

PRECISION₂PLEX MINI™

USER MANUAL

PRECISION CIRCUITS INC



PRECISION CIRCUITS INC

Made in the USA

*We simplify
the complex*

WWW.PRECISIONCIRCUITSINC.COM

Disclaimer

This document covers information available across multiple models and model configurations. Some of the features listed in this document may not be available in your system.

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Levels

The icons provide a live preview of the tank levels and battery voltages. To see the numerical readings of the tanks and batteries, tap the icon.

Battery Levels (Battery Icon Only)

Green = 12+ volts
 Yellow $\frac{3}{4}$ = < 12 volts and \geq 11 volts
 Yellow $\frac{1}{2}$ = < 11 volts and \geq 10 volts
 Red = < 10 Volts

Tank Levels

Blue Outline and Red Bar = 20% left
 Red Outline and Red Bar = Less than 10% left
 Grey Outline = No Communication with the Pressure Sensor
 Yellow Outline and Yellow Bar = Battery is below 12 volts

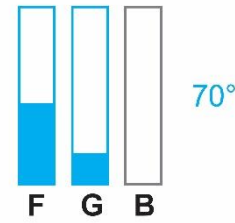
Only Batteries



Tanks and Batteries



Only Tanks



Generator



On the main screen, a color-coded circle will appear above the generator icon indicating the status of the generator.

No Circle = Stopped

Red Circle = Will not Start / Stop

Blue Circle = Starting

Yellow = Stopping

Green Circle = Running

Tapping the icon will bring you to the Generator Control Screen. On this screen, you can start and stop the generator as well as view the generator run time. Tapping the start or stop buttons will run the auto-routines.

The Auto-Start Command will prime the generator, command it to start, and then check to see if it turned on. The Auto-Stop Command will command the generator to stop and then check to see if it turned off. After four failed attempts to either start or stop the generator, the auto-routine will stop and the icon on the main screen will display the red circle.

Pressing and holding the start or stop buttons will use the manual commands instead of the auto commands. After 5 seconds of holding the start or stop buttons, the output will turn on. It will stay on for as long as you continue to hold the button.

Water Pump



On the main screen, a color-coded circle will appear above the water pump icon indicating if the water pump is on or not. Tapping the icon will bring you to the control screen.

No Circle = Off

Green Circle = On

Power



Tapping the Icon will bring you to the Power Control System Screen.

Service Type: The detected service type is displayed at the top-center of this screen. This system supports 3 service types: No Service, Generator, and 30-Amp Service. If there is a communication error with the Power Control System, instead of seeing the service type you will see in red text: “No Power Control System”

Amp Gauge: This displays the active amp draw and provides the numerical reading below the gauge. When the amp draw surpasses the amp limit the managed loads will begin to shed.

Loads: Below the Amp Gauge is a list of all the managed loads. Each item is listed in their shed order, first to last. Each row is made up of 2 parts. On the left side of the list is the Load Name, on the right is the shed status. When a load sheds, the power control system will learn the amp draw associated with the load. The shed status will then be updated to include the learned value, in addition to displaying shed. The Power Control system uses the learned amp draw to decide when to return power to loads.

Service: The service button is used to limit amp consumption when the system detects 30-amp service. The Limit can be set to 15-Amp / Inverter, 20-Amp, and 30 Amp service.

Environment

The main Icon will display the interior temperature of the coach. If the Compressor is on, the cooling icon will appear behind the temperature reading. If the temperature sensor gets disconnected from the system two dashed lines will appear instead of the interior temperature. Tapping the icon will bring you to the AC controls screen.

Temperature Control – Room temperature is displayed on the left side of the screen. Set temperature is displayed on the right. Use the up and down arrows to adjust the set temperature.

Fan Speeds – There are 4 different fan speeds. To change the fan speed, tap the fan Icon in the bottom right corner, then tap the desired fan speed.

- High – This sets the fan speed to high.
- Low – This sets the fan speed to low.
- Auto – This dynamically sets the fan speed to low or high based on the temperature difference between the set temperature and the room temperature. If the temperature is greater than 5 degrees, the fan will be set to high. Once set to high, a temperature difference of less than 3 degrees must occur before it will switch to low. After the fan is set to low, it will not switch to high again until after the temperature difference is greater than 5 degrees.
- Off – This will turn the fan off.

HVAC Modes – This system supports two modes: Off and Cool. To select the HVAC Mode, tap the Mode button in the bottom left corner, then tap the desired mode.

- Cool – This function allows the use of high, low, and auto fan speeds. The fan will not be able to be turned off while this mode is selected. Once an AC is turned off there is a two-minute compressor wait timer that prevents the AC from turning back on too quickly.

Manual Mode – In the event that the temperature sensor becomes disconnected from the system you will still have manual control of the air conditioner. The AC will turn on and off based on the mode selection.

Settings

While on the main screen, swipe down from the top-center of the screen to reveal the settings button. Tap the settings button to enter.

Software Versions – The software versions of the touch screen, Digi-level, and power control system are located on the bottom left and right corners of this screen.

- **Touch Screen Software Version** – 101.00XX
- **Power Control System Software Version** – 069_000v.X.XX
- **Digi-Level Software Version** – 095_000v.X.XX

Dim Display Level – This slider will allow you to adjust the brightness the screen is set to when it goes to sleep.

Dim Display After – This will allow you to adjust the amount of time before the screen begins to go to sleep.

Set Generator Hours – This button will bring you to the screen that allows you to adjust the recorded generator hours. Use the up and down arrows to adjust the value. Use the set button to save the modified value. Use the cancel button to return to the main screen without saving changes.

Recalibrate Tanks – This will bring you to the tank recalibration screen. Each tank can be individually recalibrated. If a tank is still showing a small percentage of water when it is empty or never reaching 100% when the tank is full, you can recalibrate the tank for more accurate readings. Recalibration should only be done when a tank is empty. Recalibrating a tank while there is still water inside will cause inaccurate readings.

- Tanks can be recalibrated individually by pressing the “Fresh,” “Gray,” or “Black” buttons.
- To restore all your tanks to their original factory calibration levels, press the “Factory Defaults” button. The Factory Defaults option can be selected at any time, even if one or more of the tanks are not empty.

Model Selection – Press and hold the Ok button for 10 seconds to reveal the Factory Setup and Factory Reset buttons. Tap on the Factory Setup button to get to the model selection screen. Tap the desired model, then enable or disable the generator to match your coach’s configuration. Press Ok to confirm your changes.

Pressure Sensor Diagnostics – To get to this screen press and hold the bottom right corner of the settings page for 5 seconds. This screen displays the raw data used to calculate the pressure sensor percentage readings. This allows our Tech Support to better diagnose the pressure sensors if an issue occurs.

HVAC Module Diagnostics – To get to this screen, tap the word Diagnostics while on the pressure sensor diagnostics screen. This screen allows you to: control the individual outputs of the HVAC module, check the module’s communication status, and perform an HVAC reset.

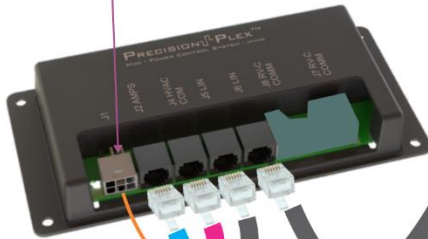
- **HVAC Module** – This icon displays the communication status of the connected HVAC Module. If the button’s outline is blue, the module is communicating. If the button’s outline is grey, the module is not communicating.
- **HVAC Reset** – This button is used to reset the learned address of the HVAC module.
- **AC controls** – The remaining buttons are used to control the Air conditioner. If the button’s outline is blue, the output is on. If the button’s outline is grey, the output is off. Fan Medium is not supported.
 - **Warning: The compressor output should not run without either, Fan High or Fan Low, set to on. Doing so may result in damage to you AC unit’s Compressor.**

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System Diagram Winnebago Touch Control Digi-Level, Gen HVAC, Midi-PCS



00-10069-000 Midi-PCS, J1 pinout
 Coach Bat 1 || 4 Hi Sig Out 1
 Gen Hour Mtr 2 || 5 Hi Sig Out 2
 Ground 3 || 6 Hi Sig Out 3



00-10095-000 Digi-Level, J1 pinout
 Gen Gnd 1 || 3 Start
 Stop 2 || 4 Gen Hour Mtr

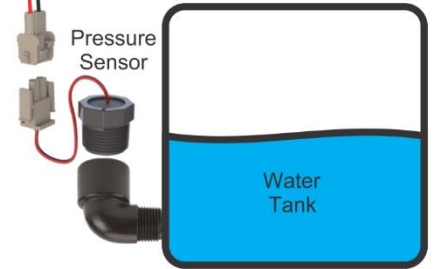
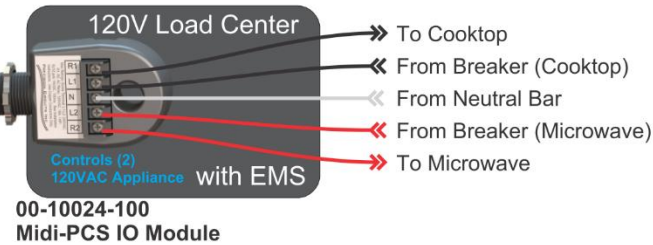


00-10095-000 Digi-Level, J2 pinout
 NC 1 || 5 NC
 Coach Bat 2 || 6 Ground
 NC 3 || 7 NC
 Watr Pump Sw 4 || 8 Chassis Bat

**00-10095-000 Digi-Level
J6 pinout**
 Temp 1
 Temp 2

00-10095-000 Digi-Level, J3 pinout
 - LPSensor 1 || 7 + LP Sensor
 - BlackTank1 2 || 8 + BlackTank1
 - BlackTank2 3 || 9 + BlackTank2
 - GrayTank1 4 || 10 + GrayTank1
 - GrayTank2 5 || 11 + GrayTank2
 - Fresh Tank 6 || 12 + Fresh Tank

**00-10058-100 Hi-Side HVAC Module,
J3 pinout**
 Fan Hi 1 || 4 Comp
 NC 2 || 5 Heat Pump
 Fan Low 3 || 6 Ground



J2 Ground J1 +12Volts

