COOPER Safety
Fire Systems

EN54

FX2200 Range Control Panels

log book conveniently stored within panel

optional recessing back box

FX2202 control panel

Overview

The JSB FX2200 range of conventional control panels provide a solution to any conventional system requirement. The advanced features include a simple "one-shot" user test facility, class change contacts, battery voltage alarms and charger temperature compensation, all included as standard to ensure ease of use and high reliability.

Attention to detail is emphasised by the neat log book holder feature, allowing essential records to be stored close to hand, ready for quick reference. For larger installations, custom configuration of the panels offers even greater flexibility, allowing project specific requirements to be easily met, in a competitive and cost effective package.

Features

- 1, 2, 4 or 8 zones panels
- Flexible, high specification system
- Simple "one-shot" auto-reset user test facility
- Maintenance free poly switch circuit protection, with auto reset
- Class change and programmable fire/fault relay as standard
- Custom configured versions available to meet specific project requirements
- Third party approved

Benefits

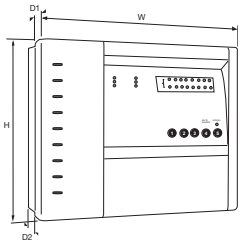
- Compact design
- Surface or semi-flush mounting
- Numerical access code (no lost keys)

Technical Specification

Code	FX2201	FX2202	FX2204	FX2208
Description	1 zone control panel	2 zone control panel	4 zone control panel	8 zone control panel
Standards	EN54 Pt2 & Pt4 1998, EN50130 Pt4 1996, EN50130 Pt4	EN54 Pt2 & Pt4 1998, EN50130 Pt4 1996, EN50130 Pt4	EN54 Pt2 & Pt4 1998, EN50130 Pt4 1996, EN50130 Pt4	EN54 Pt2 & Pt4 1998, EN50130 Pt4 1996, EN50130 Pt4
Specification				
Number of Zones	1	2	4	8
Detectors per Zone	32	32	32	32
Number of Alarm Circuits	2	2 (4 on FX22002CR)	2 (4 on FX22004CR)	4
Alarm Circuit Load	150mA per circuit, 0.3A total	150mA per circuit, 0.3A total	400mA per circuit, 0.8A total	500mA per circuit, 2A total
End Of Line Devices	Detection circuits: EOLM-1 monitoring unit Alarm lines: 6.8KΩ resistor	Detection circuits: EOLM-1 monitoring unit Alarm lines: 6.8KΩ resistor	Detection circuits: EOLM-1 monitoring unit Alarm lines: 6.8KΩ resistor	Detection circuits: EOLM-1 monitoring unit Alarm lines: 6.8KΩ resistor
Auxiliary Fire Signal/Fault Output	5A 24V dc single pole changeover contacts	5A 24V dc single pole changeover contacts	5A 24V dc single pole changeover contacts	5A 24V dc single pole changeover contacts
Auxiliary DC Output	No	No*	No*	24V dc fused. 30mA
Repeater Port	No	No*	No*	Yes
Mains Input Voltage	230V ac -15% +10%	230V ac -15% +10%	230V ac -15% +10%	230V ac -15% +10%
System Operating Voltage	24V dc	24V dc	24V dc	24V dc
Standby Duration	24 hours	24 hours	24 hours	24 hours
Battery (Sealed Lead Acid)	1 x 2.1Ah	1 x 3.2Ah	1 x 3.2Ah	2 x 3.2Ah
Recharge Period	24 hours	24 hours	24 hours	24 hours
Environmental				
Operating Temperature	-5°C to +40°C	-5°C to +40°C	-5°C to +40°C	-5°C to +40°C
Humidity (Non Condensing)	0 to 75% RH	0 to 75% RH	0 to 75% RH	0 to 75% RH
Physical				
Construction	Polycarbonate housing & back box	Polycarbonate housing & back box	Polycarbonate housing & back box	Polycarbonate housing & back box
Dimensions (H x W x D)	Surface: 212mm x 260mm x 72mm	Surface: 270mm x 332mm x 90mm Recessed: 279mm x 332mm x 122mm	Surface: 270mm x 332mm x 90mm Recessed: 279mm x 332mm x 122mm	Surface: 270mm x 332mm x 90mm Recessed: 279mm x 332mm x 122mm
Weight	5.1kg	5.2kg	5.8kg	6.0kg
Ingress Protection	IP30	IP30	IP30	IP30
Cable Entry	Top: 6x20mm entries with blanking plugs Rear cable entry aperture	Top: 12x20mm entries with blanking plugs Rear cable entry aperture	Top: 12x20mm entries with blanking plugs Rear cable entry aperture	Top: 12x20mm entries with blanking plugs Rear cable entry aperture

* Available on the FX2202CR and FX2204CR

Dimensions



Description	H (mm)	W (mm)	D1 (mm)	D2 (mm)
1 zone	212	260	72	-
2 / 4 / 8 zone	270	332	45	47

Description	Cut-out (mm)
2 / 4 / 8 zone	265 x327

Note: If surface mounting add D1 and D2 to obtain depth dimension.

Product Codes

Code	Description
FX2201	Conventional 1 zone panel
FX2202	Conventional 2 zone panel
FX2204	Conventional 4 zone panel
FX2208	Conventional 8 zone panel
FX2202CR	Conventional 2 zone panel (configured for use with a repeater)
FX2204CR	Conventional 4 zone panel (configured for use with a repeater)
FXRP2200	Conventional repeater panel
FX22003300 MB	Steel back box (for use with FX2202/4/8)
MFALOG	Fire alarm system log book

Installation Notes

1. A full set of Installation and User Instructions is supplied with each panel to assist the installer to carry out the work efficiently and safely and the user to perform routine tests.
2. Panels are wall mounted. Surface mounted via 4 x screw fixing holes on back of housing. Use drill template supplied. Recessed mounting requires appropriate cut-out for steel semi-recessing box, which is screw fixed to wall. Panel is then screwed to back box via 4 x screw fixing holes (Note: Single zone panel cannot be recessed).
3. Mains power supply cable must be routed via the designated 20mm conduit entry on the top or rear of the housing. The mains terminal block is provided with maintenance free poly switch protection.
4. Conduit entries are provided on the top of the housing for zone, alarm and output cables. Blanking plugs are supplied for un-used entry holes
5. Rear entry apertures are also provided for back entry.
6. Standby batteries connected via push-on terminal connectors.
7. End of line (EOL) devices are supplied with the panel and must be fitted at the end of each detector and alarm circuit wiring.
8. Front cover is screw fixed. System logbook is stored behind hinged door.
9. Walk test feature permits single person testing for fast and efficient commissioning prior to handover.

System Functionality

1. Normal and supervisor mode facility. Supervisor mode protected by 4 digit security code to prevent unauthorised use.
2. Supervisor mode provides access to test mode, where a “one-shot” test facility can be initiated by the user. When in operation, the user has a period of time in which to put a call point into fire condition, after which the system automatically resets and returns to normal mode.
3. Commissioning walk test feature permits the system to be easily tested after installation and prior to handover. The panel automatically resets and returns to normal operation after a detection device has been tested. Each device can then be tested in turn via the same procedure.
4. Supervisor mode also provides facility to disable the following for maintenance or other purposes
   - each detection zone independently
   - the alarm circuits
5. Non-latching zone facility can be specified on custom configured versions (except 1 zone panel). Enables the direct interconnection of panels in a simple network.
6. An alarm line delay feature can be specified on custom configured versions (except single zone panel). Preset delays of 30 seconds to 2 minutes can be programmed at the factory. Zone LED flashes when fire signal is received and delay is in operation.

User Interface

1. Stylish and robust compact panel with simple 5 button keypad control of all functions.
2. Simple “one-shot” weekly user test with auto-reset facility.
3. Comprehensive power, fire and fault LED indicators and integral piezo buzzer for on-board fire or fault indication.
4. Battery high/low voltage alarm facility.
5. Neat log book storage facility behind hinged door.

Interface Options

1. Class change input facility. Terminals provided for switching of alarm circuits to indicate school/college class change
2. Programmable 5A 24V dc relay for remote signalling of fire or fault conditions. Selectable by jumper link.
3. Auxiliary 24V dc output power supply provided as standard for 8 zone panel and 2 and 4 zone configured panels.

Detection Capacity

1. Up to 32 detectors per zone. End of line monitoring devices must be fitted and are supplied as standard.
2. Detector circuits are monitored for open circuit, short circuit and detector removal.

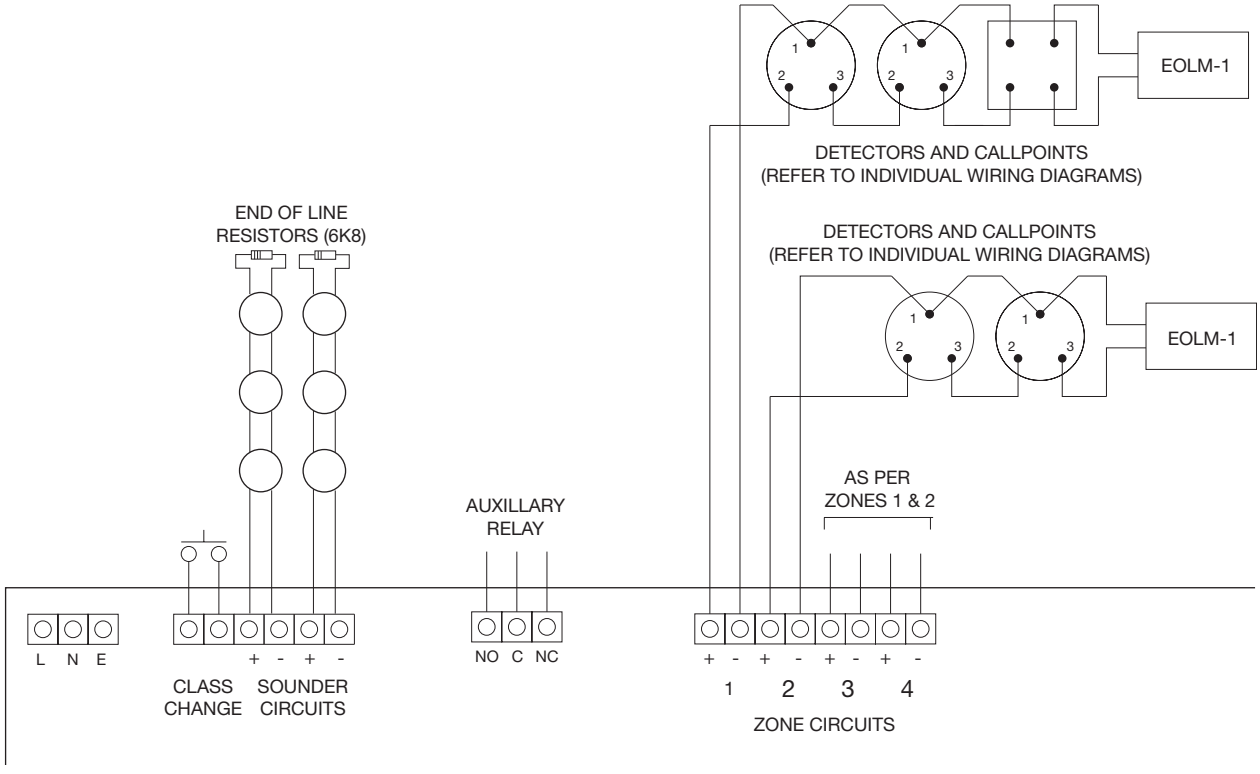
Alarm Capacity

1. 2 separate alarm lines on 1, 2 and 4 zone panels. Maximum rated load of 150mA (1and 2 zone) or 400mA (4 zone) per line.
2. 4 separate alarm lines on 8 zone panel. 500mA maximum load per line.
3. Alarm lines are monitored for open circuit and short circuit faults.
4. Additional alarm line facilities on custom 2 and 4 zone configured panels.

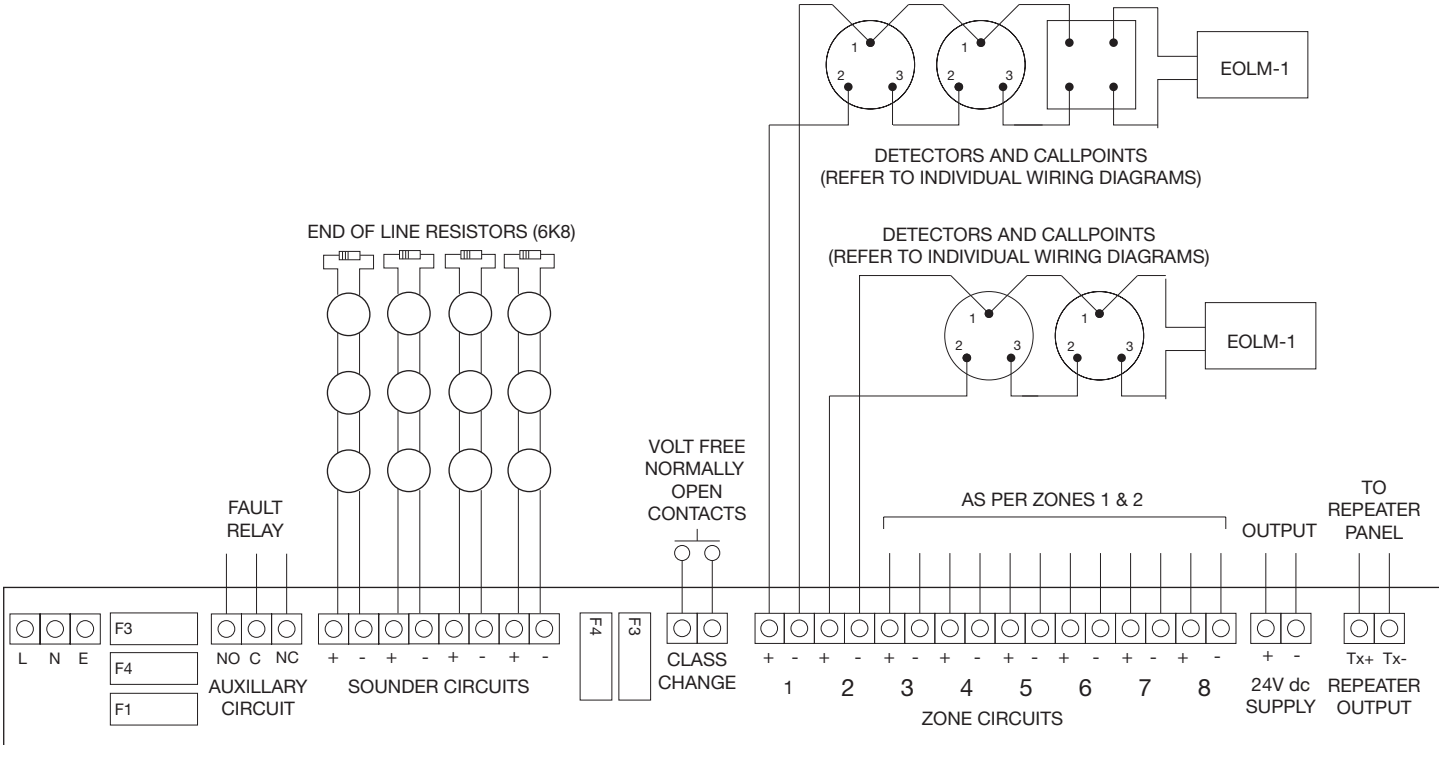
Repeater Panel

1. Repeater matches the style and appearance of main control panels.
2. Facility for signalling to repeater panel provided as standard on 8 zone panel.
3. Specially configured versions of 2 and 4 zone panels available for use with a repeater panel.
4. Displays essential information at other key locations in a large building/site
   - Zone fire and fault conditions
   - Test mode in operation
   - Zones or alarm lines in disabled mode
5. Repeater panel requires only a single pair of wires to receive signals from main control panel, plus local mains power supply, reducing cost of installation.

Standard Panel Connections - FX2201, FX2202 and FX2204



Standard Panel Connections - FX2208



FXN922 - Conventional detector range

The conventional range offers a multi-mode, 5 in 1 detector (FXN922), covering many building needs. It's quick and simple to install with a stylish low profile design. The detector is mounted on our standard conventional base but can also be used in conjunction with our relay base for local switching. Each detector is fitted with a 360˚ viewable LED for indication.

This multi-mode detector can be configured to operate as either an optical detector, photo-thermal detector or 1 of 3 heat detector modes (rate of rise and 2 fixed heat models) using the four position switches located at the back of the detector. The FXN922 is certified for use in all 5 modes.

We can also supply separate detectors for each individual mode if they are required. These are displayed in the catalogue numbers in the table over the page.

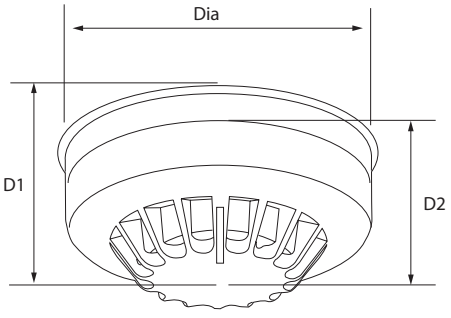
Features and benefits

- Offers a range of sensor types
- 360° visibility LED using lightpipe technology
- Drift compensation
- Aesthetically pleasing
- Quick and simple to install
- Wide viewing angle for increased LED visibility
- Positive "lock" indication
- Discreet design for incorporation into any decor
- Easy to maintain/service

Technical specification

Code	FXN922
Description	Multi-mode detector
Standards	EN54 Part 5 & 7 2001
Supply ratings	
Operating voltage	15V dc to 30V dc
Standby current	30µA (max)
Startup current	340µA (max)
Alarm current	25mA (max)
Fixing information	
Mounting position	Ceiling in open areas
Mounting options	Surface mount with relevant base
Area coverage	100m² (subject to local standards)
System wiring	2 Core
Environmental	
Operating temperature	-20ºC to 75ºC (dependent on setting)
Humidity (non condensing)	0 to 93%
Physical	
Construction	PC/ABS
Colour	White
Dimensions excl base (dia x depth)	104mm x 42mm
Dimensions incl base (dia x depth))	104mm x 55mm
Ingress protection	IP40
Emc	CE Marked
Compatibility	
Suitable for use with	Eaton conventional fire systems

Dimensions



Dia (mm)	D1 (mm)	D2 (mm)
104	55	42

Performance

Feature	Optical smoke mode	Photo-thermal mode	Rate of rise mode	Fixed heat 77 ˚C mode	Fixed heat 92 ˚C mode
Area coverage (subject to local standards)	100m²	100m²	50m²	50m²	50m²
Heat class	N/A	A2S	A1R	BS	CS
Alarm temperature	N/A	60 ˚C	60 ˚C	77 ˚C	92 ˚C

Installation

1. Detectors are fixed and wired via common mounting base.
2. Cable entry into base can be rear or side.
3. A locking facility is provided which can be activated if required to prevent unauthorised detector removal without the use of a special tool.
4. Positive click mechanism incorporated to provide clear indication when detector is correctly located in base.

User interface

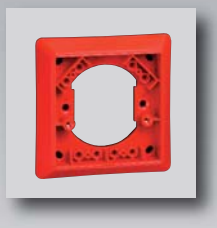
1. Red LED to indicate alarm condition.
2. All wiring connections are via a common mounting base (supplied separately).

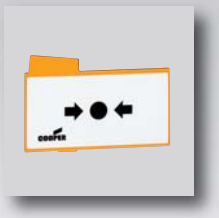
Catalogue numbers

Description	Code	Cooper Cross Ref.	Menvier Cross ref.
5 in 1 multi-mode sensor	FXN922	FXN922	FXN922
Optical smoke sensor	FXN533	CPD321	MPD821
Photo/thermal sensor	FXN632	CPT341	MPT951
Rate of rise heat detector	FXN525	CFR330	MFR830
Fixed heat detector 77 ˚C	FXN524	CMT360	MMT860
Fixed heat detector 92 ˚C	FXN526	CHT390	MHT890
JSB / Cooper base	FXN520	CDBB300	-
Menvier base*	-	-	MDB800-W

*Please note that legacy Menvier control panels require the Menvier base to provide correct head removal fault indication.

Fire





DATA SHEET

Conventional Callpoints

CX201 / CX203

MBG914 / MBG917

FX201 / FX203

COOPER

Conventional callpoints are available as both surface / flush and weatherproof versions and are approved to EN54: Pt 13.

Benefits and Features

- Approved to EN54: Pt 11
- Convenient clip fixed front cover
- One key for test and cover removal
- Available as surface / flush and weatherproof (IP67)

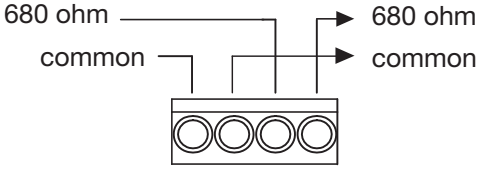
MENVIER

Jsb

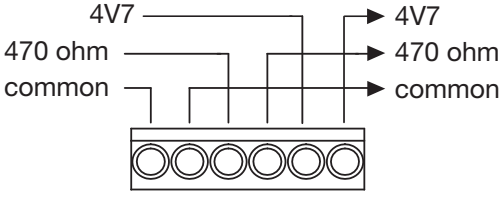
Technical Specifications

Model	CX201 / MBG914 / FX201	CX203 / MBG917 / FX203
Description	Conventional callpoint	Conventional callpoint - weatherproof
CPD Approval	0832CPD084	0832CPD085
Configuration	CX201 / FX201 and CX203 / FX203 Series resistor 680Ω. MBG914 and MBG917 Series resistor 470Ω	
Rating	24V dc	
Connection	4-way terminal block	
Operating method	Glass element with safety film	
Test facility	Unique key	
Enviromental	IP42. -10°C to +55°C	IP67. -25°C to +55°C
Physical		
Construction	ABS	
Dimensions (W x H x D)	86mm x 86mm x 20mm(S) 53mm(F)	110mm x 110mm x 65mm
Weight	0.19kg	0.29kg

Wiring Diagram - CX201 / FX201 / CX203 / FX203



Wiring Diagram - MBG914 / MBG917



Product Codes

Conventional callpoint, surface/flush mounting	CX201 / MBG914 / FX201
Conventional callpoint, surface mounting, weatherproof	CX203 / MBG917 / FX203
Accessories	
Callpoint test keys - pack of 10	MFBGKEY3
Resettable plastic elements - pack of 10	MBGREKIT
Polycarbonate front cover	CXCP / MBGHCC
Spare glasses - pack of 5	MBG118 / FX5G
Spare earth continuity links - pack of 5	MBG119
Mounting bezels - pack of 10	MBGBEZ
Spacer plates - pack of 10	MBGSP

Fire

Weatherproof version

DATA SHEET

Conventional Sounders

ROLPRS / ROLPRD

MWS424SB / MWS424DB

FX002 / FX002W

COOPER

The conventional surface sounder is a general purpose, wall mounted sounder.

Depending on the selected tone, sound levels of up to 105dB(A) can be achieved. Volume is adjustable via the internal volume control, with 32 different alarm tones.

Benefits and Features

> Low current

> Pre drilled cable entries

> Weatherproof (IP65) version available

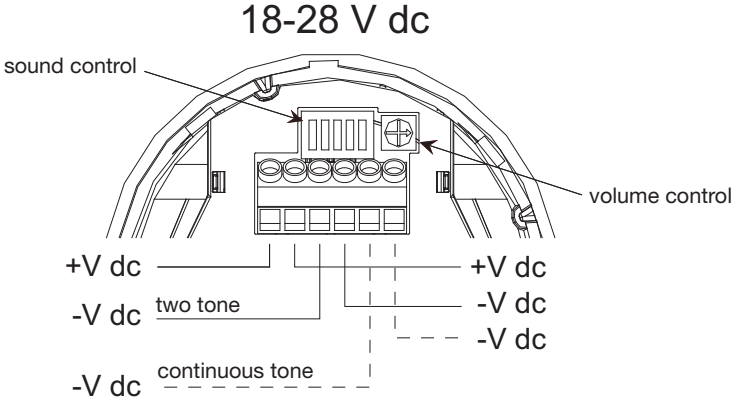
MENVIER

Jsb

Technical Specifications

Model	ROLPRS / MWS424SB / FX002	ROLPRD / MWS424DB / FX002W
Description	Conventional sounder	Conventional sounder - weatherproof
Standards	EN54: Pt 3	
CPD Approval	0832CPD0131	0832CPD0128
Operating voltage	9 to 28V dc	
Sound output (tone 3)	102 dB(A) at 24V dc	
Tones available	32	
Environmental rating	IP54. -25°C to +70°C	IP65. -25°C to +70°C
Physical		
Construction	ABS	
Colour	red / white	red
Dimensions (Dia x D)	93mm x 63mm	93mm x 93mm
Weight	0.24 kg	0.3 kg
Compatibility	Conventional fire systems	

Wiring Diagram



Product Codes

Conventional sounder - Red	ROLPRS / MWS424SB / FX002
Conventional sounder - White	FX002W
Conventional sounder - Weatherproof	ROLPRD / MWS424DB