Danfoss ERC113D Programming Instruction

STOP! All work detailed in these instructions must be done by a qualified technician.

Subject: DanfossERC 113D Universal Programming Instructions
Date: May 11, 2023
Models / Parts Affected: Temperature Control (with Display) Kit P#848244
Voltages: All Voltages

Overview

Universal DanfossERC 113D Temperature Control (with Display) Kit contains all components potentially required for repairing a temperature control failure. Use of components will vary by repair.

The replacement control is preprogrammed for universal use and **may require changes to parameter settings based on model type and application.**

Some component operations may change with new universal settings.

GDM/T-23DT/TCR/TMC/TUC REFRIGERATORS ONLY: No programming changes needed

Installation

TOAM-72 ONLY: Verify the third defrost probe's operation. If operating correctly reuse the probe. If operating incorrectly, please see "TOAM-72 Only — Third Defrost Probe" section (page 4).

CAUTION! Electrical shock or burn hazard. Powering off an electronic control does not remove power from all components. Unplug the unit or turn off the power supply before installation.

CAUTION! Sharp edges. Take care when installing, cleaning, servicing, and/or maintaining the equipment.

Before You Begin

If adjusting the setpoint to 41°F (5°C) or greater, place the provided hazardous food warning label below the serial label inside the cabinet as shown in fig. 1. This label notifies users the cabinet has been set to maintain a temperature above outside NSF perishable food storage guidelines.

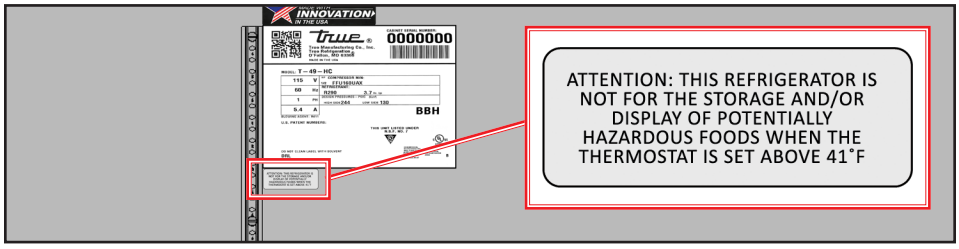


Fig. 1. Hazardous food warning label intended location.

Control Program Structure

Parameters are arranged in parameter groups according to their purpose (see fig. 2a). For example, all fan operations are found within the **FAn** parameter group (see fig. 2b).

For more information on navigating the control programming, please see "Adjust Parameters" section.

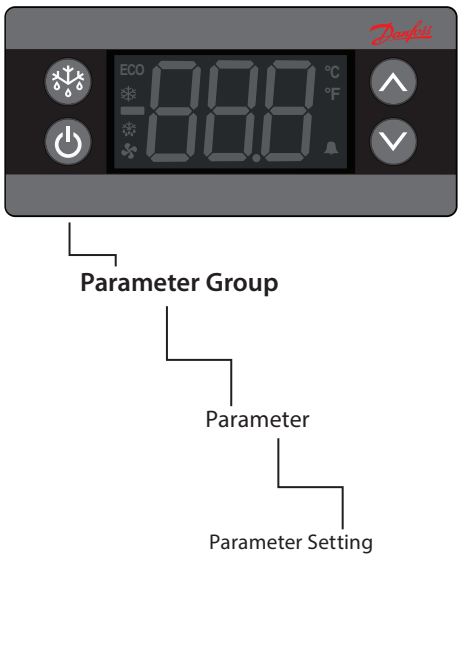


Fig. 2a. Control program organization.

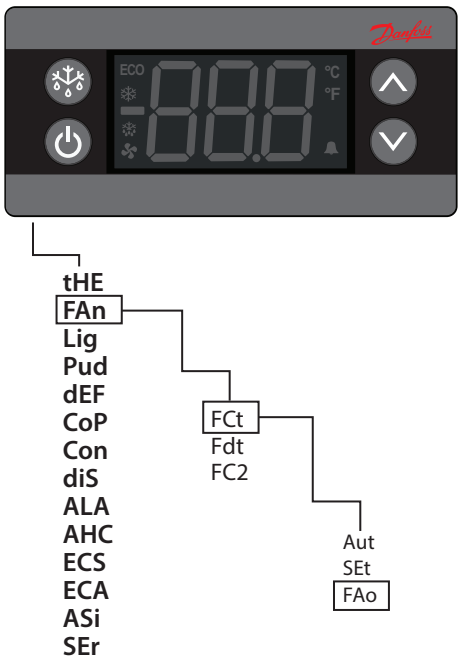
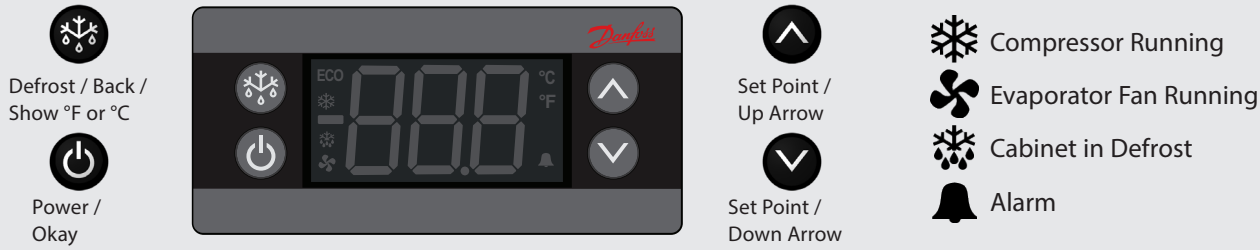


Fig. 2b. Navigating the program structure to reach parameter setting **FAo**.

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Unlock Contol

1. Press any button to show the current lock status.



2. If the display shows **unL**, proceed to "Enter Password" section.
   If the display shows **Loc**, press ***and hold*** the back button and the up arrow until the display shows **unL**.

   NOTE: The control will lock after 60 seconds of inactivity.



3. Proceed to "Enter Password" or "Change System of Measure" sections.

Change System of Measure

The display can show the temperature in either Fahrenheit or Celsius.

1. Unlock the display. See "Unlock Control" section.
2. Press the back button.





Enter Password

NOTE: After three (3) sequential incorrect password entries, the control will lock for 15 minutes.

1. Push ***and hold*** both the up and down arrows until the display shows **PAS**.



2. Wait for the display to show **000**.



3. Press the down arrow until the display shows **989**.



4. Press okay to show **PS2**.

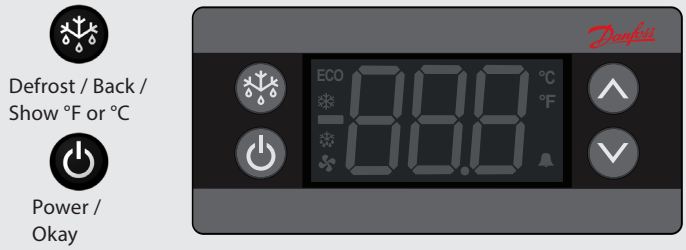


5. Wait for the display to show **tHE**.



6. Proceed to "Adjust Parameters" section.

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Adjust Parameters

See table 1 (next page) for required parameter adjustments before proceedintg.

The figures show how to, in the parameter group **FAn**, change the parameter **FCt** to the parameter setting **FAo** (also shown in fig. 3). This setting change may not be required for your application.

NOTE: Incorrect parameter settings can lead to improper cabinet operation and unsafe product temperatures.

1. Unlock the control. See "Unlock Control" section.
   NOTE: The control will lock after 60 seconds of inactivity.
2. Enter the password and enter the programming. See "Enter Password" section.



3. Press the up or down arrow as needed to show the desired parameter group.



4. Press okay to select the parameter group.



5. Press the up or down arrow as needed to show the desired parameter.



6. Press okay to select the parameter.



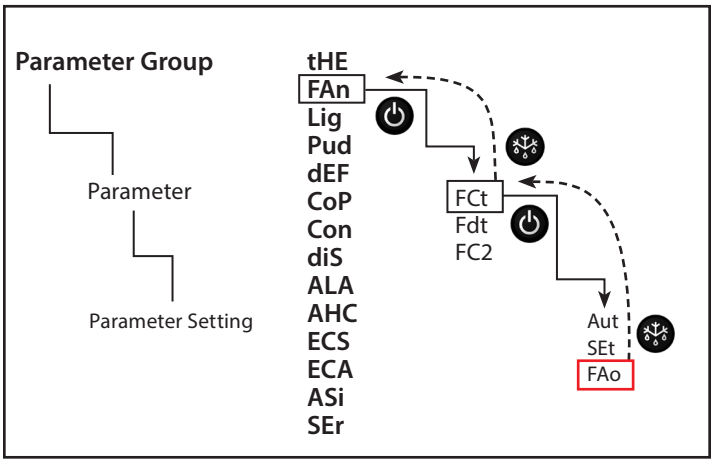


Fig. 3. Navigating the control program parameters and settings.

7. Press the up or down arrow as needed to show the desired parameter setting.



8. Press okay to select the parameter setting. The display will return to the selected parameter.



9. Press the back button to return to the selected parameter group. Repeat steps 3-8 as needed to adjust parameter settings per table 1 (next page).



10. Exit the programming.
    - Press the back button twice (x2) OR
    - Leave the control inactive for 30 seconds

Parameter Setting Adjustments

Table 1 shows how to alter the universal control program to fit your specific model and application.

Locate your model type, and then change the parameter settings to the values shown. For instructions on changing parameter settings, see "Adjust Parameters" section.

***FREEZER MODELS ONLY: Be sure to change duA before adjusting any other parameter setting.**

TOAM-72 ONLY — Third Defrost Probe

Verify the third defrost probe's operation. If operating correctly reuse the probe.

If operating incorrectly, remove a tooth (see fig. 4) from a provided defrost probe.

For an additional defrost probe, in the USA or Canada, please contact our parts department at 800-424-8783 or PartsInquiries@TrueMfg.com. For all other locations, please see the contact information (last page).

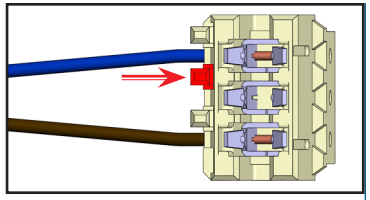


Fig. 4. Remove the center tooth.

Table 1. Required Parameter Setting Changes by Model or Application

Model Type	Parameter Group	tHE				FAn	dEF									CoP	ASi				
	Parameter	SEt	SPr	diF	duA*	FCt	dii	dAi	dit	dAt	Ftd	doC	dEt	dE2	dt2	dSo	CSt	S3A	S4A	diC	o2C	o4C
Cold Beer		28°F (-2.2°C)	-	-	du2	-	-	-	-	-	-	-	0°F (-17.8°C)	-	-	-	-	-	dCo	-	-	-
CPT		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	EuA	-	-	-	-
FLM (Freezer) (1 Cond Unit)		-	-	-	du2	-	-	-	-	-	0°F (-17.8°C)	-	-	-	-	-	-	-	-	-	-	-
FLM (Freezer) (2 Cond Unit)		-	-	-	du2	-	-	-	-	-	0°F (-17.8°C)	-	-	-	-	-	-	-	-	-	-	-
GDIM		18°F (-7.8°C)	-	-	du2	-	-	-	-	-	12°F (-11.1°C)	-	-10°F (-23.3°C)	-	-	-	-	-	dCo	-	-	-
GDM (Refrigerator)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GDM (Red Wine)		55°F (12.8°C)	-	-	-	FAo	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GDM (White Wine)		45°F (7.2°C)	-	-	-	FAo	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GDM (Freezer) (1 Cond Unit)		-	-	-	du2	-	-	-	-	-	0°F (-17.8°C)	-	-	-	-	-	-	-	dCo	-	-	-
GDM (Freezer) (2 Cond Units)		-	-	-	du2	-	-	-	-	-	0°F (-17.8°C)	-	-	-	-	-	-	-	dCo	-	-	-
GDM-LTF (1 Cond Unit)		-15°F (-26.1°C)	-	-	du2	-	-	-	-	-	0°F (-17.8°C)	-	-	-40°F (-40°C)	-	-	-	-	dCo	-	-	-
GDM-LTF (2 Cond Unit)		-15°F (-26.1°C)	-	-	du2	-	-	-	-	-	0°F (-17.8°C)	-	-	-40°F (-40°C)	-	-	-	-	dCo	-	-	-
Glass Chillers		4°F (-15.5°C)	-	-	du2	-	-	-	-	-	0°F (-17.8°C)	-	-	-	-	-	-	-	-	-	-	-
STA/STG/STR (SPEC Refrigerator)		-	-	-	-	-	120	-	-	-	-	-	5°F (-15°C)	-	-	-	-	-	dCo	-	-	-
STA/STG/STR (SPEC Wine)		55°F (12.8°C)	-	-	-	FAo	120	-	-	-	-	-	5°F (-15°C)	-	-	-	-	-	dCo	-	-	-
STA/STG/STR (SPEC Freezer) (1 Cond Unit)		-	-	-	du2	-	-	-	-	-	0°F (-17.8°C)	-	-	-	-	-	-	-	dCo	-	-	-
STA/STG/STR (SPEC Freezer) (2 Cond Unit)		-	-	-	du2	-	-	-	-	-	0°F (-17.8°C)	-	-	-	-	-	-	EuA	dCo	-	-	-
T-Series (Refrigerator)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	dCo	-	-	-
T-Series (Freezer) (1 Cond Unit)		-	-	-	du2	-	-	-	-	-	0°F (-17.8°C)	-	-	-	-	-	-	-	dCo	-	-	-
T-Series (Freezer) (2 Cond Unit)		-	-	-	du2	-	-	-	-	-	0°F (-17.8°C)	-	-	-	-	-	-	-	dCo	-	-	-

Table 1. Required Parameter Setting Changes by Model or Application

Model Type	Parameter Group	tHE				FAn	dEF										CoP	ASi					
	Parameter	SEt	SPr	diF	duA*	FCt	dii	dAi	dit	dAt	Ftd	doC	dEt	dE2	dt2	dSo	CSt	S3A	S4A	diC	o2C	o4C
T-23DT (Refrigerator Section)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
(Freezer Section)		-	-	-	du2	-	-	-	-	-	0°F (-17.8°C)	-	-	-	-	-	-	-	-	-	-	-
TBR		34°F (1.1°C)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TBR (Red Wine)		55°F (12.8°C)	-	-	-	FAo	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TBR (White Wine)		45°F (7.2°C)	-	-	-	FAo	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TCF		-	-	-	du2	-	-	-	-	-	0°F (-17.8°C)	-	-	-	50°F (10°C)	-	-	-	-	-	-	-
TCGG		-	-	-	-	-	-	-	75	90	-	180	-13°F (-25°C)	-	-	-	-	-	-	-	-	-
TCR		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TDM		38°F (3.3°C)	-	-	-	FAo	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TDM-CW		55°F (12.8°C)	-	-	-	FAo	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TFP		34°F (1.1°C)	-	3°F (1.7°C)	-	FAo	-	3	2	-	-	-	10°F (-12.2°C)	-	-	-	2	-	-	-	-	-
TGN (Refrigerator)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	dCo	-	-	-
TGN (Freezer)		-	-	-	du2	-	-	-	-	-	0°F (-17.8°C)	-	-	-	-	-	-	-	dCo	-	-	-
THAC		38°F (3.3°C)	-	-	-	FA0	-	1	-	-	-	-	-	-	-	oFF	-	-	-	-	-	-
TMC		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOAM-30/36		38°F (3.3°C)	-	-	-	FAo	-	1	-	-	-	-	-	-	-	oFF	-	-	-	-	-	-
TOAM-48		38°F (3.3°C)	-	-	-	FAo	-	1	-	-	-	-	-	-	-	oFF	-	EuA	-	-	-	SCC
TOAM-72		38°F (3.3°C)	-	-	-	FAo	-	1	-	-	-	-	-	-	-	oFF	-	EuA	EuA	-	tCC	SCC
TPP		34°F (1.1°C)	-	3°F (1.7°C)	-	FAo	-	3	2	-	-	-	10°F (-12.2°C)	-	-	-	2	-	-	-	-	-
TRCB		-	-	-	-	FAo	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TSSU		34°F (1.1°C)	-	3°F (1.7°C)	-	FAo	-	3	2	-	-	-	10°F (-12.2°C)	-	-	-	2	-	-	-	-	-
TUC (Refrigerator)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TUC (Red Wine)		55°F (12.8°C)	-	-	-	FAo	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TUC (White Wine)		45°F (7.2°C)	-	-	-	FAo	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TUC (Freezer)		-	-	-	du2	-	-	-	-	-	0°F (-17.8°C)	-	-	-	-	-	-	-	-	-	-	-
TUC (Freezer 2)		11°F (-11.7°C)	-	-	du2	-	-	-	-	-	0°F (-17.8°C)	-	-	-	-	-	-	-	-	-	-	-
TUC (Freezer 3)		3.2°F (-16°C)	-	-	du2	-	-	-	-	-	0°F (-17.8°C)	-	-	-	-	-	-	-	-	-	-	-
TUFADA		-	1	-	du2	-	180	8	-	-	0°F (-17.8°C)	240	-	-25°F (-31.7°C)	-	-	6	-	-	-	-	-
TURADA		-	1	-	-	-	180	8	-	-	-	240	9°F (-12.8°C)	-	-	-	6	-	-	-	-	-
TUWADA		55°F (12.8°C)	1	-	-	FAo	180	8	-	-	-	240	9°F (-12.8°C)	-	-	-	6	-	-	-	-	-

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Questions or Concerns

For more information, please contact our Technical Service team. See contact information below.

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