



OWNER'S MANUAL

TREK3



TEAMBMPRO.COM



BM PRO

POWERING YOUR ADVENTURES

With over 50 years' experience in power solutions combined with manufacturing and design facilities in Melbourne, Australia, BM PRO are the leading experts in RV power and control management.

Inspired by the great outdoors, we have created a range of rugged, smart and reliable products to power your adventures.

Our range of battery, power and RV management control systems gives you peace of mind when you are on the road, so that you can relax in even the most far flung destinations, knowing you have control over your power needs.

To learn more about the BM PRO range of products, please visit our website teambmpro.com



SAFETY PRECAUTIONS

Please read the Safety Precautions before installing or using the Trek3. Be sure to observe all precautions without fail. Failure to observe these instructions properly may result in personal damage, or personal injury which depending on the circumstances may be serious and cause loss of life.



Correct installation is the most critical factor in ensuring the safe use of the Trek3. If every consideration of these instructions has been satisfied, the Trek3 will be safe to operate.



Keep the Trek3 away from water or other liquids.



Clean the housing of this product lightly with a dry or moist cotton cloth. Do not use alcohol, thinners, benzene or any other chemical cleaner. Do not allow any liquids to enter the housing.



The Trek3 is a high precision electronic product. It contains no user-serviceable parts inside. Do not try to dismantle, modify or repair it yourself. Disassembly, service or repair by an unauthorised person will void the warranty.



Product specifications are subject to change and improve without notice.

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MANUAL PART **036089**
REV 2.0

Designed by BMPRO, one of Australia's leading power solution experts, the BMPRO product range is proudly designed and manufactured in Melbourne, Australia, and represent a high-quality product that will provide years of service.



DISCLAIMER: BMPRO accepts no liability for any loss or damage which may occur from the improper or unsafe use of its products. Warranty is only valid if the unit has not been modified or misused by the customer.

ABOUT THE TREK3

The Trek3 is a wall-mounted smart battery monitor designed specifically to operate with BMPRO's BatteryPlus35.

The Trek3 provides vital data at a glance including caravan battery voltage and charging/discharging current. The Trek3 also provides an indication of the battery's remaining charge capacity as well as the time remaining before the battery completely discharges - so you'll never be left on the road without battery power.

In addition to battery monitoring, the Trek3 enables monitoring of water levels of up to four water tanks and control of two water pumps, all from a sleek, wall mounted display.

The Trek3 can be connected to the included OdysseyLink103 to become part of the Odyssey system. Once connected to the OdysseyLink103, you can use BMPRO's free Odyssey App to remotely monitor your battery and control your caravan's water pumps from your smartphone!

For more information about Odyssey, refer to your Odyssey Owner's Manual.



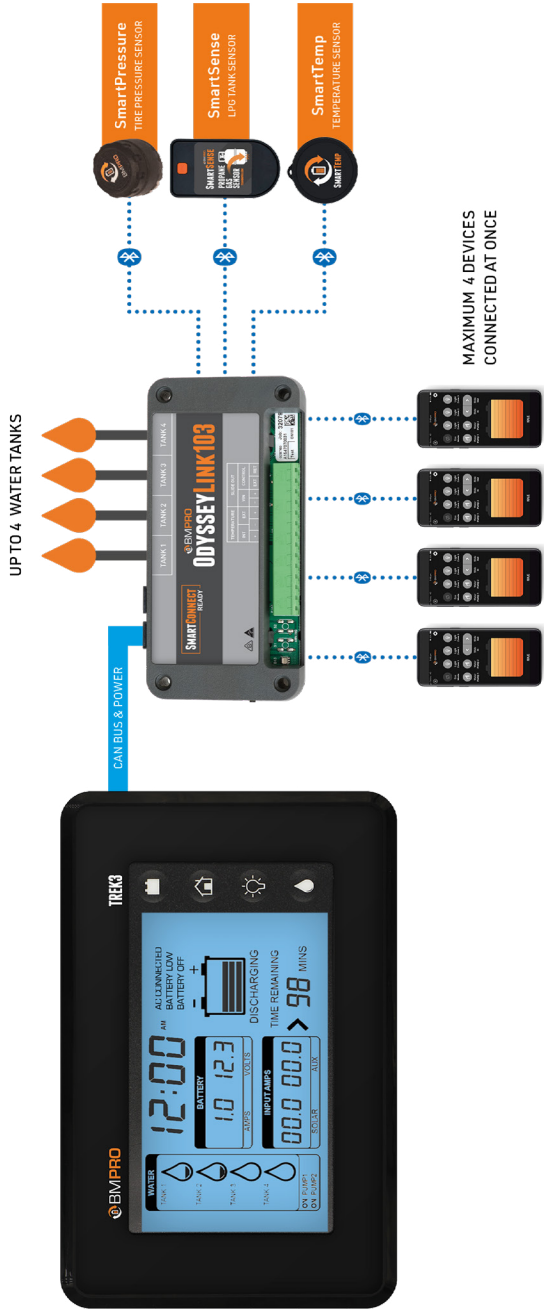
Figure 1: The Odyssey system with Trek3

OPTIONAL ADD-ONS

To get the most out of your Trek3, it may be used with the following products from the BMPRO range:

- ☑ Dipper water level indicator

TREK3 SYSTEM DIAGRAM



DESCRIPTION OF PARTS

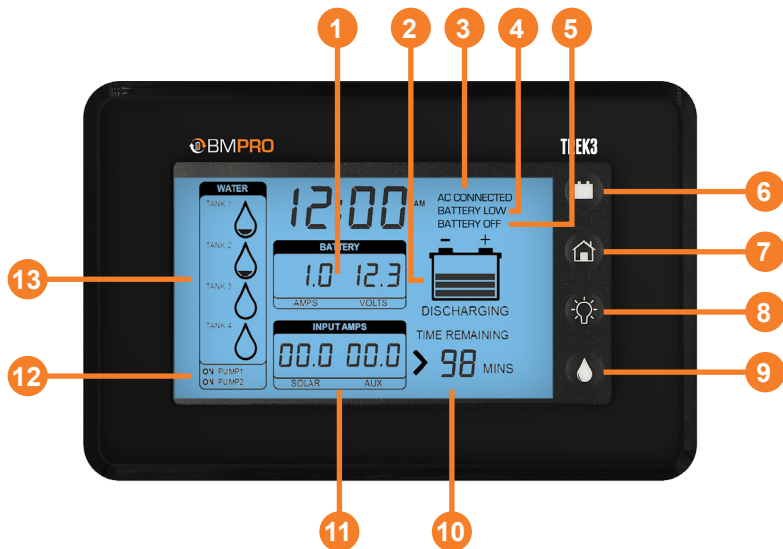


Figure 2: The Trek3 Monitor

1 BATTERY

Displays the charging/discharging current and voltage of the caravan battery connected to the BatteryPlus35.

The Battery display will flash if BMPRO's BC300 External Shunt + CommLink has been installed and communication with the BC300 is lost.

2 BATTERY CAPACITY BAR GRAPH

Displays an estimate of the capacity of the connected battery, and underneath indicates if the battery is 'CHARGING' or 'DISCHARGING'.

3 AC CONNECTED

Appears when the BatteryPlus35 is connected to AC mains.

4 BATTERY LOW

Appears when the battery voltage falls below the low voltage warning threshold and indicates that the battery requires charging.

By default, the low voltage warning threshold is 11V for lead acid batteries and 12.3V for LiFePO4 batteries. These thresholds can be configured.

5 BATTERY OFF

Battery Off will appear when:

- ▣ The battery button 6 is pressed to enter ECO mode.
- ▣ The BatteryPlus35 has automatically entered ECO mode to preserve battery capacity until the battery can be charged.

To reduce current draw from the battery, all other display segments on the Trek3 will turn off as well.

6 BATTERY BUTTON

Enables ECO mode which powers off all caravan loads connected to the BatteryPlus35 load terminal block, except for terminal 1. Battery charging is not affected by ECO mode.

As the caravan is no longer powered, ECO mode is a convenient way to save remaining battery power if you are on the road and have limited ability to charge the battery.

When charging, ECO mode ensures that all available charging current is dedicated to charging your battery.

In Set-Up mode, the Battery button acts as the EDIT function.

7 HOME BUTTON

To enter Set-Up mode on the Trek3 and configure user settings. In Set-Up mode, the Home button acts as the BACK function.

8 BACKLIGHT BUTTON

To turn the backlight/nightlight of the Trek3 screen on and off.

A single press of the Backlight button will turn the backlight on. Press again to turn the backlight off; otherwise the backlight will automatically turn off after 30 seconds.

To turn the nightlight on, press and hold the Backlight button for three seconds or until the backlight blinks. The nightlight will stay on for 10 hours. To turn nightlight off, press and hold the Backlight button until the nightlight turns off.

In Set-Up mode, the Backlight button acts as the UP-scroll arrow function.

9 WATER PUMP BUTTON

To turn the water pumps connected to the BatteryPlus35 on and off. When the BatteryPlus35 and Trek3 are first powered on, both pumps will be turned on as well.

To turn pump 1 on/off, press the Water Pump button once.

To turn pump 2 on/off, press and hold the Water Pump button until the desired change is seen.

In Set-Up mode, the Water Pump button acts as the DOWN-scroll arrow function.

10 TIME REMAINING

Indicates the estimate time remaining until the battery is completely discharged.

Time remaining less than 180 minutes will be displayed in MINS. Time remaining greater than 180 minutes will be displayed in HRS.

11 INPUT AMPS

Displays the current drawn by the BatteryPlus35 from its auxiliary and solar inputs to power loads and charge the caravan battery.

If either of the inputs are unavailable to the BatteryPlus35, the Trek3 will display "--.-". If either of the inputs are available to the BatteryPlus35 but not in use, the Trek3 will display "00.0".

12 WATER PUMP STATUS

Indicates if the pumps connected to the BatteryPlus35 are turned ON or OFF.

13 TANK LEVEL INDICATORS

Monitor water tank levels of up to 4 water tanks.

By default, tanks 1 and 2 are set-up to monitor clean water tanks and tanks 3 and 4 to monitor dirty water tanks. Tank properties are configurable in Set-Up mode.

The tank level indicator will flash when the monitored tank is empty (clean water) or full (dirty water). If a tank is not monitored, the indicator will be blank.

MOUNTING THE TREK3

The Trek3 is designed to be mounted to the wall directly with screws. A hole for the connectors must be drilled before mounting.

Flat head screws with a maximum diameter of 4.0mm must be used for mounting.

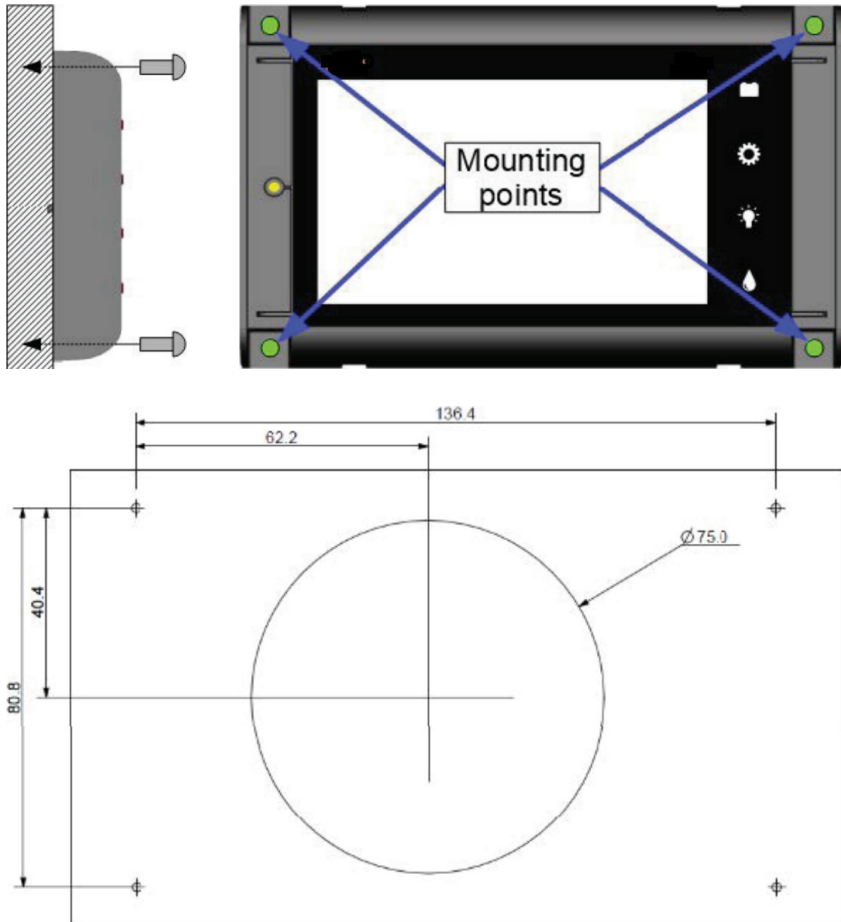


Figure 3: Trek3 mounting method details

After fixing the Trek3 to the wall, make all connections at the rear of the Trek3. Once all connections are made, clip on the provided fascia cover to the Trek3.

USING YOUR TREK3

The Trek3 does not have an ON/OFF button. The Trek3 receives power directly from the BatteryPlus35 through the connected data cable. The Trek3 will automatically turn off if it is not receiving power from the BatteryPlus35.

Upon start-up, the Trek3 will display **Can Err** on its Home screen, until communication between the Trek3 and BatteryPlus35 is established.

Once communication is established, the Trek3 will display the relevant battery and system information on its screen.

If the Trek3 cannot establish communication to the BatteryPlus35, the Trek3 will display **Can Err**.

If this error occurs, check the data cable between the Trek3 and BatteryPlus35.

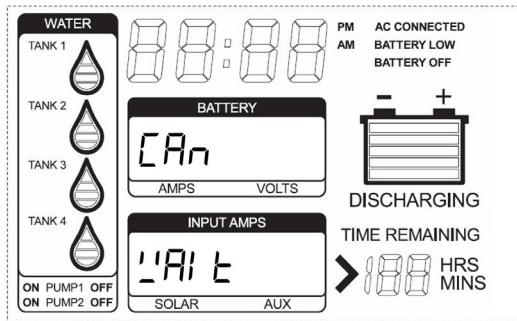


Figure 4: The Trek3 start-up screen

TREK3 SET-UP MODE

Entering Set-Up Mode

The Trek3 Set-Up mode allows you to access the functions to configure the Trek3 display, enter important battery information, set alarms and configure tanks.

To enter Set-Up mode, hold the HOME button down until *SET UP* is seen on the Battery display.

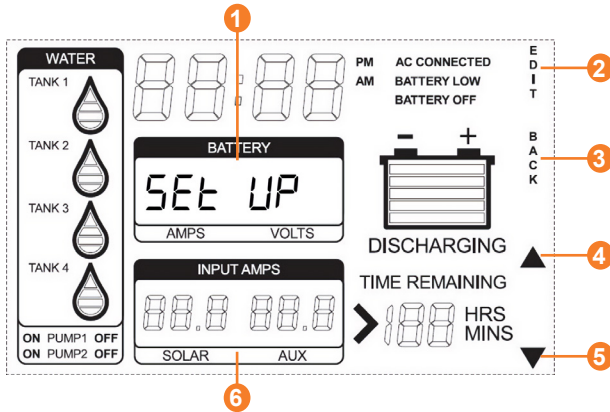


Figure 5: Trek3 Set-Up Mode

The Trek3 Set-Up screen includes:

1 6 MENU FUNCTION DISPLAY

Displays the various Set-Up menu functions that can be accessed in Set-Up mode 1 and any associated information 6. If the function can be edited, the menu function will flash on screen.

2 EDIT

Use the Battery button on the Trek3 to select a menu function or sub-function to edit.

3 BACK

Use the Home button on the Trek3 to return to the previous 'Screen' or menu function. Repeatedly press the Home button to return to the Trek3 home screen.

4 5 SCROLL ARROWS

Use the Backlight and Water Pump buttons on the Trek3 to navigate the Set-Up menu and change values when configuring the Trek3.

Exiting Set-Up Mode

To exit Set-Up mode or to exit from any menu function available in Set-Up mode, repeatedly press the BACK button until the Trek3 enters the Home screen.

Alternatively, wait and the Trek3 will automatically revert to the Home screen, saving any changes made when editing the menu functions.

Set-Up Mode Menu Functions

Table 1 lists the standard menu functions available from Set-Up mode. When in Set-Up mode, use the up and down scroll arrows to navigate the Set-Up menu functions.

Table 1: Trek3 Set-Up menu functions

<i>CLDCH</i>	Set time on the Trek3 display
<i>LRnHS</i>	Configure the water tanks
<i>bPbCAP</i>	Configure the battery capacity of the battery connected to the BatteryPlus35
<i>bPbALi</i>	Adjust low voltage warning thresholds for the low battery alarm
<i>bAHLiL</i>	Adjust the LCD backlight
<i>AduARc</i>	Advanced menu settings. For technical personnel only. The functions available in the Advanced menu setting may vary with some versions of the BatteryPlus35.
<i>SOL S'</i>	Displays the solar software version, available only when solar source is present
<i>SOL H'</i>	Displays the solar hardware version, available only when solar source is present
<i>bP35 S'</i>	Displays the BatteryPlus35 software version
<i>bP35 H'</i>	Displays the BatteryPlus35 hardware version
<i>Tr2S'</i>	Displays the Trek3 software version
<i>Tr2H'</i>	Displays the Trek3 hardware version
<i>FACtRy</i>	To perform a factory reset

If additional devices are connected and installed to the system, additional menu functions will appear when navigating Set-Up mode.

The additional menu functions will display the CAN ID number of the installed device, as well as the software (*S'*) and hardware (*H'*) version number.

CLOCK MENU FUNCTION

Time may be set in either 12- or 24-hour formats.

12-Hour Format

Enter Set-Up mode and navigate to the *CLOCK* menu function. Follow the directions in figure 4 to set the time in 12-hour format on the Trek3 display.

The AM and PM annunciators will automatically change as the hour changes from 11 to 12.

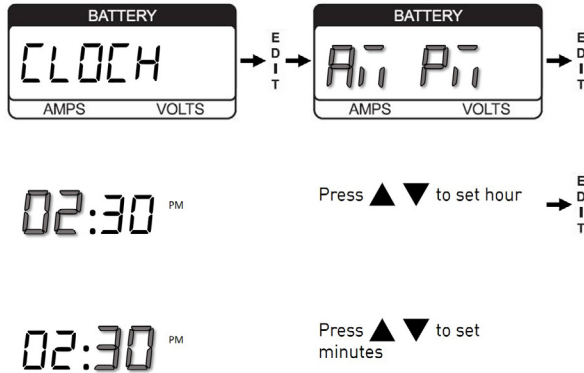


Figure 6: Setting 12-hour time format on the Trek3 display

24-Hour Format

Enter Set-Up mode and navigate to the *CLOCK* menu function. Follow the directions in Figure 7 to set the time in 24-hour format on the Trek3 display.

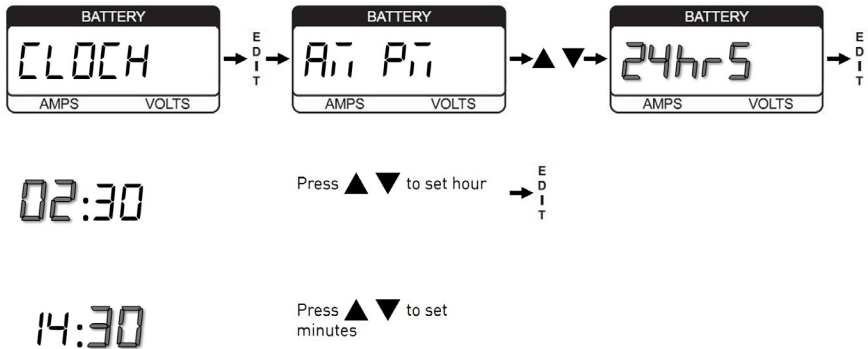


Figure 7: Setting 24-hour time format on the Trek3 display

WATER TANK MENU FUNCTION

Use the Water Tank menu function to choose to monitor and display (enable on/disable off) a water tank and configure the water tank type (clean/dirty).

Enable and Disable Water Tank Monitoring and Display

Enter Set-Up mode and navigate to the **EAH5** menu function. Follow the directions in figure 8 to enable or disable the monitoring and display of a water tank with the Trek3.

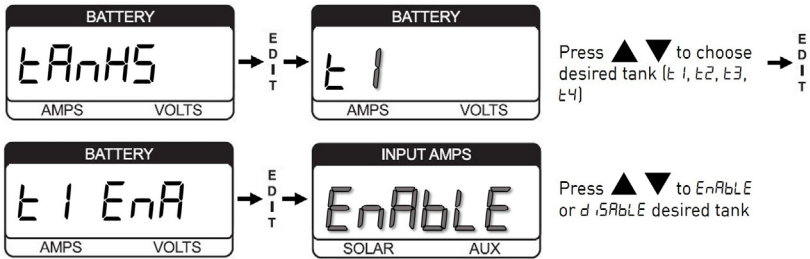


Figure 8: Enabling and disabling a water tank for monitoring and display with the Trek3

Configure Water Tank Type

Enter Set-Up mode and navigate to the **EAH5** menu function. Follow the directions in Figure 9 to configure the water tank type. The ability to configure a water tank type is only available if monitoring of the tank is enabled.

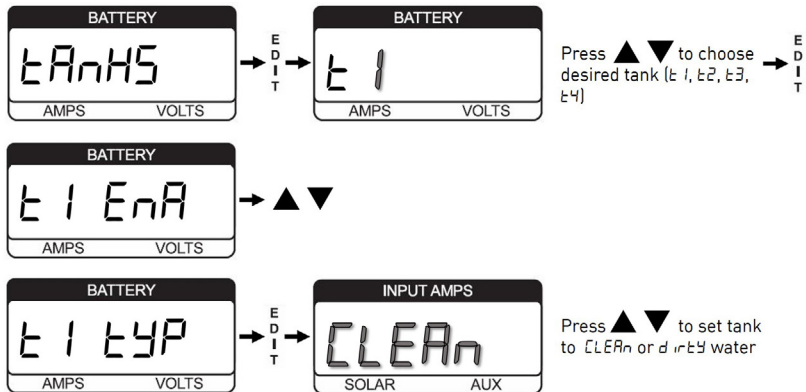


Figure 9: Configuring the water tank type

CONFIGURING BATTERY CAPACITY

The battery capacity needs to be set whenever a new battery is fitted to the BatteryPlus35. By default, the battery capacity is set to 100AH.

Correctly configuring the battery capacity ensures that the BatteryPlus35 will select the best charging parameters for the caravan battery in use and the software accurately estimates battery usage including Battery Capacity and Time Remaining.

Enter Set-Up mode and navigate to the *bAtCAP* menu function. Follow the directions in Figure 10 to configure the battery capacity. The battery capacity can be adjusted between 50 and 600AH in steps of 10AH.

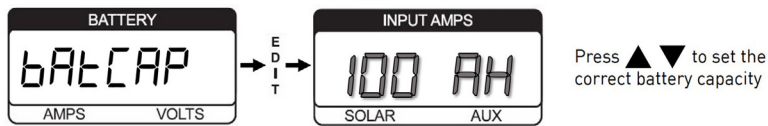


Figure 10: Configuring the battery capacity

CONFIGURING BATTERY ALARM

Configure the battery alarm and set the low battery voltage warning threshold to trigger the Battery Low warning on the Trek3 Home screen to indicate that the battery requires charging.

By default, the low voltage warning threshold is 11V for lead acid batteries and 12.3V for LiFePO4 batteries.

Enter Set-Up mode and navigate to the *bAtALi* menu function. Follow the directions in Figure 11 to configure the battery alarm. The battery alarm can be adjusted between 10.0 and 14.0V in steps of 0.5V.

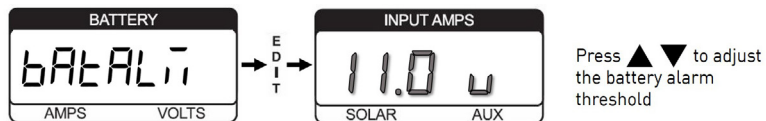


Figure 11: Configuring the battery alarm

LCD BACKLIGHT

Use the LCD Backlight function to change the brightness level of the Trek3's LCD backlight.

Enter Set-Up mode and navigate to the *bAHLI t* menu function. Follow the directions in Figure 12 to configure the backlight brightness. The brightness can be adjusted between 0 and 100% in steps of 10%.

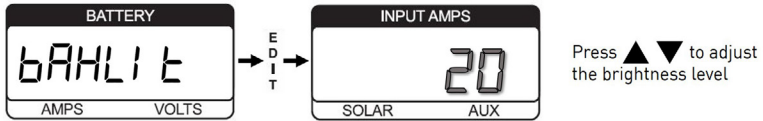


Figure 12: Configuring the LCD backlight brightness level

FACTORY RESET

Enter Set-Up mode and navigate to the *FACtOrY* menu function. Follow the directions in Figure 13 to perform a factory reset and restore the Trek3 to the factory settings.

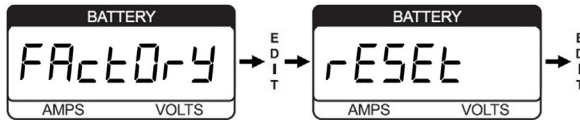


Figure 13: Factory reset

SERVICING

Do not attempt to service the Trek3 yourself, OR dismantle, modify or repair the Trek3 yourself; this will void your warranty. If your Trek3 requires servicing, please consult your BMPRO dealer or visit teambmpro.com for assistance.

FAQS AND TROUBLESHOOTING

Need more help troubleshooting your Trek3?

Contact our customer service team online at teambmpro.com/technical-support

Why has the Trek3 screen turned off?

The Trek3 receives power to run the monitor from the BatteryPlus35. If the BatteryPlus35 shuts power to the monitor, the Trek3 screen will turn off. The BatteryPlus35 will shut power to the Trek3 if:

1. The load isolation switch connected to the BatteryPlus35 has been activated. This turns off power to the data cable connecting the Trek3 and BatteryPlus35.
Check that the switch has not been activated.
2. The BatteryPlus35 has entered Storage Mode and to conserve remaining battery voltage will disable power to the Trek3.
To re-power the Trek3, plug the BatteryPlus35 to a power source and begin battery charging. When the battery is sufficiently charged, the BatteryPlus35 will enable power to the Trek3.

Why are the battery volts and amp flashing on the Trek3?

Battery volts and amps will flash on the Trek3 if a BC300 + CommLink external shunt has been installed and communication with the shunt has been lost.

Use the advanced menu function EShunt to clear the external shunt from memory and re-establish communication with the BC300 + CommLink. See the Appendices for more details.

I have water tanks, but they are not showing up on my Trek3?

If your Trek3 is connected to the OdysseyLink103, then the water tanks also need to be connected to the OdysseyLink103 for them to show up.

APPENDICES

ADVANCED MENU FUNCTIONS

Configure Battery Chemistry

The ability to configure battery chemistry is available only if the Trek3 is in use with the BatteryPlus35-HA which is capable of charging both lead acid and LiFePO4 type batteries.

By default, the BatteryPlus35-HA is configured to charge lead acid batteries. This can be changed with the Trek3 monitor.

To configure the BatteryPlus35-HA to charge LiFePO4 batteries with the Trek3 monitor, enter Set-Up mode, select the *AdvanC* menu function and navigate to the *bAtChm* menu function. Then follow the directions in figure 14.

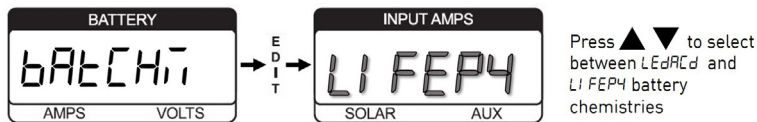


Figure 14: Configuring battery chemistry

Clear External Shunt

This function is only available if the BC300 + CommLink external shunt is installed on the caravan battery. This menu item should be used when communication with the external shunt is lost. See FAQs and Troubleshooting for more details.

To clear an external shunt, enter Set-Up mode, select the *AdvanC* menu function and navigate to the *EShUnt* menu function. Follow the directions in Figure 15.

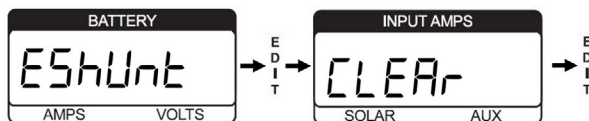


Figure 15: Clearing the external shunt

Adjusting Bulk Voltage

The bulk voltage is the maximum voltage at which the BatteryPlus35 will charge the battery. The bulk voltage may be adjusted from 13.6 to 14.8V in steps of 0.1V.

WARNING

Changing the bulk voltage may result in the battery overcharging and cause damage to the battery and in extreme cases may also cause personal harm.

If unsure DO NOT change the default values.

To adjust bulk voltage, enter Set-Up mode, select the *AdUAnC* menu function and navigate to the *CHARGE* menu function. Follow the directions in Figure 16.

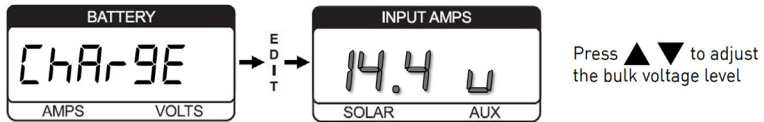


Figure 16: Adjusting bulk voltage

SPECIFICATIONS

TREK3	
Input Voltage Range	8-15V
Battery Drain	< 21mA with backlight off
Ambient Temperature	0-50°C
Dimensions (mm)	164W x 108H x 22D

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.

Warning: Any changes or modifications not expressly approved by BMPRO could void the user's authority to operate this 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.

WARRANTY TERMS AND CONDITIONS (AUSTRALIA)

Registering your BMPRO product is an important step to ensure that you receive all the benefits you are entitled to. Please visit teambmp.com to complete the online registration form for your new product today.

1. BMPRO goods come with guarantees that cannot be excluded under Australian Consumer Law. For major failures with the service, you are entitled:

- to cancel your service contract with us; and
- to a refund for the unused portion, or to compensation for its reduced value.

You are also entitled to choose a refund or replacement for major failures with goods. If a failure with the goods or a service does not amount to a major failure, you are entitled to have the failure rectified in a reasonable time. If this is not done you are entitled to a refund for the goods and to cancel the contract for the service and obtain a refund of any unused portion. You are also entitled to be compensated for any other reasonably foreseeable loss or damage from a failure in the goods or service.

2. BMPRO warrants products against defects for a period of one year, commencing from the original date of purchase. Proof of purchase is required before you can make a claim under this warranty.

HOW TO PROTECT YOUR RIGHTS UNDER THIS WARRANTY:

3. The Trek3 is designed to be installed by a suitably qualified installer. You or your installer should carefully inspect the products before installation for any visible manufacturing defects. We accept no responsibility in addition to our consumer guarantee obligations where a product has been installed incorrectly.

4. This warranty does not extend to product failures or defects caused by, or associated with, but not limited to: failure to install or maintain correctly, unsuitable physical or operating environment, accident, acts of God, hazard, misuse, unauthorised repair, modification or alteration, natural disaster, corrosive environment, insect or vermin infestation and failure to comply with any additional instructions supplied with the product.

5. BMPRO may seek reimbursement of any costs incurred by BMPRO when a product is found to be in proper working order or damaged as a result of any of the warranty exclusions mentioned in point

6. To enquire or make a claim under this warranty, please follow these steps:

a) Prior to returning a BMPRO product, please email customerservice@teambmp.com to obtain a Return Material Authorisation (RMA) number

b) Package and send the product to:

BMPRO Warranty Department
19 Henderson Road
Knoxfield, VIC 3180

Please mark RMA details on the outside of the packaging

c) Please ensure the package also includes: a copy of the proof of purchase, a detailed description of the fault and your contact details including phone number and return address.

7. BMPRO will not be liable for any costs, charges or expenses incurred in the process of returning a product in order to initiate a warranty claim.

LIMITED WARRANTY TERMS AND CONDITIONS (USA)

Registering your BMPRO product is an important step to ensure that you receive all the benefits you are entitled to. Please visit teambmp.com to complete the online registration form for your new product today.

What this Limited Warranty Covers

This warranty covers any defect or malfunction in your BMPRO product. Under this warranty you are entitled to have such goods replaced, repaired or refunded.

What this Limited Warranty Does Not Cover

This warranty does not extend to product failures or defects caused by, or associated with, but not limited to:

- Failure to install or maintain correctly, unsuitable physical or operating environment, accident, acts of God, hazard, misuse, unauthorized repair, modification or alteration, natural disaster, corrosive environment, insect or vermin infestation and failure to comply with any additional instructions supplied with the product.
- BMPRO may seek reimbursement of any costs incurred when a product is found to be in proper working order or damaged as a result of any of the warranty exclusions listed above.
- BMPRO will not be liable for any costs, charges or expenses incurred in the process of returning a product to initiate a warranty claim.

How Long the Warranty Lasts

BMPRO warrants products against defects for a period of two years, commencing from the original date of purchase.

Claims Process

Proof of purchase is required before the product can be deemed to be within the warranty period.

To enquire or make a claim under this warranty, please follow these steps:

- A. Prior to returning a BMPRO product, please email service@teambmp.com to obtain a Return Material Authorisation (RMA) number.
- B. Package and send the product to:

**BMPRO WARRANTY DEPARTMENT
UNIT 1 821 E WINDSOR AVE
ELKHART IN 46514**

Please mark RMA details on the outside of the packaging.

- C. Please ensure the package also includes: a copy of the proof of purchase, a detailed description of the fault and your contact details including phone number and return address.

How State Law Applies

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

POWERING YOUR ADVENTURES.



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19 Henderson Rd, Knoxfield VIC 3180 Australia | Unit 1, 821 E Windsor Ave, Elkhart IN 46514 USA

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