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# NOTES

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# TEMPERATURE CONTROLS/ THERMOMETER/TIMERS



## Timer Adjustments

# DEFROST TIME CLOCK OPERATION (WITH THE EXCEPTION OF THE T-19F/T-19FZ/T-23F) GRASSLIN DEFROST TIMER

## OPERATION INSTRUCTIONS

### RECOMMENDED DEFROST SETTINGS:

True Manufacturing has factory set your defrost time clock to a recommended time and duration defrost scenario. All refrigeration equipment operating below 30°F will accumulate frost on the evaporator coil and will require routine defrost. Your True equipment has been designed for three defrost periods (6:00 a.m., 2:00 p.m. and 10:00 p.m.). If you decide to deviate from these defrost time settings please follow the procedures for adjustment below.

### Tools Required:

- Phillips Screwdriver
- 1/4" Nut Driver or Socket

### Locating The Defrost Timer:

Take off louvered grill assembly by removing four (4) corner screws.

#### Single Door Models:

Defrost timer is located in the lower right corner behind the louvered grill (inside galvanized electrical box).

#### Two Door Models:

Defrost timer is located in the middle of the cabinet, behind the louvered grill. Timer is mounted to the left of the centered ballast box (Inside of gray timer box).

#### Three Door Models:

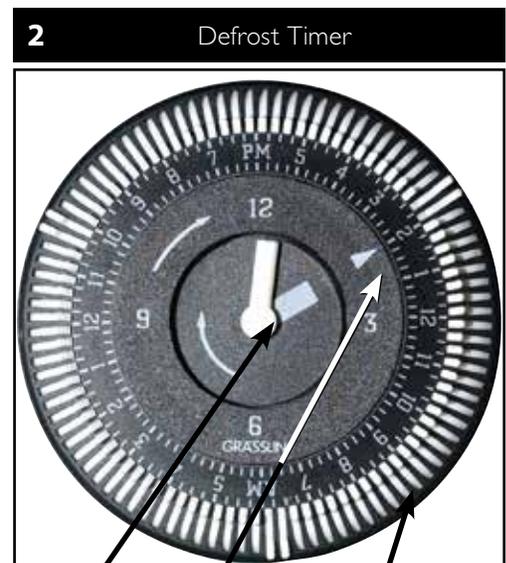
Defrost timer is located on the left upright post behind the louvered grill (Inside of gray timer box).

### Setting the timer:

(UNPLUG UNIT FROM POWER SUPPLY!)

### DO NOT SET THE TIME BY ROTATING THE "OUTER" DIAL.

Turn the minute hand clockwise until the time of day on the outer dial is aligned with the triangle marker on the inner dial (two o'clock position). (See image 2).



Inner most dial. Time of day. Outer most dial. White tabs represent 15 minutes of defrost time.

### Adjusting The Defrost Timer:

(time initiated, time or temperature terminated).

Your True freezer contains a defrost system that is temperature terminated, however the time clock has been designed with a time termination back-up so that the defrost period will not exceed thirty minutes. While True requires a minimum 3 defrost periods not to exceed 30 minutes (2 tabs) the procedure on this page should be followed to customize your specific needs.

**The T-19F/T-19FZ/T-23F will have 4 defrost per day for 15 minutes (1 tab) each. Factory setting 2 am, 8 am, 2 pm, 8 pm. 15 minutes in length.**

The following procedure may be followed to customize your needs.

High usage, high temperature, and high humidity may require 4 defrost settings per day.

**STEP 1** - The white tabs located on the outmost area of the time clock have been factory set for (6:00 a.m., 2:00 p.m., and 10:00 p.m.). Each tab represents 15 minutes of defrost time. Notice that at each defrost time two white tabs are set for 15 minutes each for a total of 30 minutes of defrost.

**STEP 2** - In order to program the time to begin the defrost cycle, flip the white tabs out to set the defrost time. To eliminate a defrost time flip the white tabs back toward the center of the Defrost Timer.

**STEP 3** - True recommends a 30 minute (2 tabs) defrost cycle three times per day.

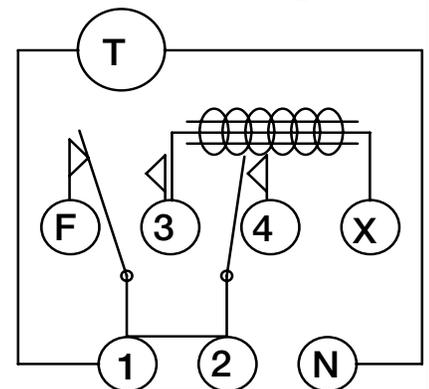
### NOTICE:

If timer is not set for a minimum of 3 defrost per day for 30 minutes (2 tabs) each, the coil may develop excessive frost. This may lead to system failure and product loss, which is not covered under warranty.

### WARNING:

Always follow the manufacturer's recommended settings when programming the amount and duration of the defrost cycles.

### Grasslin Timer Configuration



- 1. Line (black wire)
- 2. Line if jumper installed (tan or black wire)
- F. Normally closed contact temp control (red wire)
- 3. Normally open contact defrost heater (pink wire)
- 4. Normally closed contact door switches (tan or black wire)
- N. Neutral (white wire)
- X. Defrost termination (purple wire)

### DISCLAIMER:

Wire colors are subject to change.

# DEFROST TIME CLOCK ADJUSTMENT (PARAGON DEFROST TIMER)

## OPERATION INSTRUCTIONS

### RECOMMENDED DEFROST SETTINGS:

True Manufacturing has factory set your defrost time clock to a recommended time and duration defrost scenario. All refrigeration equipment operating below 30°F will accumulate frost on the evaporator coil and will require routine defrost. Your True equipment has been designed for three defrost periods (6:00 a.m., 2:00 p.m. and 10:00 p.m.). If you decide to deviate from these defrost time settings please follow the procedures and adjustment below.

### Tools Required:

- Slotted Screwdriver

### Locating The Defrost Timer:

Take off lower grill assembly by removing four (4) corner screws.

#### Single Door Models:

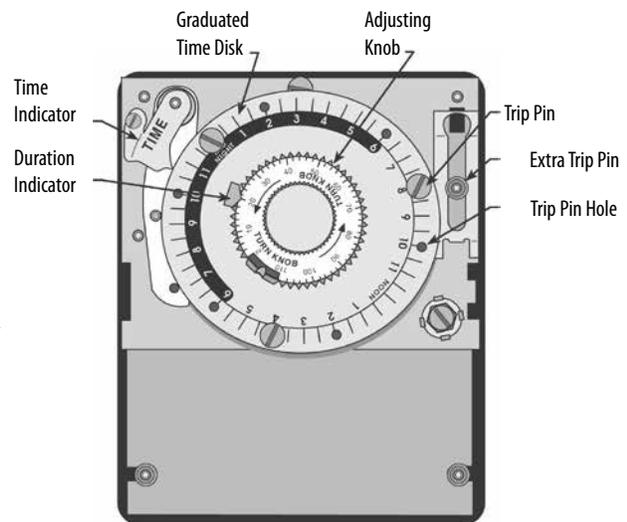
Defrost timer is located in the lower right corner behind the louvered grill.

#### Two Door Models:

Defrost timer is located in the middle of the cabinet, behind the louvered grill. Timer is mounted to the left of the centered ballast box.

#### Three Door Models:

Defrost timer is located on the left upright post behind the louvered grill.



### Adjusting The Defrost Control

(time initiated, temperature terminated)

Your True freezer contains a defrost system that is temperature terminated, however the time clock has been designed with a time termination back-up so that the defrost period will not exceed twenty minutes. While True recommends 3 defrost periods not to exceed 30 minutes the procedure below should be followed to customize your specific needs.

#### WARNING:

Always follow the manufactures recommended settings when programming the amount and duration of the defrost cycles.

**STEP 1** - Referencing the outer graduated time disk, position the current time of day to align with the "TIME" indicator. To move the graduated time disk, grasp the adjusted knob and turn counter clockwise until the current time of day aligns with the "TIME" indicator.

**STEP 2** - In order to program the time to begin the defrost cycle, insert threaded trip pins into the graduated time disk hole that corresponds to your customized defrost needs.

**STEP 3** - True recommends a 30 minute defrost cycle three times per day. Changing the recommended duration requires pressing down and sliding the copper duration indicator.

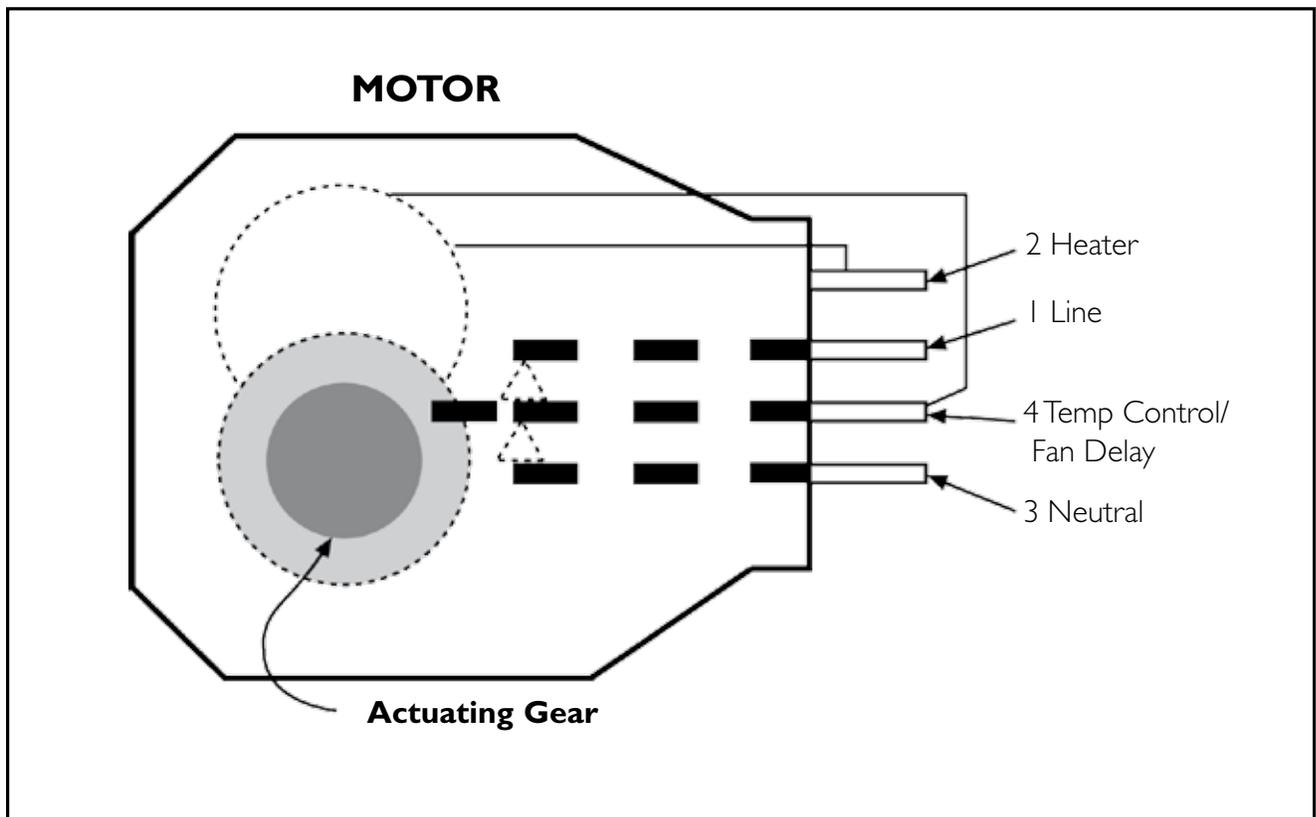
## DEFROST CONTROLS

### OPERATION INSTRUCTIONS

#### 2. TIME INITIATED, TIME TERMINATED

Like in the time initiated, temperature terminated controls; these systems have a temperature sensor that will disconnect the heaters to keep the cabinet from over heating. However it won't restart the freezing cycle until the control completes the factory set time. These systems are also equipped with temperature sensors to delay the fan motors once the defrost cycle has been completed, to prevent the circulation of warm air inside the cabinet.

To adjust the defrost cycle time there is only one possible adjustment; Once the cabinet has reach the design temperature, pick the time of the day that you want the unit to defrost. Turn the actuating gear clockwise until the contacts change position initiating the defrost cycle.



Note: Older version timers had terminals #1 and #3 reversed.

