



EV WEST

How To Guide

SUBJECT: Recommended programing settings for TBS E-xpert Pro Battery Monitor used with Tesla 5.3 kWh modules	NUMBER: HTG-22-001
	DATE: December, 2022
	PRODUCT: E-xpert Pro Battery Monitor

PURPOSE

Certain default settings will need changed to give accurate information of your battery system.

AFFECTED PRODUCTS

E-xpert Pro Battery Monitor

Similar tbs electronics models may be affected.

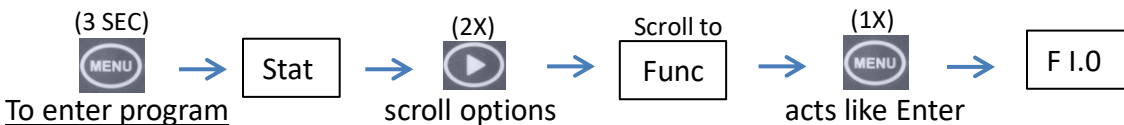
PROCEDURE

The E-xpert Pro requires two additional components to work in high voltage systems. A prescaler is used to reduce the HV voltage by a factor of 1:5 that is safe for the gauge. A replacement shunt rated for 600A and 50mV will need to be installed. (the shunt included with the E-xpert Pro will NOT be used) The simplest wiring diagram to follow is included in the prescaler.



FUNCTION SETUP MENU

Since the gauge is wired directly to the battery, set up can be done with the key on or off. Also note display readout is always on but uses very little energy. The backlight can be changed, we use AU which will only illuminate with activity.



Want to change function value? (1X) MENU value displayed, use (1X) right arrow to change, then (1X) MENU to save .

Want to skip to the next function? (1X) right arrow The next available function will be displayed.

STEP # 1

The first battery monitor program setting needed identifies a prescaler is installed. F6.5 voltage prescaler is almost at the end of a long list. This setting **MUST** be done **FIRST** to give you the correct values for some other settings. This will give you a feel for how to make changes as they will all be similar. **Enter program** then **do this step first**.

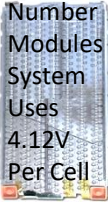


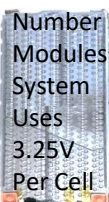
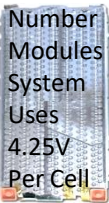
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Some settings you will need to know the total number of modules in your system. It does not matter if they are split between the front and back of the vehicle.

HTG-22-001

F 1.0	x3	74.2V
 Number Modules System Uses 4.12V Per Cell	x4	98.8V
	x5	123.6V
	x6	148.3V
	F 1.1	2.2%
F 1.2	15sec	
F 1.3	20%	
F 1.4	N/A	+20°C
F 1.5	N/A	1
F 1.6	5	
F 2.0	20%	
F 2.1	Use F 3.0 Value	
F 2.2	25%	
F 2.3	10sec	
F 2.4	N/A	0:00
F 2.5	N/A	-:--
F 2.6	OFF	

F 3.0	x3	58.5V
 Number Modules System Uses 3.25V Per Cell	x4	78.0V
	x5	97.5V
	x6	117.0V
	F 3.1	10sec
F 3.2	OFF	
F 3.3	N/A	10.5V
F 3.4	N/A	10sec
F 3.5	OFF	
F 4.0	x3	76.5V
 Number Modules System Uses 4.25V Per Cell	x4	102.0V
	x5	127.5V
	x6	153.0V
F 4.1	5sec	
F 4.2	[1]	
F 4.3	N/A	16.0V
F 4.4	N/A	5sec

F 4.5	OFF
F 5.0	5.3 kWh 180Ah
F 5.1	20h
F 5.2	20°C
F 5.3	OFF
F 5.4	1.00
F 5.5	OFF
F 5.6	100%
F 6.0	X.XX
F 6.1	600A
F 6.2	50mV
F 6.3	AU
F 6.4	NC
F 6.5	1-5
F 6.6	°C
F 6.7	0
F 6.8	0
F 6.9	OFF

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