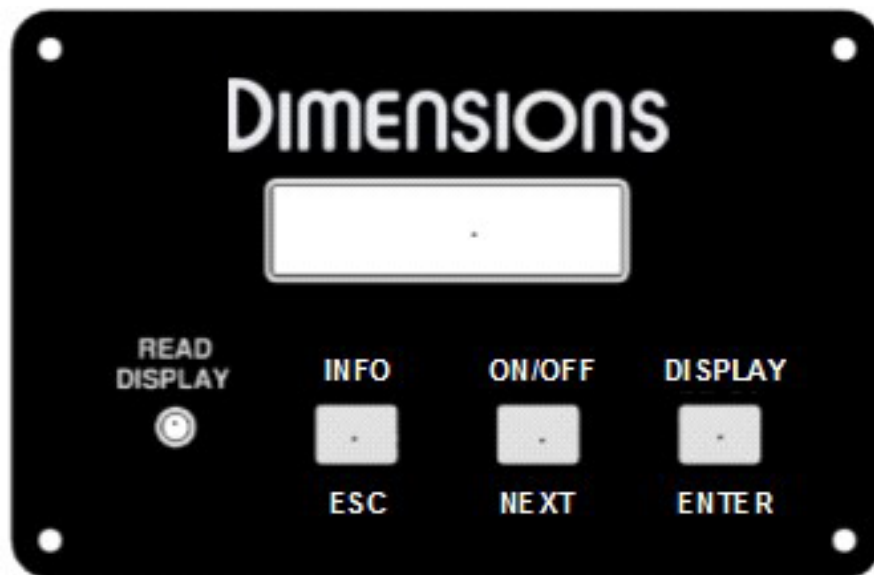


DIMENSIONS™

LCD Remote
Owner's Manual



Models:
141537 (12/24 VDC)
141538 (48 VDC)



Sensata
Technologies

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INTRODUCTION

Thank you for purchasing a Dimensions™ accessory from Sensata Technologies®! We think that you will find this product to be extremely reliable and easy to use.

All information is subject to change without warning. Contact Sensata for the latest updates.

Please read this manual completely before installation and operation. Contact us by phone or email if you need assistance with this product.

Phone: 1-800-553-6418 or 1-651-653-7000
 Fax: 1-888-439-3565 or 1-651-653-7600

E-mail: inverterinfo@sensata.com
 Website: <http://magnum-dimensions.com/>

Safety Instructions

Read this manual before installation. The manual contains important safety, installation and operating instructions. Save this manual and keep it in a safe place.

Sensata Technologies is an ISO 9001:2015 Registered Company.

Sensata uses the following special notices to help prevent injury and/or damage to equipment.

▲ WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in property damage.

Scope

The LCD remote is intended to be used with Dimensions™ branded NP series inverter/chargers from Sensata Technologies®. The LCD provides two modes of operation: run and settings mode.

The LCD remote will provide control of the device and the ability to change the settings of the inverter, such as low battery and battery type.

Specifications

Display	141537	141538
Input Voltage (VDC)	6–34	40–70
Operating Temperature	-20°C to 65°C (0°F to 149°F)	

Table 1 Specifications

OPERATION

Inverter Run Mode

The LCD remote connects to the inverter through the RJ45 connector on the back. Once the inverter has been fully installed and wired, DC power can be applied. The LCD will illuminate. The display will default into run mode. This display panel shows the status and configuration information of the inverter and charger.

Select the “On/Off” button to turn the system on and off.

The first message on the display once DC power is applied is:



Device OFF
System OFF

These messages mean that both the charger and inverter are off and that the unit is not plugged into shore power. It may also indicate that there is a problem with the AC power coming into the unit.

If the LCD is connected when the inverter is already turned on, this will be the first message on the display:



CHG - OFF NO INPUT
INVERTER - OFF

NOTE: The message “CHG - OFF AC BAD INVERTER - OFF” will display when DC power is applied if the unit has replaced an old LCD (such as PN 141519 or 141522) with an updated version. The old LCD would operate using a different display according to manual 122203.

If the inverter is turned off, the LCD remote will turn off within one minute by default. Turn the display back on by selecting the “Display” button.

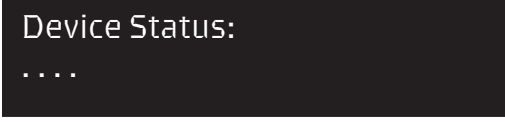
NOTE: The first time the inverter is turned after DC voltage has been applied, the LCD will briefly show the firmware version of the display.

Review Current Settings

Select the “Info” button while the unit is in run, idle, or fault mode to cycle through the current system settings. The information displayed will depend on the state of the unit.

NOTE: If the “Info” button is selected when DC power is initially applied, no information will be displayed. The inverter must first be turned on to wake up the processor to enable communication between the devices.

The display will momentarily display 3 or 4 dots while the system is querying the requested data from the inverter or converter. If the screen freezes with the dots showing, unplug the display and then plug it back in. If the display is used to enable the inverter or converter, the unit will turn off.



Device Status:
....

Inverter Run Mode Continued

Review Current Settings Continued

Select the “Info” button while the unit is in run, idle, or fault mode to cycle through the current system settings:

- Current AC Branch Current Setting
- Battery Type
- Battery Profile
- Low Battery Setting
- CAN Instance ID and Baud Rate
- Device Part Number and Serial Number
- Device Firmware
- Display Firmware
- CV Timeout Setting (if not default)
- CV VDC
- Float VDC
- Max Charge ADC
- Batt Amp-Hour

Additional settings may be viewed under specific conditions:

Charger or Bypass Running

- Bypass Current Measurement (AC Output Amps)
- Battery Temperature

Inverter/Charger Off or Disabled

- Bypass Current Measurement (AC Output Amps)
- Measured Battery Voltage

Off Due to Fault — Inverter

- Input Voltage When Fault Occurred
- Output Power When Fault Occurred
- Current Measured Battery Voltage

Off Due to Fault — Charger

- Current Measured Battery Voltage
- Bypass Current Measurement (AC Output Amps)

Battery Type — LFP

- Battery High Temperature Shutdown
- Battery Low Temperature Shutdown
- Battery Cold Reduced Charge

Converter Run Mode

Normal Operating Message

This message shows that the converter is on, the converter ID as set by CAN, and the measured converter input and output voltage. The display will show the following message while the converter is running:

```

CONV #1 ON
48.1 V IN 14.3 V OUT

```

Other Converter Messages

```

CONV #1 LOW BAT
39.1 V IN 12.3 V OUT

```

Low battery condition due to start surge or undersized battery cable gauge. If this condition remains for ≥ 5 seconds, the converter will shut down.

```

CONV #1 OVERLOAD
BATT 43.8 VOLTS

```

Overload condition due to excessive loads or short circuit. If this condition remains for ≥ 5 seconds, the converter will shut down.

```

CONV - OFF HI-BATT
62.1 V IN 14.3 V OUT

```

High 60 V input bus condition due to transients. If this condition remains for ≥ 5 seconds, the converter will shut down. The red “Read Display” LED is on.

Review Current Settings

Select the “Info” button while the unit is in run, idle, or fault mode to cycle through the current system settings:

- Current DC Output Voltage Set Point
- Low Battery Setting
- CAN Instance ID and Baud Rate
- Device Part Number and Serial Number
- Device Firmware
- Display Firmware

Additional settings may be viewed under specific conditions:

Off Due to Fault

- Measured Battery Voltage — currently may not function
- Measured DC Output Voltage — currently may not function

Inverter Power Mode (Using the LCD Remote)

Turning the Inverter “On” or “Off” (no AC applied)

1. Select the “On/Off” button to turn on the inverter.
2. Select the “On/Off” button again to turn the inverter off.

```
INVERT 1 550 WATT
BATT 12.6 VOLTS
```

This example message shows that the inverter is on, the load is consuming 550 watts of power and that the battery voltage is measured at 12.6 volts.

Standby Mode

The inverter standby feature allows the inverter to automatically turn on anytime that it senses a loss of shore power. It returns to standby when shore power is restored. The inverter/charger will qualify the AC power 30 seconds after the AC power has been applied to the AC input.

```
INVERT - STANDBY
OVERRIDE BY CHGR
```

This message is stating that the inverter is in standby and the charger is running. If AC power is removed, the inverter will automatically turn on. This message will show for 15 seconds before reverting to the charger status.

```
INVERTER - OFF
PUSH FOR ON
```

This message is stating that inverter mode will not be enabled if AC power is removed. To change this, select the “On/Off” button.

Other Inverter Messages

```
INVERT LOW BATT
BATT 9.8 VOLTS
```

Low battery condition due to start surge or undersized battery cable gauge. If this condition remains for ≥ 5 seconds, the inverter will shut down.

```
INVERT OVERLOAD
BATT 11.8 VOLTS
```

Overload condition due to excessive loads or short circuit. If this condition remains for ≥ 5 seconds, the inverter will shut down.

External Power Mode (Using the LCD Remote)

Bypass Relay

The loads attached to the inverter output will operate independently of the inverter on/off. If the inverter is left on (standby mode), the built-in bypass relay will automatically cycle back and forth between “inverter power” mode and “external power” mode depending on the availability of the external AC power line.

NOTE: There will be a short break in AC power as the inverter transitions to and from bypass and charger mode.

Battery Charger

The battery charger will engage automatically and independently of the inverter On/Off status. The 3-step charging process modes are bulk, acceptance, and float.

NOTE: “Bulk” is the same as “constant current” and may be called “CC” mode. “Acceptance” is the same as “constant voltage” and may be called “CV” mode.

Bulk Mode

CHGR - BULK MODE
12.3 VOLT, 50 AMP

Accept Mode

CHGR - ACCEPT MODE
14.4 VOLT, 30 AMP

Float Mode

CHGR - FLOAT MODE
13.1 VOLT, 0 AMP

Cold Charging (LFP Only)

CHGR-.1C LIMIT
11.9VOLT, 0AMP

Monitor Mode (Lead-Acid Only)

CHGR-MONITOR
XX.XVOLT, 0AMP

External Power Mode (Using the LCD Remote) Continued

Battery Charger Continued

Charger Current Limit

If the total AC input current into the charger exceeds the branch circuit rating of the inverter (as set by the LCD or other method), the charger will reduce the battery charging current. When in this mode, the following message will be displayed:



```
CHGR POWER DRAW  
LIMIT 20 AMP AC
```

NOTE: If replacing an older model LCD (such as PN 141519 or 141522), the connected inverter may only be allowed to change the setting for the charger current limit. This setting may be adjusted on the updated LCD according to the procedure on page 10 of this manual.

Temperature Compensation Cable or Dongle

If the temperature compensation cable or dongle is not connected to the “Temp. Sense” connector on the inverter; the battery charger will not function, the red “Read Display” LED will come on, and the display will show:



```
CHARGER -OFF  
CHECK BATT PROBE
```

If the display is off, press the “Display” button. Check to make sure that the cable is connected to the inverter.

Inverter Settings Options

The following settings can be changed:

Max Branch Amps (BCR)

The max branch amps may be adjusted between 0–30 A in increments of 5 A. If SW1 on the rear side is the down position, the range will be limited to 0–15 A. The max branch amps setting will limit the amount of input AC current that is available to the charger.

Battery Type and Battery Profile

The type of battery can be changed between the following types: lead-acid, gel, AGM, and LFP. The type of battery that is attached to the inverter/charger affects the charge recipe. Selecting the incorrect battery type may result in improper battery charging. A restart is required to apply new settings. Battery profile may also be configured for LFP batteries.

CV Timeout

The user may select custom to adjust the CV timeout from the default for the battery type. Choosing “Custom” allows the setting to be changed.

Custom CV Timeout

This menu item only appears if CV Timeout is set to “Custom.” This allows the user to adjust the constant voltage timeout from the default value for the battery type. A restart is required to apply new settings.

Battery Type	CV Timeout (Min – Max)	Increment	Default
Wet Lead-Acid	0.5 to 25.0 Hours	0.5 Hours	6 Hours
Gel			6 Hours
AGM			6 Hours
LFP			0.5 Hours

Table 2 CV Timeout Options

Low Battery

Users may need to adjust the voltage threshold where the inverter will shut down due to low battery (as measured at the inverter input terminals). The LCD can adjust the low battery setting in increments as shown in the following table. The LCD will limit the user to the appropriate voltage range. A restart is required to apply new settings.

Battery Voltage	Low Bat. Min – Max	Increment	Default
12 VDC	10.0–12 VDC	0.1 VDC	10.0 VDC
24 VDC	20.0–24 VDC	0.2 VDC	21.0 VDC
48 VDC	40.0–48 VDC	0.4 VDC	42.0 VDC

Table 3 Low Battery Threshold Options

Settings

Inverter Settings Options Continued

CAN Instance ID

The CAN instance ID may be changed between 1 and 13. If the inverter is placed on a CAN network, this setting provides the unique ID for identification.

CAN Baud Rate

The baud rate can be switched between 250k and 500k. A 250k baud rate is set as the default. A restart is required to apply new settings.

Inverter “On/Off”

This setting determines if “On/Off” must be pressed once or twice to turn on the inverter when not in charger or AC bypass mode. The user may decide that the “On/Off” button must be selected twice in order to prevent accidentally turning on the inverter with an inadvertent button push. A restart is required to apply new settings.

Display Timer

The display can be set to always stay on, automatically turn off when not used after 1 minute, or automatically turn off when not used after 10 minutes. The display would then turn back on when the “Display” button is pushed in “Run” mode.

Custom Battery Changes

The CV timeout, CV VDC, float VDC, max charge ADC, and battery amp hour may be customized. For LFP batteries, the battery high temperature shutdown, low temperature shutdown, and cold reduced shutdown points may also be customized. Reference the specific owner’s manual for available configuration options.

In addition to these settings, the settings menu provides three system commands:

Charger Condition Battery

This command is only available only for wet-lead-acid batteries. Charger conditioning (equalization) overcharges the battery in a controlled way to remove sulphate build up from the battery’s internal plates. Consult your battery manufacturer for how frequently the equalization process should be completed. The process will not start until a full charge cycle has been completed. The equalization request can be cancelled.

⚠ WARNING : DC loads should be removed from the battery before a conditioning process is started. The conditioning process may damage connected equipment.

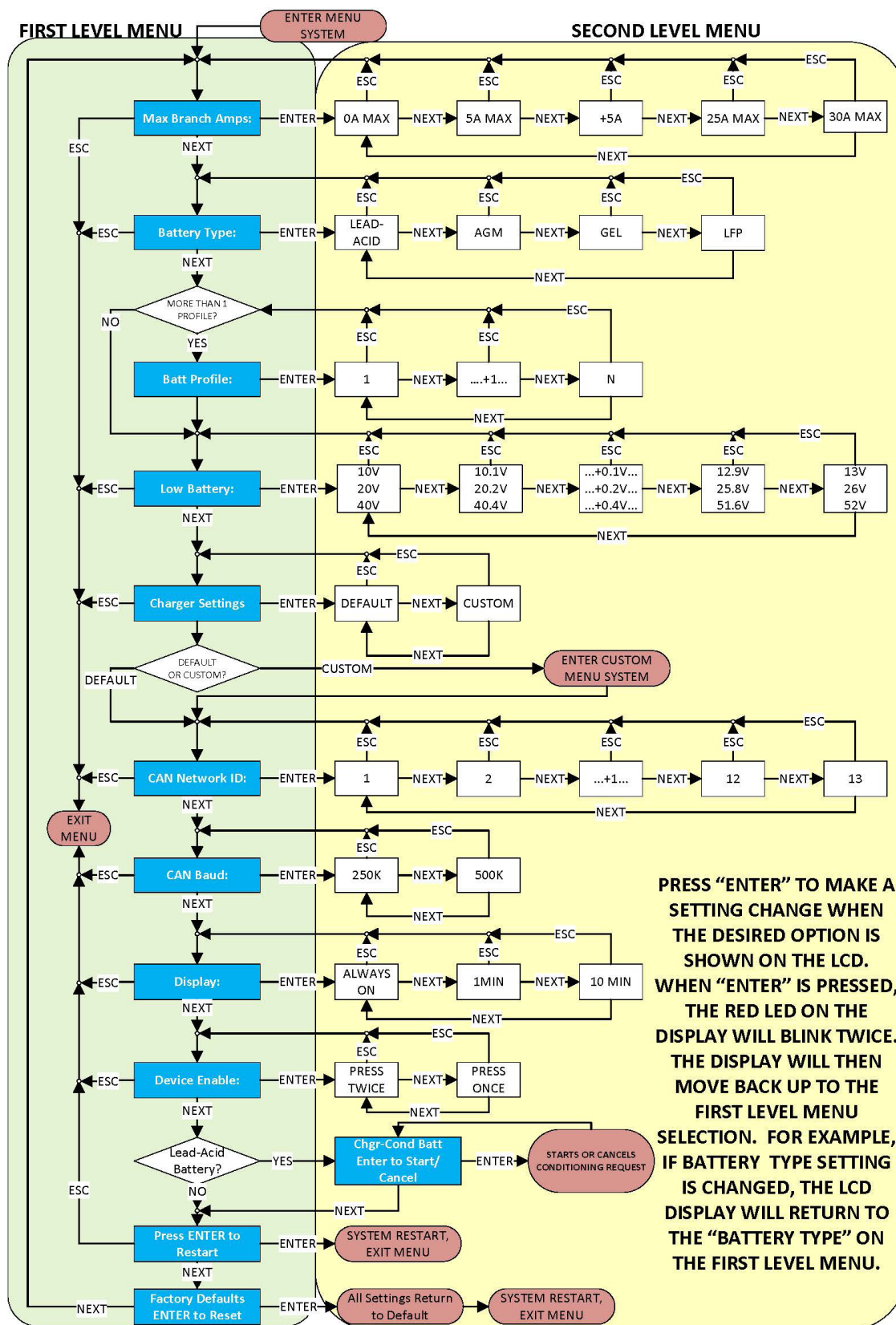
System Restart

The inverter will briefly cycle on and off. This is required to apply new settings.

Restore Defaults

The inverter will restore the factory defaults for all customized parameters, including but not limited to the charger current limit, battery type, low battery, and the CAN parameters. The user will be prompted to confirm this action.

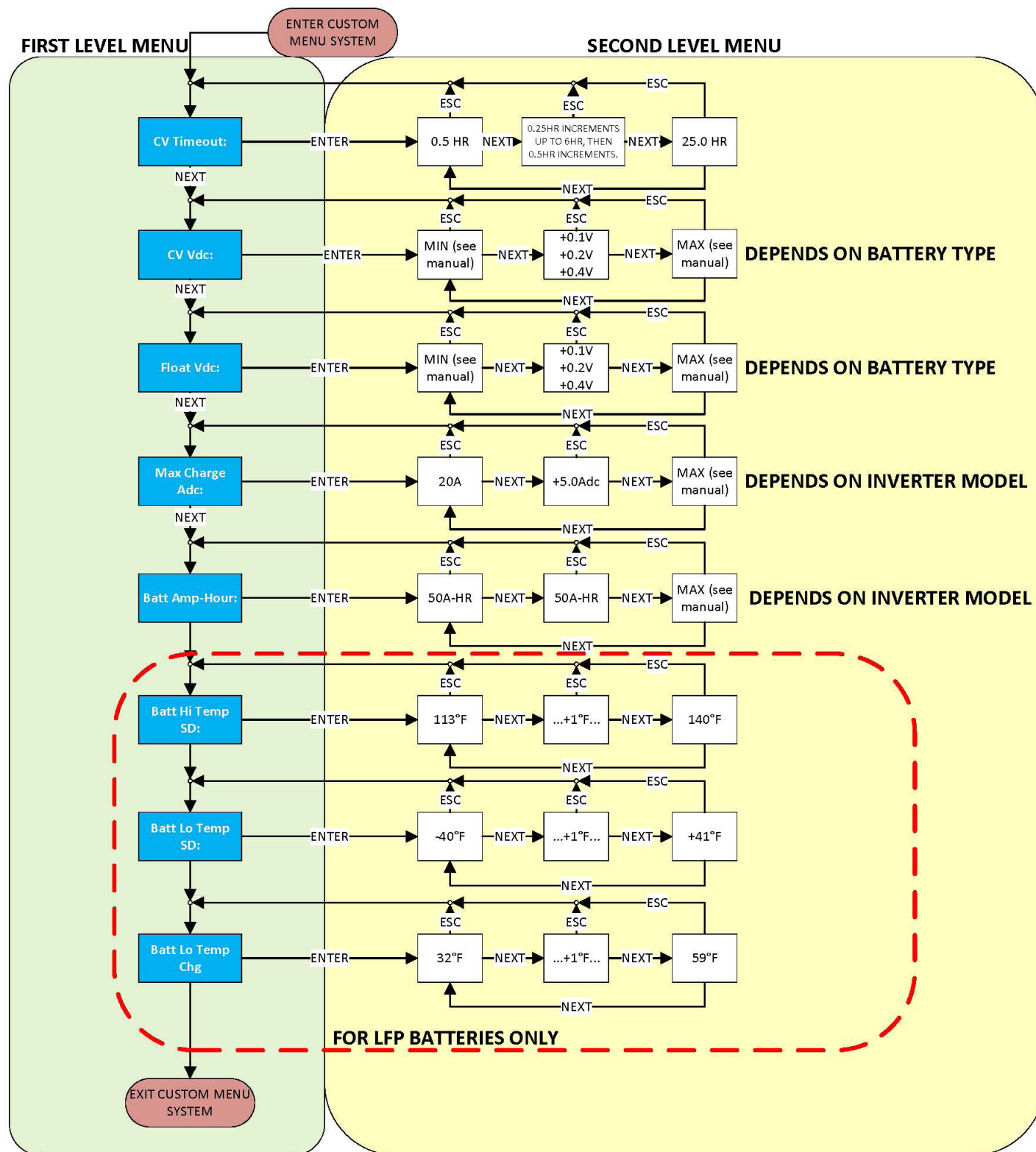
Inverter Settings Options Continued



PRESS "ENTER" TO MAKE A SETTING CHANGE WHEN THE DESIRED OPTION IS SHOWN ON THE LCD. WHEN "ENTER" IS PRESSED, THE RED LED ON THE DISPLAY WILL BLINK TWICE. THE DISPLAY WILL THEN MOVE BACK UP TO THE FIRST LEVEL MENU SELECTION. FOR EXAMPLE, IF BATTERY TYPE SETTING IS CHANGED, THE LCD DISPLAY WILL RETURN TO THE "BATTERY TYPE" ON THE FIRST LEVEL MENU.

Settings

Inverter Settings Options Continued



Converter Settings Options

The following settings are currently available to be changed:

Converter Output Voltage

The converter output may be adjusted within a specified range. The LCD will limit the user to the appropriate voltage range.

Output Voltage	Voltage Range (Min – Max)	Increment	Default
12 VDC	10–14.4 VDC	0.1 VDC	14.4 VDC
24 VDC	20–28.8 VDC	0.2 VDC	28.8 VDC

Table 4 Converter Output Voltage Options

Low Battery

Users may need to adjust the voltage threshold where the converter will shut down due to low battery (as measured at the inverter input terminals). The LCD can adjust the low battery setting in increments as shown in the following table. The LCD will limit the user to the appropriate voltage range. A restart is required to apply new settings. Alternate settings are not currently available.

Battery Voltage	Low Bat. (Min – Max)	Increment	Default
12 VDC	10.0–12 VDC	0.1 VDC	10.5 VDC
24 VDC	20.0–24 VDC	0.2 VDC	21.0 VDC
48 VDC	40.0–48 VDC	0.4 VDC	42.0 VDC

Table 5 Converter Low Battery Options

CAN Instance ID

The CAN instance ID may be changed between 1 and 13. If the converter is placed on a CAN network, this setting provides the unique ID for identification.

CAN Baud Rate

The baud rate can be switched between 250 k and 500 k. A baud rate of 250 k will be set as the default. A restart is required to apply new settings.

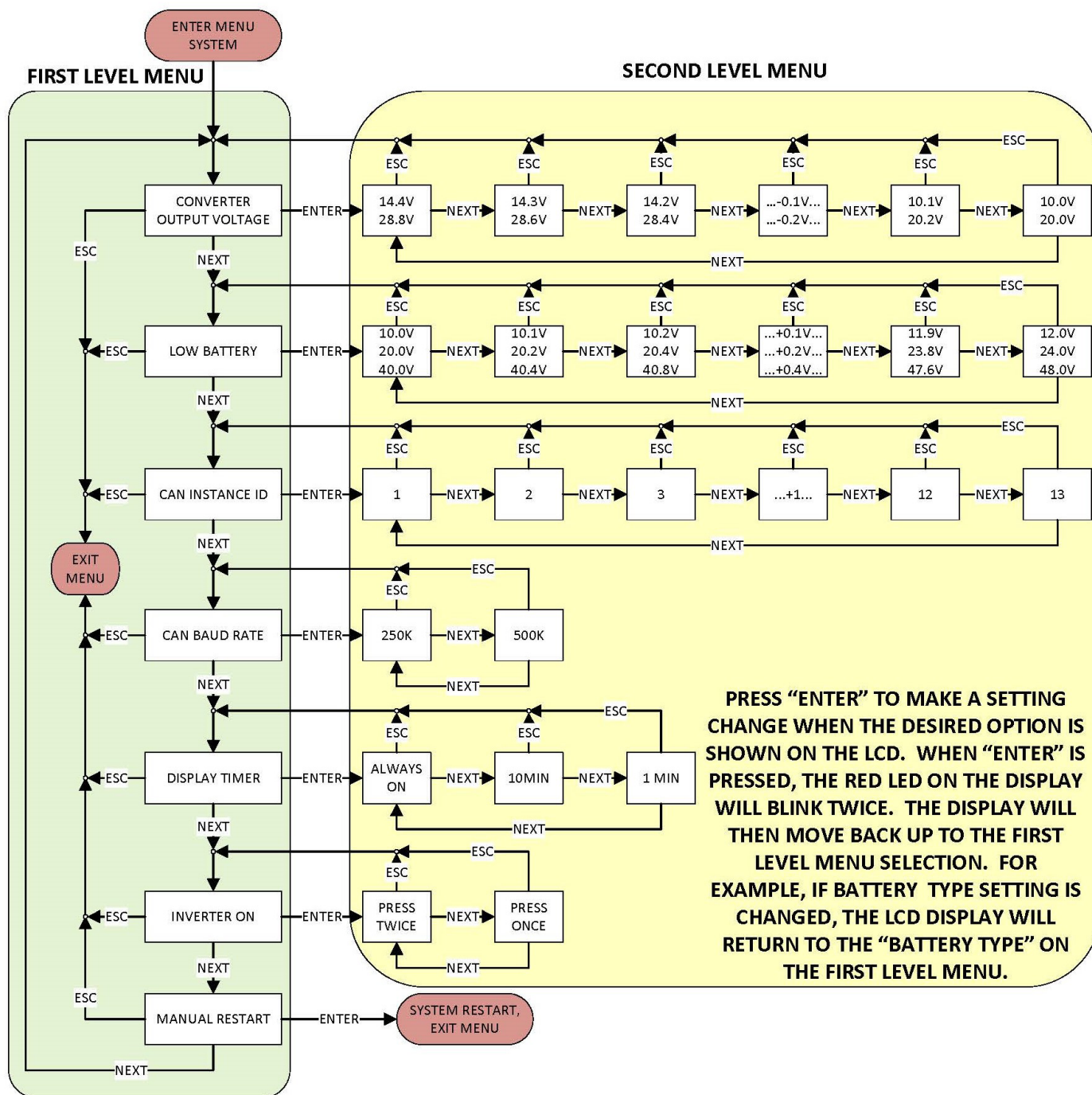
Converter “On/Off”

This setting determines if “On/Off” must be pressed once or twice to turn on the converter. Pressing the “On/Off” button twice will help prevent accidentally turning on the converter with an inadvertent button push.

Display Timer

The display can be set to always stay on, automatically turn off when not used after 1 minute, or automatically turn off when not used after 10 minutes. The display would then turn back on when the “Display” button is pushed in “Run” mode.

Converter Settings Options



PRESS "ENTER" TO MAKE A SETTING CHANGE WHEN THE DESIRED OPTION IS SHOWN ON THE LCD. WHEN "ENTER" IS PRESSED, THE RED LED ON THE DISPLAY WILL BLINK TWICE. THE DISPLAY WILL THEN MOVE BACK UP TO THE FIRST LEVEL MENU SELECTION. FOR EXAMPLE, IF BATTERY TYPE SETTING IS CHANGED, THE LCD DISPLAY WILL RETURN TO THE "BATTERY TYPE" ON THE FIRST LEVEL MENU.

TROUBLESHOOTING

▲ WARNING: Do not remove chassis cover. No user-serviceable parts inside. Call or e-mail customer service for free consultation during business hours. Business hours are 8:00 am –5:00 pm C.S.T.

Phone: 1-800-553-6418 or 1-651-653-7000

Fax: 1-888-439-3565 or 1-651-653-7600

E-mail: inverterinfo@sensata.com

Website: <http://magnum-dimensions.com/>

Inverter LCD Remote Error and Warning Messages

Inverter Off Low Battery

INVERTER OFF
LOW BATTERY

The inverter is off due to a low battery voltage condition (below the low battery setpoint for 5 seconds.) The red “Read Display” LED is on. Check battery charge and DC wiring cable size. The inverter will turn back on when the voltage has recovered.

Inverter Off Overload

INVERTER OFF
OVERLOAD

The inverter is off due to an overload condition or output short-circuit. The red “Read Display” LED is on. Remove one or more loads from the output of the inverter. Reset the inverter.

Inverter Off High Temperature

INVERTER OFF
HIGH TEMP

The inverter is off due to a high temperature condition.. The red “Read Display” LED is on. The inverter will turn back on when the temperature recovers. A “T” or “H” that appears at the end of the message refers to whether the fault is a transformer or a heat sink high temp.

Inverter LCD Remote Error and Warning Messages Continued

Inverter Off High Battery

INV - OFF HI-BATT
BATT XX.X VOLTS

The inverter is off due to a high charging voltage condition (ex. >20.0 VDC for a 12 VDC battery system) and the display reports the value. The red “Read Display” LED is on. Check the vehicle alternator/regulator.

System Voltage	High Battery Threshold	High Battery Inv Restart
12 VDC	20.0 VDC	16.0 VDC
24 VDC	33.0 VDC	32.0 VDC
48 VDC	61.0 VDC	55.0 VDC

Table 6 Inverter High Battery Settings

Inverter Off Fault

INVERTER OFF
FAULT

The inverter is off due to a fault. The red “Read Display” LED is on. Check for output short circuits. Check the battery size and voltage. Reset the inverter.

Inverter Off Reverse Polarity

INVERTER OFF
REVERSE POLARITY

The inverter has detected that the battery is connected backwards. The inverter must be sent back to the factory for evaluation.

Charger Off Battery Shorted

CHARGER OFF
BATTERY-SHORTED

The charger has shut down due to a detected short circuit on the battery circuit. A short circuit on the battery circuit may open fuses and damage the internal electronics. The inverter/charger will be prevented from restarting. The inverter must be sent back to the factory for evaluation.

Inverter LCD Remote Error and Warning Messages Continued

Charger Off Overload

CHARGER OFF
OVERLOAD

The inverter has shut down due to a detected charger overload possibly caused by connected DC loads. AC and DC power must be cycled to restart the charger.

Charger Off Batt Low Temp (LFP Battery Type Only)

CHARGER OFF
BATT LOW TEMP

The charger is off due to low battery temperature. Damage may occur to the battery if charging is continued.

Charger Off High Temperature

CHARGER OFF
CHGR HIGH TEMP

The charger is off due to a high temperature condition. The red “Read Display” LED is on. The charger will turn back on automatically when the temperature recovers. If a “T” or “H” appears at the end of the message, it refers to either a transformer a heat sink high temp.

Charger Off Battery Temperature

CHARGER - OFF
BATT HIGH TEMP

The charger is off due to a high battery temperature. The red “Read Display” LED is on. Check the battery compartment for proper ventilation. If a “T” or “H” appears at the end of the message, it refers to either a transformer or heatsink high temp.

Charger Off AC Branch Rating Set to Zero

CHARGER - OFF
0 AMP LIMIT SET

The charger is off due to the AC branch rating being set to zero. The red “Read Display” LED is on. Use the display or other device to change the AC branch rating to an appropriate amperage setting between 5 and 30 A.

Inverter LCD Remote Error and Warning Messages Continued

Charger Off Battery Probe

CHARGER - OFF
CHECK BATT PROBE

The charger is off due to a shorted or open (missing) temperature compensations sensor. The red “Read Display” LED is on. Check the connections.

Charger Off Low Battery

CHARGER-OFF
LOW BATTERY

The charger has detected that the battery has developed a possible short across it or that battery voltage is critically low. This message may also display if the charger has operated in constant current mode for 6 hours. To reset, AC power must be removed for at least 2 minutes.

Charger Warm Battery (Lead-Acid Battery Types Only)

CHGR - WARM BATT
XX.X VOLT, XXX AMP

The charger reduced output due to warm battery temperature. The display will show the battery voltage and current. The red “Read Display” LED is on. Check battery compartment for proper ventilation.

Inverter or Charger Disabled via CAN

INVERTER-OFF
DISABLED BY CAN

CHARGER-OFF
DISABLED BY CAN

The inverter/charger has been remotely disabled over the CAN interface. To learn more about operation with CAN, contact the factory.

Converter LCD Remote Error and Warning Messages

Converter Off Low Battery

CONV #3 OFF
LOW BATTERY

The converter is off due to a low input battery voltage condition (i.e. ≤ 42.0 volts for 5 seconds on 50.4 V nominal converters). The red “Read Display” LED is on. Check the battery charge and the DC wiring cable size. The converter will turn back on when a sufficient battery voltage has been restored.

Converter Off Overload

CONV #3 OFF
OVERLOAD

The converter is off due to an overload condition. The red “Read Display” LED will be on. Remove one or more loads from the output of the converter. Reset the converter.

Converter Off High Temperature

CONV #3 OFF
HIGH TEMP

The converter is off due to a high internal temperature condition. The converter will turn back on when the internal temperature has cooled within normal operating range. If a “T” or “H” appears at the end of the message, it refers to either a transformer or heatsink high temp.

Converter Off High Battery

CONV OFF HI-BATT
LOW BATTERY

The converter is off due to a high input voltage condition (>60 volts). The red “Read Display” LED is on.

APPENDIX

Max Branch Amps (BCR)

The LCD remote can be set for the max branch amps of the battery charger. This is done by setting DIP switch 1. DIP switch 1 in the up position sets the BCR at 30 AC amps. DIP switch 1 in the down position sets the BCR at 15 AC amps.

NOTE: This function is only applicable when connected to an inverter/charger. When connected to a converter, the DIP switch will have no function.

NOTE: Changes to the DIP switches will not take effect until the LCD remote has been reset. The display can be reset by removing and reinstalling the cable attached to the RJ45 connector on the rear. Alternatively, the display may be reset by removing all power sources from the unit.

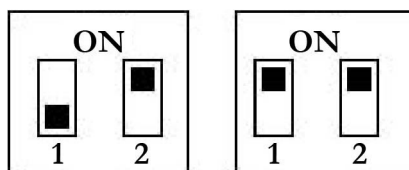


Figure 1 DIP Switches Positions

Ignition Switch Control (Using the LCD Remote)

The LCD remote can be wired to the vehicle ignition or master disconnect circuitry to control operation of the inverter. Set the dip switch for the desired operation before connecting the remote wire to the remote. DIP switch 2 controls the programming of the “DC Active Wire Tab.”

No Master Disconnect

1. Move DIP switch 2 to the up position.
2. Use an insulated female faston and an 18 AWG wire to connect to the “DC Active Wire Tab.”
3. Wire the other end through a 5 A in-line fuse to the ignition circuitry of the vehicle.

NOTE: Maximum input voltage for 141537 is 30 VDC. Maximum input voltage for 141538 is 60 VDC.

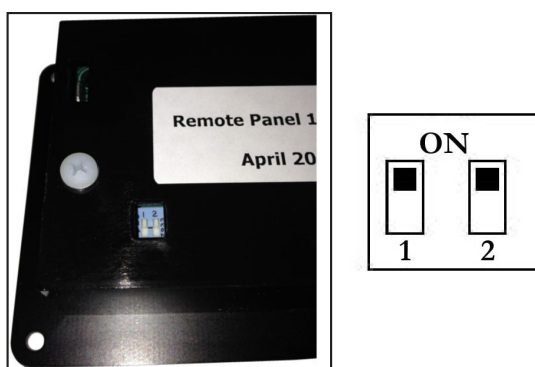


Figure 2 DIP Switch 2 Setting without Master Disconnect

With Master Disconnect

Move DIP switch 2 to the down position and connect the vehicles disconnect wire to the “DC Active Wire Tab.”

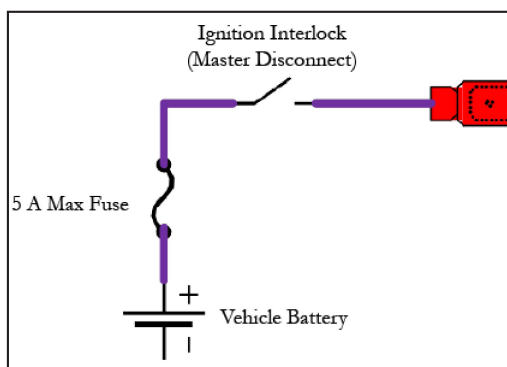


Figure 3 Master Disconnect

LCD Remote Mounting

The LCD remote needs a mounting hole and screw positions as shown below. Use a #8 screw for mounting the display:

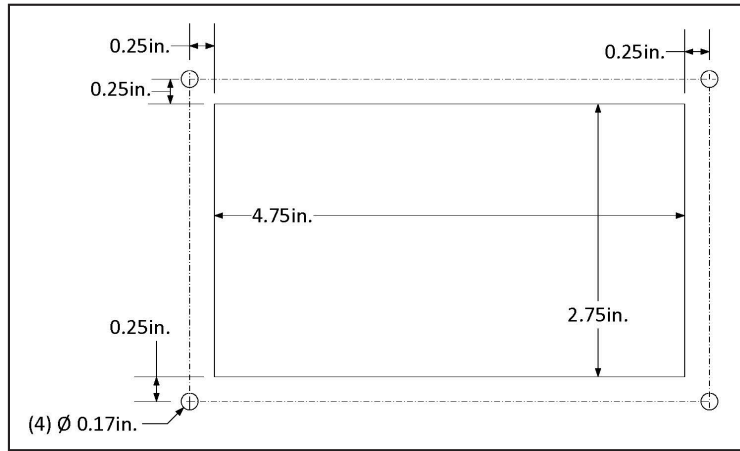


Figure 4 LCD Remote Mounting

Display Label Instructions

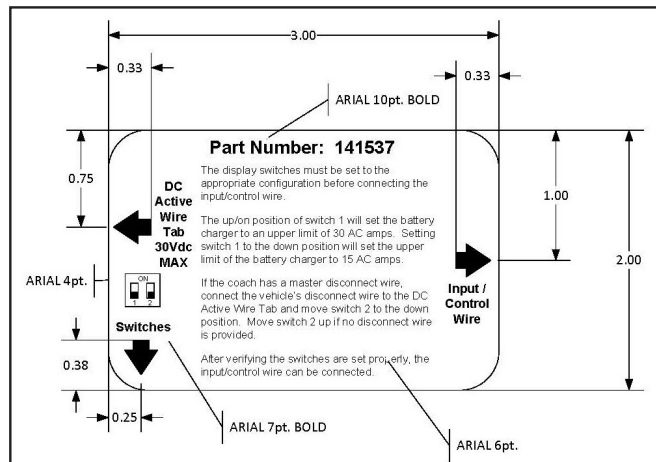


Figure 5 Label Instructions

LIMITED WARRANTY TERMS & CONDITIONS

SHIPPING TERMS: F.O.B. St. Paul Minnesota. Freight prepaid and billed, subject to prior credit approval.

MINIMUM ORDER: \$50.00 Net Price

LOSS OR DAMAGE: Loss or damage in transit are the responsibility of the carrier. Any claim should be filed with the delivering transport company. Invoice, Bill of Lading and Delivery receipt with damage noted therein must accompany any claims for freight damage. Claims for shortage and lost shipments must be made in writing to Sensata Technologies within 10 days of date of shipment. Claims not reported within this time frame will not be honored.

PRICES: Prices are subject to change without notice. All orders are subject to acceptance at the factory. We reserve the right to invoice prices in effect at time of shipment.

TERMS: Net 30 days with approved credit, credit card or C.O.D.

RETURN GOODS POLICY:

- No returned materials will be accepted without an accompanying Returned Materials Authorization Number (RMA) from the factory.
- Credit will be issued for returned goods to the original purchaser within 60 days of purchase, provided the inverter is returned to Sensata unused and not mounted. The amount of credit will be issued at Sensata's discretion based on the condition of the product.
- Customer must be in good standing with Sensata Technologies.
- Inverters that are discontinued, high-voltage (over 24 VDC), special-order or reconditioned are excluded and will not be eligible for credit. Non-inverter items such as cable assemblies, fuses and fuse holders, will not be eligible for credit
- Support components supplied by Sensata vendors will be covered under that manufacturer's credit return policy.
- Customer pays return freight.

PLEASE SHIP AUTHORIZED RETURNS TO:

Sensata Technologies RMA# _____, 4467 White Bear Parkway, St. Paul, MN 55110. Return Freight Prepaid.

LIMITED WARRANTY:

Sensata Technologies extends the following warranty to the original purchaser of those goods subject to the qualifications indicated. Sensata warrants to the original purchaser for use that the goods or any component thereof manufactured by Sensata will be free from defects in workmanship from the date of purchase for the period listed on the product label, provided such goods are installed, maintained and used in accordance with Sensata and the original manufacturer's written instructions. Damages caused by the misuse, undue care or obvious wear through use will not be covered by this warranty.

Components not manufactured by Sensata, but used within the assembly provided by Sensata, are subject to the warranty period as specified by the individual manufacturer of said component, provided such goods are installed, maintained and used in accordance with Sensata and the manufacturer's written instructions.

Sensata's sole liability and the Purchaser's sole remedy for a failure of goods under this limited warranty and for any and all claims arising out of the purchase and use of the goods shall be limited to the repair or replacement of the goods that do not conform to this warranty.

SENSATA RETURN PROCEDURE:

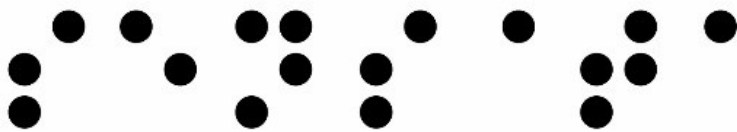
To obtain repair or replacement service under the limited warranty, the purchaser must contact the factory for a Return Material Authorization (RMA) Number. Once obtained, send the RMA Number along with the defective part or goods to:

Sensata Technologies RMA# _____, 4467 White Bear Parkway, St. Paul, MN 55110. Return Freight Prepaid.

THERE ARE NO EXPRESS WARRANTIES COVERING THESE GOODS OTHER THAN AS SET FORTH ABOVE. THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE LIMITED IN DURATION TO ONE YEAR FROM DATE OF PURCHASE.

SENSATA TECHNOLOGIES ASSUMES NO LIABILITY IN CONNECTION WITH THE INSTALLATION OR USE OF THE PRODUCT, EXCEPT AS STATED IN THIS LIMITED WARRANTY. SENSATA TECHNOLOGIES WILL IN NO EVENT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.

WARNING: LIMITATIONS ON USE: DIMENSIONS™ brand products are not intended for use in connection with Life Support Systems and for Avionic use. Sensata Technologies® makes no warranty or representation in connection with their products for such uses.



Sensata

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The World Depends on Sensors and Controls

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LCD Remote Manual