

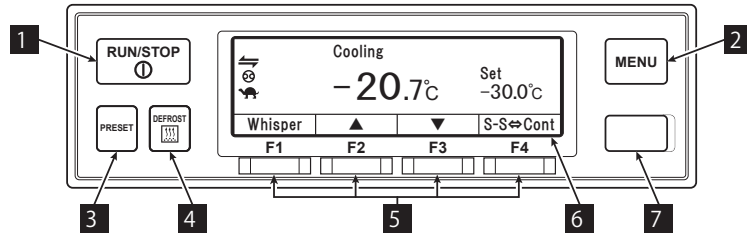
MITSUBISHI TRANSPORT REFRIGERATION UNIT

Full-dot LCD cabin controller guide [TU series]

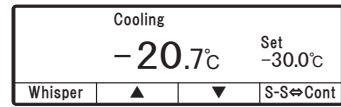
This guide shows how to use full-dot type cabin controller for TU series.

This is the explanation of the main point, so please contact your nearest dealer when you would like to know more detail usage.

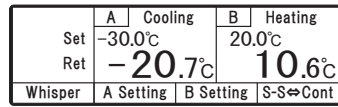
This guide was compiled based on the data up to April 2020 and is subject to change the contents without any prior notice.



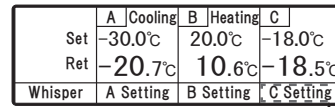
<Normal display screen>



LCD for 1-compartment



LCD for 2-compartment



LCD for 3-compartment

* Do not display "S-S⇔Cont".

<Function of each part>

- 1** **RUN/STOP switch** Starts and stops the refrigeration unit.
- 2** **MENU switch** Selects the normal display screen or the menu display screen. Displays the screen while the refrigeration unit is stopped.
- 3** **PRESET switch** Selects the normal display screen or the preset display screen.
- 4** **DEFROST switch** Starts the manual defrost.
- 5** **FUNCTION switches 1-4** Functions corresponding to respective setting screens are allocated.
- 6** **LCD** Displays the inside compartment temperature, setting temperature, state of operation, etc.
- 7** **USB terminal (Type B)** Used to read/write data.

<LCD displayed item>

- Abnormal display**
Lights or blinks when any error occurs.
- Display for external communication.**
Lights when remote monitoring device so on are communicated.
- Displays for ON/OFF timer.**
Lights when the ON timer and the OFF timer are set simultaneously.
- Displays the ON timer.**
Lights when the ON timer operation is set.
- Displays for OFF timer.**
Lights when the OFF timer operation is set.
- Display for automatic operation start/stop.**
Lights when the automatic operation start/stop is selected.
- Display for commercial power supply.**
Lights when the unit is connected to the commercial power supply.
- Display for Whisper operation.**
Lights when Whisper operation (keeping engine speed low) is selected.

1. How to start and stop operation

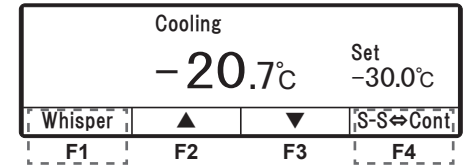
Press "RUN/STOP" switch **1** to start or stop the operation.

2. How to start manual defrost

Press "DEFROST" switch **4** once during cooling operation.

3. How to keep engine low speed or switch auto start stop⇔continuous

- Press "F1 (Whisper)" switch to keep engine low speed.
- Press "F4 (S-S⇔Cont)" to switch auto start-stop or continuous operation. [1 or 2-compartment model]
- * In case of 3-compartment model, using of main menu is necessary to switch auto start stop⇔continuous.



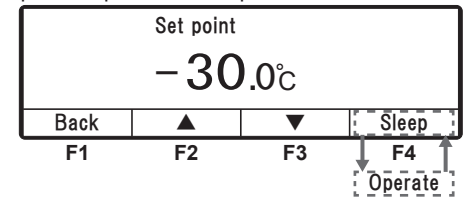
4. How to set setting temperature

(1) 1-compartment model

Press "F2 (▲)" or "F3 (▼)" switch to change the temperature and then press "F4 (Set)" switch to fix the temperature on normal display screen. (Temperature can be changed after starting the operation.) Each push on "F2 (▲)" increases the temperature by 0.5°C and each push on "F3 (▼)" decreases the temperature by 0.5°C. If each switch is held down, the value changes continuously.

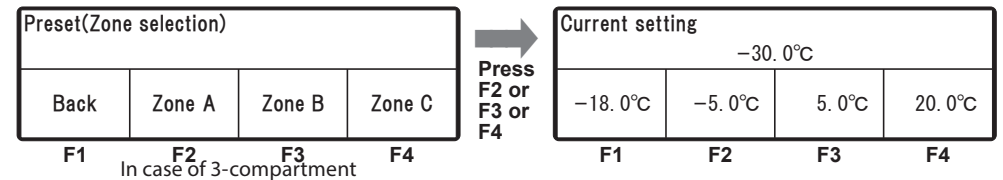
(2) 2 or 3-compartment model

Press "F2 (A setting)", "F3 (B setting)" or "F4 (C setting)" switch to select compartment. After selecting the compartment which changes setting temperature, procedure is same as above 1-compartment model. When operation of one compartment is supposed to be suspended, press "F4 (Sleep)". When "F4 (Operate)" is pressed, suspension is cancelled and restart operation.

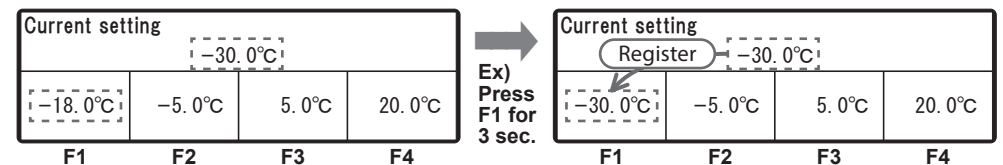


(3) Set preset temperature

Press "PRESET" switch **3**
Press "F2 (Zone A)", "F3 (Zone B)" or "F4 (Zone C)" switch to select the compartment, in case of 2 or 3-compartment model.
Press "F1", "F2", "F3" or "F4" switch to select registered preset temperature.

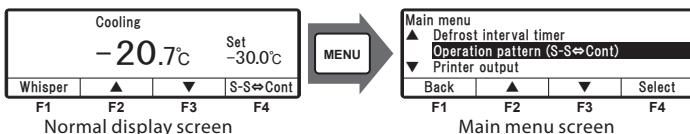


* Registered preset temperature can be changed by holding down "F1", "F2", "F3" or "F4" switch for 3 seconds. (Current setting can be set as preset temperature.)



5. How to use main menu

Press "MENU" switch **2** on normal display and main menu is displayed. (Right figure)
Press "F2 (▲)" or "F3 (▼)" switch on main menu screen to select the item and press "F4 (Select)" switch to fix the selection.



Current setting			
Start-Stop operation			
Back	Start-Stop	Continuous	Set
F2 ▲ [Main] ▼ F3			

<Operation pattern selection mode>

Auto start-stop or continuous is selected by pressing "F2 (Start-Stop)" or "F3 (Continuous)" and then "F4 (Set)".

Printer output			
Printout period	12Hr		
Temp range	±30°C		
Center temp	0°C		
Back	▲	▼	Next
F2 ▲ [Main] ▼ F3			

<Printer output>

The temperature graph is printed when optional printer is connected.

Alarm			
E010	16 Jan 2020	07:10	
E016	15 Jan 2020	08:15	
E013	30 Nov 2019	10:30	
Back		Clear	
F2 ▲ [Main] ▼ F3			

<Alarm record>

Up to 3 alarm codes with dates of alarm happened are displayed. Alarm records are cleared by pressing "F3 (Clear)" switch.

Maintenance information			
Engine operation time 1/1520Hr			
Back	Reset		Next
F2 ▲ [Main] ▼ F3			

<Maintenance information>

Operation time and number of operations of each device are displayed.

Current setting			
Pre trip inspection(Basic)			
Back	Basic (Min)	Detail (Max)	PTI Start
F2 ▲ [Main] ▼ F3			

<Pre trip inspection (PTI) setting>

Self-diagnosis operation can be done by pressing "F2 (Basic)" or "F3 (Detail)" and then "F4 (PTI Start)".

* Basic: Complete around 5 min, Detail: Around 2 hrs

Language setting			
▲ German			
English			
▼ French			
Back	▲	▼	Set
F2 ▲ [Main] ▼ F3			

<Language setting>

Displayed language is selected from English, French, Italian, Swedish or German. Press "F2 (▲)" or "F3 (▼)" switch to select a language, and fix the selection by pressing "F4 (Set)" switch.

Sub-menu			
▲ Fuel circulation mode			
Calendar and clock setting			
▼ Set On Timer			
Back	▲	▼	Select
F2 ▲ [Main] ▼ F3			

<Sub-menu>

See "6. How to use sub-menu".

Operating information			
C003			
HP 2560kPa	TD	125°C	
LP 150kPa	REV	2150/H	
AT 38°C	State	Cooling	
Back			
F2 ▲ [Main] ▼ F3			

<Operating information>

State of operation is displayed. In case of 2-compartment [3-compartment] model, the "State" displays 2 letters such as CI (Cooling), Ht (Heating), Df (Defrost), SI (Sleep), St (Stop), FI (Failure) or Fn (Fan), starting from the compartment A to B [to C].

Option sensor display			
-20.7°C			
Back			
F2 ▲ [Main] ▼ F3			

<Option sensor display>

Optional sensor temperature is displayed when installed.

Current setting			
6.0Hr			
Back	▲	▼	Set
F2 ▲ [Main] ▼ F3			

<Defrost interval timer>

The defrost interval is displayed. Press "F2 (▲)" or "F3 (▼)" switch to select setting time and fix the selection by pressing "F4 (Set)" switch. Setting is at every 1 hr in the range of from 1 hr to 12 hrs.

6. How to use sub-menu

Press "F2 (▲)" or "F3 (▼)" switch on sub-menu screen to select the item and press "F4 (Set)" switch to fix the selection. (except Fuel circulation mode)

Calendar and clock setting			
01	Jan	2020	00:00
Back	▲	▼	Next
F2 ▲ [Sub] ▼ F3			

<Calendar and clock setting>

Date, Month, Year and current time are set.

Press "F2 (▲)" or "F3 (▼)" switch to adjust at current date and press "F4 (Next)" switch.

Then adjust month, year and current time by same procedure and press "F4 (Set)" at last.

Set ON timer			
ON timer disable			
Back	Enable	Disable	Set
F2 ▼			

<Set ON timer>

Date and time to start the refrigeration unit automatically is set.

1) Press "F2 (Enable)" for ON timer.

Set ON timer			
ON timer enable			
Back	Enable	Disable	Set
F4 ▼			

2) Press "F4 (Set)" for Stating operation time.

Set ON timer			
01	Jan	2020	Stating operation
Back	▲	▼	Next
F2 ▲ [Sub] ▼ F3			

3) Set the calendar for ON timer by same procedure of calendar and clock setting.

Set OFF timer			
OFF timer disable			
Back	Enable	Disable	Set
F2 ▲ [Sub] ▼ F3			

<Set OFF timer>

Date and time to stop the refrigeration unit automatically is set.

Procedure is same as ON timer.

Contrast setting			
Back	▲High	▼Low	Set
F2 ▲ [Sub] ▼ F3			

<Contrast setting>

Screen contrast is adjusted.

Use "F2 (▲)" switch to intensify the contrast or "F3 (▼)" switch to diminish the contrast.

Option select			
Option1 setting OFF			
Back	Previous	Next	Select
F2 ▲ [Sub] ▼ F3			

<Option select>

This is the future usage display.

LCD backlight setting			
Always ON			
Light SW linked			
Lit at key operation only(20sec)			
Back	▲	▼	Select
F2 ▲ [Sub] ▼ F3			

<LCD backlight setting>

LCD backlight is set and following is the setting.

【Light SW linked】, 【Lit at key operation only(20sec)】, 【Always OFF】, 【Always ON】

Controller sound setting			
ON			
Back	ON	OFF	Set
F2 ▲ [Sub] ▼ F3			

<Controller sound setting>

Switch operating sound is turned on or off is set.

Select ON or OFF by pressing "F2 (ON)" or "F3 (OFF)" switch, and fix the selection by pressing "F4 (Set)" switch.

Fuel circulation mode			
OFF			
Back	ON		
F2 ▲ [Sub] ▼ F3			

<Fuel circulation mode>

Fuel is circulated forcibly to engine and air trapped in the fuel system is purged by pressing "F2 (ON)".

Remaining time is displayed during fuel circulation.