# CAUTION! *PLEASE READ!*

INSTALLATION AND PROGRAMMING THE VOLTAGE/CAPACITY METER

Tools Required

- Box cutter
- Wire cutter/crimper
- Clear Silicone or Super Glue

Universal Applications

The XSP-VM Battery Monitor can be used to monitor any battery or array of batteries regardless of the type or voltage. The easy to program monitor can be used to display the voltage and capacity of lead-acid batteries (PB), lithium iron phosphate batteries (LFP), and lithium titanate oxide batteries (LTO). The XSP-VM can easily be mounted in a dashboard, axillary panel or any location that is convenient. By extending the wire leads, (not Included) the XSP-VM can be mounted anywhere. Just follow the instructions below for programing to get started.

3400/1600 Series Batteries
DISCARD
SAVE   SAVE
DISCARD
3100 Series Batteries
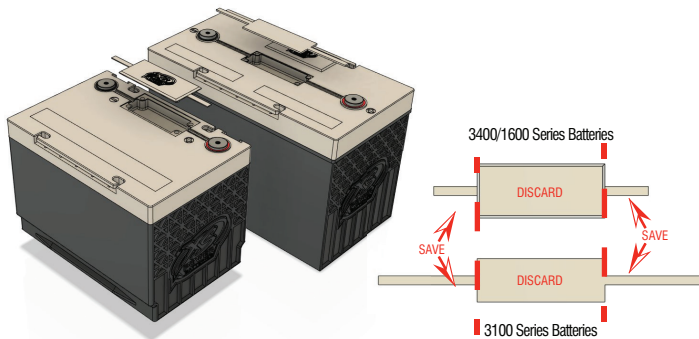
Specialty Applications

The XSP-VM can also be directly installed in a select number of XS Power products. It was specifically designed to nest in the electronics cavity in the 1400, 1600, 3400 and 3100 series battery housings. This includes AGM, Lithium, and Super Capacitor based products sold after May 2019 using this new housing style. For the 1400,1600, and 3400 series housings it is very simple to remove the logo plate and wire chase covers since they are not covered by the top label. On the 3100 series batteries it is a little more difficult since the cover plate and wire chase covers are in the center of the lid and covered by the top label. By carefully cutting along the seams the plastic cover can be removed without damaging the label. Once the cover plates are off, cut out the center section and save the narrow wire channel covers to re-use as shown in the illustration below.

* New top labels can be purchased by calling XS Power Customer Service

NOTE: Before completing the final assembly steps below, the meter must first be programmed while the back button is accessible. See programming steps below.

Insert the XSP-VM into the bezel supplied, and test fit with the wire chase cover strips. Once the desired fitment is achieved, the plastic parts can be permanently glued in place or they can be left loose if preferred.

The following diagram and text will familiarize you with the programming procedure.
This meter can be set for AGM lead-acid batteries (Pb), Lithium Titanate Oxide batteries (LTO), and Lithium Iron Phosphate batteries (LFP). The meter has two (2) buttons, one on the front of the meter and one on the back of the meter.

Here are the other terms or symbols you will need to know to program the meter:

P	Represents AGM Batteries(Pb)
L	Represents Lithium Titanate Oxide Batteries(LTO)
F	Represents Lithium Iron Phosphate Batteries(LFP)

BATTERY TYPE	PROGRAM CORRESPONDING NUMBER
AGM Batteries(Pb) (Default Setting)	P06=12V, P07=14V, P08=16V, P012=24V......P24=48V
Lithium Titanate Oxide Batteries(LTO)	L5=12V, L6=14V, L7=16V, Batteries in series L10=24V etc.
Lithium Iron Phosphate Batteries(LFP)	F4=12V, F5=16V, Batteries in series F8=24V etc.

Connect the positive lead to the positive terminal of the battery. While holding the button on the back connect the negative lead to the negative terminal of the battery. The meter will now be on and in the programming mode.

Program Battery Type

To change the battery type: Press the Button on the back.
When proper battery type has been selected press the Front Button.

To change the program value: Press the Front button to increase the value, and Back button to decrease the value. When the proper program values have been selected you may exit programing mode by disconnecting the wire from the negative terminal.

Program "SET" Functions

Press and hold the front and back buttons at the same time to continue into the "S" Function Mode:
When you have entered the "S" function mode the screen will display S - 1 and the dash will be flashing. To turn S-1 on/off press the Back button.

To switch to S-2/S-3 etc press the Back Button:
Cycle through all five settings until you have them either on or off depending on your preference. When finished with the "S" functions disconnect the power to exit programming mode. When meter is re-connected to power it will function as programed. When meter is off just press the Top button to turn on.

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METER READOUT IN PROGRAMMING MODE(AGM 12V Shown)

ON/OFF INDICATORS
P06
S-1
S-2
S-3
S-4
S-5
PROGRAM NUMBER
BATTERY TYPE P/L/F
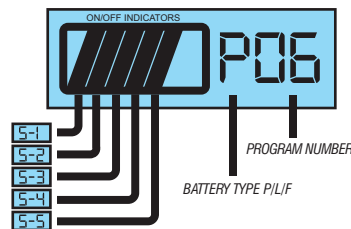
When you enter programing mode the P/L/F will be flashing.

* Use LTO mode to use with capacitor banks

"S SET" PROGRAMS (When bar is visable, function is on)
S-1 = Cycles voltage and capacity every 2 seconds.
S-2 = Display automatically goes to sleep after 10 seconds.
S-3 = Screen Back light on/off when meter is turned on.
S-4 = NO FUNCTION
S-5 = NO FUNCTION

When the slash mark is visible, the selected function is "ON".

* When using with SuperBANKS, use LTO mode and the L5 setting for 12V setups, L6 for 14V setups, and L7 for 16V setups.

⚠ PROP 65 WARNING: This product can expose you to chemicals including lead and lead compounds, which are known to the State of California to cause cancer or birth defects or other reproductive harm. Wash hands after handling.

For more information, visit www.P65Warnings.ca.gov