



DEFROST TIMERS



Quality – Selection – Dependability

Installers prefer a vast selection of quality solutions for commercial refrigeration applications while requiring intuitive installation set-up and dependable performance. Paragon® is trusted in commercial refrigeration for ease-of-use, performance, reliability and innovation.

Paragon® Defrost Controls lead the pack as the preferred defrost control brand in the industry. Contractors trust:

The original 8000 Series Electromechanical Defrost Timers for dependable performance.

The 9000 Series Universal Defrost Timer for operating 16 years longer than competitive models and for delivering the only multi-voltage timer engineered to refrigeration standards.

The Paragon® All-in-One Auto Voltage Defrost Timer for replacing over 40 competitive voltage-specific mechanical defrost timers, eliminating the need for a separate short cycle timer and single-phase voltage monitor.

The Paragon® Residential and Light Commercial Defrost Timer Series for its compact size and durability.

For Quality, Selection, and Dependability - *Choose Paragon.*

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8000 Series - Auto Voltage

The Paragon® 8000 Series Auto Voltage Defrost Timer is designed for commercial freezers and refrigerators. Paragon Defrost Controls have provided reliable automatic defrost capability for decades. They accommodate various types of defrost systems including electric defrost heaters, hot gas, and compressor off cycle.

This all-in-one auto voltage defrost timer replaces over 40 competitive voltage-specific mechanical defrost timers, eliminating the need for a separate short cycle timer and single-phase voltage monitor. The 8145-AV is a mainstay for any contractor's truck. The 8145-AV reduces installation time and minimizes the number of SKUs to stock.

Features and Benefits

- Replaces over 40 competitive models
- Available in 50 Hz and 60 Hz models
- Auto voltage automatically adjusts for 120-240V AC
- Compressor contacts 3HP
- Heater/fan contacts 2HP
- LED indicators for defrost and refrigeration cycles
- Built-in permanent housing protects components from damage
- Mechanism only mounts into existing Paragon enclosures, no tools required
- Real-time clock face for easy accurate settings
- Defrost times programmable in 15-minute intervals with captive trippers
- Heavy-duty steel enclosure with knockouts (on the bottom, back and side) and hasp
- Mechanism only models also available 8145-AV-M (60 Hz model) and 8145-AV50M (50 Hz model)



8145-AV



8145-AV-M

| | | | | | | | |
|------------|---|------------------|---------------------|------------------------|------------------|---------------------|------------------------|
| 8145-AV | Auto Voltage Defrost Timer in Metal Casing, 60 Hz | 40 Amps 3 HP | Resistive Motor | 120-240V AC 240V AC | 30 Amps 2 HP | Resistive Motor | 120-240V AC 240V AC |
| 8145-AV-M | Auto Voltage Defrost Timer Mechanism Only, 60 Hz | 1.5 HP 720 VA | Motor Pilot Duty | 120V AC 120-240V AC | 1/4 HP 290 VA | Motor Pilot Duty | 120V AC 120-240V AC |
| 8145-AV50 | Auto Voltage Defrost Timer in Metal Casing, 50 Hz | 40 Amps 3 HP | Resistive Motor | 120-240V AC 240V AC | 30 Amps 2 HP | Resistive Motor | 120-240V AC 240V AC |
| 8145-AV50M | Auto Voltage Defrost Timer Mechanism Only, 50 Hz | 1.5 HP 720 VA | Motor Pilot Duty | 120V AC 120-240V AC | 1/4 HP 290 VA | Motor Pilot Duty | 120V AC 120-240V AC |



8045-00



8245-20

8000 Series - Electromechanical

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

| | | | | | | |
|----------|--|--------|--------|--------|-------------------------|--|
| 8025-00 | Adjustable Cycle, Time Initiated, Time Terminated | NA | NA | NA | Time | 120V AC, 60 Hz, 2 HP |
| 8025-20 | Adjustable Cycle, Time Initiated, Time Terminated | NA | NA | NA | Time | 208-240V AC, 60 Hz, 2 HP |
| 8041-00 | Electric Heat | Closed | Open | Closed | Time | 120V AC, 60 Hz |
| 8041-20 | Electric Heat Defrosting | Closed | Open | Closed | Time | 208-240V AC, 60 Hz 208-240V AC, 50 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 |
| 8047-00 | Electric Heat Defrosting | Open | Open | Closed | Time | 120V AC, 60 Hz |
| 8047-20 | Electric Heat Defrosting | Open | Open | Closed | Time | 208-240V AC, 60 Hz 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 |
| 8143-00 | Electric Heat, Hot Gas or Compressor Shutdown | Open | Closed | Open | Temperature or Pressure | 120V AC, 60 Hz |
| 8143-20 | Electric Heat, Hot Gas or Compressor Shutdown | Open | Closed | Open | 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 |
| 8145-20B | Electric Heat, Hot Gas or Compressor Shutdown | Closed | Open | None | Temperature or Pressure | 208-240V AC, 60 Hz |
| 8145-20M | Mechanism only, Electric Heat, Hot Gas or Compressor Shutdown | Closed | Open | None | Temperature or Pressure | 208-240V AC, 60 Hz |
| 8145-21 | Electric Heat, Hot Gas or Compressor Shutdown | Closed | Open | None | Temperature or Pressure | 208-240V AC, 50 Hz |
| 8245-20 | Electric Heat, Hot Gas or Compressor Shutdown | Closed | Open | None | Pressure | 208-240V AC, 60 Hz |
| 8245-21 | Electric Heat, Hot Gas or Compressor Shutdown | Closed | Open | None | Pressure | 208-240V AC, 50 Hz |
| 8247-20 | Electric Heat, Hot Gas or Compressor Shutdown | Open | Open | Closed | Temperature or Pressure | 208-240V AC, 60 Hz |
| E357-00 | Electric Heat, Hot Gas or Compressor Shutdown | Closed | Open | None | Temperature or Pressure | 120V AC, 60 Hz |



9045-00



9045-00M

9000 Series - Universal Electronic

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

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|----------|-------------------------|------|------|------------------------|-----------------|
| 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 |

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|-----------------------|---|---------------------------|-------------------------|-----------------------|---|---------------------------|-------------------------------|
| 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 |

| | | | | | | | |
|-----------------------|---|--------------------|--|---|---|---|--|
| 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 |



632-20

632 Series - Electromechanical

The Paragon® 632 Series Defrost Timers provide an adjustable cycle, time initiated, with one to eight 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

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|--------|---------------|--|------------------|---|---|-----------------------------------|-----------------------------------|-----------|------------|---------|
| 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 |

RM Series - Defrost Modules

The Paragon® RM Series Defrost Modules include program and motor modules for either electric or hot gas defrosting of refrigeration units. The RM Series heavy-duty synchronous industrial type motor is sealed permanently with a lubricated gear train. Up to 24 program modules can be driven with one motor. This product is available with even or odd, hour or half hour terminations. Solenoid termination is available on some models, and delivers an instantaneous transfer if the solenoid is energized when the defrost cycle is initiated.



RM Series

Features and Benefits

- Defrost initiation is adjustable from 1-12 operations per circuit, per day; minimum 2 hours required between successive operations
- Mechanical defrost termination is adjustable from 6-106 minutes in one-minute increments
- Two SPDT snap switches per module. 3/16" male push-on switch terminals.
- Program Modules switch rating: 10 Amps, 1/3 HP, 120-240V AC; 345 VA pilot duty
- Extra trippers, part number X-7248 (12 per bag)
- UL Recognized Component and CSA Approved

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|---------|--|----------------|-----------------|------------|--------------------|
| A876-99 | RM Series Defrost Modules Without Solenoid | Circuit Module | Even Hour | 0.75 (0.3) | NA |
| A877-00 | RM Series Program Modules With Solenoid | Circuit Module | Even Hour | 1 (0.5) | 120V AC, 60 Hz |
| A877-20 | RM Series Program Modules With Solenoid | Circuit Module | Even Hour | 1 (0.5) | 208-240V AC, 60 Hz |
| A878-00 | RM Series Defrost Modules | NA | Drive Module | 1 (0.5) | 120V AC, 60 Hz |
| A878-20 | RM Series Motor Modules | NA | Drive Module | 1 (0.5) | 208-240V AC, 60 Hz |
| A879-99 | RM Series Defrost Modules | NA | 4-Circuit Frame | 1.5 (0.7) | 120V AC, 60 Hz |
| A880-99 | RM Series Defrost Modules | NA | 8-Circuit Frame | 1.75 (0.8) | NA |
| B876-99 | RM Series Defrost Modules Without Solenoid | Circuit Module | Even Half Hour | 0.75 (0.3) | NA |
| B877-00 | RM Series Defrost Modules With Solenoid | Circuit Module | Even Half Hour | 1 (0.5) | 120V AC, 60 Hz |
| B877-20 | RM Series Defrost Modules With Solenoid | Circuit Module | Even Half Hour | 1 (0.5) | 208-240V AC, 60 Hz |
| D876-99 | RM Series Defrost Modules Without Solenoid | Circuit Module | Odd Hour | 0.75 (0.3) | NA |
| D877-00 | RM Series Defrost Modules Without Solenoid | Circuit Module | Odd Hour | 1 (0.5) | 120V AC, 60 Hz |
| D877-20 | RM Series Defrost Modules With Solenoid | Circuit Module | Odd Hour | 1 (0.5) | 208-240V AC, 60 Hz |
| E876-99 | RM Series Defrost Modules Without Solenoid | Circuit Module | Odd Half Hour | 0.75 (0.3) | |
| E877-00 | RM Series Defrost Modules With Solenoid | Circuit Module | Odd Half Hour | 1 (0.5) | 120V AC, 60 Hz |
| E877-20 | RM Series Defrost Modules With Solenoid | Circuit Module | Odd Half Hour | 1 (0.5) | 208-240V AC, 60 Hz |



A1401-00

Residential and Light Commercial Defrost Timers Series

The Paragon® Residential and Light Commercial Defrost Timer Series is a synchronous motor control that activates an internal SPDT switch to actuate a defrost heater in a refrigerator. These heavy-duty 15 Amp Paragon timers are used by OEM manufacturers to replace both the older classic designs and the newer designs installed for residential as well as light commercial applications.

Features and Benefits

- Quiet - synchronous design provides extremely quiet operation
- Position freedom - timer can be mounted in various locations
- Interchangeability - standard mounting allows use in all applications
- Double insulated - requires no earth grounding
- Brass contacts for better corrosion protection
- Approved for use in propane based systems

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|-----------|---------------|----|---------------------|------------------------------------|
| A1400-00 | Defrost Timer | 12 | 6 hours 21 minutes | 120V AC, 60 Hz, 15 Amps, 1/2 HP |
| B1400-00 | Defrost Timer | 12 | 8 hours 20 minutes | 120V AC, 60 Hz, 15 Amps, 1/2 HP |
| A1401-00 | Defrost Timer | 12 | 6 hours 21 minutes | 120V AC, 60 Hz, 15 Amps, 1/2 HP |
| B1401-00 | Defrost Timer | 12 | 8 hours 20 minutes | 120V AC, 60 Hz, 15 Amps, 1/2 HP |
| G1401-00 | Defrost Timer | 12 | 6 hours 25 minutes | 120V AC, 60 Hz, 15 Amps, 1/2 HP |
| A1401-20 | Defrost Timer | 12 | 6 hours 21 minutes | 240V AC, 60 Hz, 8 Amps, 1/2 HP |
| B1401-20 | Defrost Timer | 12 | 8 hours 20 minutes | 240V AC, 60 Hz, 8 Amps, 1/2 HP |
| A1401-21 | Defrost Timer | 12 | 6 hours 21 minutes | 240V AC, 50 Hz, 8 Amps, 1/2 HP |
| B1401-21 | Defrost Timer | 12 | 8 hours 20 minutes | 240V AC, 50 Hz, 8 Amps, 1/2 HP |
| A1402-00 | Defrost Timer | 12 | 8 hours 21 minutes | 120V AC, 60 Hz, 15 Amps, 1/2 HP |
| DJ2000-00 | Defrost Timer | 12 | 4 hours 20 minutes | 120V AC, 60 Hz, 10 Amps, 1/3 HP |
| DJ2001-00 | Defrost Timer | NA | 4 hours 20 minutes | 120V AC, 60 Hz, 10 Amps, 1/3 HP |
| G1400-00 | Defrost Timer | 12 | 6 hours 25 minutes | 120V AC, 60 Hz, 15 Amps, 1/2 HP |
| G1401-21 | Defrost Timer | 12 | 6 hours 25 minutes | 240V AC, 50 Hz, 8 Amps, 1/2 HP |
| GV3001-00 | Defrost Timer | 12 | 12 hours 21 minutes | 120V AC, 60 Hz, 9 Amps, 1/2 HP |
| GX3001-00 | Defrost Timer | 12 | 10 hours 21 minutes | 120V AC, 60 Hz, 15 Amps, 1/2 HP |
| GY3001-00 | Defrost Timer | 12 | 10 hours 25 minutes | 120V AC, 60 Hz, 15 Amps, 1/2 HP |
| NK2001-21 | Defrost Timer | 12 | 8 hours 7 minutes | 208-240V AC, 50 Hz, 8 Amps, 1/2 HP |
| AF2001-00 | Defrost Timer | NA | 12 hours 21 minutes | 127V AC, 60 Hz, 15 Amps |
| AF2001-20 | Defrost Timer | NA | 12 hours 21 minutes | 240V AC, 60 Hz, 5 Amps, 1/3 HP |
| AF2001-21 | Defrost Timer | NA | 12 hours 21 minutes | 240V AC, 50 Hz, 15 Amps |
| DL2001-21 | Defrost Timer | NA | 12 hours 30 minutes | 240V AC, 50 Hz, |

| | | | | |
|-----------|---------------|----|---------------------|---------------------------------|
| EB2001-21 | Defrost Timer | NA | 12 hours 30 minutes | 240V AC, 50 Hz, |
| K1400-00 | Defrost Timer | 12 | 10 hours 25 minutes | 120V AC, 60 Hz, 10 Amps, 1/3 HP |
| LJ2001-21 | Defrost Timer | NA | 8 hours 7 minutes | 240V AC, 50 Hz |
| OA1401-00 | Defrost Timer | 12 | 6 hours 21 minutes | 120V AC, 60 Hz, 15 Amps, 1/2 HP |
| OE1401-00 | Defrost Timer | 12 | 8 hours 20 minutes | 120V AC, 60 Hz, 15 Amps, 1/2 HP |
| OA1400-21 | Defrost Timer | NA | 6 hours 21 minutes | 230V AC, 50 Hz, 15 Amps |
| OA1401-21 | Defrost Timer | NA | 6 hours 21 minutes | 208-240V AC, 50 Hz, 15 Amps |
| PF2001-00 | Defrost Timer | NA | 8 hours 21 minutes | 127V AC, 60 Hz, 15 Amps |
| PF2001-20 | Defrost Timer | NA | 8 hours 21 minutes | 220V AC, 60 Hz, 15 Amps |
| PF2001-21 | Defrost Timer | NA | 8 hours 21 minutes | 240V AC, 50 Hz, 15 Amps |
| QE2001-21 | Defrost Timer | NA | 6 hours 15 minutes | 240V AC, 50 Hz, 15 Amps |
| RZ2001-21 | Defrost Timer | NA | 4 hours 15 minutes | 240V AC, 50 Hz |
| SJ2001-20 | Defrost Timer | NA | 8 hours 21 minutes | 240V AC, 50 Hz, 8 Amps, 1/2 HP |
| TX2001-00 | Defrost Timer | NA | 12 hours 21 minutes | 127V AC, 60 Hz, 15 Amps |
| TX2001-20 | Defrost Timer | NA | 12 hours 25 minutes | 127V AC, 60 Hz, 15 Amps |
| WB2001-00 | Defrost Timer | NA | 8 hours 8 minutes | 127V AC, 60 Hz, 15 Amps |
| WB2001-20 | Defrost Timer | NA | 8 hours 8 minutes | 220V AC, 60 Hz, 15 Amps |
| WV2001-59 | Defrost Timer | NA | 6 hours 21 minutes | 240V AC, 50/60 Hz |
| XC2001-21 | Defrost Timer | NA | 8 hours 20 minutes | 240V AC, 50 Hz |
| XH2001-21 | Defrost Timer | NA | 12 hours 45 minutes | 240V AC, 50 Hz |



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