



LaMARCHE®

DIGITAL C.A.P. SYSTEM
(COMBINED ACCESSORY PACKAGES)

46E, 46J, 46L, 46P
OPTIONS

DESCRIPTION:

- ◆ LCD Display, indicates DC voltage, DC current (amps), timer mode, and equalize time remaining (hours)
- ◆ Electronic equalize timer
- ◆ Summary Alarm with / 2 Sets of Form "C" contacts – will alarm with any of the following:
 High Voltage, High Voltage Shutdown, Low Voltage one, Low Voltage two, Low Current, AC Failure
- ◆ AC Power Failure Alarm with 2 sets of form (C) contacts
- ◆ Low DC Voltage Alarm 1 and 2 Sets of Form "C" contacts
- ◆ Low DC Voltage Alarm 2 and 2 Sets of Form "C" contacts
- ◆ High DC Voltage Alarm and 2 Sets of Form "C" contacts
- ◆ Low DC Current Alarm and 2 Sets of Form "C" contacts
- ◆ High DC Voltage Shutdown and 1 Sets of Form "C" contacts
- ◆ Equalize / select mode switch used with Float/Equalize Light
- ◆ LCD Back light ON/OFF
- ◆ Alarm LED for all alarm conditions and High DC Voltage Shutdown

46E - For models A12B and A46 - All the above features.

46J - For models A12B and A97 - All the above features **except:**

Low DC voltage alarm 2 light only - no contacts

Includes Ground Detection Lights and 1 set of Form "C" contacts for Positive and Negative alarms

46L - For model A12B - All the above features **except:**

Low Voltage 2 used as Low Voltage Load Disconnect - will disconnect load from the battery at 1.75Vpc (5% differential)

Low Voltage 2 has 1 set of Form "C" contacts

46P - For model A12B - All the above features **plus:**

An audible alarm wired to (1) set of the Summary Alarm Contacts

A silence switch is also provided

ECN/DATE

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INSTRUCTION DRAWING NUMBER:

P25-**LOPT46SERIES-1**

OPERATION

Once the proper AC input and battery are connected to the system, the digital display will indicate the system DC Output Voltage and Output Current. Pushing the "UP" button changes the display.

The following items can be checked:

- **AUTO EQUALIZE TIMER MODE**
- **AUTO EQUALIZE OFF/ON**
- **EQUALIZE TIME**
- **AC ALARM**
- **LOW VOLTAGE 1 ALARM**
- **LOW VOLTAGE 2 ALARM**
- **HIGH VOLTAGE ALARM**
- **HIGH VOLTAGE SHUT DOWN ALARM**
- *NOTE: To reset the HVSD Alarm, push the LMC Logo on the membrane panel.*
- **LOW DC CURRENT ALARM**
- **SUMMARY ALARM**

ALARM IDENTIFICATION:

If the alarm condition occurs (Alarm LED ON) the specific failure can be identified by using the UP button to scroll thru each alarm setting, FAIL on the display will indicate which alarm is ON.

This alarm package is shipped with the following factory settings, unless otherwise specified.

Note: All alarm contacts are factory set for 5 seconds except the high voltage contacts, they are set for 20 seconds.

- Low DC voltage (1): 1.98 Vpc Lead-Acid
- Low DC voltage (2): 1.98 Vpc Lead-Acid
- High DC voltage : 2.45 Vpc Lead-Acid
- High DC voltage shutdown (HVSD): 2.5 Vpc Lead-Acid
- Low DC current: .5 A
- Timer mode: Mode 0
- Equalize Time: 8 Hours

NOTE: See schematic within manuals for customer alarm contacts. All contacts are dry "Form C".

Contact Data:

LOAD	RESISTIVE LOAD (p.f. = 1)
Rated load	0.60va at 120Vac 2A at 30Vdc
Contact material	Ag(Au clad)
Carry current	2A
Max. operating voltage	125Vac 125Vdc
Max. operating current	2A
Max. switching capacity	62.50Va 60W
Min. permissible load	10uA, 10mVdc

To check or reset the Alarm Settings, push the "UP" button for 1 second then at the same time push the "MODE" button for 5 seconds. The display will read CUSTOMER CAL.. Push the "MODE" button to change the display to the next desired setting. To raise the setting, use the "UP" button, to lower use the "DOWN" button.

TIMER MODES

NOTE: IN ALL MODES, THE UNIT WILL RETURN TO FLOAT IF THE EQUALIZE SWITCH IS PUSHED.

MODE 0

DISPLAY indicates P00

This is the standard timer mode. If the "EQUALIZE" switch is pushed the timer will switch the charger into the equalize mode and the equalize "LED" will indicate. The timer will automatically return the charger to the float mode when the equalize cycle is complete.

MODE 1

DISPLAY indicates P01

This mode of operation automatically starts an equalize cycle every 7 days after. The length of this cycle is again determined by the timer setting. After the equalize period the timer will wait for another 7 days and then restart.

MODE 2

DISPLAY indicates P02

This mode of operation automatically starts an equalize cycle every 14 days. The length of this cycle is again determined by the timer setting. After the equalize period the timer will wait for another 14 days and then restart.

MODE 3

DISPLAY indicates P03

This mode of operation automatically starts an equalize cycle every 30 days. The length of this cycle is again determined by the timer setting. After the equalize period the timer will wait for another 30 days and then restart.

MODE 4

DISPLAY indicates P04

This mode of operation automatically starts an equalize cycle when the DC voltage drops below the low voltage setting for 30 seconds or longer. The battery voltage must rise approximately 8% above the low voltage set point.