

DEFROST

Mechanical controller:

The defrost timer will initiate defrost during specific times of day.

- a. At this time, the compressor and evaporator fan(s) will turn off and the evaporator coil heater and drain tube heater will be energized. Some cabinets may also change the rotation of the reversing condenser fan motor.
- b. After the predetermined evaporator coil temperature has been reached or duration for defrost has expired, the compressor will restart and the evaporator fan(s) will remain off until a specific temperature of the evaporator coil is reached

DEFROST TIMER

DEFROST TIME CLOCK OPERATION FOR UNITS WITH MECHANICAL CONTROL

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 Head Screwdriver
- 1/4" Nut Driver or Socket

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).

ADJUSTING THE DEFROST TIMER:

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 the procedure on this page should be followed to customize your specific needs.

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

The following procedure may be followed to customize your needs.

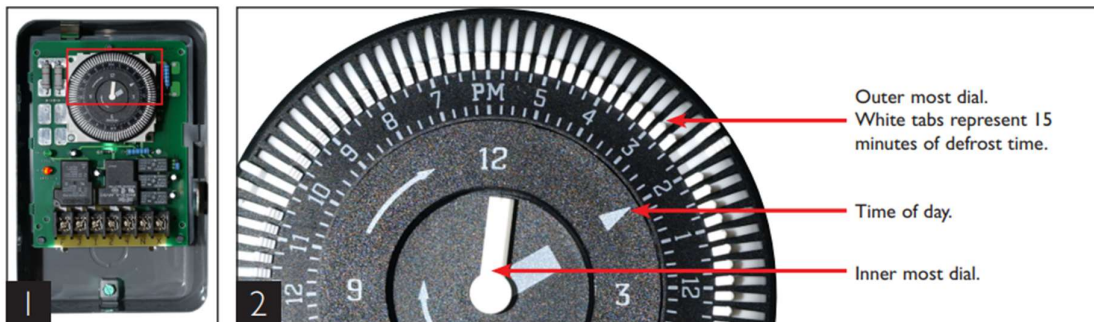
High usage, high temperature, and high humidity may require 4 defrost settings per day.

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

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 defrost cycle three times per day.

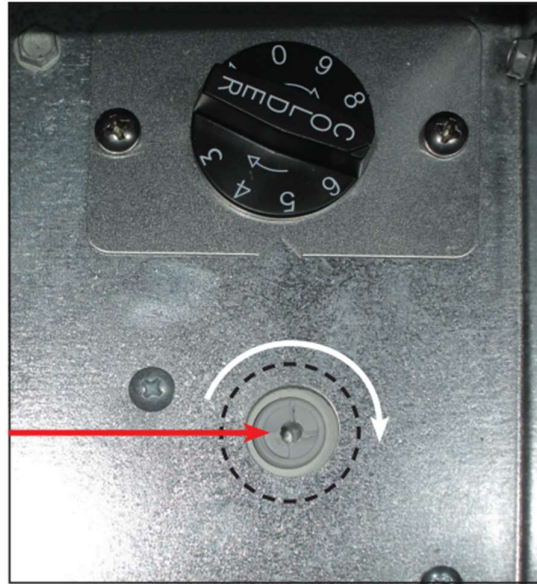


DEFROST CONTROLS

TIME INITIATED, TIME TERMINATED

Timer Location: Defrost timer can be found directly below the mechanical temperature control.

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. The next defrost cycle will occur 6-8 hours later, depending upon model.



LAE Controller:



INITIATE A MANUAL DEFROST:

May need to unlock control.

WHY: A one time additional defrost may be necessary to clear accumulated frost / ice from evaporator coil.



HOW TO INITIATE A MANUAL DEFROST:

The method to initiate a manual defrost is determined by the Defrost Mode Parameter "DTM" preprogrammed in the controller.

REGULAR TIME DEFROST (TIM)

If controller is preprogrammed for "TIM", press and release the Manual Defrost button  until "dEF" appears.

REAL TIME CLOCK (RTC)

If controller is preprogrammed for "RTC" press the and hold the Manual Defrost button  for 5 seconds until "dhI" appears. Release the Manual Defrost button  and then press and hold for an additional 5 seconds until "dEF" appears.

NOTE: Defrost will only terminate once a specific preset temperature or a preset time duration is reached.

CHANGING “DEFROST INTERVALS”:

May need to unlock control.

This can only be changed if defrost mode parameter “DFM” is set for “TIM”.

WHY: The defrost interval is the time duration between defrost cycles. The defrost interval time starts when the cabinet is supplied power or after a manual defrost.

HOW TO CHANGE “DEFROST INTERVALS”:

STEP 1 - To see the set point, press and hold the Info button (i) and the Stand-by button (x) at the same time.

NOTE: Depending on the version of control, one of three parameters will appear: “SCL” image 1a, “SPL” image 1b, “Mdl” image 1c.

STEP 2 - Push the Up button (M) until “dFt” appears. See image 2.

STEP 3 - Press and hold the Info button (i) to see the defrost interval time. See image 3.

STEP 4 - While pressing and holding the Info button (i), press the Up (M) or Down (D) button to change the defrost interval times (higher the number the less frequent the cabinet will defrost).

STEP 5 - Once the defrost interval time has been changed, release the Info button (i).

STEP 6 - Wait 30 seconds for the display to show temperature. See image 4.



Danfoss ETC1H Controller:





The Danfoss control is preprogrammed to initiate defrost every 4 hours of compressor run time. If deemed necessary by the Danfoss control additional defrost may occur at unspecified times.

- a. At this time, the compressor and evaporator fan(s) will turn off and the evaporator coil heater and drain tube heater will be energized. Some cabinets may also change the rotation of the reversing condenser fan motor.
- b. Once a preprogrammed temperature of the evaporator coil is reached, or 30 minutes, the Defrost Cycle will terminate and the 2 minute delay will occur.
- c. After the 2 minute delay the compressor will restart.
- d. The evaporator fans will remain off for an additional 3 minutes

Danfoss ERC Controller:



Unlock the keyboard, press and hold both the back button  and the up arrow  until the display shows unL.

Press and hold the defrost button on the display, message “DEF” will be displayed on the screen all along the defrost period.