JRV Inc.

OPERATING AND INSTALLATION MANUAL MODEL 34-25JRV

This cabinet has passed the QUALITY CONTROL INSPECTION and meets the high standards at JRV. This inspection includes complete refrigeration systems, cabinet construction and finish.

WHEN CONTACTING US

For reference and when contacting JRV, please have your freezer information ready:

MODEL NUMBER:	34-25JRV	
SERIAL NUMBER:		
DATE RECEIVED:		
PURCHASED FROM:	JRV Inc.	

The above information can be found on the data plate attached to the cabinet. Data plate is located on the back of the cabinet, upper left corner.

JRV Inc. P.O. Box 1794 Arlington Hts., IL 60006

Contact:

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Telephone/Fax: 847-398-4967

Dan Velisek - Email: dvelisek@jrvinc.com
Telephone/Fax: 630-262-0731

Web site: www.jrvinc.com

1. MOVING YOUR FREEZER

The refrigeration system of the cabinet is designed to operate with the cabinet located on a flat surface. Do not tilt the cabinet more than 30° to any side. If the cabinet must be tilted on an angle for handling or moving purposes allow it to sit in an upright position for two (2) hours prior to starting.

2. SAFETY PRECAUTIONS

In this manual, the words **WARNING** and **CAUTION** mean the following:

***WARNING:** potentially hazardous situation, which, if not avoided, could result in serious injury or death.

*CAUTION: a potentially hazardous situation which, if not avoided, may result in minor or moderate injury or damage to equipment.

Before installing, using or maintaining this product, please be sure to read this manual carefully. Failure to follow these instructions may cause this product to malfunction, which could result in injury or damage.

Below are important safety precautions that apply to this product:

- Use this product only in the way described in the product literature and in this manual. Before using it, verify that this product is suitable for its intended use.
- Do not modify system components.
- The cabinet must be properly grounded in conformity with national and local electrical codes. Never connect the unit to overloaded power sources.
- Disconnect the unit from all power sources before cleaning, troubleshooting or performing other maintenance on the cabinet or its controls.

3. CHOOSING A LOCATION

3.1 Air Circulation

The cabinet should be situated to allow proper air circulation. A minimum of three inches clearance is required around the freezer in a well ventilated room. Provide a small space around the freezer for ventilation. The condenser of the freezer is located on the insulation side of the outer case. Therefore, during operation, the outer case (or shell) will feel warm to the touch. From this shell condenser the heat removed from inside the freezer radiates from the case and is dispersed into the air. For this reason the outer surface should be kept reasonably clean and free of any wrapping, covers or objects that will limit the dispersing of the heat from the freezer shell. Avoid placing the freezer in locations exposed to direct sun light, heat registers or other heat sources.

*NOTE: The cabinet must be installed on a sturdy, solid, level floor resting firmly on all four mounting points.

3.2 Ambient Temperature

Do not locate cabinet in sunlight, near heating diffusers, radiators, or other sources of heat. Drafts from fans, air conditioning or open doors can also affect the product temperature. The ambient temperature range at the location must be 59 to 90°F (15 to 32°C).

*WARNING: This unit is not "rapid-freeze" device. Attempting to utilize this freezer improperly may jeopardize safety or cause undue stress or damage to the refrigeration compressor.

Avoid opening the door for extended time periods since chamber temperature air will escape rapidly. Room air, (which is higher in humidity), replacing chamber air may cause frost to develop in the chamber more rapidly.

4. CABINET INSTALLATION START-UP

Once the cabinet has been located in its permanent location and the proper power and grounding have been provided, the following items must be checked or completed:

1. Check for traces of oil in the compressor area or under the freezer on floor, which could mean a broken or leaking refrigeration line.

*CAUTION: UNDER NO CIRCUMSTANCES SHOULD THE COMPRESSOR BE STARTED WHEN OIL IS PRESENT UNTIL INSPECTED BY A SERVICE TECHNICIAN.

- 2. Inspect the factory wiring for terminals that might have vibrated loose in shipping. Tighten all screwtype terminals.
- 3. Check the refrigeration lines to insure that they do not rub and no damage was done during shipping of the cabinet.
- 4. Check fan blade(s) for "free" operation.
- 5. When freezer is plugged in and the compressor starts, the voltage should be checked at the compressor terminals to determine if there is proper voltage to the compressor. The voltage should not exceed the 10% above or below the rated compressor voltage.
- 6. Cabinet should not be loaded with product until the cabinet has operated for 24 hours at the correct temperature.

Now that your cabinet has been trouble checked, run the cabinet down to storage temperature before loading product.

4.1 Lid Seal

If the lid gasket does not seal along the front edge, relieve the compression of the gasket along the back edge by loosening the hinge screws where they attach to the cabinet. Raise the lid slightly and then retighten the screws.

4.2 Interior Compartment Temperature

This temperature is controlled by the LOVE digital temperature controller. When you first power up the freezer, the compressor and fan will start. Pull down to minimum temperature will take from 3 to 6 hours, depending on ambient temperature and size of cabinet.

4.3 Alarm

The lighted alarm switch should be kept in the off position until the cabinet temperature has been reached. When the temperature has been reached, the alarm switch should be switched to the "ON" position. The alarm is factory set to sound at –34 degrees centigrade.

5 ELECTRICAL CONNECTIONS - WIRING

The cabinet must be located so it can be plugged into a properly grounded electrical outlet. Electrical connection should be made in compliance with local codes.

We suggest a separate circuit with a fused disconnect be installed. To avoid the possibility of an accidental disconnect you may want to consider a direct connection to the electrical source. No less than a No. 14 gauge wire should be used for the electrical connection. (Countries outside the US are not supplied with an electrical cord plug. Follow your country's electric codes.)

The electrical outlet should not be controlled by a wall switch, which might be turned off accidentally.

This cabinet is equipped with a three-prong (grounding) plug for your protection against shock hazards. The cabinet should be plugged directly into a properly grounded three-prong receptacle. Failure to ground the equipment may cause personal injury or damage to the equipment

Where a two-prong wall receptacle is encountered, it must be replaced in accordance with the National Electronic Code and local codes and ordinances. A licensed electrician must do the work.

*WARNING: Do NOT under any circumstances cut or remove the round grounding prong from the cabinet plug.

*CAUTION: Incorrect voltage can result in severe damage to the equipment.

Consult a licensed electrician if you have ANY doubt about the grounding of your wall receptacle. Only a licensed electrician can determine the polarization of your wall receptacle.

6 USING YOUR LOW TEMPERATURE FREEZER

Any temperature below 0° Centigrade or 32° Fahrenheit provides a potential condition to cause freezing of water or material containing water. Material containing water solutions of sodium, (salt) or sugar will freeze at slightly lower temperature, depending on the content of the solution.

Because all warm-blooded creatures are composed of a great percent of water with salinity, they are subject to freezing whenever the body cells, parts or extremities reach temperatures below freezing. Therefore, it behooves the use of caution whenever you use a freezer or handle a frozen product that is at temperatures below 0° Centigrade or 32° Fahrenheit.

6.1 When Skin Freezes

When your skin is exposed to subfreezing temperatures for an extended amount of time, it can freeze. Your blood vessels constrict in response to dropping temperatures. This reduces the flow of blood and, therefore, the amount of oxygen to the tissues. When water in these tissues freezes and forms ice crystals, cell structure is destroyed.

Tissue damage from cell death interrupts circulation in the smallest blood vessels. Blood clots form and blood flow is further diverted away from the frozen tissue. At this point, your skin temperature drops and the injured area grow even colder.

The first sign of frostbite may be a slightly painful tingling sensation, which often is followed by numbness. Your skin may look pale, and feel hard, cold and numb.

In the event of frostbite, re-warming is vital. Re-warm carefully but gradually frostbitten areas. Place your hands directly on the skin of warmer areas of your body. If possible, immerse your hands in water that is slightly above normal body temperature (about 100°F or 37.8°C), or which feels warm to someone else, until your normal color returns. Do not use direct heat. Seek medical attention as quickly as you can.

6.2 After Thawing

Frostbitten areas will turn red and throb, or burn with pain, as they thaw. Even with mild frostbite, normal sensation may not return immediately. When frostbite is severe, the area will probably remain numb until it heals completely.

Severe frostbite damages nerves and can permanently change your sense of touch in the affected area.

*CAUTION: Wear protective clothing while either handling or coming in contact with inside of freezer. Hands should be dry and protected by using gloves. Insulated gloves are best for extended use when handling frozen product. Sleeves or arm-length insulated gloves should protect arms. Coats, insulated aprons, etc should protect other parts of the body that may be exposed to the cold.

Frozen packages are hard and often slippery, therefore foot protection should be considered such as hard-toed shoes or foot guards in the event that a package would be dropped.

7 ABOUT YOUR FREEZER

7.1 Refrigeration System

The refrigeration system on your freezer is hermetically sealed. It requires no maintenance. However, in areas where excessive dust and dirt collects, the black wire condenser (located on the back) must be kept clean. To clean the condenser and refrigeration compartment, remove power to freezer. Use forced air and a vacuum to clean dirt and debris from the condenser and refrigeration compartment periodically.

7.2 Fan

The fan motor has lifetime lubrication. It requires no maintenance.

7.3 Defrosting removal

- 1. While the freezer is running the frost may be removed with a plastic or wooden scraper or spatula, do not use metal or sharp objects such as an ice pick. This will prevent serious damage to the finish of the inner-liner of the freezer. The frost and ice may be collected in a pan, towel or any device to prevent it from falling to the bottom of the freezer or onto the material stored in the freezer. Most of the frost and ice collects near the top edge and is easily removed.
- 2. In the case where the freezer is not loaded, frost and ice may be removed by disconnecting the power until the frost and ice thaw. Allow to defrost for at least 24 hours. After you dry the interior compartment, plug the unit back in for operation.

It is recommended to keep the freezer operating at a temperature below freezing rather than turning the freezer off and on.

8 REMOVING & INSTALLING CABINET LID

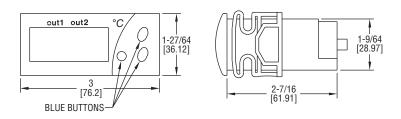
*CAUTION: HINGES ARE SPRING LOADED

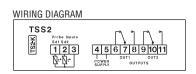
- 1. Remove the two top and one bottom screws holding the lower portion of the hinge to the cabinet.
- 2. While applying pressure to hold the hinge to the cabinet, remove the remaining bottom screw. Carefully let the spring tension lift the hinge from the cabinet.
- Remove the lid from the cabinet and remove the four screws holding the upper portion of the hinge to the lid
- 4. To reinstall the lid, reverse the above procedure.
- Check the lid for alignment and the gasket for a proper seal. Use the slotted hinge holes to make any required adjustments.



Specifications - Installation and Operating Instructions

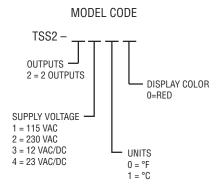






The TSS2 is an electronic temperature controller designed for ON/OFF control or Neutral Area Control. They can be provided with 1 or 2 probes (both PTC range -58 to 302°F) according to parameter P5 and it provides with two output relays plus an alarm buzzer. The unit controls cooling, heating or both, since its relays can be setup for direct or reverse operation. The user is able to program 34 different parameters including set points, hysteresis, configuration of alarms and probe adjustment using the silicone front keypad. The unit features error warning and password protection.

Each suffix can take the following values:



NOTE: Unit must be mounted away from vibration, impacts, water and corrosive gases.

- Cut hole in panel 71 x 29 mm (2.80 x 1.14 inches).
- Apply silicone (or rubber gasket) around the perimeter of the hole to prevent leakage.
- Insert unit into hole of panel.
- Slide removable fitting clips onto unit from the back until secure to panel.
- Wiring diagram is displayed on the top of the unit.
- Note: DO NOT INSTALL PROBE CABLE NEAR POWER CABLES.

SPECIFICATIONS

Probe Range: -58 to 302°F (-50 to 150°C). **Input:** PTC thermistor (1000 Ω @ 25°C).

Outputs: One 16A SPST relay @ 250 VAC, resistive; One 8A

SPST relay @ 250 VAC resistive. Horsepower Rating (HP): 1/3 HP.

Power Requirements: 12 VAC/DC, 24 VAC/DC, 115 VAC, 230

VAC depending on model. **Accuracy:** 1% of full scale. **Display:** 3-digit and sign, red LED. **Resolution:** 0.1° (<100°); 1° (≥100°).

Memory Backup: Nonvolatile memory. Ambient Operating Temperature: 32 to 158°F (0 to 70°C).

Storage Temperature: -4 to 176°F (-20 to 80°C).

Dimensions: 3 x 1-27/64 x 2-7/16 in.

Front Panel Rating: IP64. Weight: 2.3 oz (65 g).

Agency Approvals: CE, UR.

Maintenance, cleaning and repair

After final installation of the unit, no routine maintenance is required. Clean the surface of the display controller with a soft and damp cloth. Never use abrasive detergents, petrol, alcohol or solvents. All repairs must be made by authorized personnel.

Phone: 219/879-8000 www.love-controls.com Fax: 219/872-9057 e-mail:love@love-controls.com

List of parameters

LIST (oi parameters		
	Description	Units	Range
SP1	Set Point 1	Degrees	r4 to r6
SP2	Set Point 2	Degrees	r5 to r7
r0	Dependency SP1-SP2	Range	ind/dep
r1	Differential for SP1	Degrees	0.1 to 20.0
r2	Differential for SP2	Degrees	0.1 to 20.0
r3	Band differential	Degrees	0.1 to 20.0
r4	Lowest value for SP1	Degrees	-99.9 to r6
r5	Lowest value for SP2	Degrees	-99.9 to r7
r6	Highest value for SP1	Degrees	r4 to 302
r7	Highest value for SP2	Degrees	r5 to 302
r8	Regulation or operating mode	Range	On1/On2/nEU
A0	Alarm differential	Degrees	0.1 to 20.0
A1	Maximum alarm probe 1 (1)	Degrees	0.1 to 99.9
A2	Maximum alarm probe 2 (2)	Degrees	0.1 to 99.9
А3	Minimum alarm probe 1 (1)	Degrees	0.1 to 99.9
A4	Minimum alarm probe 2 (2)	Degrees	0.1 to 99.9
A5	Alarm verification time	h-m (*)	0.0 to 18.0
A6	Alarm probe 1 selection	Range	AHL/Ano/AH/AL
A7	Alarm probe 2 selection	Range	AHL/Ano/AH/AL
c0	Minimum relay stop time	Minutes	0 to 240
c1	Operation relay 1	Range	dir/inv
c2	Operation relay 2	Range	dir/inv
c3	Default operation relay 1	Range	Opn/Clo
c4	Default operation relay 2	Range	Opn/Clo
P0	Temperature scale selection	Range	°C/°F
P1	Calibration of probe 1	Degrees	-20.0 to 20.0
P2	Calibration of probe 2	Degrees	-20.0 to 20.0
P3	Decimal point	Range	no/yes
P4	Probe to be displayed	Range	sd1/sd2
P5	Number of probes	Range	1/2
H0	Reprogramming	Range	0
H1	Keyboard protection	Range	no/yes
H2	Operation LED OUT1	Range	dir/inv
Н3	Operation LED OUT2	Range	dir/inv
H4	Address for serial communication	Numeric	0 to 999
H5	Access code to parameters	Numeric	0 to 999

(*)h-m are data in format XX.Y where XX are hours and Y tens of minutes. (1)referred to set 1.

(2)referred to set 2.

Parameter descriptions

SP1 = Operation order of relay 1. Specifies the ON/OFF point of

relay 1. Variable between r4 and r6.

SP2 = Operation order of relay 2. Specifies the ON/OFF point of

relay 2. Variable between r5 and r7.

r0 = Dependency between SP1 and SP2. Only for mode ONOFF1

ind = order for relay 2, SP2.

dep = order for relay 2, SP1+SP2.

r1 = Differential or hysteresis for relay 1. Temperature differential between ON/OFF of relay 1 in ON/OFF control.

r2 = Differential or hysteresis for relay 2. Temperature differential between ON/OFF of relay 2 in ON/OFF control.

r3 = Band differential. Temperature differential between ON/OFF of relays 1 and 2 in neutral area control. For relay 1 it is added to SP1 and for relay 2 it is subtracted from SP1.

r4 = Lowest value for SP1.

r5 = Lowest value for SP2.

r6 = Highest value for SP1.

r7 = Highest value for SP2.

r8 = Regulation or operating mode. Selection of the operating mode.

A0= Alarm differential. It is the temperature differential between the alarm On and Off cycle.

A1= Maximum alarm probe1.

A2 = Maximum alarm probe2.

Maximum alarm ON when probe 2 higher than SP2+A2 Maximum alarm OFF when probe 2 lower than SP2+A2-A0.

A3 = Minimum alarm probe1.

Minimum alarm ON when probe 1 lower than SP1-A3 Minimum alarm OFF when probe 1 higher than SP1-A3+A0.

A4 = Minimum alarm probe2.

Minimum alarm ON when probe 2 lower than SP2-A4 Minimum alarm OFF when probe 2 higher than SP2-A4+A0. **A5** = Alarm verification time. Time from the alarm event until it trips.

A6 = Alarm probe 1 selection.

AHL=Maximum and minimum alarm probe 1 enabled.

Ano=No alarms probe 1.

AH=Maximum alarm probe 1 enabled.

AL=Minimum alarm probe 1 enabled.

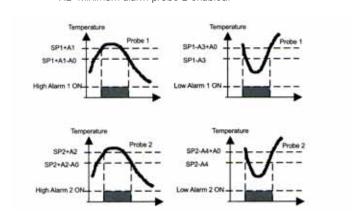
A7 = Alarm probe 2 selection.

AHL=Maximum and minimum alarm probe 2 enabled.

Ano=No alarms probe 2.

AH=Maximum alarm probe 2 enabled.

AL=Minimum alarm probe 2 enabled.



c0 = Minimum relay stop time. Minimum time from the disconnection of a relay until it can be switched on again.

c1 = Operation relay 1. Selection between direct or reverse operation for relay 1.

c2 = Operation relay 2. Selection between direct or reverse operation for relay 2.

c3 = Default operation relay 1. In case of failure of probe 1:

oPn= relay 1 will remain open. Clo= relay 1 will remain closed.

c4 = Default operation relay 2. In case of failure of probe 1 (for all modes excepting ON OFF2) or in case of failure of probe 2 (for mode ON OFF2):

oPn= relay 2 will remain open.

Clo= relay 2 will remain closed.

P0 = Temperature scale selection.

P1 = Calibration of probe 1. Offset degrees to be added to probe 1.

P2 = Calibration of probe 2. Offset degrees to be added to probe 2.

P3 = Decimal point. If the displayed value of the probes is desired with decimals or not.

P4 = Probe to be displayed. Probe always on the display. The other probe can be seen pressing the keys SET+UP.

sd1= probe 1.

sd2= probe 2.

P5 = Number of probes. If P5=1, there is not ON OFF2 mode. If selected, it will operate as ONOFF1.

H0 = Reprogramming. Parameter to reprogram the thermostat.

H1 = Keyboard protection.

To change the sets, enter into parameter and exit again. The protection setting is momentarily released. It switches on again 1 minute after the last time a key was pressed.

Yes= Keyboard Protected.

No=Keyboard non protected.

H2 = Operation of LED OUT1.

dir= On when relay 1 is ON.

inv= On when relay 1 is OFF

H3 = Operation of LED OUT2.

dir= On when relay 2 is ON.

inv= On when relay 2 is OFF.

H4 = Serial communication address. Address for computer

H5 = Parameter entry code. Factory set as 0.

Message display

Under normal operation, the temperature of the probe selected by P4 will be displayed, the following messages may also appear:

- •Err Memory reading error.
- •ErP Error of the probe not shown on the display.
- •AH1 Maximum temperature alarm, probe 1.
- •AL1 Minimum temperature alarm, probe 1.
- •AH2 Maximum temperature alarm, probe 2.
- •AL2 Minimum temperature alarm, probe 2.
- •ooo Open probe.
- --- Shorted probe.

Pressing SET with UP it displays the probe not selected by P4. When the probe not selected by P4 is displayed, it alternates its value with message Sd1 or Sd2 depending if it is probe 1 or probe 2. The display blinks when waiting for a value confirmation.

LED indications

Out1: Indicates relay 1 On or Off as per parameter H2. If H2=dir, with relay 1 On, LED lit, if H2=inv, with relay 1 On, LED off. It blinks when SP1 is displayed.

Out2: Indicates relay 2 On or Off as per parameter H3. If H3=dir, with relay 2 On, LED lit, if H3=inv, with relay 2 On, LED off. It blinks when SP2 is displayed.

Setting SP1 and SP2

- Press and release SET. The current value of order 1 is displayed.
 SP1 and led OUT1 blink.
- · Press UP or DOWN to increase or decrease the value.
- Press SET to confirm the new value. The actual value of order 2 will be displayed, SP2 and LED OUT2 blink.
- Press UP or DOWN to increase or decrease the value.
- · Press SET to confirm the new value and exit.

Parameter setup

- Press SET for 8 seconds. Value 0 will blink.
- •With UP and DOWN input the code (factory set as 0).
- Press SET to confirm the code. If correct, the label of the first parameter will be displayed.
- •With UP or DOWN go to the desired parameter in the parameter
- · Press SET to see the value.
- •With UP or DOWN change the value to the new value as desired.
- Press SET to confirm and exit again to the parameter list. (Also to exit to the list without parameter modification.)
- Press SET + DOWN to exit setup or wait for 1 minute.

Resetting the keyboard code

You can setup to 0 the keyboard code switching the unit off and on while pressing the SET key.

Buzzer disconnection

Pressing SET with DOWN turns off the buzzer alarm. The message of alarm continue appearing in the display.

Reprogramming factory values (H0)

- •Access to parameter H0 as explained in parameter setup.
- •Value 0 will be displayed.
- Press SET for 8 seconds. Pro will be displayed if they have been setup correctly.
- Press SET + DOWN to exit setup or wait for 1 minute.

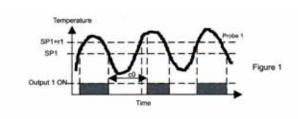
Description	Factory value
SP1 Set Point 1	10.0
SP2 Set Point 2	10.0
r0 Dependency SP1 - SP2	ind
r1 Differential for SP1	1.0
r2 Differential for SP2	1.0
r3 Band differential 1.0	1.0
r4 Lower value for SP1	-99.9
r5 Lower value for SP2	-99.9
r6 Higher value for SP1	99.9
r7 Higher value for SP2	99.9
r8 Regulation or operating mode	On1
A0 Alarm differential	0.1
A1 Maximum alarm probe 1	99.9
A2 Maximum alarm probe 2	99.9
A3 Minimum alarm probe 1	99.9
A4 Minimum alarm probe 2	99.9
A5 Alarm verification time	18.0
A6 Alarm probe 1 selection	AHL
A7 Alarm probe 2 selection	AHL
c0 Minimum relay stop time	0
c1 Operation relay 1	dir
c2 Operation relay 2	dir
c3 Default operation relay 1	Opn
c4 Default operation relay 2	Opn
P0 Temperature scale selection	°C
P1 Calibration of probe 1	0.0
P2 Calibration of probe 2	0.0
P3 Decimal point	yes
P4 Probe to be displayed	sd1
P5 Number of probes	2
H0 Reprogramming	0
H1 Keyboard protection	no
H2 Operation LED OUT1	dir
H3 Operation LED OUT2	dir
H4 Address for serial communication	0
H5 Access code to parameters	0
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Operating modes

Mode ON OFF1 (On1) with r0=ind.

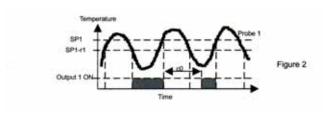
Relay 1 with c1=dir.

Temperature of probe 1 >= SP1+r1 -->relay 1 ON Temperature of probe 1 <= SP1 -->relay 1 OFF



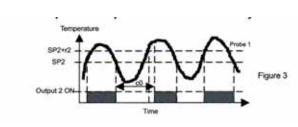
Relay 1 with c1=inv.

Temperature of probe 1 <= SP1-r1 -->relay 1 ON Temperature of probe 1 >= SP1 -->relay 1 OFF



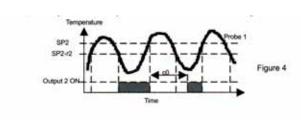
Relay 2 with c2=dir.

Temperature of probe 1 >= SP2+r2 -->relay 2 ON Temperature of probe 1 <= SP2 -->relay 2 OFF



Relay 2 with c2=inv.

Temperature of probe 1 <= SP2-r2 -->relay 2 ON Temperature of probe 1 >= SP2 -->relay 2 OFF



Mode ON OFF1 (On1) with r0=dep.

Output 1 works as in independent ON/OFF control (Figure 1 and 2), but output 2 works as follows:

Relay 2 with c2=dir.

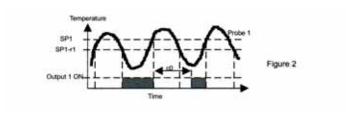
Temperature of probe 1 >= SP1+SP2+r2 -->relay 2 ON

Temperature of probe 1 <= SP1+SP2 -->relay 2 OFF

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Relay 2 with c2=inv.

Temperature of probe 1 <= SP1+SP2-r2 -->relay 2 ON Temperature of probe 1 >= SP1+SP2 -->relay 2 OFF



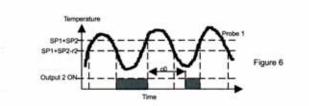
Mode ON OFF2 (On2)

Output 1 works as in independent ON/OFF control (Figure 1 and 2), but output 2 works as follows:

Relay 2 with c2=dir.

Temperature of probe 2 >= SP2+r2 -->relay 2 ON

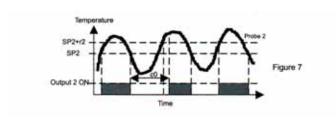
Temperature of probe 2 <= SP2 -->relay 2 OFF



Relay 2 with c2=inv.

Temperature of probe 2 <= SP2-r2 -->relay 2 ON

Temperature of probe 2 >= SP2 -->relay 2 OFF



Neutral Area Mode (nEU)

Relay 1

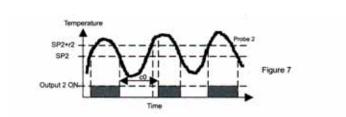
Temperature of probe 1 >= SP1+r3 -->relay 2 ON

Temperature of probe 1 <= SP1 -->relay 2 OFF

Relay 2

Temperature of probe 1 <= SP1-r3 -->relay 2 ON

Temperature of probe 1 >= SP1 -->relay 2 OFF



Operation in case of error.

If probe 1 fails, the operation is through c3. (See Parameter description.)

If probe 2 fails, the operation is through c4. (See Parameter description.)

In case of memory failure, both relays will remain open.

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ScienTemp

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Standard Warranty

Applies Only Within the Continental United States and Canada

SCIENTEMP WARRANTS TO THE ORIGINAL PURCHASER

FIRST 6 MONTHS – The cabinet and all of its parts shall be free of defects in material and workmanship under normal use and service for a period of 6 months from the date the unit has been shipped from our facility. Scientemp's sole obligation under this warranty shall be limited, at its option, to either repairing or replacing any part of the cabinet determined by an authorized service agent to be defective. Scientemp reserves the right to repair the freezer at our facilities.

THE SCIENTEMP STANDARD WARRANTY DOES NOT COVER

TRANSPORTATION COSTS – Scientemp shall not be responsible for transportation or incidental costs incurred in connection with the repair or replacement of a cabinet or any of its parts.

ABUSE, MISUSE, ACCIDENTS – Scientemp shall not be responsible for parts or assemblies which upon inspection are determined by an authorized Scientemp Service Agent to have been subjected to misuse, neglect, alteration, accident, abuse, damage during transit or delivery, or by fire or flood.

CONSEQUENTIAL DAMAGES – IN NO EVENT SHALL SCIENTEMP CORP BE LIABLE FOR SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES, INCLUDING WITHOUT LIMITATION, PRODUCT LOSS OR PRODUCT SPOILAGE CLAIMS, NOR FOR ANY DELAY IN THE PERFORMANCE OF THIS WARRANTY DUE TO CAUSES BEYOND ITS CONTROL.

GENERAL

The standard warranty and any service contract related to the STANDARD WARRANTY shall apply only to the products sold and used within the boundaries of the Continental United States and Canada.

Users may file warranty claims either directly with Scientemp Corp, 3565 S. Adrian Hwy, Adrian, MI 49221, or with the seller from whom the cabinet was purchased. All claims must be supported by information concerning the alleged defect and specifically identified by the Serial Number of the cabinet.

THERE ARE NO OTHER WARRANTIES EXPRESS, IMPLIED, OR STATUTORY, EXCEPT THIS WARRANTY, WHICH IS IN LIEU OF ALL OTHER WARRANTIES INCLUDING TO THE EXTENT PERMITTED BY LAW, ANY IMPLIED WARRANTY OR MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

DO NOT DRILL HOLES IN CABINET

Refrigeration tubing and wiring is routed through the cabinet walls. Leaks, wet insulation or electrical problems caused by drilling holes are not covered by warranty.

