PEDIGO®

Operation & Care Manual

P-2110

P-2120

P-2130

120V

P-2110 P-2120 P-2130

Fluid Warmer
Operation & Care

Printed in the U.S.A.

MM-1065 (MN-39274) • Rev 0 • 08/17

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Pedigo Products, Inc. • 4000 S.E. Columbia Way • Vancouver, WA 98661 • U.S.A.
Phone: 800.822.3501 • Fax: 360.696.1700 • www.pedigo-usa.com

Environmental Conditions

Transport and storage environmental conditions (not to exceed 15 days)

Ambient temperature range of -40°C to +70°C (-40°F to +159°F)
Relative humidity range of 10% to 95%, non-condensing
Atmospheric pressure range of 50KPa to 106KPa

Operational environmental conditions

The appliance must acclimate to room temperature in the environment it will be placed—24 hours is recommended.
The recommended environmental temperature range is 15°C to 32°C (60°F to 90°F).
The recommended relative humidity is above 20%, non-condensing.

Receipt of Appliance

The appliance has been thoroughly tested and inspected to insure only the highest quality appliance is provided. Upon receipt, inspect for any possible shipping damage and report it at once to the delivering carrier. See **Transportation Damage and Claims** section.

This appliance, complete with unattached items and accessories, may be delivered in one or more packages. Confirm that all standard items and options have been received with each appliance as ordered. Save all the information packed with the appliance.

Indicates that the package contents should not be used if the package has been damaged or opened.

The serial number is required for all inquiries.

Always include both model and serial number(s) in any correspondence regarding the appliance.

Model: _____

Serial number: _____

Purchased from: _____

Date installed: _____ **Voltage:** _____

Transportation Damage and Claims

All Pedigo Products, Inc. appliances are sold Free on Board (F.O.B.) shipping point, and when accepted by the carrier, such shipments become the property of the consignee.

Should damage occur in shipment, do not put the appliance into service until the damage has been inspected by an authorized service provider.

Should damage occur in shipment, it is a matter between the carrier and the consignee. In such cases, the carrier is assumed to be responsible for the safe delivery of the merchandise, unless negligence can be established on the part of the shipper.

1. Conduct an immediate inspection while the appliance is still in the truck or immediately after it is moved to the receiving area. Do not wait until after the appliance is moved to a storage area.
2. Do not sign a delivery receipt or a freight bill until a proper count has been made and inspection of all appliances are received.
3. Note all damage to packages directly on the carrier's delivery receipt.
4. Have the driver sign the delivery receipt. If the driver refuses to sign, make a notation of this refusal on the receipt.
5. If the driver refuses to allow inspection, write the following on the delivery receipt: **Driver refuses to allow inspection of containers for visible damage.**
6. Contact the carrier's office immediately upon finding damage, and request an inspection. Mail a written confirmation to the carrier's office with the time, date, and the person called.
7. Save any packages and packing material for further inspection by the carrier.
8. Promptly file a written claim with the carrier and attach copies of all supporting paperwork.

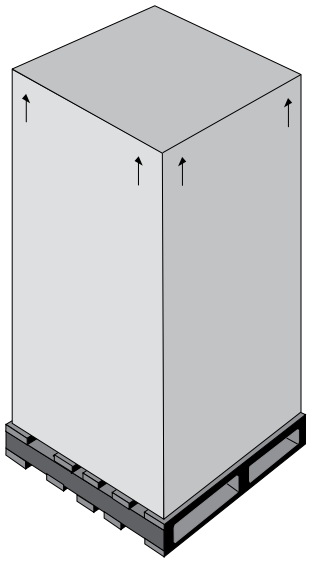
Pedigo will continue our policy of assisting our customers in collecting claims which have been properly filed and actively pursued. Pedigo cannot, however, file any damage claims, assume the responsibility of any claims, or accept deductions in payment for such claims.

Unpacking

1. Carefully remove the appliance from the carton or crate.

   NOTE: *Do not discard the carton and other packaging material until the appliance has been inspected for hidden damage and tested for proper operation.*

   Do not discard this manual. This manual is considered to be part of the appliance and is to be provided to the owner or manager of the business or to the person responsible for training operators. Additional manuals are available from the service department.



2. Read all instructions in this manual carefully before initiating the installation of this appliance, using the appliance or performing routine maintenance. Following procedures other than those indicated in this manual to use and clean the appliance is considered inappropriate and may cause damage, injury or fatal accidents, in addition to invalidating the warranty and relieving the manufacturer of all liability.

3. Remove all protective plastic film, packaging materials, and accessories from the appliance before connecting electrical power. Store any accessories in a convenient place for future use.

Knowledge of proper procedures is essential to the safe operation of electrically energized appliances. The following hazard signal words and symbols may be used throughout this manual.

DANGER

Used to indicate the presence of a hazard that will cause severe personal injury, death, or substantial property damage if the warning included with this symbol is ignored.

WARNING

Used to indicate the presence of a hazard that CAN cause personal injury, possible death, or major property damage if the warning included with this symbol is ignored.

CAUTION

Used to indicate the presence of a hazard that can or will cause minor or moderate personal injury or property damage if the warning included with this symbol is ignored.

CAUTION

Used to indicate the presence of a hazard that can or will cause minor personal injury, property damage, or a potential unsafe practice if the warning included with this symbol is ignored.

Used to indicate that referral to operating instructions is a mandatory action. If not followed, the operator or patient could suffer personal injury.

Used to indicate that referral to operating instructions is recommended to understand operation of the appliance.

NOTICE: Used to notify personnel of installation, operation, or maintenance information that is important but not hazard related.

NOTICE: A temporary odor may be noticeable upon initial start-up of the warmer. Contact manufacturer if the odor persists after a day or more of continuous use.

- Fluid warmers are **only** intended for warming medical solutions for irrigation and injection prior to use. Refer to the labeling of the manufacturer of the products to be warmed regarding the recommended temperature and the duration of warming. No other use for this appliance is authorized or recommended.
- This warmer is intended for use in commercial establishments where all operators are familiar with the purpose, limitations, and associated hazards of this appliance. The warmer can be used wherever there is appropriate space and electrical source including patient support areas, ER, ICU, PACU, surgical suites, patient rooms, and nursing stations. **Do not** use the warmer in the presence of flammable anesthetic mixtures (with air, oxygen, or nitrous oxide).
- Operating instructions and warnings must be read and understood by all operators and users.
- Any troubleshooting guides, component views, and parts lists included in this manual are for general reference only and are intended for use by qualified and trained technicians.
- This manual should be considered a permanent part of this appliance. This manual and all supplied instructions, diagrams, schematics, parts lists, notices, and labels must remain with the appliance if the item is sold or moved to another location.

⚠ CAUTION

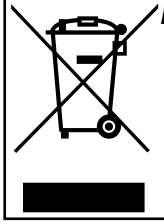
Appliance and accessories may be heavy. To prevent serious injury, **always** use a sufficient number of trained and experienced workers when moving or leveling appliance and handling accessories.

⚠ CAUTION

The door may swing during transport. Only transport the appliance when the door is closed and secure.

⚠ CAUTION

This appliance is not approved for warming blood or blood products.



NOTICE: For appliances delivered for use in any location regulated by the following directive (2012/19/EU -WEEE):

Do not dispose of electrical or electronic appliances with other municipal waste.

⚠ WARNING

To prevent serious personal injury, death, or property damage:

Do not steam clean, hose down or flood the interior or exterior with water or liquid solution of any kind. **Do not** use water jet to clean. Failure to observe this precaution will void the warranty.

⚠ DANGER

To prevent serious personal injury, death, or property damage:

Do not use this warming appliance in the presence of flammable anesthetic mixtures (with air or with oxygen or nitrous oxide).

Not category AP or APG equipment

Preparation Before Operating the Appliance

1. Clean the interior and exterior with a damp cloth and mild soap solution.
2. Wipe with an appropriate disinfectant.
3. Wipe dry with a clean cloth or air dry.

General Information

This warming appliance is designed to safely warm and store either irrigation fluids or injection fluids.

The single-chambered warming appliance is constructed with stainless steel exterior casing and door with handle and hinges designed to withstand heavy usage. A door with window allows observation of inventory. The cabinet is warmed using a low-heat-density electrothermal cable array. The electrothermal cable is positioned in the floor and two sides of the warming cabinet, providing even heating of the interior chamber.

The interior chamber temperature is regulated by an electronic control consisting of a 4 digit LED display, on/off button, increase and decrease buttons, integrated lock-out control feature, and a series of prompt sequence indicators.

The electronic control can be set to operate in fahrenheit or celsius. After a power failure, the appliance will remember its programming and begin to operate as before. The on/off indicator will blink to indicate a failure occurred; pressing the on/off button once will eliminate this blinking. A thermal shut-off system, separate from the electronic control, is included as an additional safety feature.

The electronic control will display temperature in whole degrees.

The warming appliance can be programmed to warm either irrigation fluids (IRR) or injection fluids (INJ), with separate temperature ranges provided depending on the choice selected.

- IRR temperature range: 37°C to 66°C (98°F to 150°F),
- INJ temperature range: 37°C to 40°C (98°F to 104°F).

A fan located inside the chamber mixes the air to prevent temperature stratification and to ensure an accurate chamber temperature for each mode.

- Within +0/-1.12°C (+0/-2°F) for set points of 37°C to 40°C (98°F to 104°F).
- Within +0/-1.67°C (+0/-3°F) for set points of 43°C to 66°C (110°F to 150°F)

An alarm will sound if temperatures exceed 6°C (10°F) over the set-point temperature, and an overtemp indicator will blink indicating an over-temperature condition.

P-2110 Information:
The appliance is equipped with one (1) white, epoxy-coated wire basket to accommodate fluids packaged in bags or bottles, mounted on basket rail supports. The basket has a capacity of 11 1-liter bottles or 16 1-liter bags. The appliance is furnished with four (4) 1-1/4" (31mm) non-skid rubber feet.

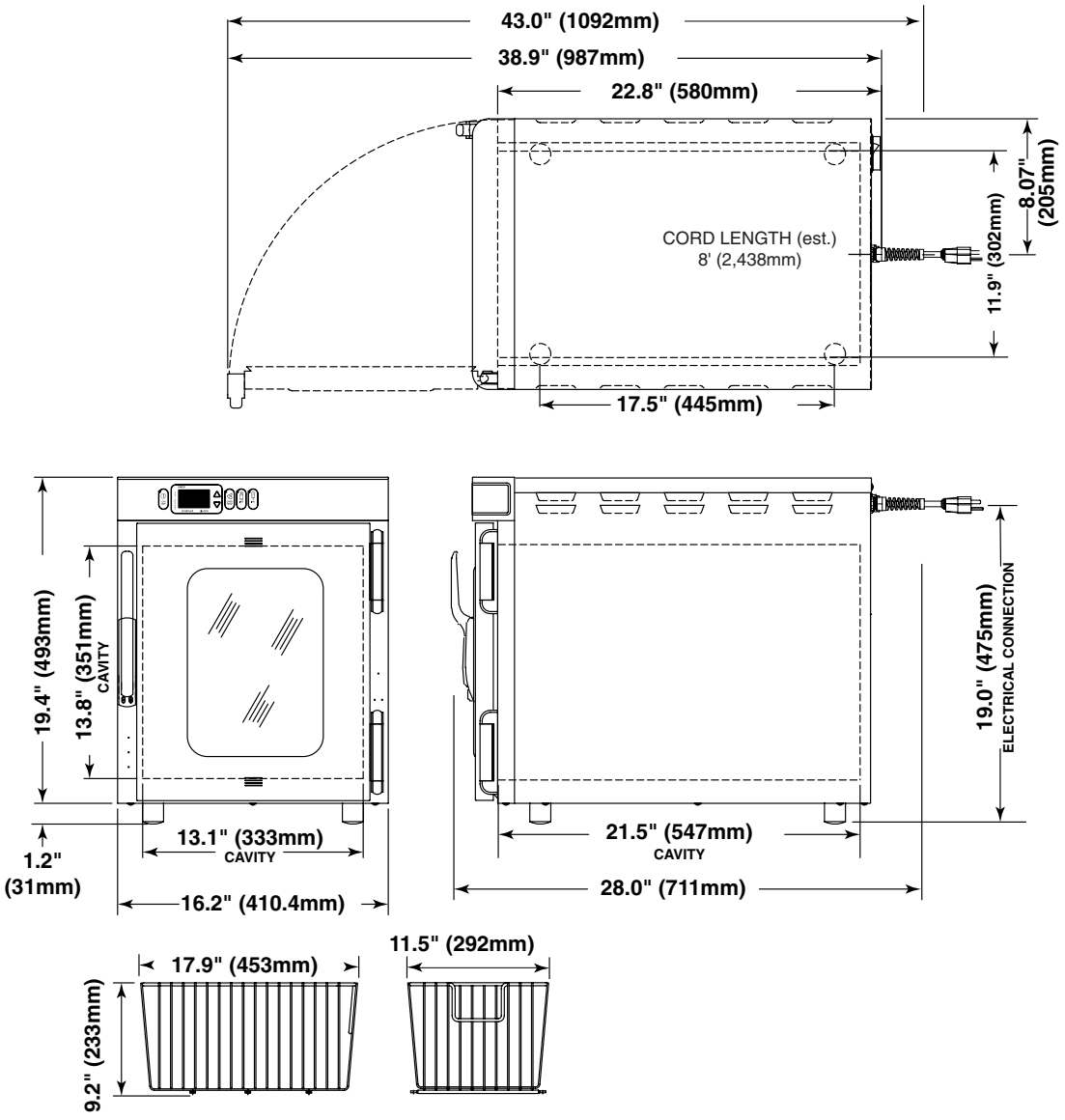
P-2120 Information:

The appliance is equipped with two (2) white, epoxy-coated wire baskets to accommodate fluids packaged in bags or bottles, mounted on basket rail supports. Each basket has a capacity of 9 1-liter bottles (18 total) or 15 1-liter bags (30 total). The appliance is furnished with a full perimeter rubber bumper assembly and one set of 5" (127mm) heavy-duty casters – two (2) rigid and two (2) swivel with locking brake.

P-2130 Information:

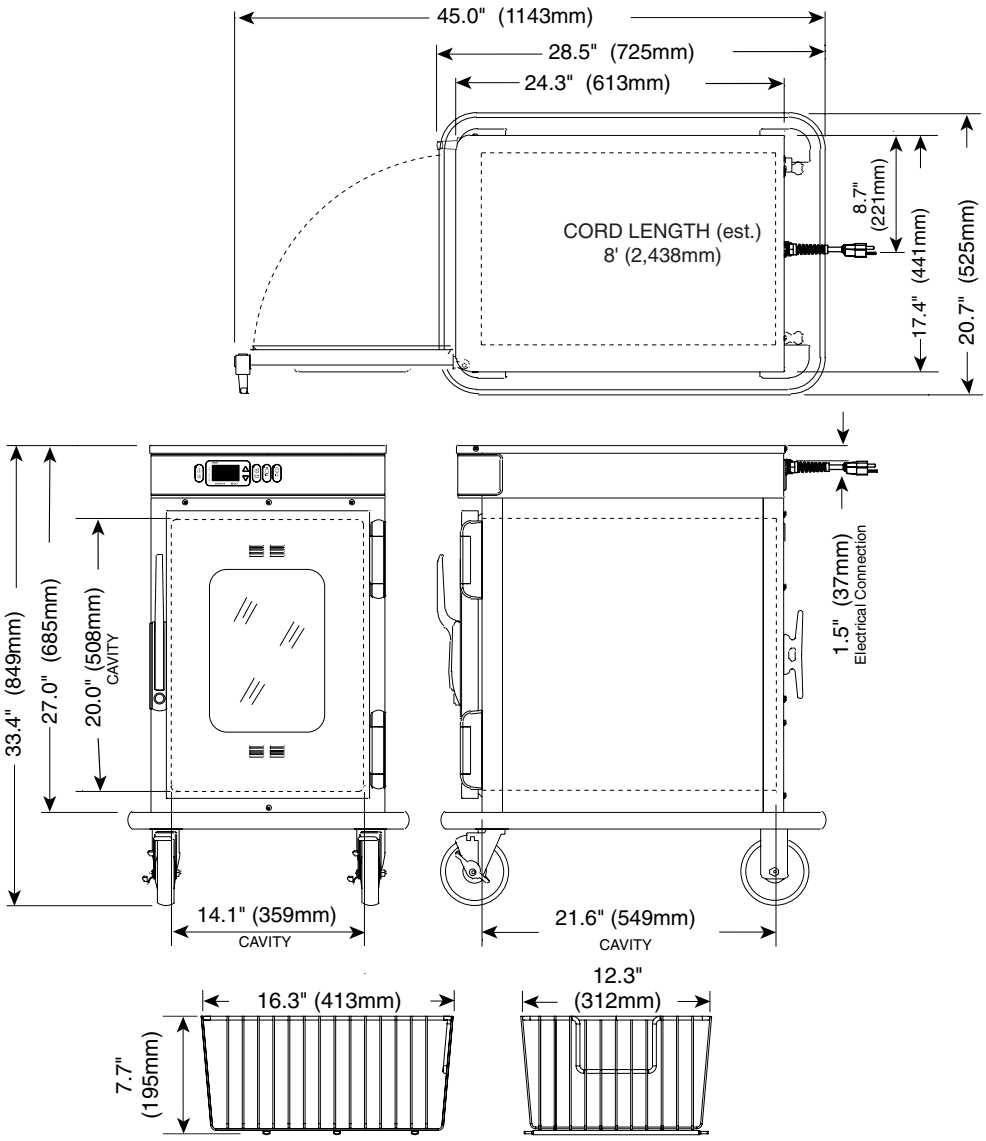
The appliance is equipped with three (3) white, epoxy-coated wire baskets to accommodate fluids packaged in bags or bottles, mounted on basket rail supports. Each basket has a capacity of 18 1-liter bottles (54 total) or 24 1-liter bags (72 total). The appliance is furnished with a full perimeter rubber bumper assembly and one set of 5" (127mm) heavy-duty casters – two (2) rigid and two (2) swivel with locking brake.

P-2110

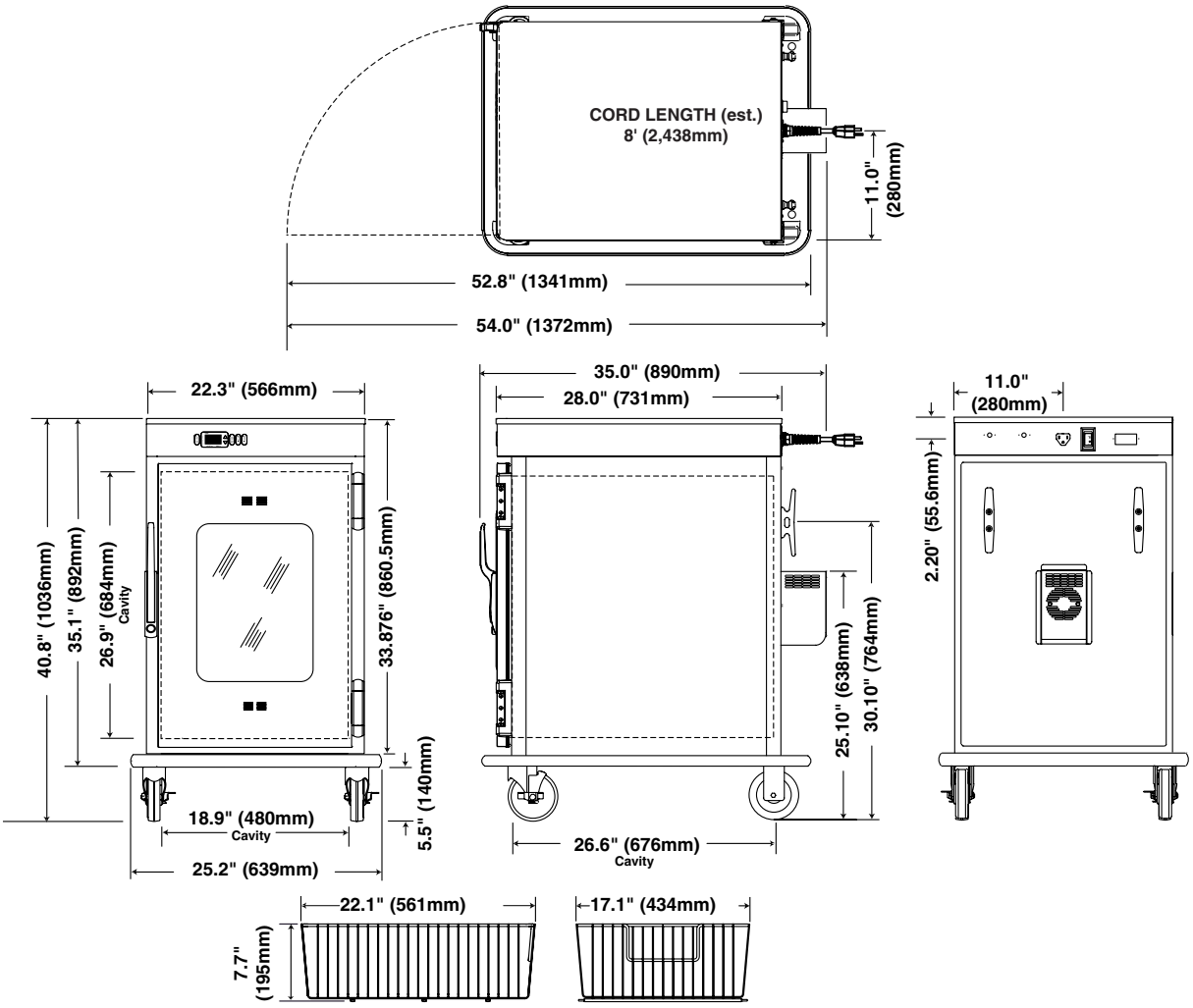

43.0" (1092mm)
38.9" (987mm)
22.8" (580mm)
8.07" (205mm)
CORD LENGTH (est.)
8' (2,438mm)
11.9" (302mm)
17.5" (445mm)
19.4" (493mm)
13.8" (351mm)
CAVITY
1.2" (31mm)
13.1" (333mm)
CAVITY
16.2" (410.4mm)
19.0" (475mm)
ELECTRICAL CONNECTION
21.5" (547mm)
CAVITY
28.0" (711mm)
17.9" (453mm)
11.5" (292mm)
9.2" (233mm)

Dimensions

P-2120



P-2130


CORD LENGTH (est.)
8' (2,438mm)
11.0"
(280mm)
52.8" (1341mm)
54.0" (1372mm)
22.3" (566mm)
35.0" (890mm)
28.0" (731mm)
11.0"
(280mm)
2.20" (55.6mm)
40.8" (1036mm)
35.1" (892mm)
26.9" (684mm)
Cavity
33.876" (860.5mm)
25.10" (638mm)
30.10" (764mm)
5.5" (140mm)
18.9" (480mm)
Cavity
25.2" (639mm)
26.6" (676mm)
Cavity
22.1" (561mm)
17.1" (434mm)
7.7"
(195mm)

Electrical Information

⚠ DANGER

To prevent serious personal injury, death, or property damage:

Do not use this warming appliance in the presence of flammable anesthetic mixtures (with air or with oxygen or nitrous oxide).

Not category AP or APG equipment

⚠ CAUTION

Power source must match voltage identified on appliance rating tag. The rating tag provides essential technical information required for any appliance installation, maintenance or repairs. Do not remove, damage or modify the rating tag.

Locate the Rating Tag

Verify the power requirements for the appliance. The power specification is located on the appliance identification rating tag. This tag is permanently attached to the appliance.

Hazardous Voltage Present

Power Requirements

P-2110

120 V.A.C. — 50/60 Hz, 1 ph
0.65 kW, 5.4 Amps
Safety Class I Equipment
No Applied Parts
Mode of Operation: Continuous

NEMA 5-15P
15A - 125V Plug
Hospital Grade

IPX-0

P-2120

120 V.A.C. — 50/60 Hz, 1 ph
0.78 kW, 6.4 Amps
Safety Class I Equipment
No Applied Parts
Mode of Operation: Continuous

NEMA 5-15P
15A - 125V Plug
Hospital Grade

IPX-0

P-2130

120 V.A.C. — 50/60 Hz, 1 ph
1.06 kW, 8.8 Amps
Safety Class I Equipment
No Applied Parts
Mode of Operation: Continuous

NEMA 5-15P
15A - 125V Plug
Hospital Grade

IPX-0

Wire diagram is located under top lid of warmer.

Grounding reliability can only be achieved when appliance is connected to an equivalent receptacle marked “Hospital Grade.”

Protective Earth Ground Symbol

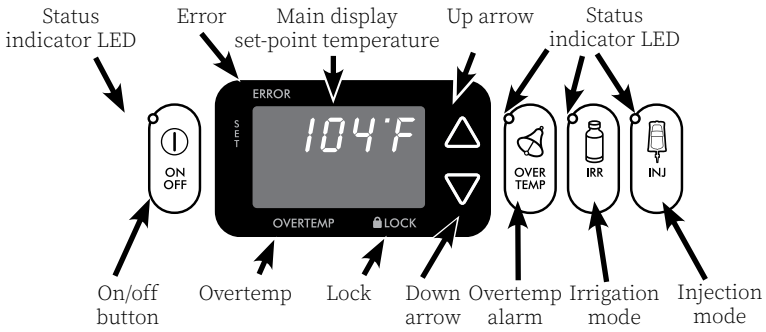
Medical Equipment classified by Underwriters Laboratories with Respect to Electrical Shock, Fire and Mechanical Hazards only, in Accordance with UL 60601-1 and CAN/CSA C22.2 No. 601.1.

UL File No. E201645

Fluid Electronic Control Features

The following refers to features that are available when the electronic control is powered on.

Electronic Control and LED Display



Control panel buttons

On/Off Button

Press the **On/Off** button to power on the electronic control. Press and hold the on/off button for 2 seconds to turn the electronic control off. The status indicator LED will illuminate in the power ON state. **NOTE:** *The IRR or INJ must be selected to turn on the heating circuit.*

Up Arrow / Down Arrow Buttons

Used to increase or decrease the temperature set-point as desired. Continuous pressure to a button increases the increments in which the values will change.

Overtemp Alarm Button

Used to display the current over-temperature trip-point. The alarm trip-point is always 6°C (10°F) above the temperature setting. When the green overtemp indicator is blinking, the warmer has entered an over-temperature condition.

IRR Button

Used to select the Irrigation Fluids mode and to display the IRR set-point temperature. The temperature range is 37°C to 66°C (98°F to 150°F). The green IRR indicator and the yellow indicator below the IRR button illuminates when the IRR set-point temperature is being displayed.

INJ button

Used to select the Injection Fluids mode and to display the INJ set-point temperature. The temperature range is 37°C to 40°C (98°F to 104°F). The green INJ indicator and the yellow indicator below the INJ button illuminates when the INJ set-point temperature is being displayed.

NOTE: *When the electronic control is powered on, IRR or INJ must be selected to turn on the heating circuit. To switch between the irrigation and the injection mode, turn the electronic control off and then back on. Be careful to cool the cavity down prior to switching from a high temperature to a lower temperature or the electronic control will display an unwanted overtemp alarm.*

LED display status indicators

Overtemp

When the electronic control senses a temperature 6°C (10°F) greater than the set point, this indicator illuminates, the audible alarm sounds and the on/off button indicator blinks. The green indicator of the overtemp button will stop blinking once the warmer temperature drops back to the set point temperature range. To silence the alarm and extinguish the error indicator after the temperature has dropped into the selected temperature range, use the on/off button to reset the electronic control. Inspection of the product in the cavity may be necessary.

Error

This illuminates when an over-temperature condition is detected. The error indicator will remain illuminated, even after the over-temperature condition is cleared, until the warmer is turned off. This will alert the operator that the electronic control has indicated an overtemp and the product in the cavity should be inspected.

Lock

This illuminates when the lock feature is engaged.

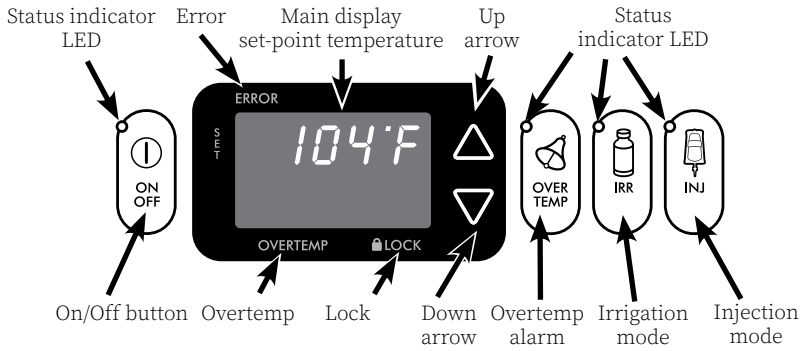
Power Fail Detection

If the power were to fail for any reason while electronic control is powered on, the warmer will retain in memory its current operating state. When the power is restored, the electronic control will alarm once and resume operating in its previously set mode, but will alert the operator that such an event has occurred. The on/off status indicator will blink.

Press the on/off button once to acknowledge that the power has been restored. The on/off status indicator will stop blinking. When pressing the on/off button, the display will indicate the time period of the outage in hours and minutes (hh:mm), then return to the normal display and previously set mode. Inspection of the product in the cavity may be necessary.

Fluid Electronic Control Features (continued)

Electronic Control and LED Display



Temperature Format Selection

While the electronic control is in the off state, press and hold the up arrow button for five (5) seconds to display the current temperature scale. Press again to switch between °F (fahrenheit) or °C (celsius).

Cavity Temperature Display

To reference the cavity air temperature, push and hold the overtemp and up arrow buttons. While holding both buttons, the value in the display refers to the temperature at the cavity sensor.

Operational Sound Selection

While the electronic control is in the off state, press and hold the down arrow button for five (5) seconds. Press again to turn the sound on or off.

Electronic Control Lock

The electronic control can be locked so that no changes can be made to the temperature set-point or the mode selection. Press and hold the on/off button and the up arrow button at the same time. The lock indicator will illuminate. Attempts to operate the on/off button, or to change the temperature set-point will be unsuccessful. To unlock the electronic control, press and hold the on/off button and the down arrow button at the same time. The electronic control will unlock, and the lock indicator will go out.

Fluid Chamber Operation Procedures

⚠ WARNING

Verify the fluid temperature prior to using the fluid. Refer to fluid manufacturer's labeling for recommended warming procedures.

Injection fluid manufacturer suggests not to warm injection fluids above 40°C (104°F). If fluids are warmed above the suggested temperature, the fluids should be discarded.

⚠ CAUTION

The door may swing during transport. Only transport the appliance when the door is closed and secure.

CAUTION

The unit may tip over if more than one basket is extended simultaneously. Open only one basket at a time when loading or unloading fluids.

CAUTION

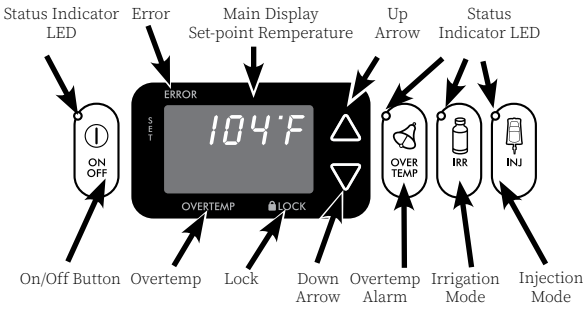
Verify that the fan is rotating freely. If it is not working, discard the fluid inventory, contact a service representative, and discontinue use of appliance until it is repaired.

⚠ CAUTION

If the fluid warmer controller has failed, or if error messages are displayed, it is recommended that the fluid inventory be discarded. Refer to the troubleshooting guide for error descriptions and action required.

NOTICE: The appliance is designed to warm fluids to the appropriate temperature recommended by the fluid manufacturer. The warm-up stabilization time will vary depending on the warmer load. Exercise judgment to determine inventory rotation protocols and warm-up time for the fluids used.

Electronic Control and LED Display

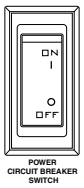


1. The appliance must be plugged into an appropriate hospital grade receptacle as specified on the electrical information page.
2. **Push the power circuit breaker switch to the on (I) position.** The rocker-type switch is located at the back of the appliance.
3. **Activate the control by pressing the On/Off button on the control panel once.** The On/Off indicator will illuminate and remain lit until the appliance is off. The digital display indicates the last temperature set-point of compartment.
4. **Select desired mode of operation.** Press the **IRR** button to select the irrigation fluids mode or the **INJ** button to choose the injection fluids mode. The last set-point temperature for that mode of operation will appear in the display.

   NOTE: *In order to switch between the irrigation and injection modes, first turn the power to the electronic control off and then back on.*

5. **Set desired temperature.** To set the fluid warming temperature, press and hold the **Up** or **Down Arrow** buttons to change the value shown in the display. The irrigation fluids set-point temperature range is 37°C to 66°C (98°F to 150°F) and the injection fluids set-point temperature range is 37°C to 40°C (98°F to 104°F).

   NOTE: *Switching from a higher temperature setting to a lower setting may cause an unwanted alarm*.



NOTICE: Do not load the basket beyond the recommended maximum capacity. Overloading may cause lower or uneven temperatures of product and damage to basket and basket rail supports. Baskets that are overloaded may slip off rail supports, resulting in possible damage to product and equipment, as well as causing possible injury.

⚠ WARNING

To prevent serious personal injury, death, or property damage:

Do not steam clean, hose down or flood the interior or exterior with water or liquid solution of any kind. **Do not** use water jet to clean. Failure to observe this precaution will void the warranty.

(IPX-0 - Listed as Ordinary)

⚠ WARNING

To prevent serious injury, death, or property damage, **always** disconnect the appliance from the power source before cleaning or servicing.

NOTICE: To protect surfaces, **never** use abrasive cleaning compounds, chloride based cleaners, or cleaners containing quaternary salts. Never use hydrochloric acid (muriatic acid) on stainless steel. Never use wire brushes, metal scouring pads or scrapers. Failure to observe this precaution will void the warranty.

Protecting Stainless Steel, Epoxy Coated and Plastic Surfaces

It is important to guard against corrosion in the care of stainless steel surfaces. Harsh, corrosive, or inappropriate chemicals can completely destroy the protective surface layer of stainless steel, epoxy or plastic. Abrasive pads, steel wool, or metal implements abrade surfaces causing damage to this protective coating and eventually result in areas of corrosion. Water can contain high to moderate concentrations of chloride, causing oxidation and pitting that results in rust and corrosion. In addition, acidic spills that remain on metal surfaces are contributing factors in corroded surfaces.

Proper cleaning agents, materials, and methods are vital to maintaining the appearance and life of this appliance. Spilled items should be removed and the area wiped as soon as possible but at the very least, a minimum of once per day. Always wipe standing water as quickly as possible.

⚠ CAUTION

Fire hazard.

Do not use flammable cleaning agents on the appliance.

NOTICE: Always follow appropriate state or local health (hygiene) regulations regarding all applicable cleaning and sanitation requirements.

Cleaning Agents

Always use the proper cleaning agent at the manufacturer's recommended strength. Contact a local cleaning supplier for product recommendations.

Cleaning Materials

Cleaning can usually be accomplished with the proper cleaning agent and a soft, clean cloth. When more aggressive methods are needed, use a non-abrasive scouring pad on difficult areas and make certain to scrub with the visible grain of the surface metal to avoid surface scratches.

How to Clean the Appliance

1. Disconnect the appliance from the power source.
2. Remove and wash any detachable items such as the support assembly with hot, soapy water. Dry with a clean, lint-free cloth.
3. Clean the interior and exterior of the appliance with a mild soap and water solution. Apply the solution with a clean, damp cloth. Do not use commercial or household cleaners that contain ammonia.

   NOTE: *Make sure to wipe the control panel, door vents, door handle or door button, and door gaskets.*
4. Remove all detergent residue from the interior and exterior of the appliance with a clean, damp cloth.
5. Dry the interior and exterior of the appliance with a clean, lint-free cloth. Leave the door open until the interior is completely dry.
6. Sanitize the interior of the appliance with a sanitizing solution. This solution must be approved for use on stainless steel surfaces.
7. Clean the appliance glass with glass cleaner or distilled vinegar.
8. Replace the support assembly.

Preventative Maintenance Checklist

Daily Checklist:

- ❏ Is the operation and care manual available?
- ❏ Has everyone been properly trained in the operation and safety instructions of this appliance?
- ❏ Do not overload the appliance.
  - **P-2110 =** 11 1-liter bottles/basket or 16 1-liter bags/basket
  - **P-2120 =** 9 1-liter bottles/basket (18 total) or 15 1-liter bags per/basket (30 total)
  - **P-2130 =** 18 1-liter bottles/basket (54 total) or 24 1-liter bags per/basket (72 total)

Weekly Checklist:

- ❏ Inspect the condition of the plug and cord and replace if damaged.
- ❏ Remove the inserts and wash separately, set aside to dry before placing in the appliance.
- ❏ Blow dust from the interior, the outer vents and around the top of bonnet.
- ❏ Wipe down the interior.
- ❏ Check that the electronic control LEDs illuminate.*
- ❏ Check that the interior LED illuminates (if applicable).*
- ❏ Check the insert assembly. Check the condition of the basket and the side rail. Do the baskets move smoothly and freely?*

Monthly Checklist:

- ❏ Check the integrity of the door gasket. Are there any tears? Is the gasket worn or loose? Ensure that the seal is tight to the body. Replace the gasket if the integrity is compromised.*
- ❏ Check the air temperature sensor mounted in the interior of chamber. Is the guard in place and is it fully secured to the appliance?
- ❏ Check the condition of the casters or feet. Are the components secure and tightly threaded?
- ❏ Check the control panel overlay condition. Are there any tears or excessive wear on the graphic? Does the control work properly when the buttons are pushed?*
- ❏ Is the set-point temperature comparable to the actual temperature displayed? Check cavity air temperature with a quality thermocouple placed 1" (25mm) from the cavity sensor – not allowing it to touch any surface. Monitor for approximately one hour in an empty interior.
  Note: *Fluid warmer temperature may fluctuate from the set point. The set point will be within +0/-1.12°C (+0/-2°F) for injection fluids and within +0/-1.67°C (+0/-3°F) for irrigation fluids.*
- ❏ Check the condition of the stacking hardware (if applicable), making sure the mounting bolts and the hardware are secure.

***Contact service for immediate repair.**

Troubleshooting

This section is provided for the assistance of qualified and trained service technicians only and is not intended for use by untrained or unauthorized service personnel. Failure to observe this precaution may void the warranty.

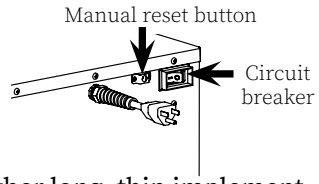
NOTE: *If the warmer is not operating properly, do the following before calling an authorized service agent:*

- *Verify that the power to the warmer is on.*
- *Ensure the female end of plug is securely seated in the warmer and that the male end of the plug is in an appropriate, functioning outlet.*
- *Examine the high limit manual reset button. If the reset button is tripped, reset the button using the instructions* ***How to manually reset the warmer****.*
- *If a temperature calibration adjustment is required, call service for proper instructions.*
- *All error codes must be cleared by pressing the circuit breaker on the back of the warmer to the off (O) position and allowing the warmer to cool.*

Notice: Do not attempt to repair or service the warmer beyond this point. Contact the manufacturer for the nearest authorized service agent. Repairs made by any other service agent without prior authorization by the manufacturer will void the warranty.

How to Manually Reset the Warmer:

1. Locate the manual reset button at the rear of the warmer. (The location may vary from the diagram.)



2. Use a pen, screwdriver or other long, thin implement to firmly push the reset button. The button clicks when it resets.

If the reset button trips again while the appliance is running, contact a qualified service technician.

Troubleshooting Guide

Code	Description	Action Required
door	**The door has been open for more than 3 minutes.**	• Close the door. • Verify that the door switch is operating. Replace the door switch if necessary.
E-10	**The compartment air sensor is shorted.**	• Detach the sensor from the terminal block. Measure the resistance of the sensor with an ohmmeter. Test the sensor at 32°F (0°C) using a container of ice water. The ohm reading should be 100. If the ohm reading is +/- 10, replace the sensor. • Inspect wires for integrity. Ensure proper and secure connections are made at the controller and the terminal block. • If the error continues call service.
E-11	**The compartment air sensor is open.**	• Detach the sensor from the terminal block. Measure the resistance of the sensor with an ohmmeter. Test the sensor at 32°F (0°C) using a container of ice water. The ohm reading should be 100. If the ohm reading is +/- 10, replace the sensor. • Inspect wires for integrity. Ensure proper and secure connections are made at the controller and the terminal block. • If the error continues call service.
E-30	**Under Temperature (Blanket warmers only)**	This error occurs when the blanket chamber temperature is lower than the set temperature for 90 minutes or longer. • Ensure that the door is closed. • If the compartment is overloaded, redistribute the inventory. Do not exceed the height of the insert.
E-31	**Over Temperature**	• If the compartment is overloaded, redistribute the inventory. Do not exceed the height of the insert. • Measure the resistance of the sensor with an ohmmeter. Test the sensor at 32°F (0°C) using a container of ice water. The ohm reading should be 100. If the ohm reading is +/- 10, replace the sensor.

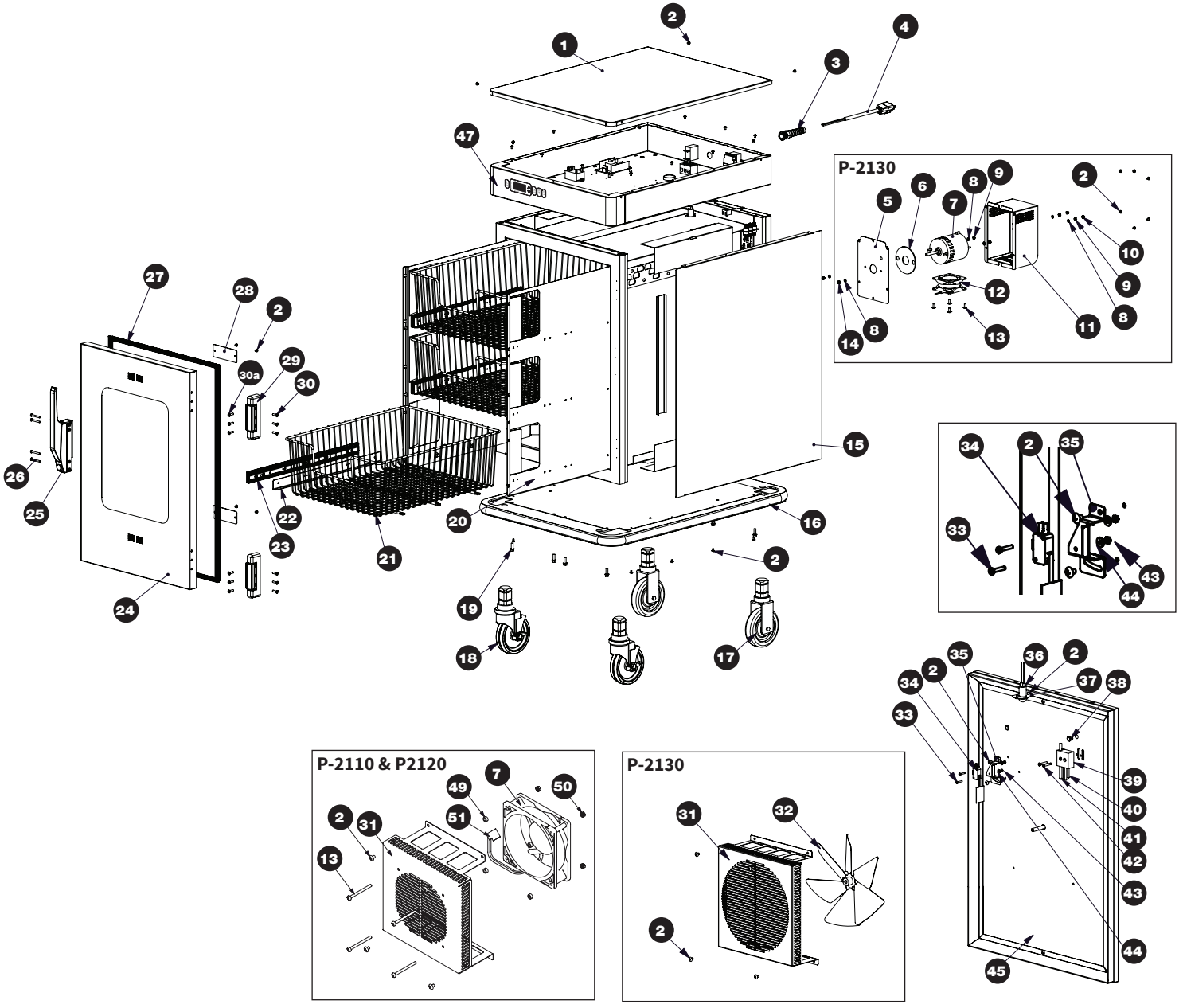
The serial number is required for all inquiries.

Troubleshooting Guide

Code	Description	Action Required
		• Inspect wires for integrity. Ensure proper and secure connections are made at the controller and the terminal block. • Replace the defective relay. • If the error continues, call service.
E-50	**Temperature Measurement Error**	• Call service.
E-60	**Real-Time Clock Error**	• Has the appliance been unplugged for an extended period of time? • To resolve the error, set the power circuit breaker switch to the ON (I) position for 1 minute, then set the power circuit breaker switch to the OFF (O) position for 5 seconds, and then set the power circuit breaker switch to the ON (I) position. The error message should no longer appear in the LED screen. • In order for the appliance to fully recharge, the appliance should remain plugged in and the power circuit breaker switch in the ON (I) position for a minimum of 24 hours after resetting. • Upon resolving an E-60 error, ensure that the date and time are correct.
E-61	**Real-Time Clock Error**	• Call service.
E-80	**EEPROM Error**	• Ensure that all temperature and times are properly set. • If the error continues, call service.
E-81	**EEPROM Error**	• Call service.
E-82	**EEPROM Error**	• Call service.
E-83	**EEPROM Error**	• Call service.
E-87	**EEPROM Error**	• Ensure that all calibration offsets are properly set. • If the error continues, call service for proper calibration instructions.
E-90	**A controller button is stuck**	• A controller button has been held down for longer than 60 seconds. Adjust the controller. The error will reset when the problem has been resolved.
E-99	**Hardware is over temperature.**	• Inspect the connections and the condition of the high-limit bimetal thermostat and the fan switch (fluid warmers only). Adjust if necessary. • Ensure that the compartment fan motor is operating (fluid warmers only). Air movement from the compartment fan should move the safety sail switch to the closed position. Adjust the fan or replace the fan motor. • If the error continues, call service.

Part numbers and drawings are subject to change without notice.

Full Assembly Service List (P-2130 Shown)



Loc	Description	Qty	P-2110**	Qty	P-2120**	Qty	P-2130
1	Top	1	5000730	1	5010831	1	5003367
2	Screws, 8-32 x 1/4"	*	SC-2459	*	SC-2459	*	SC-2459
3	Strain relief bushing	1	BU-34836	1	BU-34836	1	BU-34836
4	Cordset, hospital grade	1	E3025CD	1	E3025CD	1	E3025CD
5	Plate, motor mount	—	—	—	—	1	1004300
6	Motor spacer	—	—	—	—	1	1004303
7	Fan motor†	1	FA-39131	1	FA-39131	1	E3044FA

* Quantity varies **Not shown † **Note:** *The cavity fan motor has a one year life expectancy. The cavity fan motor parts warranty remains in effect one (1) year from installation or fifteen (15) months from the shipping date, whichever occurs first.*

The serial number is required for all inquiries.

Part numbers and drawings are subject to change without notice.

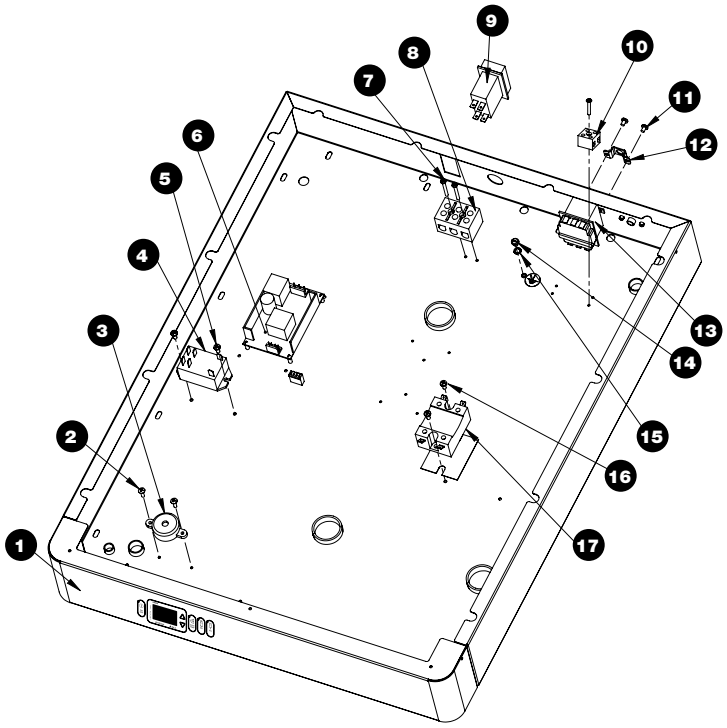
Loc	Description	Qty	P-2110**	Qty	P-2120**	Qty	P-2130
8	Washer, #10 flat nylon	—	—	—	—	2	WS-2420
9	Nut, 8-32, NC hex	—	—	—	—	2	NU-2296
10	Nut, 8-21, NC acorn	—	—	—	—	2	NU-2455
11	Motor box	1	1009331	1	1009331	2	5003358
12	Box fan	—	—	—	—	1	FA-3973
13	Screw, 10-32 x 1/2", motor mount	—	—	—	—	4	SC-2661
	Screw, 8-32 x 5/8", motor mount	3	SC-2077	3	SC-2077	—	—
14	Nut, 8-32	—	—	—	—	2	NU-26526
15	Sides	1	1009697	2	1010721	2	1010744
16	Full perimeter rubber bumper	—	—	1	5010798	1	5010873
17	Casters, 5" (127mm) rigid	—	—	2	CS-24874	2	CS-24874
18	Casters, 5" (127mm) swivel w/ brake	—	—	2	CS-24875	2	CS-24875
19	Screws, 1/4 - 20 x 3/4" hex	—	—	8	SC-25286	8	SC-25286
20	Basket support assembly	1	5014017	1	5014018	1	5014019
21	Basket	1	BS-28518	2	BS-28517	3	BS-28516
22	Basket support rail	2	1002305	4	1002302	6	1002304
23	Basket slide guide (1 set of 2)	1	GI-25941	2	GI-25941	3	GI-25942
24	Window door assembly, right hinge	1	5009043	1	5010808	1	5001253
25	Door handle	1	HD-24171	1	HD-24171	1	HD-24171
26	Screw, 10-32 x 1-1/2" flat	4	SC-35259	4	SC-35259	4	SC-35259
27	Door gasket	1	E2132GS	1	GS-22950	1	GS-23794
28	Plate, cover, vent	—	—	2	1010827	2	1010827
29	Hinge set (1 set of 2 hinges)	1	HG-2015	1	HG-22338	1	HG-22338
30	Screw, 10-32 x 3/4" flat	6	SC-2072	—	—	—	—
	Screw, 10-32 x 1" flat	—	—	6	SC-2713	6	SC-2713
30a	Screw, M5 x 0.8 x 20mm flat	6	SC-23868	6	SC-23868	6	SC-23868
31	Fan guard	1	1012553	1	1012555	1	1012557
32	Fan blade	1	FA-34604	1	FA-34602	1	FA-34603
33	Screw, M3 x 0.5 x 16mm pan	2	SC-22270	2	SC-22270	2	SC-22270
34	Fan switch	1	SW-33907	1	SW-33907	1	SW-33907
35	Fan switch bracket	1	1011007	1	1011008	1	1011008
36	Led lamp assembly	1	LP-34578	1	LP-34578	1	LP-34578
37	Plate access, LED lamp	1	1009718	1	1009718	1	1009718
38	Bushings, snap	2	BU-3419	2	BU-3419	2	BU-3419
39	Sensor block	1	BK-28344	1	BK-28344	1	BK-28344
40	Sensor	1	SN-33541	1	SN-33541	1	SN-33541
41	Thermostat, manual reset	1	E3030TT	1	E3030TT	1	E3030TT
42	Screw, 8-32 x 1" flat	2	SC-22138	2	SC-22138	2	SC-22138
43	Nut, M3 - 0.5 hex	2	NU-22285	2	NU-22285	2	NU-22285
44	Washer, M3 x 9mm flat	2	WS-22293	2	WS-22293	2	WS-22293
45	Rear cover	—	—	1	1010720	1	1010741
46	Bottom assembly	1	E4042	—	—	—	—
47	Control panel overlay	1	PE-28487	1	PE-28489	1	PE-28389
48	Bumper feet	4	BM-22606	—	—	—	—
49	Spacer, M4, 4mm	4	SP-36320	4	SP-36320	—	—
50	Nut, M4, KEPS	4	NU-36319	4	NU-36319	—	—
51	Cord, Axial Fan	1	CD-33338	1	CD-33338	—	—

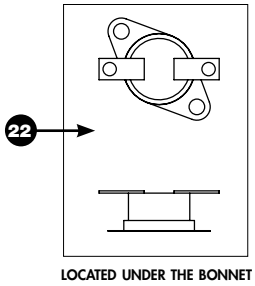
**Not shown

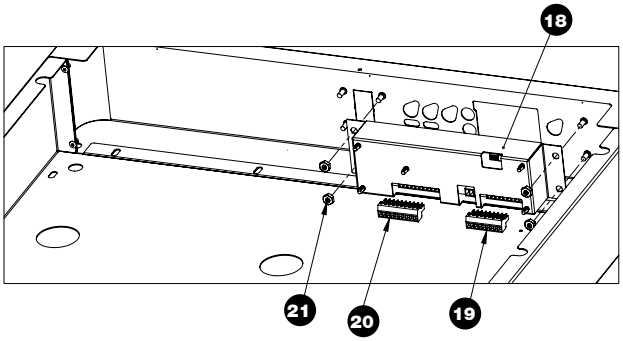
The serial number is required for all inquiries.

Part numbers and drawings are subject to change without notice.

Electrical Service List (P-2130 Shown)







Loc	Description	Qty	P-2110*	Qty	P-2120*	Qty	P-2130
1	Control panel overlay	1	PE-28487	1	PE-28489	1	PE-28389
2	Screw, 6-32 x 1/2"	2	SC-2472	2	SC-2472	2	SC-2472
3	Beeper, solid state	1	BP-3567	1	BP-3567	1	BP-3567
4	Relay, 12v dc, coil	1	RL-34434	1	RL-34434	1	RL-34434
5	Screw, 8-32 x 3/8" pan	2	SC-29631	2	SC-29631	2	SC-29631
6	Power supply board	1	BA-34041	1	BA-34041	1	BA-34041
7	Screw, 6-32 x 1-1/4" pan	2	SC-2365	2	SC-2365	2	SC-2365
8	Terminal block, 3 form compress	1	BK-3019	1	BK-3019	1	BK-3019
9	Circuit breaker switch	1	SW-33826	1	SW-33826	1	SW-33858
10	Terminal block, porcelain	1	BK-33546	1	BK-33546	1	BK-33546
11	Screw, M4 x 0.7 x 6mm pan	2	SC-22271	2	SC-22271	2	SC-22271
12	Cover, hi-limit	1	1009751	1	1009751	1	1009751
13	Thermostat, manual reset	1	E3030TT	1	E3030TT	1	E3030TT
14	Ground screw	1	SC-2190	1	SC-2190	1	SC-2190
15	Washer, #10 lock	1	WS-2467	1	WS-2467	1	WS-2467
16	Screw, 8-32 x 3/8"	2	SC-29631	2	SC-29631	2	SC-29631
17	Relay, 25a, zero crossing	1	RL-33829	1	RL-33829	1	RL-33829
18	Control assembly	1	CC-34765	1	CC-34765	1	CC-34765
19	Connectors	1	CR-33718	1	CR-33718	1	CR-33718
20	Connectors	1	CR-33717	1	CR-33717	1	CR-33717
21	Nut, 8-32	4	NU-26526	4	NU-26526	4	NU-26526
22	Thermostat, hi-limit	1	E3040TT	1	E3040TT	1	E3040TT
23	Wire diagram*	1	77657	1	77655	1	7784

*Not shown

The serial number is required for all inquiries.

Part numbers and drawings are subject to change without notice.

Options and Accessories Parts List*

*Not shown

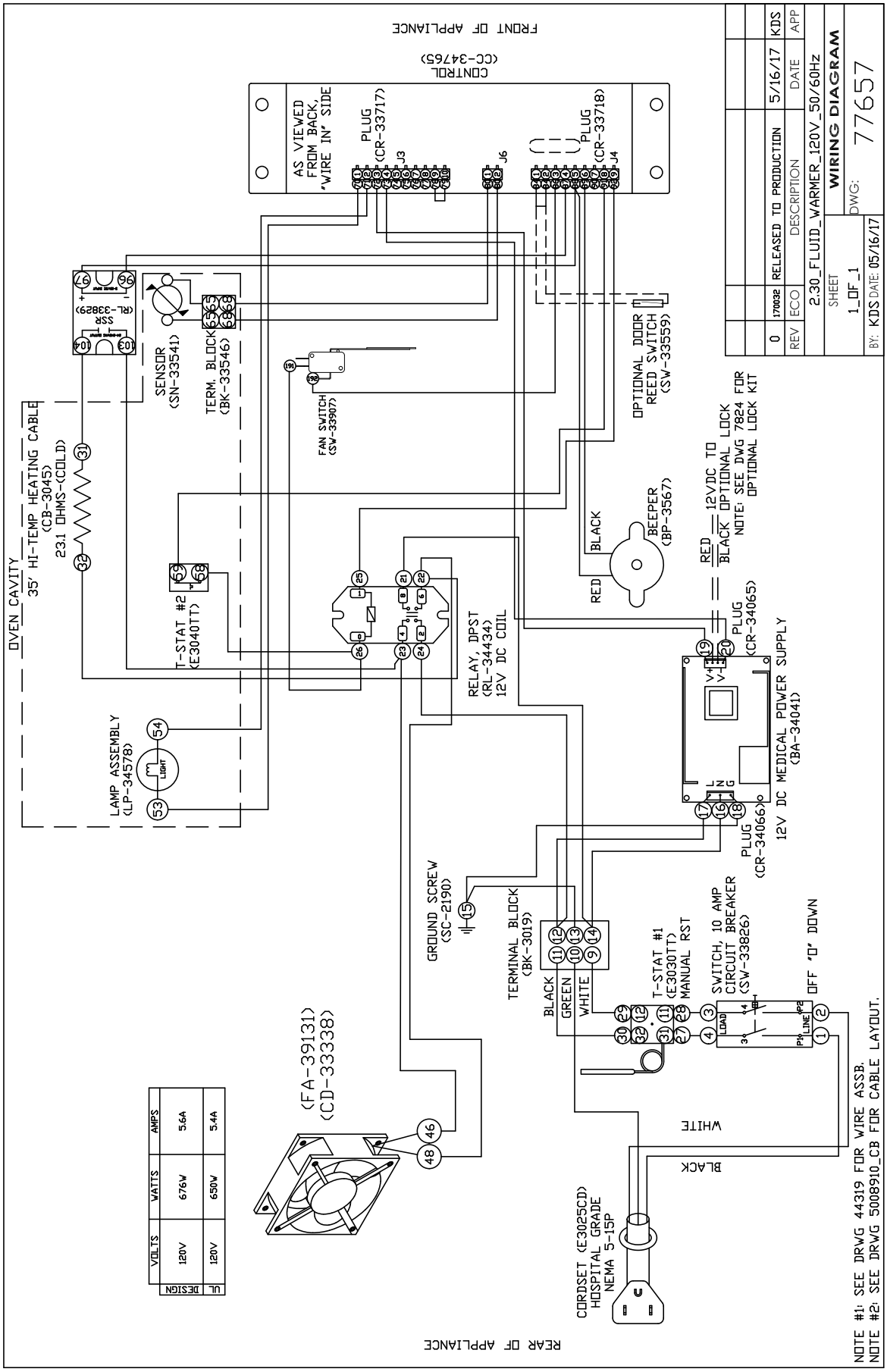
Description		P-2110	P-2120	P-2130
Built-in trim kit, reach-in		—	—	Contact factory
Caster upgrade kit, 3.5" (89mm)		Contact factory	—	—
Casters, 3.5" (89mm)	Plate, rigid	CS-23731	—	—
	Plate, swivel w/ brake	CS-23730	—	—
Screw (4 required for each caster)		SC-2351	—	—
Caster upgrade kit, 5" (127mm)		Contact factory	Contact factory	—
Casters, 5" (127mm)	Plate, rigid	CS-2025	CS-2025	—
	Plate, swivel w/ brake	CS-2026	CS-2026	—
Screw (4 required for each caster)		SC-2351	SC-2351	—
Combination lock		Refer to combination lock manual MN-28753		
Leg kit upgrade kit, 6" (152mm)		Contact factory	Contact factory	Contact factory
Lock for door handle		LK-22567	LK-22567	LK-22567
Solid door assembly		5009920	5012610	5012572
Stacking hardware				
EC230L over EC230L		5012145	—	—
EC340L over EC340L		—	5012153	—
EC770L over EC770L		—	—	5011588

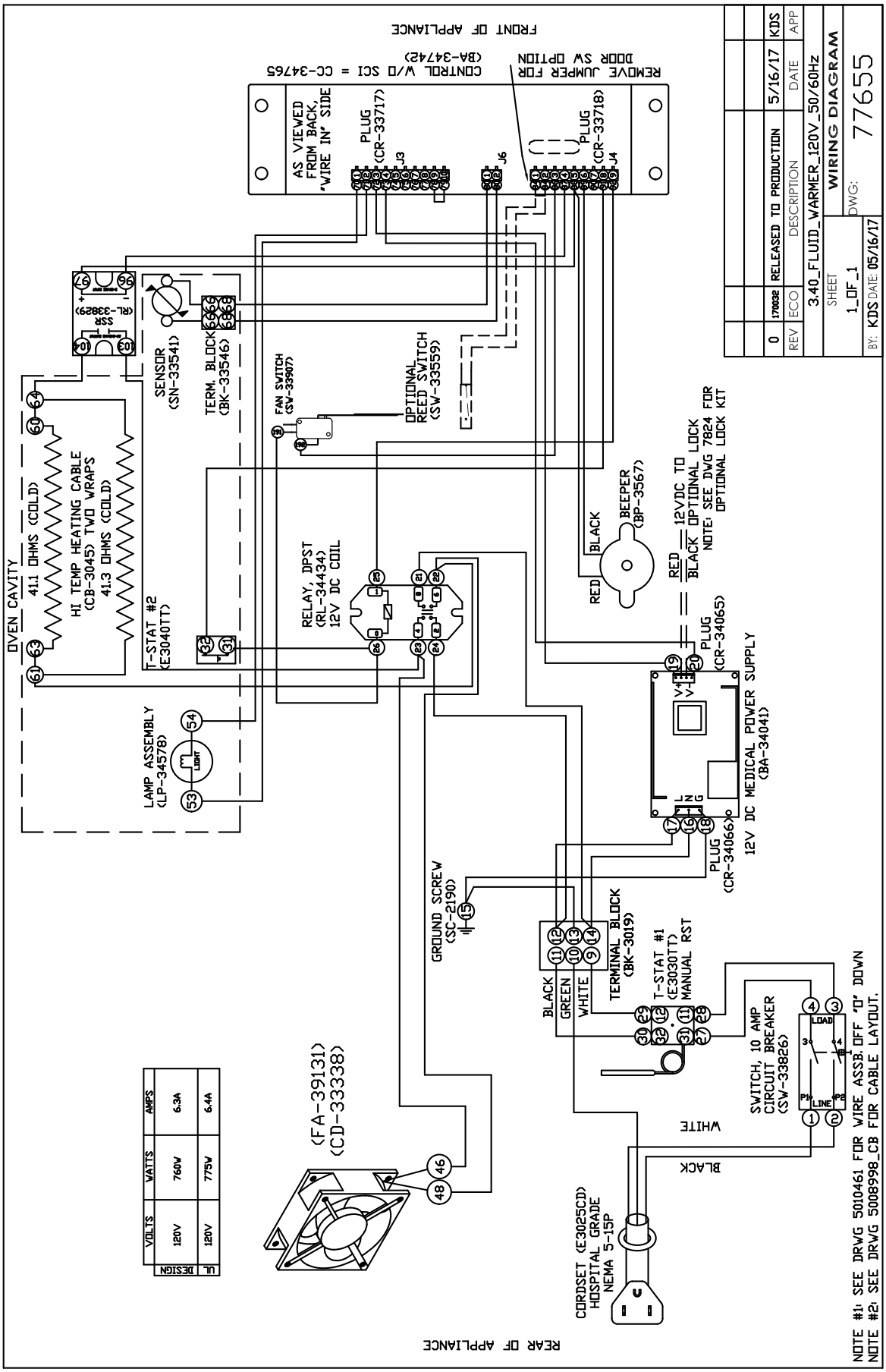
Heating Cable Replacement Kits*

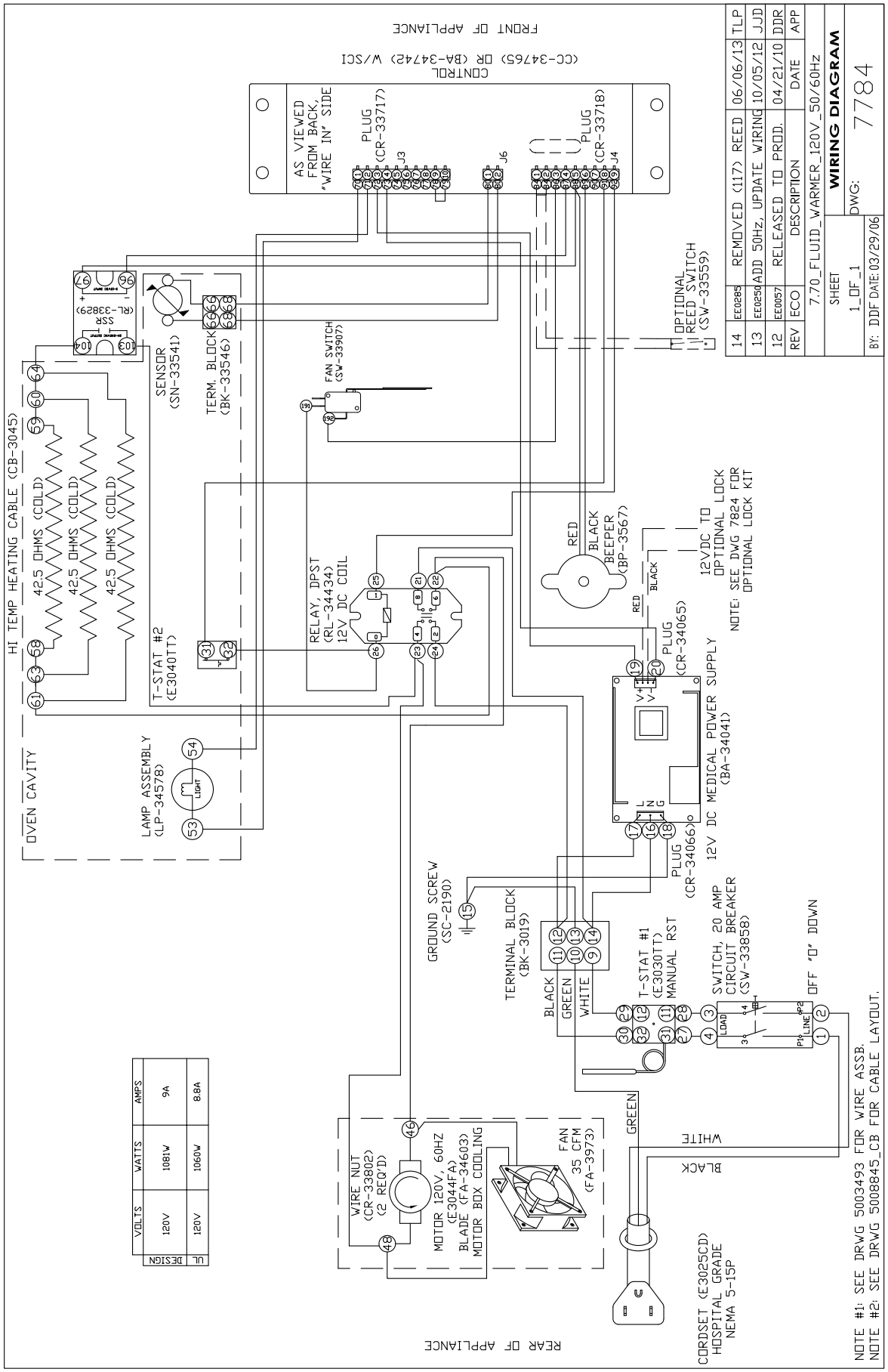
*Not shown

		P-2110	P-2120	P-2130
Cable replacement kit number		4877	4880	4881
Service kit includes:				
CB-3045	Cable heating element	37 ft (11m)	134 ft (41m)	210 ft (64m)
BU-3106	Cup bushing	2	8	12
TA-3540	Electrical tape	1 Roll	1 Roll	1 Roll
NU-2215	Hex nut	4	32	24
IN-3488	Insulation corner	8 ft (2m)	8 ft (2m)	8 ft (2m)
SL-3063	Insulating sleeve	2	8	12
CR-3226	Ring connector	2	8	12
BU-3105	Shoulder bushing	2	8	12
ST-2439	Stud, 10-32	2	8	12

The serial number is required for all inquiries.


FRONT OF APPLIANCE
CONTROL
(CC-34765)
AS VIEWED FROM BACK, "WIRE IN" SIDE
PLUG (CR-33717) J3
J6
PLUG (CR-33718) J4
SSR (RL-33829)
SENSOR (SN-33541)
TERM. BLOCK (BK-33546)
FAN SWITCH (SW-33907)
OPTIONAL DOOR REED SWITCH (SW-33559)
OVEN CAVITY
35' HI-TEMP HEATING CABLE (CB-3045) 23.1 OHMS-(COLD)
T-STAT #2 (E3040TT)
RELAY, DPST (RL-34434) 12V DC COIL
BEEPER (BP-3567)
RED
BLACK
RED
BLACK
12VDC TO OPTIONAL LOCK
NOTE: SEE DWG 7824 FOR OPTIONAL LOCK KIT
PLUG (CR-34065)
12V DC MEDICAL POWER SUPPLY (BA-34041)
LAMP ASSEMBLY (LP-34578)
PLUG (CR-34066)
GROUND SCREW (SC-2190)
TERMINAL BLOCK (BK-3019)
BLACK
GREEN
WHITE
T-STAT #1 (E3030TT) MANUAL RST
SWITCH, 10 AMP CIRCUIT BREAKER (SW-33826)
OFF "O" DOWN
(FA-39131) (CD-33338)
WHITE
BLACK
CORDSET (E3025CD) HOSPITAL GRADE NEMA 5-15P
DESIGN
UL
VOLTS 120V 120V
WATTS 676W 650W
AMPS 5.6A 5.4A
REAR OF APPLIANCE
NOTE #1: SEE DRWG 44319 FOR WIRE ASSB.
NOTE #2: SEE DRWG 5008910_CB FOR CABLE LAYOUT.
REV 0 | ECO 170032 | DESCRIPTION RELEASED TO PRODUCTION | DATE 5/16/17 | APP KDS
2.30_FLUID_WARMER_120V_50/60Hz
SHEET 1_OF_1
WIRING DIAGRAM
DWG: 77657
BY: KDS DATE: 05/16/17


FRONT OF APPLIANCE
REMOVE JUMPER FOR DOOR SW OPTION
CONTROL W/O SCI = CC-34765 (BA-34742)
AS VIEWED FROM BACK, "WIRE IN" SIDE
PLUG (CR-33717)
PLUG (CR-33718)
J3
J6
J4
SSR (RL-33829)
SENSOR (SN-33541)
TERM. BLOCK (BK-33546)
FAN SWITCH (SW-33907)
OPTIONAL REED SWITCH (SW-33559)
OVEN CAVITY
41.1 OHMS (COLD)
HI TEMP HEATING CABLE (CB-3045) TWO WRAPS
41.3 OHMS (COLD)
T-STAT #2 (E3040TT)
RELAY, DPST (RL-34434) 12V DC COIL
BEEPER (BP-3567)
BLACK
RED
12VDC TO OPTIONAL LOCK
BLACK OPTIONAL LOCK
RED
NOTE: SEE DWG 7824 FOR OPTIONAL LOCK KIT
PLUG (CR-34065)
V+
V-
LNG
12V DC MEDICAL POWER SUPPLY (BA-34041)
PLUG (CR-34066)
LAMP ASSEMBLY (LP-34578)
Light
GROUND SCREW (SC-2190)
TERMINAL BLOCK (BK-3019)
BLACK
GREEN
WHITE
T-STAT #1 (E3030TT) MANUAL RST
SWITCH, 10 AMP CIRCUIT BREAKER (SW-33826)
LOAD
LINE
PB
WHITE
BLACK
(FA-39131) (CD-33338)
CORDSET (E3025CD) HOSPITAL GRADE NEMA 5-15P
VOLTS
WATTS
AMPS
DESIGN
UL
120V
760W
6.3A
120V
775W
6.4A
REAR OF APPLIANCE
NOTE #1: SEE DRWG 5010461 FOR WIRE ASSB. OFF "D" DOWN
NOTE #2: SEE DRWG 5008998_CB FOR CABLE LAYOUT.
REV
ECO
DESCRIPTION
DATE
APP
0
170032
RELEASED TO PRODUCTION
5/16/17
KDS
3.40_FLUID_WARMER_120V_50/60Hz
WIRING DIAGRAM
SHEET
1_OF_1
DWG:
77655
BY: KDS DATE: 05/16/17


CONTROL
(CC-3476S) OR (BA-3474Z) W/SCI
FRONT OF APPLIANCE
AS VIEWED FROM BACK, "WIRE IN" SIDE
PLUG (CR-33717) J3
J6
PLUG (CR-33718) J4
OPTIONAL REED SWITCH (SW-33559)
SSR (RL-33829)
SENSOR (SN-33541)
TERM. BLOCK (BK-33546)
FAN SWITCH (SW-33907)
HI TEMP HEATING CABLE (CB-3045)
42.5 OHMS (COLD)
42.5 OHMS (COLD)
42.5 OHMS (COLD)
T-STAT #2 (E3040TT)
RELAY, DPST (RL-34434) 12V DC COIL
RED
BLACK
BEEPER (BP-3567)
BLACK
RED
PLUG (CR-34065)
12VDC TO OPTIONAL LOCK
NOTE: SEE DWG 7824 FOR OPTIONAL LOCK KIT
OVEN CAVITY
LAMP ASSEMBLY (LP-34578)
LIGHT
12V DC MEDICAL POWER SUPPLY (BA-34041)
V+
V-
L
N
G
PLUG (CR-34066)
GROUND SCREW (SC-2190)
TERMINAL BLOCK (BK-3019)
BLACK
GREEN
WHITE
T-STAT #1 (E3030TT) MANUAL RST
SWITCH, 20 AMP CIRCUIT BREAKER (SW-33858)
LOAD
LINE
OFF "O" DOWN
WIRE NUT (CR-33802) (2 REQ'D)
MOTOR 120V, 60HZ (E3044FA)
BLADE (FA-34603)
MOTOR BOX COOLING
FAN 35 CFM (FA-3973)
GREEN
WHITE
BLACK
CORDSET (E3025CD) HOSPITAL GRADE NEMA 5-15P
REAR OF APPLIANCE
NOTE #1: SEE DRWG 5003493 FOR WIRE ASSB.
NOTE #2: SEE DRWG 5008845_CB FOR CABLE LAYOUT.
DESIGN
VOLTS
WATTS
AMPS
UL
120V
1081W
9A
120V
1060W
8.8A
14 EE0285 REMOVED (117) REED 06/06/13 TLP
13 EE0250 ADD 50Hz, UPDATE WIRING 10/05/12 JJD
12 EE0057 RELEASED TO PROD. 04/21/10 DDR
REV ECO DESCRIPTION DATE APP
7.70_FLUID_WARMER_120V_50/60Hz
SHEET 1_OF_1
WIRING DIAGRAM
DWG: 7784
BY: DDF DATE: 03/29/06

Limited Warranty

Pedigo Products, Inc. warrants to the original purchaser that any original part that is found to be defective in material or workmanship will, at our option, subject to provisions hereinafter stated, be replaced with a new or rebuilt part.

The labor warranty remains in effect one (1) year from installation or fifteen (15) months from the shipping date, whichever occurs first.

The original parts warranty for the cavity fan motor remains in effect one (1) year from installation of appliance or fifteen (15) months from the shipping date, whichever occurs first. The original parts warranty on all other parts remains in effect three (3) years from installation of appliance or thirty-nine (39) months from the shipping date, whichever occurs first.

This warranty does not apply to:

1. Calibration
2. Equipment damage caused by accident, shipping, improper installation or alteration.
3. Equipment used under conditions of abuse, misuse, carelessness or abnormal conditions including equipment subjected to harsh or inappropriate chemicals including but not limited to compounds containing chloride or quaternary salts, poor water quality, or equipment with missing or altered serial numbers.
4. Any losses or damage resulting from malfunction, including loss of contents or consequential or incidental damages of any kind.
5. Equipment modified in any manner from original model, substitution of parts other than factory authorized parts, removal of any parts including legs, or addition of any parts.
6. Collateral or incidental damage as a direct result of servicing equipment built into a wall structure is not covered under warranty. It is the responsibility of the owner to bear all expense related to structural repairs including, but not limited to, external electrical connections and wiring, and the removal or replacement of caulk, grout, tile, or wall covering of any kind. A service access panel for built-in equipment installations is strongly recommended.

This warranty is exclusive and is in lieu of all other warranties, expressed or implied, including the implied warranties of merchantability and fitness for purpose. In no event shall the Company be liable for loss of use, loss of revenue, or loss of contents or revenue, or for indirect or consequential damages. This warranty is in lieu of all other warranties expressed or implied and Pedigo Products, Inc. neither assumes or authorizes any persons to assume for it any other obligation or liability in connection with Pedigo Products, Inc. equipment.

The serial number is required for all inquiries.

Always include both model and serial number(s) in any correspondence regarding the appliance.

Model: _____

Serial number: _____

Purchased from: _____

Date installed: _____ **Voltage:** _____

Warranty Effective November 1, 2012

PEDIGO®

Pedigo Products, Inc. • 4000 S.E. Columbia Way • Vancouver, WA 98661 • U.S.A.
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