HUSSMANN®

Low Temperature
Frozen Food and Ice Cream

Field Installed Dual Temp Operation E P R Controlled (Evaporator Pressure Regulator)

GENERAL

A dual temperature kit allows one display case to change from low temperature operation to medium temperature operation and back by setting a switch. The switch controls components that make up the kit. The kit may be installed at the factory or in the field, and may be applied with electric or gas defrost.

Each compartment of an FW(G) wide island case can be controlled separately if the compartments are piped separately.

NOTE: A sticker is applied near each switch to indicate which compartment the switch controls.

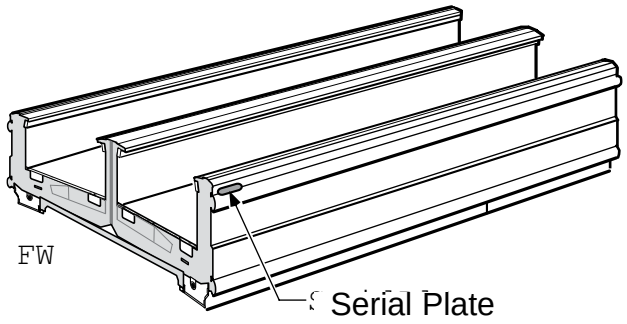
MODEL	DUAL TEMPERATURE KIT APPLICATION	
F(G),FN(G)	BW82	1 Compartment
FW(G)	BW83	2 Compartments
FWE(G) - END	IH32	1 Compartment
FI(G)	CU38	1 Compartment
FN(G)	ID79	1 Compartment
FW	ID80	2 Compartments

Dual temperature operation is accomplished by controlling coil suction pressure with an evaporator pressure regulator valve (EPR) and a suction solenoid valve piped in parallel at the outlet of the heat exchanger. When set for low temperature operation, the solenoid valve is open and the evaporator runs at rack suction pressure. When set for medium temperature operation, the solenoid valve is closed, diverting suction gas flow through the EPR. The EPR controls evaporator pressure to produce the proper discharge air temperature for medium temp operation.

All cases piped together in a lineup must be equipped with the same controls.

The lineup must be set and leveled as described in the installation and operation manual that ships with the case.

Carefully unpack and inspect the components to ensure there are no missing or damaged parts.



Dual Temp Kit CANNOT BE USED with any Interconnect Piping Kit.

P/N 0505884_B

September 2014

Spanish 0533146
French 0533147

ELECTRICAL

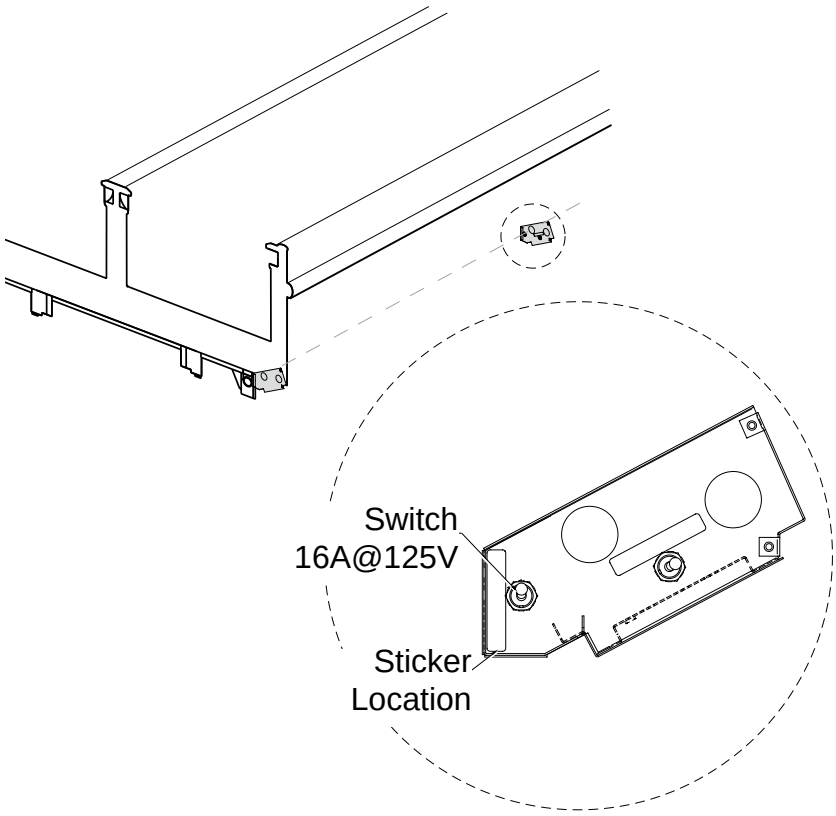
All wiring must follow NEC guidelines and local codes. All electrical connections are made in the electrical wireway.

Identification of Wiring

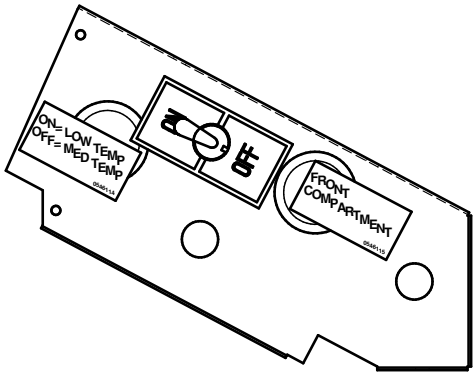
Electrical circuit leads are identified by colored plastic bands or insulation corresponding to the color code sticker (shown at right) located inside the wireway.

Field Wiring

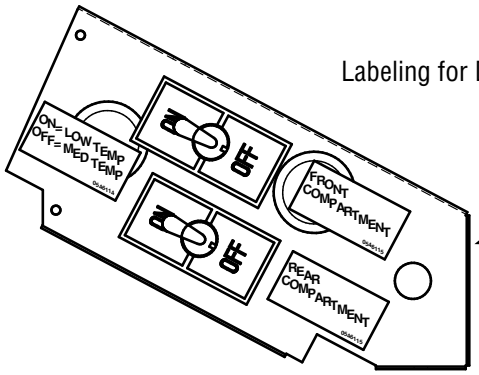
Field wiring must be sized for component amperage stamped on the serial plate. Actual amp draw may be less than specified. Field wiring from the refrigeration control panel to the merchandiser is required for defrost termination thermostats and for optional refrigeration thermostats. Multiple merchandisers on the same defrost circuit mush have the defrost termination thermostats wired in series.



Switch Location



Labeling for Dual Temp One or Front Compartment



Stickers

Labeling for Dual Temp FW/G or both Compartments

⚠ WARNING

Refrigerant vapor is hazardous to your health and can cause death.

Avoid breathing refrigerant and lubrication vapor or mist. Exposure may irritate eyes, nose and throat. If accidental system discharge occurs,ventilate work area before resuming service.

Always wear safety goggles and protective gloves when working with refrigerants. Contact with refrigerant may cause injury. Disconnect hoses with extreme caution! All hoses may contain liquid refrigerant under pressure.

Be sure that any room where you are working is thoroughly ventilated, especially if a leak is suspected.

Read all safety information regarding the safe handling of refrigerant and refrigerant oil, including the Material Safety Data Sheet. MSDS sheets can be obtained from your refrigerant supplier.

Refrigeration lines are under pressure and should be depressurized before attempting to make any connections.

When brazing pipes, be sure to use the insulation blanket shipped with the merchandiser to prevent fire or damage to the plastic case bottom.

WIRING COLOR CODE

Leads for all electrical circuits are identified by a colored plastic band: neutral wire for each circuit has either White insulation or a White plastic sleeve in addition to the color band.

Pink	Refrigeration Thermostat — Low Temperature
Light Blue	Refrigeration Thermostat — Normal Temperature
Dark Blue	Defrost Termination Thermostat
Orange or Tan	Lights
Maroon	Receptacles
Purple	Anti-Sweat Heaters
Yellow	Defrost Heaters, 120V
Red*	Defrost Heaters, 208V
Brown	Fan Motors
Green*	Ground

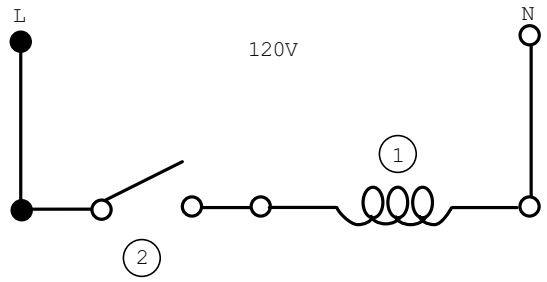
*Either colored Sleeve Or Colored Insulation

ELECTRICIAN NOTE: CASE MUST BE GROUNDED

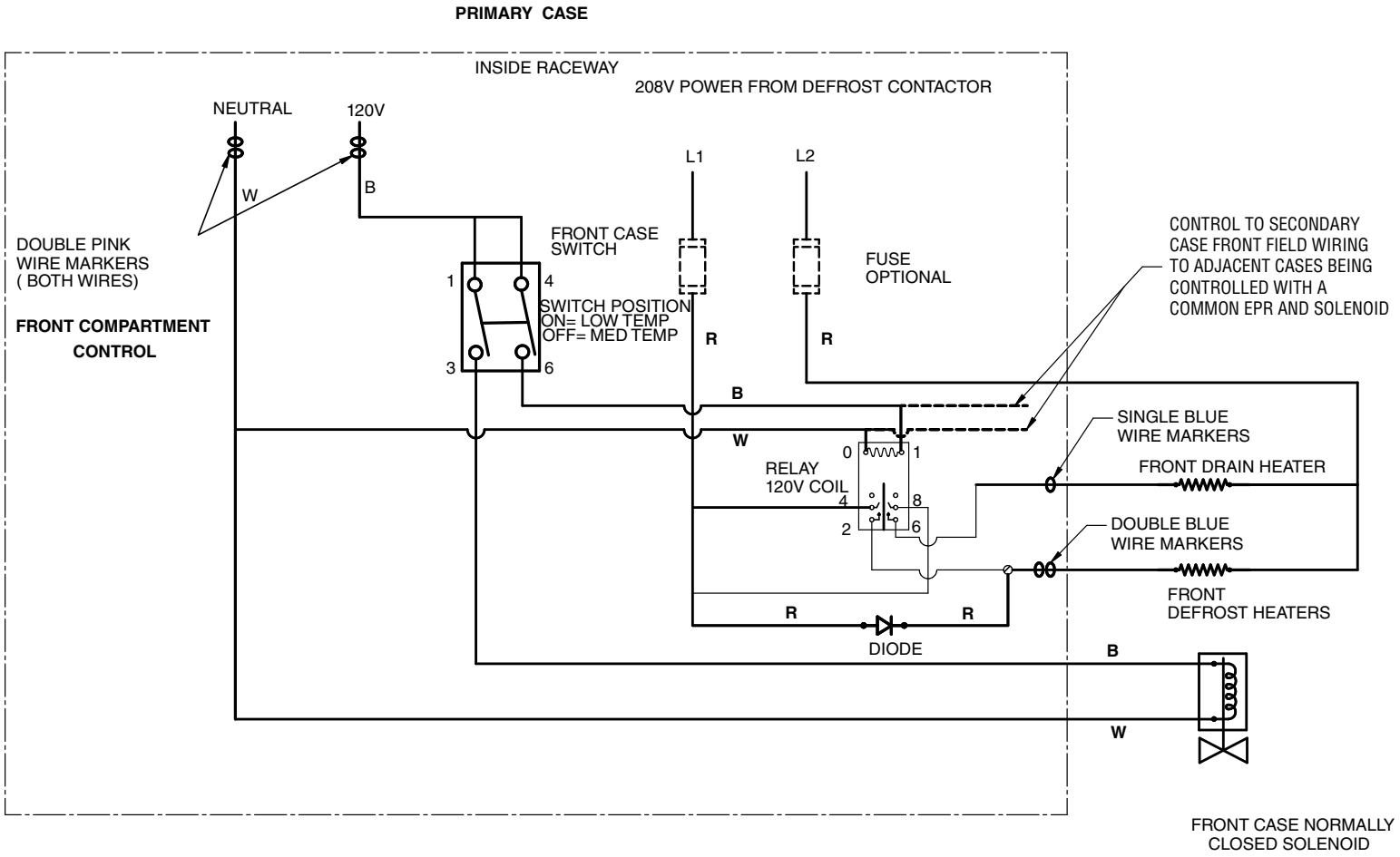
Electrical Replacement Parts

The item numbers listed in the parts table below refer to the wiring diagram.

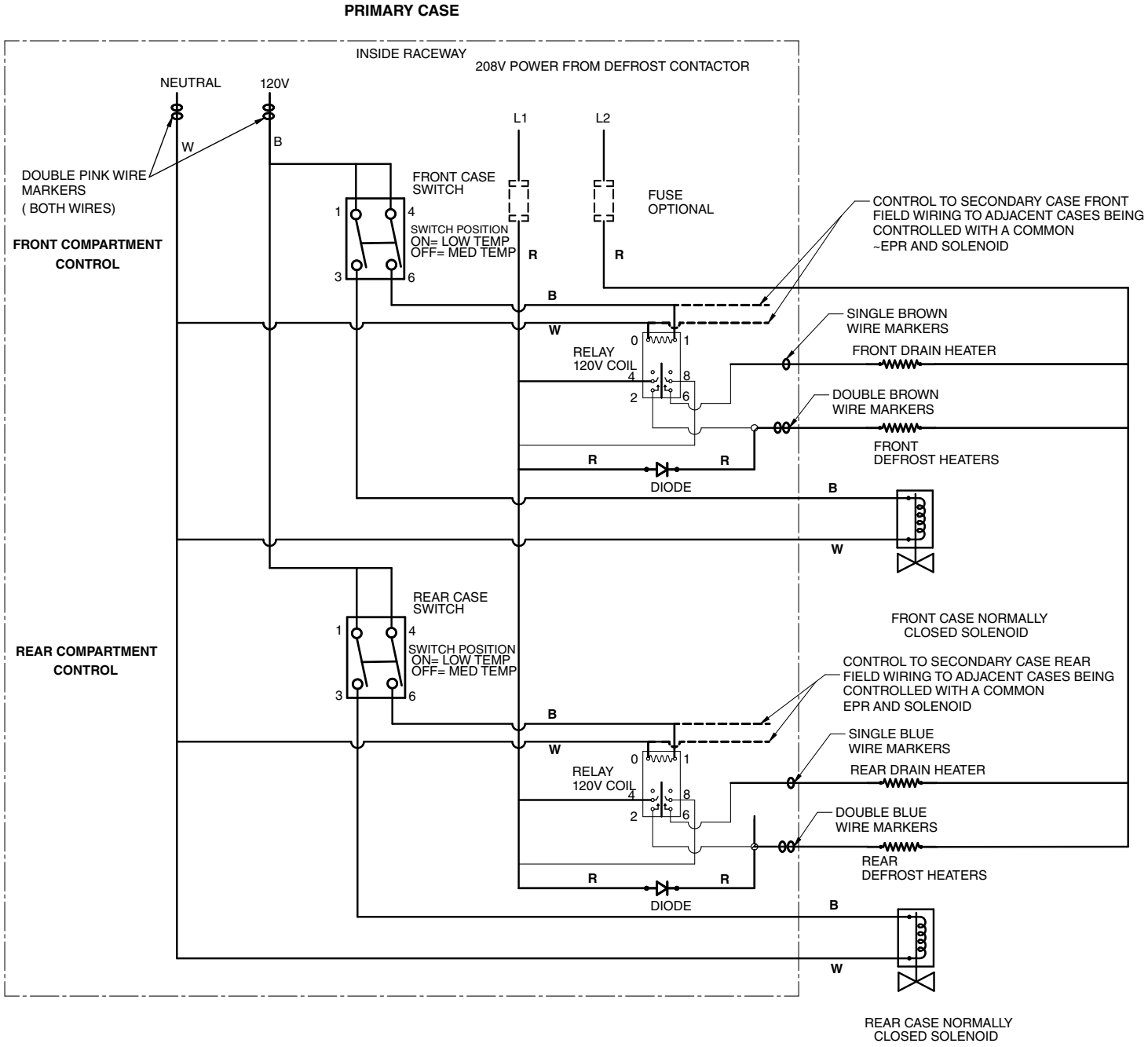
Item	Part No.	Description	Used On
1	0251532 VR.4611416 4611416	Solenoid	All
2	0111816 SW.0111816 4480433	Switch – DPST (disc type) 16A @ 125V	All



Wiring Diagram — Dual Temperature



Wiring Diagram — WRG Dual Temperature with Diode



Wiring Diagram — FW Dual Temperature with Diode

INSTALLATION

If the kit has been ***factory installed***, the following steps have been done — go to **Refrigeration.**

Follow the instruction below if the kit is to be *field installed*.

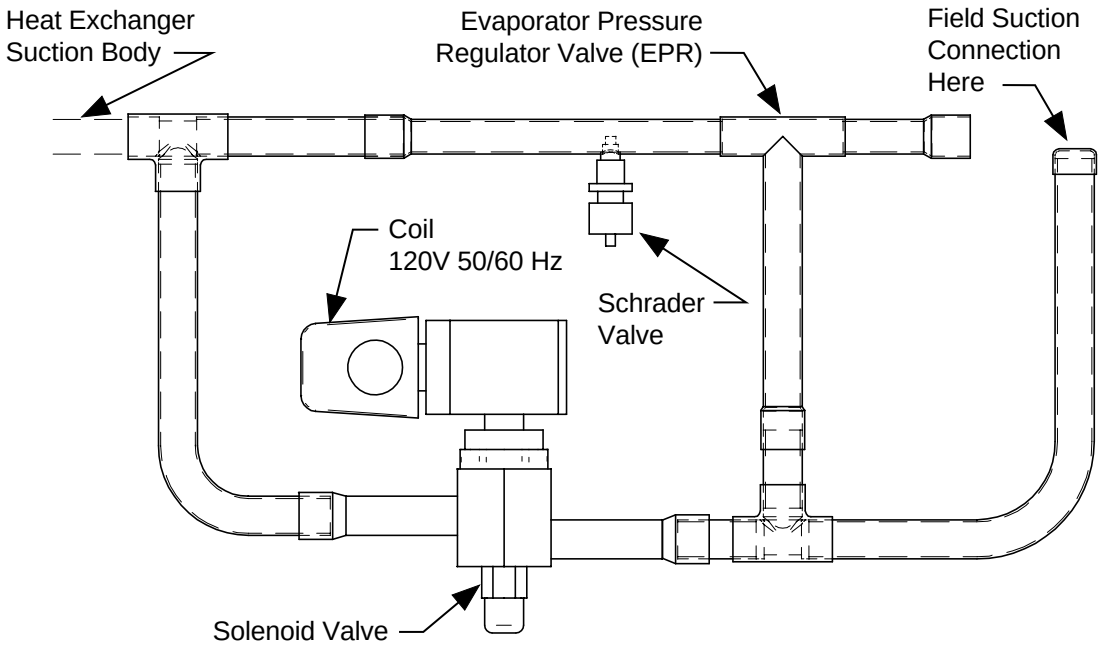
Note: Dual Temperature EPR kits ***cannot*** be applied with factory interconnect piping kits. If EPR kits are to be field installed on a FW(G) case with factory installed piping interconnect kits, the interconnect piping must first be removed.

1 Turn Power OFF.

2 Braze the ***Dual Temperature EPR Kit Piping Assembly*** to the outlet of the suction body of the heat exchanger in each compartment of the case (as shown below). It may be necessary to shorten the suction body of the heat exchanger a few inches to make the kit fit properly.

3 Locate and install the switches as shown on Page 2.

4 Wire the switches to the solenoid coils using the wire supplied. Refer to the wiring diagram on Page 3.



Dual Temperature Piping Assembly Diagram

REFRIGERATION

Refrigerant
The refrigerant type will be stamped on the serial plate of each merchandiser. Serial plates are located on the left-hand end of the interior front liner.

Control Settings and Adjustments

After all installation work has been completed and as soon as refrigeration has started, adjust the controls in the following sequence:

1. Remove the trip pins from the defrost timer dial and set the fail-safe to one hour.

2. Set the suction pressure at the case close to the value recommended for the application by the Technical Data Sheet (TDS).

3. Set the temperature select switch for medium temperature operation. Remove the adjustment screw cover cap from the dual temperature EPR.

4. Measure the discharge air temperature. Adjust the EPR to produce the discharge air temp shown in the table for medium temperature operation.

5. Change the temperature select switch to low temperature operation. Verity the discharge air temperature with the table below.

NOTE:
REFER TO TDS FOR DEFROST TIMES AND SETTINGS FOR ELECTRIC AND GAS DEFROST.

Refrigeration Control Settings

Operating Mode	Discharge Air Temperature **(1)**
Medium Temperature	+25°F
Low Temperature	–12ºF

(1) Measure discharge air temperature at the center of the discharge honeycomb in the center of the merchandiser.