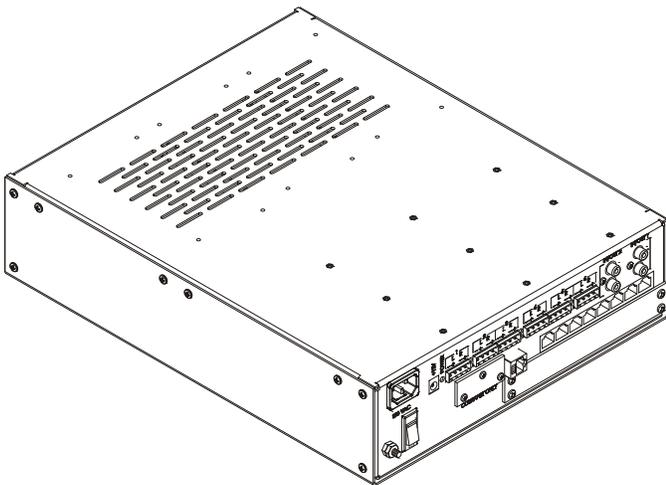


CS-iMR ClareHome Streams Integrated Multi-Room Audio Installation Sheet



Last modified: 09/29/16

Description

The ClareHome Streams Integrated Multi-Room Audio solution (CS-iMR) provides both scalable and affordable digital audio streaming that uses advanced CobraNet technology. The CS-iMR comes in four- or six-zone configurations with either 25W per channel, or 50W per channel amplification stages. Each of these configurations includes an integrated audio bridge card (CS-iMR-BR1) and two stereo Audio Flexport channels that you can configure as inputs or outputs.

To simplify system networking and communication, the CS-iMR features a 4-port dedicated CobraNet switch for expanding the audio network, plus one internal port connecting the preamp card with the CobraNet network. It also comes with an 8-port Ethernet switch to communicate with other IP controllable devices.

The CS-iMR can be mounted in a structured panel, or in a mounting rack. When mounting in a structured panel, be sure the panel has adequate ventilation to prevent the CS-iMR from overheating. We recommend that you install the ClareHome Structured Enclosure Extender (P/N CH-EXT-28 and CH-EXT-42) to provide enhanced ventilation when mounting in a structured panel.

Important safety instructions

Before you install this device, be sure to:

- Read, keep, and follow all instructions.
- Heed all cautions and warnings.
- Do not use this apparatus near water.
- Clean only with a dry cloth.
- Do not block any ventilation openings. Install in accordance with manufacturer's instructions.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- Do not defeat the safety purpose of the polarized or grounding-type plug.
 - A polarized plug has two blades with one wider than the other.
 - A grounding type plug has two blades and a third grounding prong.
- The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- Protect the power cord from being walked on or pinched, particularly at the plugs, convenience receptacles, and the point where it exits from the apparatus.
- Only use attachments and accessories specified by the manufacturer.
- Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as:
 - Power-supply cord or plug is damaged
 - Liquid has been spilled or objects have fallen into the device
 - The device has been exposed to rain or moisture
 - The device does not operate normally, or it has been dropped

WARNING: To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.

Installation

The CS-iMR can be mounted in a structured panel or in a mounting rack.

Mounting in a panel

When mounting the CS-iMR in a structured panel, you will need to order and install the ClareHome Structured Enclosure Extender (P/N CH-EXT-28 or CH-EXT-42) before mounting the CS-iMR. The Extender provides needed ventilation and protects against heat build-up.

Remove all contents from the CS-iMR packaging and ensure that you have the following items.

- 1 CS-iMR device
- 1 North American power cord
- 1 Patch cable (Cat 6, 1 ft., for use with the audio bridge card (CH-iMR-BR1))
- 1 USB cable (for use with the audio bridge card (CH-iMR-BR1))
- 4 Mounting brackets (for use with structured panel mounting)
- 8 6-20 × 3/8 in. self-drilling screws (for use with structured panel mounting, 2 extra screws provided)
Note: Use a power drill to secure the eight 6-20 × 3/8 in. screws into the panel.
- 6 4-position Euro-style connectors (use for speakers) (4 connectors included with the CS-iMR 4-25)

WARNING: Read all instructions before attempting to install the equipment. Failure to follow directions can cause bodily injury and/or damage the equipment.

To mount the CS-iMR in a panel:

1. Install the ClareHome Structured Enclosure Extender in accordance with the instructions included in the Extender kit.
2. Remove the eight screws from sides of CS-iMR. See Figure 1.
3. Using the same screws, attach the four mounting brackets to the sides of the CS-iMR.
4. Place the CS-iMR in the structured panel 3.5 in. (8.9 cm) from the top of the panel box to ensure the plug fits properly. See Figure 2.
5. Attach the CS-iMR to the panel box by using a power drill to drive four of the 6-20 × 3/8 in. self-drilling screws through the bracket holes and into the back of the panel brackets. See Figure 2.

Note: Ensure the holes in the brackets on the sides of the CS-iMR **do not** line up with the holes in the back of the panel box so you have a solid surface to attach to the brackets. Also, be sure to place each 6-20 × 3/8 in. self-drilling screw in the center of the bracket hole.

Figure 1: Caption for the product ID figure

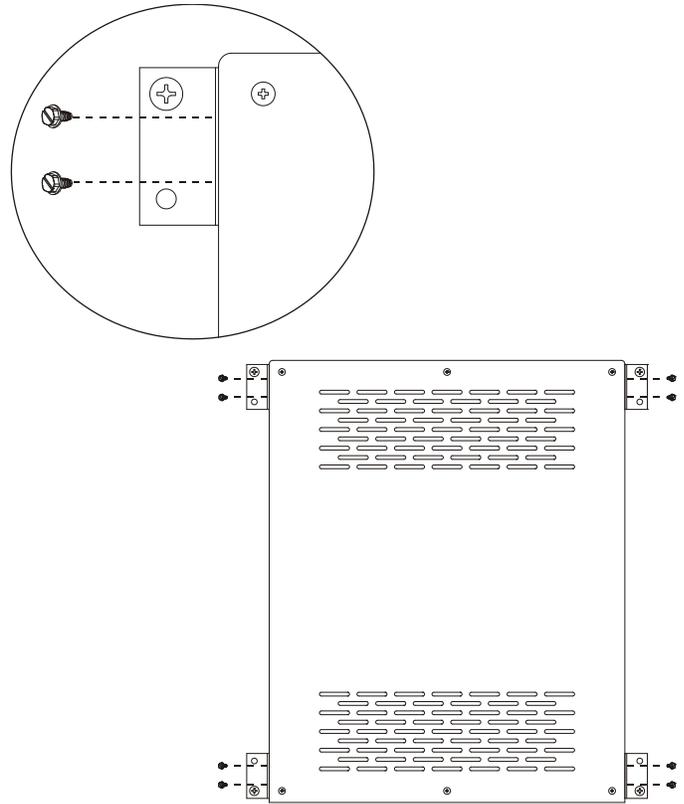
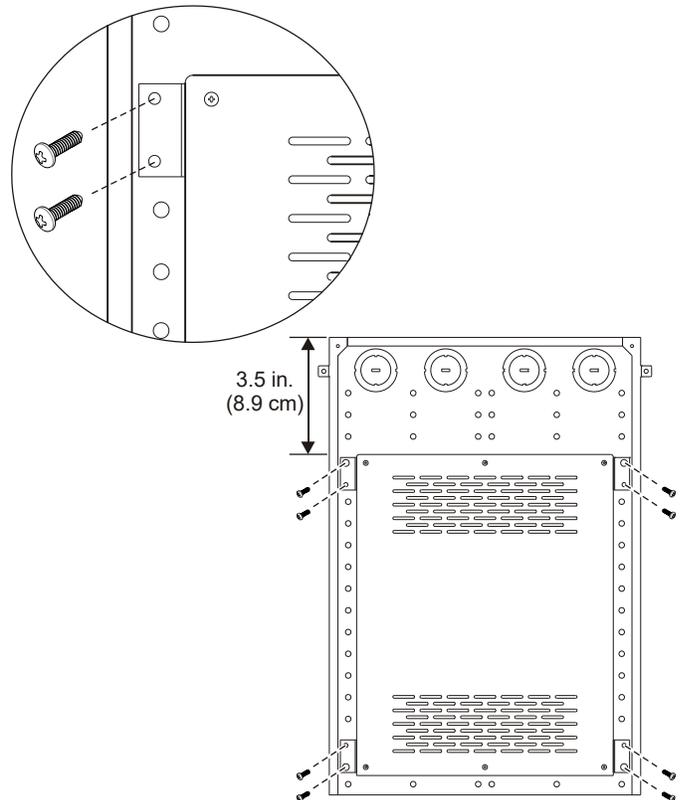


Figure 2: Caption for the product ID figure

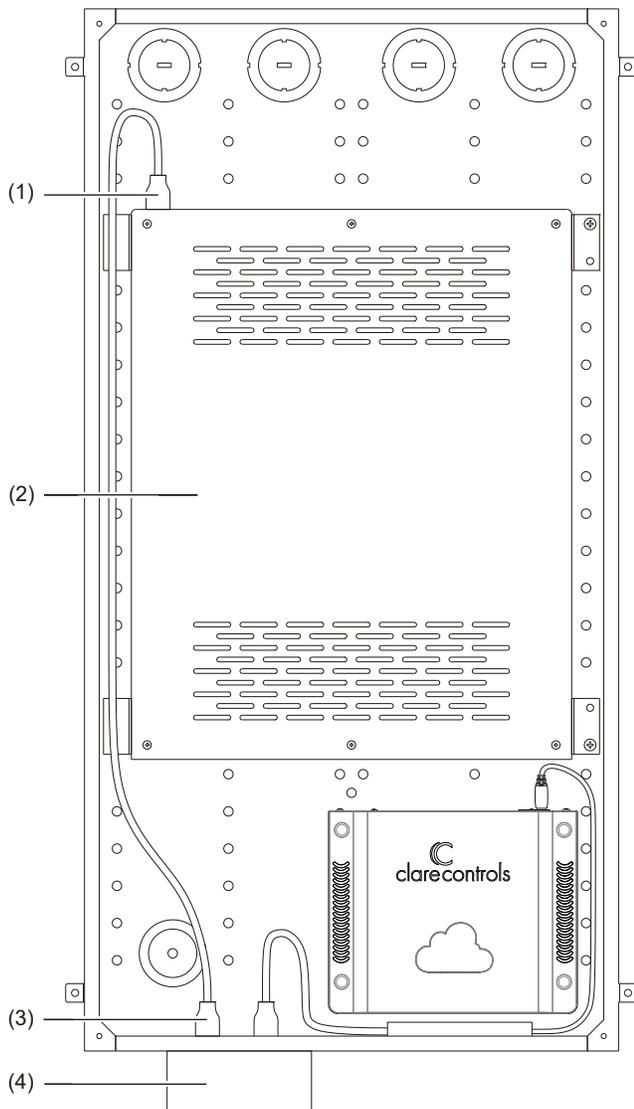


To connect power to the CS-iMR in the panel:

Caution: Before attaching the power cord to the CS-iMR, ensure the power switch is in the Off position.

1. Plug one end of the power cord into the power receptacle at the top of the CS-iMR. See Figure 3, item 1.
2. Place the power cord on the left side, between the CS-iMR and the panel's sidewall.
3. Insert the 3-prong end of the North American power cord through the bottom of the panel box (where the hole was cut out), and then plug it into the electrical outlet. See Figure 3, items 3 and 4.
4. Do not turn on power to the CS-iMR until you have made all your device connections. See "Connecting devices to the CS-iMR" on page 4.

Figure 3: Connect cords



- | | |
|------------------------------|------------------------|
| (1) Power plug to receptacle | (3) 3-prong power plug |
| (2) CS-iMR | (4) Electrical box |

Mounting the iMR in a Rack

When mounting the CS-iMR in a rack, you will need to order and install a rack mount kit (P/N CS-IMR-RMK). Remove all contents from the kit packaging and ensure that you have the following items.

- 1 Left mounting bracket
- 1 Right mounting bracket
- 1 Front panel
- 2 Shims
- 12 6-32 × .5 in. black screws (2 extra screws included)
- 5 10-32 × .75 in. black rack mounting screws, 1 extra screw included

To mount the CS-iMR in a rack:

1. Place the CS-iMR unit on a scratchproof surface, upside down so that the text at the back of the unit is facing up.
2. Remove the three screws on each side of the iMR, (the sides with venting and no connections), and discard those screws. See Figure 4.
3. Remove the two screws from each side, approximately in the center of the unit, and discard those screws.
4. Place the front panel bracket over the front of the CS-iMR matching up screw holes on the sides.
5. Place the right and left ear brackets on each side of the front panel bracket and align the holes with the holes on the front panel and the CS-iMR.
6. Insert six 6-32 × .5 in. screws (three on each side) through the holes and tighten. See Figure 4.
7. Place the shims between the ear brackets and the CS-iMR (approximately in the center of the CS-iMR), and then align the shims so that they line up evenly with the top of the CS-iMR chassis.
8. Insert four 6-32 × .5 in. screws (two on each side) through the holes in each ear bracket, shim, and CS-iMR, and then tighten the screws. See Figure 4.
9. Flip over the assembly so that the top of the CS-iMR is facing up, and then slide the assembly into the mounting rack.
Note: Be sure to leave at least 1U of spacing (1.75 in. (4.45 cm)) above and below the CS-iMR when mounting it in the rack.
10. Mount the assembly in the rack using four 10-32 × .75 in. black rack mounting screws. See Figure 5.

Figure 4: Attach CS-iMR to the rack mount

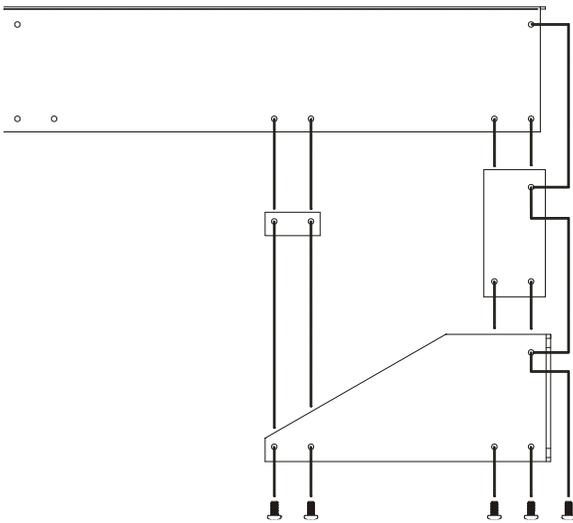
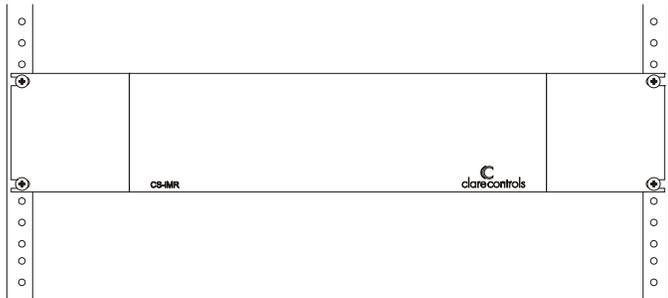


Figure 5: Mount in rack



Connecting devices to the CS-iMR

Before connecting devices, install the CLIQ.host in accordance with the instructions included with the CLIQ.host. See *CLIQ.host Controller Installation Sheet*, Doc ID 2014-07-613.

Record each device's MAC address, labeled on the bottom of each device. Record the UUID for the CLIQ.host. Your system programmer will need this information when configuring the CS-iMR.

To connect the CS-iMR:

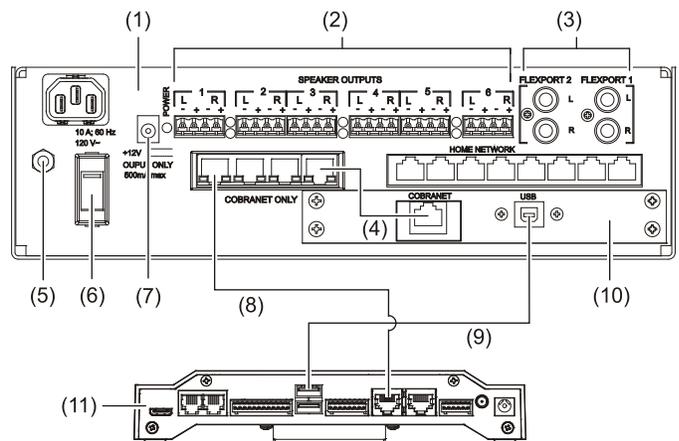
1. Install a ground wire (not included) from the CS-iMR chassis grounding screw to an external ground. See Figure 6, item 5.
2. Connect the USB Ethernet cable (included in CLIQ.host packaging) to the Ethernet port on the back of the CLIQ.host, and then connect the other end to the Ethernet port (CobraNet) on the CS-iMR. See Figure 6, item 8.
3. Connect the patch cable (included) to a CobraNet jack on the CS-iMR and the other end to the CobraNet jack on the audio bridge card (CS-iMR-BR1). See Figure 6, item 4.
4. Connect one end of the USB cable (included) to the USB port on the CLIQ.host, and then the other end to the USB

port on the audio bridge card (CS-iMR-BR1). See Figure 6, item 9.

Note: The USB cloud hub is used to convert the transmission signal from the 1.0 USB port on the CLIQ.host to the 2.0 USB port on the CS-iMR.

5. Connect your speaker cables to the Speaker Output jacks using the Euro-style connectors (included). See Figure 6, item 2.
6. Connect any input or output devices to the Flexports, as programmed in ClareHome Fusion. See Figure 6, item 3.
7. Turn the red switch on CS-iMR to Reset position to start the unit and all connected devices. See Figure 6, item 6.

Figure 6: CS-iMR, CH-iMR-BR1, and CLIQ connections



- | | |
|--|---------------------------------------|
| (1) CS-iMR | (7) Not used |
| (2) Speaker outputs | (8) Ethernet adapter for CobraNet |
| (3) Audio Flexports | (9) CS-iMR-BR1 to CLIQ USB connection |
| (4) CS-iMR to CS-iMR-BR1 CobraNet connection | (10) CS-iMR-BR1 |
| (5) Chassis ground screw | (11) CLIQ host controller |
| (6) Power switch | |

CS-iMR Specifications

Voltage	120 VAC
Analog-to-digital conversion	24-bit 48 kHz
Digital-to-analog conversion	24-bit 48 kHz
Output power	25 W per channel at 8 ohms 50 W per channel at 8 ohms
Frequency response	20 Hz – 20 kHz +/- 0.5 dB (-3 dB at 60 kHz)
THD+N	<0.05% up to 50 W, 8 ohm at 6.67 kHz
EQ modes	5 band parametric EQ
Network audio latency	<7 ms
Network audio synchronization	<1 ms
Audio uncompressed	PCM
Amplifier monitoring	Over current, over voltage, over temperature
Channels DSP processing	16x16
Power (North America)	3 A at 120 VAC, 50/60 Hz
Power (International)	1.5 A at 220/240 VAC, 50/60 Hz
Speaker outputs	Left/Right 1-6, detachable terminal blocks Accepts up to 14 AWG wire
Audio Flexports	Two unbalanced RCA stereo Two can be configured as inputs or outputs
Impedance	Input: 10 k Ω Output: 680 Ω
Sample rate	48 kHz
Resolution	24 bit
Ethernet	8-port Ethernet switch for other IP controllable devices
CobraNet	Built-in, 4-port dedicated CobraNet Ethernet switch
Power	One IEC 320 male chassis plug, 120V with switch fused main power input
Dimensions (W x H x D)	13.0 x 3.5 x 17 in. (33.0 x 8.9 x 43.2 cm)
Housing	Metal, black finish
Operating temperature	32 to 105°F (0 to 40.5°C)

Regulatory information

Manufacturer	Clare Controls 7519 Pennsylvania Ave, Suite 104 Sarasota, FL 34243
FCC compliance	This device complies with part 15 of the FCC Rules.

Warranty information

Clare Controls offers a three (3) year limited warranty on original Clare Controls components, from the date of shipment from Clare Controls. To view complete limited warranty details, including limitations and exclusions, www.clarecontrols.com/warranty.



Scan the code to view product warranty details.

Contact information

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