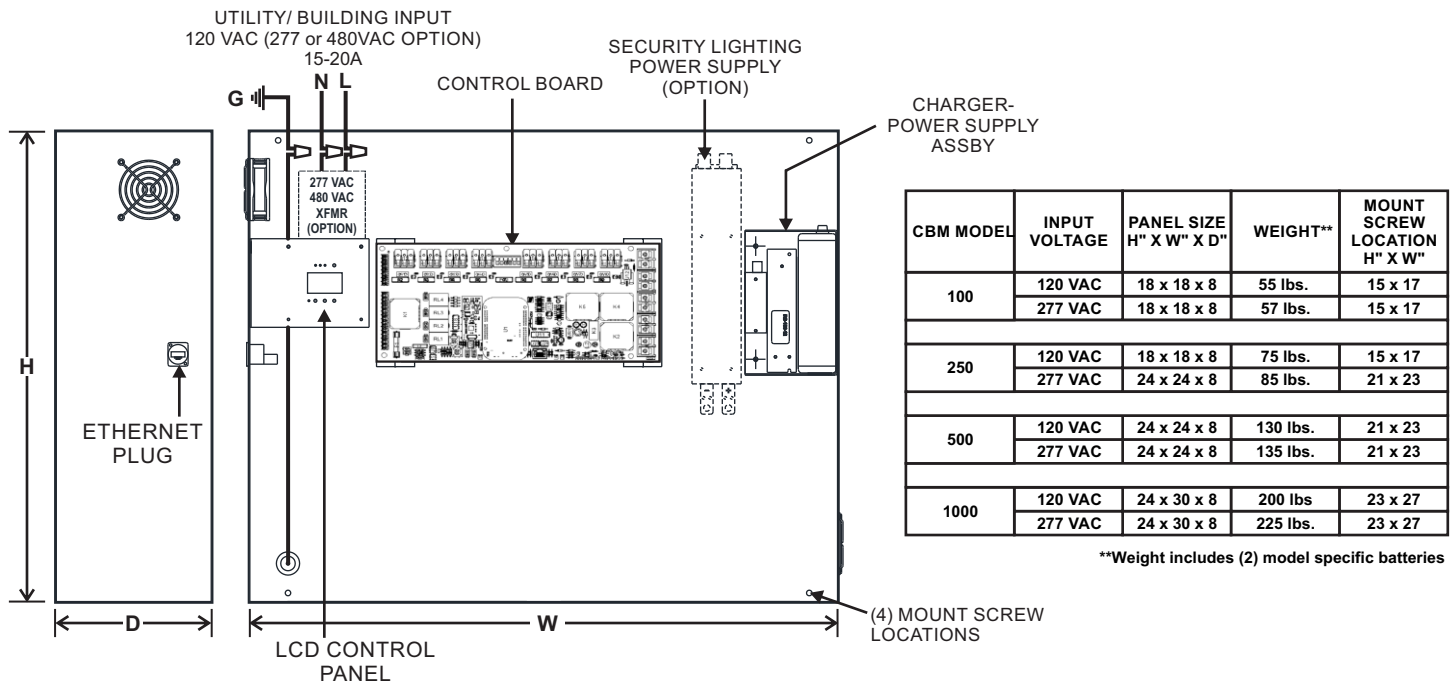


Installation Instructions & Users Manual



A) PANEL INSTALLATION & AC INPUT WIRING

Refer to **CIRCUIT LAYOUT** and **CIRCUIT LOAD SCHEDULE** for project, if available.

NOTE: This device is a storage battery system for emergency lighting, as described in NEC Section 700.9 and includes Feeder Circuit Equipment. Para (D)(2) of this section states that such equipment should be installed in spaces which are either fully protected by an approved automatic fire suppression system (including sprinklers, carbon dioxide or equivalent systems), or in spaces with a 1-hour fire resistance rating.

- Note the size and weight of panel above. Measure mount screw locations and Install (4) screw anchors at the locations required, on a suitable vertical surface. The preferred mounting height should allow easy access to the panel door for access to internal batteries.
NOTE: Screw anchor size should be rated for The complete panel weight shown.
Mount Panel Assembly in position.
- Make cutouts for required emergency branch circuit connectors in top surface of enclosure above three-conductor terminals provided. Up to eight (8) three- conductor circuits are available. See Page 4.
- Secure panel enclosure in position on mounting surface. Install AC wiring from Utility and Generator Standby services as shown, and connect to labeled wiring connections or transformer terminals, as required, using standard wire nuts. Input AC wiring size should be rated for maximum VA power loading for both utility and security lighting services.
- Connect earth GROUND circuit to screw terminal provided in base of enclosure.

IMPORTANT SAFEGUARDS READ AND FOLLOW ALL SAFETY INSTRUCTIONS

- Disconnect AC power before servicing.
- Refer to wiring diagram for proper connections.
- All servicing should be performed by qualified personnel.
- Consult your local building code for approved wiring and installation.
- Do not use outdoors.
- Do not use this equipment for other than intended use.
- Do not let power cords touch hot surfaces.
- Mount and secure the fixture at a location and height to avoid ready access and tampering by unauthorized persons.
- The use of accessory equipment is not recommended by the manufacturer and may cause an unsafe condition.

SAVE THESE INSTRUCTIONS

B) BATTERY INSTALLATION

- CAUTION!** Only qualified service personnel such as a licensed electrician should perform the battery and DC wiring installation. Always use insulated tools when you work with batteries.
- Full voltage and current are always present at the battery terminals. The batteries used in the system can produce dangerous current and may cause severe injury if the terminals are shorted together or to ground (earth). Do not touch uninsulated battery terminals or contact terminals with a metal object that could short to dead metal or any exposed electrical terminal or component, which could damage equipment and void manufacturer's warranty.
- See figure 2 Page 3. Place batteries in base of enclosure with positive and negative terminals in the positions shown below. Connect wiring to battery terminals. Each wiring harness is numbered 1 thru 4 to match positive and negative battery terminals. Do not reverse polarize any terminal.

NOTE: With AC supply OFF, the system will be in emergency mode when all battery terminals are connected. LCD display will activate (blank) and emergency output terminals will be live 24 VDC.

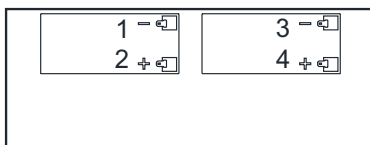
- If batteries are fully discharged under load and AC supply remains OFF, disconnect batteries by removing one battery terminal, until AC supply is ON. Microchips controlling timers on the main circuit control board draw a small continuous current, which can cause deep discharge after an extended period, especially if ambient temperatures are above normal.*

BATTERY SPECIFICATIONS

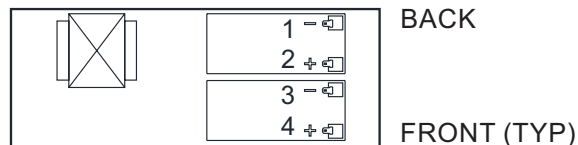
CBM OUTPUT POWER (WATTS)	BATTERY P/N	CAPACITY (AMP-HR)	DIMENSIONS L x W x D (INS)	TERMINAL TYPE
100	UB1280	8	5.9 x 2.6 x 3.7	F1
250	UB12260	26	6.6 x 6.9 x 5.1	M6 NUT/BOLT
500	UB12500	50	7.7 x 6.5 x 6.9	M8 NUT/BOLT
1000	UB121000	100	12.9 x 6.8 x 8.6	M10 NUT/BOLT

TOP VIEW IN ENCLOSURE

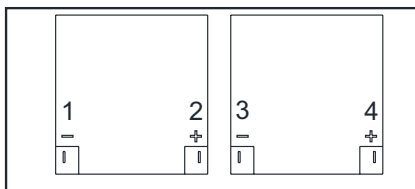
CBM100



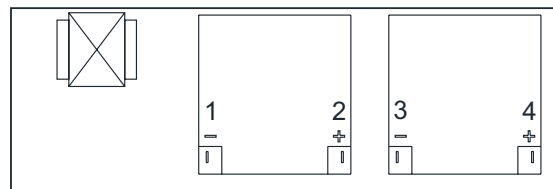
CBM100-277



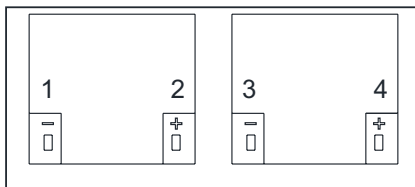
CBM250



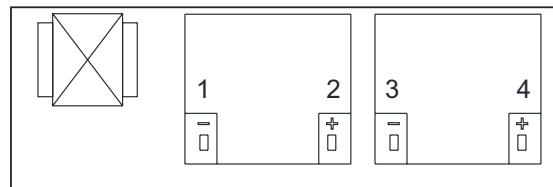
CBM250-277



CBM500



CBM500-277



CBM1000 / CBM1000-277

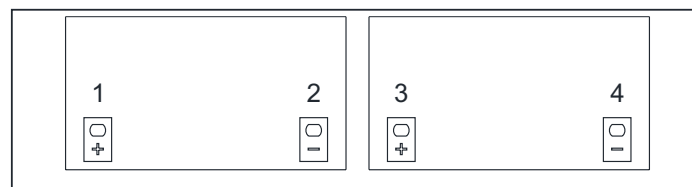
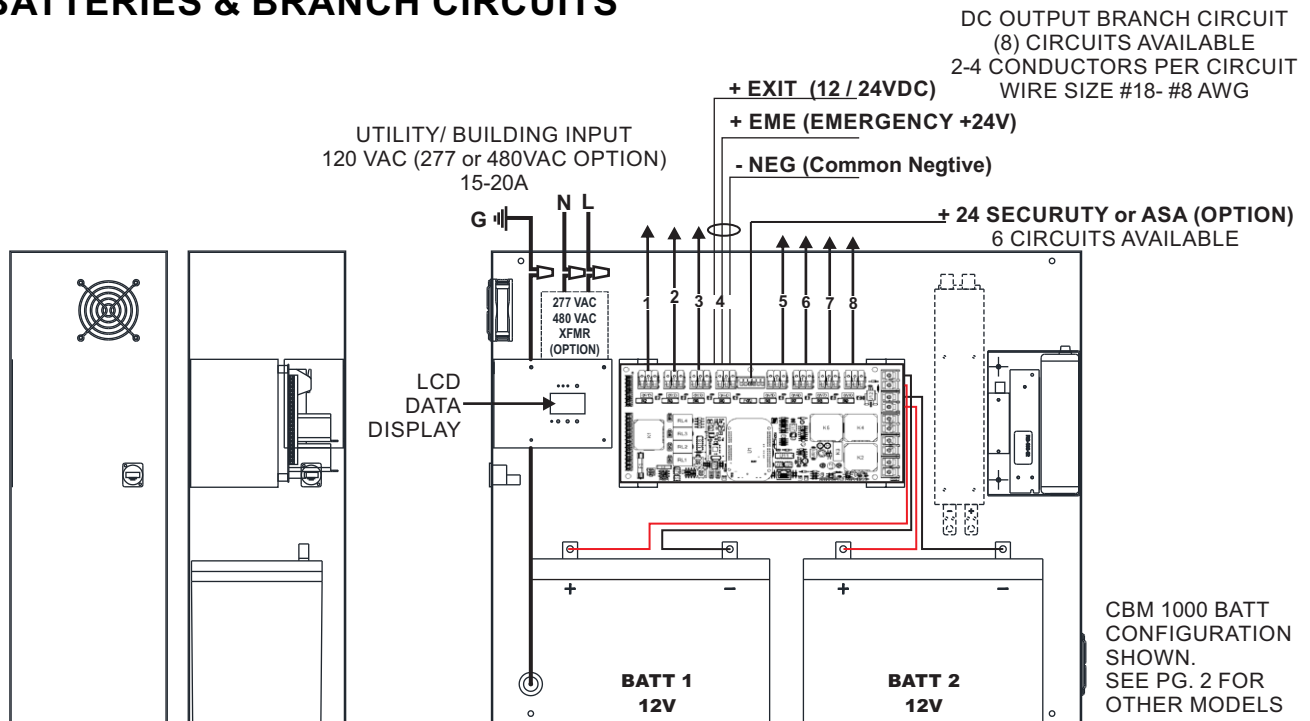


Fig. 2. BATTERIES & BRANCH CIRCUITS



A) INITIAL SYSTEM TEST

1. **Turn Building AC supply ON:** Ensure all AC connections are complete and turn building AC supply ON. Following 1-2 minutes delay for system to boot, LCD should show SYSTEM SERIAL NUMBER. Voltage between COMMON NEGATIVE and EXIT/CVRE output should read 12VDC \pm 1V.



STARTUP LED indications:

AC LED: ON Steady GREEN
CHARGE LED: Flashing GREEN
FAULT LED: OFF.

2. **Flashing CHARGE LED indicates batteries are actively charging. FULL charge requires 10-12 hours, after which LED will indicate steady GREEN. ALLOW SYSTEM TO FULLY CHARGE BATTERIES.**

NOTE: MONTHLY AND ANNUAL TEST will not activate until system confirms full charge.

3. **Building AC Supply OFF(Emergency):** With voltage meter set to 12-24VDC range, measure voltage between marked outputs on terminal connectors. Emergency voltage between COMMON NEGATIVE and EMERGENCY (RED) should read 24VDC \pm 2V (voltage will be in lower range when batteries are not fully charged). Voltage between COMMON NEGATIVE and EXIT/CVRE output should also read 24VDC \pm 2V.

NOTE: Under NO LOAD conditions, voltage may find across EMERGENCY and EXIT outputs. This is caused by inductance from DC power supplies when no current is present.

D) EMERGENCY BRANCH CIRCUIT INSTALLATION & FINAL SYSTEM SETUP

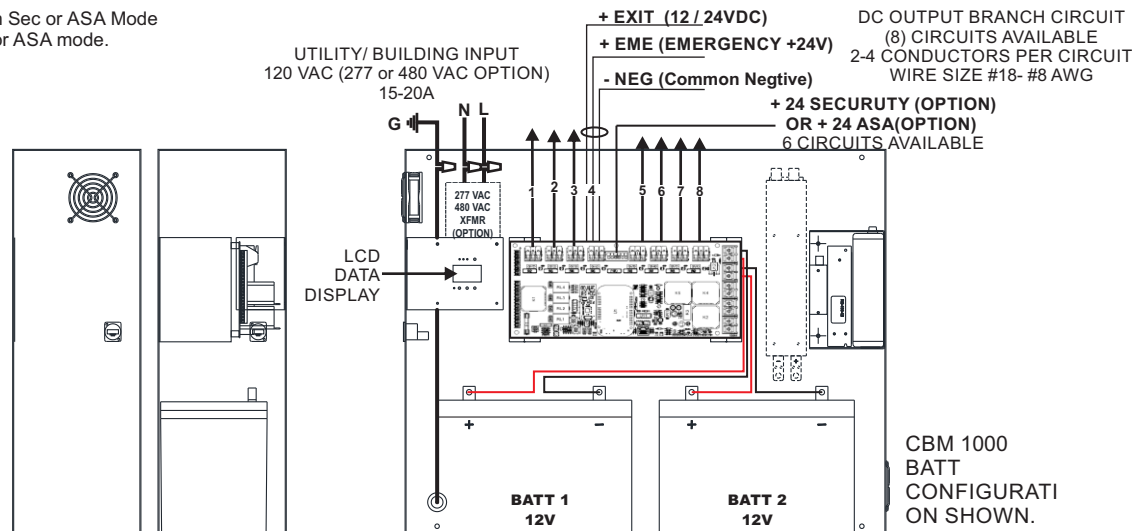
OUTPUT CIRCUIT WIRING:

EIGHT (8) 3-CONDUCTOR SNAP TERMINALS PROVIDED FOR AWG#18 TO AWG #8 CONDUCTORS
See CIRCUIT LOAD SCHEDULE for required wire size on project. See FIXTURE INSTRUCTIONS fixture wiring

OPERATION	CONDUCTORS PER BRANCH	SYSTEM COLOR CODE	OUTPUT VOLTAGE
EM FIXTURES ONLY	2	RED, BLACK	24VDC
EM FIXTURES, EXITS, & SEC ¹ or ASA	4	RED, BLACK, YELLOW, BLUE	12-24VDC
EM FIXTURES, EXITS, SELECTED SEC or ASA MODE ²	4	RED, BLACK, YELLOW, BLUE	12-24VDC

¹All EM Fixtures Operate in Sec or ASA Mode

²Selected fixtures in SEC or ASA mode.



1. Check project specifications for wire size (18AWG to 8AWG) and number of conductors (standard 3 conductors: optional 4 conductors when SEC terminal installed). Install up to eight (8) branch circuits into CBM panel enclosure and connect to 3-wire snap terminals.

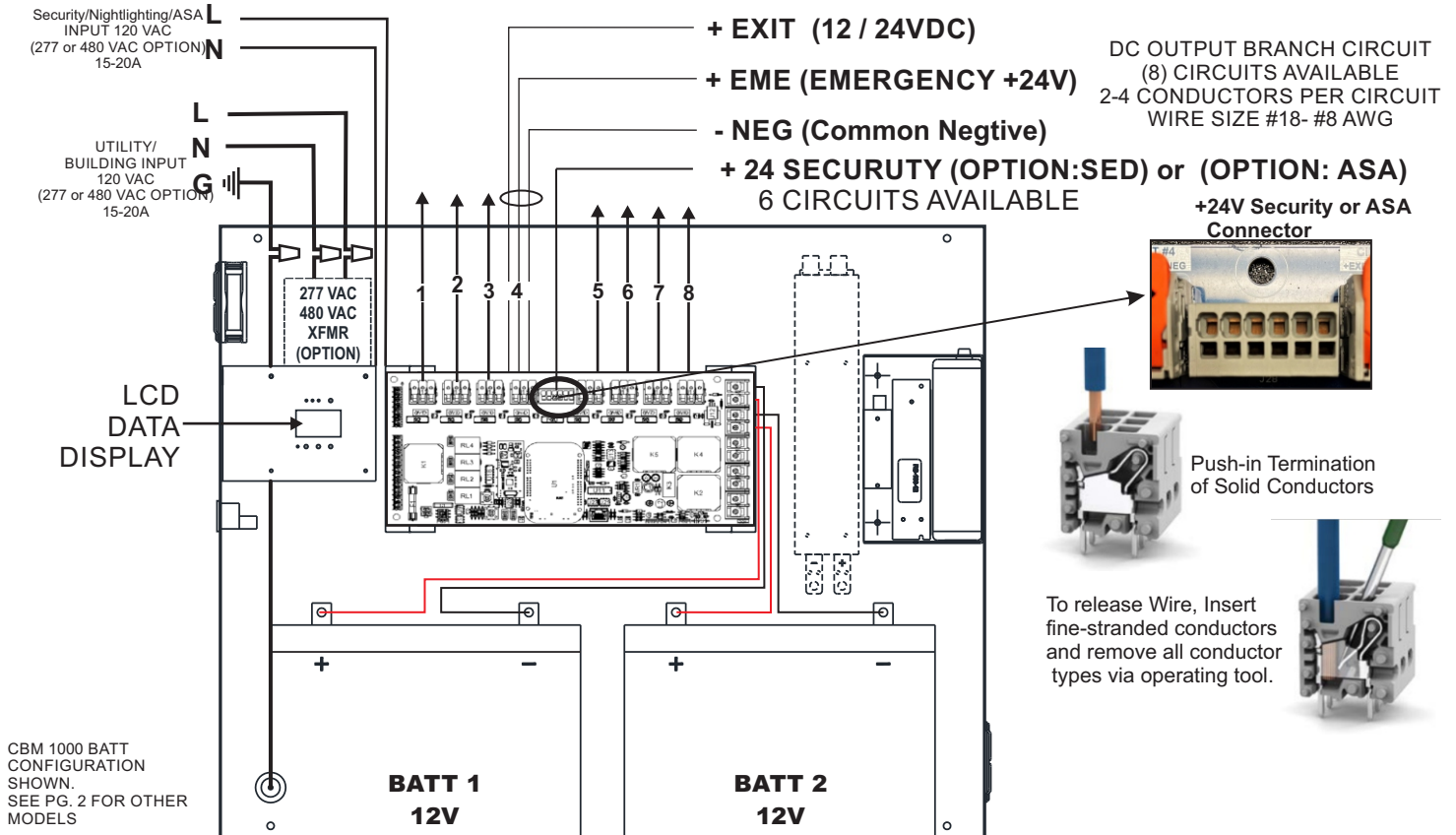
NOTE: Maintain color codes on each circuit from Panel to fixtures. Cross connection between any of the four conductors will cause improper operation or failure of components. Run continuity checks to confirm wiring prior to next step.

2. **ALLOW SYSTEM TO CHARGE FOR 12 HOURS MINIMUM BEFORE NEXT STEP.**
3. Scroll to ANNUAL TEST screen and momentarily press button marked to activate. System will remain in EMERGENCY MODE for 90 minutes unless RESET.
4. Inspect all fixtures and confirm all operate correctly in emergency mode. With all emergency luminaries confirmed operating, **DATUM LOAD CURRENT** may be set.
5. Locate a push button on the lower left side of the main Control Circuit Board marked **DATUM**. Press and release the button to set the initial **DATUM LOAD CURRENT**.
6. To stop Annual Test, remove any battery terminal or turn OFF AC power supply.
7. See Page10 and refer to the MONITOR page of the MARS report. The total load current is listed under bc xxx (VALUE). Refer to the Circuit Load Schedule to obtain the total design load on each CBM panel in watts, value "W".

a. Total Load Current (Amps) = $W \div 24V$

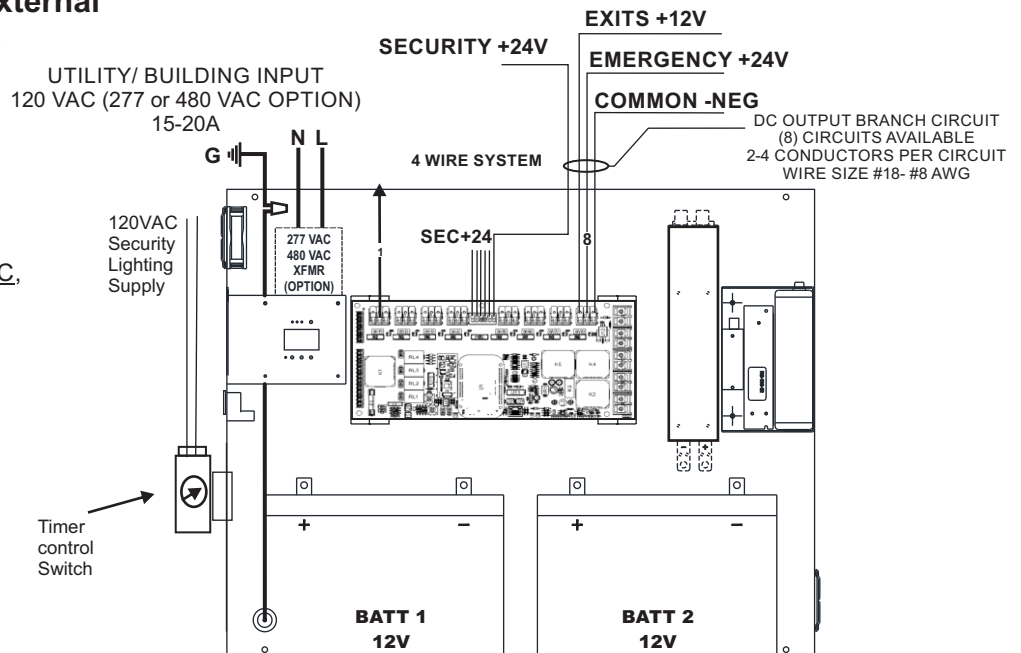
b. This value should be within 10% of the value shown on the MONITOR page of the MARS report system.

E) Selected Security / Night Lighting / ASA 4 Wire System- OPTION: SED or ASA



2. Security Lighting With External Switch Or Timer Control.

NOTE: IF EM SUPPLY IS 120 VAC,
THIS CIRCUIT CAN ALSO FEED
TIMER CONTROL SWITCH.
IF EM SUPPLY IS 277 VAC,
TIMER CONTROL REQUIRES
SEPARATE CIRCUIT.



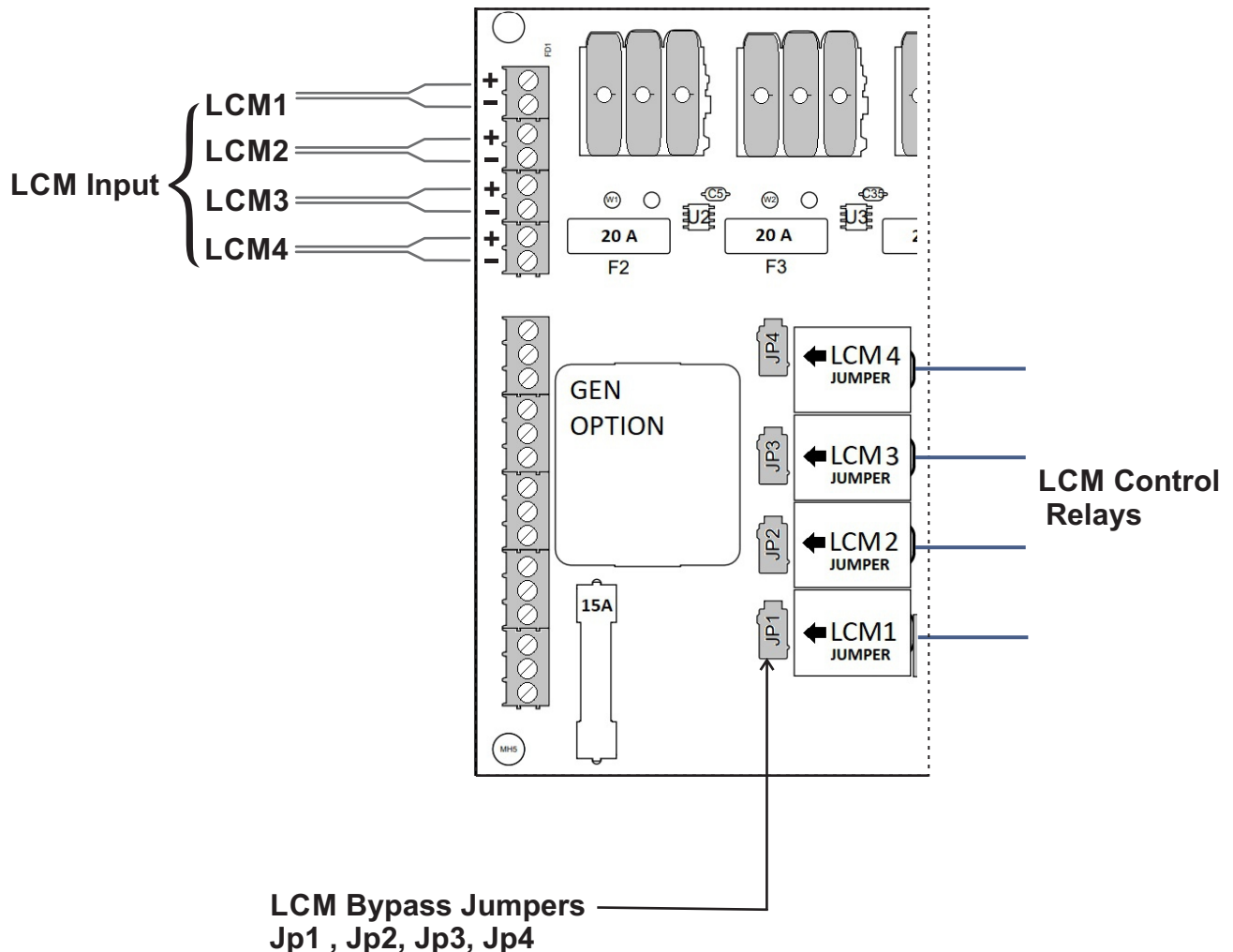
Connection to Local Branch Circuit Monitor Panel(s), Series LCM

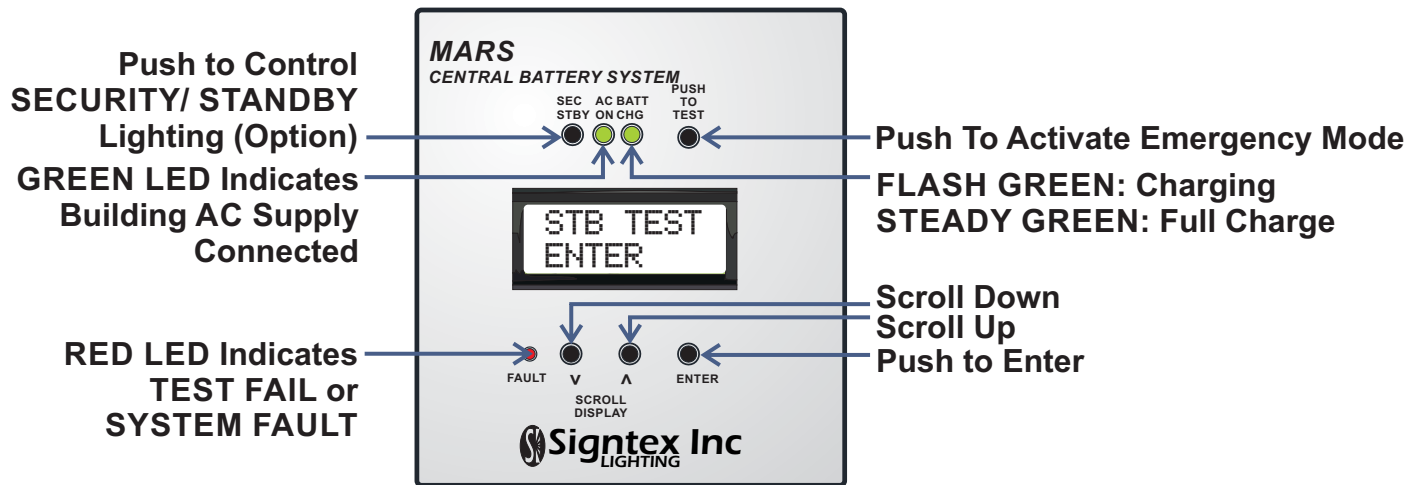
(Refer to LCM Instructions for complete details)

The LCM monitors the status of up to eight (8) AC branch lighting circuits supplying general lighting in the same areas or zones covered by emergency lighting supplied by the CBM panel which is connected to the LCM via a 12 or 24V activation circuit. If any monitored circuit breaker is opened, AC supply is disabled to the LCM, which will switch OFF the DC output to control relay installed in the CBM panel, causing the CBM to activate all emergency lighting fixtures connected to that panel.

Note: Up to four (4) LCM inputs may be connected to the CBM. *To activate a LCM Control Relay, REMOVE the Bypass Jumper for that Relay. See diagram below.*

LCM Wiring










System Displays in Sequence

<u>Display</u>	<u>Description & Operation</u>
	Exclusive 8 digit Serial Number appears after approx. 1-2 mins system boot up
	Terminal voltage Battery Number 1
	Terminal voltage Battery Number 2
	Charge current
	Battery temperature, degrees Celsius
	System IP address when connected to a network.

FAULT Displays: STATUS LED RED

Display	Description & Operation
	Load current and power changed by >10% of datum
	Relay fails to transfer connected load to batteries
	Charge current low
	Battery below 10.5V
	Clear all Faults. (Press Enter to Clear)

Setting Load Current






The system continuously monitors connected load current in emergency mode and is programmed to detect any change greater than 10% compared to the initial reference or DATUM value, the current flowing when all connected fixtures are operating in emergency mode. This value is entered into the memory using the following procedure:

- (1) Ensure batteries are fully charged.
- (2) Initiate emergency mode either by activating the ANNUAL TEST screen, or by turning AC power supply OFF or by holding Push to test button.
- (3) Confirm that all connected emergency fixtures are operating correctly in emergency mode. With all emergency luminaries confirmed operating, Locate the push button on the lower left side of the main Control Circuit Board marked **DATUM**. Press and release the button to set the initial **DATUM LOAD CURRENT**.

Manual initiation of TEST Schedule

In normal operation the required diagnostic tests are automatically scheduled, but tests can also be initiated by the user through the display screen menus if desired. When a test is activated, the display will show **"RUNNING"**. When test is finished it will show **"COMPLETED"**.

If another test is in progress, the requested test will be postponed until the current test is finished and the LCD will show **"REQUESTED"** in the menu. During a test, if AC power is lost or the batteries are disconnected during a test, the display will show **"ABORTED"** in the second line of the menu. NOTE: Full tests are only available when batteries are fully charged. See the BATT CHG LED for charging status. The user can also activate emergency lighting anytime by pressing the PUSH TO TEST switch. Emergency mode will continue as long as the switch is held down.

Display	Description & Operation
	Run brief test (approx. 8 secs) of battery, charger and transfer relay; no load test is conducted
	Full Monthly Test (min 30 secs all functions)
	Full Annual Test (min 90 mins all functions) Activates
	Turns optional SEC operation ON
	Turns optional SEC operation OFF

DIAGNOSTICS OPERATION

Turn AC power ON. Following 1-2 minutes delay LCD should show the system Serial Number.

The LEDs indications will show the following:

LED NAME	STATUS	FUNCTION
SEC/ STBY	Steady yellow	SEC Power ON
SEC/ STBY	LED OFF	SEC Power OFF
AC ON	Steady Green	AC Power ON
AC ON	LED OFF	a. AC OFF (Emergency) b. Annual test Running c. Monthly test Running
BATT CHG	Steady Green	
	Flash	Battery Charging
BATT CHG	Steady Green	Battery Fully charged
BATT CHG	LED OFF	Failed charger
FAULT	Steady RED	Transfer Failed Charger Failed Battery Failed Load impedance change
FAULT	Steady RED	
	Flash	Failed TESTS
FAULT	LED OFF	NO Fault

The Standard CBM system will automatically perform the following Monthly and annual system tests:

30-DAY TEST WITH 30 SECOND MINIMUM OPERATION:

Every 28 days from initial startup of the system, the controller will generate a REPORT and email results for the following four functions.

Battery terminal voltage on each battery
Transfer Switch operation
Battery charge Rate
Connected load impedance

ANNUAL TEST WITH 90 MINUTE FULL LOAD OPERATION

12 months from the date of installation, an annual test is required by initiating full operation of the emergency load for 90 minutes, in compliance with NFPA Life Safety Code 101. Upon completion of the annual test, if NO FAULTS are detected the system will reset automatically. If a FAULT is detected, repair or replacement is required and the system will require a RESET PROCEDURE (see below).

NOTE: To avoid operation of emergency lighting at potentially undesirable times, automatic operation can be disabled by specification of Option "NAT", as designated in the Model Number Label. If such option is supplied, the annual test must be activated manually. See page 8.

STANDBY AND PUSH TO TEST

STANDBY test can activate anytime from user. System will generate a REPORT of batteries and charger status in standby mode but NO LOAD and TRANSFER test conducted with this test.

Push to test can also activate anytime from user by pressing push to test switch. Emergency will continue as long as the switch is held down.

RESET PROCEDURE

Disconnect battery terminal#4
Turn AC power OFF Wait 5 seconds
Turn AC power ON Reconnect the battery terminal.

TESTING OF CONNECTED LOADS

Lamps in all emergency lighting fixtures connected to the CBM panel may be tested at any time by depressing the PUSH TO TEST button located on the LCD control panel, causing each fixture to operate in emergency mode as long as the button remains depressed. Lamps can be checked visually during this period. Alternatively; (a) AC power to the panel may be interrupted by qualified personnel to allow a comprehensive check by one person of all connected loads, or (b) the Annual Test may be activated as described above.

TROUBLESHOOTING FAULT CODES

30 day Test or Annual Test FAIL: Indicates that one or more of the three TEST FUNCTIONS failed during the test.

FAILURE MODES & CORRECTIVE ACTIONS

BATTERY LOW:

Batteries not connected
One or both batteries terminal voltage has dropped below 10.5V in either test.

CORRECTIVE ACTION:

Replace BOTH Batteries

NOTE

1. To avoid unnecessary replacement, make sure the batteries have completed their full charging cycle.
2. Always replace both batteries, not one. Low voltage in one battery may affect the second battery.

XFR SW FAIL:

Failure to transfer connected load to battery power when AC line power fails or in a test.

CORRECTIVE ACTION: To confirm the fault code is correct, reset the datum current value (refer to page 8). If the error returns, Contact to Sigtex tech support. Note the SERIAL NUMBER of the CBM system before you contact to the factory.

CHG FAIL:

Zero charging current or Low charge Voltage.

CORRECTIVE ACTION: To confirm the fault code is correct, check the charger output on J6(see page 13). Run the test again. If the error returns, Contact to Sigtex tech support. Note the SERIAL NUMBER of the CBM system before you contact to the factory.

LOAD FAIL:

Total connected load impedance reduced by more than 10% because of lamp or circuit failure.

CORRECTIVE ACTION: Reset the initial reference or Datum Value. See the Setting load current on page 8.

LOGIN PROCEDURE

Connect CBM to your network with an Ethernet cable. Your wired CBM should now discover the internet connection, and you will have internet access for CBM message alerts.

- Using the LCD UP/DOWN keys, scroll to the system IP address. The number will display as: xxx.xxx.xxx.xxx
- The MARS system IP address is available on Port Number 8000. From your Computer web browser, enter the IP address and add the Port Number as follows:

<http://xxx.xxx.xxx.xxx:8000>

For example: <http://192.168.138.145:8000/>

- If everything is installed correctly the DEIMOS login screen shown will display.
- Enter default login name and password:

E-mail: **name@signtexinc.com**
Password: **"CBM serial number"**

"CBM serial number" is a 8-digit number, can be found on the LCD.

Note: Above is the default login email and password. Change your email and password from user **profile**|**password** links on the top right side of the DEIMOS page.

- On successful login you should see DEIMOS User Interface home page as shown.
 - For multiple users, log on and change the following default accounts to the new user email and password. All accounts can receive CBM email notifications.
- | | |
|---------------------------------------|---------------------------|
| 1) email: name2@signtexinc.com | Password: "Serial number" |
| 2) email: name3@signtexinc.com | Password: "Serial number" |
| 3) email: name4@signtexinc.com | Password: "Serial number" |
| 4) email: name5@signtexinc.com | Password: "Serial number" |

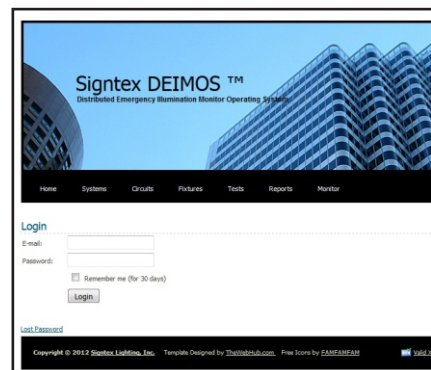
DATA PAGES

Click on Header Bar as follows:

Home: Home page

Systems: CBM serial number, model number, building address, and other location information. Enter data as required.

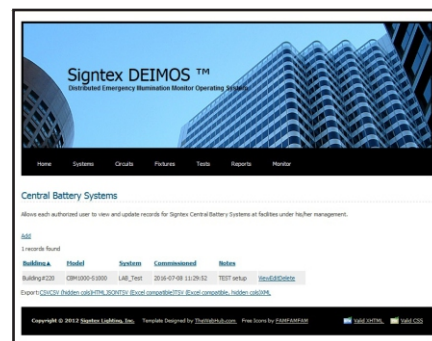
Circuits: Allows each authorized user to view and update records for circuits controlled by Central Battery Systems(CBM) at facilities under his/her management.



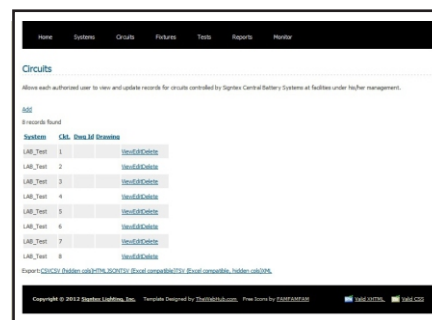
Login



Home



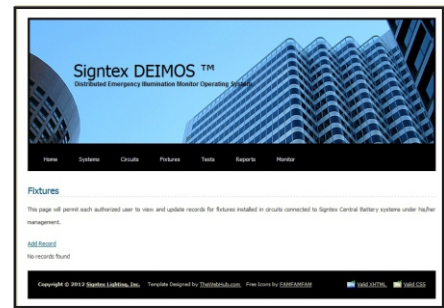
Systems



Circuits

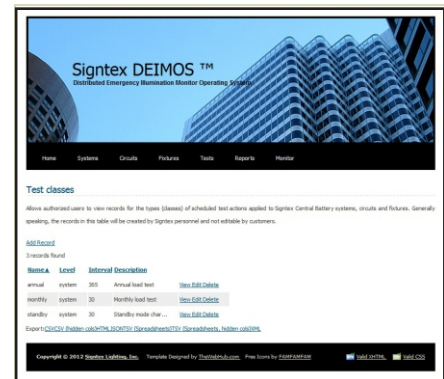
DATA PAGES (cont.)

Fixtures: Addressable fixtures data entry.
(System not installed. Contact factory for status.)



Fixtures

Tests: Monthly, Annual, and Standby Test information.



Tests

Reports: History data related to FAIL, PASS and Interrupted test results

Result	Class	System	Fixture Started	Ended	Notes
PASS	MONTHLY TEST	800100	27 2014-04-17 15:36:00	2014-04-17 15:40:00	YES
PASS	MONTHLY TEST	800104	46 2014-04-14 15:55:33	2014-04-14 16:01:00	YES
PASS	Standby Mode Test	800103	39 2014-04-13 18:54:00	2014-04-13 19:03:00	YES
FAIL	MONTHLY TEST	800103	39 2014-04-13 18:43:39	2014-04-13 19:07:00	FIXTURE FAILURE...
PASS	MONTHLY TEST	800101	27 2014-04-16 15:39:31	2014-04-16 15:49:00	YES
INTERRUPTED	MONTHLY TEST	800102	33 2014-04-03 18:41:18	2014-04-03 18:41:28	YES
PASS	MONTHLY TEST	800104	46 2014-03-14 16:27:00	2014-03-14 16:34:00	YES
PASS	Standby Mode Test	800103	39 2014-03-13 20:35:00	2014-03-13 20:38:00	YES
FAIL	MONTHLY TEST	800103	39 2014-03-13 14:36:40	2014-03-13 14:51:00	CHARGER FAILURE
PASS	MONTHLY TEST	800102	33 2014-03-03 14:54:19	2014-03-03 14:55:00	YES

Reports

Monitor: Live monitoring of battery voltage, current temperature, datum set values, charger conditions, and test status. Test can be selected either using the LCD, control panel, or the monitor test buttons on Pg. 5.

annualTest	status	inactive
cbt	ac_sense	0
	batt1_v	13.5
	batt2_v	13.5
	bct1_i	0.0
	bct1_i_datum	0.15
	bct2_i	0.0
	bct2_i_datum	0.15
	bct3_i	0.0
	bct3_i_datum	0.15
	bct4_i	0.0

Monitor

DATA PAGES (cont.)

User: User first name, last name and Email address.

Defaults are:

First name: Signtex

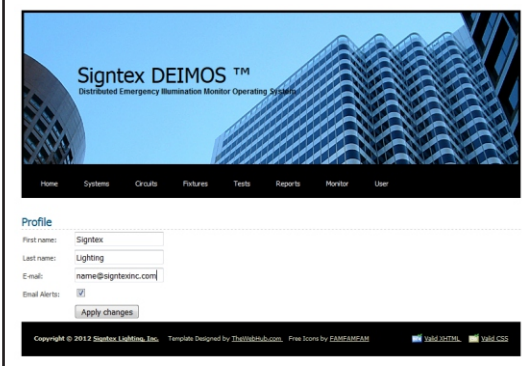
Last name: Lighting

Email: name@signtexinc.com

Change Defaults to your email and password.

if you dont want to receive Alerts form your CBM system then uncheck '**Email Alerts**' box at the end the this page, apply changes to save your settings.

The above information is used for CBM Email notifications.

The screenshot shows the 'User' profile page of the Signtex DEIMOS system. The header features the Signtex DEIMOS logo and a navigation menu with links: Home, Systems, Circuits, Pictures, Tests, Reports, Monitor, and User. The 'Profile' section contains input fields for 'First name' (filled with 'Signtex'), 'Last name' (filled with 'Lighting'), and 'E-mail' (filled with 'name@signtexinc.com'). There is a checkbox for 'Email Alerts' which is currently checked, and an 'Apply changes' button. The footer includes copyright information for 2012 Signtex, Lighting, Inc. and mentions a template designed by TheWebHub.com.

User

TEST SCHEDULE TIME

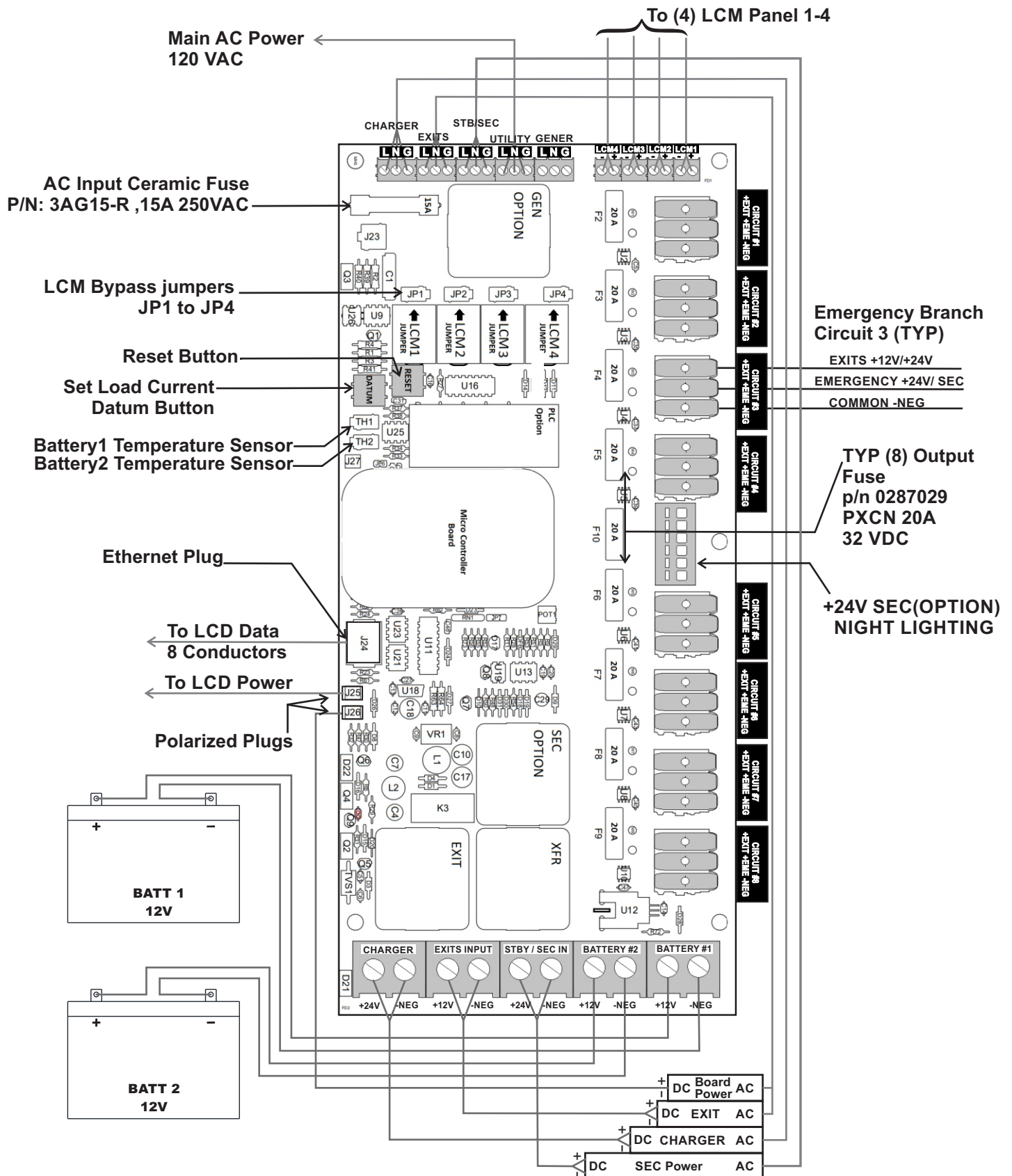
In normal operation the required diagnostic **tests are automatically scheduled for Sunday midnight** but tests can also be scheduled for a specific day and time provided by user.

In the "tests" tab on DEIMOS page, Users can edit the Schedule day and time of the annual and monthly test. Annual and monthly tests require that batteries are fully charged before starting a test; if the required charge hours are not met the test will be delayed until charge is complete. The most recent monthly and annual test reports can also be accessed through the "Reports".

NOTE: If the system is in EMERGENCY Mode at the same time as a scheduled test, the test will be postponed to next day and the system will operate in emergency as long as necessary.

The screenshot shows the 'Test classes' page of the Signtex DEIMOS system. The header is identical to the previous screenshot. The 'Test classes' section includes a description: 'Allows authorized users to view records for the types (classes) of scheduled test actions applied to Signtex Central Battery systems, circuits and fixtures. Generally speaking, the records in this table will be created by Signtex personnel and not editable by customers.' Below this is a 'Back View' link and a form with fields for 'Id' (11), 'Name' (annual), 'Level' (system), 'Weekday' (Sunday), 'Hour' (23), and 'Interval' (365). The 'Description' field contains 'Annual lead test'. A 'Submit' button is at the bottom of the form. The footer is the same as the previous screenshot.

MAIN CONTROL BOARD: OUT/ IN CONNECTIONS



BATTERY SERVICE

When installing or replacing batteries, install or replace with same number and type or equivalent model. The battery can present a risk of electrical shock and high short circuit current. Following precautions should be observed before replacing the battery.

General Specifications

- 12V Sealed Lead Acid (SLA), Valve Regulated
- UL Recognized Equipment
- AGM construction
- Minimum Operating Temperatures:
- Charging: 0C to 40C
- Discharging: -15C to 45C



- Wear rubber gloves and boots.
- Remove rings, watches and other metal objects.
- Use tools with insulated handles.
- Do not lay tools or other metal objects on the batteries.
- If the battery is damaged in any way or shows signs of leakage, contact your local representative immediately.
- Do not dispose of batteries in a fire. The batteries may explode.
- Handle, transport and recycle batteries in accordance with local representative.
- It is highly recommended that a qualified electrician make all power connections.

REPLACEMENT PROCEDURE

- 1) Unplug Charger DC output from J6 CHARGER connector on the board (refer to diagram on page 13).
- 2) Remove old batteries by disconnecting terminals from 1 to 4.
- 3) Secure terminals ends with electric insulation tape.
NOTE: DO NOT SHORT TERMINALS WITH EACH OTHER OR WITH THE METAL ENCLOSURE
- 4) Install new batteries according to your CB model as shown in the following diagrams. Make sure proper polarity is observed.
- 5) Reconnect charger DC output back to the board.

Electrical and Mechanical Specifications

CBL OUTPUT POWER (WATTS)	BATTERY P/N	20-Hr CAPACITY (Amp-Hr)	DIMENSIONS L x W x D (INS)	TERMINAL TYPE
100	220041	8	5.9 x 2.6 x 3.7	F1
250	220625	26	6.6 x 6.9 x 5.1	M6 NUT/BOLT
500	220350	50	7.7 x 6.5 x 6.9	M8 NUT/BOLT
1000	220524	100	12.9 x 6.8 x 8.6	M10 NUT/BOLT

BATTERY CARE, HANDLING & MAINTENANCE

1. DO NOT leave batteries over 90 days without charging.
2. If batteries are fully discharged under load and AC power remains OFF for an extended period and charger is not operating, DISCONNECT the batteries by removing one of the terminals, and reconnect when AC power returns.
3. If batteries are stored, recharge the batteries every 90-120 days.
4. Batteries maintain optimum performance at 25 °C (77°F). Higher temperatures Reduce battery life. At about 35°C (95°F) battery life is half the life at 25 °C.

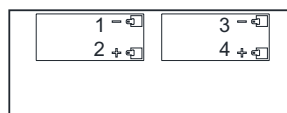
Suppliers

Suppliers	8 Ah, 12V (CBL-100)	26 Ah, 12V (CBL-250)	50 Ah, 12V (CBL-500)	100 Ah, 12V (CBL-1000)
Universal	UB-1280	UB-12260	UB-12500	UB-121000
Power Sonic	PS-1280	PS-12260	PS-12500	PS-121000
NPP Power	NP12-8Ah	NP12-26Ah	NP12-50Ah	NP12-100Ah
CASIL	CA-1280	CA-12260	CA-12500	CA-121000
APEX	APX-1280	APX-12260	APX-12500	APX 12-100S

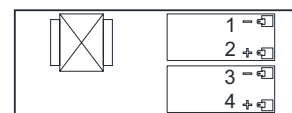
TOP VIEW IN ENCLOSURE

Battery terminals are marked in all CB units.
When connecting batteries, you must connect the batteries according to your model diagram as shown.
If you have further questions about battery connections please contact to Signtex Tech Support at (410)-827-8300
Or Email at techsupport@signtexinc.com

CBL100

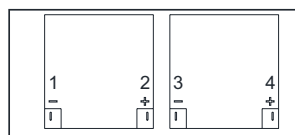


CBL100-277

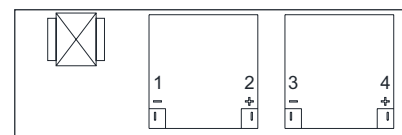


Front

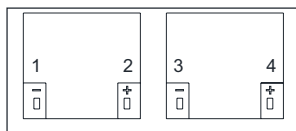
CBL250



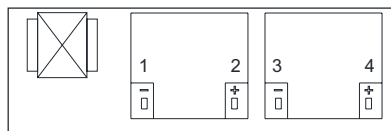
CBL250-277



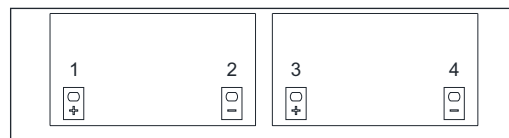
CBL500





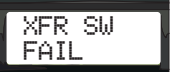
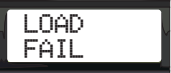
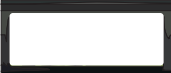

CBL500-277



CBL1000 / CBL1000-277



TROUBLESHOOTING

PROBLEM	CAUSE	DISPLAY	SOLUTION
“ FAULT “ RED LED ON (Check the fault display by using UP/ DOWN scroll Buttons on the display panel.)	Battery Disconnected Low, or Failed.		Disconnected: Check to make sure that all four battery terminals are properly connected to both batteries as shown in Page 3. Low or Failed: One or both batteries' terminal voltage has dropped below 10.5V in less than 90 minutes since loss of AC line power, Replace both batteries.
	Failed Charger; No charging Current or Low charging Voltage.		CBM charger is located on the right side of the box. First make sure the Switch and the led on the charger should be ON. If OFF replace the charger. Otherwise, confirm the fault code by manual monthly test. If the error returns, contact Sigtex.
	Failure to Transfer Connected Load		Load is not connected or Datum Current has not been setup. Reset DATUM LOAD CURRENT as Shown on Page 8 then rerun a monthly test, If the error returns, contact Sigtex Tech Support.
	Connected Load Fail		Connected branch load has changed more than 10% compared to value at initiation. Check the identified branch circuit. Find the bad fixture and fix then Reset your datum current as shown on page 8.
	System Failed		System failed during boot process. Follow the RESTART procedure as shown in page 9. If the error returns, then replace the LCD Control Panel.
	Operating system not found.		Unknown characters on the display indicates an error in the operating software. check the memory card behind the LCD display module. Make sure the card is in slot and then Restart the system.
“BATT CHG” LED Blinking	Charge Mode	Test not shown on lcd	ANNUAL TEST will not activate until system confirms full charge. Allow system to charge 12hrs. Then it will allow any manual test. Solid color on charge LED indicates that system is ready for test.
“AC ON” LED OFF	Emergency Mode	No LCD Back light	No Action needed in true Emergency Mode. If any monitored circuit breaker is opened, AC supply is disabled to the LCM, which will also switch the CB into Emergency Mode. Make sure all monitored circuits on LCM are active. see page 6 for details.

Notes