

PS2420 LCD Display Operation

Use of an LCD Display, does not affect nor alter the charge process in any way. It only converts messages from what is otherwise a blinking LED into readable characters. Therefore, refer to the previous section for a description of a typical charge stage and reference the displayed LCD messages, below.

Menu Select Button:

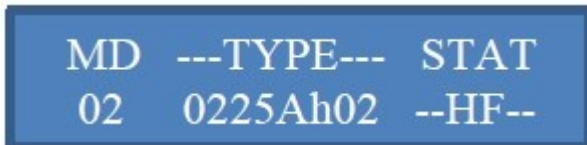
- Depressing and holding depressed this button for 10 seconds at power up, forces charger to insert the Equalization Stage into the charge algorithm regiment IF and only IF, that charge MODE selected, would allow it. After power up, and if switch is again held depressed for 10 seconds, the Equalization Charge Stage is toggled to OFF (de-asserted from the charge algorithm Regiment).
- If depressed for at least 1 second, but released less than 10 seconds, the menu display toggles up to the next incremental menu and stays active for approximately 30seconds before reverting back to the default menu in effect previously. You will know when the 1second period has been reached because the LCD Backlight will 'Blink'.

Five Menus are made available and are selectable via the Menu Select Button:

- Annunciation (Start Up) Menu
- Charge Status And Output Display
- Charge Status And Input Display
- Error Code Display
- Charge Status and Temperature Display

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NUNCIATION (START UP) MENU



Display shows (assume 24V Battery Charger):

- MD: MODE is annunciated as '2', MODE-2
- TYPE: Type is annunciating the battery type as:
 - 225 Ampere Hour Size
 - Battery Pack Class is '02' – Flooded Lead Acid
 - Refer to **Battery Type Class Table** for full list
- STAT: Status Identifier. Refer to **Status Identifier Table**

- This menu displays as the default menu during the initial 4 second power-on start up

Battery Type Class Table:

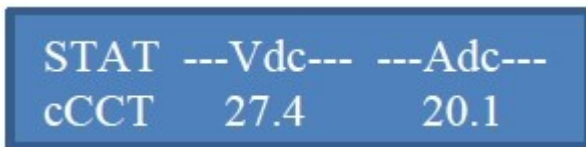
01: AGM Lead Acid Battery	02: Flooded Lead Acid Battery
03: GEL Lead Acid Battery	04: Pure Lead—Lead Acid Battery
05: Spiral Lead Acid Battery	06: Uncategorized Lead Acid
07: Lithium Based Battery	08: Molten Salt Based Battery
09: Nickel Based Battery	10: Organic Based Battery
11: Potassium Based Battery	12: Silicon Based Battery
13: Silver Based Battery	14: Sodium Based Battery

- Call

factory for additionally available algorithms developed for rechargeable chemistries that can be downloaded into a spare MODE.

CHARGE STATUS AND OUTPUT DISPLAY MENU

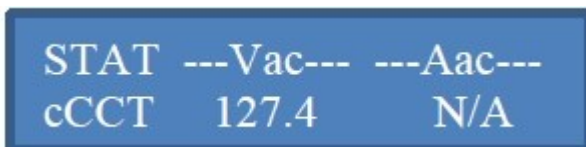
Display shows (assume 24V Battery Charger):



- STAT: Status Identifier. Refer to Status Identifier Table
- -Vdc-: Battery Voltage measured on the output leads
- -Adc-: Charge Current Output measured in amps
- This menu displays as the default menu during charging. The Status displays the current charge stage in effect—for example, cCCT is Bulk Constant Charge Stage.

CHARGE STATUS AND INPUT DISPLAY MENU

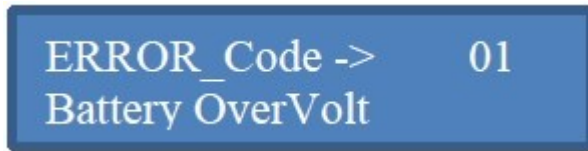
Display shows (assume 24V Battery Charger):



- STAT: Status Identifier. Refer to Status Identifier Table
- -Vac-: AC Voltage
- -Aac-: AC Amps
- This menu does not display as a default. It must be selected.
- Additionally, only the Vac is displayed and is for reference use by Tech Support. The value is not indicative of actual utility AC power.

ERROR CODE DISPLAY MENU

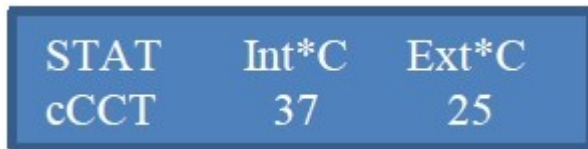
Display shows (assume 24V Battery Charger):



- ERROR Code: Refer to **LCD ERROR Code Table**
- Second Line: Brief Description of Error—Refer to Troubleshooting
- This menu displays as the default menu after an Error Condition has been reported.
- Additionally, the backlight flashes in an on-on-on-off pattern, repeatedly

CHARGE STATUS AND TEMPERATURE DISPLAY MENU

Display shows (assume 24V Battery Charger):



- STAT: Status Identifier. Refer to **Status Identifier Table**
- Int*C: Internal Charger Temperature in Celsius
- Ext*C: External Battery Temperature in Celsius
- This menu does not display as a default. It must be selected

STATUS IDENTIFIER TABLE

NoBt	No battery detected. AC is applied but output does not detect a battery or the battery could be severely discharged beyond the point of not being detected.
StBy	Standby Mode-Battery has been detected but AC power has not been detected
Paus	Pause-Charging is suspended. Typically used with Over-The-Air tech support where a command was send to “pause” operation
Acof MnTr Mode	AC is disconnected. Charger is in Monitor Mode and still connected to battery. This is an indicator that charging was completed but AC power was disconnected
cPQT	Pre-Qualification-Test charge stage in effect
cCCT	Bulk Constant Current charge stage in effect
cCPW	Bulk Constant Power charge stage in effect
cCVT	Absorption Constant Voltage charge stage in effect
cTOP	Top-Off Finish charge stage in effect
cEQU	Equalization charge stage in effect
cFIN	Charge complete and Float Maintenance Standby stage is in effect
cFTR	Float Maintenance Standby stage is in effect but entered with an advisory to check battery pack
ERRr	Charge Error detected—charging has stopped
WAIT	Waiting...
50Hz	50Hz Declaration—Product must use 50Hz utility power
60Hz	60Hz Declaration—Product must use 60Hz power
HF	HF or Hybrid Product Design Declaration
AC Drop Out	AC is disconnected - Remain in Monitor Mode until AC is restored. This indicators charging was terminated when AC power was disconnected.
TSTg	Testing product due to possibility of missing factory installed TestPassCode—the product is attempting to reconfigure itself from internally saved configuration data.