



GFE-BCM-5

GFE-BCM-10

BATTERY CHARGER MONITOR

INSTALLATION MANUAL

INTRODUCTION

This unit is a fully EN54-4 compliant battery charger which also incorporates, in some models, a loop interface that can be used with all of GFE's addressable panels. It will monitor all fault conditions including: charger fault, charger voltage level, input voltage supply fault and supply removal. It can be supplied as a standalone module or boxed in an ABS plastic enclosure, including a 28V DC @ 1.7 or 2.4 Amp PSU. The standalone unit has 10A current rating and is supplied complete with heat dissipation.

Battery charge is fully monitored and current output controlled and limited to a maximum of 4 Amps. Two auxiliary output relays are provided, both equipped with a set of changeover contacts. One is used to signal fault conditions. The Output relay, which is only available for addressable versions, can be used when included in an IO Group.

MAIN FEATURES

- Battery Charger Monitored by Addressable Panel
- Fault Relay Output
- Relay O/P Remotely Controlled by Panel
- Low Battery Voltage Shutdown
- Reverse Polarity Protection
- Battery Charger Current Regulated
- LED indicators: Supply Input, Battery & Charger Fault
- Boxed Unit included PSU and Battery Compartment
- Fully Compliant with EN54-4



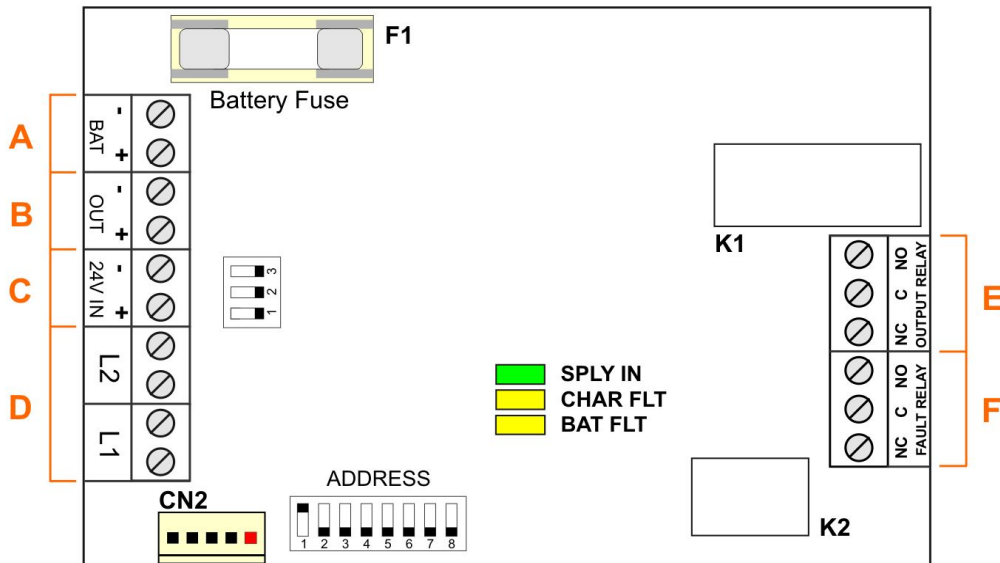
GFE-BCM-5



GFE-BCM-10



ADDRESSABLE VERSION WITH IO UNIT



A - Battery terminal connections

Connect batteries as shown on page 6 of this manual. Maximum battery capacity for boxed units is 2 x 12V 7Ah batteries.

B - Supply output terminal connections

This output supplies a nominal voltage value of 28V DC. Current drive capacity depends on module specification.

C - Supply input terminal connections

D - Loop connections

Analogue Loop Connections. Device is not polarity conscious.

E - Output relay terminal connections

A single pole changeover relay is provided. Activation of relay is possible via panel programming using IO group features. Please refer to the panel installation manual for further details.

F - Fault relay terminal connections

A single pole changeover relay is provided. Activation of relay is caused by any fault detected within the monitoring circuitry of the module. When a device is in fault condition, the analogue value reported to the panel is 2 and it is indicated by the panel as a supply fault. In these cases both the GENERAL and SUPPLY FAULTS LEDs are ON.

Location of the fault is also provided on the LCD screen where both the loop and ADDRESS of the device generating the fault are indicated on the LCD screen.



Addressable IO Unit

Units fitted with a built-in addressable IO unit can be directly connected to a device loop on any of GFE's addressable panels, via the loop connections. These devices will be monitored directly by the panel.

When fitted, these units will be displayed as IO units and its analogue value monitored by the panel. When there are no faults on the BCM unit the analogue value reported by the device to the panel is 16 and when in fault condition is 2. When the device is showing a fault condition, which is always associated with either a fault in the battery charger or battery voltage as monitored by the module, the panel will also indicate this condition locally by turning ON the GENERAL FAULT and SUPPLY FAULT LEDs. The LCD of the panel will also display the location of module with a clear indication of both Loop and Device Address and its associated text label.

Activation of the relay output is accomplished by including the unit in an IO Group. This group can then be assigned to either a zone or device. Please refer to the Installation Manual of the panel being used for further information regarding cause and effect programming and functions associated with IO units and groups.

Settings



SW 1 OFF
SW 2 OFF

SW 1 & SW 2 - OFF



SW 3 OFF

SW 3 - OFF

When OFF the module will monitor the battery voltage and it will disconnect battery when below 21V DC avoiding deep discharge.



SW 3 ON

SW 3 - ON

In this case the battery voltage monitoring is disabled.



SPLY IN (Green) ON when supply input is present.



CHAR FLT (Yellow) ON when battery charger is fault or batteries are not connected or fault.



BAT FLT (Yellow) ON when battery voltage is below 21V DC.



ADDRESS SETTINGS



Switches 1-7
Used to configure the module's address

Switch 8
Not used



Address Switches binary weights

1 ON =1 5 ON =16
2 ON =2 6 ON =32
3 ON =4 7 ON =64
4 ON =8

01	02	03	04	05	06	07	08	09
10	11	12	13	14	15	16	17	18
19	20	21	22	23	24	25	26	27
28	29	30	31	32	33	34	35	36
37	38	39	40	41	42	43	44	45
46	47	48	49	50	51	52	53	54
55	56	57	58	59	60	61	62	63
64	65	66	67	68	69	70	71	72
73	74	75	76	77	78	79	80	81
82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99
100	101	102	103	104	105	106	107	108
109	110	111	112	113	114	115	116	117
118	119	120	121	122	123	124	125	



Battery Connections

It is recommended that the batteries are fitted at the end of commissioning the system otherwise it can be difficult to remove the power quickly if there is a problem.

The batteries are connected to the GFE-BCM module board. This battery connection not only supplies the module with power if the primary supply should fail, it also provides a charging output to maintain the batteries in a fully charged state. Before connecting the batteries check the voltage across the battery connection terminals. It should be 28.0V +/- 0.5V.

NOTE: Arcing and fire risk. Never short circuit the battery terminals. Always connect the blue wire between the batteries last.

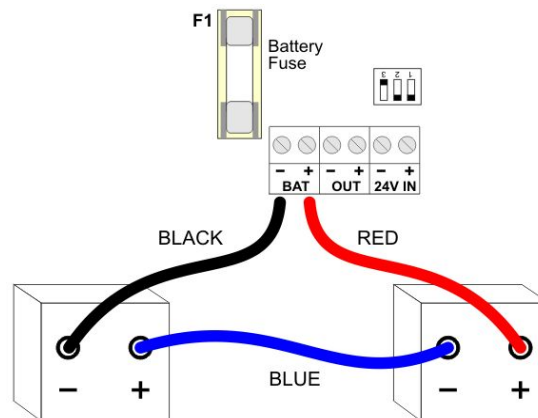
Replacement Battery Fuse - F1

GFE-BCM-5 (any version)

3 A
5x20 mm
Quick Blow (Fast Acting)

GFE-BCM-10

10 A
5x20 mm
Quick Blow (Fast Acting)



TECHNICAL SPECIFICATIONS	
SUPPLY INPUT	230 +10% -15% V AC - Monitored
SUPPLY OUTPUT	5.6 A or 11.7 A @ 28V DC nominal
BATTERY CHARGER - CURRENT O/P	4 A max.
BATTERY TYPE / BATTERY FUSE	Max. 2 x 12 V 12 AH - Lead Acid VRLA / 5 A & 10 A
I/O UNIT - LOOP CURRENT	1.4 mA Quiescent - 1.8 mA Fault
FAULT RELAY	Changeover - 30V DC 1 A Resistive
I/O CONTROLLED RELAY	Changeover - 240V AC 10 A Resistive
OPERATING TEMPERATURE	-10°C to +50°C
HUMIDITY / PROTECTION	Max. 95% no condensation / IP21
DIMENSIONS	345 (L) x 375 (H) x 139 (W) mm
WEIGHT	3.5 Kg - 11.5 Kg inc 2 x 12 AH Bat. / 4 Kg - 12 Kg inc 2 x 12 AH Bat.

GLOBAL FIRE EQUIPMENT S.A.

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