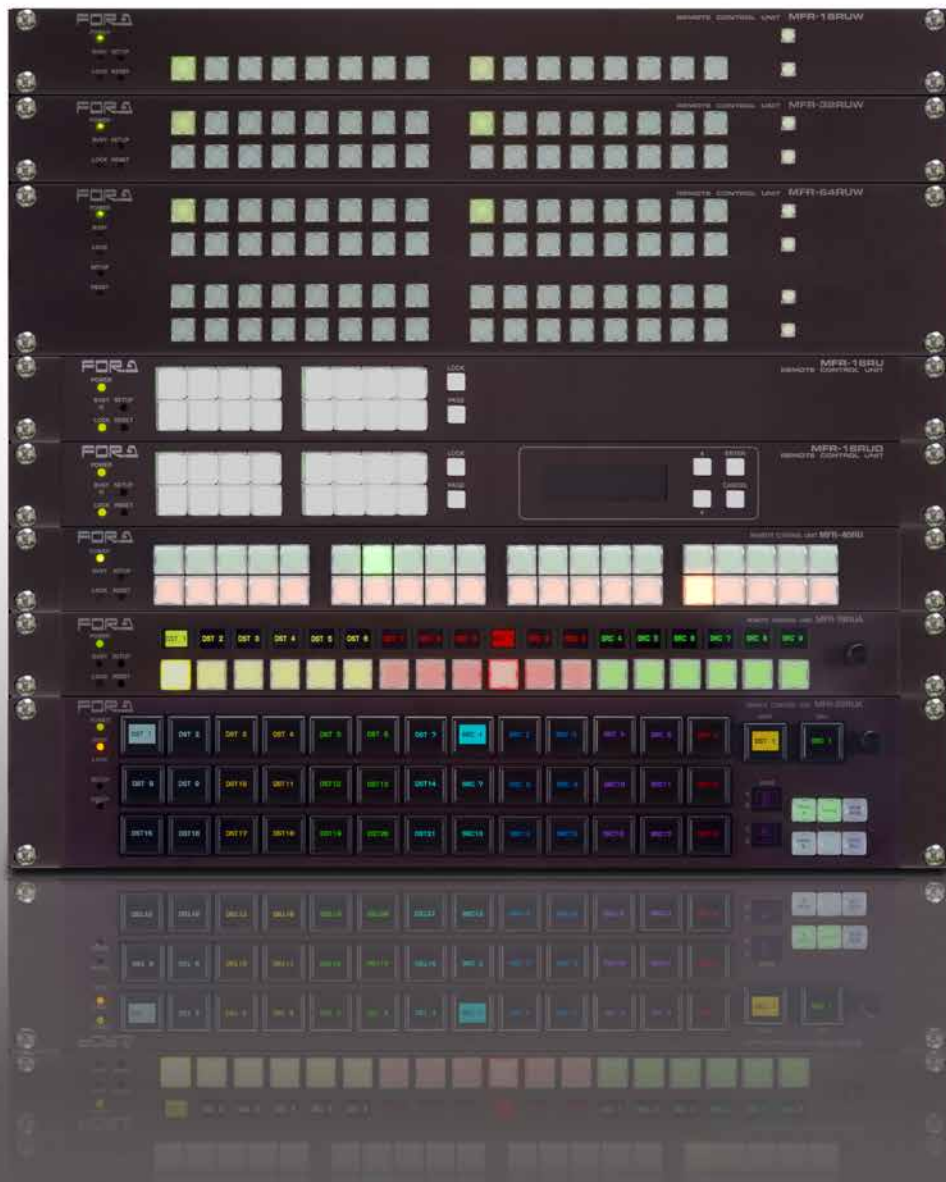
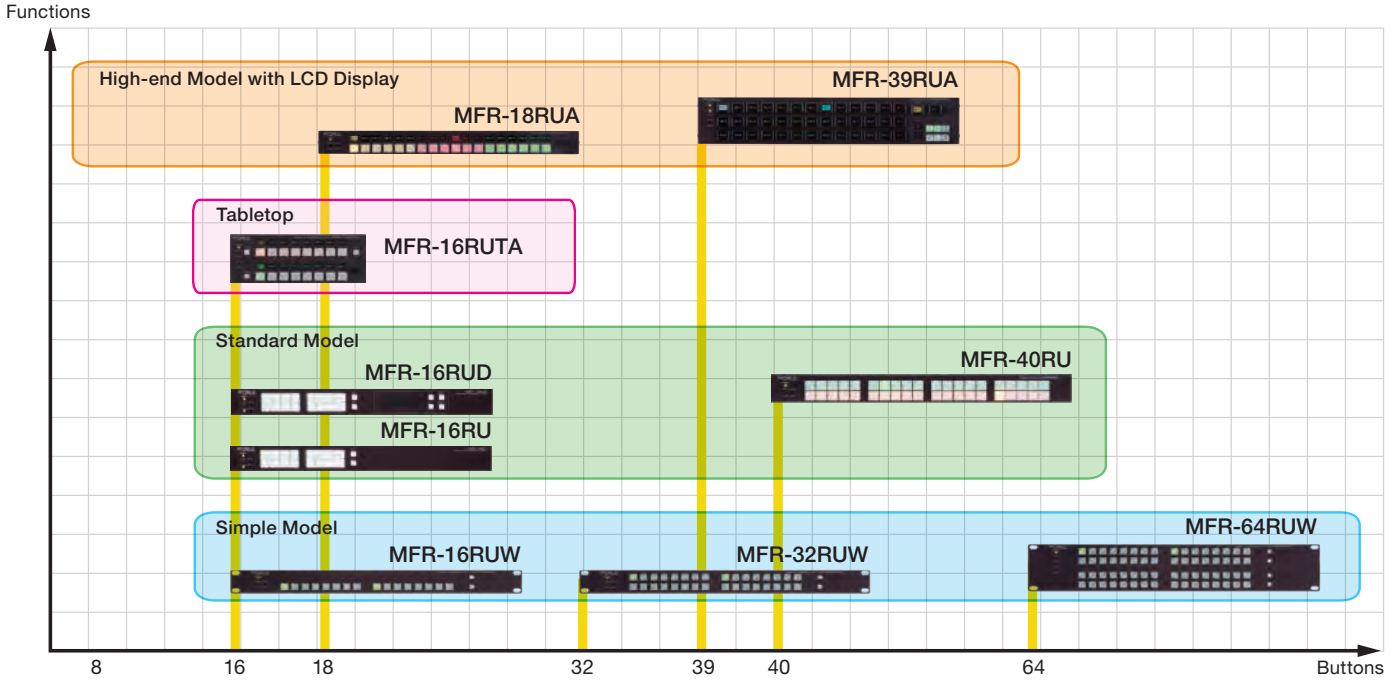


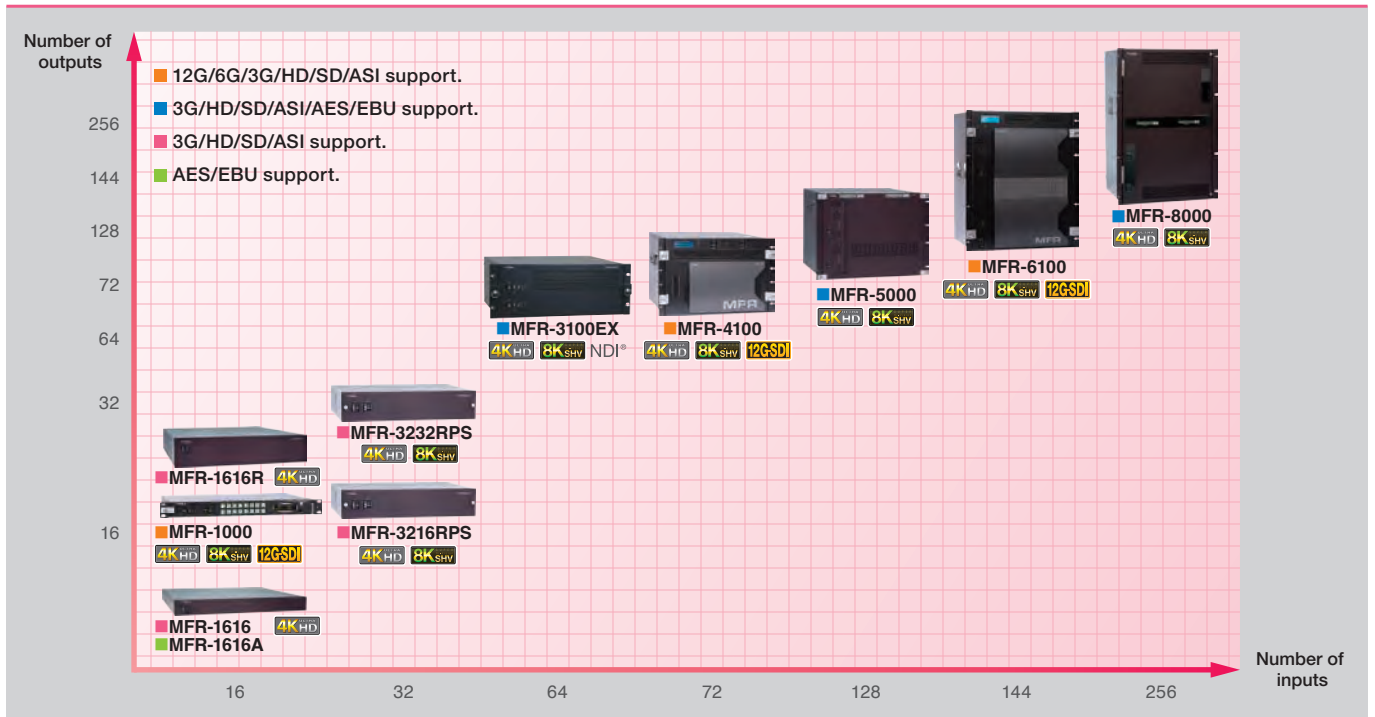
Remote Control Unit  
**MFR-RU Series**



# MFR-RU series Product Lineup



# Main Unit Lineup



		MFR-1616A	MFR-1616/ MFR-1616R	MFR-1000	MFR-3216RPS	MFR-3232RPS	MFR-3100EX	MFR-4100	MFR-5000	MFR-6100	MFR-8000
Input x output		16 x 16 (stereo-pair)	16 x 16	Up to 16 x 16	32 x 16	32 x 32	Up to 64 x 72	Up to 72 x 72	Up to 128 x 128	Up to 144 x 144	Up to 256 x 256
Video inputs/ outputs	12G-SDI	—	—	✓	—	—	Available*1	Available*1	Available*1	Available*1	Available*1
	6G-SDI	—	—	✓	—	—	—	Available	—	Available	—
	3G/HD/SD-SDI	—	✓	✓	✓	✓	Available	Available	Available	Available	Available
	DVB-ASI	—	✓	✓	✓	✓	Available	Available	Available	Available	Available
Audio inputs/ outputs	MADI	—	—	—	—	—	Available	—	Available	—	Available
	AES/EBU	✓	—	—	—	—	Available	—	Available	—	Available
	Analog	—	—	—	—	—	Available	—	Available	—	Available
Redundant	Redundant power supply	—	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional
	Redundant CPU	—	Optional*2	—	Optional	Optional	Optional	Optional	Optional	Optional	Optional
Size		1RU	1RU (2RU*2)	1RU	2RU	2RU	4RU	7RU	8RU	13RU	16RU

\*1 12G-SDI connectivity available in MFR-6100/4100/1000 matrices. For MFR-3100EX/5000/8000 matrices, only up to 3G-SDI is supported. An input card compatible with conversion from 12G to 3G for 12G-SDI input and an output card compatible with conversion from 3G to 12G for 12G-SDI output are necessary. \*2 MFR-1616R only.

# Product Details

## Simple Model

### MFR-16RUW



### MFR-32RUW



### MFR-64RUW



- 1RU compact size.
- 16 buttons (Single color: G).
- Any function can be assigned to the 16 buttons.
- 2 dedicated function buttons.
- 1RU compact size.
- 32 buttons (Single color: G).
- Any function can be assigned to the 32 buttons.
- 2 dedicated function buttons.
- 2RU size.
- 64 buttons (Single color: G).
- Any function can be assigned to the 64 buttons.
- 4 dedicated function buttons.

## Standard Model

### MFR-16RU



### MFR-16RUD



### MFR-40RU



- 1RU compact size.
- 16 buttons (Single color: G).
- Any function can be assigned to the 16 buttons.
- 2 function buttons (lock/page).
- 1RU compact size.
- 16 buttons (Single color: G).
- Any function can be assigned to the 16 buttons.
- Equipped with a status and setting menu display.
- 2 function buttons (lock/page).
- 1RU compact size.
- 40 buttons (3 colors: R, G, Or).
- Any function can be assigned to any button.
- Redundant power supply (AC adapter).

## Tabletop

### MFR-16RUTA



- 2RU half tabletop size.
- 16 buttons (3 colors: R, G, Or).
- Equipped with LCD display that can show source name and assigned functions for each button (7 colors: R, G, Ye, B, W, Cy, Mg).
- Any function can be assigned to the 16 buttons.

## High-end Model with LCD Display

### MFR-18RUA



- 1RU compact size.
- 18 buttons (3 colors: R, G, B).
- Equipped with OLED display that can show source name and assigned functions for each button (7 colors: R, G, Ye, B, W, Cy, Mg).
- Any function can be assigned to any button.
- Redundant power supply (AC adapter).

### MFR-39RUA



- 2RU size.
- 39 buttons: 13 button x 3-row. Buttons with OLED display that can show source names or assigned functions (7 colors: R, G, Ye, B, W, Cy, Mg).
- Apart from the main buttons, there are 6 function buttons that can be freely assigned (3 colors: R, G, Or).
- Equipped with display showing information of current sources, destinations, and pages.
- Ideal as a main control unit covering the entire crosspoint set-up.
- Redundant power supply (AC adapter).

# Interface Expansion Unit

The interface expansion unit lineup includes 3 types to suit your specific application. The number of units that can be connected is a maximum of 128, including the remote control units.

## MFR-RULINK: Remote Control Relay Unit



Connects MFR main unit and MFR-RU series. It allows MFR-RU series to switch cross points and control Lock function. It also supports change settings of MFR-RU series via built-in Web server. Max. 15 MFR-RU units can be connected via LAN.

## MFR-GPI: GPI Unit



Provides an interface for GPI control. This 1 RU sized unit is equipped with user-assignable GPI/O (128 channels) and 4 serial ports (9-pin D-sub male). It can be used for setting Input/Output and supports system configuration.

## MFR-TALM: Tally Manager



MFR-TALM is a device for performing central management of tally and material names of the MFR main unit and peripheral devices (such as video switchers and multi viewers). In the tally linking system, MFR-TALM performs the tally calculation, which were originally performed by the MFR main unit, so that the tally linking can be speeded up.

# Select Your System and Usage

### Switching pages

● Up to 2 pages

MFR-16RU

MFR-16RUD

● Up to 32 pages

MFR-16RUW

MFR-32RUW

MFR-64RUW

MFR-40RU

MFR-16RUTA

MFR-18RUA

MFR-39RUA

All models can assign page buttons.

### Switching pages by rotary selector

MFR-16RUTA

MFR-18RUA

MFR-39RUA

Pages can be switched using either a rotary selector or a button.

### Switching pages by dedicated button

MFR-16RU

MFR-16RUD

MFR-16RUTA

### Cost-effective model

MFR-16RUW

MFR-32RUW

MFR-64RUW

### Multi-colored buttons

MFR-40RU

MFR-16RUTA

MFR-18RUA

MFR-39RUA

MFR-39RUA equipped buttons with OLED display, and 7 colors for main buttons, 3 colors for function buttons. Other models have 3 colored function buttons.

### Information displays

MFR-16RUTA

MFR-18RUA

MFR-39RUA

7 colors for text displays.

### Redundant power supply unit

MFR-40RU

MFR-18RUA

MFR-39RUA

### All-purpose model

MFR-39RUA

## MFR-RU Series Datasheet

### 1. Specifications

#### MFR-16RU/16RUD Basic specifications

Temperature / Humidity	0°C to 40°C / 30% to 85% (no condensation)	
Power	+12 V DC Pin-connector x 1	
Consumption	MFR-16RU: 100 V AC to 120 V AC: 7VA (3W), 220 V AC to 240 V AC: 11VA (4W) MFR-16RUD: 100 V AC to 120 V AC: 8VA (3W), 220 V AC to 240 V AC: 11VA (4W)	
Dimensions	430 (W) x 44 (H) x 34 (D) mm EIA1RU 480 (W) (Including rack mount brackets)	
Weight	1kg	

#### MFR-16RU/16RUD Technical specifications

Buttons/Color	16 buttons (1 color: Green), user assignable Menu Display (Max. 16 characters x 2 lines) (MFR-16RUD only)	
Number of Connection	Max. 128 (including Main, MFR-RU Series, MFR-GPI and MFR-TALM units)	
Interface	MFR-LAN	10/100BASE-TX RJ-45 x 1 (For connection to MU. A network switch required for multiple unit configuration.)

#### MFR-16RU/16RUD Accessories

AC cord, AC adaptor, DC cable retaining clip, EIA rack mount brackets, Tool used to change button labels, and LAN cable (straight)

#### MFR-40RU Basic specifications

Temperature / Humidity	0°C to 40°C / 30% to 85% (no condensation)	
Power	+12 VDC Pin-connector x 2 (redundant power supply as standard)	
Consumption	100 V AC to 120 V AC: 10VA (5W), 220 V AC to 240 V AC: 15VA (7W)	
Dimensions	430 (W) x 44 (H) x 42 (D) mm EIA1RU 480 (W) (Including rack mount brackets)	
Weight	2kg	

#### MFR-40RU Technical specifications

Buttons/Color	40 buttons (3 colors: Red/Green/Orange), user assignable	
Number of Connection	Max. 128 (including Main, MFR-RU Series, MFR-GPI and MFR-TALM units)	
Interface	MFR-LAN	10/100BASE-TX RJ-45 x 1 (For connection to MU. A network switch required for multiple unit configuration.)
	SERVICE	RS-232C 9-pin D-sub (male) x 1 (for maintenance)

#### MFR-40RU Accessories

AC cord, AC adaptor, EIA rack mount brackets, Tool used to change button labels, and LAN cable (straight)

#### MFR-16RUW Basic specifications

Temperature / Humidity	0°C to 40°C / 30% to 85% (no condensation)
Power	+12 V DC Pin-connector x 1
Consumption	100 V AC to 120 V AC: 8VA (3W), 220 V AC to 240 V AC: 11VA (3W)
Dimensions	480 (W) x 44(H) x 27 (D) mm EIA1RU (Including rack mount brackets)
Weight	1kg

#### MFR-16RUW Technical specifications

Buttons/Color	18 buttons (1 color: Green), user assignable	
Number of Connection	Max. 128 (including Main, MFR-RU Series, MFR-GPI and MFR-TALM units)	
Interface	MFR-LAN	10/100BASE-TX RJ-45 x 1 (For connection to MU. A network switch required for multiple unit configuration.)

#### MFR-16RUW Accessories

AC cord, AC adaptor, DC cable retaining clip, and Tool used to change button labels

#### MFR-32RUW Basic specifications

Temperature / Humidity	0°C to 40°C / 30% to 85% (no condensation)
Power	+12 V DC Pin-connector x 1
Consumption	100 V AC to 120 V AC: 10VA (4W), 220 V AC to 240 V AC: 13VA (4W)
Dimensions	480 (W) x 44 (H) x 27 (D) mm EIA1RU (Including rack mount brackets)
Weight	1kg

#### MFR-32RUW Technical specifications

Buttons/Color	34 buttons (1 color: Green), user assignable	
Number of Connection	Max. 128 (including Main, MFR-RU Series, MFR-GPI and MFR-TALM units)	
Interface	MFR-LAN	10/100BASE-TX RJ-45 x 1 (For connection to MU. A network switch required for multiple unit configuration.)

#### MFR-32RUW Accessories

AC cord, AC adaptor, DC cable retaining clip, and Tool used to change button labels

### MFR-64RUW Basic specifications

Temperature / Humidity	0°C to 40°C / 30% to 85% (no condensation)
Power	+12 V DC Pin-connector x 1
Consumption	100 V AC to 120 V AC: 15VA (7W), 220 V AC to 240 V AC: 20VA (8W)
Dimensions	480 (W) x 88 (H) x 27 (D) mm EIA2RU (Including rack mount brackets)
Weight	1.5 kg

### MFR-64RUW Technical specifications

Buttons/Color	68 buttons (1 color: Green), user assignable	
Number of Connection	Max. 128 (including Main, MFR-RU Series, MFR-GPI and MFR-TALM units)	
Interface	MFR-LAN	10/100BASE-TX RJ-45 x 1 (For connection to MU. A network switch required for multiple unit configuration.)

### MFR-64RUW Accessories

AC cord, AC adaptor, DC cable retaining clip, and Tool used to change button labels

### MFR-18RU Basic specifications

Temperature / Humidity	0°C to 40°C / 30% to 85% (no condensation)
Power	+12 VDC Pin-connector x 2 (redundant power supply as standard)
Consumption	100 V AC to 120 V AC: 12VA (6W), 220 V AC to 240 V AC: 18VA (8W)
Dimensions	430 (W) x 44 (H) x 42 (D) mm EIA1RU 480 (W) (Including rack mount brackets)
Weight	2kg

### MFR-18RU Technical specifications

Buttons/Color	18 buttons (3 colors: Red/Green/Orange), user assignable LCD display x 18 (Max. 7 characters x 2 lines, 7-color, Displayed above each button) with Rotary selector	
Number of Connection	Max. 128 (including Main, MFR-RU Series, MFR-GPI and MFR-TALM units)	
Interface	MFR-LAN	10/100BASE-TX RJ-45 x 1 (For connection to MU. A network switch required for multiple unit configuration.)
	SERVICE	RS-232C 9-pin D-sub (male) x 1 (for maintenance)

### MFR-18RU Accessories

AC cord, AC adaptor, DC cable retaining clip, EIA rack mount brackets, Tool used to change button labels, and LAN cable (straight)

### MFR-18RUA Basic specifications

Temperature / Humidity	0°C to 40°C / 30% to 85% (no condensation)
Power	+12 VDC Pin-connector x 2 (redundant power supply as standard)
Consumption	100 V AC to 120 V AC: 14VA (6W), 220 V AC to 240 V AC: 18VA (6W)
Dimensions	430 (W) x 44 (H) x 42 (D) mm EIA1RU 480 (W) (Including rack mount brackets)
Weight	2kg

### MFR-18RUA Technical specifications

Buttons/Color	18 buttons (3 colors: Red/Green/Orange), user assignable OLED display x 18 (Max. 7 characters x 2 lines, 7-color, Displayed above each button) with Rotary selector	
Number of Connection	Max. 128 (including Main, MFR-RU Series, MFR-GPI and MFR-TALM units)	
Interface	MFR-LAN	10/100BASE-TX RJ-45 x 1 (For connection to MU. A network switch required for multiple unit configuration.)
	SERVICE	RS-232C 9-pin D-sub (male) x 1 (for maintenance)

### MFR-18RUA Accessories

AC cord, AC adaptor, EIA rack mount brackets, Tool used to change button labels, and LAN cable (straight)

### MFR-39RU Basic specifications

Temperature / Humidity	0°C to 40°C / 30% to 85% (no condensation)
Power	+12 VDC Pin-connector x 2 (redundant power supply as standard)
Consumption	100 V AC to 120 V AC: 17VA (9W), 220 V AC to 240 V AC: 22VA (11W)
Dimensions	430 (W) x 88 (H) x 44 (D) mm EIA2RU 480 (W) (Including rack mount brackets)
Weight	3kg

### MFR-39RU Technical specifications

Buttons/Color	39 buttons (LCD buttons, 7-color) Displayed in each button (Max. 7 characters x 2 lines) 10 buttons (3 colors: Red/Green/Orange), user assignable Menu display x 1 (Max. 23 characters x 2 lines) with Rotary selector	
Number of Connection	Max. 128 (including Main, MFR-RU Series, MFR-GPI and MFR-TALM units)	
Interface	MFR-LAN	10/100BASE-TX RJ-45 x 1 (For connection to MU. A network switch required for multiple unit configuration.)
	SERVICE	RS-232C 9-pin D-sub (male) x 1 (for maintenance)

### MFR-39RU Accessories

AC cord, AC adaptor, DC cable retaining clip, EIA rack mount brackets, Tool used to change button labels, and LAN cable (straight)



### MFR-39RUA Basic specifications

Temperature / Humidity	0°C to 40°C / 30% to 85% (no condensation)
Power	+12 VDC Pin-connector x 2 (redundant power supply as standard)
Consumption	100 V AC to 120 V AC: 19VA (9W), 220 V AC to 240 V AC: 24VA (9W)
Dimensions	430 (W) x 88 (H) x 42 (D) mm EIA2RU 480 (W) (Including rack mount brackets)
Weight	3kg

### MFR-39RUA Technical specifications

Buttons/Color	39 buttons (OLED buttons, 7-color) Displayed in each button (Max. 7 characters x 2 lines) 6 buttons (3 colors: Red/Green/Orange), user assignable Current DEST button, current SRC button, current PAGE display x 2, Rotary selector	
Number of Connection	Max. 128 (including Main, MFR-RU Series, MFR-GPI and MFR-TALM units)	
Interface	MFR-LAN	10/100BASE-TX RJ-45 x 1 (For connection to MU. A network switch required for multiple unit configuration.)
	SERVICE	RS-232C 9-pin D-sub (male) x 1 (for maintenance)

### MFR-39RUA Accessories

AC cord, AC adaptor, EIA rack mount brackets, Tool used to change button labels, and LAN cable (straight)

### MFR-16RUTA Basic specifications

Temperature / Humidity	0°C to 40°C / 30% to 85% (no condensation)
Power	+12 V DC Pin-connector x 1
Consumption	100 V AC to 120 V AC: 12VA (5W), 220 V AC to 240 V AC: 15VA (6W)
Dimensions	215(W) x 88(H) x 43(D) mm EIA 2 RU, half-rack size
Weight	1kg

### MFR-16RUTA Technical specifications

Buttons/Color	16 buttons (3 colors: Red/Green/Orange), user assignable OLED display x 16 (Max. 7 characters x 2 lines, 7-color, Displayed above each button) 2 buttons for PAGE control (lit orange) 1 button for LOCK control (lit orange) Rotary selector	
Number of Connection	Max. 128 (including Main, MFR-RU Series, MFR-GPI and MFR-TALM units)	
Interface	MFR-LAN	10/100BASE-TX RJ-45 x 1 (For connection to MU. A network switch required for multiple unit configuration.)

### MFR-16RUTA Accessories

AC cord, AC adaptor, Tool used to change button labels, and LAN cable (straight)

### MFR-8RUA Basic specifications

Temperature / Humidity	0°C to 40°C / 30% to 85% (no condensation)
Power	+12 VDC Pin-connector x 2 (redundant power supply as standard)
Consumption	100 V AC to 120 V AC: 9VA (3W), 220 V AC to 240 V AC: 11VA (3W)
Dimensions	212(W) x 44(H) x 42(D) mm EIA 1 RU, half-rack size 480 (W) (Including rack mount brackets)
Weight	1kg

### MFR-8RUA Technical specifications

Buttons/Color	8 buttons (3 colors: Red/Green/Orange), user assignable OLED display x 8 (Max. 7 characters x 2 lines, 7-color, Displayed above each button) with Rotary selector	
Number of Connection	Max. 128 (including Main, MFR-RU Series, MFR-GPI and MFR-TALM units)	
Interface	MFR-LAN	10/100BASE-TX RJ-45 x 1 (For connection to MU. A network switch required for multiple unit configuration.)
	SERVICE	RS-232C 9-pin D-sub (male) x 1 (for maintenance)

### MFR-8RUA Options

EIA Rack Mount Brackets	Single- or Dual-unit type
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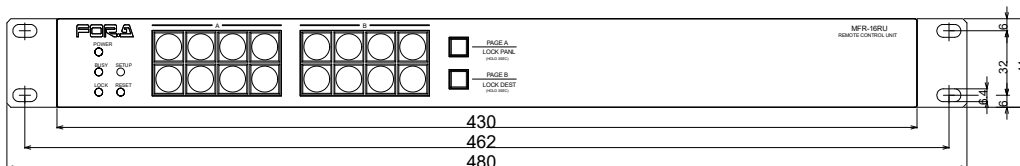
### MFR-8RUA Accessories

AC cord, AC adaptor, Tool used to change button labels, and LAN cable (straight)

## 2. External Dimensions

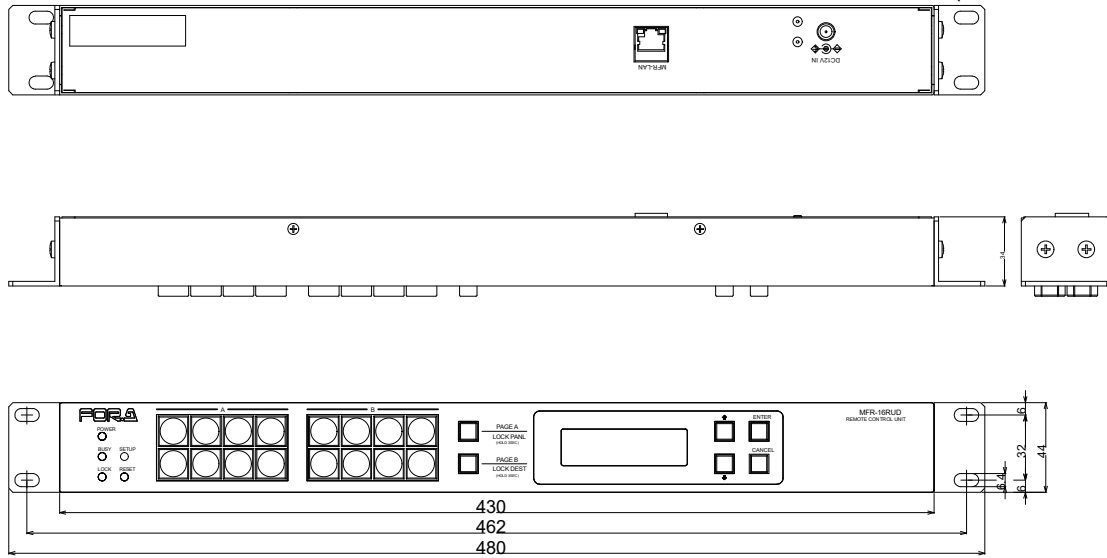
### MFR-16RU

(All dimensions in mm.)



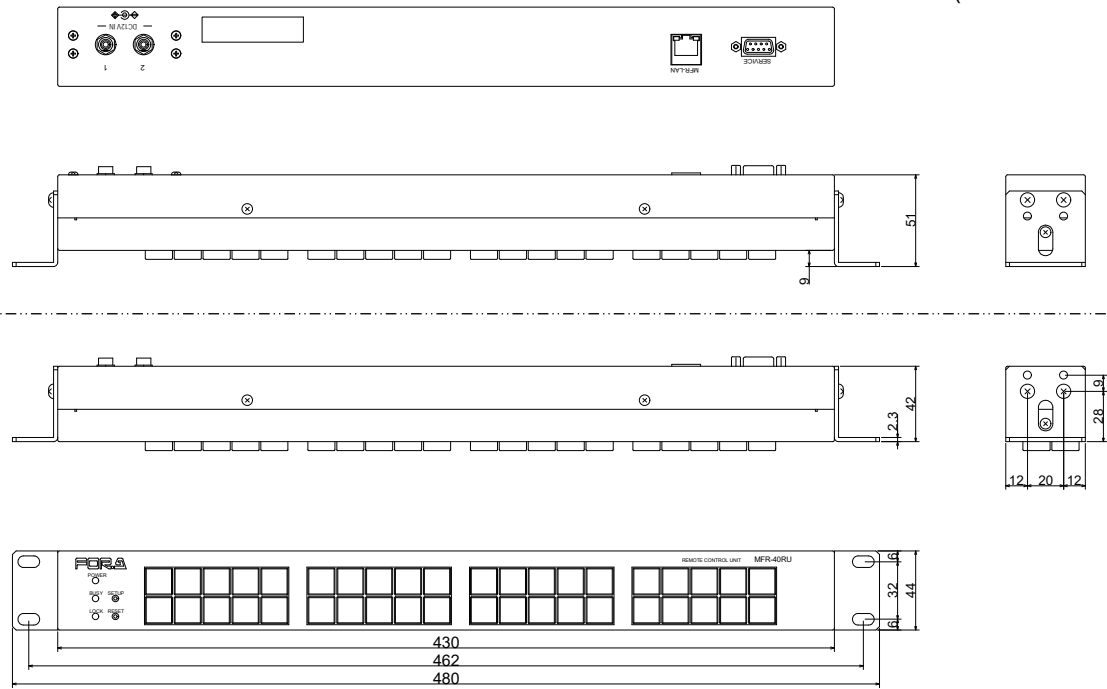
**MFR-16RUD**

(All dimensions in mm.)



**MFR-40RU**

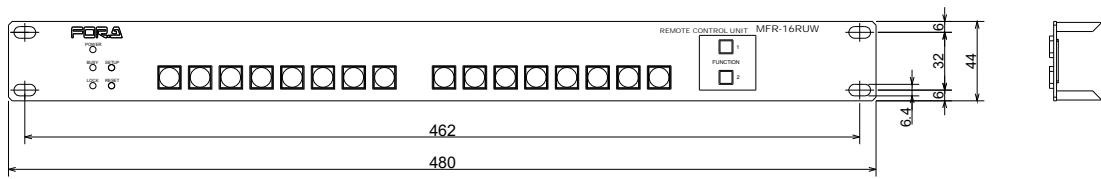
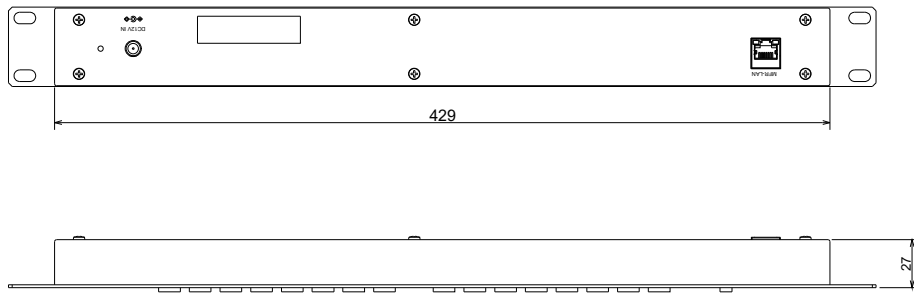
(All dimensions in mm.)



\* The panel buttons can be fitted within the rack by sliding the rack ears forward to attach as shown in the bottom figure above.

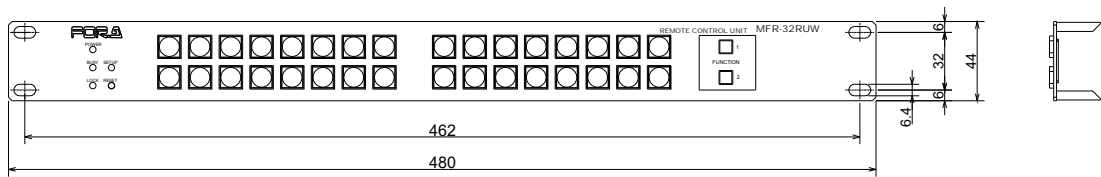
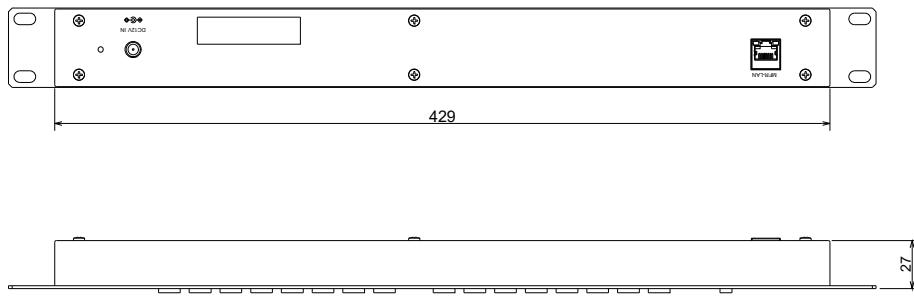
**MFR-16RUW**

(All dimensions in mm.)



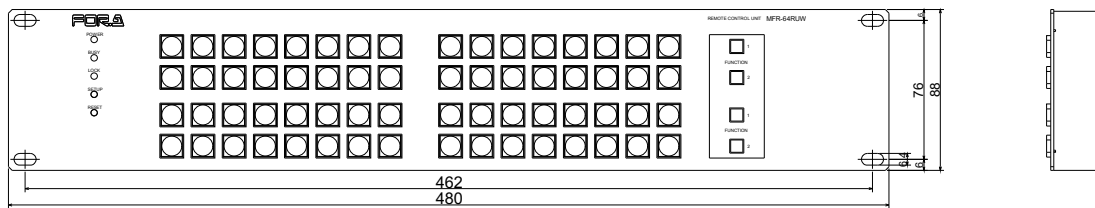
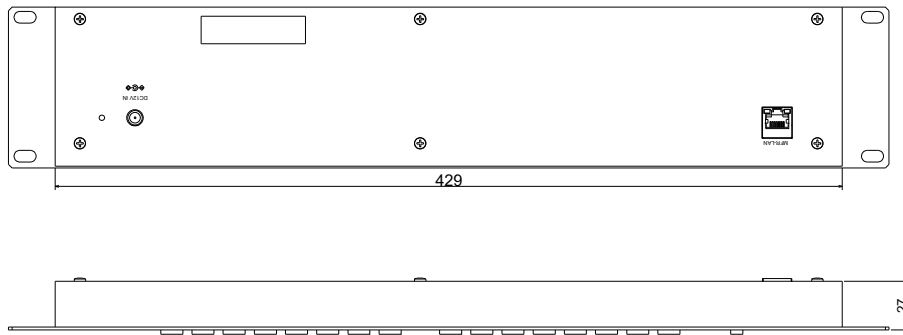
**MFR-32RUW**

(All dimensions in mm.)



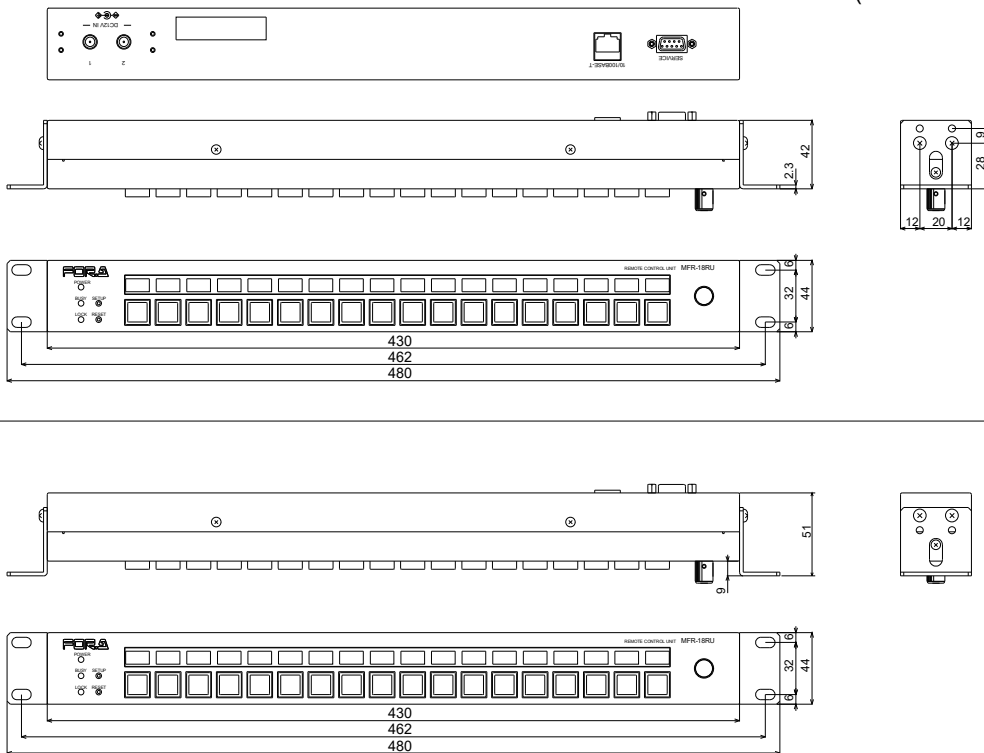
**MFR-64RUW**

(All dimensions in mm.)



**MFR-18RU**

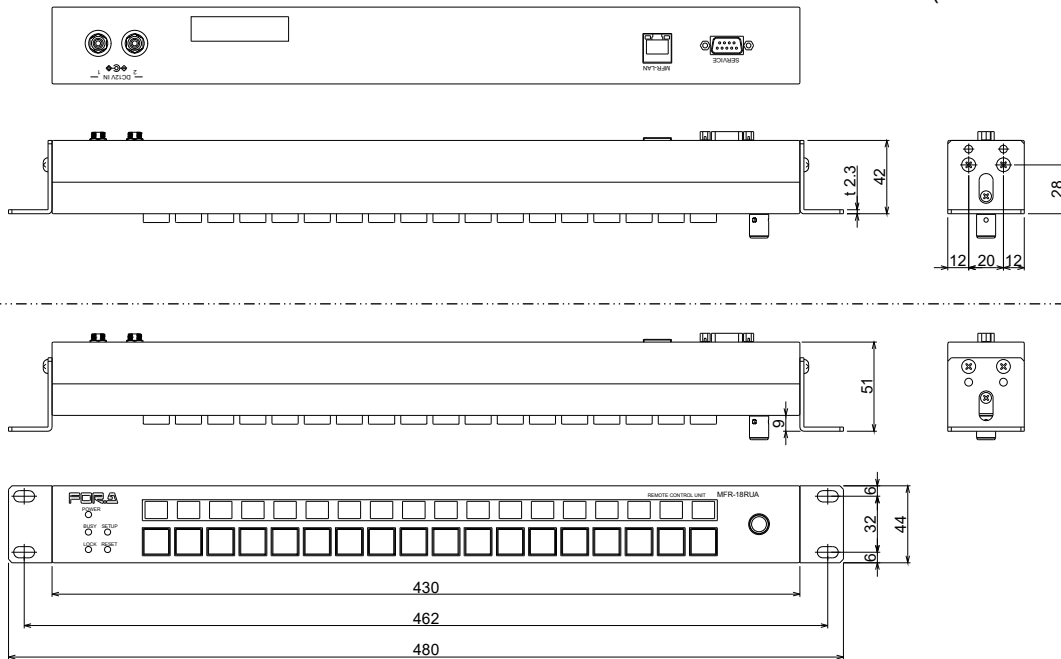
(All dimensions in mm.)



\* The panel buttons can be fitted within the rack by sliding the rack ears forward to attach as shown in the bottom figure above.

**MFR-18RUA**

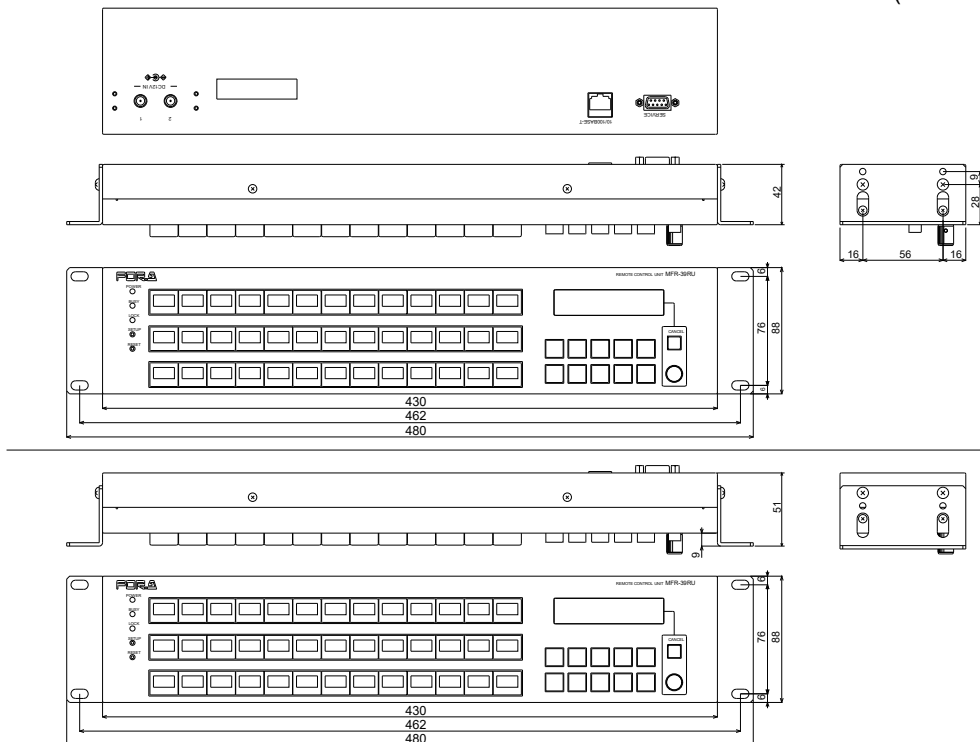
(All dimensions in mm.)



\* The panel buttons can be fitted within the rack by sliding the rack ears forward to attach as shown in the bottom figure above.

**MFR-39RU**

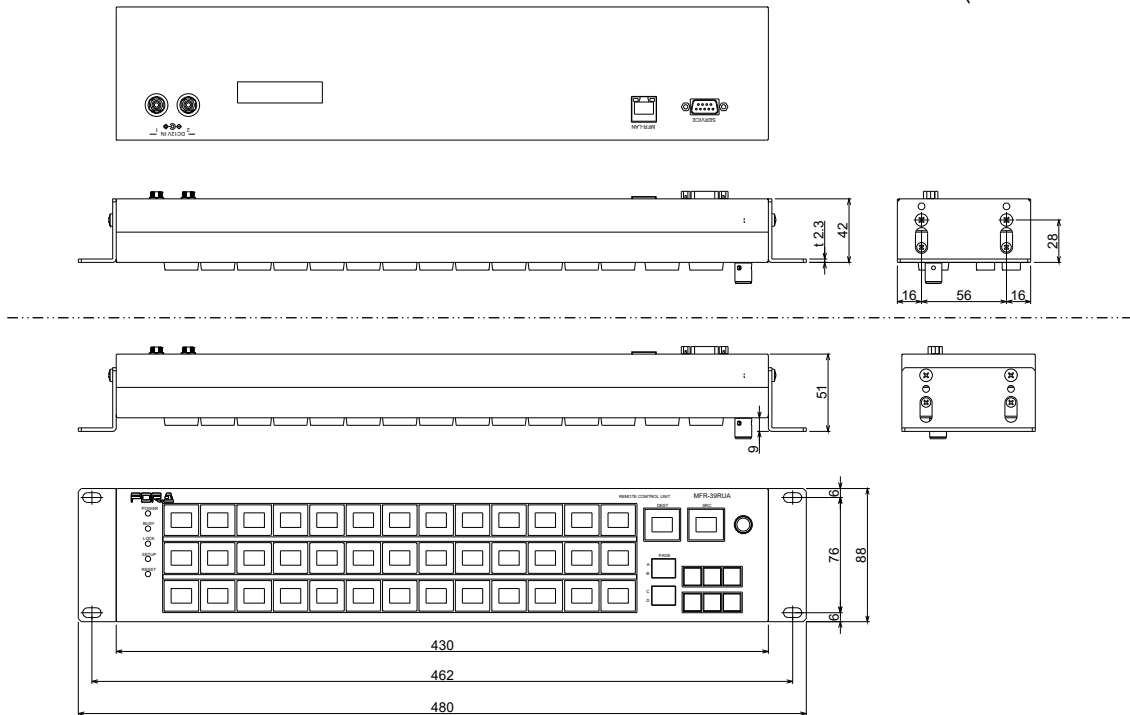
(All dimensions in mm.)



\* The panel buttons can be fitted within the rack by sliding the rack ears forward to attach as shown in the bottom figure above.

**MFR-39RUA**

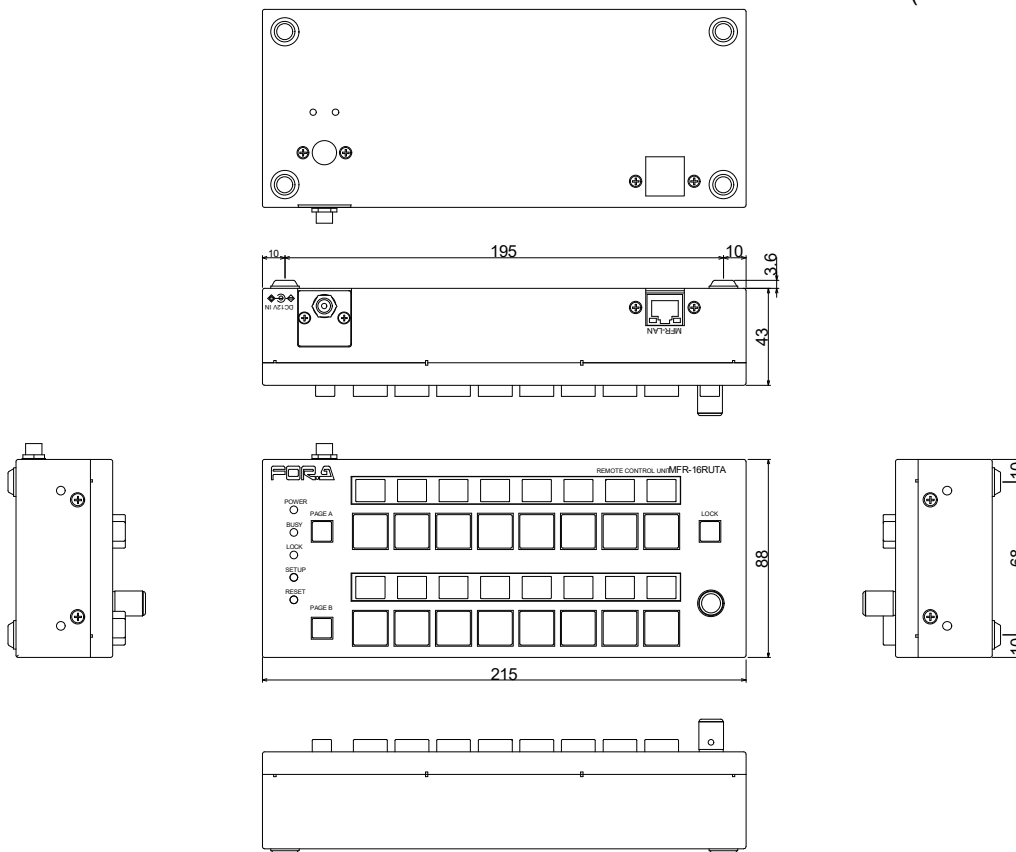
(All dimensions in mm.)



\* The panel buttons can be fitted within the rack by sliding the rack ears forward to attach as shown in the bottom figure above.

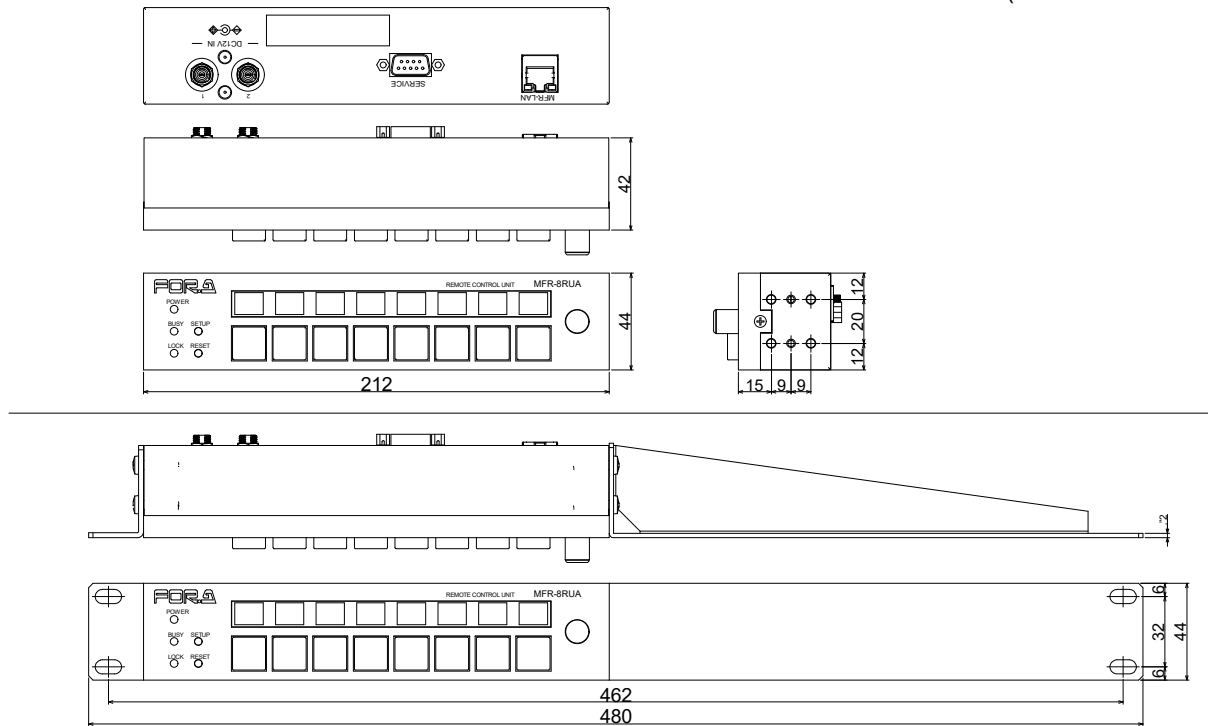
**MFR-16RUTA**

(All dimensions in mm.)



**MFR-8RUA**

(All dimensions in mm.)







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