INSTRUCTIONS FOR OPERATION AND CARE OF

Thermo Therapy

Dry Heat Therapy

☐ TT-101 ☐ TT-101L ☐ TT-202

☐ TT-101B (220 Volts) ☐ TT-101LB (220 Volts) ☐ TT-202B (220 Volts)

TT-202

TT-101L shown with optional TT-900L mobile stand

TT-101 shown with optional TT-900 mobile stand

Whitehall Manufacturing™

Whitehall Manufacutring is a Member of Acorn Engineering's Family of Companies.

6904-001-000 Nov 2010

TABLE OF CONTENTS

Whitehall®'s Thermo Therapy Units are designed to safely provide the benefits of Celstim® - a specially processed, granulated, sterilized cellulose successively filtered to removed the maximum number of fines- being held in animated suspension and gently and warmly massaging a patient's hand, wrist, arm or foot, ankle, leg.

Model TT-101 is designed principally for home use – but can be used in small clinics and offices – and is constructed with a variable speed blower, variable heat, front and top treatment ports and obtains its air supply through a bottom located filtered and sound baffled fresh air inlet.

Although the unit is small and compact and the opportunity for noise control is limited, the unit operates only slightly louder than our larger units because of strategically placed sound baffles.

Model TT-101L is of the same construction as the TT-101, but possesses a treatment chamber that is 3" deeper and 2" longer than the TT-101 and is designed for the small clinic or office.

Optional mobile stands are available for TT-101 (TT-900) and TT-101L (TT-900L)

Model TT-202 is a floor model with casters. TT-202 has dual blowers and speed controls as well as dual top and rear treatment ports. The unit has permanently installed rubber pads along the top to provide patient under arm comfort.

All Thermo-Therapy Units have an elevated top edge on 3 sides to best capture and prevent the spread of errant Celstim®.

The controls located on the control panel are of rugged, long lasting "mechanical" design and any single controlling component can individually be replaced.

On all models, the air distribution assembly is separated from the patient by a patient protection grill remaining at nearly the same temperature as the Celstim and also eliminates any shocking from static electricity.

The rear upper panels can also be removed by qualified service personnel and the blowers, heating element, etc., are easily and quickly removed and replaced in the event of a malfunction. In fact, the blower(s) are mounted on a board which with the removal of one screw slides out for immediate access.

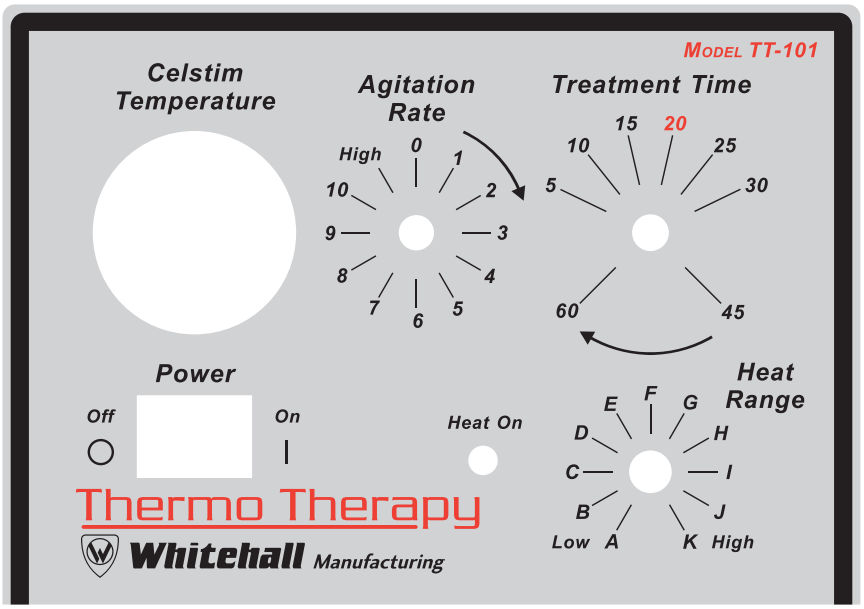
For additional safety, the heating element's compartment is lined with metal and dual safety thermostats set specifically not to exceed 275°F (135°C). Also, a fourth thermostat is located behind the control panel which mimics the control thermostat and assures a maximum Celstim temperature of 120-130°F (48.9-54.4°C).

220 volt models are available. Use TT-101B, TT-101LB and TT-202B to specify.

So, congratulations on your new Thermo-Therapy Unit – we welcome your comments, recommendations and/or any questions.

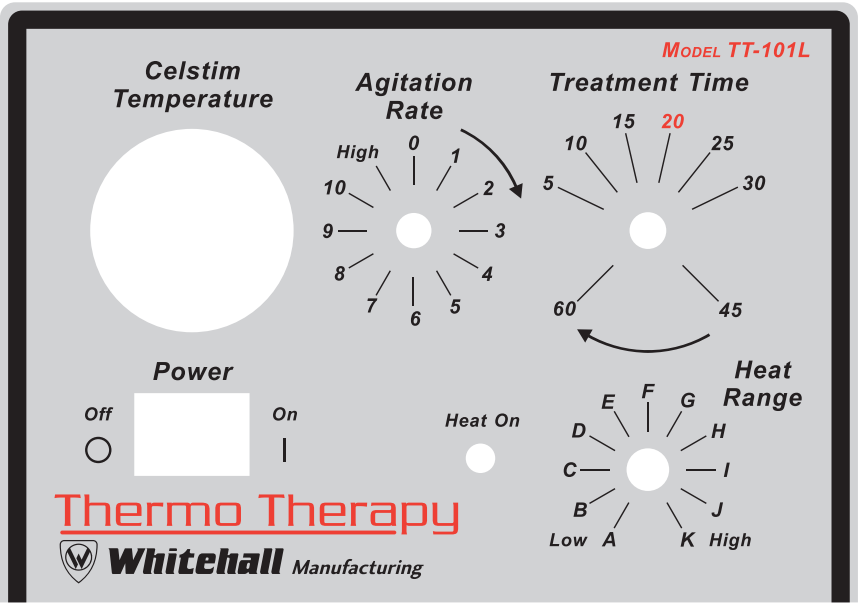
TT-101 ON OPTIONAL STAND (TT-900)

CONTROL PANEL TT-101



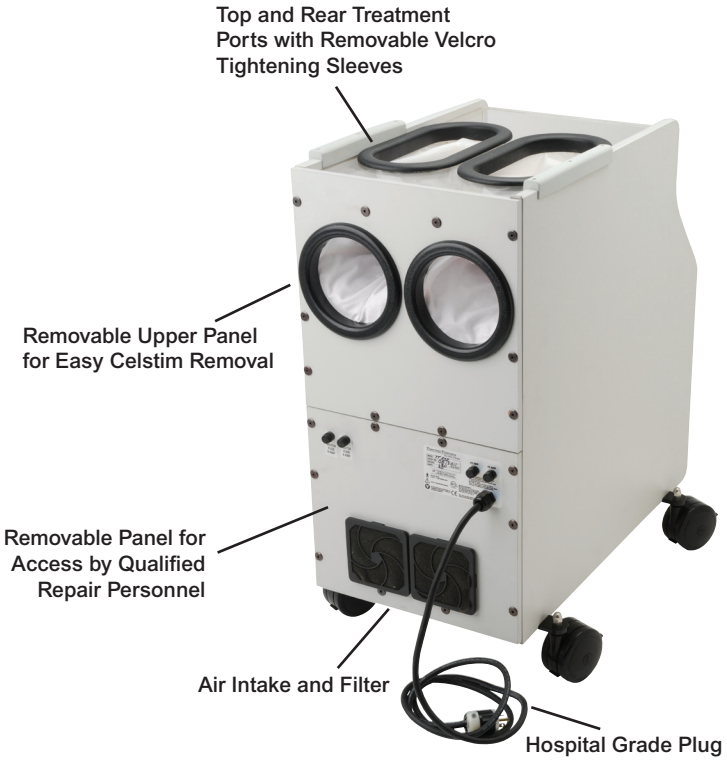
TT-101L ON OPTIONAL STAND (TT-900L)

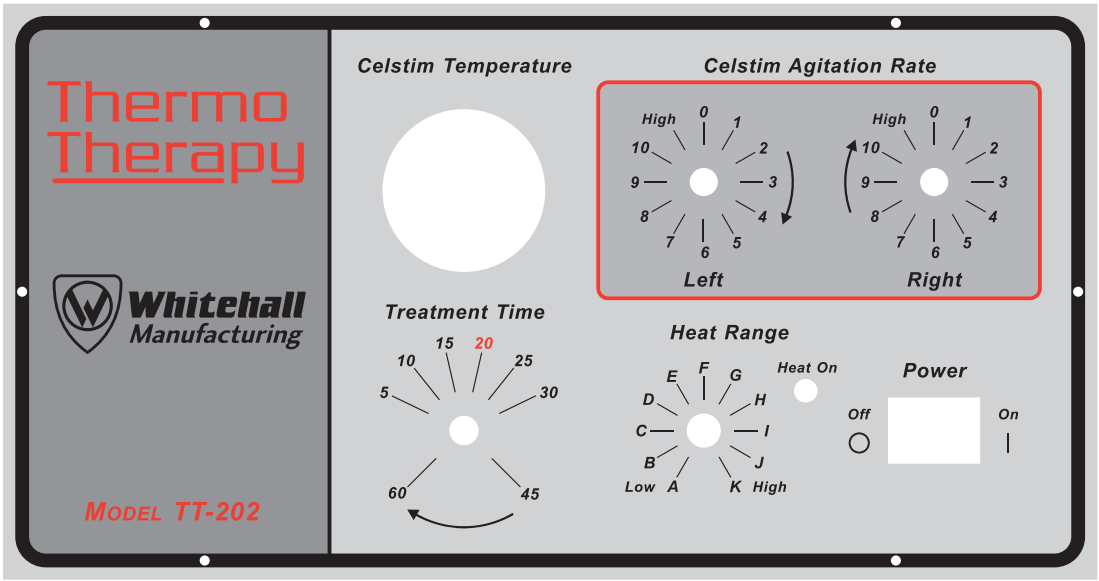
CONTROL PANEL TT-101L



TT-202


Top Treatment Ports
Control Panel
(See Below)
Lower front
storage
compartment
Locking Casters


Top and Rear Treatment
Ports with Removable Velcro
Tightening Sleeves
Removable Upper Panel
for Easy Celstim Removal
Removable Panel for
Access by Qualified
Repair Personnel
Air Intake and Filter
Hospital Grade Plug


Thermo Therapy
Whitehall Manufacturing
Model TT-202
Celstim Temperature
Celstim Agitation Rate
High 0 1 2 3 4 5 6 7 8 9 10
Left
Right
Treatment Time
5 10 15 20 25 30 45 60
Heat Range
A B C D E F G H I J K
Low
High
Heat On
Power
Off
On

REQUIREMENTS FOR INSTALLATION

Models TT-101, and TT-101L are furnished with a hospital grade plug and require up to 13 amps for proper operation. Therefore, as a minimum, a 15-amp breaker and GFI protected outlet should be made available for electric power.

Model TT-202 is furnished with a 20 amp hosipital grade plug. Therefore, 20 amp service and a dedicated 20 GFI-protected outlet needs to be provided.

Since these units produce large volumes of exhausted air, some minimal dusting may occur. Therefore, good ventilation must be considered. Patients and operators sensitive to small amounts of discharged Celstim dust should be provided with a mask.

Celstim on any surface, particularly on tile floor is extremely slippery and caution must be carefully exercised. Again, particularly tile floors must be kept free of this material – a frequently swept, thick carpet under the unit is ideal. Also, the floor near the air intake ports must be kept clean to prevent small dirt, dust and Celstim particles from entering the motor chamber.

Also, since all the units' blowers, particularly on the TT-101 and TT-101L, and even though they are sound baffled to the best of our ability, can be considered noisy. Consideration should be made for treatment in a separate room or at the end of a large room.

RECEIVING INSTRUCTIONS

All Thermo-Therapy models are shipped complete with the proper amount of sterilized Celstim and as soon as they are carefully unpacked they are "ready to go".

If shipping damage has occurred, notify Whitehall Manufacturing immediately so a proper claim can be made and replacement or repair secured.

SPECIFICATIONS

TT-101 – the outside dimensions are 19-1/2" (50 cm) L x 16-1/2" (41 cm) H x 10-1/2" (27 cm) When placed on the optional stand, the bottom is 13-1/2" (34 cm) and the top is 28" (71 cm) from the floor. The Celstim capacity is approximately 10 lbs. (4.5 kg) and the treatment chamber is approximately 7-1/2" (19 cm) H x 9" (23 cm) W x 15-1/2" (39 cm) L. The blower motor is driven by a variable speed controller. Variable heat is provided by a finned, dual safety switched 900 watt heater.

TT-101L – the outside dimensions are 23" (58 cm) L x 18" (46 cm) H x 10-1/2" (27 cm) W. When placed on optional stand, the bottom is 13-1/2" (34 cm) and the top is 31" (79 cm) from the floor. The Celstim capacity is 12 lbs. (5.4 kg) and the treatment chamber is 8-1/2" (22 cm) H x 9" (23 cm) W x 18-1/2" (47 cm) L. The blower motor and heater are the same as the TT-101.

TT-202 – the outside dimensions are 29" (74 cm) L x 35" (89 cm) H x 16-1/2" (42 cm) W. The locking casters are at the extreme width of the unit and are mounted on thick steel plates to protect the units' bottom from damage when there are uneven floors. The Celstim capacity is approximately 40 lbs. (18 kg) and the treatment compartment is 22" (56 cm) L and 15-1/2" (39 cm) W x 13" (33 cm) H.

There are two blower motors combined with the 900 watt heater on model TT-202. Interestingly, the blowers on the TT-202 are individually controlled and through independent speed manipulation can provide varying air flow patterns in the treatment chamber.

ELECTRICAL REQUIREMENT

Model	Volts	Amps	Hertz
TT-101	120	15	60
TT-101L	120	15	60
TT-202	120	20*	60
TT-101B	220	8	50/60
TT-101LB	220	8	50/60
TT-202B	220	12	50/60

* TT-202 requires a dedicated 20 amp receptacle

The instructions below are indicated by specific symbols. An understanding of these symbols, their companion text and the specific instructions and captions must be understood prior to operation of the equipment and patient equipment.

Indicates this equipment is a Type B applied parts.

ATTENTION- Consult the accompanying documents.

Ignoring the following could cause injury or equipment damage.

- All internal parts capable of transmitting electric current are grounded through the hospital grade plug. Therefore, the electrical outlet to which the unit is attached must be properly grounded and utilized a compatible hospital grade receptacle.
- The floor must be level for proper and safe use.
- Thermo-Therapy units are intended for use only where the person utilizing the treatment is under the supervision of trained personnel.
- Always disconnect the line cord plug from the receptacle before working on any unit.
- For TT-101 and TT-101L, since the air intake is on the bottom, make sure the unit is placed on a hard, inflexible surface as the blower suction will pull up any flexible material and cause the blower to labor.
- As previously mentioned, Celstim on a hard surface is slippery and regular cleaning or use of a carpet is required (see page 7).
- Treatment temperature must be monitored closely and, of course, a patient's medical history must be reviewed, as with any heat modality, for heat sensitivity and circulatory problems.
- Again, good ventilation should be considered and patients and operators sensitive to dust should with a mask.
- Constant supervision is necessary when the unit is used with children, invalids, or any one who cannot safely operate the unit.

WARNING — These are safety infractions that can cause serious injury.

- Do not use unit outdoors.

- Thermo-Therapy units should not be used with electrically susceptible patients without a physician's approval. The definition of such patient is "a patient being treated with an externally electrically conductive device indwelling or implanted and terminating on or near the heart".
- Refer service and electrical problem to qualified personnel and/or Whitehall Manufacturing only.
- Do not use if the unit, cord, or plug has been damaged. Return unit to Whitehall Manufacturing or a qualified service center.
- Do not touch cord or plug if you are wet, standing in water or on a wet surface.
- Do not use an electrical extension cord. Plug unit directly into a properly grounded receptacle. If there is any question on the grounding of the receptacle, call an electrician. An outlet with a Ground Fault Circuit Interrupter is preferred.
- Should water enter the enclosure under any circumstance, the unit should be examined by a qualified service center before further use of this unit.
- Again, do not defeat or alter the grounding means of the attachment plug and the power supply cord must be plugged into a properly wired and grounded hospital grade receptacle.

EXPLOSION HAZARD

- Do not operate any Thermo-Therapy Unit where oxygen or flammable anesthetics are present.

INSTRUCTIONS FOR USE AND OPERATING CONTROLS

Please refer the photos on page 4 for TT-101, page 5 for TT-101L and page 6 for TT-202 .

Thermo-Therapy Units will only operate with the power switch on and the treatment timer activated.

Rotate the Celstim agitation or speed control(s) clockwise to increase air speed and flow. Rotate the controls counter clockwise to decrease the air speed and flow. On the TT-202, speed or agitation is normally balanced between the two blowers- but can be adjusted differently to effect varying treatment modes.

Heat is also increased by rotating the heat control knob clockwise- from "A" lowest heat to "K" highest heat. Treatment time is indicated as minutes with 20 minutes highlighted as being the usual treatment cycle.

All Thermo-Therapy Units are temperature safety switched at approximately 130° F (54.4°C).

In an effort to best prolong the motor life, the unit must be turned off between treatments. DO NOT LEAVE THE UNIT ON CONTINUOUSLY FOR THREE HOURS OR MORE. Once the Celstim is at operating temperature and the blowers are turned off, heat loss is approximately 2-3°F (0.55-1.65°C) per hour.

Make sure the body part being treated was is washed with a antimicrobial soap and is as dry as possible as moisture in the Celstim will cause "caking".

Also, be careful at all times, to tightly close the sleeves at the treatment ports so minimal amount of Celstim escapes from the unit.

MAINTENANCE OF THE UNIT

The most important maintenance function on all Thermo-Therapy products is to make sure to keep all the incoming air filters clean and unclogged. If this is not done, airflow will be restricted resulting in less agitation, over-heated motors, and premature motor failure. We have enclosed a spare filter so one filter can always be cleaned and on standby. To remove the filter cover, use a straight screwdriver.

The housing can be cleaned with a mild household cleaner without damage as its surface is similar to that found on kitchen cabinets.

The treatment port sleeves can be washed and replaced. To remove the sleeves, carefully pull the bottom of the rims toward the center away from the side and at the same time pull or push them up and out of the housing. Then pull the sleeves from the Velcro found underneath the rim. Reverse the procedure to replace the sleeves. If the sleeve or rims become worn, replacements are readily available from Whitehall Manufacturing or your therapy products dealer.

On all models, remove the outer cover and remove and clean the primary filter. If necessary, remove the four screws to access the secondary filters. Replacements are readily available.

Pay particular attention to the air inlet on the TT-101 and TT-101L since it is on the units' bottom and close to whatever surface it is placed upon. Also make sure this surface is rigid as the blower will pull up any flexible material and cause the blower to labor.

The Celstim, after prolonged use, may become too fine for effective therapy and can be replaced by removing the top sleeve and "digging" it out or by removing the rear top panel. If the panel is removed, be prepared to contain any spillage. Also, make sure the panel is tightly reinstalled to prevent any Celstim from escaping. A "hex" wrench has been provided for removing and replacing the screws from the top panel.

Sterilized Celstim, with fines removed, for replacement or addition is readily available in a 10 lb. (4.5 kg) box containing two (2) 5 lb. (2.25 kg) plastic "jugs" for easy adding.

Too much Celstim in the treatment chamber can cause a "rolling" action- remove the excess Celstim through a top port.

Too little Celstim results in a perceived loss of agitation.

Normal capacity is as follows:

TT-101 – 10 lbs. (4.5 kg)

TT-101L – 12 lbs. (5.4 kg)

TT-202 – 40 lbs. (18 kg)

CHANGING THE FUSES

Turn the Thermo-Therapy unit off via the controls on the front panel and then unplug the unit. Next, position the unit to allow access to the rear of the Thermo-Therapy device. Locate the fuse holders at rear of the unit near cord.

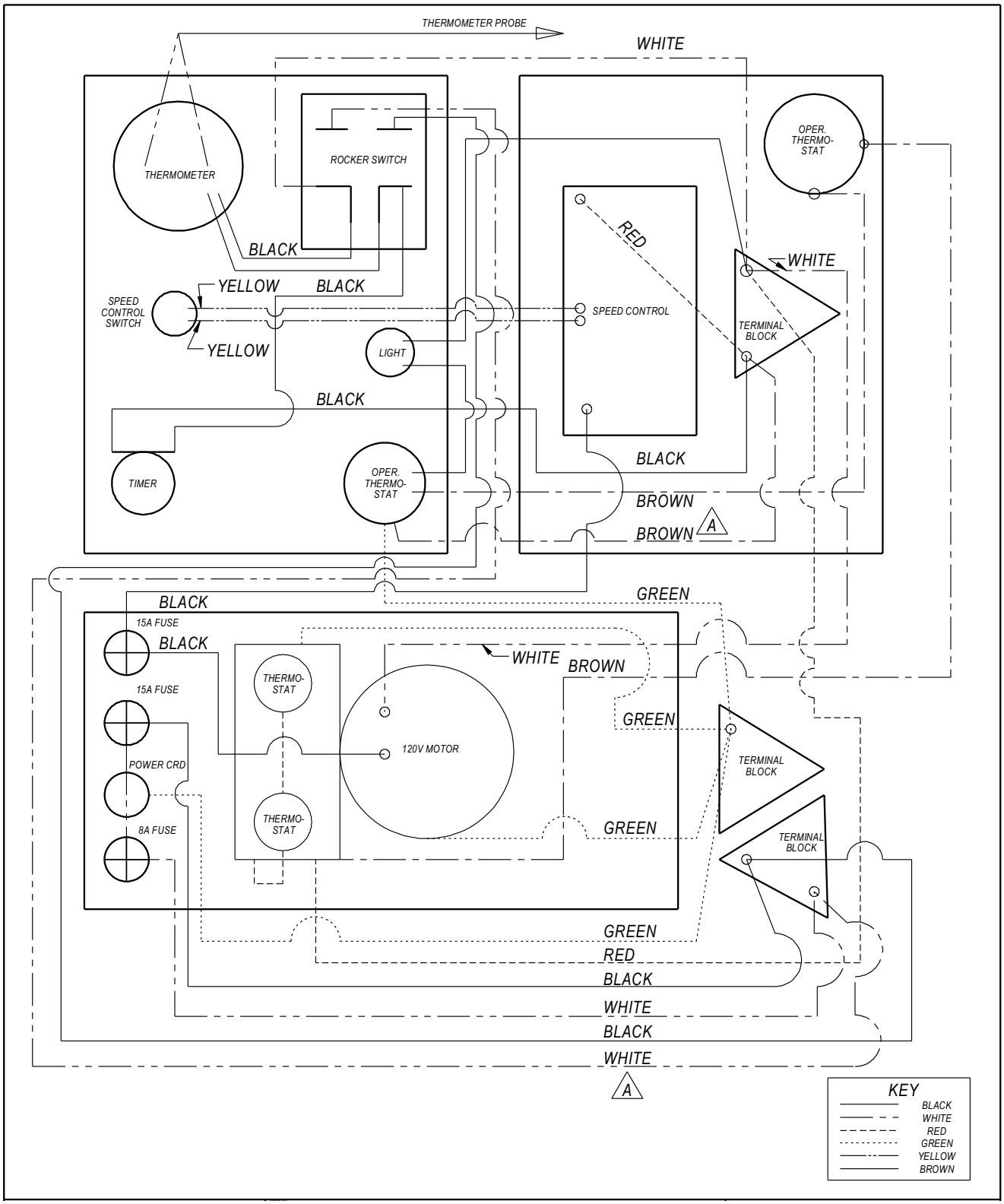
Depress the Fuse holder caps and rotate counterclockwise approximately 90° or until the cap becomes loose. Remove the fuse holder cap, exposing the glass fuse. Remove the blown fuse. Once the old fuse has been removed, replace it with a new fuse of the same kind and amperage. This must be a slow blow fuse purchased from Whitehall. Re-install the fuse holder cap by depressing and rotating clockwise approximately 90° and ensure that the fuse holder caps are secured. Plug the unit back in to a power outlet. Turn the unit on via front control panel. Allow the unit to warm up to the operating temperature and use as required.

TROUBLESHOOTING GUIDE

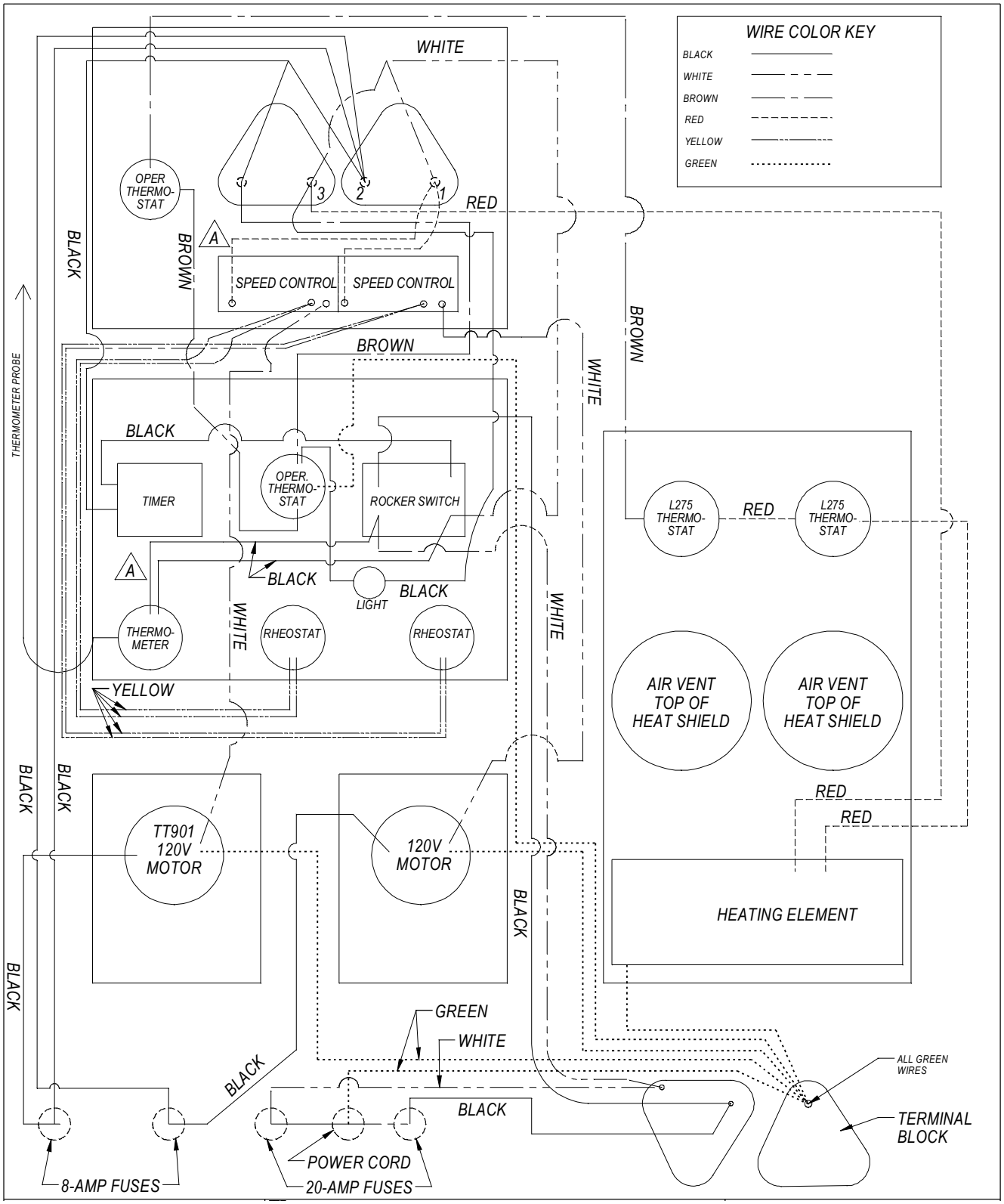
If You Notice	*The Likely Cause Is*	*You Can Correct It By*
Celstim not heating to desired temperature but heat on indicator if lit.	The heat control thermostat failed or the control knob has slipped.	Refer to qualified repair personnel
The Celstim agitation is poor.	Check the air filter for collected dust and debris. Or Check the level of Celstim.	Clean the air intake filter(s). On TT-101 and TT-101L models, make sure the bottom intake is not obstructed. Too much Celstim will cause a "rolling" action and some should be removed. Too little Celstim will result in poor agitation.
The treatment timer is not working.	Failed timer.	Refer to qualified repair personnel.
The power "On-Off" switch does not work or has failed to light.	Unit unplugged, unit fuse(s) has blown, electric outlet supply breaker has opened, local GFCI or GFI has opened, or the switch is faulty.	Check outlets' GFCI, otherwise call an electrical or qualified repair personnel.
Heat indicating light is not lit when power on and unit is heating.	Burned out indicator light.	Refer to qualified repair personnel.
Blower speed cannot be controlled or will not operate at full speed.	Clogged air inlet filter or malfunctioning speed controller(s).	Clean filter or refer to qualified repair personnel
The unit runs but there is not heat.	Probable cause is malfunctioning heater or heater temperature safety switches.	Refer to qualified repair personnel.
Blower motor(s) will not run or is noisy.	Malfunctioning blower motor(s).	Refer to qualified repair personnel.
Temperature reading is inaccurate.	Malfunctioning thermometer.	Refer to qualified repair personnel.
Low Celstim level.	After extensive use of Celstim will lessen in volume. This is a normal occurrence.	Add or replace Celstim to required amount or so the unagitated level is slightly below the bottom of the front or rear patient access ports.

	WH Part #	Description	TT-101	TT-101L	TT-202	TT-101B	TT-101LB	TT-202B
1	6904-558-000	Caster with Brake			X			X
2	6904-128-000	Cushion Gasket for Moto	X	X	X	X	X	X
3	6903-142-000	Digital Thermometer & Sensor (F)	X	X	X	X	X	X
4	6903-143-000	Digital Thermometer & Sensor (C)	X	X	X	X	X	X
5	6904-262-000	Fan Cover	X	X	X	X	X	X
6	6904-212-199	Fan Filter	X	X	X	X	X	X
7	6904-132-000	Fan Motor	X	X				
8	6904-133-000	Fan Motor, 220V (ALL UNITS)				X	X	X
9	6904-536-000	Fan Motor (TT-202 Only)			X			
10	6904-132-001	Fan Motor/Heating Element Board Assembly - 120 V (Includes 2 x L275 thermostats, element and motor) NOT SHOWN IN PARTS DRAWING	X					
11	6904-133-001	Fan Motor/Heating Element Board Assembly - 220 V (Includes 2 x L275 thermostats, element and motor) NOT SHOWN IN PARTS DRAWING				X		
12	6904-398-005	Fan Motor/Heating Element Board Assembly - 120 V (Includes 2 x L275 thermostats, element and motor) NOT SHOWN IN PARTS DRAWING		X				
13	6904-322-001	Fan Motor/Heating Element Board Assembly - 220 V (Includes 2 x L275 thermostats, element and motor) NOT SHOWN IN PARTS DRAWING					X	
14	6904-514-001	Fan Motor Board - 110V (Includes motor and board ONLY - Heating element assembly sold separately) NOT SHOWN IN PARTS DRAWING			X			
15	6904-598-008	Fan Motor Board 220V (Includes Motor and Board ONLY - Heating element assembly sold separately) NOT SHOWN IN PARTS DRAWING						X
16	0710-218-000	Fuse Carrier Cap	X	X	X	X	X	X
17	0710-217-000	Fuse Holder (Low Profile)	X	X	X	X	X	X
18	6904-572-000	Fuse (Motor Fuse - Time Delay), 8 Amp	X	X	X	X	X	X
19	6904-172-000	Fuse (Time Delay), 15 Amp	X	X				
20	6904-573-000	Fuse (Time Delay), 20 Amp			X			
21	6904-572-001	Fuse Assembly (Motor Fuse - Time Delay), 8 Amp	X	X	X			
22	6904-172-001	Fuse Assembly (Time Delay), 15 Amp	X	X				
23	6904-573-001	Fuse Assembly (Time Delay), 20 Amp			X			
24	6904-118-000	Grommet (Rubber)	X	X	X	X	X	X
25	6904-206-000	Heating Element	X	X	X			
26	6904-207-000	Heating Element, 220 V				X	X	X
27	6904-574-001	Heater Module Assembly 110V (Includes element, heatshield, and 2 x L275 thermostats)			X			

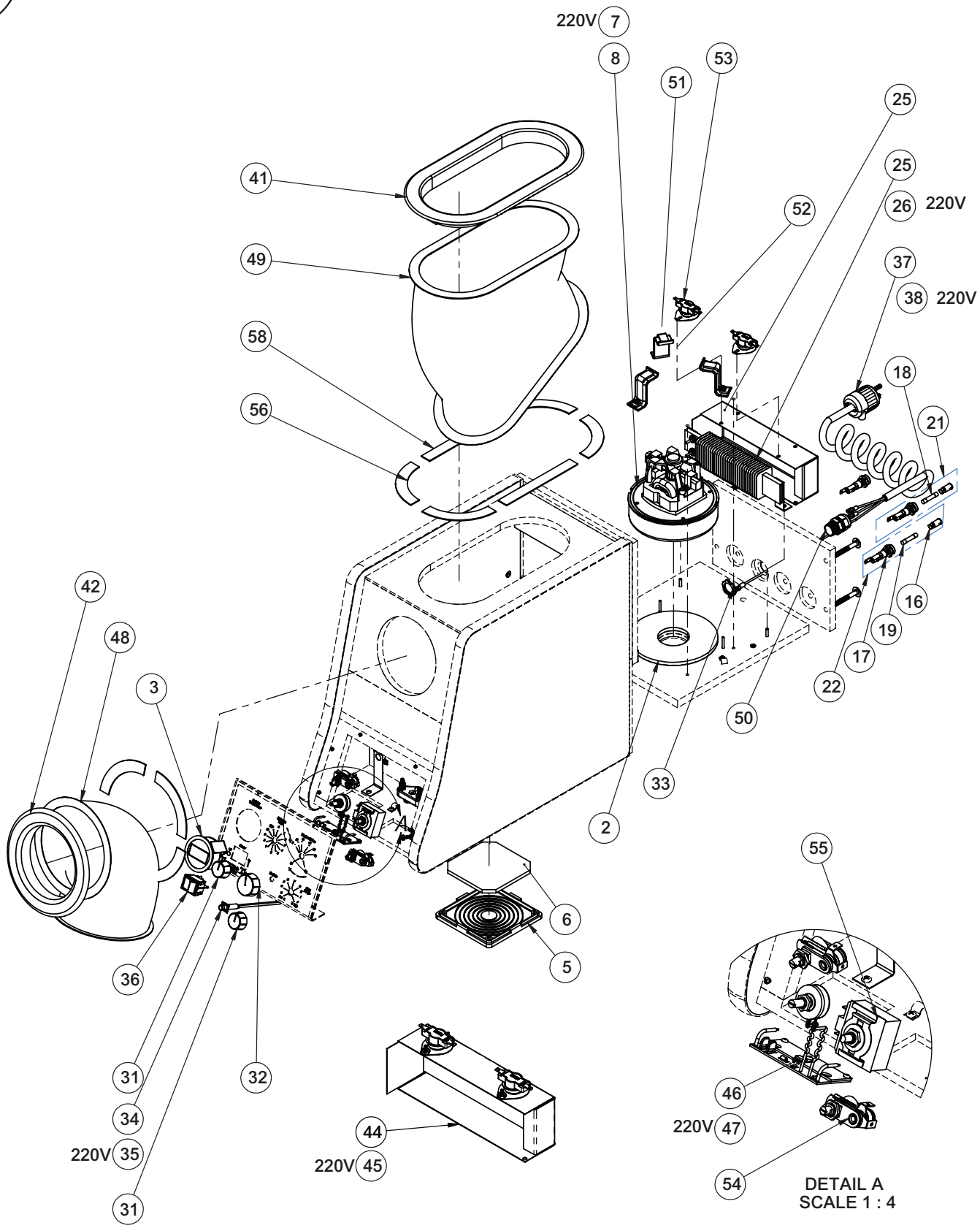
	WH Part #	Description	TT-101	TT-101L	TT-202	TT-101B	TT-101LB	TT-202B
28	6904-598-007	Heater Module Assembly 220V (Includes element, heatshield, and 2 x L275 thermostats)						X
29	6904-148-199	Heatshield (Surrounds Heating Element)	X	X		X	X	
30	6904-134-199	Knob (Heat Control)	X	X	X	X	X	X
31	6904-134-000	Knob (Speed Control/Heat Range)	X	X	X	X	X	X
32	6904-136-000	Knob (Timer Control)	X	X	X	X	X	X
33	2804-008-000	Locknut	X	X	X	X	X	X
34	6505-540-000	Light, Round (Amber) 125VAC	X	X	X			
35	6505-541-000	Light, Round (Amber) 250VAC				X	X	X
36	6904-124-000	Power Switch (Green)	X	X	X	X	X	X
37	6904-100-007	Power Cord Assembly	X	X				
38	6904-198-005	Power Cord Assembly, 220V				X	X	
39	6904-511-001	Power Cord Assembly			X			
40	6904-598-010	Power Cord Assembly, 220V						X
41	6904-106-000	Rim (Top)	X	X	X	X	X	X
42	6904-104-000	Rim (Front)	X	X		X	X	
43	6904-542-000	Rim (Front)			X			X
44	6904-206-001	Shroud Assembly for Heating Element 110V (Includes element, heatshield, and 2 x L275 thermostats)	X	X				
45	6904-207-001	Shroud Assembly for Heating Element 220V (Includes element, heatshield, and 2 x L275 thermostats)				X	X	
46	6904-115-199	Speed Control	X	X	X			
47	6904-117-199	Speed Control, 220 V				X	X	X
48	6904-214-000	Sleeve (Fabric) - Arm	X	X	X	X	X	X
49	6904-215-000	Sleeve (Fabric) - Foot	X	X	X	X	X	X
50	6904-210-000	Strain Relief	X	X	X	X	X	X
51	6904-131-199	S - Clip Motor Clamp	X	X	X	X	X	X
52	6904-154-000	S - Clip Motor Clamp Rubber Gasket (Vibration Control Tape per foot)	X	X	X	X	X	X
53	6904-168-000	Thermostat (L-275)	X	X	X	X	X	X
54	6904-166-000	Thermostat, Capilary (Operating)	X	X	X	X	X	X
55	6902-348-000	Timer (Mechanical)	X	X	X	X	X	X
56	6904-176-000	Velcro, Arc	X	X	X	X	X	X
57	6904-539-000	Velcro, Arc			X			X
58	6904-177-000	Velcro, Straight	X	X	X	X	X	X



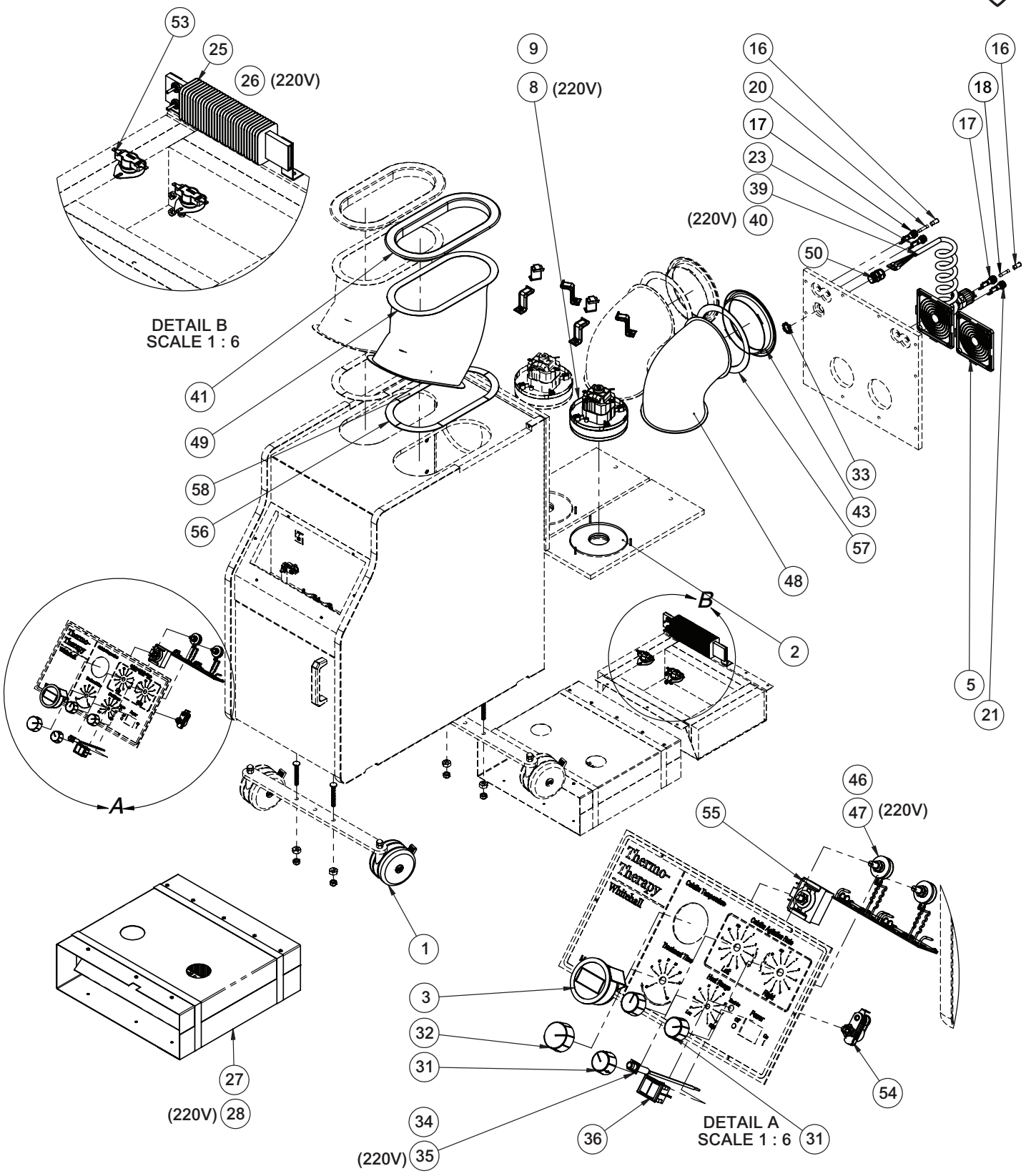
Wiring Diagram - TT-101/TT-101L



Wiring Diagram - TT-202



Top Level Assembly TT-101 & TT-101L



Top Level Assembly TT-202

Whitehall Manufacturing

MANUFACTURER'S WARRANTY

Whitehall Manufacturing Company warrants that its **products are free from defects in material or workmanship under normal use and service for a period of one year from date of shipment. Whitehall's liability under this warranty shall be discharged solely by replacement or repair of defective material, provided Whitehall is notified in writing within one year from date of shipment, F.O.B. Industry, California.**

This warranty does not cover installation or labor charges, and does not apply to materials which have been damaged by other causes such as mishandling or improper care or abnormal use. The repair or replacement of the defective materials shall constitute the sole remedy of the Buyer and the sole remedy of Whitehall under this warranty. Whitehall shall not be liable under any circumstances for incidental, consequential or direct charges caused by defects in the materials, or any delay in the repair or replacement thereof. This warranty is in lieu of all other warranties expressed or implied. Product maintenance instructions are issued with each fixture, and disregard or non-compliance with these instructions will constitute an abnormal use condition and void the warranty. Stainless steel must be protected on jobsites during construction and must be properly maintained after the water has been introduced into the fixture, or Whitehall's limited warranty is void. If you have any questions or require technical assistance, please call 800-743-8219.

NOTICE TO KEEP ORIGINAL PACKAGING - Regarding warranty claims: customer must retain original packaging for one year upon receipt of product. If packaging is discarded, it is the customer's responsibility to provide adequate packaging. Any shipping claims that are a direct result of customer-provided packaging materials will be handled by the shipper.