PROJECTA

INTELLI Jay

12V 2000/3000W

HIGH POWERED MANAGEMENT WITH BLUETOOTH MONITOR

P/No IG2-BT7J, IG3-BT7J

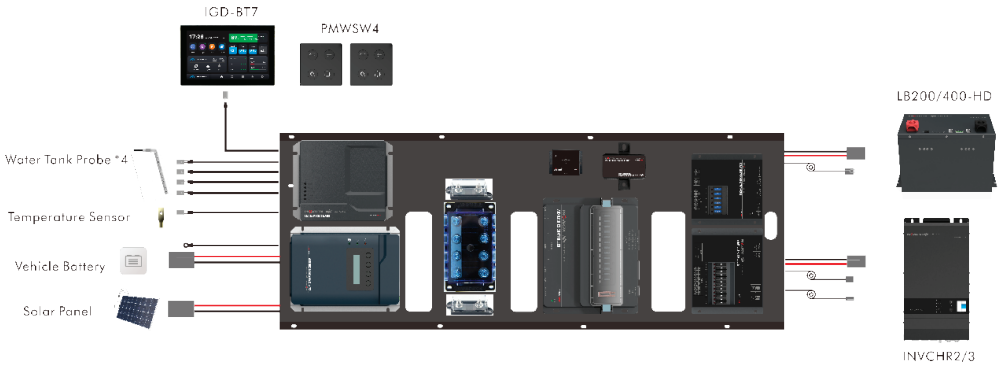
SYSTEM INTRODUCTION

The IG2/3-BT7J is a 2000W/3000W power solution for all your power needs, lighting and water requirements. It can also monitor the status of your tyres as well as the level of your RV and also check your gas cylinders. It is connected to a color display with Bluetooth, so you can check and control the system from your phone.

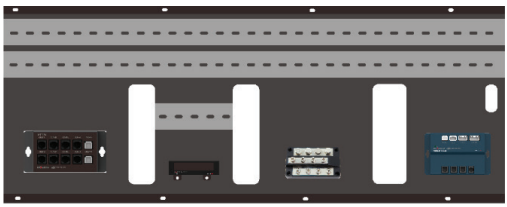
SYSTEM COMPONENTS

- 7" Monitor with APP
- 2KW/3KW Inverter/Charger with AC change over swtich
- MPPT Solar controller
- DC-DC Charger
- Controller Box
- Constant Output Module with 12 outputs
- Auxiliaries Controller with 9 outputs & Water Tank Measurement
- Lights Module with 6 outputs
- 200Ah/400Ah Lithium Battery
- Wireless Switch (Not supplied)
- 4 Water tank sensors (Not supplied)

PAB – FRONT: 950 x 370 x 160mm



PAB – BACK



KEY FEATURES

INVERTER & GRID POWER

2000/3000 W inverter with 120/180Amp charging.Grid Power Booster and AC transfer . AS/NZS 3001 ready

LITHIUM BATTERY

An advanced and powerful 200/400Ah lithium battery perfectly matched to the Intelli-Grid system provides the ultimate power for off gird requirement

BLUETOOTH MONITOR

Bluetooth 7" Colour monitor showing SOC,full control of your RV,Water,Lighting and RV hardware

MULTIPLE CHARGING OPTIONS

30/60 A DC to DC charging and 40A MPPT Solar charging for charging from Vehicle or when sun is shining

SOLAR CHARGING WAKING UP.

When this feature is set to enable, the system can wake up and be solar charged automatically as long as sun is shining even when the system is OFF.

LOW VOLTAGE PROTECTION

Multiple strategies for low voltage protection of Service batteries to avoid failure of lithium batteries by over-discharge

MONITORING THE 7" COLOUR DISPLAY INTRODUCTION

Home Page

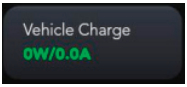
The above is the home page, the details are as follows:

1) Region 1: Area for time and date display.
2) Region 2: Indoor and Outdoor temperature display area.
3) Region 3: Area for showing Battery information. In this area, the user can see the battery power data and status. Specially, it contains the following points,
   a) Check the batteries are charging or discharging
   b) Check the batteries voltage and current
   c) Check the batteries SOC value
   d) Check the Time to go or Time to full of batteries
4) Region 4: Area of shortcut keys.
   a) PWR: All DC and AC outputs turned on/off with this key. Only the constant alive output of IGCMD and the class C3 output of C12 are retained.
   b) Inverter: Inverter charger ON/OFF switch.
   c) HSW: Water heater ON/OFF switch.
   d) Pump: Pump ON/OFF switch.
5) Region 5: Water tank level display area.
   a) If the fresh water is lower than the warning value, the alarm is triggered.
   b) If the gray or black water is greater than the warning value, the alarm is triggered.

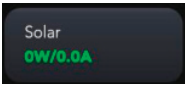
6) Region 6: Scene mode
   a) ECO mode: System will enter "ECO" Mode automatically after being started. When SOC drops to 15% (it is settable within 15% - 20%), the system shuts down the inverter outputs and the heavy loads, keeping ONLY the essential loads on.
      i. Fridge, ceiling light and a spare output is ON. Only the constant alive output of IGCMD are ON, such as Fridge and USB.
      ii. Pump, spot FR&BK, Bedroom light can be turned ON manually.
      iii. One group of the C12 outputs (marked as C3) is ON.

      When SOC is back to 15% (or other setting value) + 3% or there is AC grid charging, system exists ECO mode automatically. Customer can also exist the mode manually
   b) Night mode: Night mode is designed for a silent environment for customers .It can be activated at the front page of A7 screen. When entering the mode,
      i. The system will shut down the lights and the back lights of the screens.
      ii. Derate the charging current of Inverter / Charger to reduce the fan noise.
   c) Light off: This mode is designed for turning off the all lights with one key.
7) Region 7: Gas level display area.
8) Region 8: Charging source information display area. In this area, the user can check the charger data, as the follows:
   a) Inverter / Charger:
      i. Display output voltage, power and load rate.
      ii. The user can select the AC input source. "Mains" means the source is grid, "Gen" means it is generator.

   b) Vehicle charger: Checks the output current and power of vehicle charger.

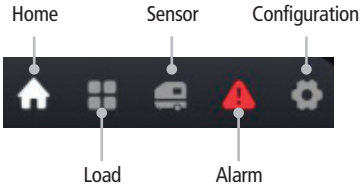


   c) Solar charger: Checks the output current and power of vehicle charger

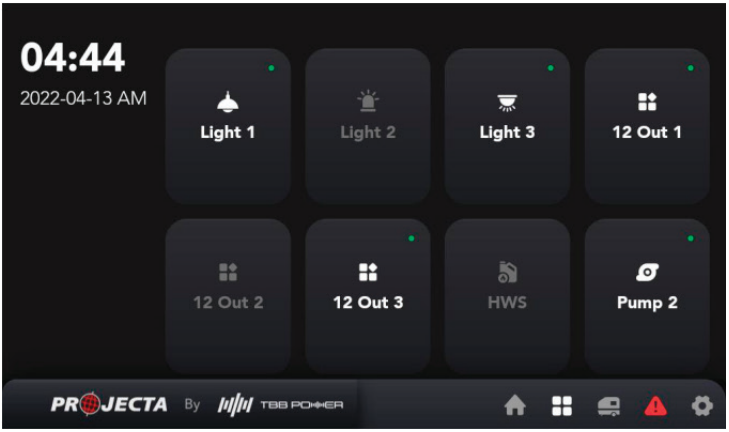


9) Region 9: Navigation area.

   Note:
   a) The icon will turn white when switched to the corresponding page.
   b) When the alarm icon is red, it means that one or more alarms exist at the moment. After the alarm is removed, the icon turns to gray.



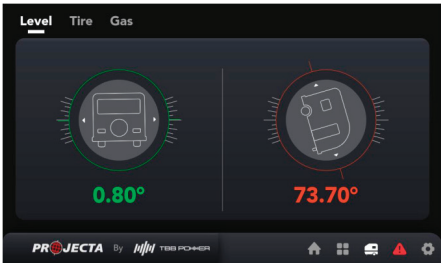
Load control page



The load control page displays all the load states and their names that need to be switched. When the load is turned on, the load icon is white with a green dot in the upper right corner. If the load is turned off, the icon turns gray and the green dot disappears.

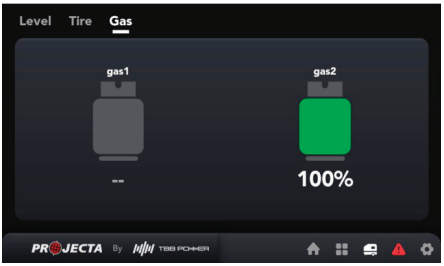
Sensor page

6 .3.1 Leveling



6 .3.2 TPMS

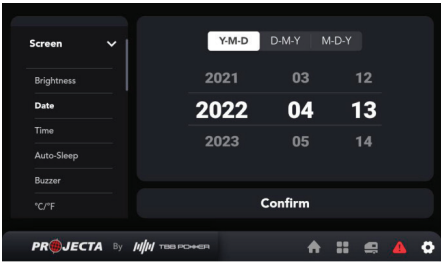
6 .3.3 GAS sensor



Setting page

The setting menu allows the user to make basis settings for the system, including,

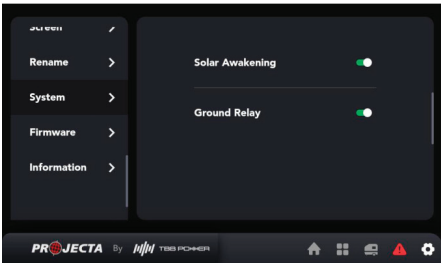
1) Screen setting. The user can set screen brightness level, time and date, sleep time, buzzer enable, temperature unit and language selection.



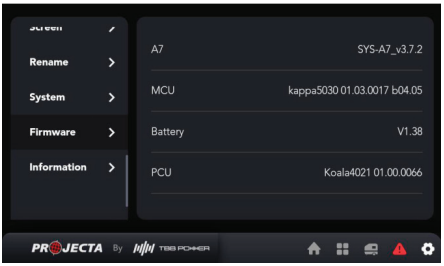
2) Rename. In this page, the load and water tank can be renamed.

Further, the icon also can be changed when renaming the load.

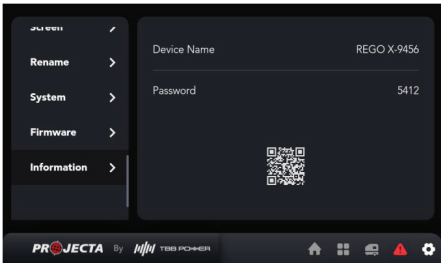
3) System. In this page, the user can enable whether the system launch the Solar automatic wake up function. In addition, the ground relay can be switched here. The Ground Relay is for the function of the RCD and must left on in order for the RCD to work correctly.



4) Firmware. Here, the software version of all the components are displayed.



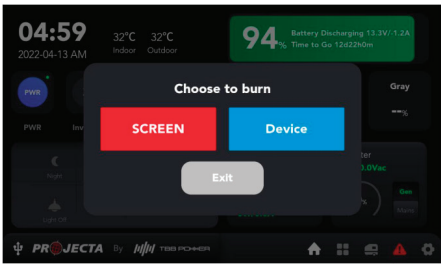
5) QR code information. After running the APP, users can directly scan the QR code to log in without entering the user name and password.



System updating

This system can be upgraded online through a USB stick. First, copy the files that need to be burned to a USB stick and place them in the same folder, the folder named IDM. Then, insert the USB stick into the U disk port which on the back of A7, and the upgrading dialog box will pop up on the A7 as shown right.

Screen means the updating files refer to the A7 and device means the files refer to all components except A7, such as PCU, CRS29A, etc. After selecting the corresponding classification, click on the software that needs to be upgraded one by one to upgrade, and it should be noted that the power should not be turned off during the upgrade process.

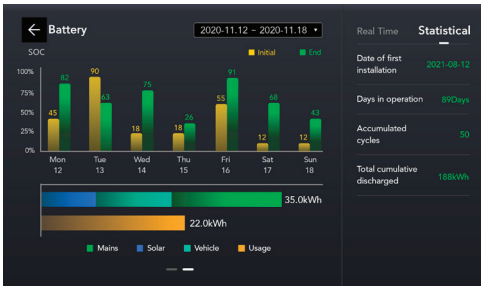


Data analysis

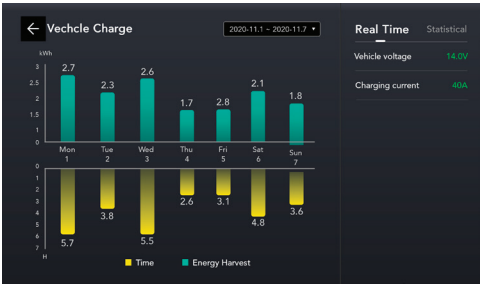
In the region 3 and region 8, double click the corresponding icon to enter the data analysis page. A7 can display the history data of multiple devices in the system.

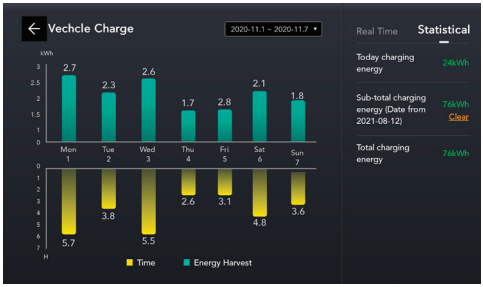
As showing right,

1) Battery

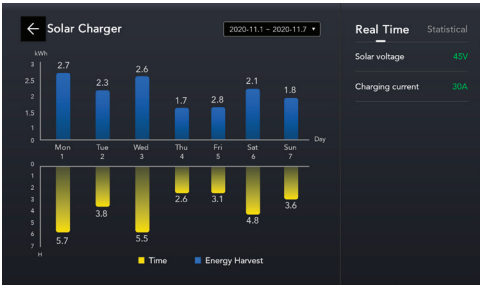


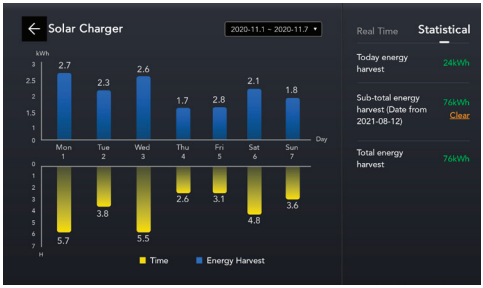
2) Vehicle charger



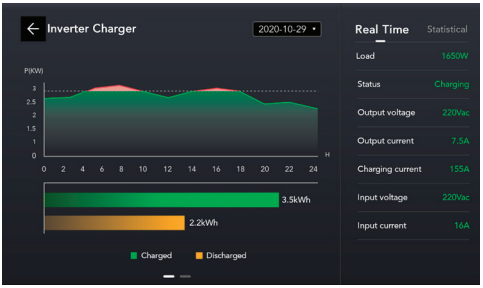


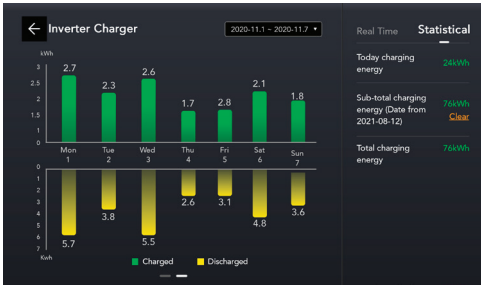
3) Solar





4) Inverter charger



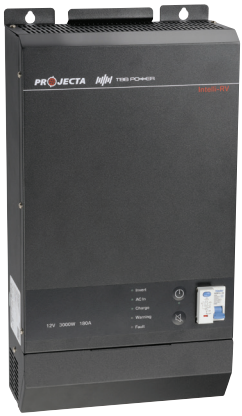


COMPONENT SPECIFICATIONS

INVCHR2 & INVCHR3

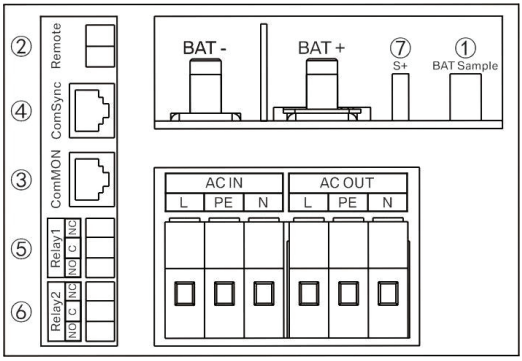
2000W/3000W 12V INVERTER/CHARGER

Perfect for powering the most demanding 240V appliances on the go this inverter/charger is ideal for operating on or off the grid. An RCD is included to ensure maximum safety for the unit and operator. The inverter/charger is fitted with Grid/Power boost which is great if the shore power or Generator is weak. Grid Power Boost and supplement the shore power to ensure all your appliance can run.



SPECIFICATIONS		
PART NO	INVCHR2	INVCHR3
240V CHARGING		
CHARGE TYPE	5 Stage Automatic	
INPUT	240VAC, 50/60Hz, 32A(MAX)	
OUTPUT	12V, 120A	12V, 180A
BATTERIES SUPPORTED	GEL, AGM, WET, Lithium	
TEMPERATURE COMPENSATION	YES	
INVERTER		
INPUT	12V (10.5V~17V)	
OUTPUT	220/230/240 VAC	
FREQUENCY	50/60 Hz	
OUTPUT POWER	2000W (4000W peak)	3000W (6000W peak)
GRID BOOST OUPUT	24Amps, Mains Supply + 8.3Amps Inverter	28Amps, Mains Supply + 12.5Amps Inverter
AC TRANSFER	<2m Sec	
OPERATING TEMPERATURE	-20°C ~ 65°C	
WEIGHT	17KG	21KG
IP RATING	IP20	

CONNECTION COMPARTMENT



SIGNAL TERMINAL INTRODUCTION

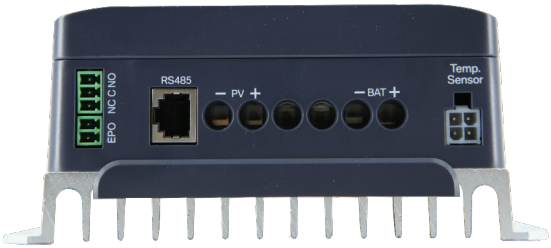
NO.	LABEL	DEFINITION
1	Bat Sample	Battery temperature and voltage sample.
2	Remote	A dry contact input for remote on/off, often IGN was connected.
3	Com MON	RS485 port for external monitor such as MCK, SNMP etc.
4	Com Sync	Communication with TBB's M or P series lithium battery, which is able to synchronize lithium battery's charging and discharging strategy
5	Relay1 (NO,C,NC)	Dry contact output control 1(NO,C,NC)
6	Relay2 (NO,C,NC)	Dry contact output control 2(NO,C,NC)
7	S+	Slave charger for starter battery

SC540

5 STAGE MPPT SOLAR CHARGER CONTROLLER WITH 100V INPUT

Get the most out of your solar array using these Maximum Power Point Tracking (MPPT) solar controllers increasing the charging output by up to 30% (compared to PWM Solar controllers).

SPECIFICATIONS	
PART NO	SC540
BATTERY VOLTAGE	12/24/48V
MAXIMUM SOLAR VOLTAGE	100V
STANDBY CURRENT	1mA 12V
CHARGER TYPE	5 Stage
INPUT	100V
CONTROL TYPE	MPPT
BATTERIES SUPPORTED	GEL, AGM, WET, Lithium
TEMPERATURE COMPENSATION	Yes
COMMUNICATION	RS485
STORAGE TEMPERATURE	-40°C ~ 70°C
HUMIDITY	5 – 95%
IP RATING	IP31
WEIGHT	1.4KG
COOLING	Convection



LABEL		DEFINITION
PV	+	Connection terminal for PV array Positive
	-	Connection terminal for PV array Negative
BAT	+	Connection terminal for Battery Positive
	-	Connection terminal for Battery Negative
EPO		EPO contacts, defined for remote on/off.
NC		Output dry contacts.
C		
NO		
RS485		Connection terminal for RS485 communication.
Temp. Sensor		Connection terminal for battery temperature sensor.

PIN DEFINITION OF TEMP SENSOR

PIN	DEFINITION
Pin 1	Battery Positive
Pin 2	Battery Negative
Pin 3	Temperature sensor
Pin 4	Battery Negative

PIN DEFINITION OF RS485 COMMUNICATION PORT

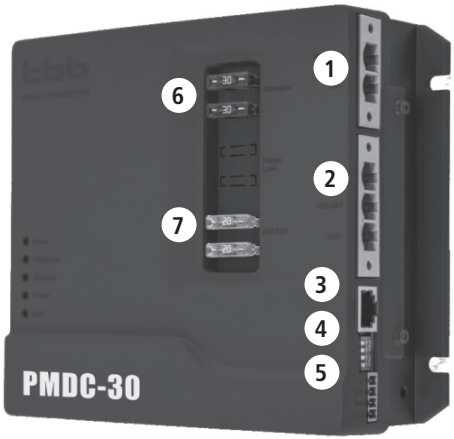
PIN	DEFINITION
Pin 1	
Pin 2	
Pin 3	RS485_A
Pin 4	
Pin 5	
Pin 6	RS485_B
Pin 7	
Pin 8	

PMDCS30

DC-DC 12V CHARGER

Smart DC to DC chargers specifically designed for Intelli-RV and Intelli-Grid.

SPECIFICATIONS	
PART NO	PMDCS30
CHARGER TYPE	5 Stage
ALTERNATOR INPUT VOLTAGE	12–16V
OUTPUT	12V, <30A
BATTERIES SUPPORTED	GEL, AGM, WET, Lithium
STORAGE TEMPERATURE	-40°C ~ 70°C
OPERATING TEMPERATURE	-40°C ~ 70°C
IP RATING	IP20
WEIGHT	1.0KG
COOLING	Convection
SMART ALTERNATOR	Turn on: 12.2V Turn off: 11.9V
CONVENTIONAL	Turn on: 13.2V Turn off: 12.8V



Connectors and terminals guide

No.	Print	PMDC-30	Remarks	Circuit colours and labelling
1	Alternator	Connects to positive of Alternator	Or connects to positive of motor battery	Red + Label "ALT"
	BAT-	Connects to negative of Alternator	Or connects to negative of motor battery	Black – Label "ALT"
2	AUX BAT	Connects to positive of auxiliary battery	Connect to IntelliJay	Red + Label "Vehicle Batt+"
	BAT-	Connects to negative and negative of auxiliary battery	Connect to IntelliJay	Black – Label "Vehicle Batt-"
3	COM	For communication of RS485	Not Connected	
4	1	Dip switch for output current setting	Details of setting can be found as Chapter 4.6	
	2			
	3	Dip switch for battery type setting		
	4			
5	BAT-	Connects to BTS' black cable	For battery temperature sensing	RED Ring Terminal connect to Battery +ve
	Temp	Connects to BTS' white cable		
	V-Sen	Connects to BTS' red cable	For voltage sensing	

Fuse specification

No.	Print	Specification	Colour	Quantity	Protection for
6	Alternator	30A/32VDC for PMDC-30	Amber	2	Input from alternator
7	AUX BAT	20A/32VDC	Yellow	2	Output to charge auxiliary battery

IGCMD

INTELLI-GRID AUXILIARIES CONTROLLER

This is the input and output controller, with water sensors and switchable devices being connected with it built in fused outputs.

SPECIFICATIONS	
PART NO	IGCMD
INPUT VOLTAGE	9~32V
INPUT CURRENT	<60A
OUTPUTS	2 x 15A Relay with Bypass 7 x 15A Relay 4 x Dry contact
INPUTS	4 x Dry contact 4 x conductive water measurement
COMMUNICATION	CAN bux, RS485, RF

OUTPUT					
A5-1	A5-2	A5-3	A5-4	A5-5	A1-1
A1-2	GND	GND	GND	GND	A5-6
GND	GND	GND	GND	GND	A5-7

PMWLM6

6 CHANNEL OUTPUT MODULE

This 6 channel output module works with wireless switches and can also be controlled via the 4", 7" screen or phone APP.

SPECIFICATIONS	
PART NO	PMWLM6
INPUT VOLTAGE	9~32V
MAXIMUM INPUT CURRENT	<60A
STANDBY CURRENT DRAW	3mA
OUTPUTS	6 x 15A Relay
WORKING TEMPERATURE	-40°C ~ 80°C
IP RATING	IP20

CONNECTORS AND TERMINALS

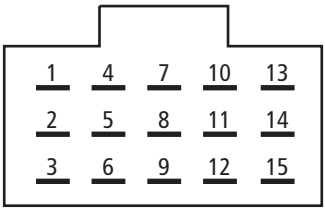
POWER INPUT TERMINAL DEFINITION

INPUT NO	PIN DEFINITION	POLARITY	VOLTAGE RANGE	RATED CURRENT
INPUT 1	BAT+	BAT+	9–16V	20A
INPUT 1	BAT-	BAT-		
INPUT 2	BAT+	BAT+	9–16V	20A
INPUT 2	BAT-	BAT-		

OUTPUT TERMINAL DEFINITION

OUTPUT				
AL1	AL2	AL3	L1	L2
GND	GND	GND	GND	L3
GND	GND	GND	GND	GND

PIN DIAGRAM



PIN NO	PIN DEFINITION	CURRENT RANGE	VOLTAGE RANGE
1	AL1	0–9A	9–16V
2	GND	0–9A	9–16V
3	GND	0–9A	9–16V
4	AL2	0–9A	9–16V
5	GND	0–9A	9–16V
6	GND	0–9A	9–16V
7	AL3	0–9A	9–16V
8	GND	0–9A	9–16V
9	GND	0–9A	9–16V
10	L1	0–5A	9–16V
11	GND	0–9A	9–16V
12	GND	0–9A	9–16V
13	L2	0–5A	9–16V
14	L3	0–5A	9–16V
15	GND	0–9A	9–16V

IGCOM12

12 WAY FUSED OUTPUT MODULE

Provide constant 12V power, powering loads like range hoods, other lighting. Still smart enough that it is fitted with low voltage disconnect to protect the battery.

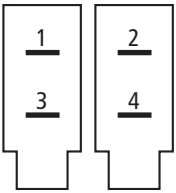
SPECIFICATIONS	
PART NO	IGCOM12
NOMINAL VOLTAGE	12V
MAX INPUT CURRENT	80A
OUTPUTS	6 x 30A 6 x 15A
WEIGHT	780g
WORKING TEMPERATURE	-40°C ~ 65°C
IP RATING	IP20

CONNECTORS AND TERMINALS

POWER INPUT TERMINAL DEFINITION

PIN NO	PIN DEFINITION	POLARITY	VOLTAGE RANGE	RATED CURRENT
1	BAT+	BAT+	9–16V	40A
2	BAT+	BAT+	9–16V	40A
3	BAT-	BAT-		
4	BAT-	BAT-		

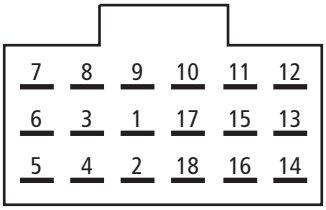
PIN DIAGRAM



OUTPUT TERMINAL DEFINITION

OUTPUT					
C3-1	C3-2A	C3-2B	C3-3A	C3-3B	C3-4
C2-4	C2-2A	C2-1A	OUT4A	OUT3A	OUT1
C2-3	C2-2B	C2-1B	OUT4B	OUT3B	OUT2

PIN DIAGRAM



PIN NO	PIN DEFINITION	CURRENT RANGE	VOLTAGE RANGE	NOTE
1	C2-1A	0–15A	9–16V	Pins 1 & 2 are connected in parallel The rated output current is 30A
2	C2-1B	0–15A	9–16V	
3	C2-2A	0–15A	9–16V	Pins 3 & 4 are connected in parallel The rated output current is 30A
4	C2-2B	0–15A	9–16V	
5	C2-3	0–15A	9–16V	The rated output current is 15A
6	C2-4	0–15A	9–16V	The rated output current is 15A
7	C3-1	0–15A	9–16V	The rated output current is 15A
8	C3-2A	0–15A	9–16V	Pins 8 & 9 are connected in parallel The rated output current is 30A
9	C3-2B	0–15A	9–16V	
10	C3-3A	0–15A	9–16V	Pins 10 & 11 are connected in parallel The rated output current is 30A
11	C3-3B	0–15A	9–16V	
12	C3-4	0–15A	9–16V	The rated output current is 15A
13	OUT1	0–15A	9–16V	The rated output current is 15A
14	OUT2	0–15A	9–16V	The rated output current is 15A
15	OUT3A	0–15A	9–16V	Pins 15 & 16 are connected in parallel The rated output current is 30A
16	OUT3B	0–15A	9–16V	
17	OUT4A	0–15A	9–16V	Pins 17 & 18 are connected in parallel The rated output current is 30A
18	OUT4B	0–15A	9–16V	

IGCOM

INTELLI-GRID CONTROLLER

This is the brains of the INTELLI-Grid system. Controlling communications to external sensors and devices.

SPECIFICATIONS	
PART NO	IGCOM
INPUT	12V
WORING CURRENT	80mA
STANDBY CURRENT	5mA
COMMUNICATION	CAN bus, RS485 Bluetooth
WORKING TEMPERATURE	-25°C ~ 60°C
STORAGE TEMPERATURE	-30°C ~ 85°C
WEIGHT	200g
IP RATING	IP20

PMTPMS

TYRE PRESSURE MONITORING SYSTEM MODULE

The Tyre Pressure Monitoring System (TPMS) is great for your RV so you can monitor your tyres pressures before and during your journey.

SPECIFICATIONS	
PART NO	PMTPMS
PART NO	Receiver-PMTPMS-R
INPUT	6-24V
WORING CURRENT	30mA
WORKING TEMPERATURE	-40°C ~ 85°C
HUMIDITY	<95%
RECEIVING FREQUENCY	433.910Mhz
WIRED COMMUNICATION	RS485
WEIGHT	150g
PART NO	Sender * 4 -PMTPMS-S
WORING VOLTAGE	2.2 ~ 3.6V
BATTERY TYPE	CR1632
TRANSMITTED CURRENT	<5mA
TRANSMITTED POWER	<5dbm
TRANSMITTED FREQUENCY	433.910Mhz
PRESSURE RANGE	14~ 130PSI
ACCURACY	± 1.45 PSI
WORKING TEMPERATURE	-30°C ~ 70°C
WEIGHT	13.8g

PMLVL

LEVELLING SENSOR

Levelling your RV has never been easier with our levelling sensor which can be monitored via your phone app when first pulling up to your site getting the RV level as quickly as possible.

Calibration

To calibrate the level sensor. you will need to get your van level in both forward and back and side to side. Once level. Go to the setting page Level Sensor and press Calibrate. This will zero the sensor.

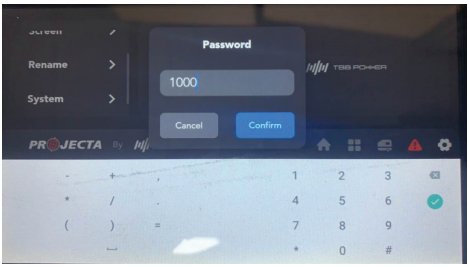
SPECIFICATIONS	
PART NO	PMLVL
WORKING VOLTAGE	9~16V
WORING CURRENT	30mA
WORKING TEMPERATURE	-40°C ~ 85°C
IP RATING	IP20
ACCURACY	±2°

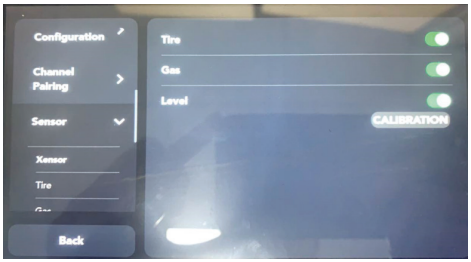
INSTRUCTIONS ON HOW TO PAIR THE GAS SENSORS

Enable the GAS feature.

Go into the "Engineer settings" by clicking the blank area 3 times.

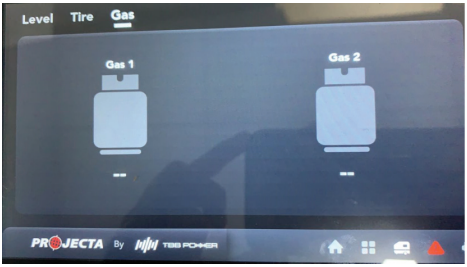
Find the sensors page and enable it.

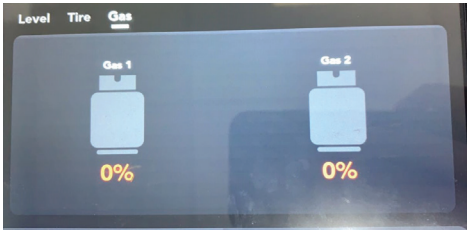




Paring the sensors

Long Press the "SYNC" button in the gas sensor until a value is displayed on the GAS





Repeat the process to pair second gas sensor

IGD-BT7J

7" COLOUR BLUETOOTH MONITOR

The 7" colour display, enables complete control of your RV or commercial application. Its smart, intuitive design provides all the vital information at the press of a button.

SPECIFICATIONS	
PART NO	IGD-BT7
WORKING VOLTAGE	12V
WORKING CURRENT	350mA Screen ON, 200mA Screen OFF
RESOLUTION	1024 x 600
COMMUNICATION	RS485.CAN.Bluetooth
WORKING TEMPERATURE	-30°C ~ 70°C
STORAGE TEMPERATURE	-30°C ~ 85°C
WEIGHT	200g
IP RATING	IP 20

BATTERIES

LB200-HDJ

12V HIGH DISCHARGE 200AH LITHIUM BATTERY

LB200-HD boast impressive capabilities and are ideal for 4WDs and caravans with high power demands.

SPECIFICATIONS	
PART NO	LB200-HD
NOMINAL VOLTAGE	12.8V
NOMINAL CAPACITY	200Ah
NOMINAL ENERGY	2560Wh
CHARGE VOLTAGE	14.2V
DISCHARGE CUT-OFF VOLTAGE	11.2V
STANDARD CHARGE CURRENT	200 Amps
MAXIMUM CHARGER CURRENT	200 Amps
MAXIMUM DISCHARGE CURRENT	200 Amps
PEAK DISCHARGE CURRENT	300 Amps (10Mins)
OPERATING TEMPERATURE	-20°C ~ 60°C
MAXIMUM NUMBER OF BATTERIES IN PARALLEL	4
NUMBER OF DISCHARGE CYCLES	3000
WEIGHT	22KG
IP RATING	IP20

LB400-HDJ

12V HIGH DISCHARGE 400AH LITHIUM BATTERY

The LB400-HD is Projecta's powerhouse within the Lithium battery line up. An astonishing 400Ah capacity and a market leading 300A discharge capability make it ideal to partner with high current drawing appliances such as 3000W inverters.

SPECIFICATIONS	
PART NO	LB400-HD
NOMINAL VOLTAGE	12.8V
NOMINAL CAPACITY	400Ah
NOMINAL ENERGY	5120Wh
CHARGE VOLTAGE	14.2V
DISCHARGE CUT-OFF VOLTAGE	11.2V
STANDARD CHARGE CURRENT	100 Amps
MAXIMUM CHARGER CURRENT	200 Amps
MAXIMUM DISCHARGE CURRENT	200 Amps
PEAK DISCHARGE CURRENT	300 Amps (10Mins)
OPERATING TEMPERATURE	-20°C ~ 60°C
MAXIMUM NUMBER OF BATTERIES IN PARALLEL	4
NUMBER OF DISCHARGE CYCLES	3000
WEIGHT	42.5KG
IP RATING	IP20

WATER TANK PROBE

For Intelli-Grid system. A maximum of 4 probes can be monitored.

Note: Always check the probe required for the water tank before pruchase.There are 2 probe styles.

PMWS200

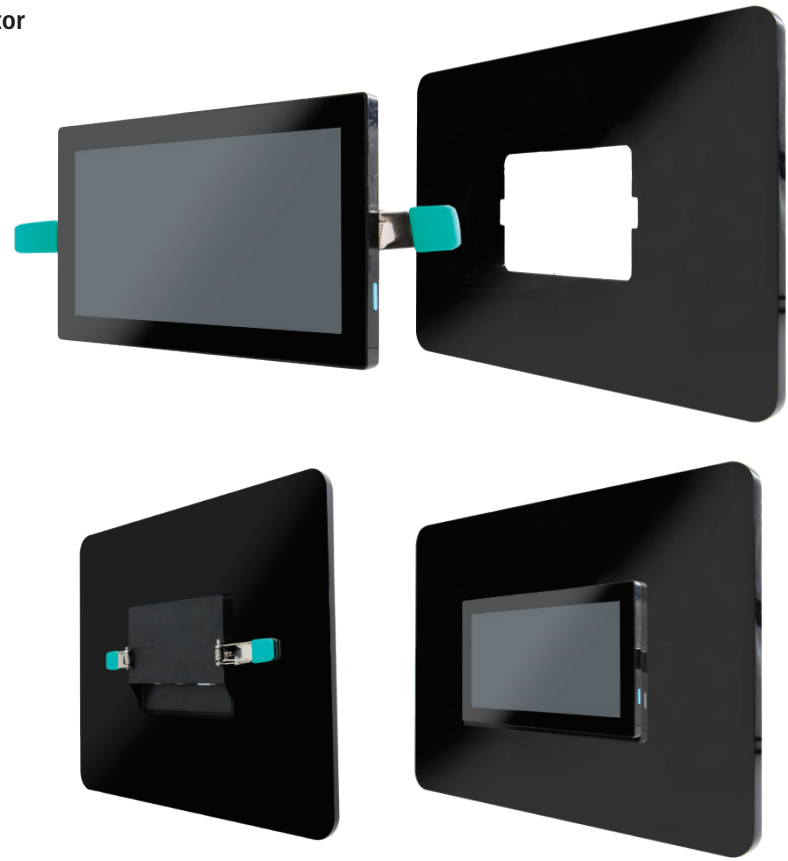
- Side installation
- Suitable for water tank
- Depth >200mm

PMWS400

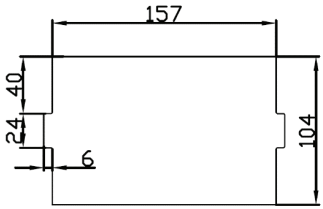
- Side installation
- Suitable for water tank
- Depth <400mm

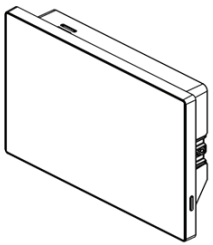
STRUCTURE AND INSTALLATION

Monitor



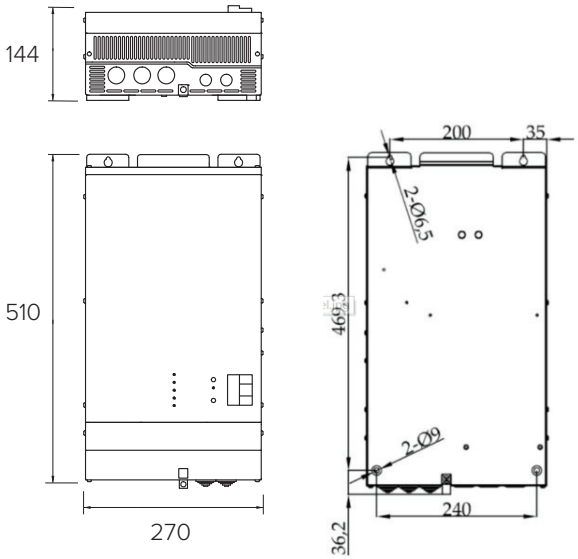
Hole Size





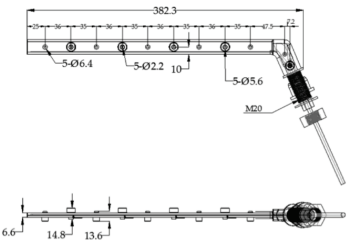
Inverter

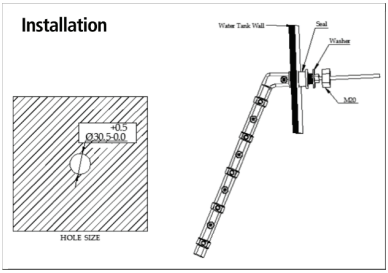
Note: Please Install the inverter in a ventilated area so that it works at maximum efficiency



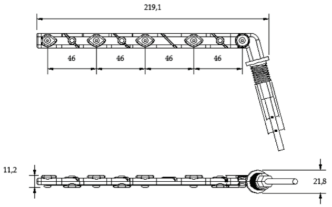
Water probe

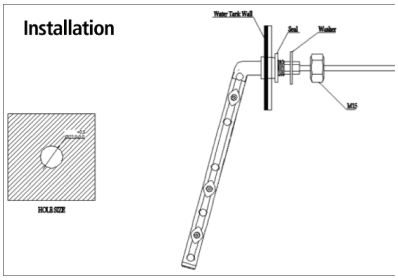
PMWS400 WATER TANK PROBE



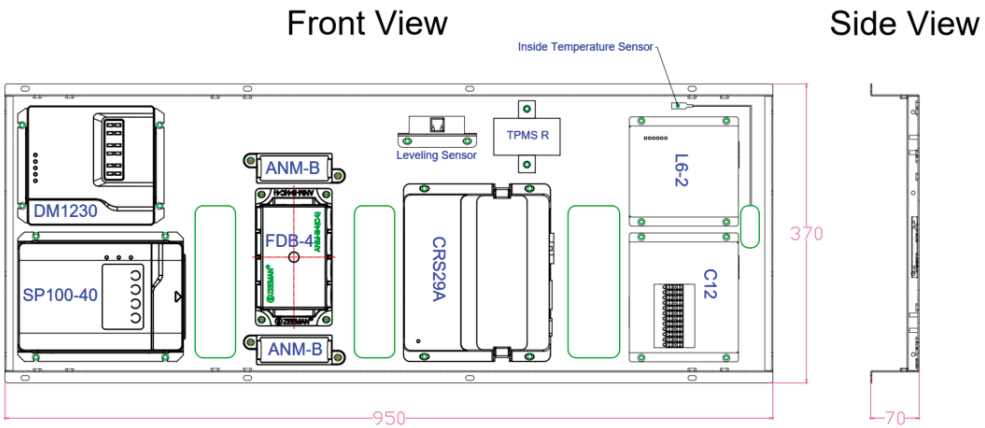


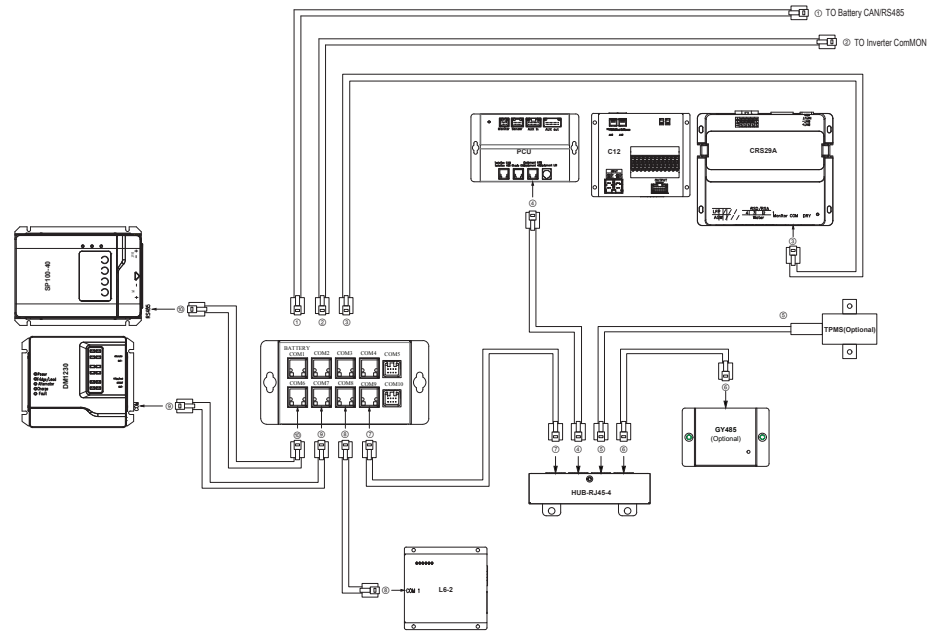
PMWS200 WATER TANK PROBE

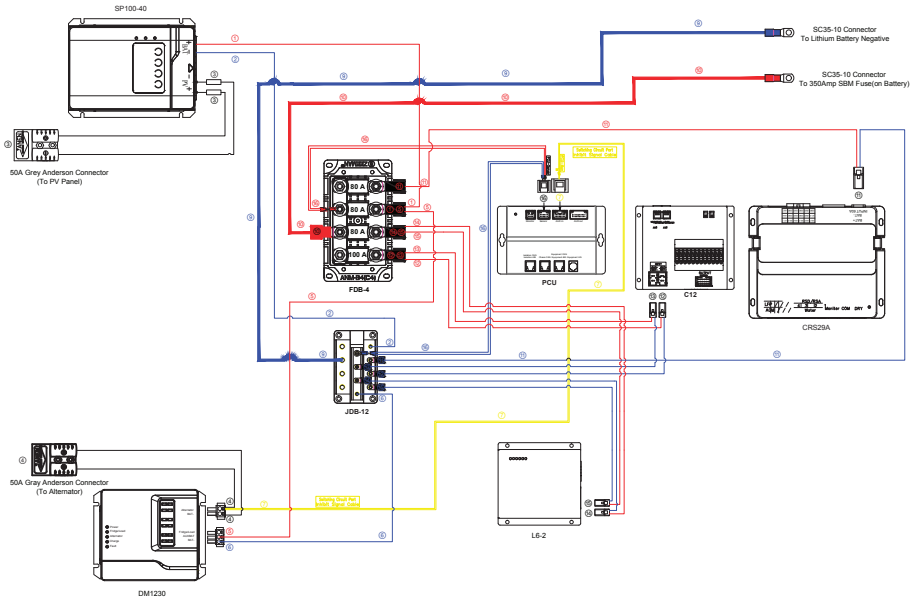




INTELLI-GRID-BT7






SP100-40
SC35-10 Connector
To Lithium Battery Negative
SC35-10 Connector
To 350Amp SBM Fuse(on Battery)
50A Grey Anderson Connector
(To PV Panel)
80 A
80 A
80 A
100 A
FDB-4
PCU
C12
CRS29A
JDB-12
50A Gray Anderson Connector
(To Alternator)
DM1230
L6-2

WARRANTY STATEMENT

Applicable only to product sold in Australia

Brown & Watson International Pty Ltd of 1500 Ferntree Gully Road, Knoxfield, Vic., telephone (03) 9730 6000, fax (03) 9730 6050, warrants that all products described in its current catalogue (save and except for all bulbs and lenses whether made of glass or some other substance) will under normal use and service be free of failures in material and workmanship for a period of two (2) year (unless this period has been extended as indicated elsewhere) from the date of the original purchase by the consumer as marked on the invoice. This warranty does not cover ordinary wear and tear, abuse, alteration of products or damage caused by the consumer. Projecta solar panels are covered by a 1 year warranty for materials and workmanship and a 20 year warranty for at least 80% power output.

To make a warranty claim the consumer must deliver the product at their cost to the original place of purchase or to any other place which may be nominated by either BWI or the retailer from where the product was bought in order that a warranty assessment may be performed. The consumer must also deliver the original invoice evidencing the date and place of purchase together with an explanation in writing as to the nature of the claim.

In the event that the claim is determined to be for a minor failure of the product then BWI reserves the right to repair or replace it at its discretion. In the event that a major failure is determined the consumer will be entitled to a replacement or a refund as well as compensation for any other reasonably foreseeable loss or damage.

This warranty is in addition to any other rights or remedies that the consumer may have under State or Federal legislation.

IMPORTANT NOTE

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

Distributed by

AUSTRALIA
Brown & Watson International Pty. Ltd.
Knoxfield Victoria 3180
Phone: (03) 9730 6000
Fax: (03) 9730 6050
National Toll Free: 1800 113 443

NEW ZEALAND OFFICE
Griffiths Equipment Ltd.
19 Bell Avenue,
Mount Wellington,
Auckland 1060, New Zealand
Phone: (09) 525 4575
Fax: (09) 579 1192

ISXXX
Issue 1: XX/10/2022