GETTING STARTED

12 VOLT BATTERY DISCONNECT SWITCH

To operate the touchscreen control panels, the 12 VOLT BATTERY DISCONNECT switch must be in the ON position.

(This applies to the front and rear touchscreen control panels)

Touch anywhere on the touchscreen for the display to light up.

DISPLAY SCREEN MENU OPTIONS

The menu options are located off to the right of the touchscreen control panel. There are five menu pages: HOME, LIGHTING, POWER MANAGEMENT, MECHANICAL AND SETTINGS.

Touch a menu icon to display the screen you want to access.
HOME PAGE

To access the HOME page, select the icon from the menu off to the right of the touchscreen control panel.

Buttons will display in light blue when activated.

The HOME page will display the following: LIGHTING, CLIMATE CONTROL, WATER PUMP, WATER HEATER, TANK LEVELS, DC POWER, GENERATOR START/STOP and AC SOURCE.

LIGHTING QUICK ACCESS

This area provides a short cut to your 3 most used lights. (See LIGHTING PAGE 6) for customization.

The configuration shown here will allow you to turn ON or OFF lighting for the KITCHEN, SOFA VALANCE, READING and the BACK LIGHT.

Buttons with up/down arrows are capable of dimming. Touch and hold the light button for brightening and dimming of the lighting.

Select the LIGHTING PAGE button for a complete list of lighting options.
**CLIMATE CONTROL CENTER**

The CLIMATE CONTROL CENTER displays the inside temperature and the desired temperature in the center circle.

The actual inside temperature of the coach is displayed in the smaller number below the set temperature. The set temperature is the large number selected by touching the white dot and moving it around the temperature scale to the desired temperature.

Use the MODE buttons on the left to select the desired item that you want to operate. You can select: FURNACE, AIR CONDITIONER, VENT FAN or FAN SPEED to the right. These devices are thermostatically controlled.

**NOTE:** Fahrenheit or Celsius can be selected on the Settings page.

**FURNACE MODE (TRUMA VARIOHEAT)**

If the desired temperature is above the interior temperature the furnace will engage and warm the coach to the desired temperature. At the desired temperature the furnace will cycle off. If the temperature drops below the desired temperature the furnace will cycle back on. Ensure that the propane switch on the exterior of the coach is in the ON position.

**NOTE:** Ensure that the fan speed on the right side is set to FAN AUTO. If there is 110 volt available and the fan is left on HIGH or LOW, the fan in the AC will engage during the furnace mode.

**VENT MODE**

If the desired temperature is below the interior temperature, the roof vent fan will open and the fan will engage. The fan will run at high speed until the interior temperature reaches the desired temperature. When the interior temperature reaches the desired temperature the fan will shut off, however the vent lid will remain open. The fan will cycle off and on to keep the desired temperature.

**A/C MODE**

120 volt power from a shore line or from the generator must be present to activate the air conditioner. In the A/C mode if the desired temperature is below the interior temperature the roof top A/C will engage to cool the interior of the coach. The FAN HIGH, FAN LOW and FAN AUTO are used to control the air conditioner fan speed. If the FAN HIGH or FAN LOW is chosen the air conditioner fan will continue to run while the air conditioner compressor will cycle on and off.
If FAN AUTO is chosen the air conditioner fan will cycle on and off a short time before, and a short time after the air conditioner compressor engages, to keep the desired temperature.

**NOTE:** The FAN HIGH, FAN LOW and FAN AUTO are used to control the air conditioner fan speed only. These controls will not affect the roof vent or the furnace fan speeds.

**WATER PUMP**

Select the WATER PUMP button to run the on-board water pump.

Ensure there is water in the fresh water holding tank before engaging the water pump. The water pump should not be turned on when the motorhome is connected to city water.

It’s recommended that you turn off the water pump when the water system is not in use or when you are going to be away from your motorhome.

**TANK LEVEL PANEL**

The FRESH, GREY and BLACK tank levels. The fresh and grey water tanks are located underneath the floor of the vehicle. The black water tank is located above the floor directly under the toilet.

The LPG indicates how full the LP tank is. The LP gauge is located on the tank with a sending unit that sends levels to the touchscreen control panels.

**WATER HEATER**

Please refer to the manufacturer’s operating instructions for further information.

Select the WATER HEATER symbol to adjust.

Set water temperature using the - or + symbols. Press OK to return to HOME PAGE.

The water heater setting will be displayed at the top right of the HOME PAGE.
**DC POWER (COACH BATTERIES)**

This gauge displays the STATE-OF-CHARGE, BATTERY VOLTAGE, BATTERY TEMPERATURE, and REAL TIME LOSS/GAIN AMPERAGE.

(for more information see page 7)

---

**AC POWER DISPLAY (120 VOLT POWER)**

When operating your coach on AC power, the current power source you are using will light up and be displayed on the Home Page.

---

**GENERATOR**

This gauge displays the START/STOP SWITCH, GENERATOR STATUS and AUTO GENERATOR START STATUS.

These buttons will start and stop your generator. Touch and hold the button to start the generator. There will be a slight delay before the starter engages.
To access the LIGHTING PAGE, select the icon from the menu off to the right side of the touchscreen control panel.

**NOTE:** LIGHTING PAGES will vary depending on the model.

**GETTING STARTED**

Select a light button to turn ON or OFF lighting associated with the area. Buttons will display in light blue when activated.

The LIGHT MASTER button turns ON or OFF all the lights inside the vehicle. The LIGHT MASTER button does not control AWNING LIGHT or the PORCH LIGHT.

Buttons with a sliding bar are capable of dimming.

To turn OFF the screen display, select the BACK LIGHT button on the HOME page. To turn the screen display back ON, touch anywhere on the screen.

**WARNING:** Ensure the awning light is off when the awning is retracted in the stow position.
HOME PAGE LIGHTING QUICK ACCESS

The QUICK ACCESS LIGHTING buttons on the HOME page can be customized to show any 3 lights, by following these instructions:

1. Select the SETTINGS icon on the touchscreen control panel.

2. Select the SCREEN SETTINGS button. This will bring up the DEFAULT BUTTONS section.

3. Use the + and – buttons to adjust lighting options.

NOTE: BACK LIGHT is a required for the quick access panel and cannot be changed.
The POWER MANAGEMENT PAGE will assist you in managing your power consumption. This especially helpful when you are dry camping.

**DC POWER**

**BATTERY PANEL**
Indicates the state-of-charge of the batteries, battery voltage and the temperature of the batteries. The temperature gauge measures the current temperature inside the coach battery box and will help you determine if it’s safe to charge your batteries.

Battery voltage will vary depending on the load. The battery voltage will change depending on the amount of charge the battery is receiving from the solar panel, engine alternator, or the inverter/charger.

**NOTE:** The temperature of the batteries is important, do not charge the batteries if the temperature is below 32 degrees Fahrenheit or 0 degrees Celsius.
LOSS/GAIN AMPERAGE METER
The LOSS/GAIN AMPERAGE METER gives a real time level of DC amperage used in the motorhome. A positive number will indicate that more amperage is going into the battery bank than is being used. A negative number means the battery bank is being drawn down.

ESTIMATION GAUGE
The ESTIMATION GAUGE gives an estimate of time remaining for the DC power that can be drawn from the battery bank. The average rating takes into consideration consumption over a short period of time.

The ESTIMATION GAUGE also estimates the charging time when plugged into shore power, on generator power, solar charging or when the vehicle is running and the batteries are being charged.

AC POWER
The AC POWER display will show the source of AC power (GENERATOR, INVERTER or SHORE), the VOLTAGE of AC power and the FREQUENCY of AC power. It will also indicate the AMPERAGE draw of the 120 VAC appliances.
THE EMS (ENERGY MANAGEMENT SYSTEM)

The EMS monitors two of the heavy amperage draw appliances (MICROWAVE/CONVECTION OVEN and the INDUCTION COOK TOP) installed in the coach.

This ENERGY MANAGEMENT SYSTEM will limit the combined amperage draw of these two appliances. If the amperage draw exceeds the parameters of the management system, the microwave GREEN display will turn to RED and the microwave will be shut OFF. Once the amperage draw from the cook top drops below the threshold, the microwave will return to green and the microwave can be reactivated.

The INDUCTION COOK TOP can draw up to 1800 watts or 15 amps. The MICROWAVE can draw up to 1600 watts or 13.3 amps. The amount of WATTS/AMPS is determined by the settings of the appliances. In most cases the MICROWAVE and COOK TOP will not be able to be used at the same time. There are other items in the coach that will also put a load on the electrical system.

MAXIMUM INPUT FROM POWER SOURCES:
Xantrex Inverter – 2000 watts or 16.6 amps
Onan Generator – Mercedes 2500 watts or 20.8 amps, Ford or Ram 2800 watts or 23.3 amps
Shore Power – 3600 watts or 30 amps

SOLAR CHARGER

The SOLAR CHARGER module is connected to the Go Power GP-RVC-30 MPPT Solar Controller.

From this screen you can turn ON or OFF the solar panel feed into the solar controller by pressing the POWER symbol.

To the left shows the PANEL VOLTAGE before the controller, the CHARGE VOLTAGE at the controller to the batteries and the CHARGE AMPS the solar panels are producing.

Towards the middle of the display shows the type of charge that is coming from the panels. It will indicate if the controller is: OFF, BULK, ABSORPTION and FLOAT for the various type of charge.

NOTE: Please refer to the MPPT solar controller manual for more information.
**SOLAR CHARGER SETTINGS**

Touch the GEAR symbol to display the settings page for the solar controller. This includes:

- Solar Charging Rate
- History of Charge
- Solar Charge Settings
- Solar Charge Controller Maximum Ratings

![Solar Charger Settings Interface](image)

<table>
<thead>
<tr>
<th>Charge Percent:</th>
<th>0 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating State:</td>
<td>BULK</td>
</tr>
<tr>
<td>Charge Voltage:</td>
<td>13.2 V</td>
</tr>
<tr>
<td>Charge Current:</td>
<td>0.0 A</td>
</tr>
<tr>
<td>Charge Temp:</td>
<td>53 °</td>
</tr>
<tr>
<td>Panel Voltage:</td>
<td>15.3 V</td>
</tr>
<tr>
<td>Panel Current:</td>
<td>0.0 A</td>
</tr>
</tbody>
</table>

**Battery Type:** LITHIUM
**Battery Bank Size:** 200 Ah
**Battery Thermistor (Charger):** 46 °
**Linkage Mode:** IND

- **Max Rated Charge Voltage:** 24.0 V
- **Max Rated Charge Current:** 30.0 A
- **Max Rated Panel Voltage:** 100.0 V
- **Max Rated Panel Current:** 30.0 A
- **Max Rated Over Power:** 1200 W

**Historic Amps Today:** 1 Ah
**Historic Amps Yesterday:** 85 Ah
**Historic Amps Day Before:** 81 Ah
**Historic Amps Past Week:** 168 Ah
**Historic Power Total:** 2 W
**Historic Days Total:** 6
**GENERATOR**

The GENERATOR module will allow you to START and STOP the generator, check the HOUR METER and set the parameters and activate the AGS (AUTO GENERATOR START) system.

**AUTOMATIC GENERATOR START (AGS)**

This feature can be used to charge the coach batteries and/or for climate control in your coach.

To operate the AGS system the vehicle must be turned OFF, the 12V battery disconnect switch must be ON, and the fuel must be on or at the appropriate level.

For the ASCENT and PLATEAU models, the LP switch must be in the ON position and the LP tank must have adequate fuel.

For the LEXOR and ONTOUR models, there must be at least ¼ tank of gasoline.

Select the AGS button to enable the AUTOMATIC GENERATOR START function. A display will appear with a warning and instructions. Touch and hold CONTINUE for 5 seconds to activate the AGS system. Once the system is activated it will return to the main POWER MANAGEMENT PAGE and the AGS will be in blue.

**NOTE:** It is recommended that you manually start the generator allowing it to run a short period of time before setting the AGS system. This will ensure adequate fuel and operation of the generator before relying on the AGS system to start the generator and power the appliances.

**WARNING:** Do not use the AUTOMATIC GENERATOR START if you are plugged into shore power, or if you are in an area where running the generator is prohibited.

**WARNING:** Ensure all windows and doors are closed on the vehicle while operating your generator. This will eliminate generator exhaust from entering your coach.
To activate the AGS function, first choose the set up by touching the GEAR symbol. The GEAR symbol will bring up a screen that allows you to choose between EASY SET UP or MANUAL SET UP.

**AGS EASY SETUP**

Select EASY SETUP for a quick set up of the START parameters.

By touching EASY SETUP it will allow you to choose which items will trigger the AGS system. You can choose BATTERY CHARGING or CLIMATE CONTROL. To ACTIVATE or DEACTIVATE the systems touch the box next to the system you want to activate the AGS. A CHECK MARK symbol will appear when the system is active.

**STARTING THE GENERATOR**
The first page displayed will ask when you want the generator to AUTO START. Select the boxes to check or uncheck the reason to enable.

Select the NEXT button to continue.

**STARTING CONDITIONS FOR LOW BATTERY**
This page will enable you to set the PERCENTAGE OF BATTERY CHARGE when the AGS system is activated. The generator when running will charge the coach batteries through the inverter/charger.

Use the + and – buttons to adjust the settings.

Select the NEXT button to continue.

**STOPPING CONDITIONS FOR LOW BATTERY**
This page will enable you to set the PERCENTAGE OF BATTERY CHARGE at which point the generator will turn OFF.

Use the + and – buttons to adjust the settings. Select the NEXT button to continue.
GENERATOR RUN LIMITS
This page will enable you to set the parameters for RUN TIME for the air conditioner settings. Once the air conditioner has brought the coach down to the chosen temperature and cycled off, the generator should continue to run for ten minutes.

It will also allow you to set the MAXIMUM run time for the generator.

Use the + and – buttons to adjust the settings. Select the NEXT button to continue.

QUIET TIME SETTINGS
Select the box in the top right hand corner to enable or disable QUIET TIME settings. QUIET TIME settings allow you to determine when the generator will not be allowed to run.

Select the box above the FINISH button to enable or disable a battery top up just before the system goes into QUIET TIME settings.

Select the FINISH button to complete EASY SETUP.

AGS MANUAL SETUP
Select MANUAL SETUP for more in depth set up choice and will allow you to set all parameters for the the AGS system.

You can choose BATTERY or HVAC system to trigger the AGS.

You can choose your RUN TIMES, QUIET TIMES and BATTERY CAPACITY for shut down parameters.

Touch FINISH when complete to return to the POWER MANAGEMENT main page. Touch AGS to enable the AGS system. Hold continue for 5 seconds to trigger the AGS system.

NOTE: If both the LOW BATTERY VOLTAGE and the HVAC LOADS are activated, which ever one needs the most run time to acquire the desired result will override the other setting.

NOTE: When AGS is used for the HVAC system (air conditioning), the appliance must be selected on the HOME page, the temperature must be selected and set on the HOME page, and the fan on the HOME page should be set to FAN AUTO.
START TRIGGERS
Select LOW BATTERY VOLTAGE or HVAC LOADS to turn on the required triggers for AUTO GEN START. Buttons will display in light blue when activated.

Use the + and – buttons to adjust the settings for:
• GENERATOR START PERCENTAGE
• NUMBER OF RESTART TRIES

RUNNING
Use the + and – buttons to adjust the settings for the GENERATOR RUN TIME. This applies the HVAC setting.

STOPPING
Use the + and – buttons to adjust the settings for the PERCENTAGE OF BATTERY CHARGE before the generator will shut OFF. This applies to the LOW BATTERY VOLTAGE setting.

QUIET TIME
Select QUIET TIME button to set the parameters for the QUIET TIME settings.

Use the + and – buttons to adjust the settings.
To access the MECHANICAL PAGE, select the icon from the menu off to the right side of the touchscreen control panel.

These include: THE FAN-TASTIC VENT FAN, AWNING AND POWER SOFA.

**POWER SOFA**

The sofa EXTEND and RETRACT module will allow you to lay your sofa flat or bring it to an upright position. When touched the touch pads will light up in blue. If there is a fault, the touch pad will turn red. If the touch pad turns red, check to see if there is anything caught under or between the sofa cushions. Once the obstruction is clear touch the pad again and the sofa will continue to EXTEND or RETRACT.

Touch and hold the EXTEND button until the sofa is fully extended. Touch and hold the RETRACT button until the sofa is completely retracted.

**WARNING:** Do not sit on sofa when operating the power sofa functions.
AWNING (ENTRY DOOR PANEL ONLY)

Ensure the rear passenger side door and sliding door are CLOSED before operating the awning.

Touch and hold the EXTEND button until the awning is fully extended. Touch and hold the RETRACT button until the awning is completely retracted.

The awning can be operated when the IGNITION OFF light is lit in green. The awning will not operate when the vehicle is running.

**WARNING:** Always ensure the awning is in the fully retracted position before moving or driving the coach. The awning does not automatically retract when the vehicle is started.

FAN-TASTIC VENT FAN

Select LID UP or LID DOWN button to open or close the vent.

Select the FAN button to start the Fan-Tastic Vent fan. (This fan is an exhaust fan used to draw air out of the coach). The fan is also controlled by the thermostat. Ensure the temperature of the thermostat is higher than the inside temperature.

Use the + and – buttons to adjust the speed of the fan.

**NOTE:** The fan is equipped with a rain sensor so the fan cannot be operated when it is raining. The fan cannot be operated when the fan lid is closed.
To access the SETTINGS PAGE, select the icon from the menu off to the right side of the touchscreen control panel.

This page will allow you to adjust TEMPERATURE UNITS, TIME, DISPLAY ITEMS, MODEL and DIAGNOSTICS.

**TEMPERATURE UNITS**
Select this button to change from FAHRENHEIT to CELSIUS. This will allow you to monitor the interior temperature and set the thermostat according to your chosen measure.

**SCREEN BRIGHTNESS**
Slide the bar to set the screen to the desired lumens.

**SETTING THE CLOCK**
Select the left side UP/DOWN arrows to change the hour reading on the display. Select the right side UP/DOWN arrows to change the minutes.

To change from AM to PM you must run the clock through the 12 hour cycle. You can also adjust for a 12hr or a 24hr clock.

**NOTE:** Setting the clock is critical to the Automatic Generator Start Feature.
SCREEN SETTINGS

Select the SCREEN SETTINGS button to bring up the POWER SAVING MODE, COLOR SCHEME, the DEFAULT PAGE and the DEFAULT BUTTONS (quick access lighting on HOME page).

POWER SAVINGS

By using the + or – buttons, you can set the number of MINUTES the screen will be active before it goes off. Once the screen turns OFF, touch anywhere on the screen to turn back ON.

COLOR SCHEME

This page will allow you to select a LIGHT on dark or a DARK on light color scheme for the display screen.

DEFAULT PAGE

Selecting the ENABLE button on the DEFAULT PAGE will allow you to set the time that the screen display will stay active on any particular page. When enabled by use of the + or – buttons, you can set the SCREEN DISPLAY duration, and choose a page as the DEFAULT PAGE.

For example if you choose the HOME page as your default page and you are on the LIGHTING page, the screen will return to the HOME page after the set duration.

The DEFAULT BUTTONS section allows you to customize the QUICK ACCESS LIGHTING on the HOME page. (See page 6)
**DIAGNOSTICS**

The DIAGNOSTICS main page will give you information on the MODULES in your coach including: the STATUS (BLUE or GREEN light active), FIRMWARE and CONFIGURATION.

The ENTRY and MAIN LCD refer to the 10" display touch panels.

The AIRCON MODULE is located inside the air conditioner interior control center. This module controls the functions of the air conditioner and communicates with the G12 MODULE.

The VENT FAN MODULE is located under the vent fan trim ring. This module controls the functions of the vent fan and communicates with the G12 MODULE.

The AC POWER MONITOR MODULE (120 VOLT AC) is connected directly to the AC distribution panel. This module communicates AC POWER output, consumption and frequency to the G12 MODULE.

The DCM3 is part of the battery shunt system and is located above the battery box. The DCM3 monitors the battery status and communicates it to the G12 MODULE.

The SOLAR CONTROLLER communicates with the G12 panel the status, type of charge, temperature, panel voltage, charge voltage, amperage and history of the solar charge.

The TRUMA and RV-C BRIDGE work in conjunction with the TRUMA CP PLUS controller and the bridge module to control both the Truma Aquago water heater and the Truma Vario heat furnace.
The G12 refers to the MAIN ELECTRICAL CONTROL BOARD and COMMUNICATION MODULE. All other modules and touch screens panels feed into the G12 MODULE. The G12 MODULE is located in the passenger side ottoman. This display allows you to monitor all 12 VDC out puts for the coach. When an line is ACTIVE the status will be lit in BLUE.
DCM3
This display allows you to monitor battery health, battery status, battery temperature and current amperage draw. Max Discharge and Average Discharge is a cumulative number of amps drawn from the battery bank.

FAULTS
The FAULTS display will display a system that is not functioning. A RED triangle will appear next to the TRUMA AQUAGO TEMPERATURE display on the HOME PAGE if there is a fault in the system. This will assist the technician in trouble shooting the system.
**DC LOAD CENTER | G12 MODULE**

**J11 - TANKS**
Pins | Description
--- | ---
1 | Fresh Tank Sensor Input
2 | Gray Tank Sensor Input
3 | Black Tank Sensor Input
9 | Tank Sensor GND
10 | Tank Sensor GND
11 | Tank Sensor GND
Spare | 4.5, 6, 7, 8, 12, 13, 14, 15, 16

**J12 - THERMISTORS**
Pins | Description
--- | ---
1 | Therm 1 Big
7 | Therm 1 GND
Spare | 2.3.4.5.6.8, 10, 11, 12

**J13 - LPG & OTHER INPUTS**
Pins | Description
--- | ---
1 | LPG Sensor Input
4 | LPG Sensor GND
6 | Gen Run Input
Spare | 2, 3, 5

**J14 - Net Ports**
Pins | Description
--- | ---
1 | CAN H
2 | CAN L
3 | CAN GND
4 | CAN +12V

**J16 - AIRCON CAN NETWORK**
Pins | Description
--- | ---
1 | CAN H
2 | CAN L
3 | CAN GND
4 | CAN +12V

**J17 - RTC Const. Input**
Pins | Description
--- | ---
1 | 1GN (GND)
4 | 1GN (GND)
6 | 1GN (GND)
Spare | 2, 3, 5

**J18 - HC RELAYS (20A MAX)**
Pins | Description
--- | ---
1 | 1 (10A) Water Pump
2 | 2 (15A) Purge BRK
3 | 3 (10A) Water Pump
6 | 6 (15A) Purge BRK
Spare | 4.5.7.8

**J4 - HC OUTPUTS CURRENT SENSE**
Pins | Channels | Description
--- | --- | ---
1 | 10 HC | (10A) Fan Brkr
2 | 10 LC | (5A) Awning Light
3 | 32 HC | (5A) Furnace Trigger
4 | 33 HC | (10A) Cover Brkr
5 | 34 LC | (5A) USB Ports Brkr
6 | 35 HC | (10A) Power Switch Brkr
7 | 36 LC | (5A) COOL Brkr
8 | 37 LC | (5A) Porch Light
9 | 38 LC | (5A) Bathroom Light Brkr
10 | 39 HC | (10A) Outside Ent. Center Brkr
11 | 40 LC | (5A) EMS Line 2 (Microwave Trigger)
12 | 41 HC | (10A) Furnace Brkr
13 | 42 HC | (10A) Water Heater Brkr
14 | 43 LC | (5A) EMS Line 1 (Cook Top Trigger)
15 | 44 HC | (5A) Furnace Brkr

**J5 - SWITCH INPUTS**
Pins | Description
--- | ---
1 | 1GN (GND)
2 | 10 GN (GND)
3 | 11 Fiamma Awning Ext (GND)
4 | 12 Fiamma Awning Ext (GND)
5 | 11 Caravane Awning Ext (+12V)
6 | 12 Caravane Awning Ext (+12V)
7 | Soft Module Ext Trigger (+12V)
8 | Soft Module Ext Trigger (+12V)
Spare | 9.10.11.12

**J7 - M8 Stud (GND)**

**J8 - M8 Stud (+12V)**

**J9 - 8.5in**

**J10 - LC HALF BRIDGES PROGRAMMABLE POLARITY 0.5A PER CHANNEL 4A MAX**
Pins | Channels | Description
--- | --- | ---
1 | 9 | Fan Start (10A)
2 | 10 | Fiamma Awning Ext (GND)
3 | 11 | Fiamma Awning Ext (+12V)
4 | 12 | Caravane Awning Ext (+12V)
5 | 11 | Caravane Awning Ext (10A)
6 | 12 | Caravane Awning Ext (10A)
7 | Soft Module Ext Trigger (12V)
8 | Soft Module Ext Trigger (12V)
Spare | 7.8.9.10.11.12

**Operational Specs**

<table>
<thead>
<tr>
<th>Torque Specs</th>
<th>Module Current Draw at idle</th>
<th>55 mA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fastener</td>
<td>Min</td>
<td>Max</td>
</tr>
<tr>
<td>60 in-lb</td>
<td>57 in-lb</td>
<td>66 (12v Stud)</td>
</tr>
</tbody>
</table>

**Storage Temperature Range**

<table>
<thead>
<tr>
<th>Temperature</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>−40 - +80 °C</td>
<td></td>
</tr>
</tbody>
</table>

**Operating Voltage Range**

<table>
<thead>
<tr>
<th>Voltage</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 - 14.5 V</td>
<td></td>
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</table>

**Operating Temperature Range**

<table>
<thead>
<tr>
<th>Temperature</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>−25 - +50 °C</td>
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</tbody>
</table>

**NET LED Status**

<table>
<thead>
<tr>
<th>LED Activity</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solid Green</td>
<td>Device is currently online but has gone offline 2 or more times</td>
</tr>
<tr>
<td>Alternating Green &amp; Orange</td>
<td>Device is currently online but has gone offline 2 or more times</td>
</tr>
<tr>
<td>Alternating Red &amp; Orange</td>
<td>Device has gone offline and is attempting to re-connect (within 30 seconds)</td>
</tr>
<tr>
<td>Slow Flashing Green (1 time/sec)</td>
<td>Device was online but has not seen a valid network message for 5 seconds</td>
</tr>
<tr>
<td>Fast Flashing Green (4 times/sec)</td>
<td>Device is attempting to make initial connection to the network</td>
</tr>
</tbody>
</table>

**Spyder P/N: BMODZU2TZ**

Customer P/N: 15500

Version 1.1 (November 2020)
If you require further information about the touchscreen control panels, please contact one of the following:


2. Pleasure-Way Industries Ltd., at 1-800-364-0189
   or email: warranty@pleasureway.com

3. Spyder Controls Ltd. 1- 866-919-9092
   or email: info@spydercontrols.com

PLEASE NOTE:
Appliances and options may change without notice and some appliances and equipment may be optional. Due to Pleasure-Way’s policy of continuous improvement, Pleasure-Way Industries Ltd. reserves the right to make product changes at any time without incurring obligation.