

CB200W Water Leak Detection Panel Application Guide

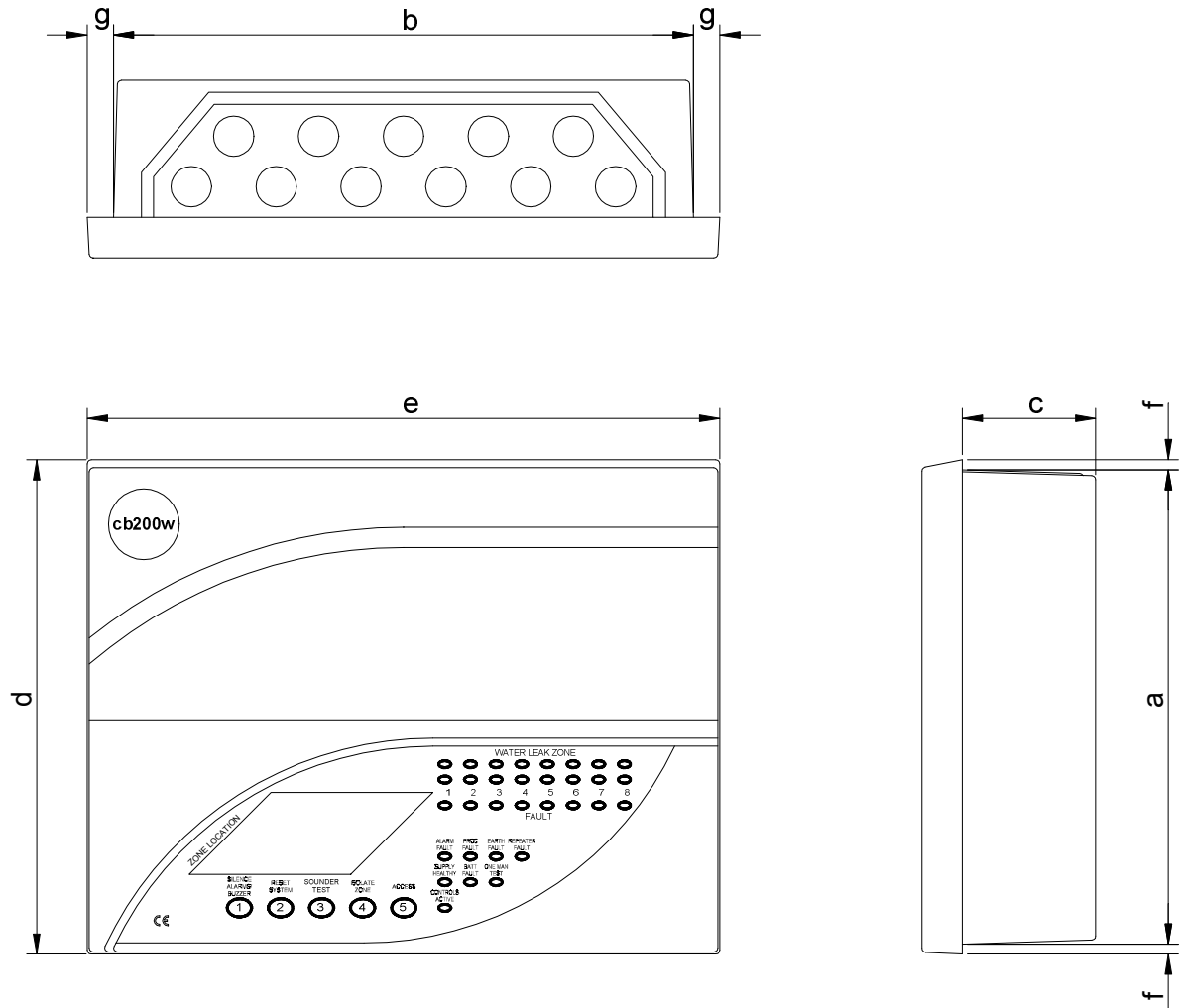
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1. Cabinet Specifications

All cabinets are manufactured from polycarbonate with a satin textured finish. Eleven top entry grommets are provided on a removable gland plate.

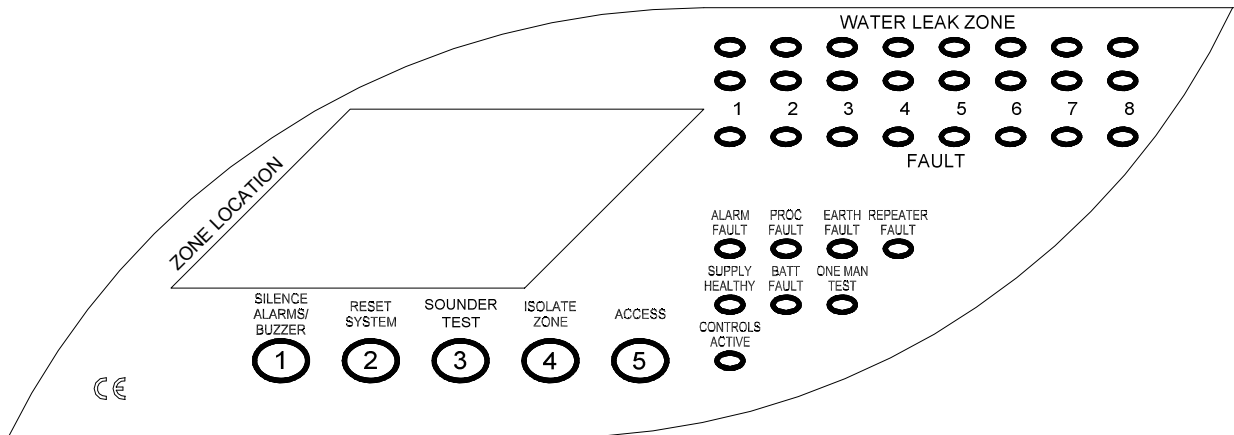
Cabinet colour: RAL7035 Textured (light grey)



	Description	Size
a	Back box height	235mm
b	Back box width	287mm
c	Back box depth	66mm
d	Front cover height	245mm
e	Front cover width	313mm
f	Bezel overhang - top/bottom	5mm
g	Bezel overhang - left/right	13mm
	Protection plugs = 11	20mm

2. Panel Hardware Specifications

2.1 User Controls and Indications (8 zone illustrated)

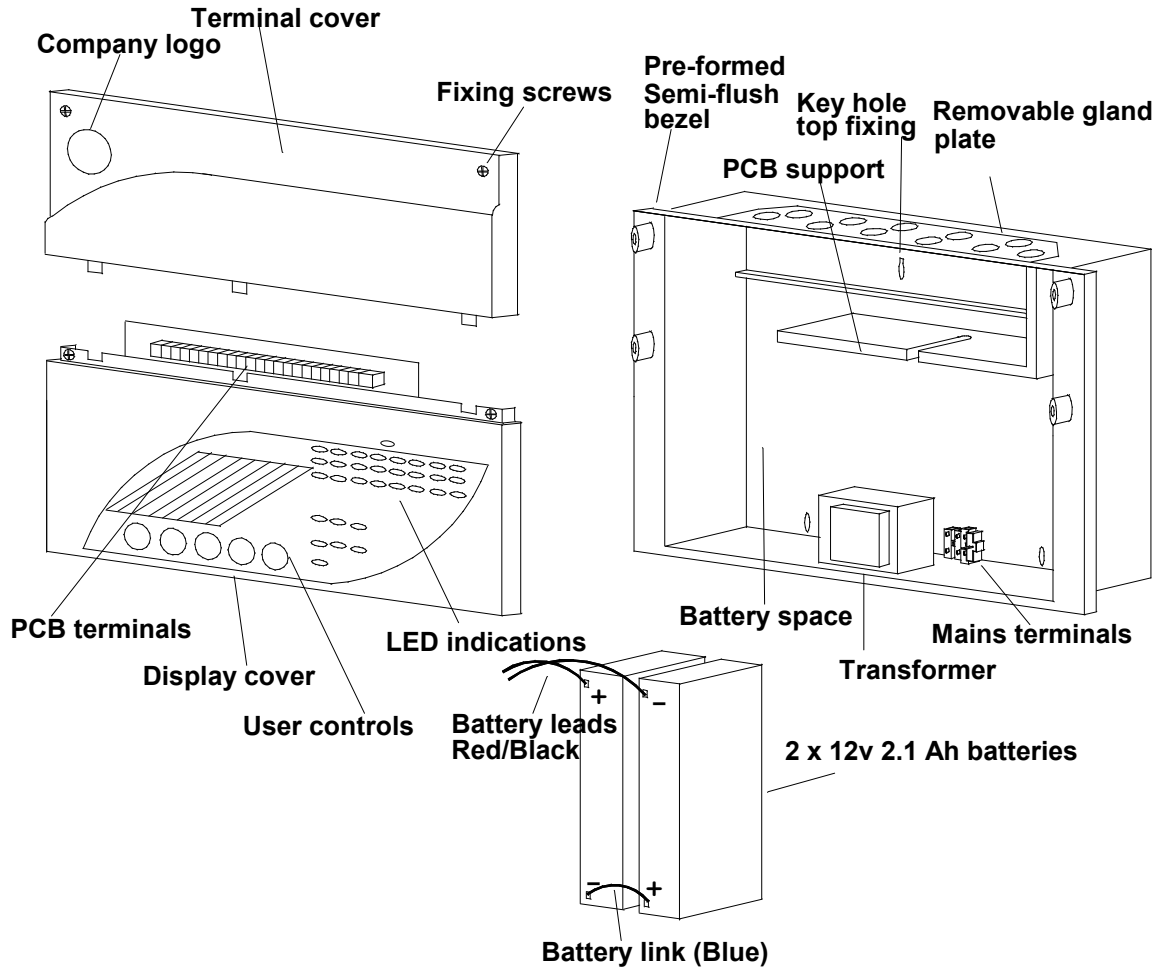


INDICATION	DESCRIPTION
ZONE LOCATION	Slide-in card to add zone identification text
WATER LEAK ZONE – Twin RED LEDs	Water Leak Detected LEDs illuminate flashing when a zone detects a water leak. Illuminates steady after silence alarms has been pressed.
WATER LEAK ZONE – YELLOW LED	Zone fault LEDs illuminate flashing with any zone fault. Illuminates steady when zone is isolated.
ALARM FAULT LED	Flashes when an alarm circuit is in fault.
PROC FAULT LED	Flashes when a processor fault occurs.
EARTH FAULT LED	Flashes when an earth fault occurs (4-8 zone only).
REPEATER FAULT LED	Flashes when a repeater fault occurs (4-8 zone only).
SUPPLY HEALTHY LED	Illuminates when both mains and battery supplies are healthy.
BATT FAULT LED	Flashes when a battery supply fault occurs.
ONE MAN TEST LED	Flashes when engineer's one man test is active. (4-8 zone only).
CONTROLS ACTIVE LED	Illuminates when controls are active.

CONTROL	DESCRIPTION
SILENCE ALARMS/BUZZER	Press to silence alarm circuits or fault buzzer.
RESET SYSTEM	Panel system control to reset system after Silence Alarms has been pressed. Functions as Test LEDs at any other time.
SOUNDER TEST	Operates alarms circuits (but not aux alarm output relay). Press to operate, press again to stop.
ISOLATE ZONE	Zone isolate control.
ACCESS	Press to access user control facility then press 1 4, controls are then enabled. Repeat above to disable controls.

2.2 Engineer Facilities

2.2.1 Mechanical Assembly Illustration



3. Panel Configuration

3.1 Buzzer Enable Link

The “Link for Buzzer Enable” link, located at the top right corner of the Control Board, is a buzzer disable/enable facility. Its purpose is to disable the buzzer should this be helpful during commissioning. **DO NOT** remove this link except in exceptional circumstances. This link is not monitored by the control board and no faults or indications of any kind will be generated if the link is removed.

3.2 Engineer’s Control:- 1-2 Zone Panels

This facility is located on the top right hand corner of the PCB. Its functions are described below:

3.2.1 Processor Reset

Press to reset if the “Processor Fault” LED illuminates

3.2.2 One-man Test

If pressed for more than 5 seconds the panel will go into One-man Test mode.

3.2.3 Zone 1 Non-latch

Setting the zone 1 non-latch DIL switch to the ON position causes zone 1 to operate in a non-latching 'water leak detected' indication mode. In this mode, if a water leak is detected on zone 1 the panel will indicate the leak and operate the alarms. The auxiliary fire relay contacts will not be operated. If the leak condition is cleared from zone 1 then the zone 1 leak indication is cleared and, as long as no other zones indicate a leak, the alarms are also cleared. If any other zone has a leak condition the panel will remain in the alarm condition until manually reset.

3.2.4 Class Change Input

This input is not fault monitored and is normally open. When a short circuit is placed across input terminals the panel operates the alarm circuits and internal buzzer. The input is non-latching.

3.3 Engineer's Controls:- 4-8 Zone Panels

The following functions are available through the Engineer's Access Code:

- i) One-man Test
- ii) Earth Fault enable/disable
- iii) Clear Processor Fault indication – if the processor stops, the "Proc. Fault" LED will illuminate. The processor will start automatically unless there is a hardware fault.

3.4 CB200W Repeater Panel

A repeater panel is available for the CB200W 4 and 8 zone panels. This is connected using RS485 serial communications over a screened twisted pair cable. Up to 3 repeaters can be connected to the control panel and provide the following features at a remote location:

- Indication of zonal water leak, zonal fault and zonal isolate conditions
- Operation of Buzzer Silence, Manual Evacuate, Alarms Silence and System Reset functions
- Indication of control panel status
- Indication of communication fault with control panel
- Indication of local power supply fault (if fitted)
- Indication of power supply fault on another repeater (steady Batt. Fault LED)
- Indication of a communication fault on another repeater. (Steady Comms. Fault LED)
- NOTE: Only one repeater can be powered from the 24VDC supply output on the CB200W control panel.

3.5 Repeater Configuration

The following configuration is associated with the repeater:

- Number of repeaters connected to panel (on panel)
- Repeater address (on each repeater)

4. Technical Specifications

CB200W 1-2 zone control panel

Maximum field equipment load:	800mA
Auxiliary 24VDC output	250mA
Mains failed current consumption:	35mA
Integral charger output:	500mA
Common alarm output:	Volt- free contacts - 1A, 30V DC max.
Common fault output:	Volt- free contacts - 1A, 30V DC max.
Alarm circuit output:	2 at 250mA each
Battery size:	2 x 12V 2.1AH sealed lead acid
Weight (excluding batteries):	2.3kg

CB200W 4 zone control panel

Maximum field equipment load:	800mA
Auxiliary 24VDC output	250mA
Mains failed current consumption:	40mA
Integral charger output:	500mA
Common alarm output:	Volt- free contacts - 1A, 30V DC max.
Common fault output:	Volt- free contacts - 1A, 30V DC max.
Alarm circuit output:	4 at 500mA each
Battery size:	2 x 12V 2.1AH sealed lead acid
Weight (excluding batteries):	2.3kg

CB200W 8 zone control panel

Maximum field equipment load:	800mA
Auxiliary 24VDC output	250mA
Mains failed current consumption:	40mA
Integral charger output:	500mA
Common alarm output:	Volt- free contacts - 1A, 30V DC max.
Common fault output:	Volt- free contacts - 1A, 30V DC max.
Alarm circuit output:	4 at 500mA each
Battery size:	2 x 12V 2.1AH sealed lead acid
Weight (excluding batteries):	2.4kg

CB200W 8 zone repeater panel with power supply

Mains failed current consumption:	40mA @24VDC
Integral battery charger output:	500mA @27.5VDC
Auxiliary 24VDC output	250mA
Battery size:	2 x 12V 2.1AH sealed lead acid
Weight (excluding batteries):	2.4kg

CB200W 8 zone control panel powered from panel

Current consumption:	40mA @24VDC
Weight:	1.4kg

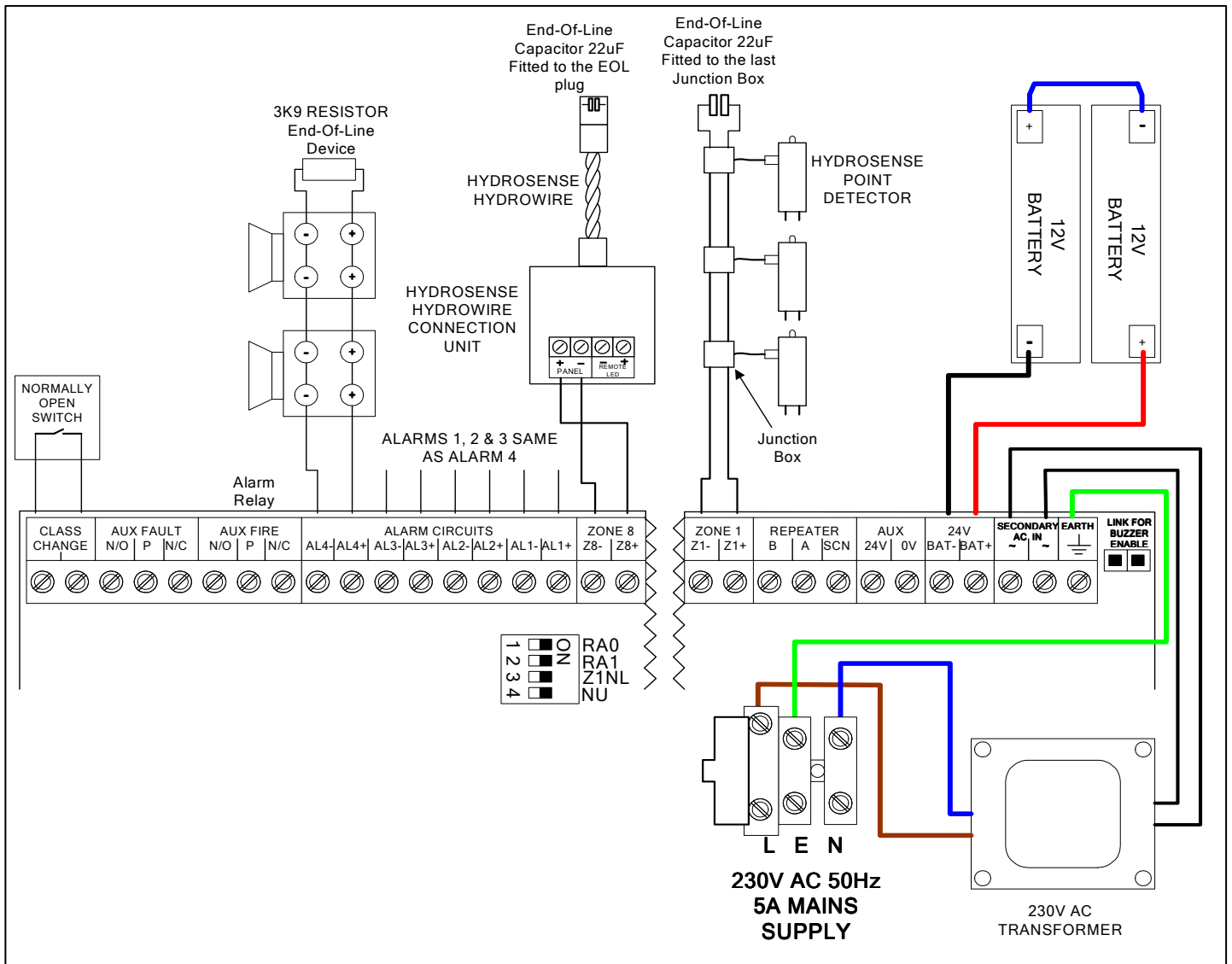
RS485 Cable Specification

Generic Type:	RS422/RS485 data cable.
Conductors:	Single pair plus screen.
Alpha cable:	3492C, 6222C, 6412 or equivalent
Belden cable:	8102, 8132, 9841 or equivalent

NOTE:

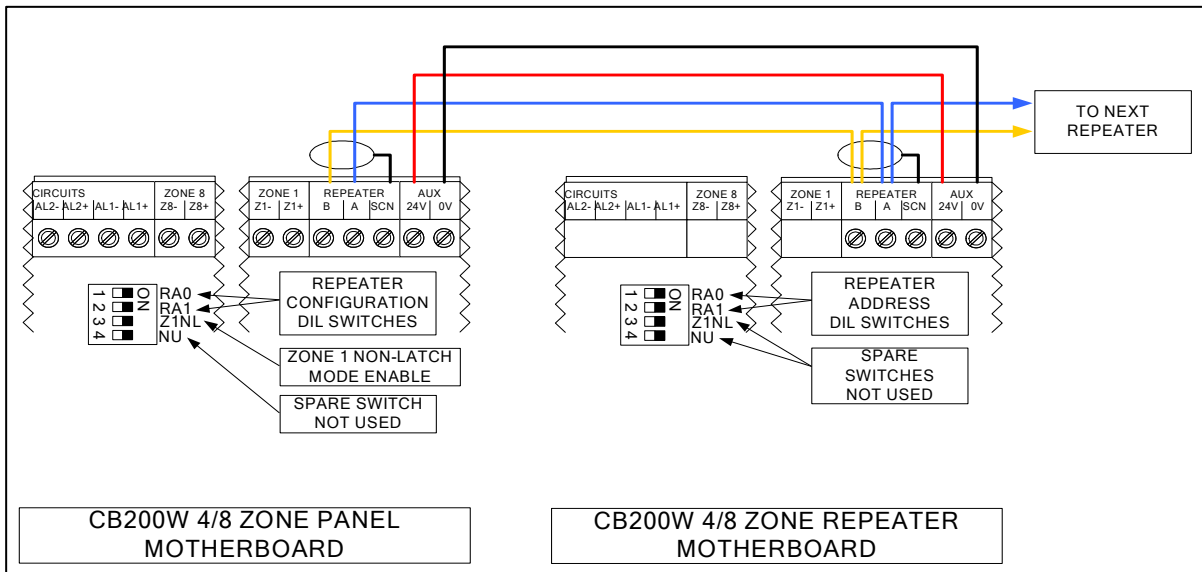
On 4 and 8 zone panels the total available current for field devices is 800mA at 28VDC. This current must be shared between the auxiliary 24VDC supply and the four alarm circuits such that the total current drain across the five circuits does not exceed 800mA.

4.1 Typical Terminal Wiring Schematic (8 zone illustrated)



Note: This is a schematic representation only and not a PCB layout drawing.

4.2 Typical Repeater Wiring Schematic



5. CB200W Panel Enhancements

The CB200W panel may be enhanced to provide additional facilities. The following table lists compatible panel enhancement products. Other relevant documentation is available providing more details.

5.1 Panel Enhancement Order Codes & Descriptions

Part No	Description
2500/032	C1437 4 way alarm extender board - separate PSU required
2500/034	A1466 1 x double pole relay board (1A contacts)
2500/233	Heavy duty relay boxed (suppressed) – additional power supply required (2500/197 or 2500/198 as appropriate)
2500/220	Enclosure c/w 1A PSU & space for 4 x C1437 and 2 x A1466 & 6.2AH battery set Cabinet size - 380h x 600w x 210d
2500/221	Enclosure c/w 3A PSU & space for 2 x C1324 or 4 x C1437 boards Cabinet size - 380h x 600w x 210d
2500/222	Enclosure c/w 5A PSU & space for 2 x C1324 or 4 x C1437 boards Cabinet size - 380h x 600w x 210d

5.2 Battery Sizes (YUASA)

The CB200W panel has been designed to house the 2.1AH battery set. The following batteries are suitable for any relevant expansion items, along with auxiliary power supplies, and should be selected accordingly.

Battery Rating	Battery Size
3.2AH battery 12V	134 length x 67 wide x 64 high
6.2AH battery 12V	151 length x 65 wide x 97.5 high
12AH battery 12V	151 length x 98 wide x 97.5 high
15AH battery 12V	181 length x 98 wide x 167 high

6. CB200W Panel Compatible Water Leak Detection Devices

The CB200W panel is designed to operate with the HYDROSENSE Point Detector and the HYDROSENSE Hydrowire. The End-Of-Line device required is a 22uF 35V capacitor, which is supplied with the panel, but must be attached across the zone (+) & (-) cables at the furthest Water Leak Detection Device on each zone. See the CB200W Installation Manual for details.

6.1 General Accessories Order Codes & Descriptions

Part No	Description
2501/032	2.1AH S.L.A. battery set (2 x 12V)
2501/040	150mm bell (24 volts DC)
2501/044	Roshni Electronic Sounder (24 volts DC)
2501/043	Xenon flashing beacon (24 volts DC - 2 watts)
2501/033	Door retainer (24 volts DC) - auxiliary power supply required
2501/034	Door retainer (230 volts AC)
2501/035	Door retainer floor bracket
2500/198	1A 24V DC door retainer power supply unit in enclosure (no battery back-up) Size - 300h x 350w x 75d
2500/197	MPC1 1A power supply unit in enclosure with space for 3.2AH battery set Size 300h x 350w x 75d
2500/199	MPC3 3A PSU in enclosure with space for 12AH battery set Size 355h x 370w x 90d
2500/200	MPC5 5A PSU in enclosure with space for 24AH battery set Size 300h x 360w x 190d
2500/201	MPC10 10A PSU in enclosure with space for 24AH battery set Size 500h x 500w x 210d

7. Additional Available Documentation

Installation & Commissioning Manual
User Instructions