WFCO TECHNOLOGIES

*Innovating the future of **RV POWER.***

WFCO SMART POWER CONTROL SYSTEM

WF- 3511 POWER PRO

TABLE OF CONTENTS

Contents

I. INTRODUCTION 5

II. CONTROL PANEL OPERATION 6

1. Device Status Display 7
2. Device Controls 8
   a. Light Controls
   b. Water Pump Control
   c. Awning/Slide Controls
3. Setup Mode (For OEM Installation) 9
   a. Enter/Exit Setup Mode
   b. Enabling/Disabling Devices in Setup Mode

III. VOICE CONTROL 10

1. Voice Control of RV Panel 10
   a. How to use the voice command on the RV Panel
2. Single Device Voice Command Form 11
   a. Lights Control Voice Command
   b. Device Controls Voice Command
3. RV Device Status Query Voice Command 13
4. Scene Mode Voice Command 14

IV. APP CONTROL 17

1. Bluetooth 17
   a. Pairing a New RV panel
   b. Auto Connect RV Panel
2. Homepage 19
   a. RV Device Status
   b. Scene Mode Control
   c. Device Control
   d. Voice Control
3. Bluetooth Devices and Sensors 28
4. Settings 29

a. Change RV Panel Name
b. RV Voice Control
c. TTS Notification Settings
d. RV Voice Command Reply
e. Microphone LED
f. Speaker Volume Setting
g. Nickname Setting
h. System Diagnostics
i. RV Panel Version (OTA)
j. RV Help Center
k. APP Voice Control
l. APP Safety Lock
m. APP Device Log Sharing
n. Wi-Fi Control
V. INSTALLATION 39
1. Mounting the Smart Power Unit 39
a. Mounting to Wall/Floor
b. Mounting to WF-89xxAD Power Center
c. Mounting to WF-95xxAD Power Center
2. Mounting the Control Panel 41
3. Mounting the MORS Kit (Option) 42
4. Mounting the External Microphone Module (Option) 42
5. Wiring Instructions 43
a. Smart Panel Unit Wiring Instructions
b. Smart Panel Unit Wiring Diagram
VI. TROUBLESHOOTING 44
VII. WARRANTY 45

WARNING

Risk of Electrical Shock. Disconnect or isolate all power supplies before making electrical connections. More than one disconnection or isolation may be required to completely de-energize equipment. Contact with components carrying hazardous voltage can cause electric shock and may result in severe personal injury or death.

IMPORTANT

All wiring must conform to local, national, and regional regulations. Use copper conductors only for all wire connections.

CAUTION

This product should be installed and serviced by a certified or licensed electrician familiar with applicable safety codes and installation requirements. Failure to observe this precaution could result in electrical shock or bodily injury. Consult your service dealer before attempting any work on this product.

WARNING

This unit employs components that can produce arcs or sparks. To prevent fire or explosion, do not install in compartments containing batteries or flammable materials (LP gas). This product is NOT ignition protected.

FCC COMPLIANCE

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

-Reorient or relocate the receiving antenna.

-Increase the separation between the equipment and receiver.

-Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

-Consult the dealer or an experienced radio/TV technician for help.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

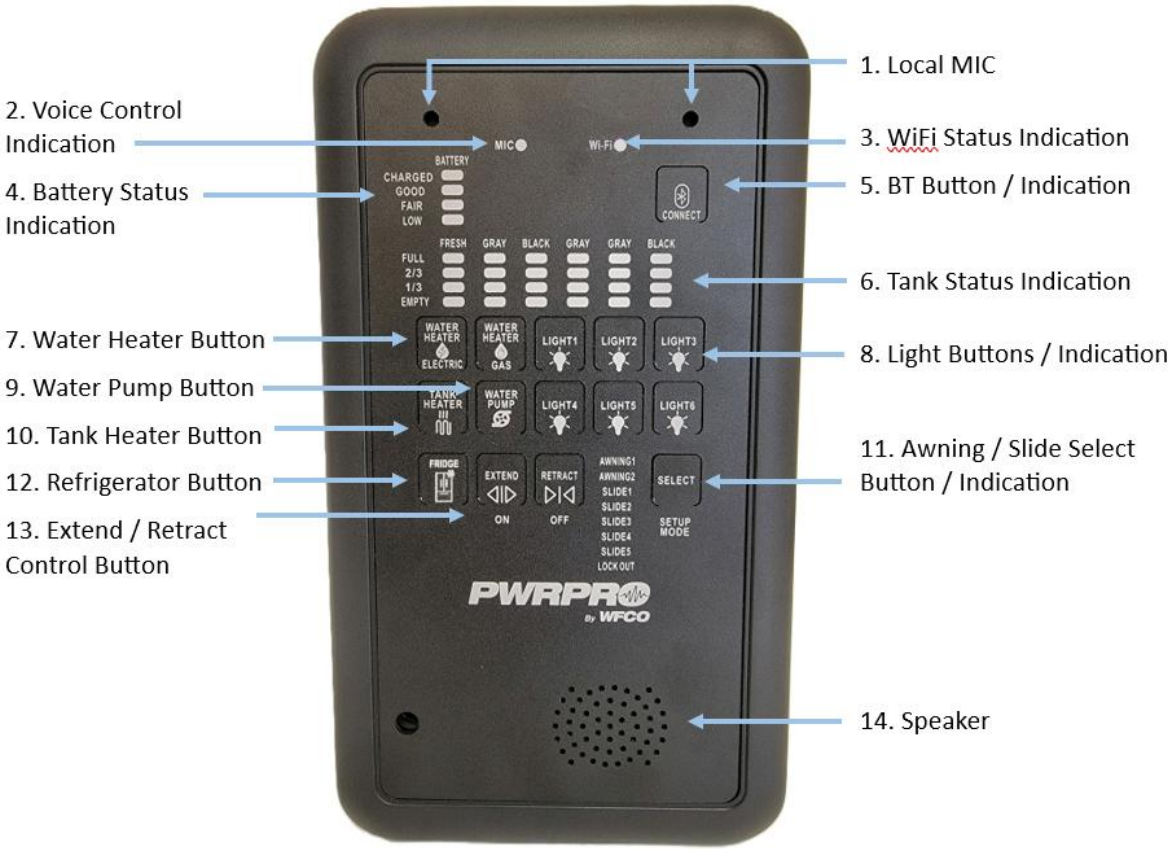
IMPORTANT

The BL-M8723DS1 Bluetooth module is integrated with the WF-3510 Power Pro system for using the APP through a smart device.

I. INTRODUCTION

The WFCO smart power control system gives the user control of devices throughout the RV, including lights, water pump, awnings, and slideouts. In addition, monitoring functions such as battery and fresh/wastewater tanks are available with the WFCO smart power control system. Whether using the APP through a smart device or using voice commands, the end user has complete control of their RV.

II. CONTROL PANEL OPERATION



1. Local Microphones(an optional remote microphone module is available)
2. Voice Control Indication(voice control available when MIC green LED lit-up)
3. WiFi Status Indication
4. Battery Status Indication
5. Bluetooth (BT) Control Button / Indication
6. Tank Level Status Indication
7. Water Heater Button
8. Light Control Buttons / Indication
9. Water Pump Control Button / Indication
10. Tank Heater Button
11. Awing / Slide Select Button / Indication
12. Refrigerator Button
13. Extend / Retract Control Button
14. Speaker

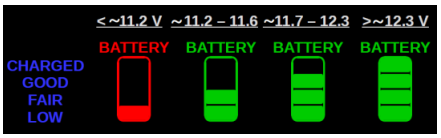
1. Device Status Display:

   The status of the following devices can be checked by user:

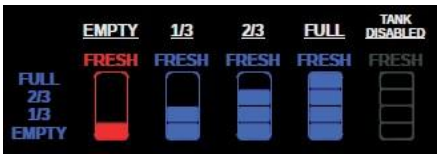
   - Battery Level (voltage)
   - Water tank level: Fresh, Gray or Black water

   The LED indicators of MIC light and OTA display the status of Voice Control and OTA functions, please refer to Voice Control and APP Control sections in this manual.

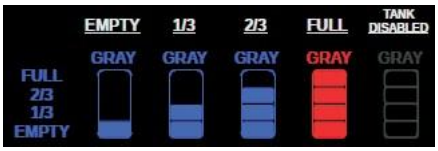
   Battery Level



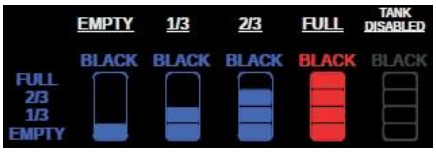
   Fresh Tank level



   Gray Tank level



   Black Tank level



2. Device Control

Users can control the RV devices by pressing the buttons on the Control Panel.

a. Light Controls:

The illustration shows light 3 is ON, other three lights are OFF.

Press & Release: Toggles ON / OFF.

When the output is turned off, the indicator LED is blue. To turn on the output, press the button, and the panel indicator LED will become white. To turn off the output when it's on, press the button again.

Press & Hold: Changes Dimming Level

When pressed and held, lights will incrementally decrease down to 10% brightness.

When pressed and held again, lights will incrementally increase up to 100% brightness.

b. Water Pump Control:

Switch illumination, as shown, will indicate water pump is ON.

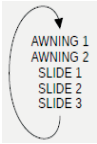
Press & Release: Toggles ON / OFF.

When the output is off, the indicator LED is blue. To turn on the output, the user should press the button. When the output is turned on, the indicator LED changes to white. To turn off the output, the user should press the button again.

c. Awning / Slide Controls:

Switch illumination, as shown, will indicate retract button is pressed.

SELECT button: cycles through the selections (highlighting constant blue one at a time).



Extend Button: press & hold to extend the selected item (Awning 1, 2, Slide 1,2,3), and the selected item shall be turned on and extending. Release the button, the output of the selected item shall be turned off.

Retract Button: press & hold to retract the selected item, and the selected item shall be turned on and retracting. Release the button, the output of the selected item shall be turned off.

3. Setup Mode (For OEM installation)

a. Enter/ Exit Setup Mode

Enter Setup Mode: Press & Hold SELECT button > 7 seconds.

Exit Setup Mode: To SAVE CHANGES, Press & Hold SELECT button > 7 seconds or to EXIT WITHOUT SAVING, wait for Screen Timeout > 60 seconds.

b. Enabling/Disabling Devices in Setup Mode

SETUP MODE:

SELECT, EXTEND, RETRACT buttons changes to WHITE color.

SETUP MODE Text is illuminated WHITE. (ON [or] OFF) text is illuminated WHITE (indicates the status of the selected item).

The selected item will be BLUE. SELECT button cycles through the selections highlighting BLUE one at a time: AWNING 1/ AWNING 2/ SLIDE 1/ SLIDE 2/ SLIDE 3/ GRAY2 /GRAY3 /BLACK2/ LIGHT 1/ LIGHT 2/ LIGHT 3/ LIGHT 4/ LIGHT 5/ LIGHT 6/ TANK HEATER/ REFRIGERATOR/ WATER PUMP/ WATER HEATER-ELECTRIC/ WATER HEATER-GAS/ WIFI

For the selected item:

The EXTEND button is actuated to ENABLE (ON) the selected item. The RETRACT button is actuated to DISABLE (OFF) the selected item.

III. VOICE CONTROL

1. Voice Control of RV Panel

   Users can use voice to control the equipment in the RV and query status information such as power and water tanks.

   a. How to use the voice command on the RV Panel

   - Turn on the RV panel and wait until the MIC light is green.

   - User: Say the wake-up word "Hey, Power Pro". (the specific wake-up word may differ based on the RV model)

> - *Please do not repeat the wake-up word continuously when waking up the panel.*
> - *Please make sure you hear the system reply before continuing to say the voice command.*

   - System reply: 'What can I do for you' / 'How may I help you'
   - User: Speak any voice commands below

> *Voice Control Tips*
>
> - *Please speak the voice command a little louder when you are at a distance from the panel and the environment is noisy.*
> - *If the distance to the panel is less than 0.5m, please speak the voice command at normal volume.*
> - *When speaking voice commands, please face the voice panel to ensure the accuracy of recognition.*
> - *Please avoid speaking too fast or pausing too long in a voice command.*

2. Single Device Voice Command Form

a. Lights Control Voice Command

Users can use the following commands to control the light's switch and brightness, and the light's name can be flexibly replaced.

'Light Name' refers here to Light 1/ Light 2/ Light 3/ Light 4/ Bedroom lights/ Living room lights/ Bathroom lights/ Exterior Lights.

Note:

* Users can change the light name by mobile phone APP (refers to 'manage controls - > edit lights name')

* Similarly, users can control 'Bedroom lights, Livingroom lights, Bathroom lights, Exterior Lights' with the same format of commands, and the default light names (light 1, 2, 3, 4) are still available.

Light ON/OFF

Turn on *'Light name'*	
'Light one' on	Turn on light zone *'one'*
Switch on *'light one'*	Flip on *'light one*
Turn zone *'one'* on	Turn on zone *'one'* lights
Zone *'one'* on	Turn *'light one'* on
Switch *'light one'* on	

Turn off *'Light Name'*	
'Light one' off	Turn off light zone *'one'*
Switch off *'light one'*	Flip off *'light one'*
Turn zone *'one'* off	Turn off zone *'one'* lights
Zone *'one'* off	Turn *'light one'* off
Switch *'light one'* off	

Brightness

'Light Name' 100%	
Brighten up light zone *'one'*	Brighten light zone *'one'*
Brighten *'light one'*	Turn light zone *'one'* up
Turn up light zone *'one'*	Turn up light *'one'*
Increase light zone *'one'*	Increase *'light one'*
More light in zone *'one'*	Brighter light in zone *'one'*

b. Device Control Voice Command

Turn on/off Water pump	
Water pump on/ off	Turn water pump on/ off
Turn pump on/ off	Start/ stop water pump
Turn on/ off the water pump	Switch pump on/ off
Switch on/ off water pump	Turn the water pump on/ off
Turn on/ off pump	Pump on/ off

Turn on/off Electric Water Heater	
Electric water heater on/ off	Turn the electric water heater on/ off
Turn electric water heater on/ off	Turn on/ off the electric water heater
Start/ stop electric water heater	Start/ stop the electric water heater
Switch the electric water heater on/ off	Switch on/ off electric water heater
Switch electric water heater on/ off	Switch on/ off the electric water heater

Turn on/off Gas Water Heater	
Gas water heater on/ off	Turn the gas water heater on/ off
Turn gas water heater on/ off	Turn on/ off the gas water heater
Start/ stop gas water heater	Start/ stop the gas water heater
Switch the gas water heater on/ off	Switch on/ off gas water heater
Switch gas water heater on/ off	Switch on/ off the gas water heater

3. RV Device Status Query Voice Command

Users can inquire about the RV's battery level, freshwater tank status, gray water tank status, and black water tank status using any of the following voice commands.

*Note: The RV device status query voice command is not applicable to the APP.

Voice Command-List

Battery Level Check	
How's the battery	What's the battery level
Battery level	Battery charge
How's my battery	Check battery
Is my battery charged	What is my battery level
What's my battery status	Check my battery level

Holding Tank Level	
What are the holding tank levels	What is the holding tank level
How are my tanks	How are the holding tanks
How are the water tanks	Check holding tanks
Check tanks	Check tank level
Check holding tank level	Status of holding tanks

Tank 'Name' refers here to Fresh Water Tank/ Gray Tank/ Black Tank

'Name' **Tank Level**	
What's the level of my *'fresh'* tank	What's my *'fresh water'* level
Level of my *'fresh water'* tank	Level of my *'fresh'* tank
Level of the *'fresh water'* tank	Level of the *'fresh'* tank
How much *'fresh water'* do I have	Status of my *'fresh water'* tank
'Fresh water' status	Level of *'fresh water'* tank

4. Scene Mode Voice Command

Scene mode is a batch control feature that allows multiple device operations to be set and executed as a single command.

*Note: Customize the light zone and brightness settings for reading, movie, and relaxation modes in 2.3 Device Control -> 2.3.2 Custom Control

Scene Mode Instruction	
Scene mode voice command	**Spec**
All lights on/off/100%	All light zones turn on to the previous brightness setting/ all light zones off/ all light zones set to 100%
I'm home	All lights are on 100%.
Goodbye	All lights are off.
Good night	All lights off.
I'm awake	All lights on 50%. More to be added as hardware and controls expand.
Shutdown RV	Turn off all lights, water pump, and water heater. More to be added as hardware and controls expand.
Reading mode	Bedroom lights 40%. All other light zones 10%.
Movie mode	Living room lights 30%. All other light zones are off.
Relaxation mode	All lights 30%.

Voice Command-List

All Lights On/ off	
Turn all of the lights on/ off	Turn on/ off all lights
Switch on/ off all lights	Flip on/ off all lights
Flip all lights on/ off	Turn on/ off all light zones
Turn on/ off all of the lights	Turn all lights on/ off
Switch all lights on/ off	Turn on/ off all of my lights

All Lights 100%	
Brighten all lights	Brighten all light zones
Brighten up all lights	Turn all lights up
Turn up all lights	Turn up all light zones
Increase all lights	Increase all light zones
Light up the RV	Full brightness

Reading Mode	
I'm going to read	I'd like to read
Time to read	Reading mood lighting
Reading mood	It's time to read
I want to read	Adjust to reading mode
Change lights to reading mode	It's reading time

Movie Mode	
I'm going to watch TV/	Adjust to movie mode
Let's watch a movie	Change lights to movie mode
I'd like to watch a movie	I'd like to watch TV
Movie mode lighting	I'm going to watch a movie
It's time to watch a movie	

Relaxation Mode	
I'd like to relax	Time to relax
Let's relax	Time to unwind
Turn down the lights	I want to relax
Adjust to relaxation mode	It's time to relax
I'd like to unwind	Change lights to relaxation mode

I'm Home	
I'm back	We're home
We're back	I am home
I am back	We are home
We are back	I've returned
We've returned	I'm back home

Goodbye	
I'm leaving	We're leaving
Time to go	We're off
I'm off	I'm going away
We're going away	I am leaving
We are leaving	Going away

Good night	
Time to sleep	Going to sleep
Time for bed	I'm ready for bed
It's time to sleep	It's bedtime
I'm going to sleep	Going to bed
I'm going to bed	Time for sleep

I'm Awake	
I'm up	We're awake
We're up	I am up
I am awake	We are awake
We are up	Time to start the day
It's time to get up	Time to wake up

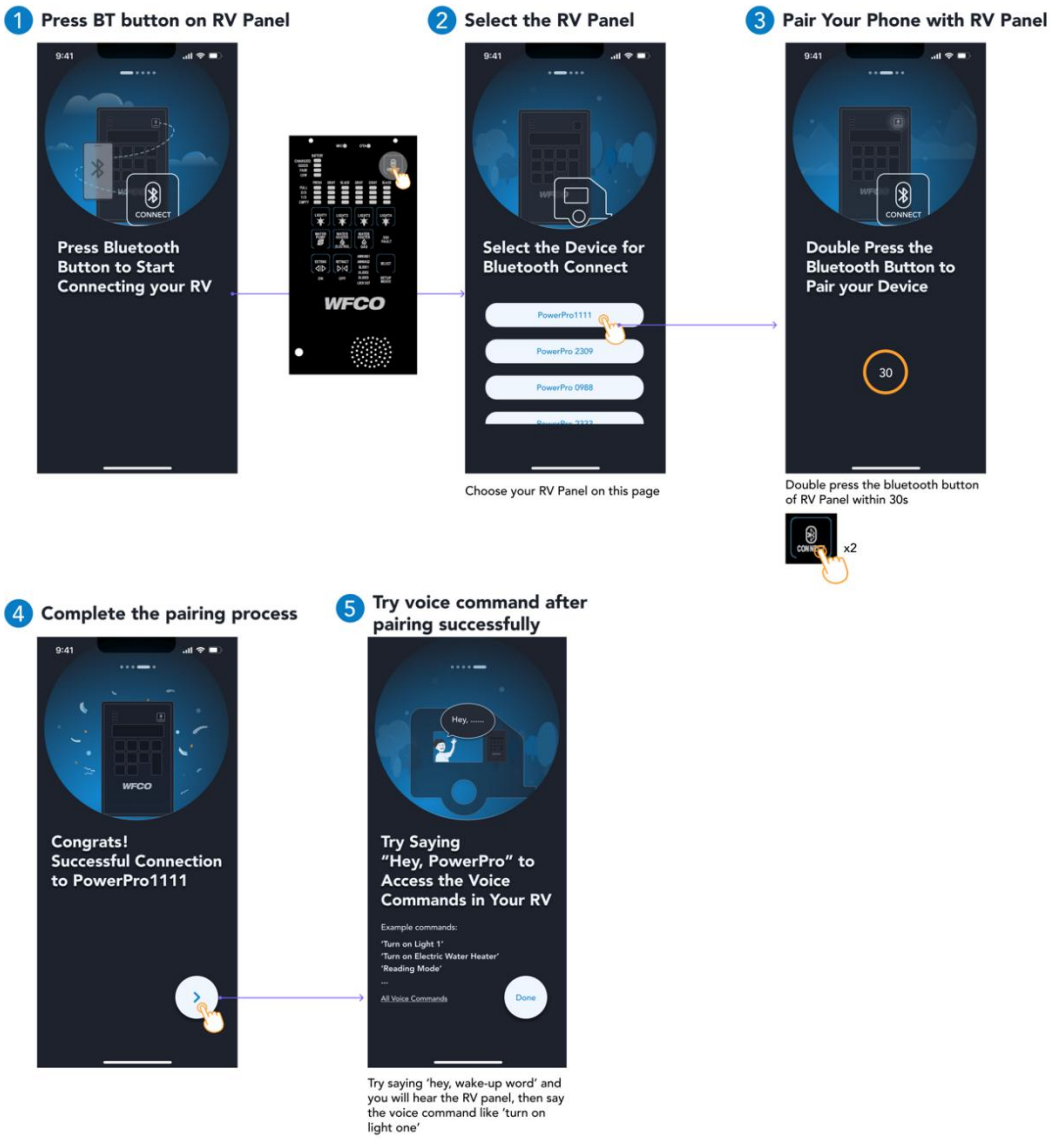
Shutdown RV	
Turn off RV	Turn the RV off
Shutdown the RV	Turn off the RV
The trip is done	Our trip is done
The trip is over	Our trip is over
Shut off the RV	Shut the RV off

IV. APP CONTROL

1. Bluetooth

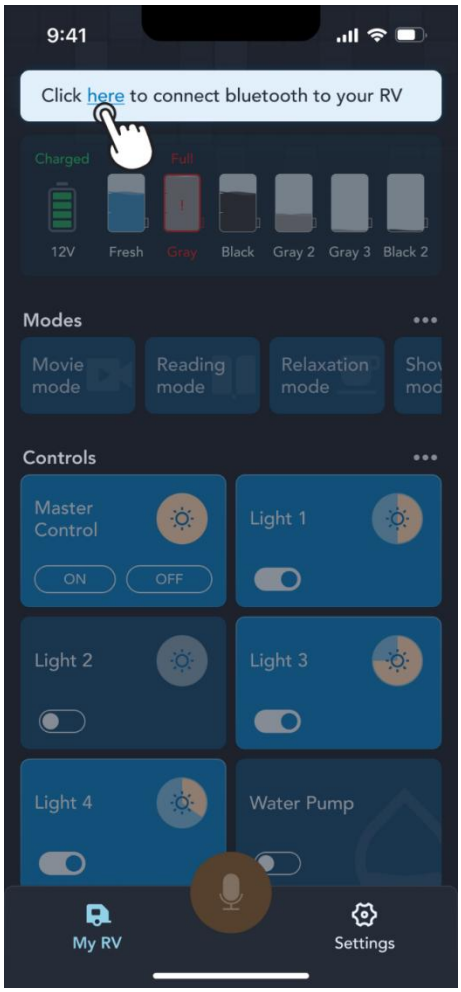
   To remotely control the RV device using a mobile phone, users must first connect and pair the RV panel via Bluetooth. Once successfully paired, the mobile phone can be used for remote control of the device in the RV.

   a. Pairing a New RV panel



b. Auto Connect RV Panel

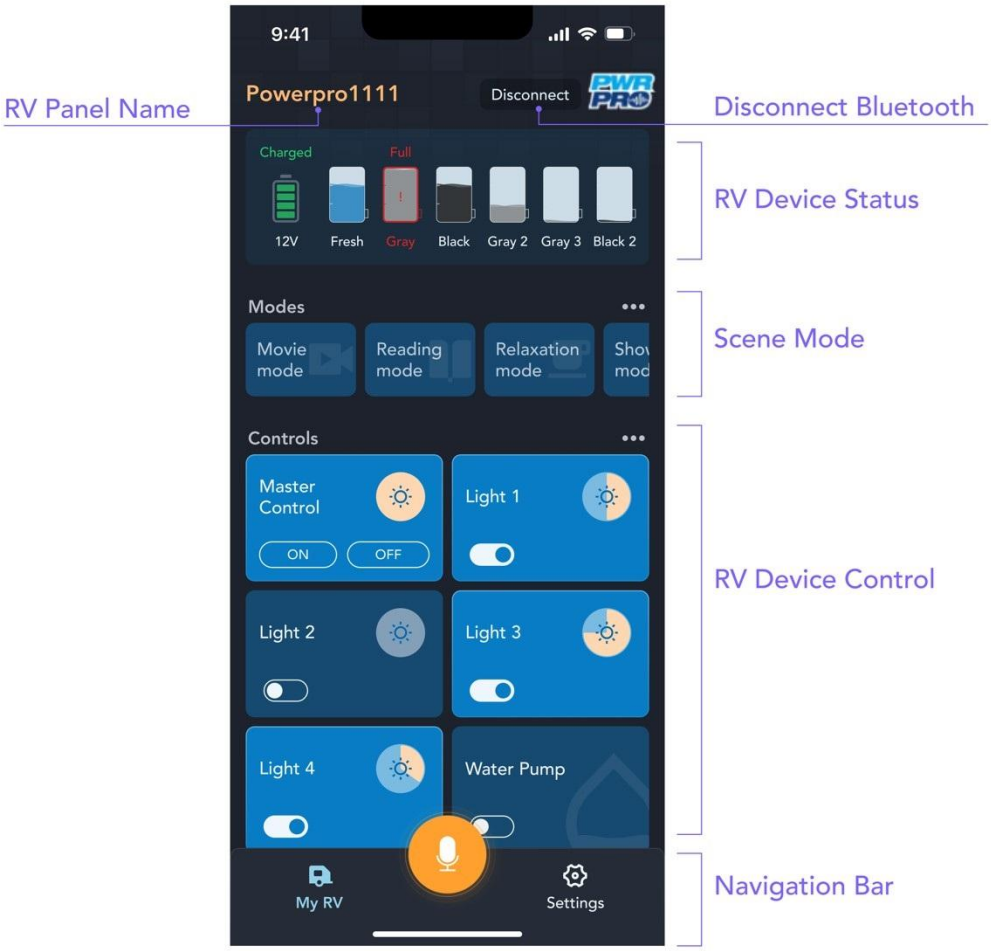
The phone automatically connects to the last connected panel. (If the panel is not powered off and the BT function on the panel is ON)



Note: in certain situations, the phone may fail to connect automatically to the panel. In that case, please tap on the blue text "here" to reconnect manually.

2. Homepage

The home page includes four main parts: RV device status, Scene mode control, Device control, and navigation bar (as shown in the image below).



a. RV Device Status

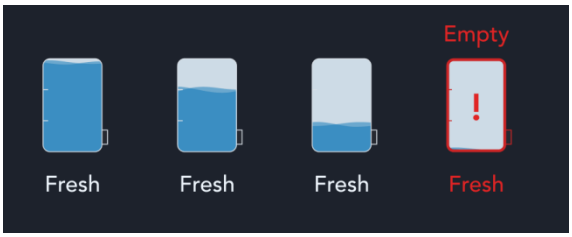
Users can check the status of the RV battery, voltage, fresh water tank, black water tank, and gray water tank.

Battery Status

Charged、Good、Fair、Low

Fresh tank level

Full、2/3、1/3、Empty

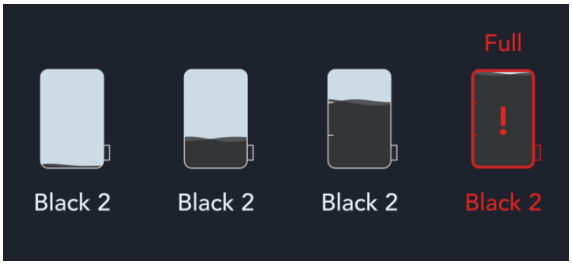


Gray tank level

Empty 、1/3、2/3、Full

Black tank level

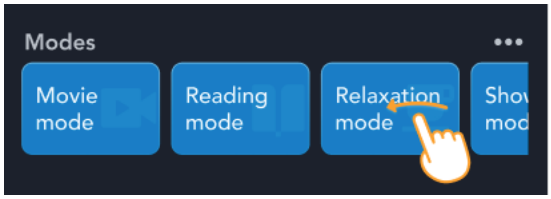
Empty 、1/3、2/3、Full



b. Scene Mode Control

The Scene mode consists of 8 cards, which comprise of 4 system scenes (movie mode, reading mode, relaxation mode, and shower mode) and 4 custom cards (custom mode 1, 2, 3, and 4).

Users can swipe left to view more.

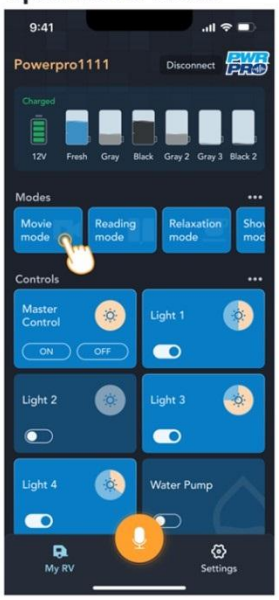


Scene Mode

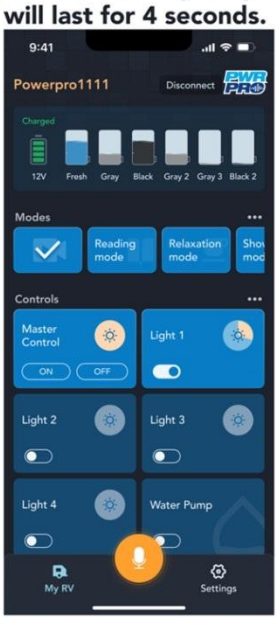
Users can quickly control multiple devices through cards in 'Modes'.

Users can quickly operate multiple devices in the RV through the scene mode.

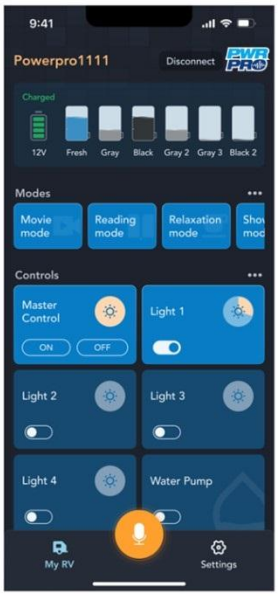
1 Tap on the card to open movie mode



2 After the successful execution, the prompt will last for 4 seconds.

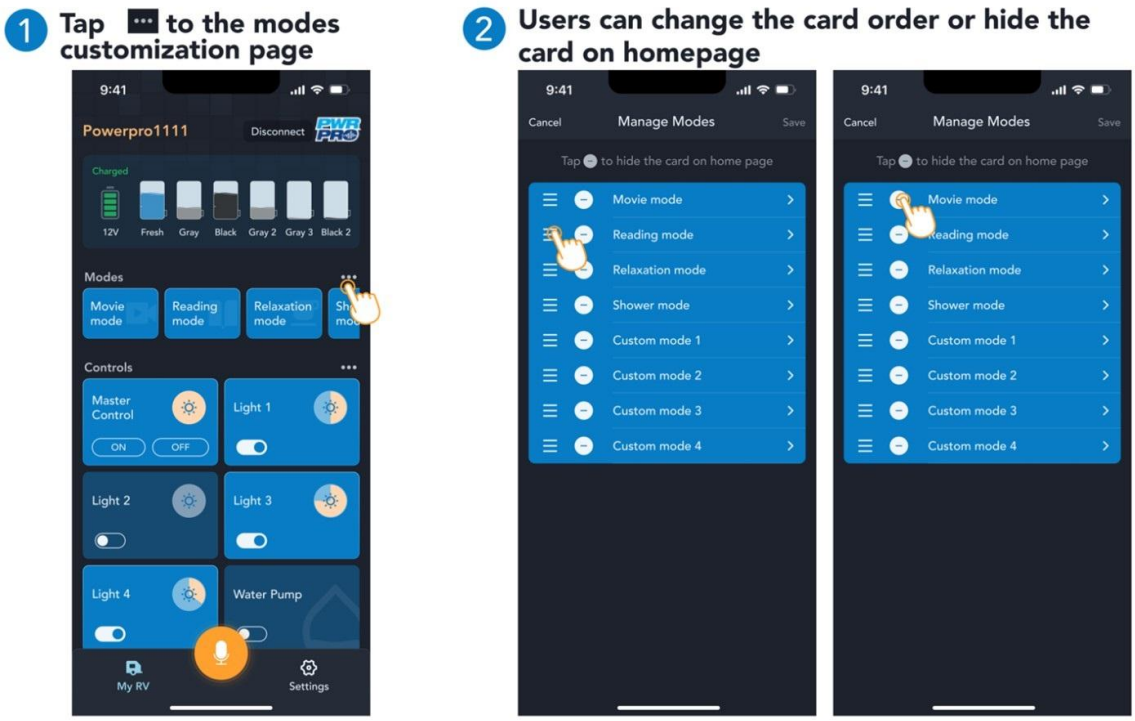


3 Movie mode is opened



- Custom Scene Mode

  Users can modify the order and display of scene mode cards on the homepage.

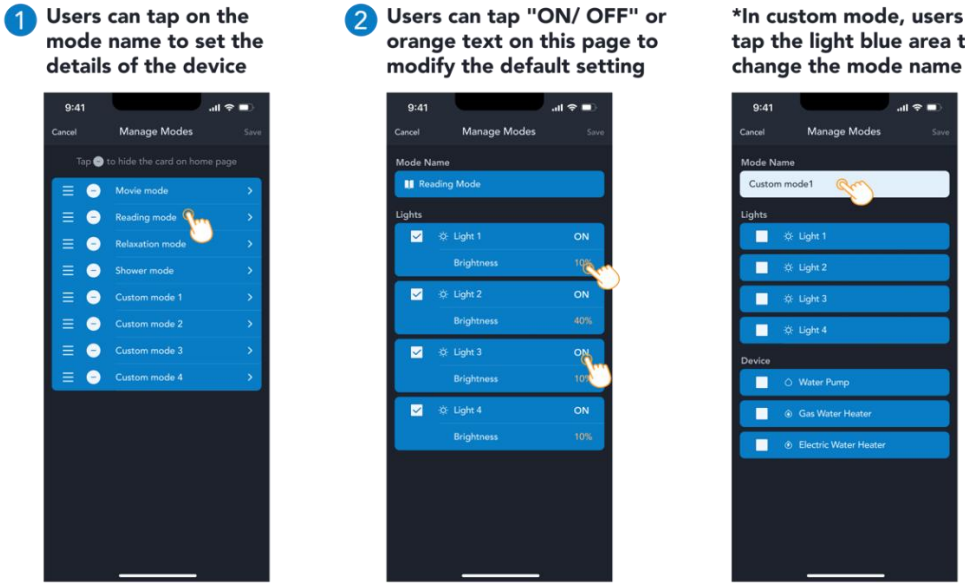


Interaction Instructions

a) Tap and drag to adjust the order, and the position of the card on the homepage will change accordingly.

b) Tap to hide the card on 'My RV' page.

- Set Custom Mode



Interaction Introduction

Name your customized mode

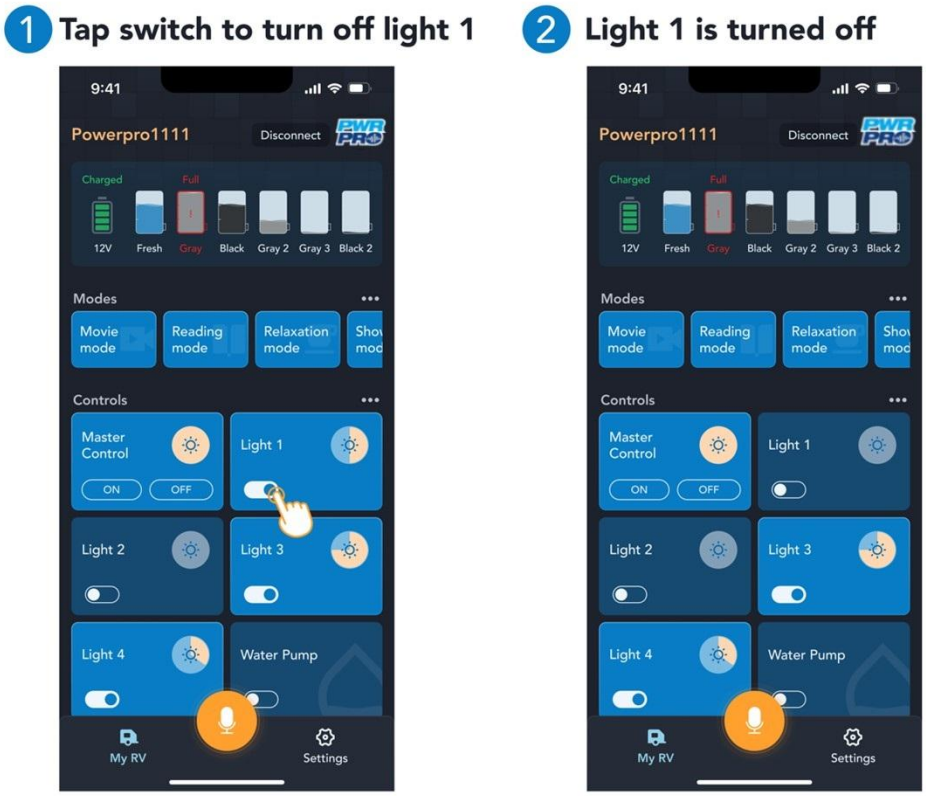
Users can select devices to control in the scene mode.

Set the status of the selected device

*Note: Users cannot control custom modes by voice command.

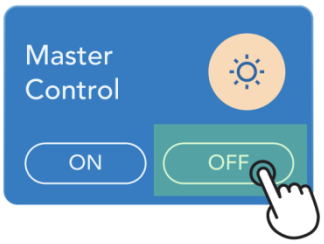
c. Device Control

Users can control the RV device by interacting with cards on 'Controls'.

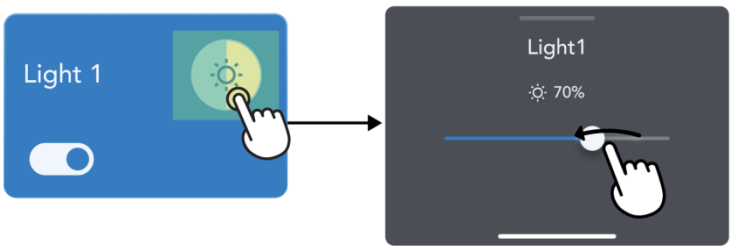


i. Detail Description

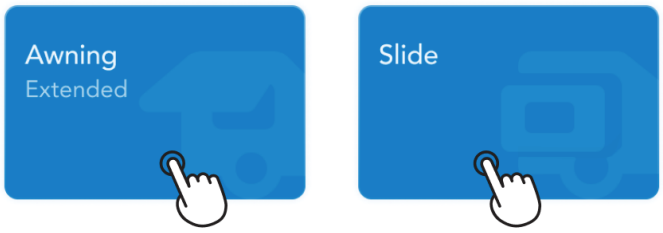
a) Master Control controls all connected light zones, users can use this card to control all connected light zones on/off status and brightness.



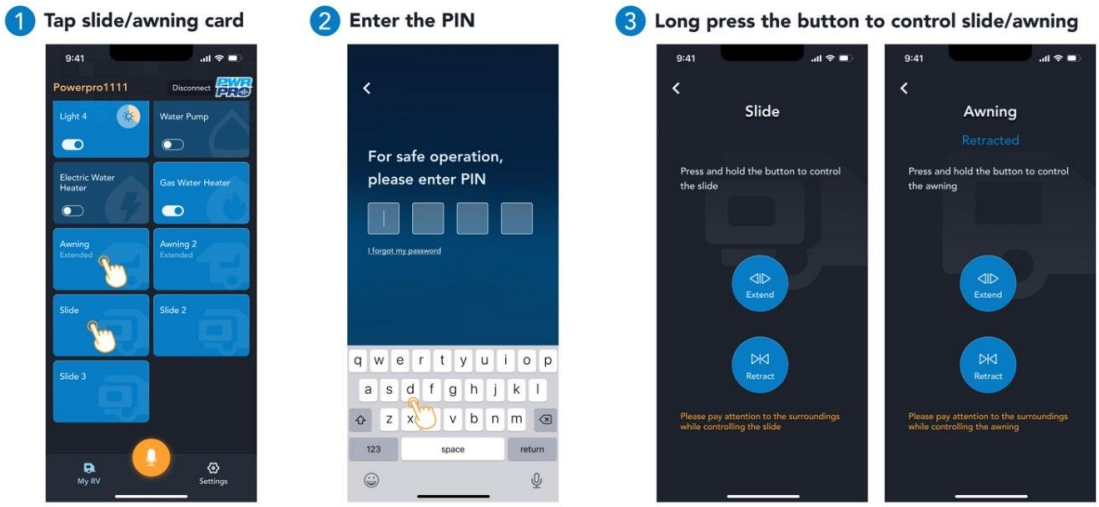
b) Users tap to open the brightness pop-up and drag the slider to adjust the light brightness.



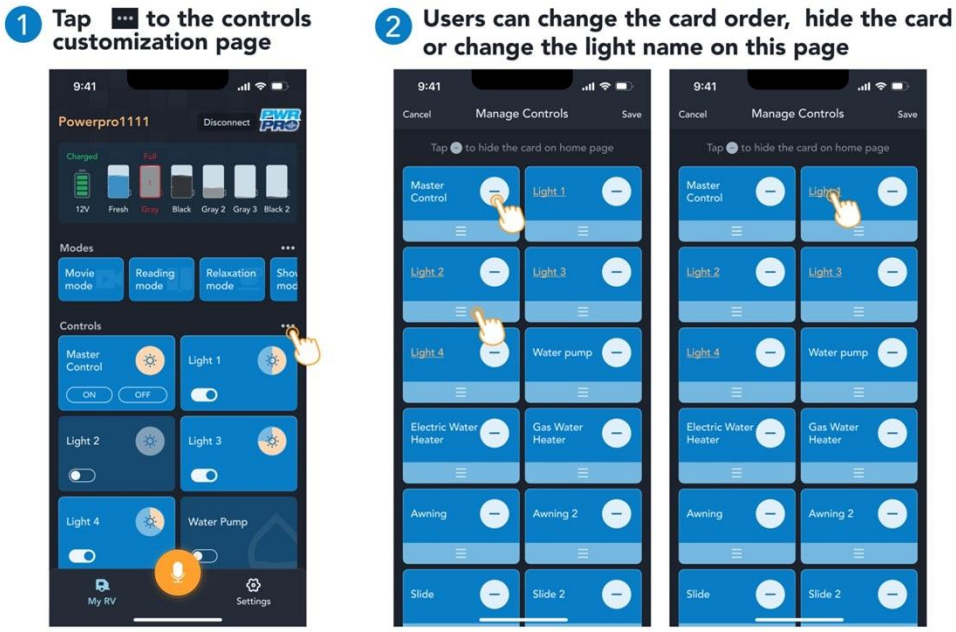
c) Users tap the awning and slide card to open the control page.



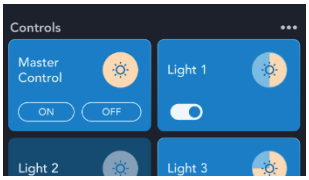
*Note: To ensure safety, users need to enter the APP PIN to go to the control page. Upon first use, users need to set the APP PIN. (Set PIN process refers to - > APP Safety Lock)



ii. Custom Control

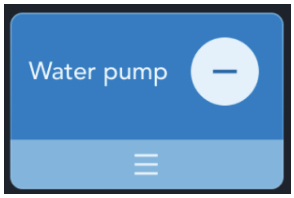


Detail Description



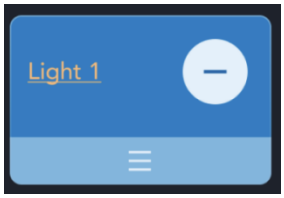
Tap ••• to custom control page.

Users can edit cards and lights name



Tap ≡ and drag to adjust the order

Tap ⊖ to hide the card on 'My RV' page



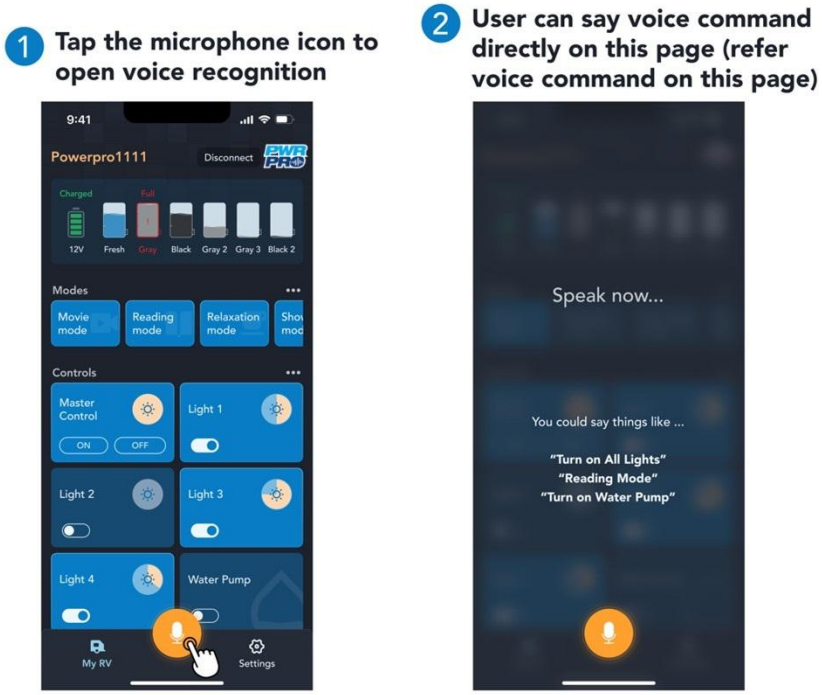
Tap Light 1 to rename the light

*If one alias is used for a specific device, it cannot be set to another device of the same category.

For example, if "Bedroom" is assigned to Light1, then it cannot be assigned to other light devices.

d. Voice Control

Users can control the panel by voice command on their phone. Tap the center microphone icon to activate the voice control mode. After hearing the "ding" sound, users can speak the voice command.



*Note

If the voice command is not recognized within 4s, it will automatically exit the voice control and jump to the home page.

Unlike the voice interaction method on the control panel, in the app, the user does not need to say "Hey Power Pro". They just need to click the microphone icon and speak the voice command.

3. Bluetooth Devices and Sensors

   Bluetooth devices and sensors can be added into the system using a pairing process within the APP.

   - To add propane tank sensor(s)

     a. Press the physical "Sync" button on the sensor.

     b. In the app, tap the Add button next to the Propane Sensors section title.

     c. The app will begin scanning for nearby sensors. Once a sensor is detected, its MAC address will be displayed. The app will then prompt you to select the tank size.

     d. After selecting the tank size, tap Confirm to add the sensor.

   - To add TPMS sensor(s)

     To add TPMS sensors, you will need to install them onto the tires. The sensors only become active when they detect tire pressure.

     a. In the app, tap the Add button next to the TPMS Sensors section title.

     b. The app will begin scanning for nearby sensors.

     c. A list of detected TPMS sensors (by MAC address) will appear on the screen. Select the sensor you want to assign to the panel.

     d. Tap Confirm to add the selected sensor.

   - To add BT door lock

     a. Tap on the card to enter the page to connect to a Bauer Bluetooth lock.

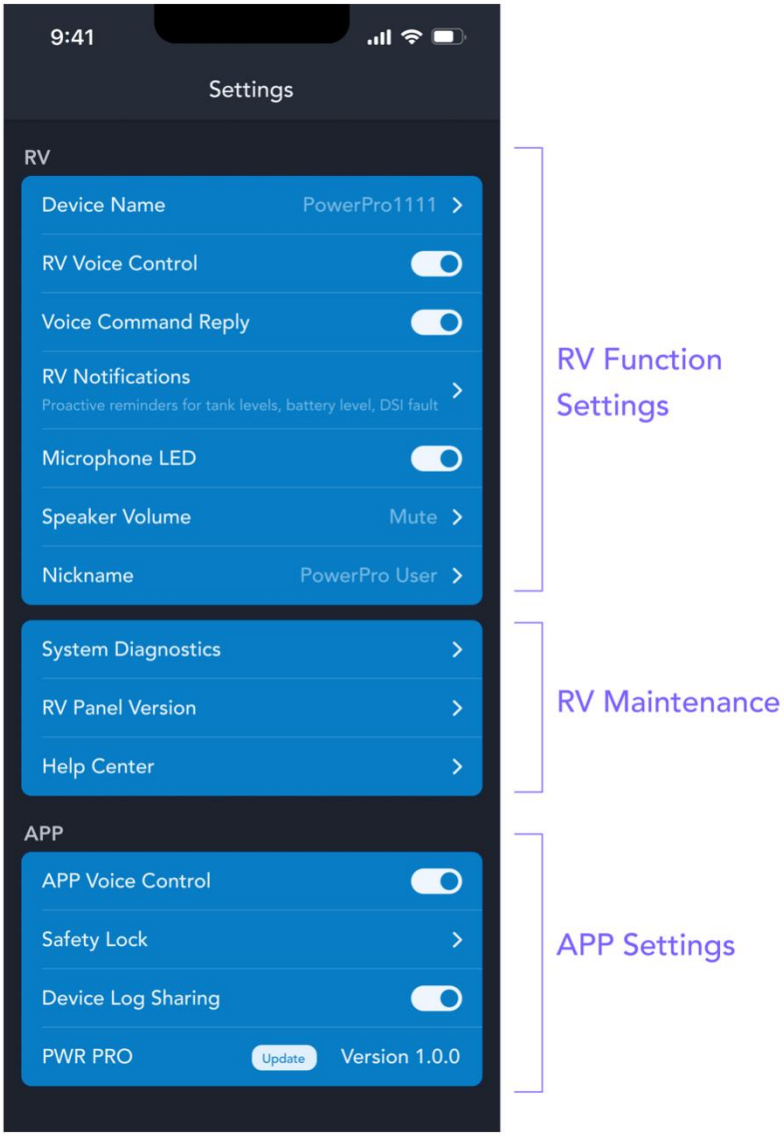
     b. Press the button in the screen to connect to a new lock. The APP scans for nearby locks.

     c. Once a lock is detected, you can tap the 'Confirm' button to add it.

     NOTE: iOS does not allow access to the MAC addresses of Bluetooth devices. For Apple devices, you will need to scan the QR code for the MAC address.

4. Settings

Settings include two main parts: RV settings (including function & maintenance) and APP settings. Users can modify these according to their preferences.



a. Change RV Panel Name

Users can modify the name of the RV Panel, which is also the Bluetooth name of the panel.

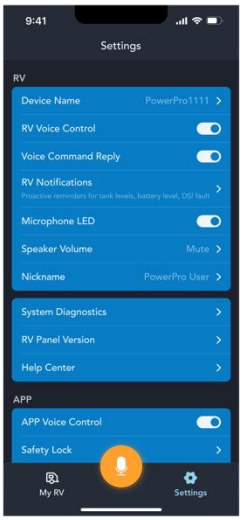
1 Entrance 1: tap the text on homepage

2 Entrance 2: tap the list on homepage

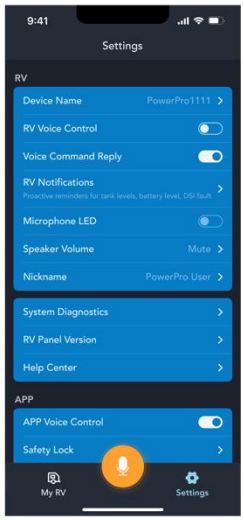
b. RV Voice Control

Users can activate/ deactivate the voice command function of the control RV panel. If the user turns off the RV voice control, the Microphone LED & LED on the panel turns off.

1 Turn off RV Voice Control

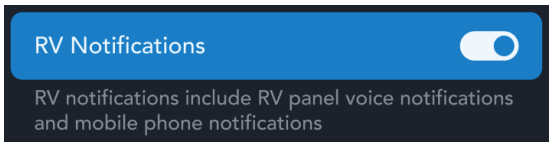


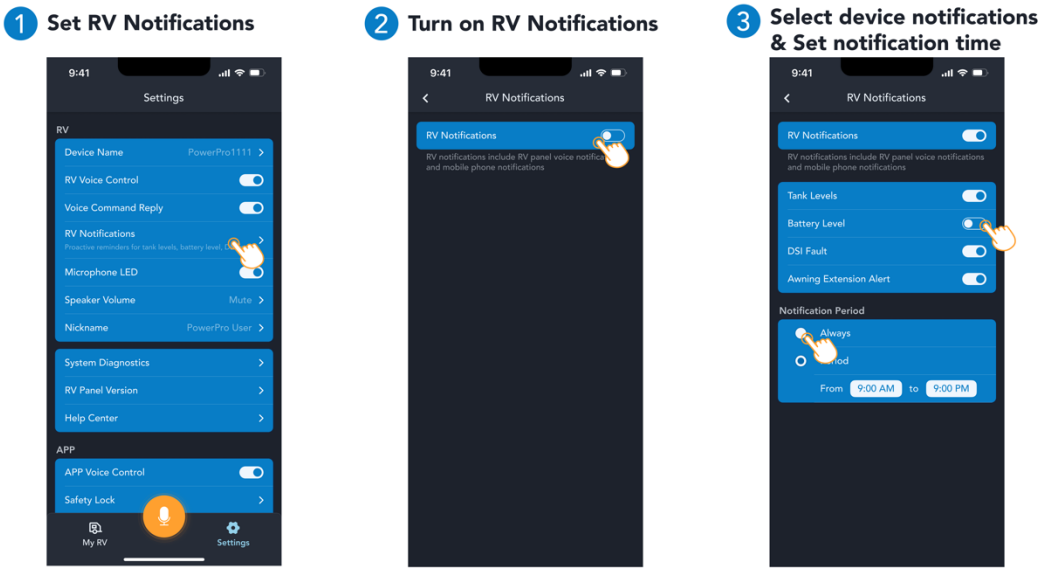
2 The Microphone LED & LED on the panel turns off.



c. TTS Notification Settings

Users can turn on/off the voice notification on control panel & the push notification on smartphone with two kinds of settings.





Turn on/off voice notifications of user's voice command.

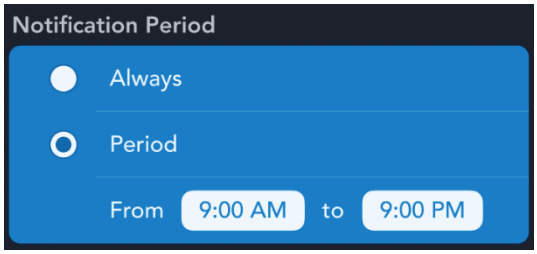
Turn on/off proactive voice notifications when the following conditions occur. The default is off.

Tank level of Fresh reaches empty & Tank level of Gray/Black reaches full

Battery level is 'Low.'

DSI status is fault

Awning extension alert

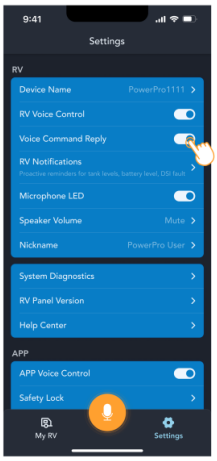


Set the notification for a certain period.

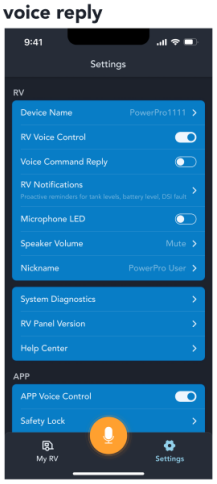
d. RV Voice Command Reply

Users can turn off the RV voice command reply, and RV panel will directly execute the voice command without the voice reply. Additionally, within the voice command reply menu you can select either a “ding” or a conversational greeting.

1 Turn off Voice Command Reply



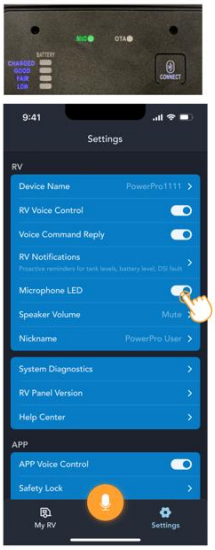
2 RV Panel will directly execute the voice command without voice reply



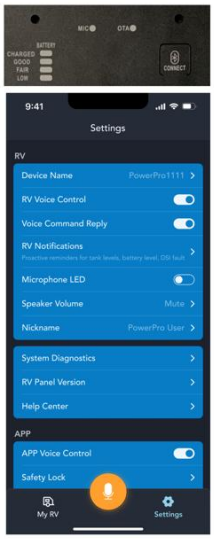
e. Microphone LED

Users can turn on/off the LED on the microphone. Turning off the microphone LED does not affect the use of RV voice control.

1 Microphone LED on



2 Microphone LED off



f. Speaker Volume Setting

Users can set the speaker volume from mute to maximum volume.

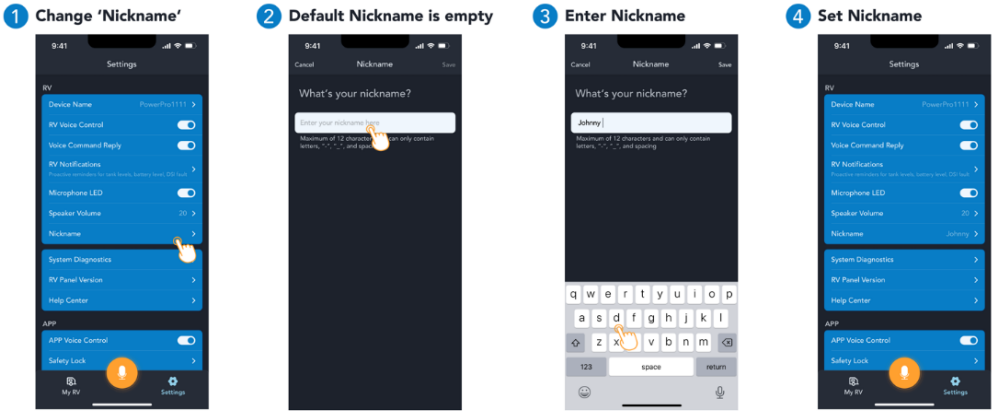
User can use the 'Test volume' button to confirm the volume effect.

g. Nickname Setting

Users can set the nickname and RV panel will reply accordingly.

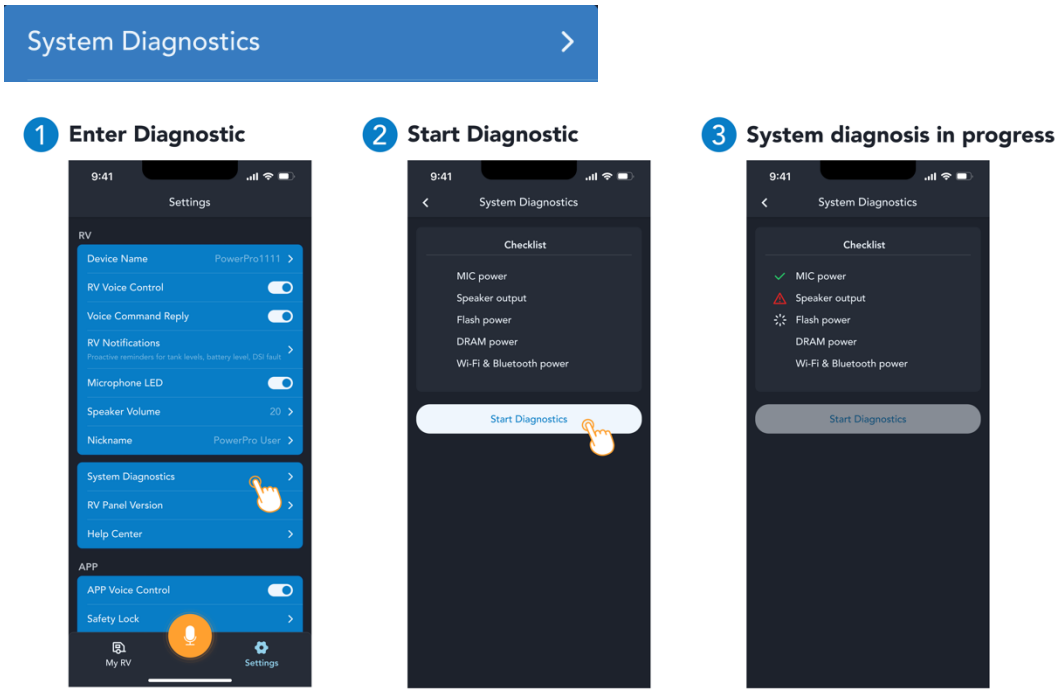
This setting is optional. Default is empty.

User can set their name (maximum 12 alphabets including space, "-"& "_" as separator) so that when the control panel replies to user for certain voice commands, the user name will be included in the voice greeting messages.



h. System Diagnostics

If users think that the voice function on the panel does not work normally, users can run the system diagnostics to check the issue and provide information to the services of WFCO.



i. RV Panel Version (OTA)

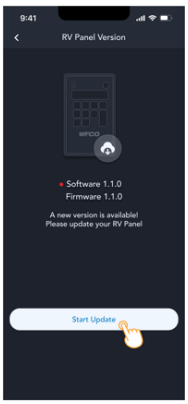
Users can update the RV Panel (including firmware and software) on 'Settings - > RV Panel Version'.

- *To ensure the smooth operation of OTA, please try to place the mobile phone close to the RV panel when upgrading and ensure that the network environment is stable.*
- *After the OTA, the panel may restart. To ensure safe use, please manually perform the Bluetooth connection process after restarting.*

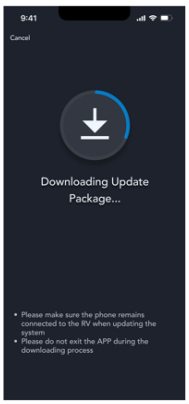
RV Panel Version >

1 **RV software and firmware are the latest version**

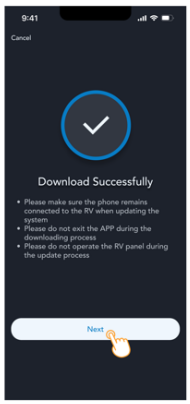
2 **RV software need to update**



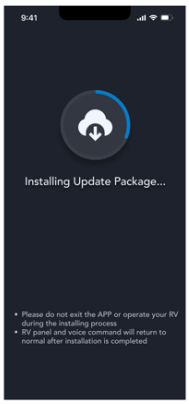
3 **Downloading update package**



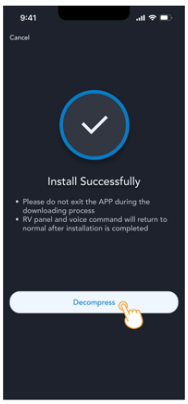
4 **Download successfully**



5 **Install update package**

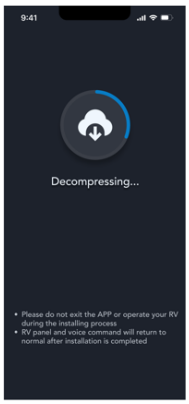


6 **Decompress update package to RV panel**



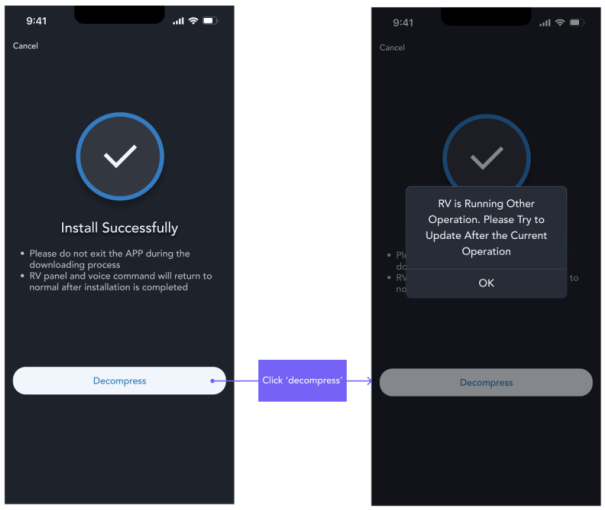
User cannot decompress the OTA package when operating the large current device, such as control awning or slide

7 **Decompressing**



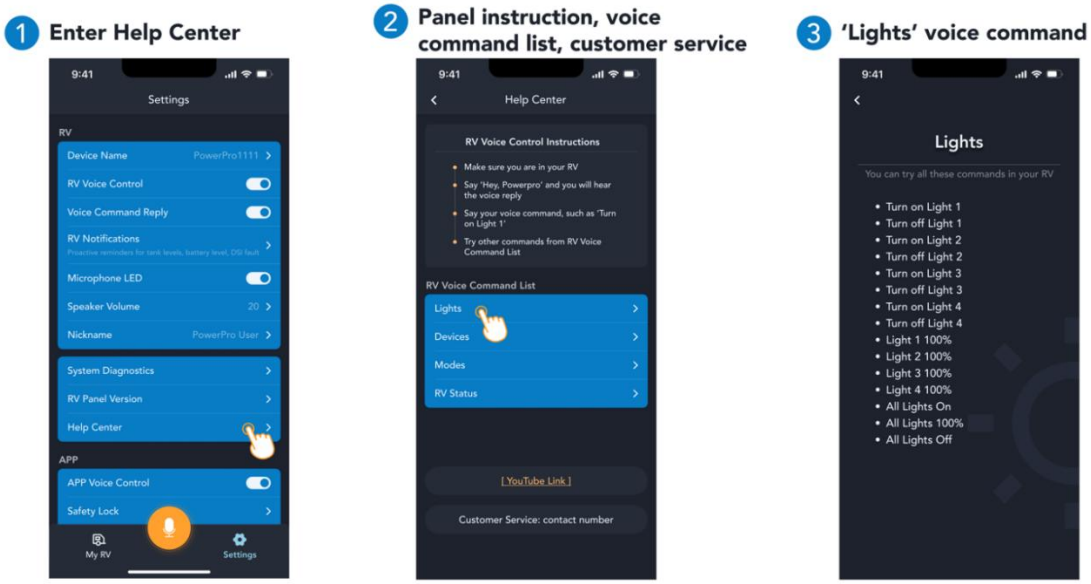
8 **Finish update**

*Note: User cannot decompress the OTA package when operating the large current device.



j. RV Help Center

Users can get the up-to-date user manual under this menu.



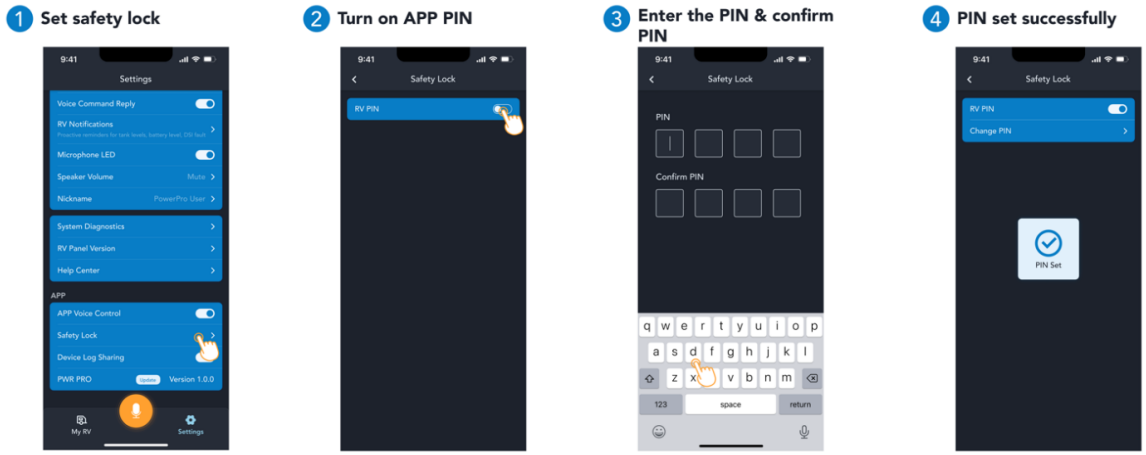
k. APP Voice Control

Users can turn on/off the App voice control.

l. APP Safety Lock

The safety lock is an APP level lock screen to prevent the device motor functions being controlled by unintended users. The functions include awnings and slideouts.

Users can set in 'Settings - > safety lock'.



m. APP Device Log Sharing

Users can choose whether to agree to upload device and app usage logs (without any personal information) to WFCO for a better user experience.

n. Wi-Fi Control

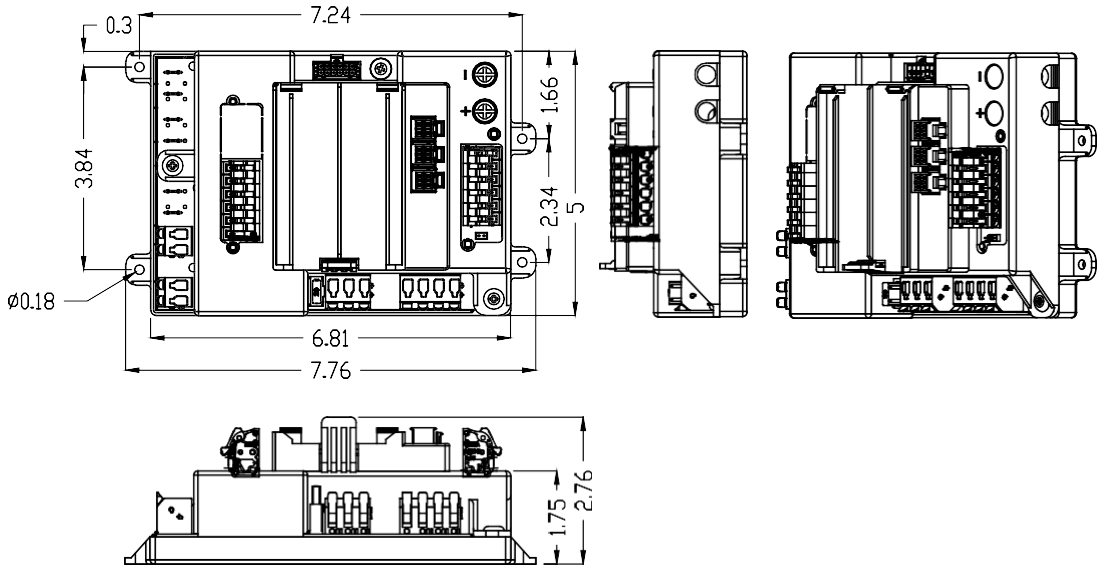
Users can connect their Power Pro panel to the internet through a Wi-Fi connection. The user can enter the SSID of the available network along with the Password of that network. This will allow the user to turn on a Wi-Fi connection. When the control panel is successfully connected, the WF-3611-A control panel's white "Wi-Fi" light will illuminate. This will allow the user to remotely control select functions through the APP via an IoT mode.

V. INSTALLATION

1. Mounting the smart power unit

   The smart power unit has primarily been designed for three different mounting configurations.

   1. Wall/Floor Mounting.
   2. Back of WFCO WF-89xxAD Power Centers.
   3. Back of WFCO WF-95xxAD Power Centers.

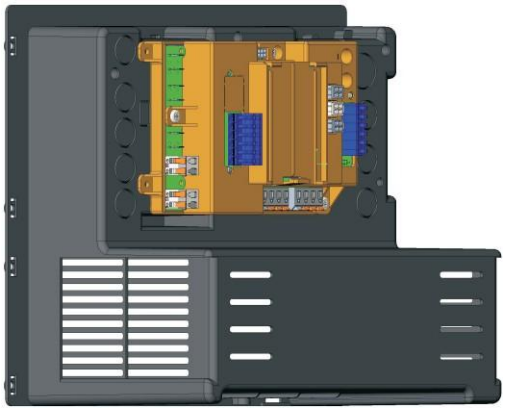


   b. Mounting to a Wall or Floor

   The smart power unit can be mounted to a wall or floor with four self-tapping screws.

c. Mounting to a WF-89xxAD

The smart power unit can be mounted to the back of a WF-89xx AD power center with four M4*10mm screws, thread M4, thread pitch 0.7mm.



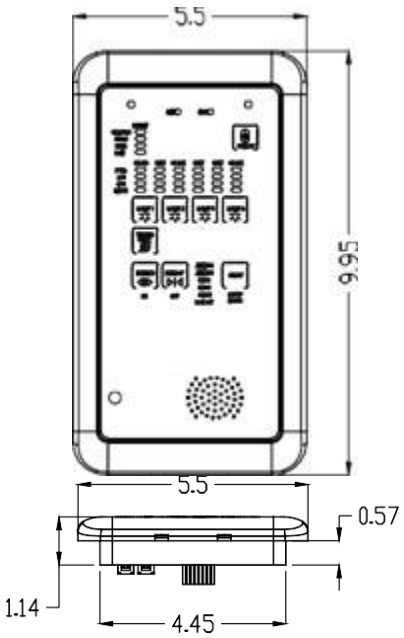
d. Mounting to a WF-95xxAD

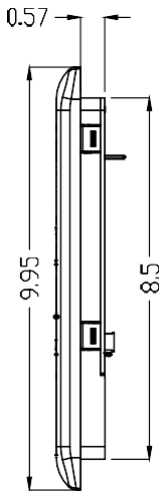
The smart power unit also can be mounted to the back of a WF-95xxAD power center with four M4*10mm screws, thread M4, thread pitch 0.7mm.

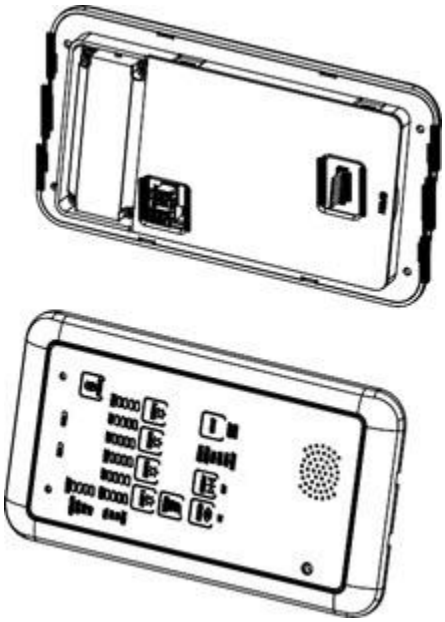
2. Mounting the Control Panel

The control panel should be mounted in an easily accessible location. Recommended wall square hole dimension is 4.5*8.6 inch for control panel cutout. The user can choose the following length of can bus cable; the can bus cable shall be routed from the control panel to the smart power unit.

- WF-3531: 5' can bus cable
- WF-3532: 10' can bus cable
- WF-3533: 20' can bus cable
- WF-3534: 30' can bus cable

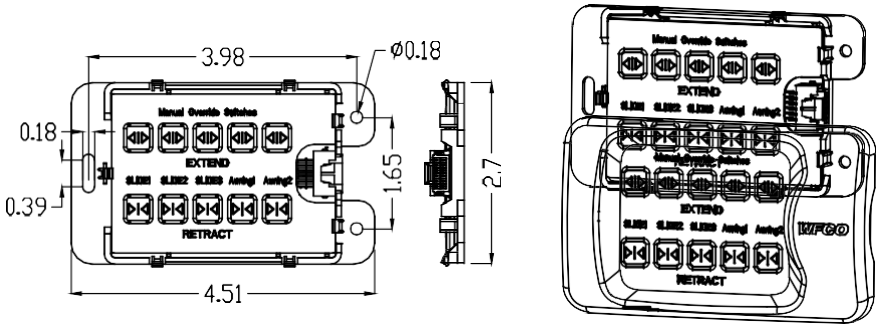


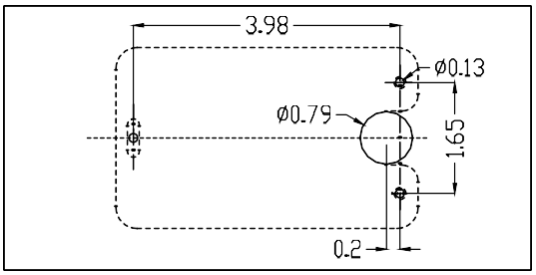




3. Mounting the MORS Kit (Optional)

The MORS kit should be mounted in an easily accessible location. The supplied wire harness should be routed from the MORS interface of smart power unit to the MORS kit.

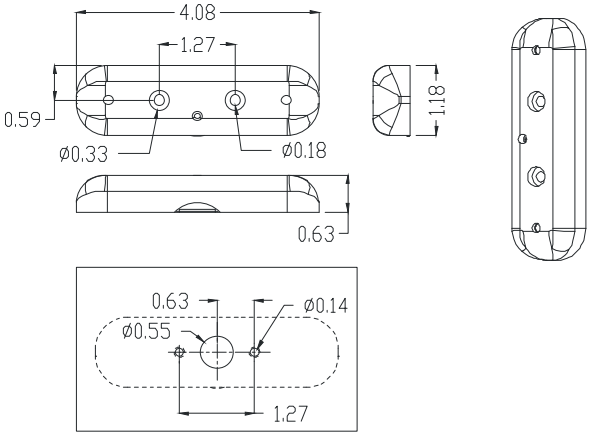




wall mounting hole dimension

4. Mounting the External Microphone Module (Optional)

The external microphone module shall be mounted on a solid surface (wall or ceiling), away from loud noise sources, away from the main control panel but closest to the main living area. The supplied wire harness should be routed from the control panel to the external microphone module.



wall mounting hole dimension

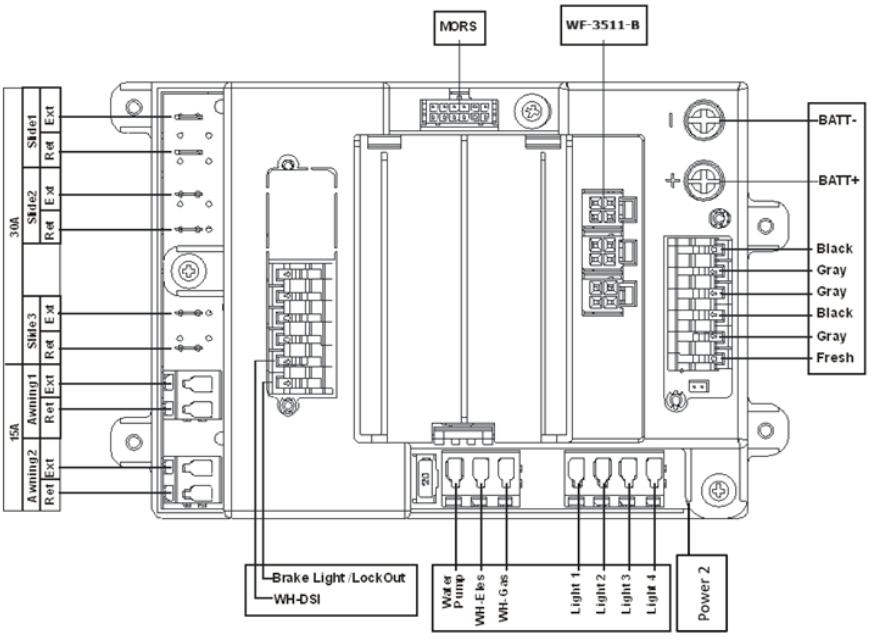
5. Wiring Instructions

a. Smart Power Unit Wiring Instructions

Refer to the below table for wiring specification, use copper conductors only. All wiring shall meet local codes/standards and be performed by qualified personnel.

Terminal Name	Recommended Wire Gauge	Wire Temperature Rating	Remark
BATT+	10 AWG	Min. 90 ℃	Tightening wire with 25 in-lbs torque
BATT-	10 AWG	Min. 90 ℃	Tightening wire with 25 in-lbs torque
Slide 1~Slide 5	10 AWG	Min. 90 ℃	The wire end needs to employ UL Listed 250 female quick disconnect
Tank Heater	10 AWG	Min. 90 ℃	The wire end needs to employ UL Listed 250 female quick disconnect
+12Vdc (WF-3511-B - Power 2)	10 AWG	Min. 90 ℃	The wire end needs to employ UL Listed 250 female quick disconnect
Water Pump	14 AWG	Min. 90 ℃	Push-in connection
Awning 1~Awning 2	14 AWG	Min. 90 ℃	Push-in connection
Light 1~ Light 4	18 AWG	Min. 90 ℃	Push-in connection
Light 5~ Light 6	16 AWG	Min. 90 ℃	Push-in connection
1-6 – SW, Water Pump - SW	20 AWG	Min. 90 ℃	Push-in connection
Tank Levels, Brake Light, WH-DSI	20 AWG	Min. 90 ℃	Push-in connection

b. Smart Power Unit Wiring Diagram



VI. TROUBLESHOOTING

Power Pro Troubleshooting Guide				
Issue	Solution 1	Solution 2	Solution 3	Solution 4
Bluetooth light is blue but there is no device connected.	Turn-off last connected device's Bluetooth.	Press and hold BT button on panel for 10 seconds. Button will flash white, erasing all connected devices.	Restart panel. To do this, disconnect shore power and battery. Reconnect shore power and/or battery.	Contact WFCO tech support at 574-294-8997.
Panel not responding to wake up words.	In APP settings, ensure 'RV Voice Control' is enabled.	Restart panel. To do this, disconnect shore power and battery. Reconnect shore power and/or battery.	Contact WFCO tech support at 574-294-8997.	
OTA update is not successful.	Click 'Retry' if prompted on phone.	Close out APP, force stop APP, clear APP data and cache, if possible.	Restart panel. To do this, disconnect shore power and battery. Reconnect shore power and/or battery.	Contact WFCO tech support at 574-294-8997.
Light zone voice commands are not matching RV unit layout.	Reconfigure light zone names in APP.	Contact WFCO tech support at 574-294-8997.		
Panel is unresponsive.	Restart panel. To do this, disconnect shore power and battery. Reconnect shore power and/or battery.	Contact WFCO tech support at 574-294-8997.		

VII. WARRANTY

CONSUMER WARRANTY CLAIM PROCEDURE

After it has been determined that a WFCO product is defective, an RGA number will be required before it can be returned. The RGA number can be requested by completing the Warranty Information Fax Sheet & Troubleshooting Form found at www.wfcoelectronics.com. Once the forms have been completed, email this form along with Proof of Purchase to warranty@wfcoelectronics.com or fax both forms to the Warranty Department (574)-294-8698. After receipt of the forms, an RGA number will be issued. This number shall appear on all correspondence with warranty service. Upon validation of the warranty, WFCO shall replace or repair the product with a like product. The RGA number shall be placed on the outside of the carton used to return the product for ease of identification. Do not mark directly on the product. The product must be packaged properly to avoid further product damage which could cause a non-warrantable condition.

WARRANTY ASSISTANCE

The consumer may contact the selling Dealer or OEM for warranty assistance. The OEM may contact WFCO Technologies at Phone: (574) 294-8997 or Fax: (574) 294-8698.