

Installing FireClass Compact Repeater and Zonal Display with Deep Back Cover

Introduction

This leaflet covers the installation of the following FireClass compact network repeater and zonal displays with deep back cover mounting kit:

- FireClass compact network repeater (FC1DS)
- wall mounted with a deep back cover (P-WDP)
- FireClass 40 way zonal display shallow (FCZ4DS) - wall mounted with a deep back cover (P-WDP)
- FireClass 80 way zonal display shallow (FCZ8DS) - wall mounted with a deep back cover (P-WDP)

Installing FireClass Compact Network Repeater with Deep Back Cover

The two types of cables required for connecting the compact network repeater with the deep back cover to the fire panel are:

- DC supply cable and
- Ethernet cable



NOTICE: EARTH Cable Connection

An EARTH cable connection is required between the compact network repeater and the FireClass panel.

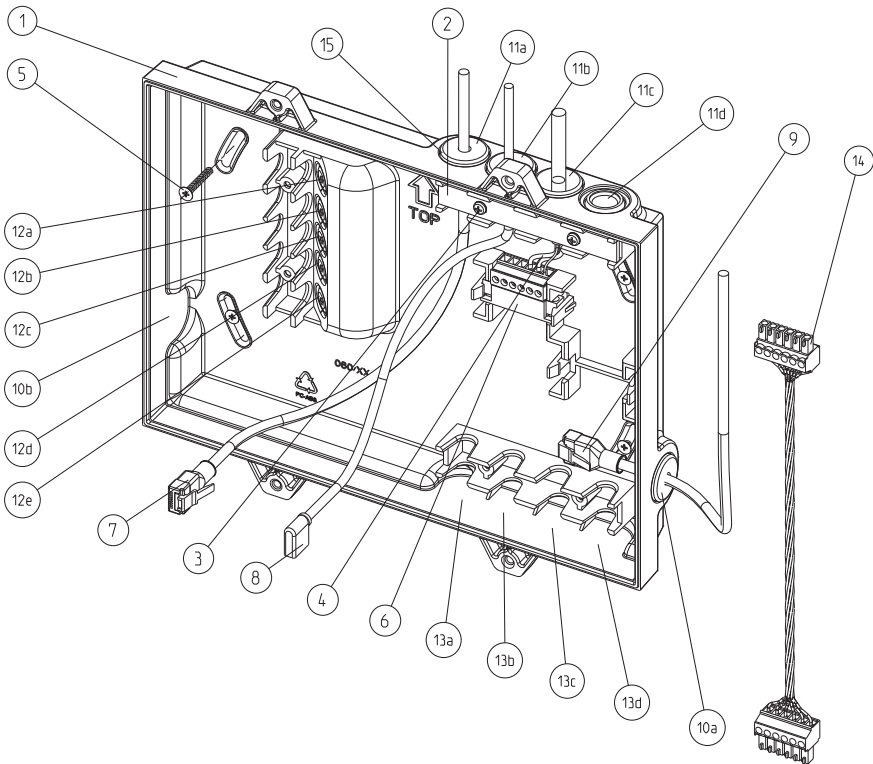


Fig. 1: Inside View of Deep Back Cover Mounting Kit - To be mounted with compact network repeater

- 1 Deep back cover
- 2 Cable holder
- 3 Cable holder screws (2x)
- 4 DC Supply cable
- 5 Fixing screws (4x)
- 6 DC supply terminal
- 7 Ethernet cable
- 8 EARTH cable
- 9 Cable for connecting zonal display
- 10a-10b Cable holes for zonal display connection (left/right entrance)
- 11a-11d Cable holes (top entrance)
- 12a-12d Cable holes (back entrance)
- 13a-13d Cable holes (bottom entrance)
- 14 Patch cable
- 15 Sealing grommets (5x)



NOTICE: Ethernet Cable Length Restriction

The repeater should be installed within a 100 m distance from the FireClass panel due to restriction on the Ethernet cable length.

- 1 Ensure that the panel is isolated from the mains and it is not running on batteries.
- 2 Use a knife or a sharp cutting tool to cut-out cable holes (10a to 10b or 11a to 11d or 12a to 12d) as required around the outline on the deep back cover (1), depending on the direction of the cables going into or out of the deep back cover. Refer to Fig. 1.
- 3 Prepare four holes in the wall by following the dimensions given in Fig. 2 for the screws plugs supplied.
- 4 Mount the deep back cover (1) on the wall using the screw plugs and fixing screws (5) supplied.
- 5 Tighten the screws and ensure that the deep back cover is firmly mounted on the wall.

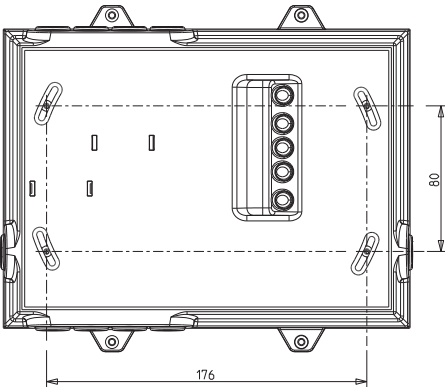


Fig. 2: Back View of Deep Back Cover - Fixing Screw Positions

- 6 Put the grommets supplied around the cables and lead them through the cut-out holes made in the deep back cover. The preferred order is:
 - 10/11/12 a - Ethernet cable (7)
 - 10/11/12 b - EARTH cable (8)
 - 10/11/12 c - DC supply cable (4)
- 7 Connect the power supply cables into the terminal block (6) supplied as shown in Fig. 3.

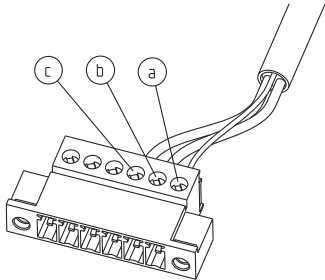


Fig. 3: Terminal Block

- a Shield of cable
- b 0 V
- c +27 V

- 8 Use the appropriate crimp tool to crimp the end of the Ethernet cable (7) going through the back cover with a RJ45 connector. Use straight-through wiring method.

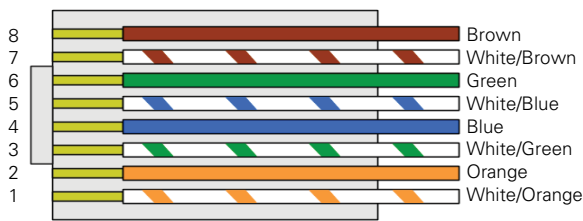


Fig. 4: Ethernet Cable - Wiring Connection for RJ45 Connector

NOTE: The colour code illustrates the correct wiring standard for RJ45 straight-through patch cable.

- 9 Fit the cable holder (2) to cables (11a to 11d) and tighten it with the screws (3). Refer to Fig. 1.
- 10 Plug one end of the patch cable (14) into the compact network repeater front cover rear PCB and plug the other end into the DC power supply terminal block (6) inside the deep back cover.
- 11 Mount the compact network repeater front cover onto the deep back cover with the 4 screws supplied.
- 12 Tighten the screws and ensure that the assembled unit is firmly mounted on the wall.

- 13 Power **ON** the panel.
- 14 Remove the protective cover from the repeater front cover and check the unit to ensure that it is functioning.



NOTICE: RDS800 Repeater Distribution Switch Kit

You must install a 'RDS800 Repeater Distribution Switch' kit in the panel before connecting the compact network repeater. The 'RDS800 Repeater Distribution Switch' kit is not supplied and must be ordered separately.

Installing FireClass 40/80 Way Zonal Display with Deep Back Cover

One cable is required for the interconnection between the compact network repeater and zonal display. This cable comes with RJ11 on one side and other side has to be fitted with a

WAGO connector after passing it through the grommet.

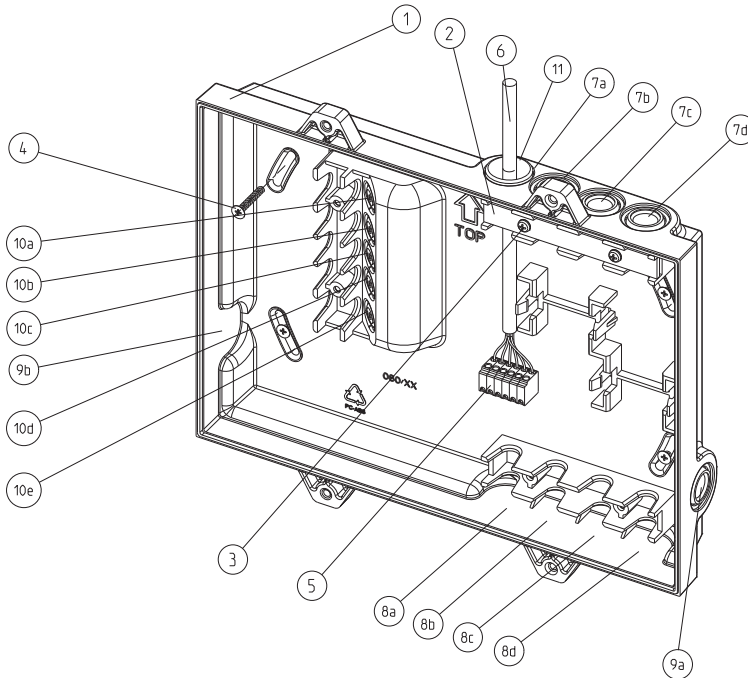


Fig. 5: Inside View of Deep Back Cover Mounting Kit - To be mounted with zonal display

- 1 Deep back Cover
- 2 Cable holder
- 3 Cable holder screws (2x)
- 4 Fixing screws (4x)
- 5 Connector to PCB
- 6 Cable to compact network repeater
- 7a-7d Cable holes (top entrance)
- 8a-8d Cable holes (bottom entrance)
- 9a-9b Cable holes (side entrance)
- 10a-10b Cable holes (back entrance)
- 11 Sealing grommet (5x)

- 1 Ensure that the panel supplying power to the compact network repeater is isolated from the mains and its is not running on batteries.
- 2 Switch **OFF** the compact network repeater.
- 3 Use a knife or a sharp cutting tool to cut-out cable holes (7a to 7d or 8a to 8d or 9a to 9b)

as required around the outline on the deep back cover (1), depending on the direction of the cables going into or out of the deep back cover. Refer to Fig. 5.

- 4 Prepare four holes in the wall close to the compact network repeater for the screws plugs supplied by following the dimensions given in Fig. 8.
- 5 Mount the deep back cover (1) on the wall using the screw plugs and fixing screws (4) supplied.
- 6 Tighten the screws and ensure that the deep back cover is firmly mounted on the wall.
- 7 Put the grommet supplied around the cables and lead it through the cut-out holes made in the deep back cover.
- 8 Strip the conductors and push the wires into the WAGO terminal block supplied as shown in Fig. 6. Push the springs inside the terminal block to ensure that the wires are firmly gripped.

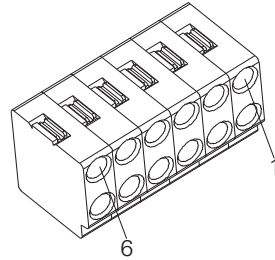


Fig. 6: WAGO Terminal Block - Wiring Connection

- 1 Orange — +24V
 - 2 Orange/White — Dimming
 - 3 Green — Ground
 - 4 Green/White — SDA
 - 5 Blue — Ground
 - 6 Blue/White — SCL
- 9 Plug the terminal block into the zonal display front cover rear PCB 6-pin. Ensure that there is no missed connection. Refer to Fig. 11.
 - 10 Mount the zonal display front cover (3) to the deep back cover (1) using the four screws (2) supplied. Refer to Fig. 7.
 - 11 Tighten the screws (2) and ensure that the assembled unit is firmly mounted on the wall.
 - 12 Power **ON** the panel.
 - 13 Remove the protective cover from the zonal display front cover and check the unit to ensure that it is functioning.

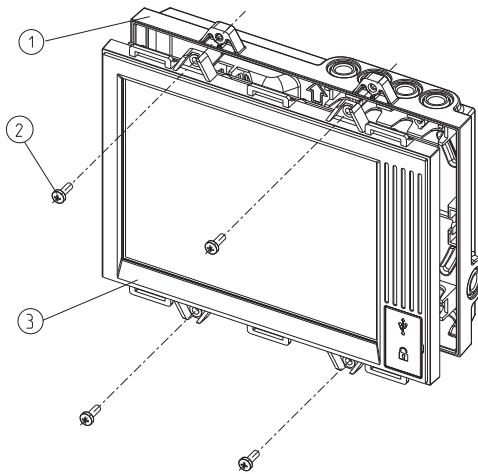


Fig. 7: Installation Overview of Zonal Display Mounting with Deep back cover

1 Deep back cover

2 Screws (4x)

3 Zonal display front cover

Compact Network Repeater and Zonal Display Wall Mounting Dimensions

Figure 8 illustrates how to 'wall mount' the compact network repeater and the zonal display in a vertical or horizontal position with the required dimensions.

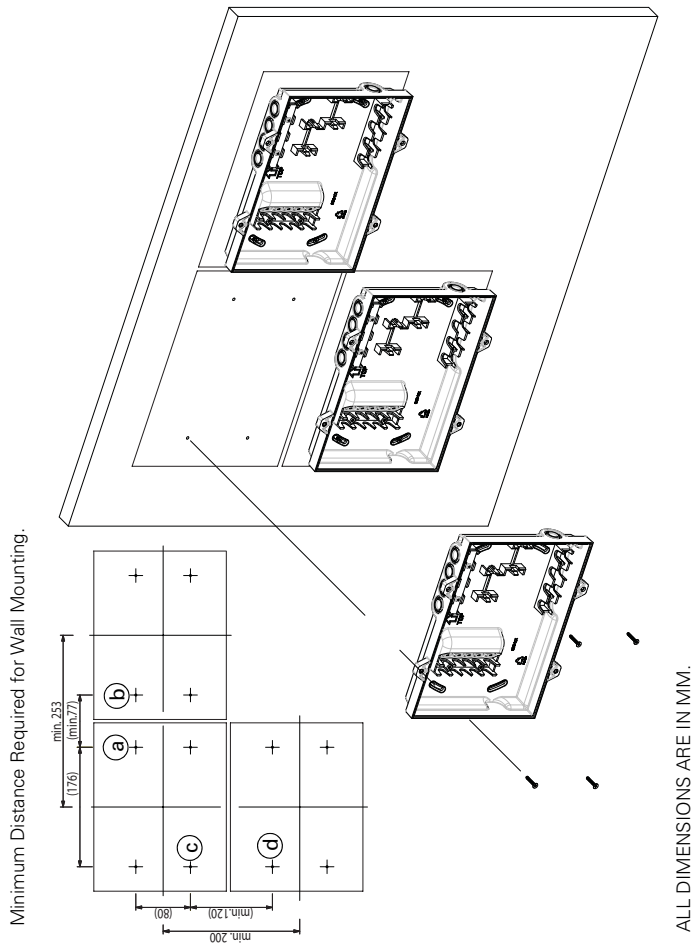


Fig. 8: Compact Network Repeater and Zonal Display Wall Mounting

- Note: 1.** To mount the units in a horizontal position (side by side), leave a minimum distance of 77mm between fixing screws positions a and b.
- 2.** To mount the units in a vertical position (top and bottom), leave a minimum distance of 120mm between fixing screws positions c and d.

How to Remove and Replace Compact Repeater 'Insert'

- 1 Inside the front cover of the repeater, identify the exposed edge of the flexible plastic 'insert' labelled as 'TOP', which is just behind the PCB. Refer to Fig. 9.
- 2 Insert a flat edge screw driver under the edge of the 'insert', and lift it clear off the locating post.
- 3 Firmly grip the 'insert' with your finger tips and slide it out.
- 4 Replace the 'insert' with the applicable language 'insert', ensuring the holes locates around the locating posts.
- 5 Ensure that the 'insert' is correctly inserted by checking the display screen.
- 6 Screw the front cover onto the back cover.

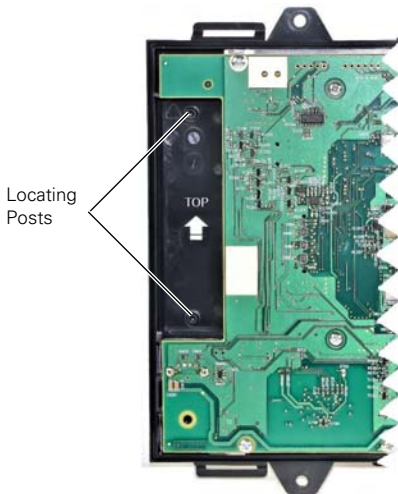


Fig. 9: Compact Network Repeater - Rear View of Front Cover

How to Remove and Replace Zonal Display 'Insert'

- 1 Inside the front cover of the zonal display, identify the exposed edge of the flexible plastic 'insert' labelled as 'TOP', which is just behind the PCB. Refer to Fig. 10.
- 2 Insert a flat edge screw driver under the edge of the 'insert', and lift it clear off the locating post.
- 3 Firmly grip the 'insert' with your finger tips after lifting it clear off the locating post.
- 4 On the opposite side of the 'insert'; insert the flat edge of a screw driver under the edge of the 'insert', and lift it clear. Refer to Fig. 10.
- 5 Firmly grip the 'insert' with your finger tips and slide it out, whilst releasing the other end of the 'insert' at the locating post.
- 6 Replace the 'insert' with the applicable language 'insert', ensuring that the holes locates around the locating posts.
- 7 Ensure that the 'insert' is correctly inserted by checking the display screen.
- 8 Screw the front cover onto the back cover.

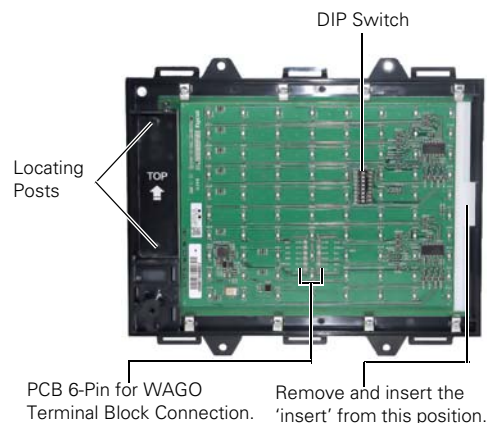


Fig. 10: Zonal Display - Rear View of Front Display



NOTICE: Additional Replacement ‘Inserts’ for DC Compact Network Repeater

The zonal display is supplied with three additional replacement ‘inserts’ for the DC compact network repeater.

Use the replacement ‘insert’, only if the zonal display is connected to a DC compact network repeater.

Follow the steps described in “How to Remove and Replace Compact Repeater ‘Insert’” on page 9 to:

- remove the current ‘insert’ in the DC compact network repeater, and replace it with the required language ‘insert’ supplied.

Multiple Zonal Display Installation

For multiple zonal display installation, you are required to set up different addresses for each zonal display using the DIP switch.

The following steps describes how to create a ‘daisy-chain’ connection:

- 1 Replace the RJ11 end of the cable with the supplied WAGO terminal block to create a cable with WAGO terminal blocks at both ends. Refer to Fig. 6 for WAGO terminal wiring connection.

- 2 Plug one end of the WAGO terminal block into the first zonal display front cover rear PCB 6-pin.
- 3 Plug the other end of the WAGO terminal block into the second zonal display front cover rear PCB 6-pin to create a ‘daisy-chain’ connection. Refer to Fig. 11.

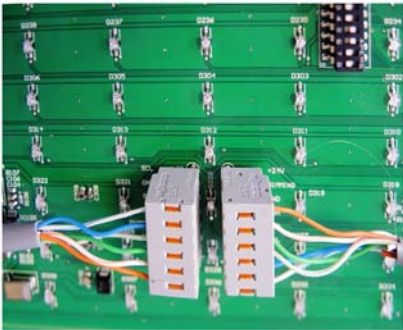


Fig. 11: Zonal Display Front Cover Rear View - WAGO Terminal Blocks Plugged into PCB 6-Pin



NOTICE: Multiple Zonal Display Installation

The FireClass compact repeater currently supports up to three zonal displays. For more details, refer to the FireClass FC700 Series User Manual.

DIP Switch Address Setting

The DIP switch is located at rear of the front cover of the zonal display. Refer to Fig. 10 and Fig. 12.

Table 1 shows the DIP switch factory default settings for the zonal display.

Pin Number	Function	State	
		Switch OFF	Switch ON
1	Addressing		X (Default)
2	Addressing		X (Default)
3	Addressing		X (Default)
4	Addressing		X (Default)
5	Dimming *	No Dimming (Default)	Dimming
6	Dimming *	No Dimming (Default)	Dimming
7	Not used	-	-
8	Not used	-	-

Table 1: DIP Switch Factory Default Settings for Zonal Display

Note: * Dimming is controlled by the FireClass panel Graphical User Interface (GUI).

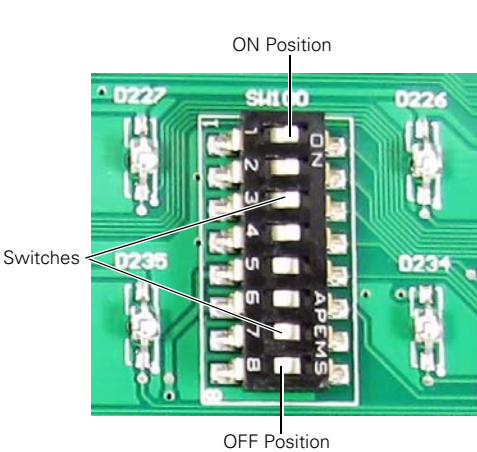


Fig. 12: Zonal Display DIP Switch

The following steps describes how to set up multiple addresses for multiple zonal display installation using the DIP switch:

- 1 First Zonal Display:
Set switches 1, 2, 3 and 4 to **ON**.
- 2 Second Zonal Display:
Set switches 1 and 3 to **ON**, and switches 2 and 4 to **OFF**.
- 3 Third Zonal Display:
Set switches 1 and 3 **OFF**, and switches 2 and 4 **ON**.

