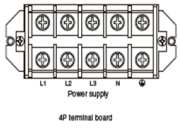
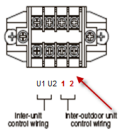
Technical Bulletin

Number	096
Subject	Panasonic System Interrogation via CZ-RTC2
Date	28 November 2013

The Panasonic **CZ-RTC2** controller can be used to interrogate the system for information such as thermistor readings (example return air and pipe temperatures), compressor temperatures and expansion valve operation.

This can be done on a controller installed local to the Indoor or Outdoor Unit.

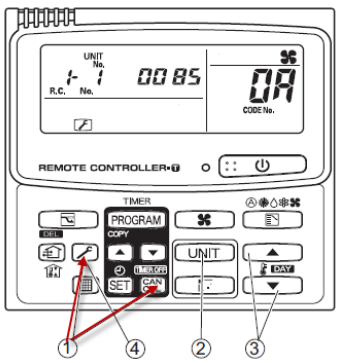




For more detailed information, the CZ-RTC2 should be wired directly into the condensing unit In this case it is advised that monitoring of the condensing unit error history be done at the actual outdoor unit on **Terminals 1&2** (not U1&U2).

Interrogation

Press **SPANNER** and **CANCEL** buttons together for four or more seconds. The **SPANNER** ( ) symbol will illuminate on the controller.



To scroll through Indoor Unit addresses, press the **UNIT** button (No. 2 on drawing)

To scroll through maintenance information, press the Temperature UP or DOWN buttons (No. 3 on drawing)

To leave maintenance mode press the **SPANNER** button (No. 4 on drawing)

Note that when connected to the Outdoor Unit **RC1** will always show on the display as this is the controller you are using.

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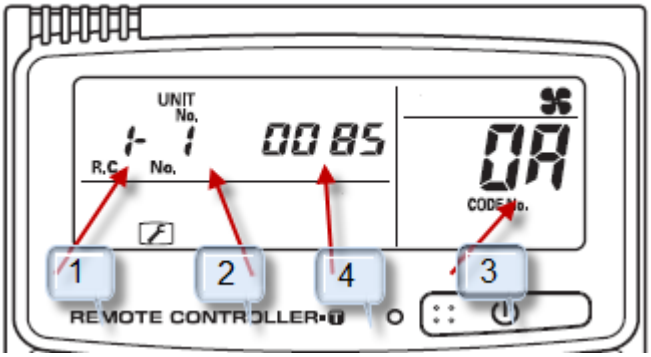
This example shows:



1. RC-1 (controller connected)
2. Indoor Unit 1 (top left – to scroll through Indoor Unit press **UNIT**)
3. Compressor 1 Temperature (OA on Right Hand side. Please see table for all maintenance readings. To scroll through these press temperature **UP** or **DOWN**).
4. Reading (in this instance 0085 in the middle of the screen. This means Compressor Number 1 temperature is 85°C)

Please refer to below (Indoor Units) and the following pages (Outdoor Units) for a full breakdown of the maintenance menu.

Indoor Unit Information		**Unit**	**Reading**
02	Return Air Temp	°C	
03	Thermistor E1	°C	
04	Thermistor E2	°C	
05	Thermistor E3	°C	
06	Discharge Temperature	°C	
07	Discharge Temperature Setting	°C	
08	Indoor Unit EEV position	STEP	

Outdoor Unit 1

0A	Discharge Temp at Compressor 1	°C	
0b	Discharge Temp at Compressor 2	°C	
0C	High Pressure Sensor Temperature	°C	
0d	Heat Exchanger Gas Temperature 1	°C	
0E	Heat Exchanger Liquid Temperature 1	°C	
0F	Heat Exchanger Gas Temperature 2	°C	
10	Heat Exchanger Liquid Temperature 2	°C	
11	Ambient Temperature	°C	
12	Not used	N/A	
13	Inverter Primary Current	Amps	
14	Current at Compressor 2 (CT2)	Amps	
15	MOV1 (Outdoor Expansion Valve) Pulse	STEP	
16	MOV2 (Outdoor Expansion Valve) Pulse	STEP	
17	Discharge Temp at Compressor 3	°C	
18	CT3	Amps	
19	MOV3 (Outdoor Expansion Valve) Pulse	STEP	
1A	MOV4 (Outdoor Expansion Valve) Pulse	STEP	
1b	Heat Exchanger Gas Temperature 3	°C	
1C	Heat Exchanger Liquid Temperature 3	°C	
1d	Low Pressure Sensor Temperature	°C	

1E	Suction Temperature	°C	
1F	Oil Level Compressor 1 (0 = No Oil, 1 = Low, 2 – OK but can switch between 1 & 2 when running)	°C	
20	Oil Level Compressor 2 (0 = No Oil, 1 = Low, 2 – OK but can switch between 1 & 2 when running)	°C	
21	Oil Level Compressor 3 (0 = No Oil, 1 = Low, 2 – OK but can switch between 1 & 2 when running)	°C	
22	Actual Operating Frequency	Hz	
24	SCG	°C	

Outdoor Unit 2

2A	Discharge Temp at Compressor 1	°C	
2b	Discharge Temp at Compressor 2	°C	
2C	High Pressure Sensor Temperature	°C	
2d	Heat Exchanger Gas Temperature 1	°C	
2E	Heat Exchanger Liquid Temperature 1	°C	
2F	Heat Exchanger Gas Temperature 2	°C	
30	Heat Exchanger Liquid Temperature 2	°C	
31	Ambient Temperature	°C	
32	Not used	N/A	
33	Inverter Primary Current	Amps	
34	Current at Compressor 2 (CT2)	Amps	
35	MOV1 (Outdoor Expansion Valve) Pulse	STEP	
36	MOV2 (Outdoor Expansion Valve) Pulse	STEP	

37	Discharge Temp at Compressor 3	°C	
38	CT3 (Current Sensor)	Amps	
39	MOV3 (Outdoor Expansion Valve) Pulse	STEP	
1A	MOV4 (Outdoor Expansion Valve) Pulse	STEP	
1b	Heat Exchanger Gas Temperature 3	°C	
1C	Heat Exchanger Liquid Temperature 3	°C	
1d	Low Pressure Sensor Temperature	°C	
1E	Suction Temperature	°C	
1F	Oil 1	°C	
20	Oil 2	°C	
21	Oil 3	°C	
22	Actual Operating Frequency	Hz	
24	SCG (Sub Cooled Gas Temperature)	°C	

Note that Outdoor Unit 3 starts at "4A" for Compressor Discharge Temp.

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