

# Panasonic

heating & cooling solutions

## PANASONIC AQUAREA DESIGN PACK

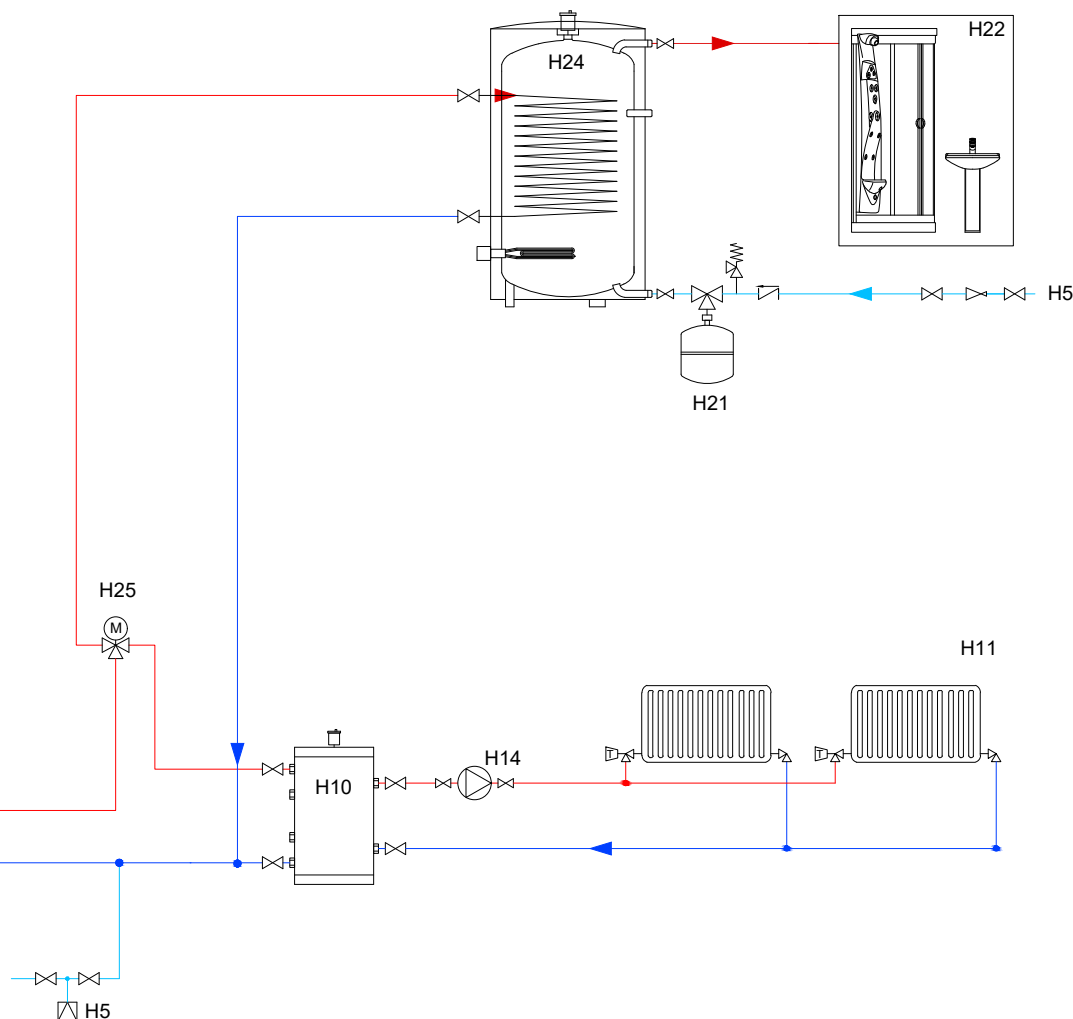
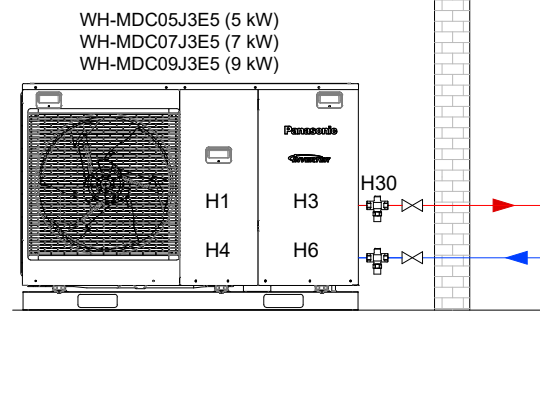
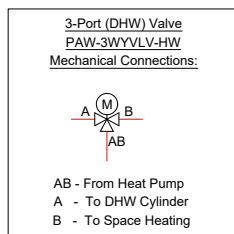
Project:

Client:

Project no:

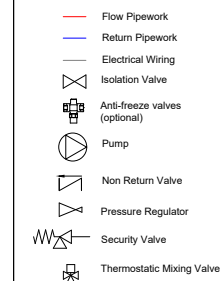
Issue:





#### General Notes:

- Scan QR Code for a link to the Aquarea Installation Guide
- Please ensure that you have attended training and have read the installation and operation manuals regarding this product
- Panasonic accept no responsibility for the design or errors, schematic is for indication purposes only
- Pending of water test, correct inhibitor levels and biocide should be used
- Freeze protection must be considered using either glycol or anti-freeze valves



#### Legend:

- |                                                                                                                        |                                                                             |                          |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|--------------------------|
| H1 Heat Pump Outdoor unit (provide outdoor unit drain)                                                                 | H11 Heat Distribution System                                                | Field Supply:            |
| H3 Refrigerant inside the Heat Pump is R32                                                                             | H21 Expansion Vessel (Cold Water)                                           | H14 Secondary Water Pump |
| H4 Magnetic Particle Filter is inside Monobloc unit                                                                    | H22 Domestic Hot Water Circuit                                              |                          |
| H5 Mains (city) water connection                                                                                       | H24 Domestic Hot Water Cylinder                                             |                          |
| H6 6L Expansion Vessel (heating) is inside Monobloc unit, additional vessel maybe required to meet system requirements | H25 3-Way valve (PAW-3WYVLV-HW)                                             |                          |
| H10 Buffer Tank                                                                                                        | H30 Anti-freeze valves (PAW-A2W-AFVLV) - optional, 2 required per heat pump |                          |

| Aquarea Single Fan Monobloc |            |                   |
|-----------------------------|------------|-------------------|
| Model                       | Flow Rate  | Min. Pipe Size Ø* |
| 5kW                         | 14.3 l/min | 22 mm             |
| 7kW                         | 20.7 l/min | 22 mm             |
| 9kW                         | 25.8 l/min | 28 mm             |

\* calculated at dT 5K

# Panasonic

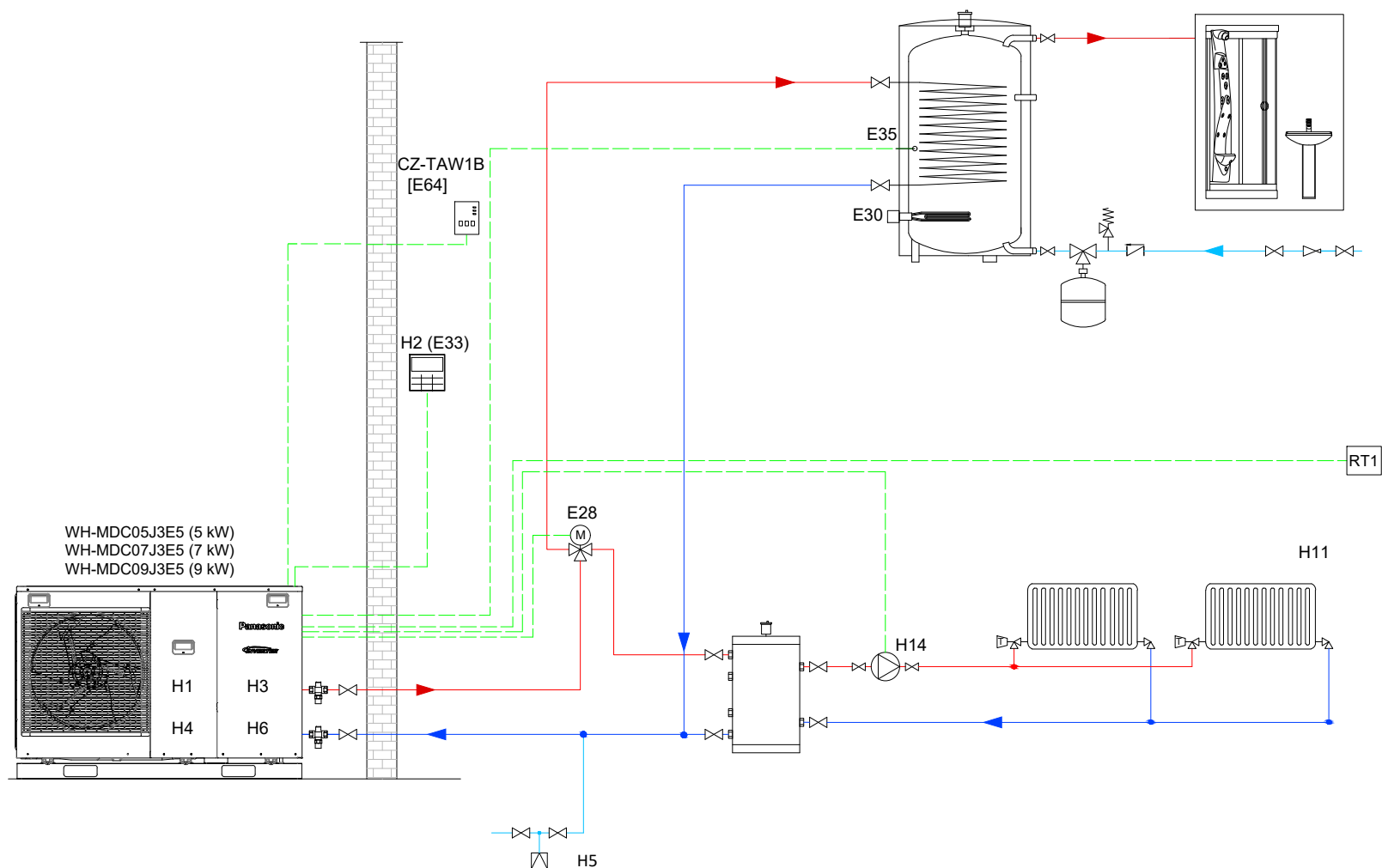
Description:  
Typical schematic drawing for piping layout of monobloc heat pump system

Piping Layout Schematic:  
Buffer tank, single zone, third party controls

Drawing Number:  
1-111-1020

Issue:  
Prelim

\*Panasonic is not responsible, directly, or indirectly, towards users and in general towards any third party for any delays, inaccuracies, errors, omissions, damages (direct, indirect, consequential, and punishable) arising from such contents. Texts, photos, graphics, may not be published, rewritten, marketed, and distributed by users and third parties in general, in any way and in any form if not expressly indicated in written form by Panasonic itself.



#### Notes:

##### Note E26: Main Board PCB

- The maximum cable length for sensor inputs is 30 meters and the maximum cable length for outputs and other inputs is 50m

##### Note E29: Optional Thermostat 1:

- Every circuit can be controlled with one optional thermostat (E29 for one zone and E53 and E54 for 2 zones) or with the remote controller (E33, only for 1 circuit)

##### Note E28: 3 way valve:

- Open for DHW (O+N) and close for heating (C+N)

#### Legend:

H1 Heat Pump Outdoor unit (provide outdoor unit drain)  
H2 Panasonic controller  
H3 Refrigerant inside the Heat Pump is R32  
H4 Magnetic Particle Filter is inside Monobloc unit  
H5 Mains (city) water connection  
H6 6L Expansion Vessel (heating) is inside Monobloc unit, additional vessel maybe required to meet system requirements

H11 Heat Distribution System  
E28 3-Way valve (PAW-3WYVLV-HW)  
E30 Booster Heater

Field Supply:  
RT1 Room thermostat  
H14 Secondary water pump

| Aquarea Single Fan Monobloc |                   |                   |                   |
|-----------------------------|-------------------|-------------------|-------------------|
| Model                       | Power Supply Cord | Isolating Devices | Recommended RCD   |
| WH-MDC05J3E5                | 1                 | 15/16A            | 30mA, 2P, type A  |
|                             | 2                 | 15/16A            | 30mA, 2P, type AC |
| WH-MDC07J3E5 & WH-MDC09J3E5 | 1                 | 25A               | 30mA, 2P, type A  |
|                             | 2                 | 15/16A            | 30mA, 2P, type AC |

\* Refer to installation manual for IEC/EN61000-XX compliance requirements

# Panasonic

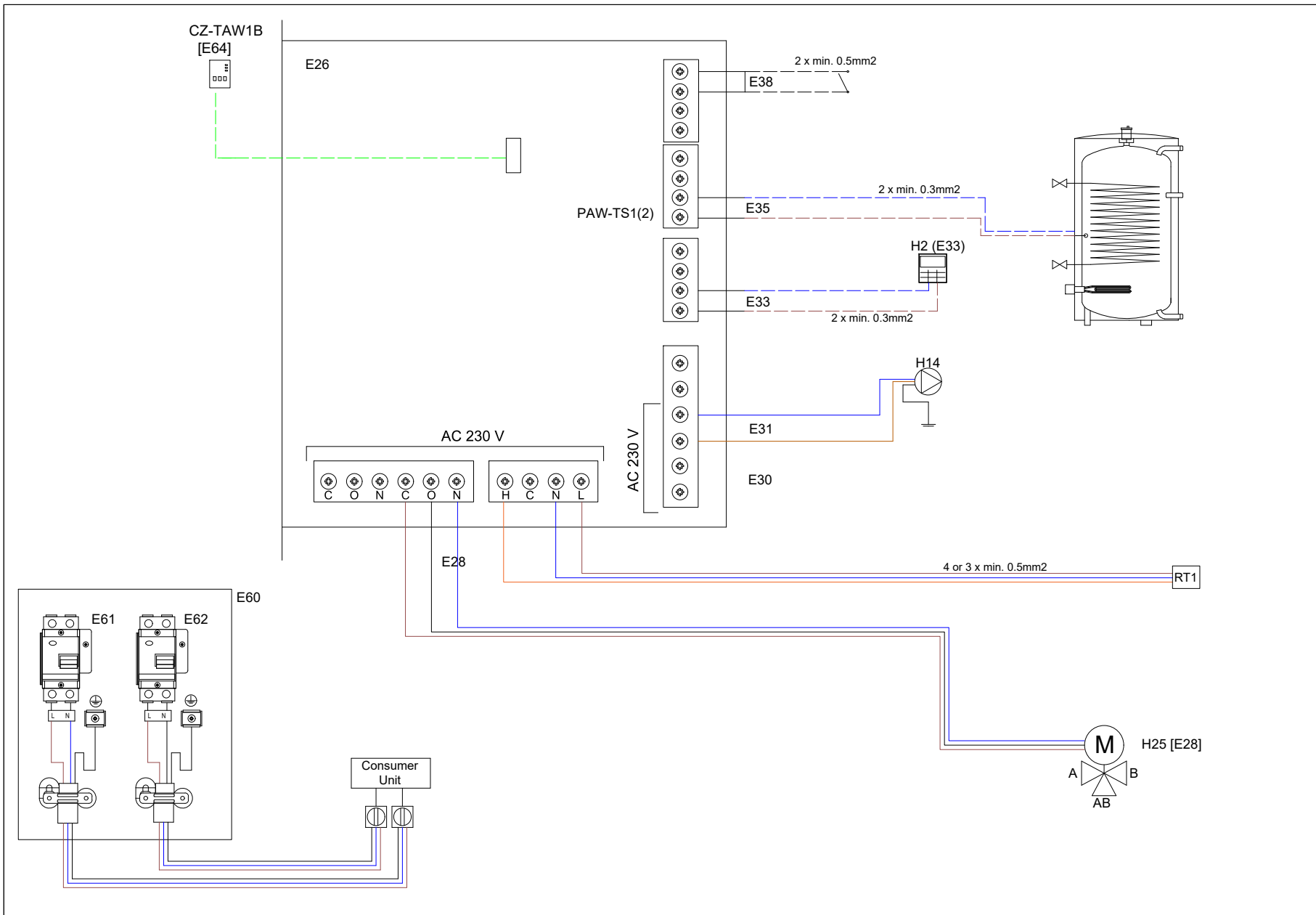
Description:  
Typical schematic drawing for electrical layout of monobloc heat pump system

Piping Layout Schematic:  
Buffer tank, single zone, third party controls

Drawing Number:  
1-111-1020

Issue:  
Prelim

*\*Panasonic is not responsible, directly, or indirectly, towards users and in general towards any third party for any delays, inaccuracies, errors, omissions, damages (direct, indirect, consequential, and punishable) arising from such contents. Texts, photos, graphics, may not be published, rewritten, marketed, and distributed by users and third parties in general, in any way and in any form if not expressly indicated in written form by Panasonic itself.*



Notes:

**Note E26:** Main Board PCB

- The maximum cable length for sensor inputs is 30 meters and the maximum cable length for outputs and other inputs is 50m

**Note E28:** 3-Port (DHW) Valve Mechanical Connections:

- AB - From Heat Pump
- A - to DHW Cylinder
- B - to Space Heating

**Note E33:** Remote Controller

- The heat pump controller can be used as a room thermostat for one circuit only. The cables maximum length is 50 meters

**Note E38:** OLP Booster Heater

- On the OLP contact a jumper must be installed if an external booster heater is used and controlled by Panasonic Heat Pump

## WH-MDC05J3E5, WH-MDC07J3E5, WH-MDC09J3E5 Indirect Single Zone Third Party Controls System ASHP- Selection/Schedule of Equipment – J Series Monobloc

| Product Code                                               | Product Description                                                                                     |
|------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|
| WH-MDC05J3E5, WH-MDC07J3E5, WH-MDC09J3E5                   | J Series 5kW, 7kW, 9kW Monobloc                                                                         |
| <b>Additional Kit</b>                                      |                                                                                                         |
| PAW-A2W-AFVLV                                              | Anti-freeze valves x2 required per unit (unless glycol specified)                                       |
| PAW-TS1 (6m)/ PAW-TS2 (20m)                                | Cylinder sensors either one will be required with each unit cylinder, supplied in 2x different lengths. |
| PAW-3WYVLV-HW                                              | 3 port valves required on each system. Our systems are hot water priority, so this is a diverter valve. |
| CZ-TAW1B                                                   | Aquarea Smart Cloud for remote control and maintenance through wireless or wired LAN.                   |
| CZ-TAW1-CBL                                                | 10m extension cable for CZ-TAW1B                                                                        |
| PAW-BTANK50L-2                                             | 50L buffer tank. <i>Please note that 50L will be supplied as standard unless stated otherwise.</i>      |
| <b>Cylinder options, please choose one from the below.</b> |                                                                                                         |
| KIT-G3TD201CE5-1<br>KIT-G3TD301CE5-1                       | 200L and 300L domestic hot water cylinder with 1.8m2 coil                                               |
| KIT-G3TD30C1E5HI-1                                         | 300L Domestic hot water cylinder with 2.35m2 coil                                                       |

\*Please refer to schematics for field supply items

| Edition     | Details     | Date |
|-------------|-------------|------|
|             |             |      |
| Client:     |             |      |
| Project:    |             |      |
| Title:      |             |      |
| Scale:      | Issue:      |      |
| Drawn by:   | Project No: |      |
| Checked by: | Date:       |      |



## Download the Aquarea A2W Heat Pump Price Lists 2023/24

[UK-AQUPLST0323-01 CTA.pdf \(panasonicproclub.com\)](#)



## Download the Aquarea Installation Guide

[UK\\_INSTALLATION\\_MANUAL\\_H 2023v3.pdf \(panasonicproclub.com\)](#)



## A guide on checking the flow rate on your controller

[Flow Rate Check Video – YouTube](#)



## A how to guide on re heating your tank via your controller

[Tank Re Heat Video - YouTube](#)



## A how to guide on setting a weekly timer on your controller

[Weekly Timer Setup Video – YouTube](#)



Panasonic PRO Club is fully compatible with tablet computer and smartphone.  
Visit [www.panasonicproclub.com](http://www.panasonicproclub.com) or connect simply with your smartphone to the PRO Club using this QR Code.

