

Technical Bulletin

Number	P011j
Subject	Panasonic low temperature applications – CZ-RTC6 controllers
Date	20 June 2023

This document has been prepared by Logicool Air Conditioning & Heat Pumps Limited. It is based on existing Panasonic recommendations using units from the PACi range for special applications not only for standard heating and cooling ones.

The purpose of this product information bulletin is to explain in detail these special applications that need cooling to maintain rooms between 8°CWB and 24°CWB (10°CDB-30°CDB). To do this in terms of enthalpy what is required is to oversize the indoor unit and set up some parameters.

Applications may include:

- Wine storage 14°C
- Food prep 12°C
- Gymnasiums 16°C
- Clean room 16°C

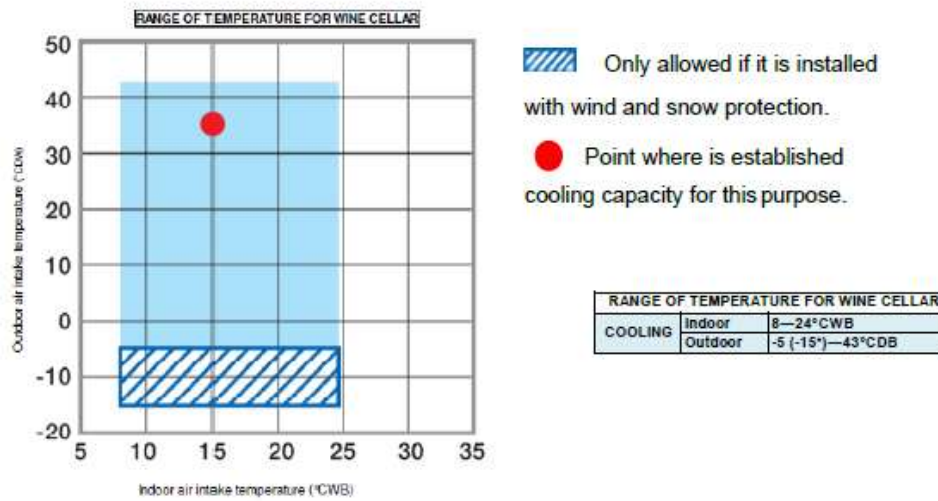
Note: Due to these special applications of the system the following aspects should be taken in account:

- Is important to think about some applications where possible condensation in the louver can occur when the selected unit is wall mounted, ceiling or 4 way blow cassette, and in grilles when duct type indoor units are used. In these cases, Panasonic cannot be responsible of any damage as a result of condensation, and the installer has to provide some insulation in those parts and also for a base drain pan.
- Due to higher running hours to maintain cooling temperature, maintenance and filter cleaning processes should be more frequent and thorough.
- PACi systems cannot control relative humidity but can operate an ON/OFF external humidifier if required by using additional settings in the indoor unit, as usual in PACi or ECOi.
- Those special applications are not tested under ErP regulations, so we do not have "official" capacity and power consumption tables and energy labels. **Please explain this clearly to your customer.**



Temperature Range:

Range of temperature:



For Low Temperature systems, if indoor and outdoor pipe sizes are different - then you should *install pipework that matches the condenser*.

For example, if the indoor is 3/8" and 1/2", but the condenser is 1/4" and 3/8", then you should install the pipework from condenser to the indoor in 1/4" and 3/8" and then use reducers at the indoor if needed.

These settings are mandatory:

We must remember that these combinations are NOT STANDARD and it is mandatory to do some set up to 'turn' the system in to a "Special Wine Cellar" application. For all those settings one CZ-RTC6 is required to set up.

Step 1




Connect the CZ-RTC6 Controller to the indoor unit as per a normal installation.

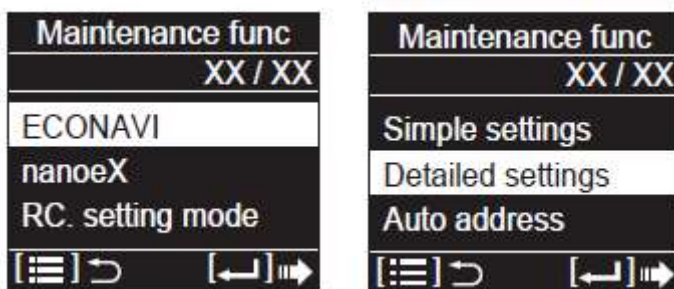
The following settings detail how to set capacity ignoring on the Outdoor Unit, the capacity of the indoor unit and how to set the system into "COOLING ONLY (OPTION 0F)", "MAX TEMPERATURE (OPTION 1F)" and "MINIMUM TEMPERATURE (OPTION 20)".

Step 2

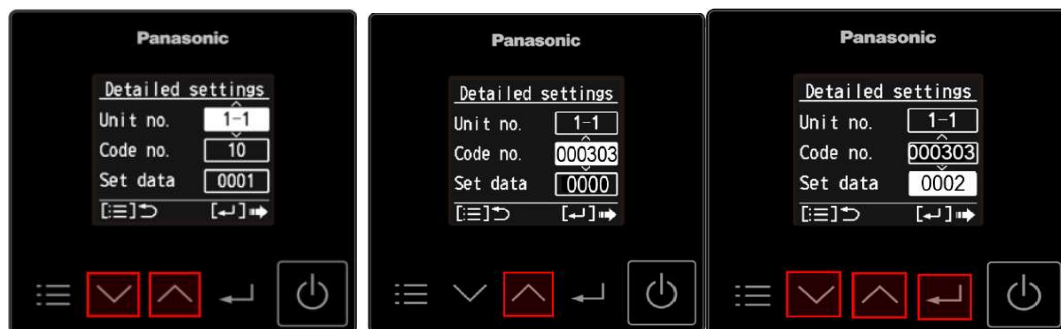
Second change is related to Indoor Unit:

Stop the system before performing these steps.

- (1) Keep pressing the ,  and  buttons simultaneously for 4 or more seconds.
- (ii) This screen will appear.
 - a) Press the down arrow to select "Detailed Settings"



- (iii) Then press ENTER
- (iv) You will use the "UP", "DOWN" and "ENTER" keys to navigate the menus
- (v) Select Unit No. (this will usually 1-1 but can be "ALL")



- (v) Scroll to setting 303 and change to "0002". Then press ENTER to confirm.

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(vi) Scroll to Code No 11 to set the capacity of the Indoor Unit you require as per the table below:

OU model	IU model	DN11	IU model	DN11	IU model	DN11	IU model	DN11
U-36PZH3E5	S-6071PU3E	0011	S-6071PF3E	0011	S-6071PT3E	0011	S-6010PK3E	0011
U-50PZH3E5	S-6071PU3E	0012	S-6071PF3E	0012	S-6071PT3E	0012	S-6010PK3E	0012
U-60PZH3E5	S-6071PU3E	0012	S-6071PF3E	0012	S-6071PT3E	0012	S-6010PK3E	0015
U-71PZH3E5/8	S-1014PU3E	0017	S-1014PF3E	0017	S-1014PT3E	0017	2*S-6010PK3E	0011
U-100PZH3E5/8	S-1014PU3E	0018	S-1014PF3E	0018	S-1014PT3E	0018	2*S-6010PK3E	0012
U-125PZH3E5/8	S-1014PU3E	0018	S-1014PF3E	0018	S-1014PT3E	0018	2*S-6010PK3E	0012
U-140PZH3E5/8	2*S-1014PU3E	0017	2*S-1014PF3E	0017	2*S-1014PT3E	0017	2*S-6010PK3E	0015

(vi) PRESS ENTER otherwise the setting will not be stored

(vii) **Set Cooling Only function (optional)**

- a. Scroll to Code No 0F. This allows you to lock the unit into **COOLING ONLY MODE**
- b. Scroll to "SET DATA"
- c. Then press "UP" or "DOWN" to select "0001"
- d. Press ENTER otherwise the setting will not be stored

(ix) **Set Maximum Temperature**

- (a) Scroll to Code No 1F – This is for **MAXIMUM TEMPERATURE SETTING**
- (b) Scroll to "SET DATA"
- (c) Press "UP" or "DOWN" to select the **MAXIMUM TEMPERATURE SETTING**
- (d) Remember to press "ENTER"

(xi) **Set Minimum Temperature**

- (a) Scroll to Code No 20 – This is for **MINIMUM TEMPERATURE SETTING**
- (b) Scroll to "SET DATA"
- (c) Press "UP" or "DOWN" to select the **MINIMUM TEMPERATURE SETTING**
- (d) REMEMBER TO PRESS ENTER



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- (xii) For the following Outdoor Units these additional parameters need to be set:

U-36PZH3E5 / U-50PZH3E5 / U-60PZH3E5

DN	Default	New
00021C	0006	0001
00021D	0000	-0005
00021E	0009	0004
00021F	0005	-0003
000220	0010	0005
000221	0007	0003
000222	0011	0007
000223	0009	0006

- (xii) Now press  to exit the DETAILED SETTINGS MENU



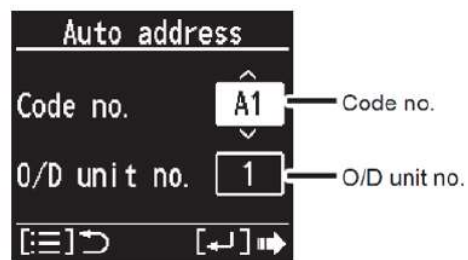
- (xiii) Now all that is left is to address the system.



Press all 3 together



Navigate to Auto address



Select A1 and press Enter