# **Panasonic**

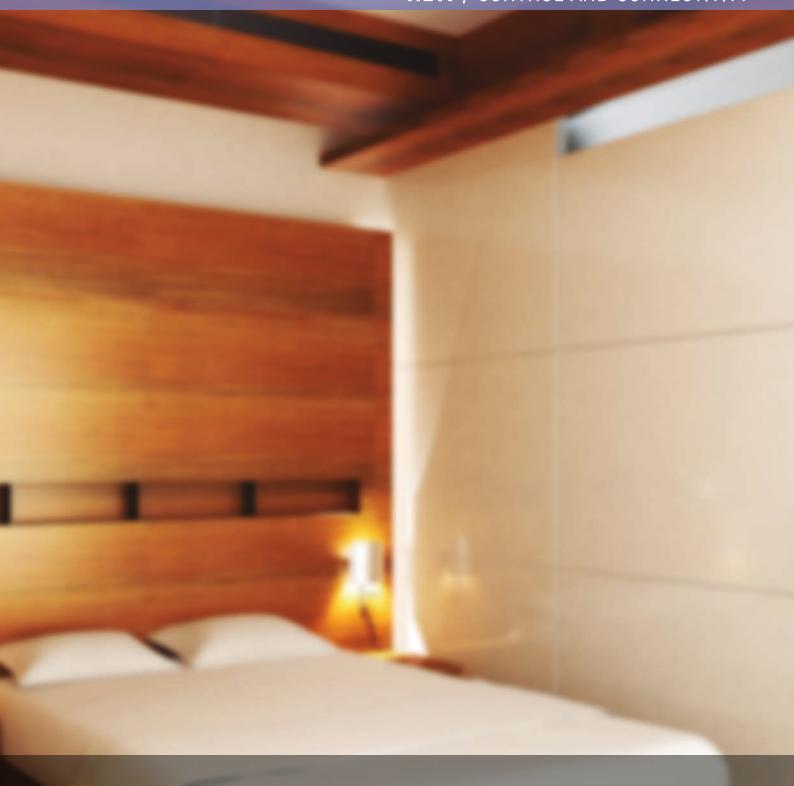












# CONTROL AND CONNECTIVITY

Panasonic has developed the largest range of control systems to offer the best option to each need.

From the individual remote control for the residential single units up to the newest technology to control each your buildings around the world from an easy to use software in the cloud by your portable device.



# Panasonic AC Smart Cloud

#### Take control of all your shops around the world from a single device Centralize control of your business premises, from wherever you are, 24/7

It doesn't matter how many sites you have, or where they are!

The new Cloud system from Panasonic allows you to have complete control of all your installations, from your smartphone or from your computer. In a simple click, all your units from several locations, receive status updates in real-time of all your installations, preventing breakdowns and optimizing costs.



# **NEW** / CONTROL AND CONNECTIVITY



#### With Panasonic AC Smart Cloud, have your business under control, and start saving!

- Monitor temperature in your shops, optimize temperatures, reduce energy costs!
- Monitor running time, anticipate maintenance and optimise costs consumption
- Monitor breakdowns in order to take quick action to maintain the comfort in the shops
- Monitor energy consumption and running time of the units
- Compare the performance of your shops easily and develop best practices plan
- Alarms
- 2 connections possible:
- by internet, using the shop internet connection
- by 3G module. In this case, the system does not need internet connection, but a SIM Card and the 3G contract should be supply on the field.









#### Security

Panasonic has developed both physical and software protection with a high level of encryption to secure your data on our servers which are located in Germany.

#### Scalable solution according to the needs

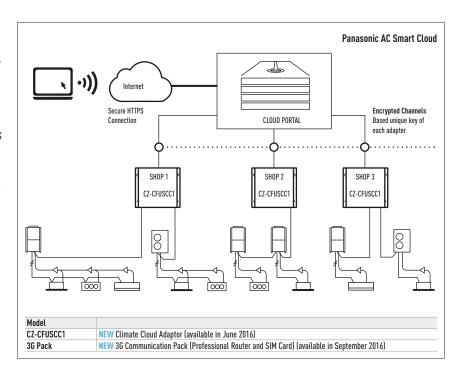
Panasonic AC Smart Cloud is fully scalable to the needs of your shops, franchises, facility companies.

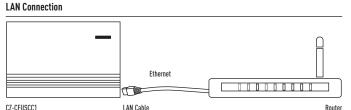
Panasonic AC Smart Cloud is giving value not only for your business but also for your partners

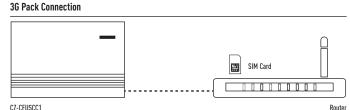
#### Easy to set up the AC Smart Cloud

Panasonic AC Smart Cloud is very easy to install on existing and new installations.

The communication adaptor (CZ-CFUSCC1) is connected to the Panasonic bus and the Ethernet.









# Remote controller with Econavi

Easy to use, attractive, clear design, with new demand control functions and energy consumption display! This useful feature makes this remote control unique!

#### Design

The new CZ-RTC5 wired remote control is ideal for integration into the most demanding interior architectures. The touch panel features a very sleek and easy to use display, which with its compact display is only 120 x 120 x 16mm.

#### Display of information

The information is mainly based on pictograms to ensure easy understanding.

The minimal amount of text is available in 4 languages (English / German / French / Spanish / Italian).

The screen is back lit to enable reading even during the night.

#### Easy Access to the menus

With the new pictograms, the navigation, the selection and the settings are simple and easy to follow.

#### **Key Functions**

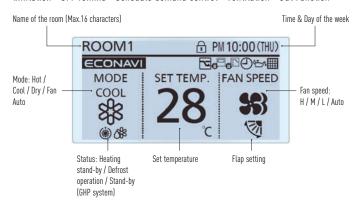
- Easy setup of the timer and settings of the indoor unit
- · Energy consumption display (only available with PACi units with the reference ending with A)
- · Limitation of the energy consumption (Demand control) by timer.



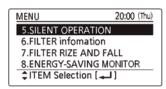
#### Basic function (Operation display & indication)

All functions are easily available on the remote controll.

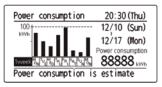
• OFF/ON timer • Weekly timer • Quiet operation • Remote control sensor • Operation prohibit • Filter sign • Energy saving • Centralized control indication • Mode change prohibit • Automatic temperature return • Temperature range limitation • OFF remind • Schedule demand control • Ventilation • Out Function



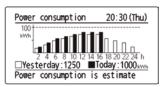
# Example of easy access to the functions: Energy consumption monitoring display per day, week, month and year (only available with PACi units)



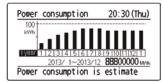
Menu selection: 3 types (Day/Week/Year)of display are available.



Weekly Energy consumption: Power consumption of each day of the week can be checked.



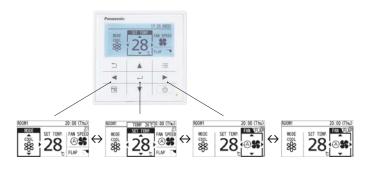
Daily Energy consumption: Data is shown with Yesterday's record.(Graph starts from 0 o'clock to 24 o'clock only.)



Annual Energy consumption: Power consumption of each month can be checked.

#### Easy operation and quick access to all menus

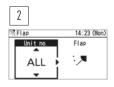
- 1. Set temperature will be selected, when any arrow button is touched.
- 2. Select the item (Mode or Fan speed) by left/right ◀▶ key.
- 3. Change the setting by up/down ▲▼ key.

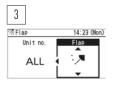


#### Example of easy access to the functions: Air direction setting

- 1. Select "Air direction" and press "determine" key
- 2. Select the unit No. by up/down key
- 3. Select the flap position by up/down key
- 4. Press "Return" key to go back the Menu display







#### Functions available on the CZ-RTC5

Control item	Controllability	Indoor Unit	ts	
		All PACi	Only PACi ending on A	All VRF
Basic Operation	Operation, Mode, Temperature setting, Airflow volume, Airflow direction	~	~	~
Timer function	Time display	V	V	V
	Easy ON/OFF timer	V	V	V
	Weekly Program timer	V	V	V
Energy saving	Outing function	V	V	-
	Temperature auto return	V	V	_
	Temperature setting range limitation	V	V	_
	OFF remind	V	V	-
	Energy saving mode	V	V	-
	Schedule demand control	_	V	_
	Energy monitoring	_	V	_
Maintenance	System failure information	_	V	_
	Service contact registration	V	V	V
	Filter sign (rest time display) & Reset	V	V	<b>V</b>
	Auto-address, Test run	V	V	<b>V</b>
	Sensor value monitor	V	V	V
	Simple/Detail setting mode	V	V	V
Others	Key lock	V	V	~
	Ventilation fan control	V	V	V
	Display contrast adjustment	V	V	V
	Remote controller sensor	V	V	V
	Quiet operation mode	-	V	_
	Prohibit setting control from Central controller	V	V	~

All specifications subject to change without notice.

#### Example of easy access to the functions: Weekly timer setting

8 actions available per day. Total 56 actions per week can be set.

- 1. Weekly timer menu display
- 2. Setting for each day of the week
- 3. Timer program setting of the day





3				
Th Se	t Heekly	timer	14:43	(Mon)
Day	SUN MON	TUE WED	THU FRI	SAT
1.	:		-	-°C
2.	:		-	-°C
3.	:		-	-°C
4 b D	av [i]	Set		



Wired remote controller CZ-RTC5 with Econovi Sensor Control

# Econavi Sensor

The all new Econavi Sensor detects presence in the room, and quietly adapts the PACi or VRF air conditioning system in order to improve comfort and maximise energy savings.

- Detects human activity and adjusts temperature by 2 degrees (up or down) to optimize comfort and efficiency
- If there is no activity detected for a set time, the Econavi will stop the unit or move to a new temperature previously set
- The Econavi device is installed independently of the indoor unit, and is located in the area best suited for detection

#### **Applications**

Saving Energy for Offices: if the air conditioning is left on after the last employee leaves the office, Econavi will automatically react, reducing or stopping the system.

Increased comfort in hotel rooms: when presence is detected in the room, the temperature is automatically adjusted to achieve best comfort.

#### **Econavi function**

- Analyses room activity: Human activities and human heat
- Modifies the capacity to adapt in real-time to the needs of the room

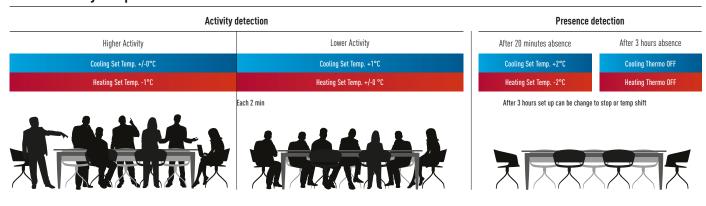
#### **Key points**

- · Compatible with Cassette, Wall Mounted, Hide Away and Ceiling
- Sensor
- Improves efficiency
- Better Comfort
- Can be installed in the best place of the room for detection purposes

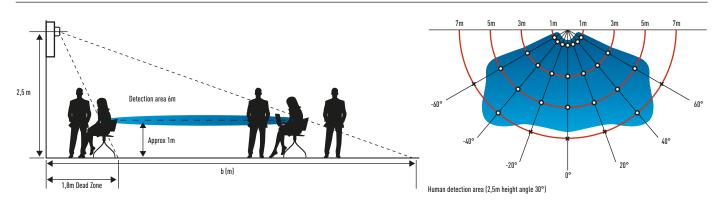


Econavi Sensor reference: CZ-CENSC1

#### **Human activity and presence detection**



#### **Sensor location image**

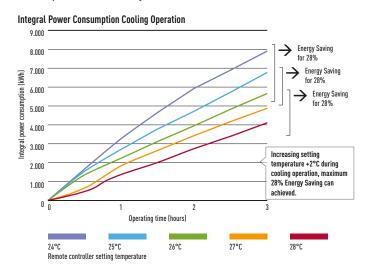


#### Model evaluation only for PACi (Laboratory Testing / Cooling Operation)

#### **Test Method**

To establish conditions for our field tests, because human movements and door open/close are random, we did not test on set conditions. To replicate typical conditions, we have fixed variable numbers (see below) and tested how Econavi's temperature control function contributes to energy efficiency level.

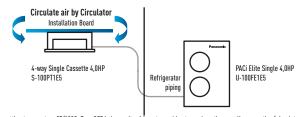
For each temperature setting, we have tested and compared power consumption at three-hourly intervals.



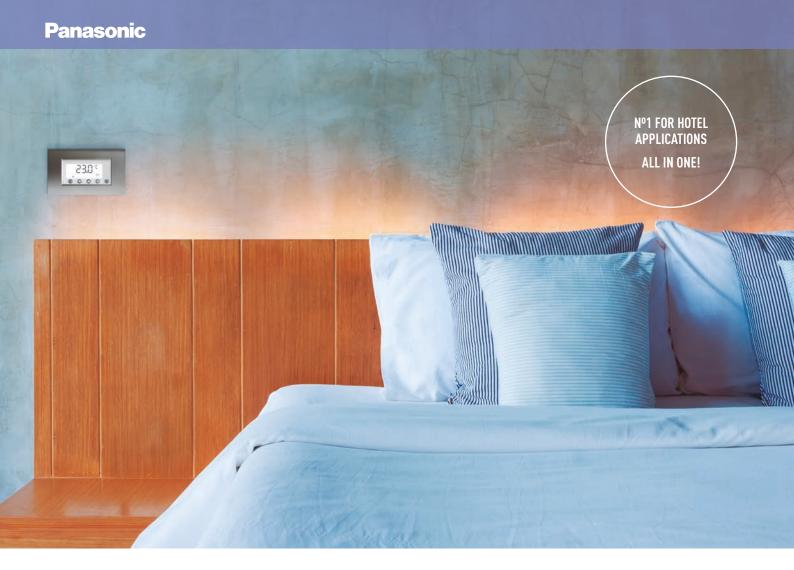
#### **Test Condition**

- Testing location: New 6,0HP testing room / 29m<sup>2</sup>
- Test sample remote controller setting: Setting temperature:
   Cooling 24 ~28°C / Fan Speed: Hi
- Measured integral power consumption every 30 minutes and compare (including thermo OFF period)
- Room temperatures / 19°C, outdoor temperature 35/24°C (cooling nominal capacity) cool down the room for 1 hour and keep the room temperature stable. After the room temperature become stable, turn OFF indoor unit refrigerator and heater and only operate circulator and continue cooling down the room by the unit (operating circulator to avoid temperature variation)

#### Test Sample Testing Location: Building 1.460 New 6,0HP testing room



Indoor setting temperature 27/19°C. Turn OFF indoor unit refrigerator and heater and continue cooling operation (circulator operation ON).





# Control for hotel application

More easier to install, cheaper to integrate one only control to integrate all devices. Nice, easy and cost effective!

Panasonic has developed an innovative line up of remote controls specially designed for applications:

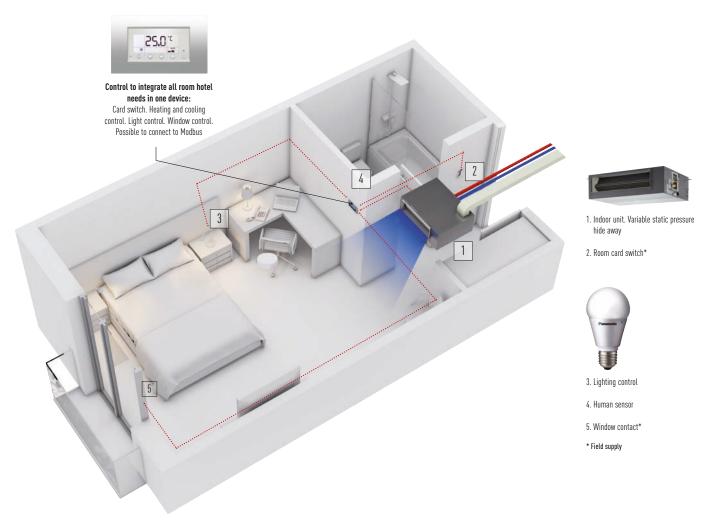
- · Easy to install
- Cost effective installation as all electrical cable are centralized on this remote
- Architect inspired attractive design
- Direct connection to the Indoor unit with most of the functions of the indoor unit
- 3 options available: Stand-Alone, Modbus or LonWorks communication
- 2 frame colours: White and aluminium

**From this remote control:** The lighting, card contact, motion detector, window contact and the air conditioning are controlled.

**Energy saving functions included on the device:** • Turns Off air conditioning and lighting when room is unoccupied • Disables air conditioning when window is open • Maximum/minimum setpoint temperature configurable

**Easy remote control:** The hotel customer will have access to limited functions to control the air conditioning: ON/OFF, Temperature (under a certain limit fixed during the start up) and Fan speed

**Easy set up:** Stand-Alone model with easy configuration menu to access all parameters. The installation is simplified as all the cables should arrive to the remote control. A pre-define scenario can be uploaded on the remote control connected to a computer to make installation on site plug and play (only on the Modbus and LonWorks models).



#### Four preconfigured systems (option 1 to 4)

The remote control have a 4 preconfigured systems in order to easily integrate it.

#### 4 options available I/O configurations: Inputs

Configurations	Digital	Digital	Digital	Analog
	1-2	3-4	5-6	7-8
Option 1	Card	Window	Lighting	Temperature
Option 2	Card	Window	Blinds Up	Blinds Down
Option 3	Motion Sensor	Window	Door Contact	Temperature
Option 4	Lighting	Window	Blinds Up	Blinds Down

#### Available I/O Configurations: Outputs

Configurations	Relay	Relay	Relay	Relay
	15-16	13-14	11-12	9-10
Option 1	Courtesy	Lighting	Not Used	Valve actuator
Option 2	Courtesy	Lighting	Blinds Up	Blinds Down
Option 3	Courtesy	Lighting	Not Used	Valve actuator
Option 4	Not used	Lighting	Blinds Up	Blinds Down

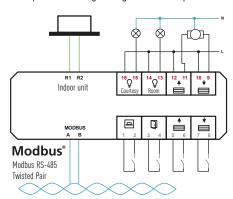
#### I/O Definitions: Inputs

Description	Functionality
Card	Occupancy room status. Enable HVAC Control and automatically switches ON Courtesy and Lighting outputs
Window	Temporary disables HVAC System
Lighting	Push button to turn ON/OFF Lighting Output when room occup.
Temperature	Analog input for Valve Actuator output control on 2nd zone
Blinds Up	Push button for Blind Up motor output control
Blinds Down	Push button for Blind Down motor output control
Motion Sensor	In combination with Door Contact, enables HVAC Control and automatically switches ON Courtesy and Lighting outputs
Door Contact	In combination with Motion Sensor, enables HVAC Control and automatically switches ON Courtesy and Lighting outputs

#### I/O Definitions: Outputs

Description	Functionality
Courtesy	Automatically turns ON when room changes to occupied or unoccupied mode. It turns to OFF after a configurable time-out
Lighting	Automatically turns ON/OFF when room changes to occupied/unoccupied. Manual override with Lighting input
Valve Actuator	HVAC Control for a 2nd zone
Blinds Up	Output for Blind Up motor control
Blinds Down	Output for Blind Down motor control

#### Example I/O: Wiring configuration for Option 2



#### Example I/O: Option 2

Terminals	Description	Туре
A, B	Modbus RS-485	Bi-directional
R1, R2	Indoor Unit	Bi-directional
1, 2	Card contact	Digital Input
3, 4	Window Contact	Digital Input
5, 6	Blinds Up	Digital Input
7,8	Blinds Down	Analog Input
9, 10	Blinds Down	Relay Output
11, 12	Blinds Up	Relay Output
13, 14	Lighting Room	Relay Output
15 16	Lighting Courtesy	Relay Outnut

#### Panasonic Reference

PAW-RE2C3-WH	Stand-Alone with I/O White frame
PAW-RE2C3-GR	Stand-Alone with I/O Grey Frame
PAW-RE2C3-MOD-WH	Modbus RS-485 with I/O White frame
PAW-RE2C3-MOD-GR	Modbus RS-485 with I/O Grey frame
PAW-RE2C3-LON-WH	LonWorks TP/FT-10 with I/O White frame
PAW-RE2C3-LON-GR	LonWorks TP/FT-10 with I/O Grey frame

# Control systems for PACi, ECOi and ECO G

					Econavi control	Power consumption monitor	Built-in thermostat
	Control for hotel application (for VRF)	Intelligent Controller	25.0°	PAW-RE2C3-WH PAW-RE2C3-GR PAW-RE2C3-MOD-WH PAW-RE2C3-MOD-GR PAW-RE2C3-LON-WH PAW-RE2C3-LON-GR PAW-RE2C3-LON-GR  Stand-Alone White	_	_	<b>V</b>
40	Wired remote controller	Normal operation with Econavi	28 - 20	CZ-RTC4	<b>V</b>	<b>√</b> <sup>2</sup>	<b>V</b>
Individual Controllers		Design wired remote controller	28 m	CZ-RTC5	<b>V</b>	<b>✓</b> ²	<b>V</b>
Individua		Normal operation	88	CZ-RTC2 (for Floor Standing (MP1) indoor units)	_	_	•
	Wireless remote controller	Wireless remote controller	######################################	CZ-RWSU2N // CZ-RWSL2N // CZ-RWSK2 // CZ-RWSD2 // CZ-RWST3N // CZ-RWSK2 + CZ-RWSC3	_	_	<b>V</b>
	Quick and easy operation	Simplified remote controller		CZ-RE2C2  CZ-RE2C3 (For duct types series compatible with CZ-RWSK2 (not included))	_	_	
Timer Operation	Daily and weekly program	Schedule timer	9	CZ-ESWC2	_	_	-
	Operation with various function from center station	New System Controller with Schedule timer	The second secon	CZ-64ESMC3 (available in May 2016. Tentative data)	V	_	_
Controllers		System controller	**************************************	CZ-64ESMC2	_	_	_
Centralized Controllers	Only ON/OFF operation from center station	ON/OFF Controller		CZ-ANC2 CZ-ANC3 (available in December 2016)	_	_	-
	Simplified load distribution ratio (LDR) for each tenant	Intelligent Controller (Touch screen panel)		CZ-256ESMC2 (CZ-CFUNC2) CZ-256ESMC3 (available in February 2017)	_	_	_

<sup>1.</sup> Setting is not possible when a remote control unit is present (use the remote control for setting). 2) Only for PACi Elite except 50 type. \* All specifications subject to change without notice.

#### **Centralized Control Systems**

BMS System. PC Base	P-AIMS. Basic Software	Parasonic P-AIMS 1 intrinsposa accordance	CZ-CSWKC2
	Web Interface Systems		CZ-CWEBC2

Indoor units which can be controlled	Use limitations	Function ON/ OFF	Mode setting	Fan speed setting	Temperature setting	Air flow direction	Permit/ Prohibit switching	Weekly program
1 indoor unit	-	<b>V</b>	AUTO	V	<b>V</b>	_	~	_
1 group, 8 units	- Up to 2 controllers can be connected per group	V	V	<b>v</b>	<b>V</b>	~	_	<i>'</i>
1 group, 8 units	- Up to 2 controllers can be connected per group	V	V	V	<b>v</b>	~	_	<i>'</i>
1 group, 8 units	- Up to 2 controllers can be connected per group	V	<b>v</b>	<b>V</b>	V	~	_	<b>V</b>
1 group, 8 units	• Up to 2 controllers can be connected per group	<b>V</b>	<b>V</b>	~	<i>V</i>	<b>✓</b> 1	_	_
1 group, 8 units	- CZ-RE2C2: up to 2 controllers can be connected per group	<b>V</b>	<b>V</b>	~	<i>V</i>	<b>✓</b> 1	_	_
64 groups, maximum 64 units	Required power supply from the system controller     When there is no system controller, connection is possible to the T10 terminal of an indoor unit	_	_	_	-	_	_	<i>'</i>
64 groups, maximum 64 units	Up to 10 controllers, can be connected to one system     Main unit/sub unit (1 main unit + 1 sub unit) connection is possible     Use without remote controller is possible	V	V	V	<b>V</b>	<b>✓</b> 1	<b>V</b>	<b>~</b>
64 groups, maximum 64 units	Up to 10 controllers, can be connected to one system     Main unit/sub unit (1 main unit + 1 sub unit) connection is possible     Use without remote controller is possible	V	V	~	V	<b>✓</b> 1	~	_
16 groups, maximum 64 units	Up to 8 controllers (4 main units + 4 sub units) can be connected to one system     Use without remote controller is impossible	V	_	_	-	_	V	_
64 units x 4 systems, maximum 256 units	A communication adaptor (CZ-CFUNC2) must be installed for three or more systems	~	<b>V</b>	<b>'</b>	V	<b>✓</b> 1	~	<b>V</b>

Connection with 3rd Party Controller	Seri-Para I/O unit for outdoor unit		CZ-CAPDC2
	Local adaptor for ON/OFF control	5	CZ-CAPC2
	Mini Seri-Para I/O Unit 0 -10V	A	CZ-CAPBC2
	Communication Adaptor		CZ-CFUNC2

# **Individual Controllers**

#### Control for hotel application. Intelligent Controller (for VRF)



# PAW-RE2C3-WH // PAW-RE2C3-GR // PAW-RE2C3-MOD-WH // PAW-RE2C3-MOD-GR // PAW-RE2C3-LON-WH // PAW-RE2C3-LON-GR

- Easy to install
- Cost effective installation as all electrical cable are centralized on this remote
- · Architect inspired attractive design
- Direct connection to the Indoor unit with most of the functions of the indoor unit
- 3 options available: Stand-Alone, Modbus or LonWorks communication
- 2 frame colours: White and aluminium

#### From this remote control

The lighting, card contact, motion detector, window contact and the air conditioning are controlled.

#### Energy saving functions included on the device

- Turns Off air conditioning and lighting when room is unoccupied Disables air conditioning when window is open
- · Maximum/minimum setpoint temperature configurable

#### Wired remote controller. Normal operation with Econavi





#### CZ-RTC4

- Time Function 24 hours real time clock (week day indicator)
- Weekly programme function (a maximum of 6 actions can be programmed for each day)
- Sleeping function (this function controls the room temperature for comfortable sleeping)
- Maximum 8 indoor units can be controlled from one remote controller
- Remote control by main remote controller and sub controller is possible (maximum 2 remote controllers (main remote controller and sub controller) can be installed for one indoor unit)
- Possible to connect to the outdoor unit using PAW-MRC cable for servicing purposes
- Outing function (this function can prevent the room temperature from dropping or rising when the occupants are out for a long time)

- Dimensions (H x W x D:) 120 x 120 x 20 mm
- Weight: 160 g

#### Basic remote controller ON/OFF

- · Econavi compatible
- Operation mode changeover (Cooling, Heating, Dry, Auto, Fan)
- Temperature setting (Cooling / Dry: 18-30 °C Heating: 16-30 °C)
- Fan speed setting High / Medium / Low and Auto
- · Air flow direction adjustment

#### Wired remote controller. Design wired remote controller





#### CZ-RTC5

- Power consumption monitor (only for PACi)
- · Flat face design & Touch sensor switch for stylish design and operating usability
- New functions such as for Energy saving & monitoring and for Service use are available on the Full dot LCD (3,5" display)
- · Improved illumination
- · White LED backlit
- · Blink when alarm occurs

#### **Basic Operation**

· Operation · Mode · Temperature setting · Airflow volume · Airflow direction

#### **Timer function**

 $\cdot$  Outing function  $\cdot$  Weekly Program timer  $\cdot$  Easy ON/OFF timer  $\cdot$  Time display

#### **Energy saving**

• Outing function • Temperature setting range limitation • Temperature auto return • OFF remind • Schedule demand control • Energy saving mode • Energy monitoring

#### **Others**

- $\cdot$  Key lock  $\cdot$  Ventilation fan control  $\cdot$  Display contrast adjustment  $\cdot$  Remote controller sensor
- Quiet operation mode Prohibit setting control from Central controller
- \* Several functions can not use on some outdoor unit. Ex. Power consumption monitor is not available for PACi Standard, Big PACi and PACi Etite 50 type.

#### Wired remote controller. Normal operation (for Floor Standing (MP1) indoor units)



#### CZ-RTC2

- Time Function 24 hours real time clock (week day indicator)
- Weekly programme function (a maximum of 6 actions can be programmed for each day)
- Sleeping function (this function controls the room temperature for comfortable sleeping)
- Maximum 8 indoor units can be controlled from one remote controller
- Remote control by main remote controller and sub controller is possible (maximum 2 remote controllers (main remote controller and sub controller) can be installed for one indoor unit)
- Possible to connect to the outdoor unit using PAW-MRC cable for servicing purposes

 Outing function (this function can prevent the room temperature from dropping or rising when the occupants are out for a long time)

#### Basic remote controller ON/OFF

- Operation mode changeover (Cooling, Heating, Dry, Auto, Fan)
- Temperature setting (Cooling / Dry: 18-30°C Heating: 16-30°C)
- Fan speed setting High / Medium / Low and Auto
- · Air flow direction adjustment
- Dimensions (H x W x D): 120 x 120 x 16mm

#### Wireless remote controller



# CZ-RWSU2N // CZ-RWSL2N // CZ-RWSK2 // CZ-RWSD2 // CZ-RWST3N // CZ-RWSK2 + CZ-RWSC3

- Easy installation for the 4 Way cassette type simply by replacing the corner part
- 24 hour timer function
- Remote control by main remote controller and sub controller is possible (Max. 2 remote controllers (main remote controller and sub controller) can be installed for one indoor unit)
- When CZ-RWSC3 is used, wireless control becomes possible for all indoor units (1: when a separate receiver is set up in a different room, control from that room also becomes possible. 2: automatic operation by means of the emergency operation button is possible even when the remote controller has been lost or the batteries have been exhausted)
- Operation of separate energy recovery ventilators (When commercial ventilation fans or heat-exchange ventilation fans have been installed, they can be operated with this remote control (interlocked operation with the indoor unit or independent ventilation ON/OFF)

#### Simplified remote controller. Quick and easy operation



#### CZ-RE2C2 / CZ-RE2C3. A remote controller with simple functions and basic operation

- Suitable for open rooms or hotels where detailed functions are not required
- ON/OFF, operation mode switching, temperature setting, air speed switching, air flow direction setting, alarm display, and remote controller self-diagnosis can be performed
- Batch group control for up to 8 indoor units
- Remote control by main remote controller and sub controller is possible with a simplified remote controller or a wired remote controller (up to two units)
- Dimensions (H x W x D): 120 x 70 x 16mm

		Part name, model No.	Quantity
		Timer remote controller: CZ-RTC4	1 unit each
	<ul> <li>Cooling or heating mode of the outdoor unit is decided by the first priority of the remote controller</li> </ul>	Wired remote controller: CZ-RE2C2 // CZ-RELC2	
	Switching between remote controller sensor and body sensor is possible	Wireless remote controller: CZ-RWSU2N // CZ-RWSL2N // CZ-RWSG2 // CZ-RWSK2 // CZ-RE2C2	
1) Group control	Batch remote control on all indoor units	Timer remote controller: CZ-RTC4	1 unit
	Operation of all indoor cells in the same mode	Wired remote controller: CZ-RE2C2	
	• Up to 8 units can be connected	Wireless remote controller: CZ-RWSU2N // CZ-RWSL2N // CZ-RWSG2 // CZ-RWSK2 // CZ-RE2C2	
(2) Main/sub	• Max 2 remote controllers per indoor unit	Main or sub. Timer remote controller: CZ-RTC4	As required
remote control	The button pressed last has priority	Wireless remote controller: CZ-RWSU2N // CZ-RWSL2N // CZ-RWSG2 //	
	Timer setting is possible even with the sub remote controller	CZ-RWSK2 // CZ-RE2C2	

#### Individual Controllers

#### Remote sensor



#### CZ-CSRC3

- This remote sensor can be connected to any indoor unit. Please use it to detect the room temperature when no remote controller sensor or body sensor is used (connection to a system without a remote controller is possible)
- For joint use with a remote control switch, use the remote control switch as main remote controller
- · Batch group control for up to 8 indoor units

- Appearance design based on simplified remote controller chassis
- Dimensions (H x W x D): 120 x 70 x 17mm
- Weight: 70 g
- Temperature/Humidity range: 0 °C to 40 °C / 20 % to 80 % (No condensation)
- Power Source: DC16 V (supplied from indoor unit)
- · Number of connected indoor units: Up to 8 units

#### Centralised Controllers

#### Schedule timer. Daily and weekly program

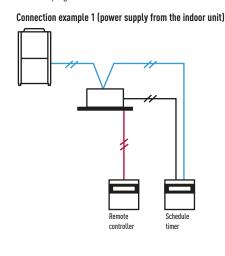


#### CZ-ESWC2

The power supply for the schedule timer is taken from one of the following.

- 1. Control circuit board (T10) of a nearby indoor unit (power supply wiring length: within 200 m from the indoor unit)
- 2. System controller (power supply wiring length: within 100 m from the indoor unit) When the power supply for the schedule timer is taken from the control circuit board of the indoor unit, that indoor unit cannot be used with other control devices using the CZ-T10 terminal. As operation mode and temperature settings are not possible with the schedule timer, it must be used together with a remote controller, a system controller, an intelligent controller, etc. Also, as it does not have an address setting function, the control function of a system controller etc. must be used for address setting.
- Up to 64 groups (maximum 64 indoor units) can be controlled divided into 8 timer groups
- Six program operations (Operation/Stop/Local permission/ Local prohibition) per day can be set in a program for one week

- Only operation or stop, remote controller local permission or remote controller local prohibition, and their respective combinations are possible. (Operation + local permission, stop + local prohibition, only local permission, etc.)
- Local prohibition and the combination of the three items of temperature setting, mode change, and operation/stop can be set at the time of installation
- A function for pausing the timer in case of national holidays has been added, and timer operation also can be stopped for a long time
- By setting holidays or operation stop within one week, the timer can be paused just for that week
- All timer settings can be stopped with the timer "ON/OFF effective" button. (Return to timer operation is made by pressing the button again.)
- Dimensions (H x W x D): 120 x 120 x 16 mm



#### Connection example 2 (power supply from the central controller) Indoor/outdoor Schedule System operation wire Zone 1 Timer group 1: Centralised Timer group 2: Centralised Centralised addresses Zone 2 Centralised Timer group 3: Centralised Timer group 4: Centralised addresses 17 addresses 17 to 24 to 32 Zone 3 Centralised Timer group 6: Centralised Timer group 5: Centralised addresses 33 addresses 33 to 40 addresses 41 to 48 to 48 Zone 4 Centralised Timer group 7: Centralised Timer group 8: Centralised addresses 49 addresses 49 to 56 addresses 57 to 64 to 64

#### ON/OFF Controller. Only ON/OFF operation from center station



- 16 groups of indoor units can be controlled
- Collective control and individual group (unit) control can also be performed
- Up to 8 ON/OFF controller (4 main, 4 sub) can be installed in one link system
- The operation status can be determined immediately
- Dimensions (H x W x D): 121 x 122 x 14 + 52 mm (embedding dimension)

Power supply: AC 220 to 240 V.

I/O part: Remote input (effective voltage: within DC 24 V): All ON/OFF.

Remote output (allowable voltage: within DC 30 V): All ON, All alarm.

Note: As operation mode and temperature settings are not possible with the ON/OFF controller, it must be used together with a remote controller, a system controller etc.

#### New System Controller with Schedule timer. Operation with various function from center station



#### CZ-64ESMC3

#### Panasonic unveils state-of-the-art digital controller

Panasonic has launched its latest controller, an innovative and easy to use interface that offers full functionality with an integrated schedule timer and system controller, making managing heating and cooling systems easier than ever before. The CZ-64ESMC3 includes Panasonic's popular schedule timer, which gives users full. Flexibility over when they want their property heated or cooled. Users can adjust the system for holidays, pausing operations for long periods of time so that energy isn't wasted heating or cooling an empty home or office. The controller also allows six operations per day to be programmed.

#### Mix of current 2 controllers: System controller + Schedule timer

New system controller will be designed by taking priority on these 2 operations with following technical key points:

- $\boldsymbol{\cdot}$  Same operation feeling as new wired remote controller by touch-key panel
- High visibility and usability by Full-dot LCD
- · Based on High wired remote controller
- Maximum 64 group of indoor units, Individual control for 64 units
- 4 zone control; 1 zone = Maximum 16 groups
- · Several energy saving function (based on CZ-RTC5)
- 6 timer program per day for 1 week (7 days) operation (Total 6 x 7= 42 programs)
- Basic setting items (Temperature, Mode, Fan speed, Flap position) can be set by same manner as CZ-RTC5

#### **Function list**

From CZ-64ESMC2 System controller:

- · Central control / individual setting
- Start-stop prohibition for remote controller
- Start-stop / Mode change / Temperature setting prohibition for remote controller
- Mode change / Temperature setting prohibition for remote controller
- Mode change prohibition for remote controller
- Select items for prohibition
- Filter information
- Filter sign
- Filter sign reset
- · Ventilation setting

#### From CZ-ESWC2 Schedule timer:

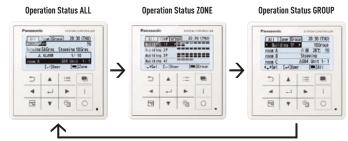
Weekly Timer

- Timer setting Enable / Disable
- Copy of Timer setting
- Maintenance
- External signal (Start / Stop) (Demand control)
- Centralized control master-slave setting
- Alarm history
- · Initial setting
- Clock

#### From CZ-RTC5

- · Energy-saving control
- Econavi On/Off
- Filter information
- Filter sign and Hour counter display
- Maintenance
- Service contact
- Initial setting
- Clock display setting
- Name Setting
- Operation lock setting
- Operation sound setting
- LCD contrast setting
- LCD backlight setting
- Select displayed language (EN / FR / IT / ES / DE)
- Administrator password
- · Setting information list

#### Sample display image / Operation status display



#### Centralised Controllers

#### System controller. Operation with various function from center station



#### CZ-64ESMC2

Dimensions (H x W x D):  $120 \times 120 \times 21 + 69 \text{ mm}$  (embedding dimension). Power supply: AC 220 to 240 V.

I/O part: Remote input (effective voltage: DC 24 V): All ON/All OFF.

Remote output (voltage-free contact): All ON/All OFF (external power supply within DC 30 V, maximum 1 A).

Total wiring length: 1 km.

#### Individual control is possible for maximum 64 groups, 64 indoor units

Control of 64 indoor units divided into 4 zones. (One zone can have up to 16 groups, and one group can have up to 8 units.)

Control is possible for ON/OFF, operation mode, fan speed, air flow direction (only when used without a remote controller), operation monitoring, alarm monitoring, ventilation, remote controller local operation prohibition, etc.

Individual: All operations are possible from the remote controller. However, the contents will be changed to the last settings used on the controller.

Central 1: The remote controller cannot be used for ON/OFF. (All other operations are possible from the remote controller.)

Central 3: The remote controller cannot be used for mode change or temperature setting change. (All other operations are possible from the remote controller.)

Central 4: The remote controller cannot be used for operation mode change. (All other operations are possible from the remote controller.)

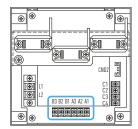
# Joint use with a remote controller, an intelligent controller, a schedule timer, etc. is possible

The maximum number of connectable system controllers is 10, including other central controllers on the same circuit.

In case of joint use with a wireless remote controller, there are limitations for the control mode. Please use only with "Individual" and "Central 1".

# Control of systems without a remote controller and of main/sub systems (a total of up to 2 units) is possible

#### **External Contacts On Central Controllers**



Terminals for remote monitoring:

- A1) Input for turning ON air conditioners concurrently
- A2) Input for turning OFF air conditioners concurrently
- A3) Common input for turning air conditioners ON or OFF
- B1) On operation state indicator output
- B2) Alarm indicator output
- B3) Common indicator output

#### A control mode corresponding to the use condition can be selected from 10 patterns

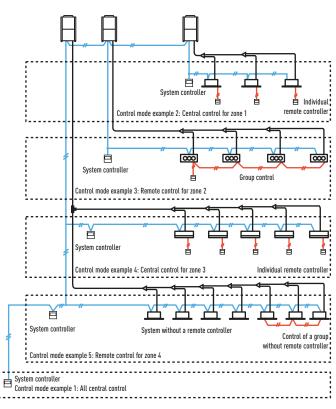
A. Operation mode: Central control mode or remote control mode can be selected Central control mode: The system controller is used as centralised control device. (Setting from a remote controller can be prohibited by prohibiting local operation from the system controller.)

Remote control mode: The system controller is used as a remote controller. (Setting from the system controller can be prohibited by prohibiting local operation from another central control unit.)

B. Controlled unit number mode: All mode or zone 1, 2, 3, 4 mode can be selected All mode: All, zone, or group unit can be selected.

Zone 1, 2, 3, 4 mode: Setting is possible only for the indoor units of zone 1, 2, 3, or 4.

Connection e	xample			
		A Operation mode		
		Central control mode	Remote control mode	
_	All mode	All central control. Example 1	All remote control	
B	Zone 1 mode	Zone 1 central control. Example 2	Zone 1 remote control	
Controlled	Zone 2 mode	Zone 2 central control	Zone 2 remote control. Example 3	
unit number	Zone 3 mode	Zone 3 central control. Example 4	Zone 3 remote control	
mode	Zone 4 mode	Zone 4 central control	Zone 4 remote control. Example 5	



#### Intelligent Controller (Touch screen panel). Simplified load distribution ratio (LDR) for each tenant

# TOUCH PANEL

#### CZ-256ESMC2

Dimensions (H x W x D): 240 x 280 x 138mm.

Power supply: AC 100 to 240 V (50 Hz), 30 W (separate power supply).

I/O part: Remote in put (voltage-free contact): All ON/OFF.

Remote output (voltage-free contact): All ON, All alarm (external power supply within DC 30 V, 0.5 A).

Total wiring length: 1 km for each system.

Only for embedding in the panel.

#### Limitation contents for prohibited operation

Prohibition means limiting the operations possible from the remote controller. It is also possible to change the prohibition items.

#### Limitation contents (limitations can be user defined)

- Individual No limits are set for the remote controller operation. However, the contents will be changed to the controller's last settings (last-pressed priority)
- Prohibition 1 The remote controller cannot be used for ON/OFF (all other operations are possible from the remote controller)
- Prohibition 2 The remote controller cannot be used for ON/OFF, operation mode change and temperature setting (all other operations are possible from the remote controller)
- Prohibition 3 The remote controller cannot be used for operation mode change and temperature setting (all other operations are possible from the remote controller)
- Prohibition 4 The remote controller cannot be used for operation mode change (All other operations are possible from the remote controller)

Note: Avoid joint use of the AMY system and the intelligent controller on the same indoor/ outdoor operation line.

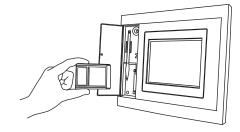
- Max. 256 indoor units (4 systems x 64 units) can be controlled. In case of three or more systems, a communication adaptor CZ-CFUNC2 must be installed on the outside
- Operation is possible as batch, in zone units, in tenant and in group units
- ON/OFF, operation mode setting, temperature setting, fan speed setting, air flow direction setting (when used without a remote controller), and remote controller local operation prohibition (prohibition 1, 2, 3, 4)
- A system without a remote controller is possible. Joint use with a remote controller or a system controller is also possible
- Use of a schedule timer and holiday setting also can be done
- Proportional distribution of the air conditioning energy is possible. Including CSV-file export via CF-card (supplementary accessory)
- · Pulse signal input from electric/gas consumption meter

In case of joint use with a wireless remote control system, there are limitations for the control mode. Please use only with "Permission" and "Prohibition 1".

#### CZ-CBPCC2: Additional back up memory for CZ-256ESMC2.

#### Setting the PC Card

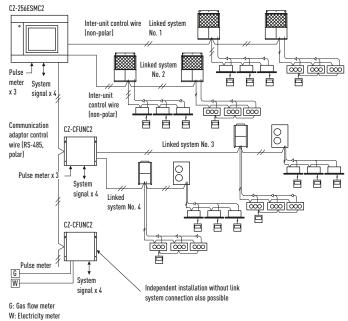




#### Web application



#### System Configuration Example



Maximum number of connections

Indoor units: 256 (64/link x 4)

Outdoor units: 120 (30/link x 4)

Communication adaptors: 7

Link systems (Inter-unit control wires): 4

# Centralised Control Systems

#### Web Interface System. BMS System. PC Base

Dimensions (H x W x D): 248 x 185 x 80mm Power supply: AC 100 to 240 V (50/60Hz), 17 W (separate power supply)

#### Functions

- · Access and operation by Web browser
- · Icon display
- Language codes available in English, French, German, Italian, Portuguese, Spanish
- Individual control possible (maximum 64 indoor units) ON/OFF operation mode, set temperature, fan speed, Flap set, timer ON/OFF alarm code monitoring, prohibit Remote Control
- Zone control\*
- All Units control
- · Alarm Log
- · Mail Sent Log
- Program Timer set 50 daily timers with 50 actions each day, 50 weekly timers 50 weekly timers, 1 holiday timer, 5 special day timers, for each tenant
- Prohibit Remote Control settings
- IP Address could be changed via Internet

Note: It is recommended to install a remote controller or a system controller on site to enable local control if it network experience a problem.



# Easy to set to every room by recognizable icon and user-friendly remote control window

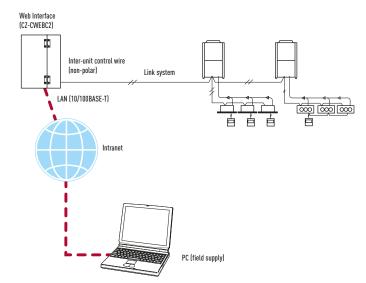
 If any of the indoor units is selected, the remote control window shown will be displayed for detailed setting modifications

#### Easy to manage and monitor each tenant use\*

- Each floor or tenant, otherwise each zone can be displayed and controlled
- · All unit statuses can also be displayed on one screen

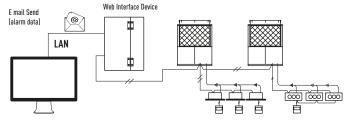
#### **Program Timer set**

- 50 daily timers with 50 actions each day, 50 weekly timers, holiday timer,
   5 special day timers, for each tenant
- \* Web interface system not applicable for load distribution.



Maximum number of connections: Indoor units: 64 Outdoor units: 30

Link system (Indoor/outdoor control wire): 1





#### Seri-Para I/O unit for outdoor unit. Connection with 3rd Party Controller

# Seri-Para I/O Unit for outdoor unit 1 Seri-Para I/O Unit for outdoor unit 2

#### CZ-CAPDC2 for ECOi / CZ-CAPDC3 for Mini ECOi and PACi

Dimensions (H x W x D): 80 x 290 x 260 mm.

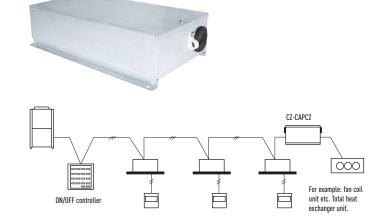
Power supply: Single Phase 100/200V (50/60Hz), 18W.

Input: Batch operation/Batch stop (non-voltage contact/DC 24 V, pulse signal). Cooling/ Heating (non-voltage contact/static signal). Demand 1/2 (non-voltage contact/static signal) (Local stop by switching).

Output: Operation output (non-voltage contact). Alarm output (non-voltage contact). Wiring length: Indoor/Outdoor operation lines: Total length 1 km. Digital signal: 100 m or shorter.

- This unit can control up to 4 outdoor units
- From the central control device, mode changing and batch operation/batch stop are possible
- Required for demand control

#### Local adaptor for ON/OFF control. Connection with 3rd Party Controller



#### CZ-CAPC2 / CZ-CAPC3 (available in December 2016)

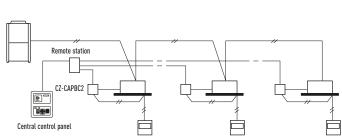
 Control and status monitoring is possible for individual indoor unit (or any external electrical device up to 250 V AC, 10 A) by contact signal

#### MINI Seri-Para I/O Unit 0 -10V. Connection with 3rd Party Controller



#### CZ-CAPBC2

- Control and status monitoring is possible for individual indoor unit (1 group)
- $\boldsymbol{\cdot}$  In addition to operation and stop, there is a digital input function for air speed and operation mode
- $\boldsymbol{\cdot}$  Temperature setting and measuring of the indoor suction temperature can be performed from central monitoring
- The analog input for demand of the outdoor capacity by 20 steps (from 40% to 120%) by 0-10V
- The analog input for temperature setting is 0 to 10 V, or 0 to 140 Ohm
- Power is supplied from the CZ-T10 terminal of the indoor units
- Separate power supply also is possible (in case of suction temperature measuring)
- \* Ask to your distributor.



# Centralised Control Systems

#### P-AIMS. Panasonic Total Air Conditioning Management System

#### CZ-CSWKC2 / P-AIMS Basic software

Up to 1024 indoor units can be controlled by one PC.

#### Functions of basic software

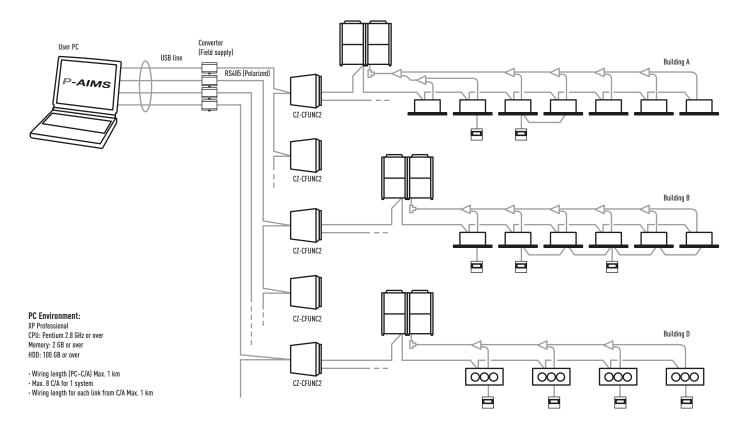
- · Standard remote control for all indoor units.
- · Many timer schedule programs can be set on the calender.
- Detailed information display for alarms.
- CSV file output with alarm history, operating status.
- · Automatic data backup to HDD.





With 4 upgrade packages the basic software can be upgraded to suit individual requirements

P-AIMS is suitable for large shopping centers and universities with many areas/ buildings. 1 "P-AIMS" PC can have 4 independent systems at once. Each system can have max. 8 C/A units, and control max. 512 units. In total, 1024 indoor units can be controlled by 1 "P-AIMS" PC.



#### P-AIMS optional software CZ-CSWAC2 for Load distribution. Load distribution calculation for each tenant

- Air-conditioner load distribution ratio is calculated for each unit (tenant) with used energy consumption data (m³, kWh).
- Calculated data is stored as a CSV type file.
- Data from the last 365 days is stored.

# P-AIMS optional software CZ-CSWWC2 for Web application. Web access & control from remote station

- Accessing P-AIMS software from remote PC.
- You can monitor/operate ECOi 6N system by using Web browser (Internet Explorer).

# P-AIMS optional software CZ-CSWGC2 for Object layout display. Whole system can be controlled visually

- Operating status monitor is available on the layout display.
- Object's layout and indoor unit's location can be checked at once.
- Each unit can be controlled by virtual remote controller on the display.
- · Max. 4 layout screens are shown at once.

# P-AIMS optional software CZ-CSWBC2 for BACnet software interface. Connectable to BMS system

- · Can communicate with other equipment by BACnet protocol.
- ECOi 6N system can be controlled by both BMS and P-AIMS.
- Max. 255 indoor units can be connected to 1 PC (that has P-AIMS basic & BACnet software).

#### **Centralised Control Systems**

# A custom web application to manage the centralized operation of A2W and GHP systems.

Operation and monitoring of devices connected to the new Management System can be realized both remotely/locally from any device with connection to the internet (Laptop, Tablet. Mobile)

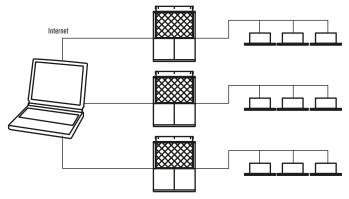
The new system will make the interaction with air conditioning systems easier, improving the operation set as well as the global control of installations.

The application will act with various units, regardless of whether they are available in the same intranet or in different locations, transparently to users at any time. In this way, our solution allows to overcome main restrictions like onsite maintenance or the lack of centralization.

In addition, the application offers significant improvements in terms of control:

- · Aircon units can be grouped in a totally custom way
- Possibility to realize group commands and batch commands (in succession)
- · Alarms and events can be controlled more efficiently and a lot more...

#### **Current installation**



Main restrictions: Decentralization: need to connect to every CZ-WEB one by one to manage installation.

#### Offer reliable solution to improve existing functionalities

- Running timer
- Remote control through Web Cloud Application or local. Accessible anytime, anywhere, via a device with internet connection
- Centralized Control: Manage several installations in one single interface. Ideal for multisite organizations
- Easy monitoring and maintenance thanks to group commands, and batch commands. Easy supervision of complex installations
- Secure Remote Access. Powerful identity protection and convenient access control

#### Features of current system

Operation Functions

- · Start & Stop
- · Temperature settings
- · Operation mode selection
- Fan speed, Fan direction settings
- · Prohibition of use of remote controller

#### **Operation Monitoring**

- · Monitoring of operation status and alarms
- · Monitoring of filter cleaning signs
- · Display of alarm logs

#### **Program Timers**

- Up to 50 types of weekly timer
- · Holiday and Special Days

#### **Benefits**

The new solution for the centralized control of air conditioning systems offers significant benefits for the different actors involved in its management:

#### For the building Ownership:

- Maximum equipment performance
- Energy saving
- · Increased lifetime of equipment
- · Savings in maintenance costs

#### For Maintenance companies:

- Instant knowledge of any incident
- Possibility of preventive alarms
- Reduction of systematic visits (warning and remote control)
- More effective maintenance support

#### **Communication adaptor for VRF Connectivity**



#### CZ-CFUNC2

This communication interface is required to connect a ECOi and GHP systems to a BMS. An additional interface is needed to convert the information into KNX/Modbus/Bacnet language. CZ-CFUNC2 is very easy to operate and to connect to the Panasonic P-link, which is the ECOi bus. From the CZ-CFUNC2, all the indoor and outdoor units of the installation can be easily

control. Two linked wiring systems can be connected to one CZ-CFUNC2. Dimensions: H 260 x W 200 x D 68mm

\* As this is not a splash-proof design, it must be installed indoors or in the control panel, etc.

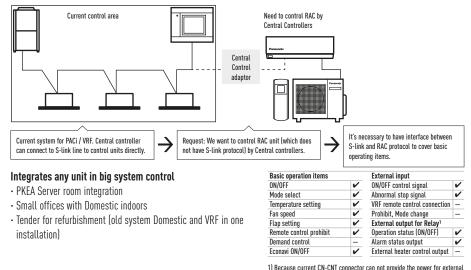


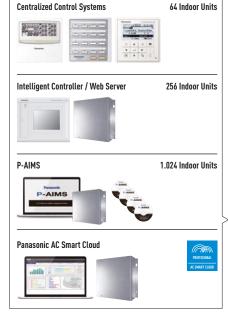
# PACi and VRF Connectivity & Control

Aware of the importance of both control and connectivity in offering the best comfort at the lowest price, Panasonic offers its customers cutting-edge technology, specially designed to ensure our air conditioning systems deliver maximum performance. You can properly manage the air conditioning and perform comprehensive monitoring and control, with all of the features the remote control provides at home, from anywhere in the world thanks to the internet applications Panasonic has created for you.

#### New Domestic integration to P-Line - CZ-CAPRA1

Can connect all ranges to P-Line. Full control is now possible.





#### Internet Control

Control your air conditioning system with your smart device -smartphone & internet for PACi and VRF Systems.

#### What's Internet Control?

Internet Control is a next generation system providing user-friendly remote control of air conditioning or heat pump units from anywhere, by the simple use of an Android or iOS smartphone, tablet or PC via internet. With the option of the Wired Room temperature sensor, the system can display the temperature.

#### Simple Installation

Just connect the Internet Control device to the air conditioner or heat pump with the supplied wire and then link it to your WIFI Access point.



# PACi and VRF Connectivity

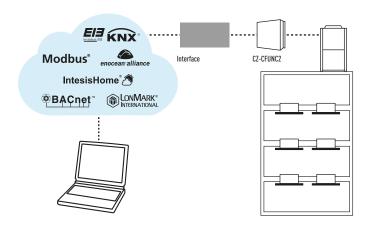
Panasonic Partners have designed solutions specifically for Panasonic air conditioners, and provide complete monitoring, control and full functionality of the entire Commercial line-up from KNX / Modbus / LonWorks / BACnet installations.

#### **PACi Connectivity**

#### Easy connection to KNX, Modbus, LonWorks and BACnet

Great flexibility for integration into your KNX / Modbus / LonWorks / BACnet projects allows fully bi-directional monitoring and control of all the functioning parameters.

For more information, contact Panasonic.



#### Airzone. Control of the PACi Hide Aways

Airzone has developed interfaces to easily connect to Panasonic PACi Hide Away units. Ensuring optimum performance, comfort and energy savings, the new system is efficient and easy to install.

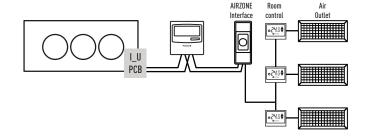


#### Airzone full range of accessories for any duct project









#### **ECOi and GHP Connectivity**

#### New Plug and play interface connected directly to the P-Link

The interface has been designed specifically for Panasonic and provides complete monitoring, control and full functionality of the line-up from IntesisHome, KNX, EnOcean, Modbus, BacNet and Lonworks installations. This connectivity solution is made by a third party company, please contact Panasonic for more information.

1) Interface Modbus RTU/TCP is needed in case if Modbus TCP connection. PAW-MBS-TCP2RTU (ModBus RTU Slave devices); 2) Interface CZ-CFUNC2 needed.

	Panasonic model name	Interface	Maximum number of indoor units connected
ECOi / PACi	PAW-RC2-KNX-1i	KNX	1 (1 Group of Indoor units)
Indoor Units	PAW-RC2-MBS-1	Modbus RTU <sup>1</sup>	1 (1 Group of Indoor units)
	PAW-RC2-MBS-4	Modbus	4 indoor/groups
	PAW-RC2-ENO-1i	En0cean	1 (1 Group of Indoor units)
	PA-RC2-WIFI-1	IntesisHome	1 (1 Group of Indoor units)
ECOi P-Link	PAW-AC-KNX-64	KNX <sup>2</sup>	64
	PAW-AC-KNX-128	KNX <sup>2</sup>	128
	PAW-AC-MBS-64	Modbus	64
	PAW-AC-MBS-128	Modbus	128
	PAW-TM-MBS-RTU-64	Modbus RTU <sup>2</sup>	64
	PAW-TM-MBS-TCP-128	Modbus TCP <sup>2</sup>	128
	PAW-AC-BAC-1	Bacnet	1
	PAW-AC-BAC-64	Bacnet <sup>2</sup>	64
	PAW-AC-BAC-128	Bacnet <sup>2</sup>	128
	CZ-CLNC2	Lonworks	16 groups of max. 8 indoor units, in total max. 6
			indoor units

# ECOi, ECO G and PACi Connectivity indoor units

PCB's and cables for ECOi, ECO G and PACi indoor units				
Name of the cables	Function	Comment		
CZ-T10	All T10 functions	Requires field supplied accessory		
PAW-FDC	Operate external fan	Requires field supplied accessory		
PAW-OCT	All option monitoring signals	Requires field supplied accessory		
CZ-CAPE2	Option monitoring signals wo. fan	Requires aditional wires from spare part supply		
PAW-EXCT	Forced Thermo OFF/Leakage D.	Requires field supplied accessory		
Name of the PBC	Function	Comment		
PAW-T10	All T10 functions	Allows easy connection "Plug & Play"		
PAW-T10V	All T10 functions + powermonitoring	Same like PAW-T10 + monitoring the power supply of indoor unit		
PAW-T10H	ON/OFF; Prohibit 5VDC & 230VAC	Specials for single hotel card or window contact		
PAW-T10HW	ON/OFF; Prohibit 5VDC	For hotel card + window contact at same time		
PAW-PACR3	Redundancy of 2 or 3 systems; for ECOi and PACi	Redundancy of 2 or 3 ECOi or PACi systems including temperature monitoring, error indication, backup, alternative run		
PAW-SERVER-PKEA	Redundancy of 2 units PKEA	Redundancy of 2 units PKEA including temperature monitoring, error indication, backup, alternative run		

#### T10 connector (CN015)

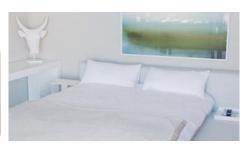
CZ-T10: Panasonic has developed an optional accessory (consisting of plug + wires) called CZ-T10 to enable an easy connection to this T10 connector.



Connecting an ECOi indoor unit to an external device is easy. The T10 terminal featured in the electronic circuit board of all indoor units enables digital connection to external devices.

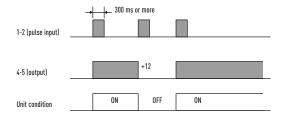
#### Example of applications





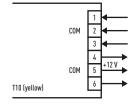
#### T10 terminal Specification (T10: CN015 at indoor unit PCB)

- Control items: 1. Start/stop input
  - 2. Remote controller prohibit input
  - 3. Start signal output
  - 4. Alarm signal output



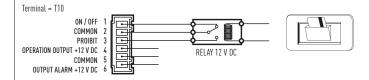
NOTE: The wire length from indoor unit to the Relay must be within 2.0 m. Pulse signal changeable to static with JP cutting. [Refer to JP001]

- Condition
- 1. 1-2 (Pulse input): Unit ON/OFF condition switching with a pulse signal. (1 pulse signal: shortage status more than 300 msec. or more)
- 2. 2-3 (Static input): Open / Operation with Remote is permitted.(Normal condition) Close / Remote controller is prohibited.
- 3. 4-5 (Static output): 12 V output during the unit ON. / No output at OFF.
- 4. 5-6 (Static output): 12 V output when some errors occur / No output at normal.
- Example of wiring



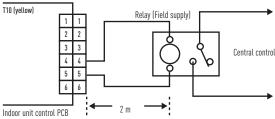
#### Usage Example Forced OFF control

- Term 1 & 2: Free contact for ON/OFF signal (cut \*JP1\* for static signal) when the hotel card is it connected the contact must be close (the unit can be used).
- Term 2 & 3: Free contact to prohibit all function in the remote controller install in the room when the hotel card is it removed the contact must be closed (the unit can not work).



#### Operation ON/OFF signal output

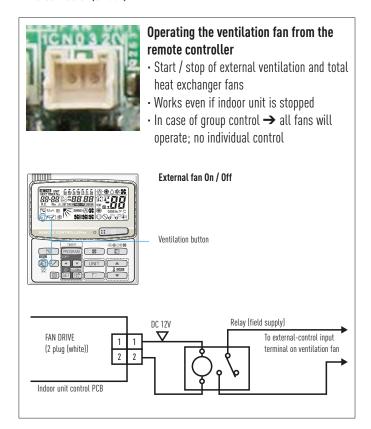
- Condition:
- 4-5 (Static output): 12 V output during the unit ON / No output at OFF
- · Example of wiring



NOTE: The wire length from indoor unit to the Relay must be within 2.0 m. Pulse signal changeable to static with JP cutting. (Refer to JP001)

#### Fan Drive Connector (CN032)

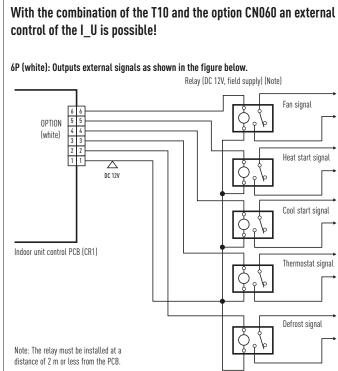
PAW-FDC: Panasonic has developed an optional accessory (consisting of plug + wires) called PAW-FDC to enable an easy connection to this Fan Drive Connector (CN032).



#### Option Connector (CN060) Output external signals



PAW-OCT: Panasonic has developed an optional accessory (consisting of plug + wires) called PAW-OCT to enable an easy connection to this Option Connector (CN060).



#### **EXCT Connector (CN009)**

PAW-EXCT: Panasonic has developed an optional accessory (consisting of plug + wires) called PAW-EXCT to enable an easy connection to this EXCT Connector (CN009).

#### A) With static input Examples of wiring: → STATIC INPUT → THERMO OFF → ENERGY SAVING Relay (field supply) 2P plug (red): Can be used for demand control. When input is present, (2P plug (red)) forces the unit to operate with the thermostat OFF. Relay coil signal Note: The length of the wiring from the indoor unit control PCB to the relay must be 2m or less. \* Lead wire with 2P plug (special—order part: WIRE K/854 05280 75300) Indoor unit control PCB

#### B) Example: In connection with a refrigerant sensor

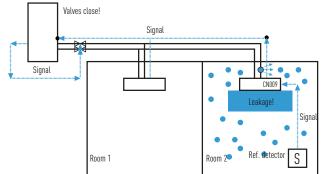
- Signal from leakage detector: non voltage, static.

- Indoor unit setting: Code  $0b \rightarrow 1$
- Connector for leak detector: EXCT
- Outdoor unit setting:

Code C1 → 1 power output if alarm from O2 connector 230 V

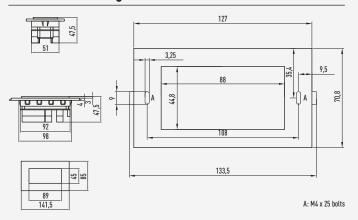
Displayed alarm message P14

Code C1  $\rightarrow$  2 power output if alarm from O2 connector O V

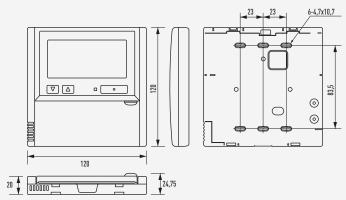


# Control equipment external dimensions

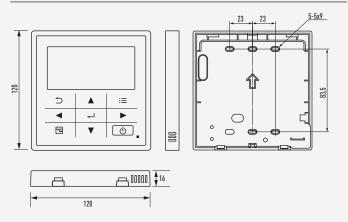
#### **PAW-RE2C3 Intelligent Controller**



#### CZ-RTC4 Wired remote controller with Econavi

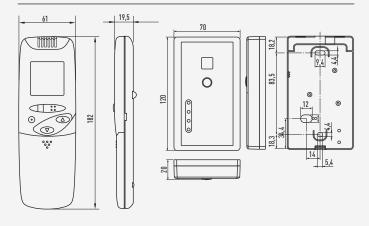


#### CZ-RTC5 Design wired remote controller with Econavi

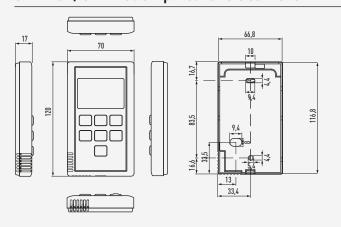


Wireless remote controller

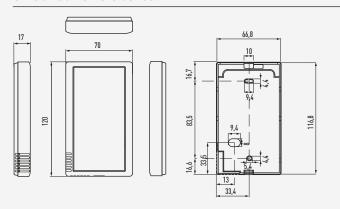
CZ-RWSC3



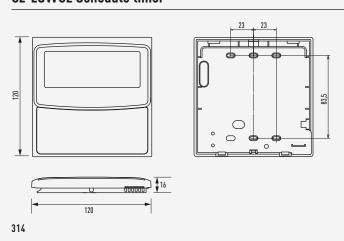
#### CZ-RE2C2 / CZ-RE2C3 Simplified remote controller



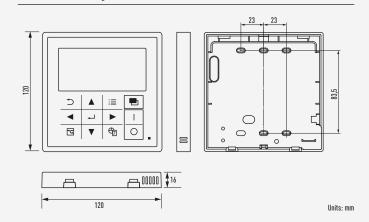
**CZ-CSRC3** Remote sensor



#### **CZ-ESWC2 Schedule timer**

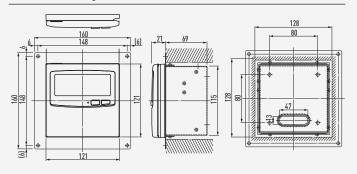


#### CZ-64ESMC3 System Controller with Schedule timer

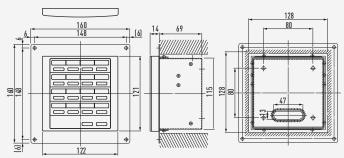


# **NEW** / CONTROL AND CONNECTIVITY

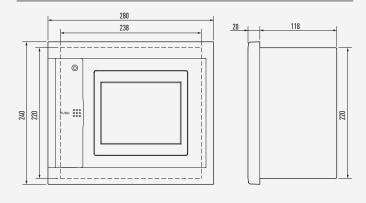
#### CZ-64ESMC2 System controller



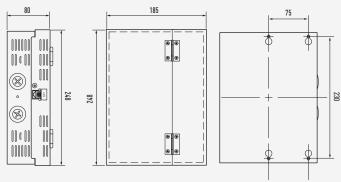
#### CZ-ANC2 ON/OFF Controller



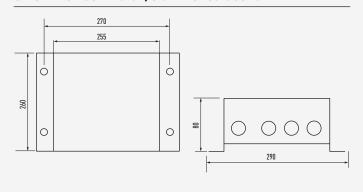
#### CZ-256ESMC2 Intelligent Controller (Touch screen panel)



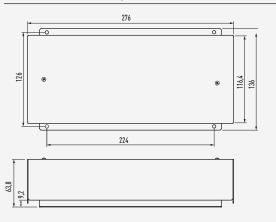
# **CZ-CWEBC2** Web Interface Systems



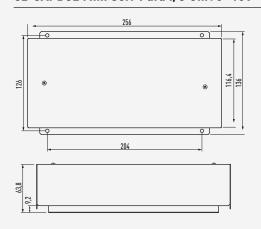
#### CZ-CAPDC2 Seri-Para I/O unit for outdoor unit



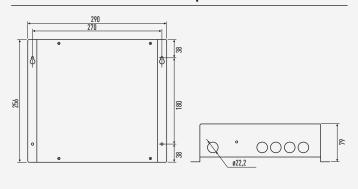
#### CZ-CAPC2 Local adaptor for ON/OFF control



#### CZ-CAPBC2 Mini Seri-Para I/O Unit 0 -10V



#### **CZ-CFUNC2 Communication Adaptor**



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