receptacles. The green grounding lug extending from the adapter must be connected to a permanent ground such as a properly grounded outlet box. The adapter should not be used if a three-slot grounded receptacle is available.



## 2.3 Ducting

The Phoenix FireBird Fury can be ducted at the inlet, the outlet or both. The FireBird Fury lid and outlet adapter are designed to accommodate 12" flexible duct. When selecting flexible ducting keep in mind anticipated outlet temperatures. Air temperature increase is typically 50 to 80 degrees F. Adding ducting decreases airflow which can increase outlet temperatures by up to 40 additional degrees F.



## 2.4 Control Panel

**Master Power Switch:** The Master Power Switch located on the left side of the control panel can be used to turn the unit ON, OFF, or set the unit to be controlled by an external thermostat.

When set to ON, the Fury will energize the blower and close the heater contactors continuously. Depending on the connected power sources, the corresponding heater elements will be energized. In this mode, the Fury is limited to 140°F incoming air temperature by an internal thermostat.

When set to THERMOSTAT, the blower will run continuously, but the heating contactors will only energize when the thermostat terminals (located under the lid) are connected by a switch, remote thermostat, timer, etc.

**Heat ON/OFF Switches:** These switches individually control the 120VAC/1500W heating elements. Each switch connects and disconnects the power from the receptacle below it. These switches are lighted to indicate when power is connected and the corresponding heating element is on.

## 2.5 Hour Meter

The digital hour meter measures the cumulative time that the unit is turned on to tenths of an hour. It stores and displays the total when the unit is unplugged. It resets to zero after 99,999.9 hours of operation.

## 2.6 Remote Thermostat Connection

To connect the included remote thermostat, first locate the thermostat terminals under the lid of the FireBird Fury. There are 2 spring loaded terminals for connecting the thermostat wiring. Connect one wire to each terminal. If the FireBird Fury is placed inside the space to be heated, place the thermostat on top of the unit. For applications where the FireBird Fury is placed outside the space to be heated (e.g. ducting heat into a chamber), the 25' cord allows you to place the thermostat inside the heated space.

In addition to the included thermostat, any dry-contact switch or other type of control that connects the terminals together will cause the heating elements to run. The

thermostat circuit is low voltage (24VAC). **DO NOT CONNECT POWER TO THE THERMOSTAT TERMINALS.** Always press terminal levers to release spring pressure before disconnecting thermostat wiring. Failure to do so will lead to excessive wear on spring loaded terminal connector.

# 3 Maintenance

## 3.1 Air Filter

The Phoenix FireBird Fury is equipped with a pleated fabric air filter that must be checked regularly. The standard filter is a MERV-11 high efficiency filter. Operating the FireBird Fury with a dirty or obstructed filter will reduce airflow eventually causing the heating element to shut off. Installing a clean filter or removing the obstruction to restore airflow will allow the heating element to operate again.

The filter can generally be vacuumed clean several times before needing replacement. Replacement filters can be ordered from the factory or purchased locally if available.

## ! WARNING

**WARNING:** *DO NOT operate the unit without the filter or with a less effective filter as the heating coils inside the unit could become clogged and require disassembly to clean.*

# 4 Service

## ! WARNING

**WARNING:** *Servicing the Phoenix FireBird Fury with its high voltage circuitry presents a health hazard which could result in death, serious bodily injury, and/or property damage. Only qualified service people should service this unit.*

*Do not operate the unit without the front panel in place. High voltage is present, heater burnout may result.*

## 4.1 Technical Description

The Phoenix FireBird Fury uses a wound nichrome heating element to provide multiple heat settings depending on application requirements or available power. The heating elements are operated by a 24VAC control circuit and a number of relays and contactors. For safety, there is an air pressure switch that will shut the heating elements off or prevent the heating elements from coming on if airflow is restricted at either the inlet or the outlet. An additional safety switch limits the incoming air temperature to approximately 140°F. This switch shuts off the heating elements and automatically resets when the temperature falls to approximately 130°F.

## 4.2 Troubleshooting

**NOTE:** *High Power setting requires an external 50A circuit. Connecting to a 30A circuit with unit set to High Power will result in an external circuit breaker trip. Low voltage heating circuits require dedicated 15A minimum service for each circuit (up to 6 total).*

### Blower not running

1. Unit unplugged, no power to outlet
2. Power Switch not working
3. Wiring fault inside device
4. Defective blower or blower capacitor

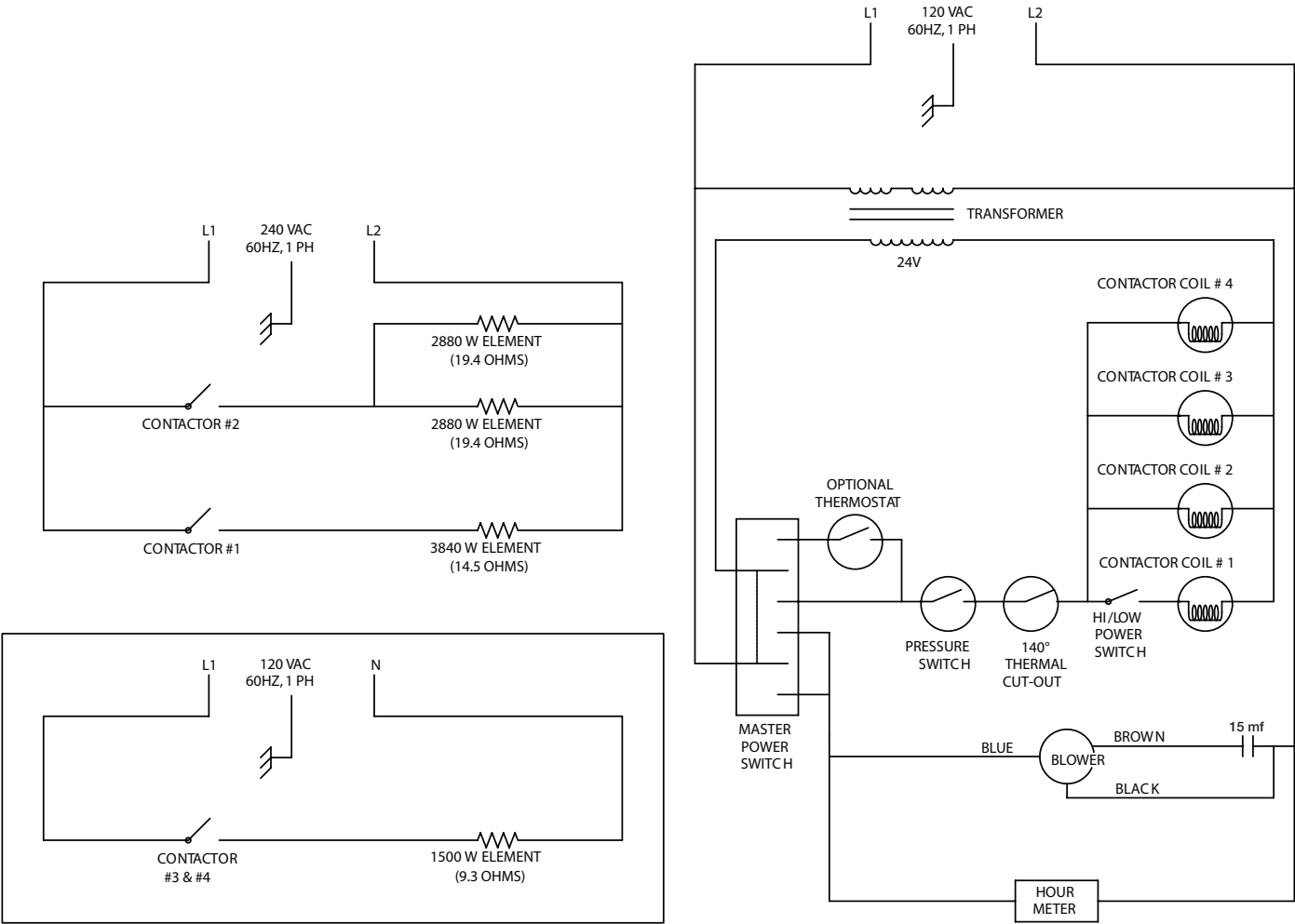
### Blower running but no heat

1. Power switch is set to “Thermostat” and no thermostat is connected, or thermostat is open
2. 24VAC Transformer circuit breaker is tripped
3. Airflow restricted at inlet or outlet
4. High temperature limit reached (140°F)
5. Heating contactor(s) not operating
6. Wiring fault inside device
7. Defective heating element, pressure switch, or temperature limit switch

## 5 Options and Accessories

4024750	12" x 25' Intake Flex Duct
4024969	16" x 20" x 2" Pleated Media MERV-8
4021475	16" x 20" x 2" Standard Pleated Media MERV-11
4027326	25' 240V Cord Kit
4031045	50' 240V Cord Kit
4031046	75' 240V Cord Kit
4031047	100' 240V Cord Kit
4030115	Reed LM 8000 Multi-Function Meter

# 6 Wiring Diagram

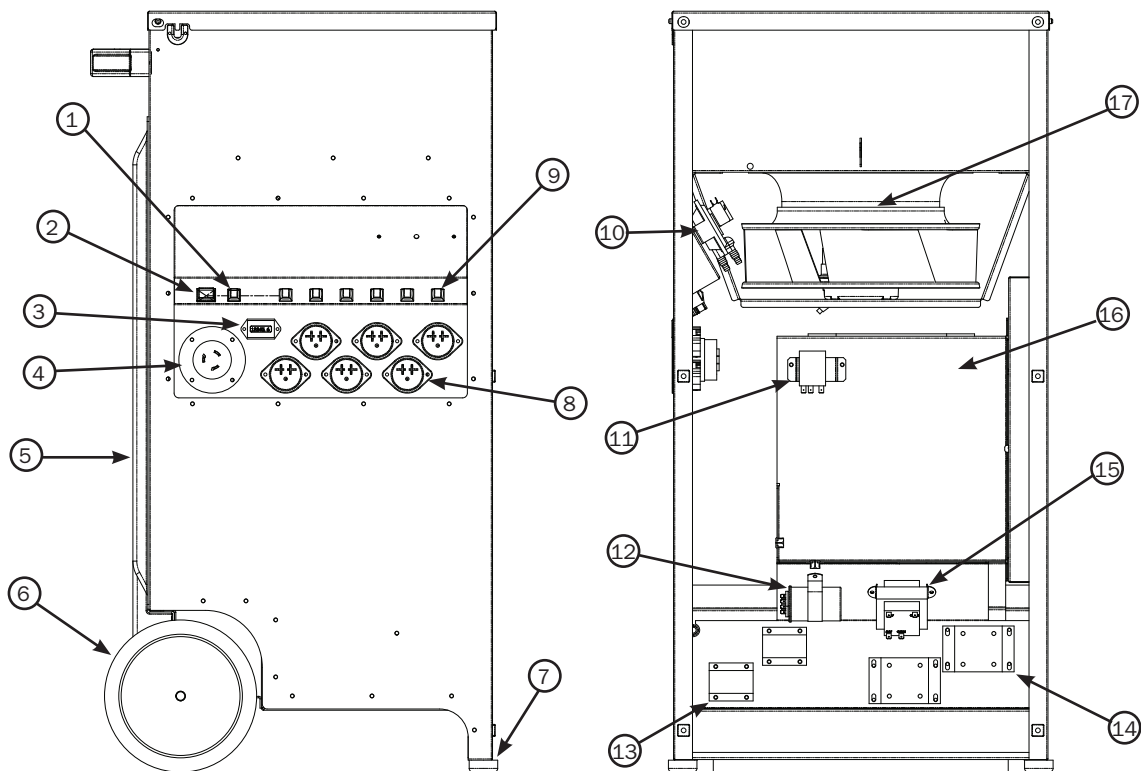


X6 TOTAL CIRCUITS



## 7 Service Parts

Item	Description	QTY	Part No.
1	Heat HIGH/LOW Switch	1	4027330
2	Master Power Switch	1	4030941
3	Hour Meter	1	4021597
4	Flanged 50A Inlet	1	4027308
5	Skidplate	1	4025691
6	Wheel	2	4025676
7	Foot	2	4024073
8	Flanged 120V Inlet	6	4027258
9	Heat ON/OFF Switches	6	4021822
10	Pressure Switch	1	4029187
11	Thermostat	1	4030614
12	15mf Capacitor	1	4031242
13	Single Pole Contactor	2	4031101
14	3 Pole Contactor	2	4030945
15	24VAC Transformer	1	4031466
16	Heating Elements		
	1500W	6	4030617
	2880W	2	4030618
	3840W	1	4030619
17	Blower	1	4029455



## Phoenix FireBird Fury Limited Warranty

**Warrantor:**

Therma-Stor LLC  
4201 Lien Rd  
Madison, WI 53704  
Telephone: 1-800-533-7533

**Who Is Covered:** This warranty extends only to the original end-user of the Phoenix FireBird Fury, and may not be assigned or transferred.

**Year One:** Therma-Stor LLC warrants that, for one (1) year the Phoenix FireBird Fury will operate free from any defects in materials and workmanship, or Therma-Stor LLC will, at its option, repair or replace the defective part(s), free of any charge.

**End-User Responsibilities:** Warranty service must be performed by a Servicer authorized by Therma-Stor LLC. If the end-user is unable to locate or obtain warranty service from an authorized Servicer, he should call Therma-Stor LLC at the above number and ask for the Therma-Stor Service Department, which will then arrange for covered warranty service. Warranty service will be performed during normal working hours.

The end-user must present proof of purchase (lease) upon request, by use of the warranty card or other reasonable and reliable means. The enduser is responsible for normal care. This warranty does not cover any defect, malfunction, etc. resulting from misuse, abuse, lack of normal care, corrosion, tampering, modification, unauthorized or improper repair or installation, accident, acts of nature or any other cause beyond Therma-Stor LLC's reasonable control.

**Limitation and Exclusions:** If any Phoenix FireBird Fury part is repaired or replaced, the new part shall be warranted for only the remainder of the original warranty period applicable thereto (but all warranty periods will be extended by the period of time, if any, that the Phoenix FireBird Fury is out of service while awaiting covered warranty service).

UPON THE EXPIRATION OF THE WRITTEN WARRANTY APPLICABLE TO THE PHOENIX FireBird Fury OR ANY PART THEREOF, ALL OTHER WARRANTIES IMPLIED BY LAW, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, SHALL ALSO EXPIRE.

ALL WARRANTIES MADE BY THERMA-STOR LLC ARE SET FORTH HEREIN, AND NO CLAIM MAY BE MADE AGAINST THERMA-STOR LLC BASED ON ANY ORAL WARRANTY. IN NO EVENT SHALL THERMA-STOR LLC, IN CONNECTION WITH THE SALE, INSTALLATION, USE, REPAIR OR REPLACEMENT OF ANY PHOENIX FireBird Fury OR PART THEREOF BE LIABLE UNDER ANY LEGAL THEORY FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES INCLUDING WITHOUT LIMITATION WATER DAMAGE (THE END-USER SHOULD TAKE PRECAUTIONS AGAINST SAME), LOST PROFITS, DELAY, OR LOSS OF USE OR DAMAGE TO ANY REAL OR PERSONAL PROPERTY.

Some states do not allow limitations on how long an implied warranty lasts, and some do not allow the exclusion or limitation of incidental or consequential damages, so one or both of these limitation may not apply to you.

**Legal Rights:** This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

