



REFRIGERATION

PARAGON®



8045-00



8245-20

DEFROST TIMERS - ELECTROMECHANICAL

8000 Series

The Paragon® 8000 Series Commercial Defrost Controls are designed for commercial freezers and refrigerators to provide automatic defrost capability. They accommodate various types of defrost systems including electric defrost heaters, hot gas, and compressor off cycle.

Features and Benefits

- Time initiated; temperature, pressure or time terminated models available
- High-amp switch contacts: 40 amps, 2 HP
- Positive slider bar switch design assures positive electrical contact and wipes the contact surface of contaminants
- Temperature or pressure terminated models are designed for defrost termination using an external temperature or pressure device
- Safety back-up – mechanical time-driven defrost termination
- Heavy-duty synchronous design drive motor
- Choice of three contact arrangements
- Adjustable frequency of defrost initiation from 1 to 6 cycles per day with a minimum of 4 hours between successive operations
- Adjustable back-up defrost termination from 4 to 110 minutes in 2 minute increments
- Heavy-duty steel enclosure with knockouts (on the bottom, back and sides) and hasp and staple padlock
- All 8240 models have an adjustable cut-in pressure dial calibrated from 36-110 pounds for R12, R22, R502





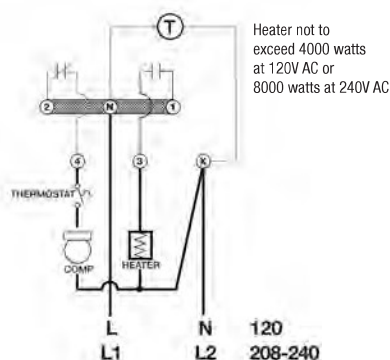
Specifications

Part Numbers	Description	Switch Arrangement Contacts 2-4	Switch Arrangement Contacts 1-3	Switch Arrangement Contacts 3-N	Termination Type	Electrical Rating
8041-00	Electric Heat	Closed	Open	Closed	Time	120V AC 60 Hz
8045-00	Electric Heat, Hot Gas or Compressor Shutdown	Closed	Open	None	Time	120V AC 60 Hz
8045-20	Electric Heat, Hot Gas or Compressor Shutdown	Closed	Open	None	Time	208-240V AC 60 Hz
8045-21	Electric Heat, Hot Gas or Compressor Shutdown	Closed	Open	None	Time	208-240V AC 50 Hz
8141-00	Electric Heat, Hot Gas or Compressor Shutdown	Closed	Open	Closed	Temperature or Pressure	120V AC 60 Hz
8141-20	Electric Heat, Hot Gas or Compressor Shutdown	Closed	Open	Closed	Temperature or Pressure	208-240V AC 60 Hz
8145-00	Electric Heat, Hot Gas or Compressor Shutdown	Closed	Open	None	Temperature or Pressure	120V AC 60 Hz
8145-20	Electric Heat, Hot Gas or Compressor Shutdown	Closed	Open	None	Temperature or Pressure	208-240V AC 60 Hz
8145-20M	Electric Heat, Hot Gas or Compressor Shutdown	Closed	Open	None	Temperature or Pressure	208-240V AC 60 Hz
8145-20B	Electric Heat, Hot Gas or Compressor Shutdown	Closed	Open	None	Temperature or Pressure	208-240V AC 60 Hz
8245-21	Electric Heat, Hot Gas or Compressor Shutdown	Closed	Open	None	Pressure	208-240V AC 50 Hz
8245-20	Electric Heat, Hot Gas or Compressor Shutdown	Closed	Open	None	Pressure	208-240V AC 60 Hz
D81-8145-00EX (ANZ, EU, MEX, SA)	Electric Heat, Hot Gas or Compressor Shutdown	Closed	Open	None	Temperature or Pressure	120V AC 60 Hz
D81-8145-20EX (ANZ, EU, MEX, SA)	Electric Heat, Hot Gas or Compressor Shutdown	Closed	Open	None	Temperature or Pressure	208-240V AC 60 Hz
D81-8145-21EX (ANZ, EU, MEX, SA)	Electric Heat, Hot Gas or Compressor Shutdown	Closed	Open	None	Temperature or Pressure	208-240V AC 50 Hz

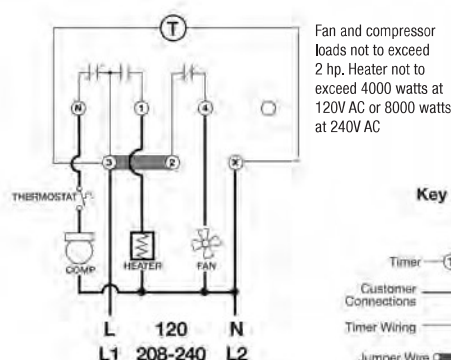
Product Drawings

Electric Heat Defrosting

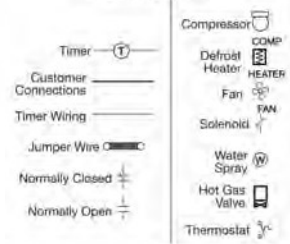
Models 8045-00 and 8045-20 -
Wiring Diagram



Models 8041-00 and 8041-20 -
Wiring Diagram



Key to Symbols



1 Year
Limited
Warranty



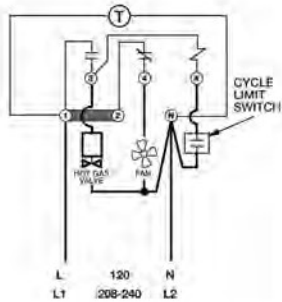
REFRIGERATION

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Product Drawings

Hot Gas Defrosting

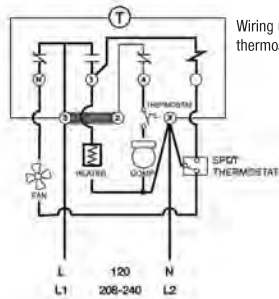
Models 8145-00, 8145-20, E357-00, D81-8145-ZIEX Wiring Diagram



Wiring using 120V or 240V single phase line with compressor thermostat closed during defrost.

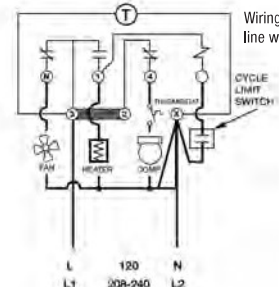
Electric Heat Defrosting

Models 8141-00 and 8141-20 - Wiring Diagram



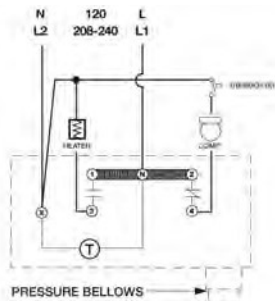
Wiring using differential of SPDT thermostat to delay fan after defrosting

Models 8141-00, 8141-20 - Wiring Diagram

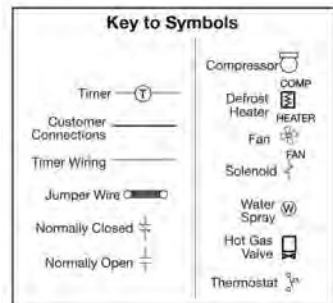


Wiring using 120V or 240V single phase line with auxiliary fan circuit

Models 8245-00 and 8245-20 - Wiring Diagram



Wiring for electric heat system without magnetic starter





DEFROST TIMERS - ELECTROMECHANICAL

632 Series

The Paragon® 632 Series Defrost Timers provide an adjustable cycle, time initiated, with one to 8 On/Off operations daily with a minimum of three hours between operations.

Features and Benefits

- Adjustable delay or pump down cycle
- Drain or fan delay cycle adjustable
- Defrost initiation and length adjustable



632-20

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Specifications

Part Numbers	Description	Switch Rating	Enclosure	Adjustable Defrost Initiation	Adjustable Delay or Pump Down Cycle	Adjustable Drain or Fan Delay Cycle	Adjustable Length of Defrost	Sequence Switching	High Pressure (Open High) Cut-Out	Electrical Rating
632-00	Defrost Timer	120-240V AC, 10 Amps, 245 VA Switches 2-4 and 3-4 carry 1/2 HP rating	Heavy-Duty Steel	1-8 cycles per day; minimum 3 hours between successive cycles	0-30 minutes; 3 minute graduation: for stopping fans, reducing refrigerant pressure, or hot gas pump down cycle	3-15 minutes; 3 minute graduation	3-45 minutes; 3 minute graduation	2 NO 2 NC	4.75 (2.2)	120V AC
632-20	Defrost Timer	120-240V AC, 10 Amps, 245 VA Switches 2-4 and 3-4 carry 1/2 HP rating	Heavy-Duty Steel	1-8 cycles per day; minimum 3 hours between successive cycles	0-30 minutes; 3 minute graduation: for stopping fans, reducing refrigerant pressure, or hot gas pump down cycle	3-15 minutes; 3 minute graduation	3-45 minutes; 3 minute graduation	2 NO 2 NC	4.75 (2.2)	240V AC



1 Year
Limited
Warranty



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DEFROST TIMERS - ELECTRONIC



9045-00



9045-00M

9000 Series

The Paragon® 9045-00 and 9145-00 Universal Defrost Timers (UDT) are the only multi-voltage defrost timers engineered to industry refrigeration standards.

Designed to withstand the most rigorous refrigeration applications, this control offers a real-time clock and 100 hours of power loss protection for both time and defrost schedules. Mechanism-only models also are available to fit in standard defrost timer enclosures.

Features and Benefits

- Certified to UL873 standard for temperature-indicating and regulating equipment
- Wires directly to 120V AC, 208V AC or 240V AC power sources without jumpers or switches
- Rated to 30,000 cycles for refrigeration controllers with switches
- Easy programming, easy set-up, set time, set defrost start and defrost end
- Initiate 15 minute manual defrost
- 100 hours of power loss protection for both time and defrost schedule
- Real-time clock
- Lighted display shows defrost start time and duration
- System status indicators





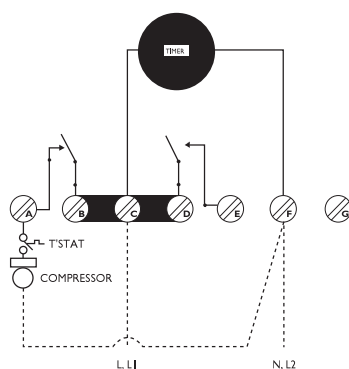
Specifications

Part Numbers	Description	Relay Switch	Initiation Type	Termination Type	Voltage
9045-00	Universal Defrost Timer	SPST	Time	Time	120-208-240V AC
9045-00M	Mechanism Only	SPST	Time	Time	120-208-240V AC
9145-00	Universal Defrost Timer	SPDT	Time	Time, Temp or Pressure	120-208-240V AC
9145-00M	Mechanism Only	SPDT	Time	Time, Temp or Pressure	120-208-240V AC

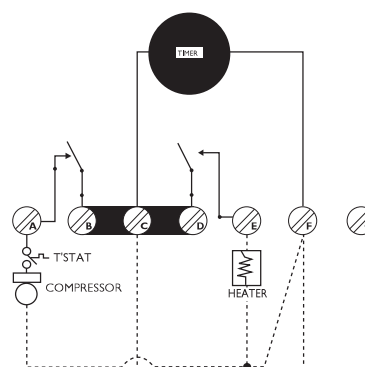
9045 Terminal Data	A	B	C	D	E	F	G
Relay Contact	SPST #1 NC Contact	SPST #1 Common Contact	L1 Power in to Timer	SPST #2 NO Contact	SPST #2 Common Contact	L2/N Power in to timer	No Connection
Relay Rating	30 A resistive @ 120 to 240V AC 1 HP @ 120V AC, 2 HP @ 208 to 240V AC			30 A resistive @ 120 to 240V AC 1 HP @ 120V AC, 2 HP @ 208 to 240V AC			
Device Connections	Compressor (Typical)			Defrost Device (Typical)			Defrost Termination Switch

9145 Terminal Data	A	B	C	D	E	F	G
Relay Contact	SPDT NC Contact	SPDT NO Contact	SPDT Common Contact	SPST NO Contact	SPST Common Contact	L2/N Power in to timer	Defrost Termination Device Input L2/N side
Relay Rating	15 A resistive @ 120 to 240V AC 1/4 HP @ 120V AC, 1/2 HP @ 208 to 240V AC	30 A resistive @ 120 to 240V AC 1 HP @ 120V AC 2 HP @ 208 to 240V AC			30 A resistive @ 120 to 240V AC 1 HP @ 120V AC, 2 HP @ 208 to 240V AC		
Device Connections	Fan (Typical) Compressor (Optional)	Defrost Device (Typical)	L1 Power to Timer and to Defrost Termination Device		Compressor (Typical) Fan (Optional)		Defrost Termination Switch

Product Drawings



9045 AIR DEFROST - Time Initiated
Time Terminated - Wiring Diagram



9045 ELECTRIC DEFROST - Time Initiated
Time Terminated - Wiring Diagram

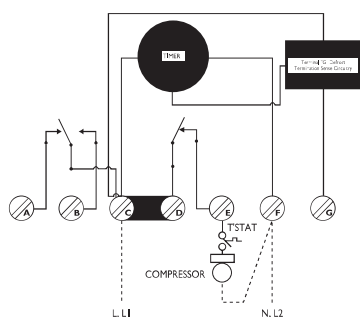
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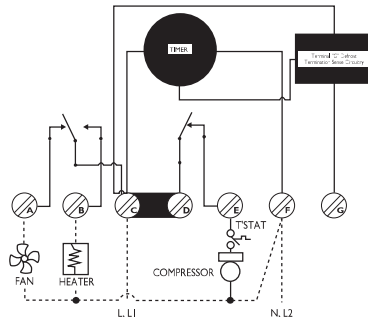
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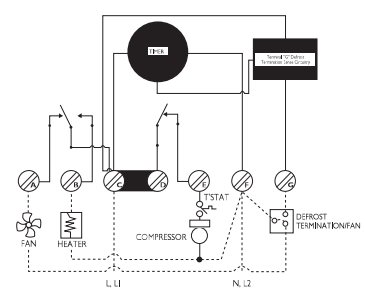
Product Drawings



9145 AIR DEFROST - Time Initiated
Time Terminated - Wiring Diagram



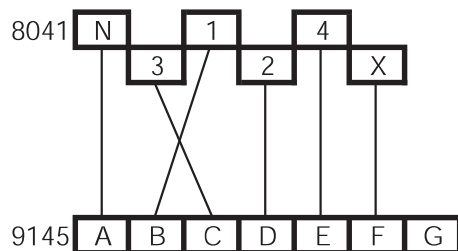
9145 ELECTRIC DEFROST - Time Initiated
Time Terminated - Wiring Diagram



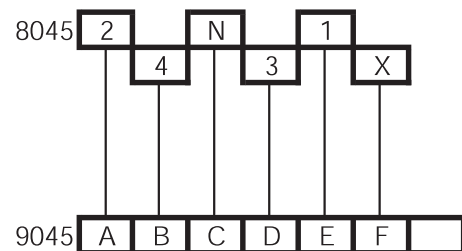
9145 ELECTRIC DEFROST - Time Initiated
Temperature Terminated - Wiring Diagram

Conversion Diagrams for Paragon Mechanical Controls

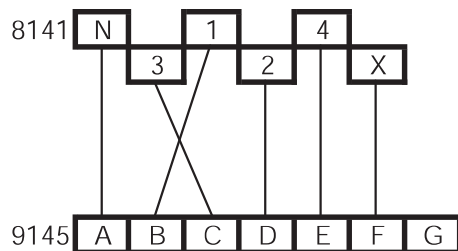
Convert 8041 to 9145



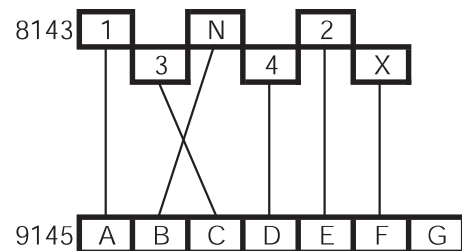
Convert 8045 to 9045



Convert 8141 to 9145



Convert 8143 to 9145



Convert 8145 to 9145

