

TrakMax

Charge Controller Remote Monitor

CHC-TMRM-01

User's Manual

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1 INTRODUCTION

Thank you for purchasing the TrakMax 40BT controller and the optional Remote Monitor.

This manual will assist with installation and operation of the remote monitor only. For details related to the TrakMax 40BT solar charge controller, please refer to the manual for the controller.

1.1 SAFETY

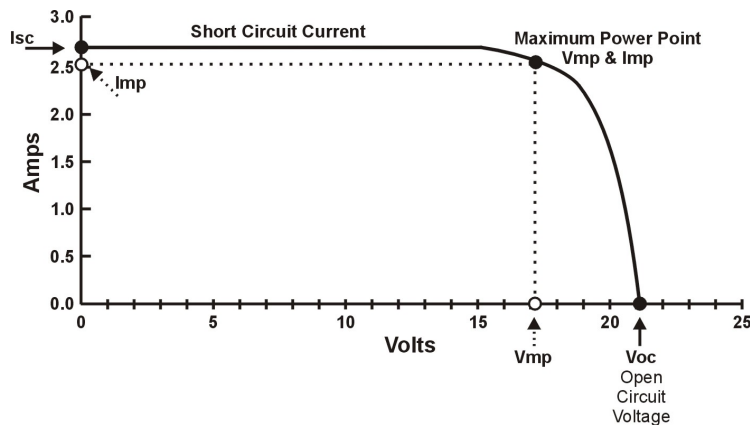
Windy Nation is not installing the solar system, and as such will not accept any liability or responsibility for damage to property, injury, or death arising out of, or related to the use or misuse of any product offered by Windy Nation. It is strongly recommended to read and adhere to all instructions and precautions before proceeding.

1.2 DEFINITIONS

- Ah Amp-Hour
- V Volts
- DC Direct Current
- LED Light Emitting Diode
- LVD Low Voltage Disconnect
- LVR Low Voltage Reconnect
- TMP Temperature
- BAT Battery
- LCD Liquid Crystal Display
- PV Photovoltaic
- MPPT Maximum Power Point Tracking

2 PRODUCT OVERVIEW

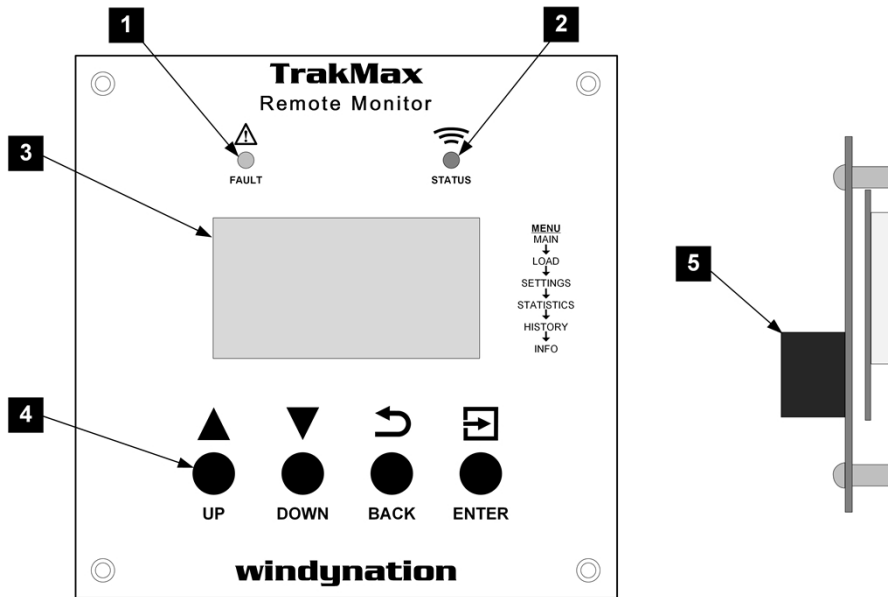
The TrakMax solar charge controller is a Maximum Power Point Tracking (MPPT) photovoltaic (PV) battery charge controller. The TrakMax product offers optional remote monitoring and logging capabilities via a hard wired or Bluetooth connection with full configurability of all charging parameters. Through the use of MPPT technology, the TrakMax can increase charge current up to 30% or more compared to conventional solar charge controllers. The advanced multi-peak tracking technology accurately tracks the maximum power point on the I-V curve even when the solar panel is partially shaded. The multiple tracking algorithm enables accurate tracking of the optimum working point on the I-V curve in an extremely short time for an optimum MPPT tracking efficiency of up to 99.9%.



The TrakMax also includes an isolated RS232 communication interface for connection to the remote monitor described in this manual (CHC-TMRM-01), that allows the user to monitor and configure the system from the remote LCD interface as opposed to the LCD interface located on the TrakMax. The Remote Monitor comes with a 5m cable and mounting enclosure.

2.1 FEATURES

- ✓ Real-time monitoring
- ✓ Setting adjustments
- ✓ Load control
- ✓ Wall mount or Flush mount options
- ✓ Graphical Back-lit LCD
- ✓ LED displays to indicate the status of charge
- ✓ Fully configurable parameters
- ✓ Reverse current protection at night
- ✓ Audible alarm capability
- ✓ Historical data storage and retrieval (up to one year)



- 1** FAULT LED
- 2** CONNECTION STATUS LED
- 3** LCD Display
- 4** Function Keys
- 5** RS232 Controller Port*

* Optional Equipment is required for operation (purchased separately)

2.2 SPECIFICATIONS

Parameter	Value
Dimension (H x W x D)	4.57" (116mm) x 4.57" (116mm) x 1.89" (48mm)
Unit Weight	1.1lb (0.5kg)
Mounting	Vertical wall mount - indoor only
Enclosure Protection Class	IP20
Operating Temperature	-31°F to 149°F (-35°C to 65°C)
Power Consumption@12V	<35mA (LCD on) / <25mA (LCD off)
Communication Type - Port	RS-232 – RJ12
Communication Baud Rate	9600bps

2.2.1 Regulatory Information

The TrakMax is CE approved and conforms with health, safety, and environmental protection standards for products sold within the European Union (EU).

FCC Requirements:

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.

3 INSTALLATION

Important: Install the Remote Monitor in a dry, protected location away from sources of high temperature, moisture, and vibration. Corrosion is not covered by the warranty.

3.1 ELECTROSTATIC (ESD) PRECAUTIONS

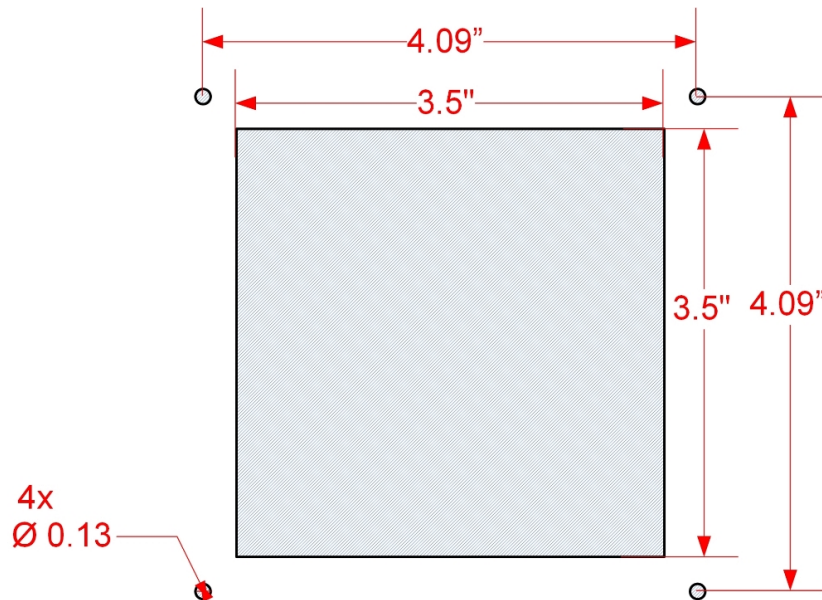
All electronic circuits may be damaged by static electricity. To minimize the likelihood of electrostatic damage, discharge yourself by touching an electrical ground (e.g.: copper pipe) prior to handling the unit and avoid touching components on the circuit boards. The risk of electrostatic damage is highest when relative humidity is below 40%.

3.2 MOUNTING

The Remote Monitor can be flush mounted or placed in the included enclosure for wall mounting.

3.2.1 Flush Wall Mount

- 1) Select Mounting Location
 - Dry, well ventilated, and away from any heat sources.
 - Suitable to run the necessary RS232 communication cable
 - No more than 1.25" thick and able to be cut out
 - At least 3" clearance from the front of the surface for wire connections
- 2) Cut 3.5" square hole for monitor as shown below



- 3) Drill four 0.125" pilot holes as shown above
 - The drill hole size will depend on the fastener being used

IMPORTANT: If the wires are not accessible from the rear of the mounting surface, you will need to connect the RS232 cable prior to mounting the monitor.

- 4) Place the monitor into the cut-out made in step 2
- 5) Install four fasteners through the pilot mounting holes from step 3 and into the mounting surface.
- 6) Tighten all the fasteners to ensure the monitor cannot slide in any direction.

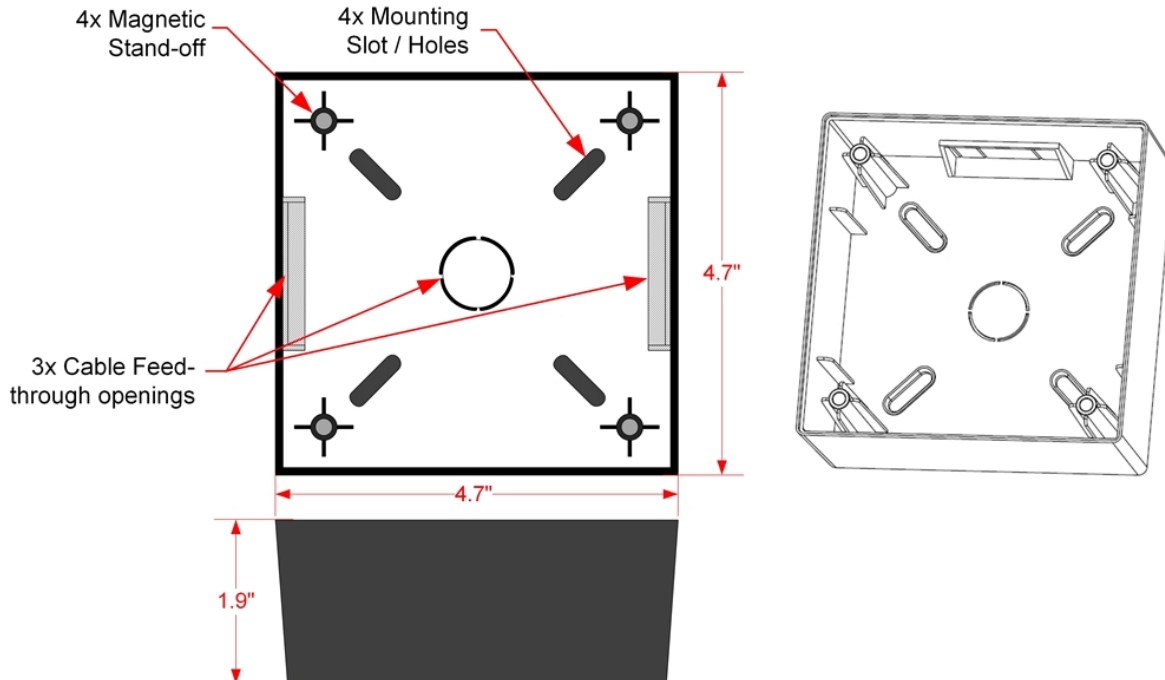
3.2.2 Enclosure Mount

The enclosure has four magnetic standoffs to hold the monitor in place. The enclosure, shown below, can be used as a portable enclosure for the monitor or may be secured to any surface.

- 1) Select Mounting Location
 - Dry, well ventilated, and away from any heat sources.
 - Suitable to run the necessary RS232 communication cable
- 2) Route the RS232 communication cable through one of the three possible openings
 - Each opening features a knock-out that must be removed to properly route the cable

IMPORTANT: You will need to connect the RS232 cable prior to mounting the monitor.

- 3) Drill four pilot holes through the four mounting slots
 - The drill hole size will depend on the fastener being used
- 4) Install four fasteners through the mounting holes from step 3 and into the mounting surface.
- 5) Tighten all the fasteners to ensure the monitor cannot slide in any direction.

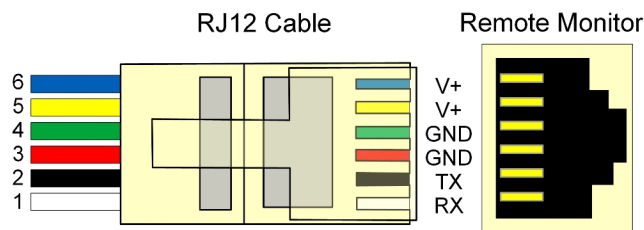


3.3 CONNECTIONS

3.3.1 Communication Cable

The remote monitor uses RS232 communication via a standard 6-wire RJ12 telephone cable (straight-through, not a Null Modem / cross-over). If possible, pull the cable through conduit before crimping on the RJ12 connectors. If using pre-assembled cables, take care not to damage the plugs when the cables are pulled through conduit.

The RJ12/RS232 communication port on the controller will provide power to the Remote Monitor for lengths of 5M or less.

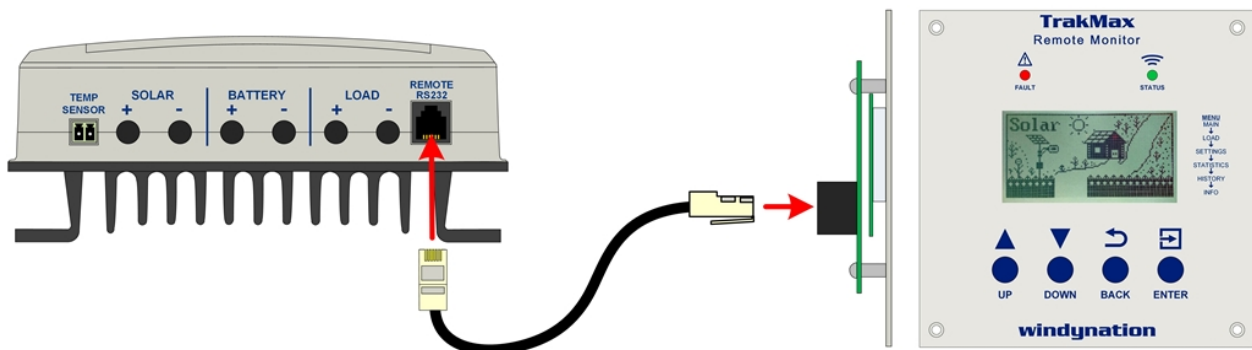


WARNING: Shock Hazard

Never route network cables in the same conduit as the power conductors.

3.3.2 Connections

Be sure the communication cable is routed to the monitor in the desired manner and make the connection to the controller as shown below.





4 OPERATION

4.1 POWER





Once the monitor is properly connected to a powered solar controller, the monitor will start-up automatically. Start-up screen will appear in the LCD and once a successful connection is established with the controller, the main menu will appear.

4.2 LED MODES

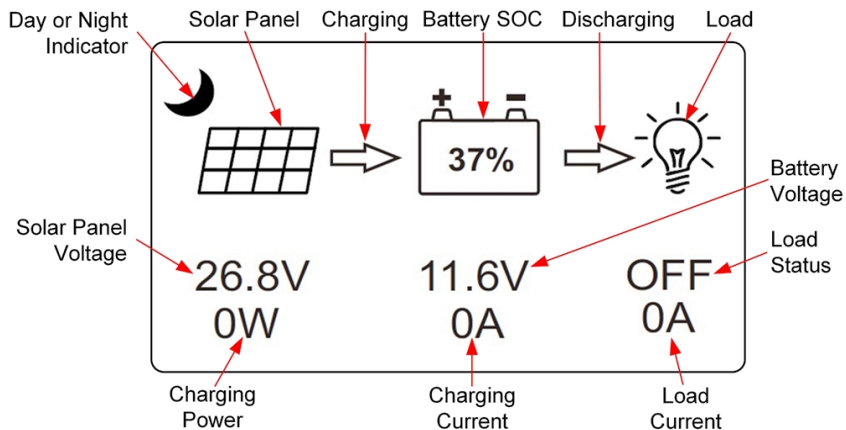
The monitor has two LED indicators to quickly observe the operating status of the controller.


LED	ON	OFF	BLINK
 FAULT	NA	Normal Operation	Fault Present
 STATUS	Communication Normal	No Communication	Communication error between Monitor and Controller









4.3 BUTTON DEFINITIONS

Button	Name	Operation
	ENTER	Tap: Enter sub-menu Tap: Save parameter settings Hold: Turn LOAD ON or OFF when in Manual Mode
	UP	Tap: Cycle interface settings to next available interface. Tap: Positive (+) parameter adjustments to modify parameter values. Hold: Quick value movement
	DOWN	Tap: Cycle interface settings to previous available interface. Tap: Negative (-) parameter adjustments to modify parameter values. Hold: Quick value movement
	BACK	Tap: Escape interface setting without saving the current parameters Tap: Return to previous menu Hold: Instant navigation to Error Code interface

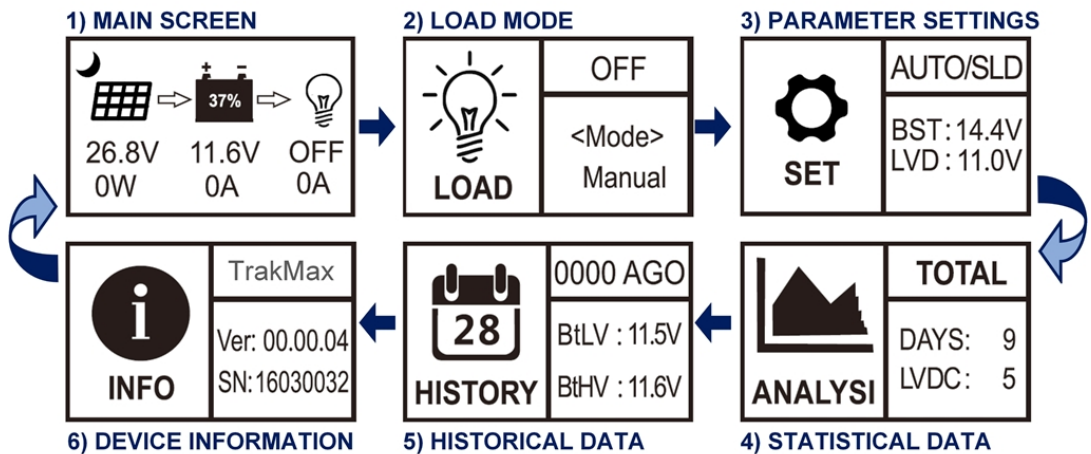
4.4 LCD GRAPHIC INDICATORS



LCD Symbol	Description
	When on, Nighttime conditions exist

	When on, Daytime conditions exist
	Moving arrow indicates charging is in process
	Current battery capacity in percentage
	If 0% is displayed and flashing, battery is over-discharged
	If 100% is displayed and flashing, battery is over-charged
	Moving arrow indicates the load is on and drawing current
	Static arrow indicates load is off
	When flashing, Load is overloaded or short circuited

4.5 LCD INTERFACE CYCLE

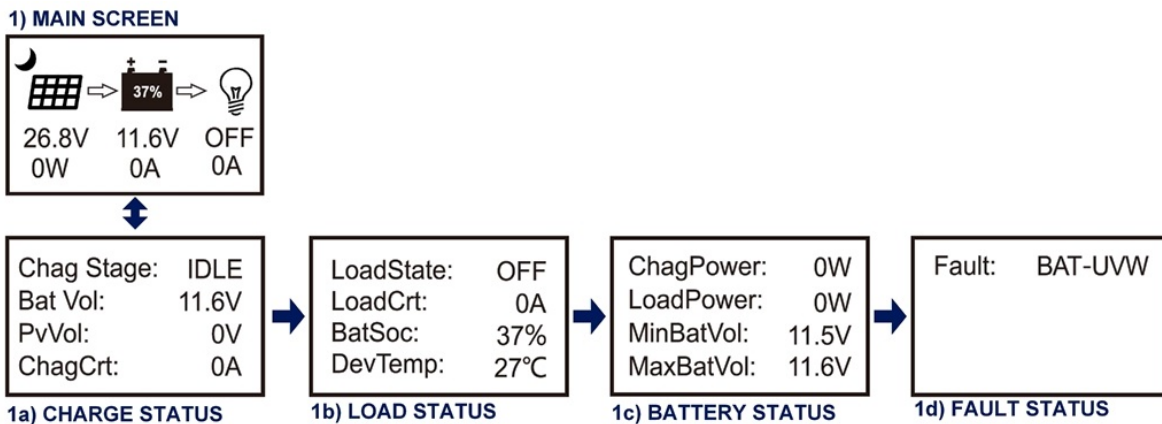


4.6 INTERFACE DEFINITIONS

The TrakMax Remote Monitor has six different graphical interfaces. Each interface has sub-menus available by tapping the ENTER button. The sub menus will provide different information and allow for editing certain parameters. The back-lit LCD when any key is pressed and will remain on for the duration specified in the Miscellaneous Parameter interface (BackLight-T).

4.6.1 Main Screen

This is the MAIN Interface and displays an overview of the system (PV, Batteries, and Load). Pressing the ENTER button will bring up the sub- menu and you can select from one of four sub menus using the UP and DOWN buttons. Pressing the BACK button will return to the Main Menu.



1a) Charge Status

Parameter	Values – Description
Chag Stage	IDLE=None MPPT=Normal EQU = Equalizing BST=Boost FLT=Float LIMIT = Current Limited
Bat Vol	Battery Voltage
PV Vol	Solar Panel Voltage
Chag Crt	Charging Current

1b) Load Status

Parameter	Values – Description
LoadState	Load ON or OFF
LoadCrt	Load Current Draw
BatSoc	Battery State of Charge; remaining capacity
DevTemp	Controller internal Temperature

1c) Battery Status

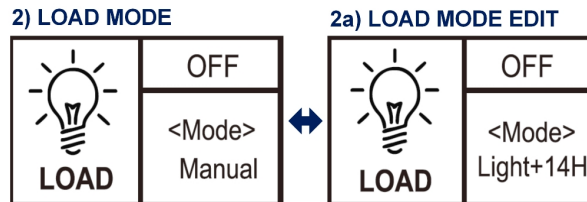
Parameter	Values – Description
ChagPower	Charging Power
LoadPower	Discharging Power
MinBatVol	Current days minimum battery voltage
MaxBatVol	Current days maximum battery voltage

1d) Fault Status

Parameter	Values – Description
Fault	NULL = No Faults exist
	BAT-LDV=Over Discharge L-OVRCRT=Load Over Load PV-SHTCRT=Solar Short Circuit
	BAT-OVD=Over voltage DEV-OVRTMP=Internal over Temp PV-OC-OVD=Solar Over Voltage
	BAT-UVW=Under voltage Warn BAT-OVRTMP=Battery over Temp PV-MP-OVD=Working Over Volt
	L-SHTCRT=Load Short Circuit PV-OVP=Solar Panel over power PV-REV=Solar Reverse Connect

4.6.2 Load Mode

From the Load Mode Interface, you can see whether the load is on or off as well as the current Mode the load is set to. This is only relevant when appliances are connected to the LOAD terminals of the controller.



Press the ENTER key to enter setup mode. Once in setup mode, the screen will blink and pressing the UP or DOWN keys will adjust the modes as shown below. Once correct, press ENTER to save and return to main page.

NOTE: If you do not want to save the setting, press the BACK key to return to main page and original set value.

Value	Type	Description
Light+On	Dusk/Dawn	Once the solar panel is not producing voltage, the load will automatically turn on and will turn off once the panel voltage is restored. Note: There is a delay between switching to avoid overcast sensing
Light+01H Thru Light+14H	Timed Control	Once the solar panel is not producing voltage, the load will automatically turn on and will turn off after the set duration of 1 to 14 hours
Manual	Manual On/Off	Load is turned on or off by pressing and holding the ENTER button
Debug	Dusk/Dawn Test	Once the solar panel is not producing voltage, the load will automatically turn on and will turn off once the panel voltage is restored. Note: There is a No delay between switching in this mode
Normal On	On	The load is always on in this mode

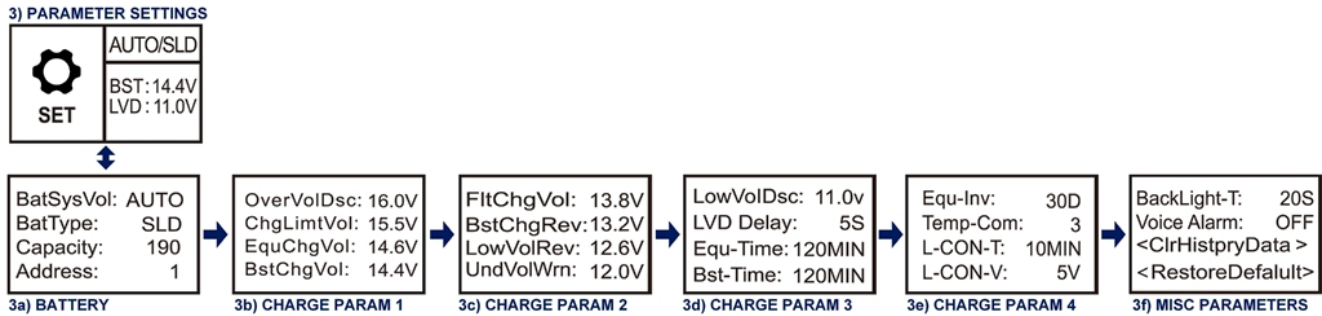
NOTE: When in Manual Mode, the load can be turned on or off from any screen by holding down the ENTER button.

4.6.3 Parameter Settings

From this Interface, an overview of the current parameter values is displayed. Pressing the ENTER button will bring up the sub- menu for adjusting parameter settings. Pressing the UP and DOWN buttons will move to the next parameter or back to the previous parameter. Once the desired parameter to be edited is highlighted, press the ENTER key to enter setup mode. Once in setup mode, the parameter will blink, and pressing the UP or DOWN keys will adjust the values. Once correct, press ENTER to save and return to main page. If you do not

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want to save the setting, press the BACK key to return to main page. If a parameter is underlined, it is not editable and cannot be changed.



NOTE: Depending on your system settings, not all parameters may be available. Only a highlighted parameter is settable, underlined parameters can not be changed.

3a) Battery

Parameter	Description	Values		
BatSysVol	System Voltage	12V=12-volt system	24V=24-volt system	AUTO=Auto Recognition
BatType	Battery Type	SLD=Sealed	FLD=Flooded	GEL=Gel LI=Lithium USE=User Defined
Capacity	Nominal Battery Capacity	0-9999 Amp Hours (Ah)		
Address	Device Address	1-60		

3b) Charge Parameters 1

Parameter	Description	Values
OverVolDsc	Over Voltage Disconnect	9.0-17.0 Volts (V); only editable when battery type is User Defined
ChgLimtVol	Charging Limit	9.0-17.0 Volts (V); only editable when battery type is User Defined
EquChgVol	Equalizing Charging Voltage	9.0-17.0 Volts (V); only editable when battery type is User Defined
BstChgVol	Boost Charging Voltage	9.0-17.0 Volts (V); only editable when battery type is User Defined

3c) Charge Parameters 2

Parameter	Description	Values
FltChgVol	Float Charging Voltage	9.0-17.0 Volts (V); only editable when battery type is User Defined
BstChgRev	Boost Charge Recovery	9.0-17.0 Volts (V); only editable when battery type is User Defined
LowVolRev	Over Discharge Recovery	9.0-17.0 Volts (V); only editable when battery type is User Defined
UndVolWrn	Under Voltage Warning	9.0-17.0 Volts (V); only editable when battery type is User Defined

3d) Charge Parameters 3

Parameter	Description	Values
LowVolDsc	Low Voltage Disconnect	9.0-17.0 Volts (V); only editable when battery type is User Defined
LVD Delay	Low Volt Disconnect Delay	0-60 Seconds (S); only editable when battery type is User Defined
Equ-Time	Equalizing Charge Time	0-300 Minutes (MIN); only editable when battery type is User Defined
Bst-Time	Boost Charging Time	0-300 Minutes (MIN); only editable when battery type is User Defined

3e) Charge Parameters 4

Parameter	Description	Values
Equ-Inv	Equalization Cycle Interval	0-30 Days (D); only editable when battery type is User Defined
Temp-Com	Temperature Compensation	-3-5 mV/°C/2V
L-CON-T	Light Control Time	0-60 Minutes (MIN); only editable when battery type is User Defined
L-CON-V	Light Control Voltage	5-11 Volts (V); only editable when battery type is User Defined

3f) Miscellaneous Parameters

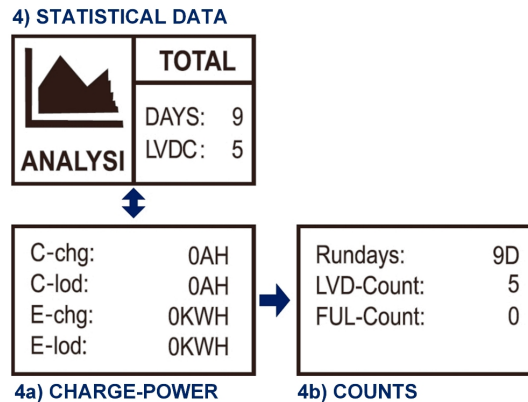
Parameter	Description	Values
Backlight-T	LCD Screen Backlight Time	ON = Always On; 0-600 Seconds (S)
Voice Alarm	Audible Fault Alarm	ON = Enabled or OFF = Disabled
<ClrHistoryData>	Clear Historical Data	YES = Clear Data or NO = Cancel
<RestoreDefault>	Reset to Factory Settings	YES = Reset to Factory Default Settings or NO = Cancel

NOTE: The values shown represent a 12-volt system and will be doubled for 24-volt systems

4.6.4 Statistical Data

Statistical Data presents the ability to look at cumulative measurements over the number of days presented in the main interface (DAYS). The main interface for Statistical Data also shows the number of over discharges, so the end user can work to minimize the number of occurrences where the battery is overly discharged.

Pressing the ENTER button will bring up the sub- menu and you can select from one of two sub menus using the UP and DOWN buttons. Pressing the BACK button will return to the Main Menu.



4a) Charge-Power

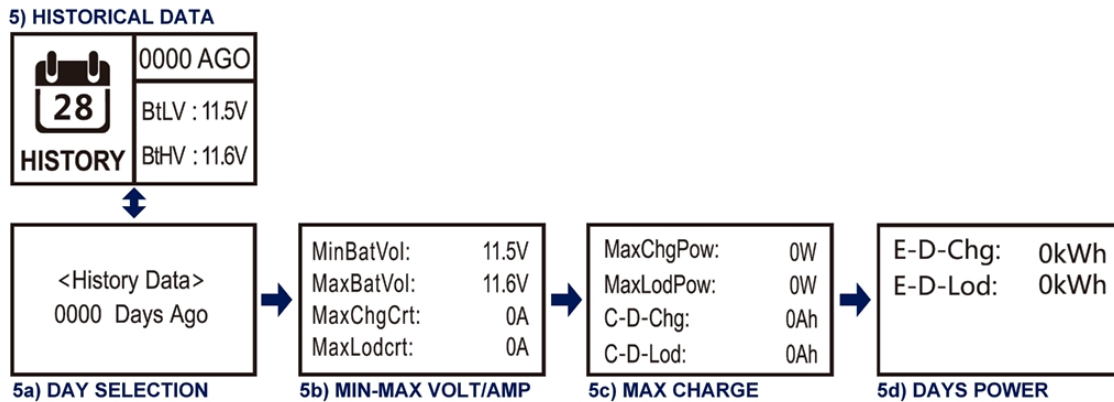
Parameter	Values – Description
C-chg	Total Charging Amp Hours (Ah)
C-lod	Total Discharging Amp Hours (Ah)
E-chg	Total Power Generation Watt Hours (Wh)
E-lod	Total Power Consumption Watt Hours (Wh)

4b) Counts

Parameter	Values – Description
Runday	Total number of operating days being represented (D)
LVD-Count	Total number of times the battery has been overly discharged
FUL-Count	Total number of times the battery has been fully charged

4.6.5 Historical Data

Historical Data presents the ability to look at measurements on a per day basis as well as look at previous days measurements for comparison purposes; presented in the main interface (AGO). The main interface for Historical Data displays the current days minimum (BtLV) and maximum (BtHV) battery voltage. Pressing the ENTER button will bring up the sub- menu so you can select the number of days past that you would like to view. Once selected, press ENTER again and you can select from one of three sub menus using the UP and DOWN buttons. Pressing the BACK button will return to the Main Menu.



5a) Day Selection

Parameter	Values – Description
<History Data>	Select the number of days going backwards to view data for
Days Ago	0000=Current Day; 0001=yesterday; 0002=Two days ago

5b) Min/Max Voltage and Amps

Parameter	Values – Description
MinBatVol	Selected days minimum battery Voltage (V)
MaxBatVol	Selected days maximum battery Voltage (V)
MaxChgCrt	Selected days maximum charging Current (A)

MaxLodcrt	Selected days maximum discharging Current (A)
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5c) Maximum Charge

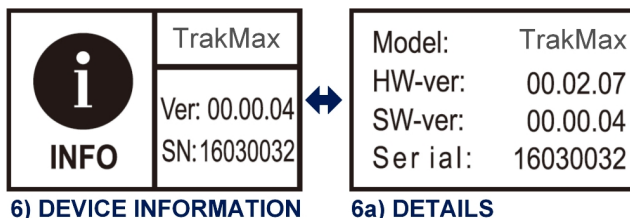
Parameter	Values – Description
MaxChgPow	Selected days maximum charging Power (W)
MaxLodPow	Selected days maximum discharging Power (W)
C-D-Chg	Selected days total charging Amp Hours (Ah)
C-D-Lod	Selected days total discharging Amp Hours (Ah)

5d) Days Power

Parameter	Values – Description
E-D-Chg	Selected days total power generation in Watt Hours (Wh)
E-D-Lod	Selected days total power consumption in Watt Hours (Wh)

4.6.6 Device Information

This interface displays information pertaining to the remote monitor assembly and the controller in use. Pressing the ENTER button will bring up the single sub-menu. Pressing the BACK button will return to the Main Menu.



6a) Details

Parameter	Values – Description
Model	Controller Model
HW-ver	Unit Hardware version
SW-ver	Unit Software version
Serial	Controller Serial Number

5 ERROR CONDITIONS

5.1 FAULT LED

When the FAULT LED is lit on the controller front panel, the controller has detected an abnormality. Go to the MAIN Screen and press the ENTER button to bring up the sub- menu. Using the UP and DOWN buttons, navigate to screen 1d Fault Status to view the error code.

Error Code	Description	Possible Remedies
BAT-LDV	Battery over discharged	<ul style="list-style-type: none"> Check the battery voltage and charge battery as necessary
BAT-OVD	Battery voltage too high	<ul style="list-style-type: none"> Check battery Voltage and charge settings
BAT-UVW	Low battery voltage warning	<ul style="list-style-type: none"> Check battery voltage and charge as necessary
L-SHTCRT	Load is short circuited	<ul style="list-style-type: none"> Check connections to load terminals
L-OVRCRT	Load over-loaded	<ul style="list-style-type: none"> Check the DC load Reduce Load as needed
DEV-OVRTMP	High Controller Temperature	<ul style="list-style-type: none"> Check ambient temperature surrounding controller Increase ventilation around controller Check air vents on controller for blockage
BAT-OVRTMP	High Battery Temperature	<ul style="list-style-type: none"> Check the temperature sensor. Check ambient temperature surrounding batteries Increase ventilation around batteries
PV-OVP	Solar Panel over power	<ul style="list-style-type: none"> Reduce Solar Panels connected to controller
PV-SHTCRT	Solar Panel short circuited	<ul style="list-style-type: none"> Check Solar Panel connections
PV-OC-OVD	High Input PV Voltage	<ul style="list-style-type: none"> Remove PV connection and check the PV voltage. Adjust solar panel wiring to be within acceptable range
PV-MP-OVD	Working PV Voltage too high	<ul style="list-style-type: none"> Remove PV connection and check the PV voltage. Adjust solar panel wiring to be within acceptable range
PV-REV	Solar Panel reversed polarity	<ul style="list-style-type: none"> Check Solar Panel connections

5.2 STATUS LED

If the status LED is blinking, there is a problem with the connection between the controller and the remote monitor. Check the Remote Monitor connections and verify cable is correctly wired. If the connections appear to be ok, check the cable and cable connectors for any damage

5.3 AUDIBLE ALARM

The Remote Monitor features an audible fault alarm that must be enabled (ON) from Parameter Setting sub-menu 3f (Miscellaneous Parameters) to operate.

Alarm Duration	Description
None	Normal Operation
~15 seconds	Battery has low voltage
~1 minute	Battery is over discharged <u>or</u> Load is short circuited/overloaded <u>or</u> controller/battery is over temperature
Continuous	Battery is over voltage <u>or</u> Solar Panel is reverse connected <u>or</u> over voltage

6 SUPPORT

6.1 SUPPORT

If you are experiencing technical problems, and cannot find a solution in this manual, you can contact Windy Nation Inc. for further assistance.

- Call: (805) 323-6445
- Email: support@windynation.com
- Write: 1404 Fleet Avenue, Ventura, CA 93003

For challenging issues or to just ask a question, consider using our FREE Community Forums! Consult our community of DIY'ers for fast answers to all your questions.

Post on our Forums: [Windy Nation Community Forum](#)

6.2 LIMITED WARRANTY

Windy Nation warrants that the Charge Controller Remote Monitor (the "Product"), will be free from manufacturing defects in materials and workmanship under normal authorized use consistent with product instructions for a period of one (1) year from the date the original purchaser ("Customer") receives the Product (the "Warranty Period"). This warranty extends only to the original purchaser. The Customer's sole and exclusive remedy and the entire liability of Windy Nation, its suppliers and affiliates for breach of the warranty is, at Windy Nation's option, either (i) to replace the Product (or defective component part(s)) with a new or reconditioned Product (or component part(s)); (ii) to repair the reported problem; or (iii) to refund the purchase price of the Product. Repaired or replaced products are warranted for the remainder of the original warranty period only. No employee, agent, dealer or other person is authorized to give any warranties on behalf of Windy Nation not expressly set forth in this limited warranty.

6.3 RESTRICTIONS

No warranty will apply if the Product (i) has been altered or modified except by Windy Nation; (ii) has not been installed, operated, repaired, or maintained in accordance with instructions supplied by Windy Nation; (iii) has been subjected to abnormal physical, thermal or electrical stress, misuse, negligence, or accident. If Windy Nation determines that the problem with the Product is not due to a manufacturing defect in Windy Nation's workmanship or materials, or otherwise does not qualify for warranty repair, then the Customer will be responsible for the costs of all necessary repairs and expenses incurred by Windy Nation.

6.4 WARRANTY CLAIMS & RETURN PROCEDURES

To be eligible for service under this warranty, the Customer must submit a service request within the Warranty Period by contacting Windy Nation in writing or via telephone and obtaining a Returned Materials Authorization

("RMA") number. This RMA must be obtained before returning any product under this warranty. Notification must include a description of the alleged defect, the manner in which the Product was used, and the original purchase date in addition to the name, address, and telephone number of the Customer. Within five (5) business days of the date of notification, Windy Nation will provide the Customer with an RMA number and the location to which the Customer must return the defective Product. Any Product returned for warranty service shall be shipped at the expense and risk of the Customer. The Customer must return the entire Product kit (or, if authorized by Windy Nation, the defective component parts), within fifteen (15) days after issuance of the RMA number. Windy Nation will be under no obligation to accept any returned Product that does not have a valid RMA number. Customer's failure to return the Product within fifteen (15) days of its receipt of an RMA number may result in cancellation of the RMA. All parts that Windy Nation replaces shall become Windy Nation's property on the date Windy Nation ships the repaired Product or part back to the Customer. Windy Nation will use all reasonable efforts within thirty (30) days of receipt of the defective Product to repair or replace such Product. If a warranty claim is invalid for any reason, the Customer will be charged at Windy Nation's then-current rates for services performed and will be charged for all necessary repairs and expense incurred by Windy Nation. If Windy Nation determines that a warranty claim is valid, it will ship the repaired or replaced Product to Customer at Windy Nation's cost.

6.5 DISCLAIMER

EXCEPT FOR THE EXPRESS LIMITED WARRANTY SET FORTH IN THE PREVIOUS PARAGRAPH, WINDY NATION DISCLAIMS ALL WARRANTIES, EXPRESS, IMPLIED AND STATUTORY INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO ANY PRODUCTS PROVIDED BY WINDY NATION. NO ORAL OR WRITTEN INFORMATION OR ADVICE GIVEN BY WINDY NATION, ITS DEALERS, DISTRIBUTORS, AGENTS OR EMPLOYEES SHALL IN ANY WAY INCREASE THE SCOPE OF THIS WARRANTY. WINDY NATION DOES NOT WARRANT THAT THE QUALITY OR PERFORMANCE OF THE PRODUCTS WILL MEET YOUR REQUIREMENTS OR THAT YOU WILL BE ABLE TO ACHIEVE ANY PARTICULAR RESULTS FROM USE OR MODIFICATION OF THE PRODUCTS.

Some jurisdictions do not allow the limitation or exclusion of implied warranties or how long an implied warranty may last, so the above limitations may not apply to you. In any such jurisdiction, the warranty shall be limited to the minimum warranty and period required by law.

WINDY NATION EXPRESSLY DISCLAIMS ALL LIABILITY FOR BODILY INJURIES OR DEATH THAT MAY OCCUR, DIRECTLY OR INDIRECTLY, BY USE OF THE PRODUCT BY ANY PERSON.

6.6 LIMITATION OF LIABILITY

UNDER NO CIRCUMSTANCES WILL WINDY NATION OR ITS AFFILIATES OR SUPPLIERS BE LIABLE OR RESPONSIBLE FOR ANY LOSS OF USE, INTERRUPTION OF BUSINESS, LOST PROFITS, LOST DATA, OR INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES OF ANY KIND REGARDLESS OF THE FORM OF ACTION, WHETHER IN CONTRACT, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY OR OTHERWISE, EVEN IF WINDY NATION OR ITS AFFILIATE OR SUPPLIER HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so these limitations may not apply to you. Neither Windy Nation nor its affiliates or suppliers will be held liable or responsible for any damage or loss to any items or products connected to, powered by or otherwise attached to the Product. The total cumulative liability to Customer, from all causes of action and all theories of liability, will be limited to and will not exceed the purchase price of the Product paid by Customer. This warranty gives the Customer specific legal rights and the Customer may also have other legal rights that vary from state to state.