Installing FireClass Compact Repeater and Zonal Display with Shallow Back Cover

Introduction

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

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

Installing FireClass Compact Network Repeater with Shallow Back Cover

To install the network repeater with a shallow back cover, you will require a 47mm deep double gang back box to be prepared in the wall for flush mount, which is supplied with the product.

The two types of cables required for connecting the network repeater 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.

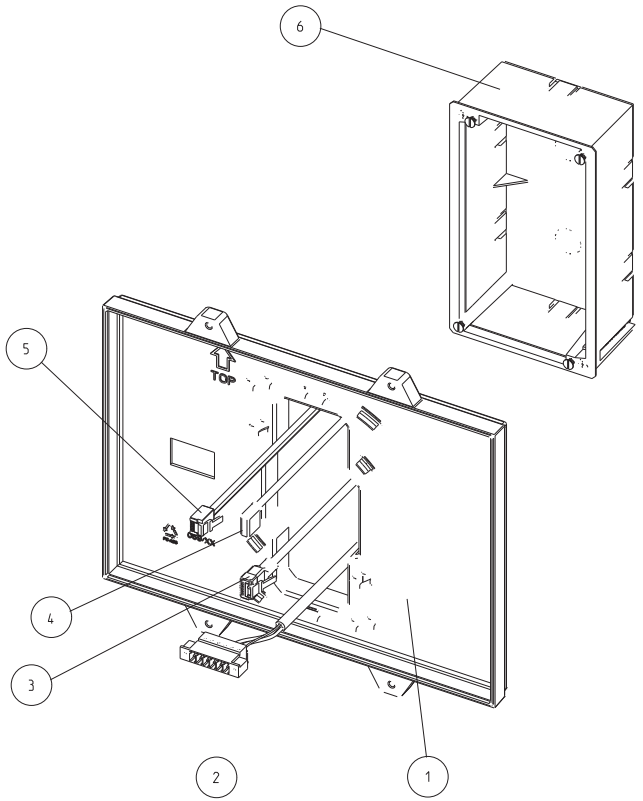

Fig. 1: Installation Overview of Shallow Back Cover Mounting Kit - To be mounted with compact network repeater

1 Shallow back cover
2 DC supply terminal block
3 Ethernet cable
4 EARTH cable
5 Cable for connection zonal display
6 47mm deep double gang back box
7 Patch cable

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 the appropriate crimp tool to crimp the end of the Ethernet cable (3) going through the back cover with RJ45 connector. Use straight-through wiring method.

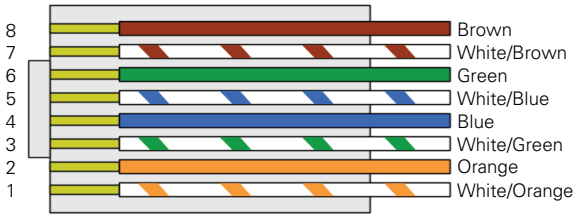

Fig. 2: Ethernet Cable - Wiring Connection for RJ45 Connector
NOTE: *The colour code illustrates the correct wiring standard for RJ45 straight-through patch cable.*

3 Connect the DC power supply cables into the supplied terminal block (2) as shown in Fig. 3.

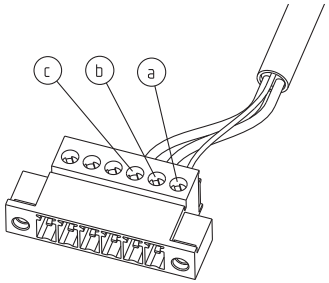

Fig. 3: Terminal Connector
a Shield of cable
b 0 V
c +27 V

4 Lead the cables through the shallow back cover (1) and mount it to a 47mm deep double gang back box prepared in the wall. Refer to Fig. 7for mounting dimensions.
5 Plug one end of the patch cable (8) into the DC power terminal block (2) and plug the other end into the compact network repeater.
6 Connect the EARTH cable to the compact network repeater.
7 Connect the Ethernet cable (3) to the compact network repeater.
8 Mount the compact network repeater front cover to the shallow back cover with the four screws supplied.
9 Tighten the screws and ensure that the assembled unit is firmly mounted on the wall.
10 Power **ON** the panel.
11 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 Displays with Shallow Back Cover

To install the zonal display with a shallow back cover, you will require a 47mm deep double gang back box to be prepared in a wall for flush mount, which is supplied with the product. One cable is required for interconnection between the compact network repeater and the zonal display. This cable comes with RJ11 on one end and the other end has to be fitted with a WAGO connector.

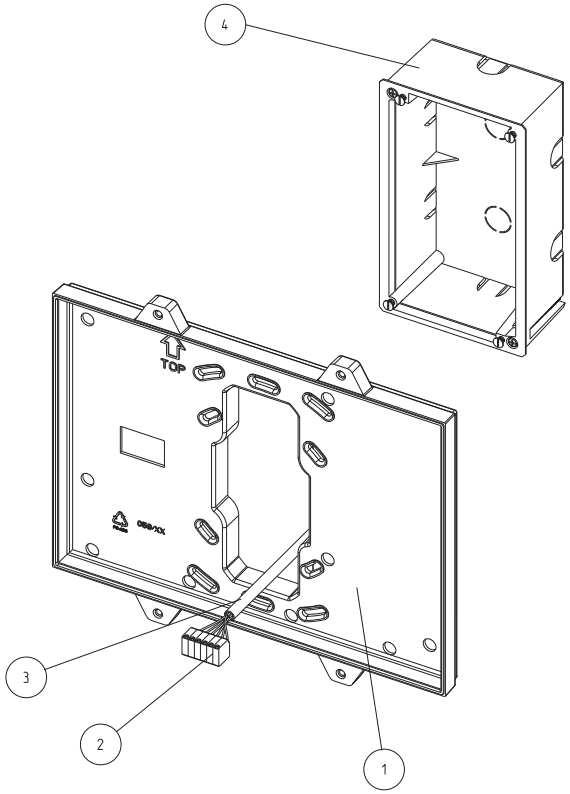

Fig. 4: Installation Overview of Shallow Back Cover Mounting Kit - To be mounted with zonal display

1 Shallow back cover
2 Connector to PCB
3 Cable to compact network repeater
4 47mm deep double gang back box

1 Ensure that the panel supplying power to the compact network repeater is isolated from the mains and it is not running on batteries.
2 Switch **OFF** the compact network repeater.
3 Strip the conductors and push the wires into the WAGO terminal block supplied as shown in Fig. 5. Push the springs inside the terminal block to ensure that the wires are firmly gripped.

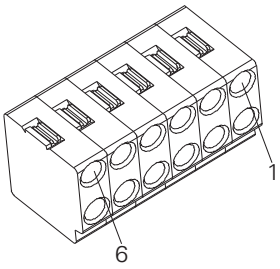

Fig. 5: WAGO Terminal Block - Wiring Connection
1 Orange — +24V
2 Orange/White — Dimming
3 Green — Ground
4 Green/White — SDA
5 Blue — Ground
6 Blue/White — SCL

4 Plug the terminal block into the zonal display front cover rear PCB 6-pin. Ensure that there is no missed connection. Refer to Fig. 10.
5 Mount the zonal display front cover (3) to the deep back cover (1) using the four screws (2) supplied. Refer to Fig. 6.
6 Tighten the screws (2) and ensure that the assembled unit is firmly mounted on the wall.
7 Power **ON** the panel.
8 Remove the protective cover from the zonal display front cover and check the unit to ensure that it is functioning.

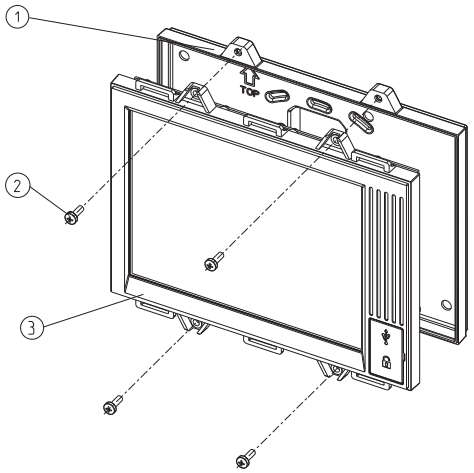

Fig. 6: Installation Overview of Zonal Display Mounting with Shallow Back Cover
1 Shallow back cover
2 Screws (4 x)
3 Zonal display front cover

Compact Network Repeater and Zonal Display Flush Wall Mounting Dimensions

Figure 7 illustrates how to 'wall mount' the compact network repeater and the zonal display in a vertical or horizontal position with the required dimensions.

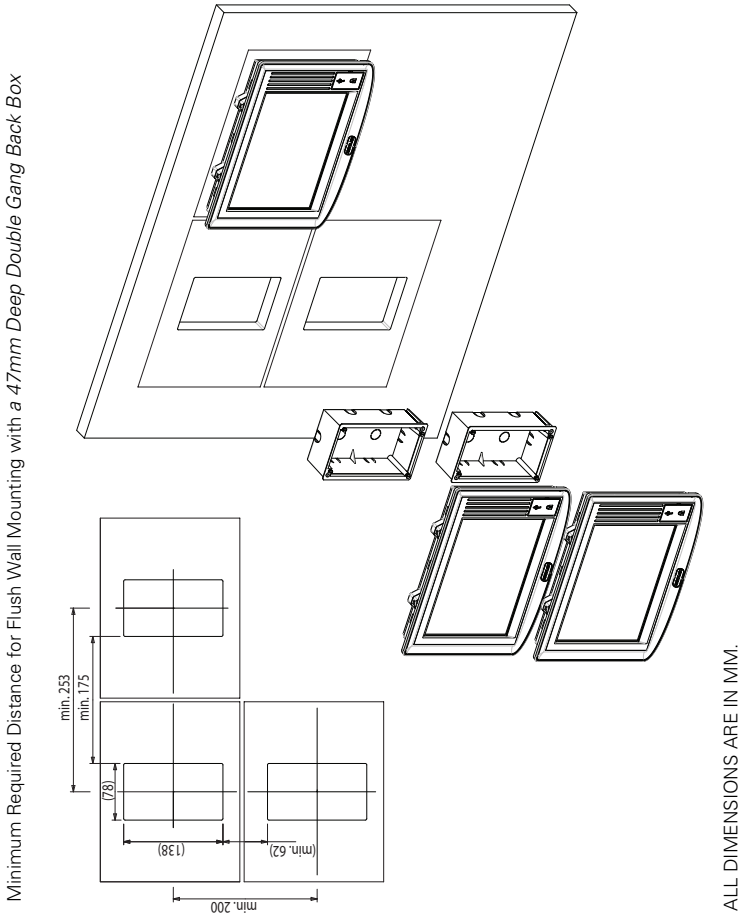

Fig. 7: Compact Network Repeater and Zonal Display - Flush Wall Mounting with a 47mm Deep Double Gang Back Box

Note: 1. *To mount the units in a horizontal position (side by side), leave a minimum distance of 175mm between the double gang back boxes.*

2. *To mount the units in a vertical position (top and bottom), leave a minimum distance of 62mm between the double gang back boxes.*

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. 8.
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.

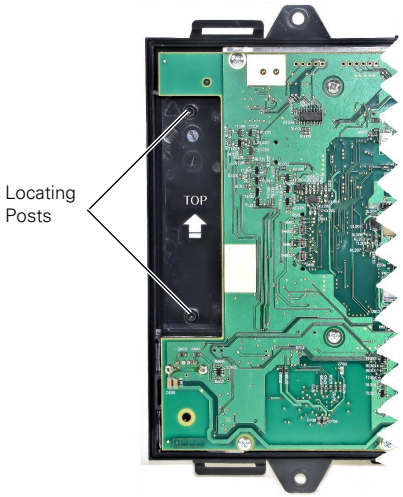

Fig. 8: Compact Network Repeater - Rear View of Front Cover

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. 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 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. 9.
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.

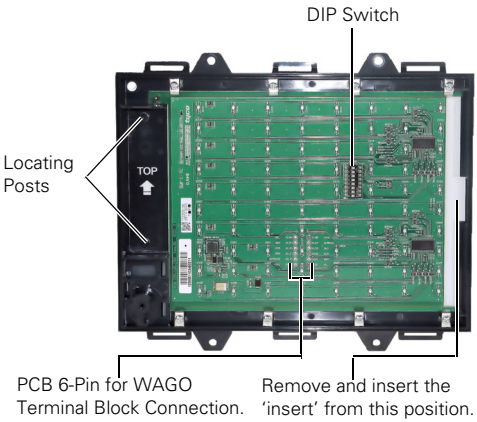

Fig. 9: Zonal Display - Rear View of Front Display

NOTICE: Additional Replacement 'Inserts' for DC Compact Network Repeater

The zonal display may be supplied with 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 7 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. 5 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. 10.

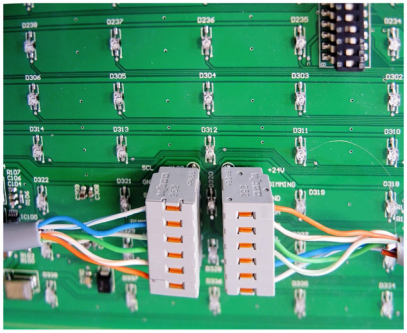

Fig. 10: Zonal Display Front Cover Rear View - WAGO Terminal Blocks Plugged into PCB 6-Pin

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 Panels User Manual.

DIP Switch Address Setting

The DIP switch is located at rear of the front cover of the zonal display. Refer to Fig. 9 and Fig. 11.

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).*

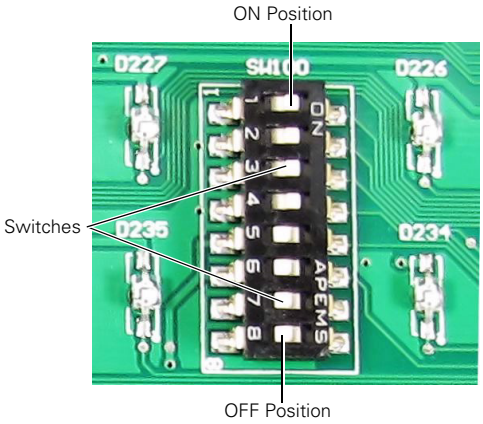

Fig. 11: Zonal Display DIP Switch

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**.

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