

# Presell Refresh Kit Installation Manual

MCA-M06028185



RETROFIT SIGN CONVERSION  
FOR USE ONLY IN ACCORDANCE  
WITH KIT INSTRUCTIONS BY SIGN  
MODEL MCA-M06028185  
MANUFACTURED BY MELITRON  
CORPORATION

**melitron**

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# Product Introduction

Melitron is a full service contract manufacturer of custom engineered metal enclosures and electro-mechanical systems. Providing design, manufacturing, assembly and supply chain expertise, we deliver single source solutions to leading brands and innovative startups competing in global technology markets.

## 1. Before Using the Product

### 1.1 Safety Precautions

When installing electrical appliances, basic precautions should always be followed to reduce the risk of fire, electric shock and injury to person, including the following:

- **WARNING-** Risk of fire or electric shock. Retrofit kit installation requires knowledge of sign electrical systems. If not qualified, do not attempt installation. Contact a qualified electrician.
- **WARNING-** Risk of fire or electric shock. Install this kit only in host signs that have been identified in the installation instructions.
- **WARNING-** Risk of fire or electric shock. Installing this kit results in the outdoor digital menu board (ODMB) exceeding the electrical rating on its nameplate. Refer to the label on the kit for the correct electrical rating and ensure that the supply wire gauge and branch circuit protection is sufficient.
- **WARNING-** Risk of fire or electric shock. Installation of this retrofit kit may involve drilling or punching of holes into the structure of the sign. Check for enclosed wiring and components to avoid damage to wiring and electrical parts.
- **WARNING –** To prevent wiring damage or abrasion, do not expose wiring to edges of sheet metal or other sharp objects.
- Read all instructions before installing this product.
- Examine all parts that are not intended to be replaced by the retrofit kit for damage and replace any damaged parts prior to installation of the retrofit kit.
- Do not make or alter any open holes in an enclosure of wiring or electrical components during kit installation.
- Repair and seal any unused openings in the electrical enclosure. Openings greater than 12.7mm (1/2") diameter require a metal patch secured by screws or rivets and caulked with non-hardening caulk. Smaller openings may be sealed with non-hardening caulk.
- Wiring procedures and connections should be in accordance with the National Electric Code (NEC & CEC) and/or local electrical codes.
- Do not operate the product if a malfunction occurs. Disconnect power at service panel and have the product inspected by a certified electrician before use.
- To disconnect the product, remove both inner panels and turn the disconnect switch to the OFF position.
- Install this product only as described in this manual. Any other use not recommended by the manufacturer may cause fire, electric shock, or injury to persons.
- To prevent damage to the product, do not block air intakes or exhaust in any manner.
- Do not insert or allow foreign objects to enter any ventilation or exhaust opening as this may cause an electric shock or fire, or damage the product.

## 2. Specifications

### 2.1 Kit Contents

Model	Description
M06027985	Receptacle Enclosure
M06028221	Media Player Enclosure
M06028227-C00	Hardware Kit
M06025354-C01	Ventilated Rear Handle
M06027999	Conduit Access Bracket

Note that the M06028227-C00 hardware kit consists of 2 bags, with the following contents:

Bag 1	Bag 2
Spare Filter	CAT6 cable (5 feet)
Bag of Hardware Required for Install: -14x M4 nuts -8x cable ties -2x Velcro cable ties -ring terminal	2x HDMI cables (6 feet)
Bag of Spare Hardware: -6x M4 nuts -2x M3 nuts -2x M4 hex head screws	
Retrofit Kit Label	

### 2.2 Kit Electrical Rating

Voltage	Frequency	Amperage
120 V	50/60 Hz	6 A

### 2.3 Required Tools

- T30 Torx Security Bit
- T20 bit (to remove cover to HDMI and CAT6 ports on displays)
- Cordless driver
- 7 mm socket
- Ratchet
- Phillips screwdriver
- Flat head screwdriver
- Grinder

## 2.4 Intended Use

This retrofit kit is only intended to be installed in MC-710155 outdoor digital menu boards (see Figure 1)

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Figure 1: MC-710155 ODMB

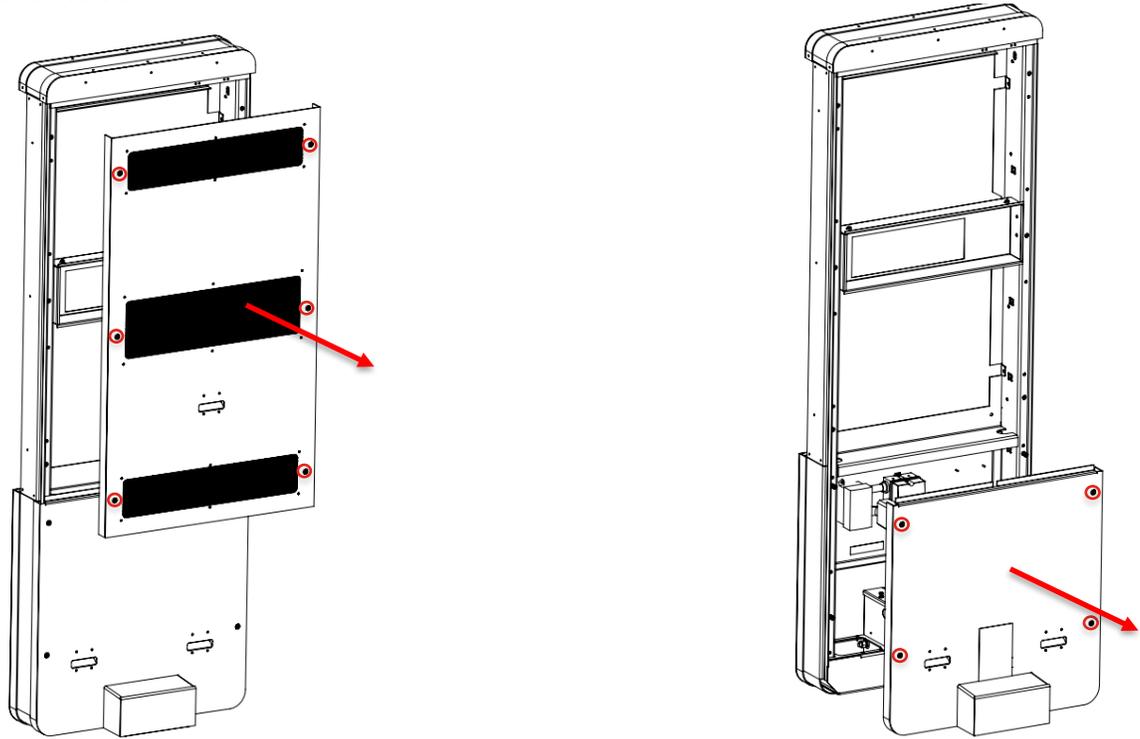


## 3. Existing Hardware Removal

### 3.1 Covers Removal

- Use T30 Torx Security Bit to remove 6x screws from the middle rear cover and 4x screws from the bottom rear cover
- Set the covers aside for later use (note that all fasteners are captive)
- Turn the main disconnect switch to 'OFF'

Figure 2: Removal of rear covers

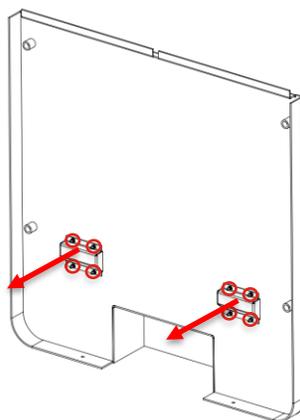


### 3.2 Components Removal

#### 3.2.1 Handles Removal

- Using a 7 mm socket, unfasten 8x nuts and remove 2x handles from the bottom rear cover (these can be discarded)

Figure 3: Removal of handles



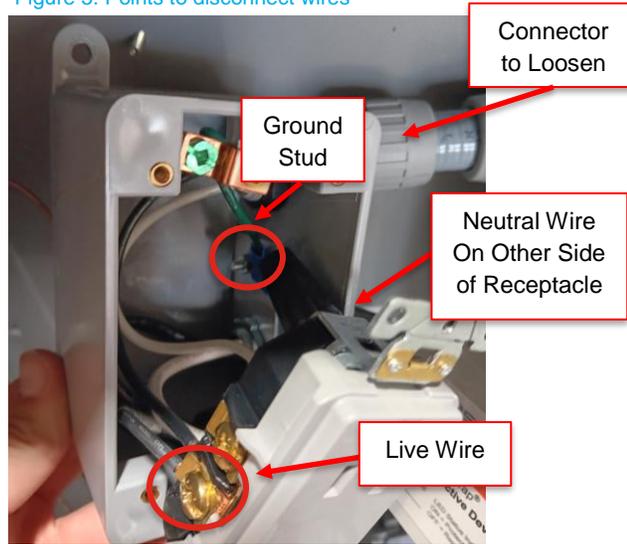
### 3.2.2 Receptacle Removal

- Open the receptacle box and unplug the power cord(s)
- Use Phillips screwdriver to remove 2x screws highlighted in Figure 4
- Use 7mm socket to unfasten nut holding the ground wire from the conduit
- Use Phillips screwdriver to loosen 2x screws holding the live and neutral wires from the conduit
- Use 7 mm socket to unfasten 2x nuts and remove the receptacle box from the frame of the menu board
- Detach the conduit assembly from the receptacle box by turning the 1/2" connector counter-clockwise

Figure 4: Screws to Loosen



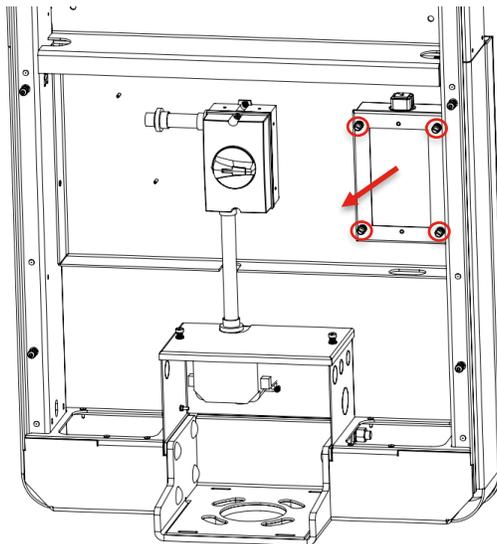
Figure 5: Points to disconnect wires



### 3.2.3 Patch Panel Box Removal

- Use flat head screwdriver to loosen 4x screws and remove the patch panel cover
- Disconnect the CAT6 cable
- Unfasten 4x nuts and remove the patch panel box

Figure 6: Location of screws to be loosened to remove patch panel cover



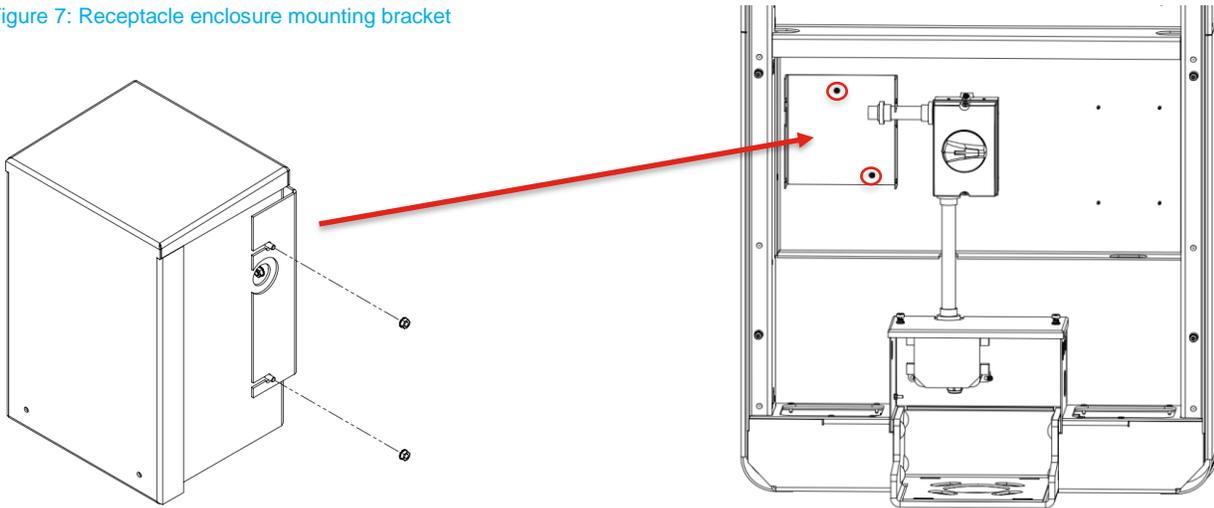
## 4. Installation

### 4.1 Installing Boxes

#### 4.1.1 Mounting Brackets

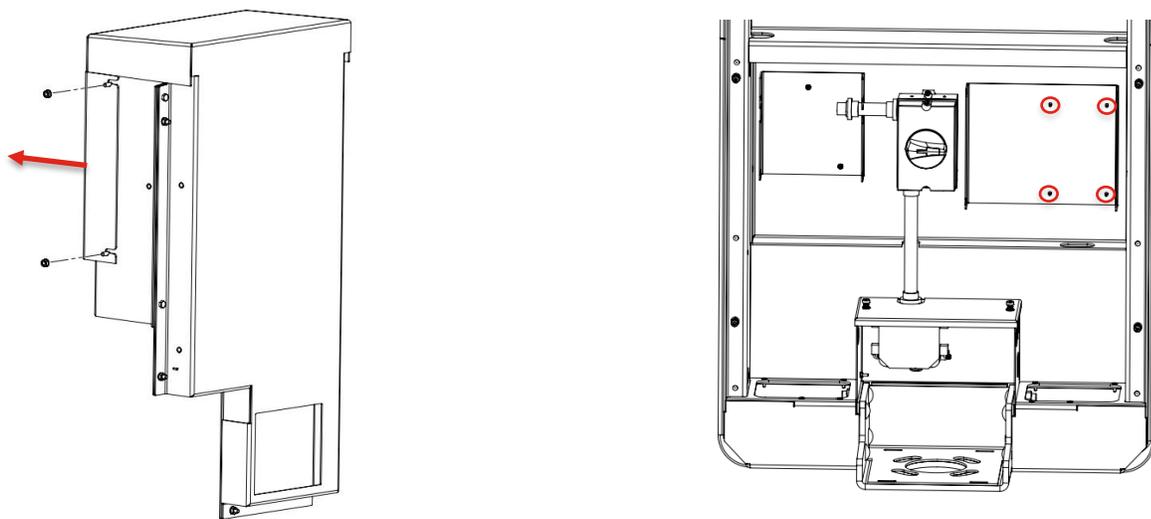
- Detach the mounting bracket from the receptacle enclosure by removing 2x nuts using 7mm socket
- Install the mounting bracket on the studs circled in Figure 7 and secure using 2x nuts from the hardware kit (there are two bags containing nuts in the kit, all required hardware is in the larger bag while the smaller bag contains spares)

Figure 7: Receptacle enclosure mounting bracket



- Detach the mounting bracket from the media player enclosure by removing 2x nuts
- Install the mounting bracket on the studs circled in Figure 8 and secure using 4x nuts from the hardware kit

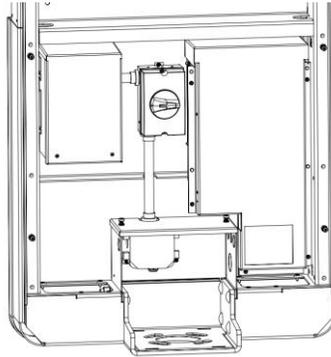
Figure 8: Media player enclosure mounting bracket



#### 4.1.2 Mounting Boxes on the Brackets

- Install the receptacle and media player enclosures onto their respective mounting brackets
- Connect the flexible conduit through the clearance hole in the receptacle enclosure

Figure 9: Boxes installed on their brackets



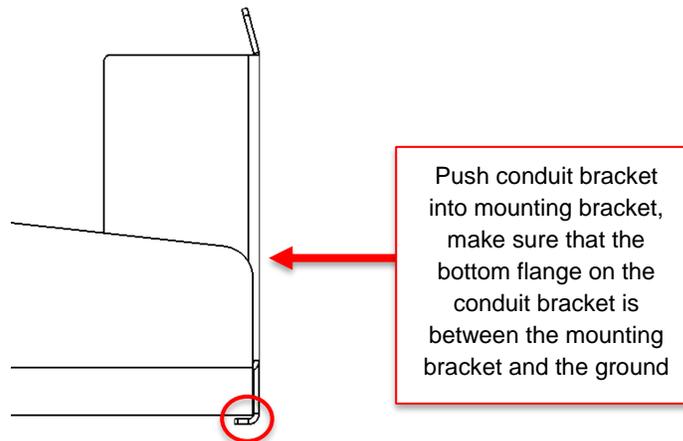
#### 4.1.3 Installing New Rear Handles

- Place 2x handles onto studs on the bottom rear cover
- Secure with 4x nuts each (provided in the hardware kit)

#### 4.1.4 Installing Conduit Bracket

- Press fit the conduit bracket into the mounting bracket, note that there is a flange on the conduit bracket that goes underneath the edge of the mounting bracket (see Figure 10)
- Knockout the tabs in the conduit bracket as needed and install conduit adapter(s) (not provided by Melitron)

Figure 10: Conduit Bracket Installation

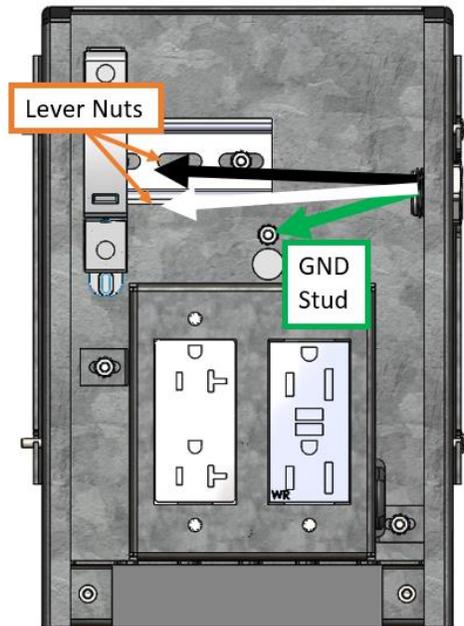


## 4.2 Networking & Communication

#### 4.2.1 Cable Management in Receptacle Enclosure

- Using 7 mm socket, remove 2x screws from the front cover of the receptacle enclosure
- Connect the live and neutral wires from the disconnect to the corresponding wires in the receptacle enclosure using the provided lever nuts
- Crimp a ring terminal (provided in hardware kit) onto the ground wire coming from the disconnect
- Fasten the ring terminal to the ground stud in the receptacle enclosure (see Figure 11)
- Plug in the display power cord

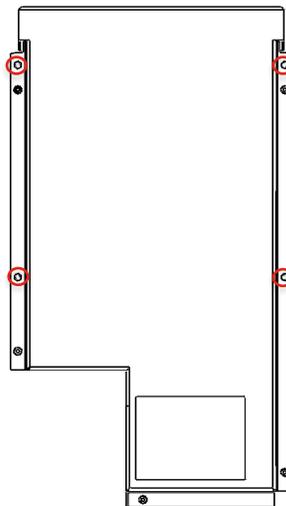
Figure 11: Wiring in receptacle enclosure



#### 4.2.2 Cable Management in Media Player Enclosure

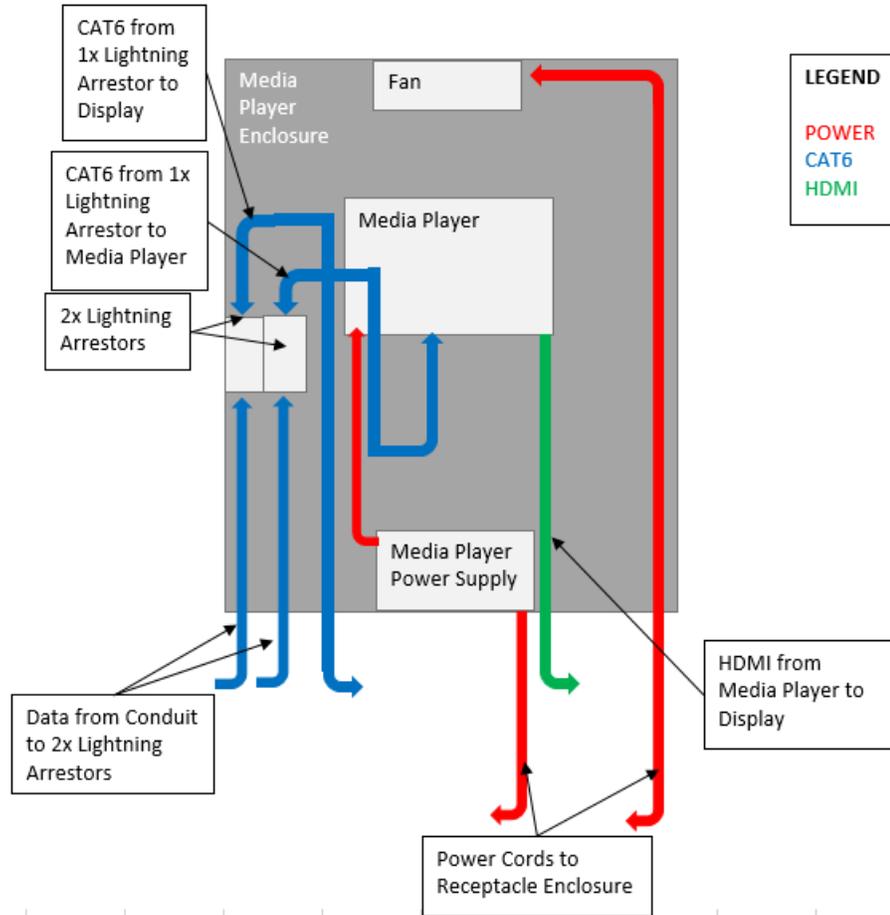
- Using 7 mm socket, remove 4x screws from the front cover of the media player enclosure
- Remove the front cover (note that you have to lift slightly up before pulling it off)

Figure 12: Screw locations on front cover



- Make connections as shown in Figure 13

Figure 13: Routing of cables in media player enclosure



- Route the cables to the display through the clearance hole above the media player enclosure, as shown in Figure 14 (use zip ties and velcro to manage cables)
- Use T20 Torx bit to remove the cover to the HDMI and CAT6 ports on the display
- Ensure that there are no cables resting on the bottom of the ODMB. All cables must be secured at least 1/2" from the bottom

Figure 14: Routing of cables up to the display



### 4.2.3 Commissioning

- Ensure all connections are properly grounded and terminated
- Return disconnect to the 'ON' position
- Ensure GFCI is operational by pressing the reset button. The red light should be off
- Ensure the power surge protection is functional by checking to make sure a green light is on

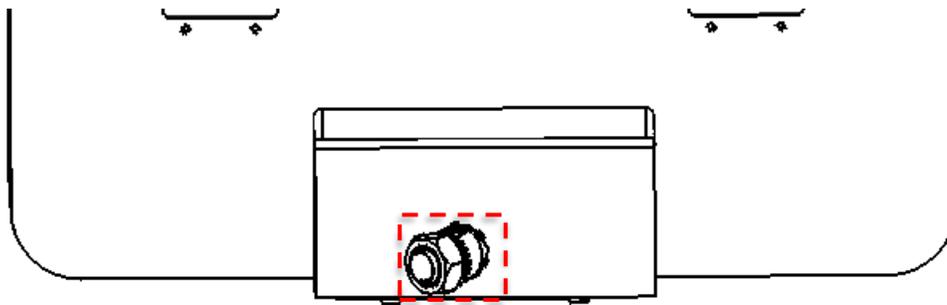
Figure 15: Disconnect switched to the "ON" position



### 4.3 Re-Assembly

- Re-install covers for the media player and receptacle enclosures
- Cut a clearance in the bottom rear cover for the newly installed conduit connector(s) using a grinder or alternative appropriate tool

Figure 16: Installed conduit adapters will require a clearance cut out

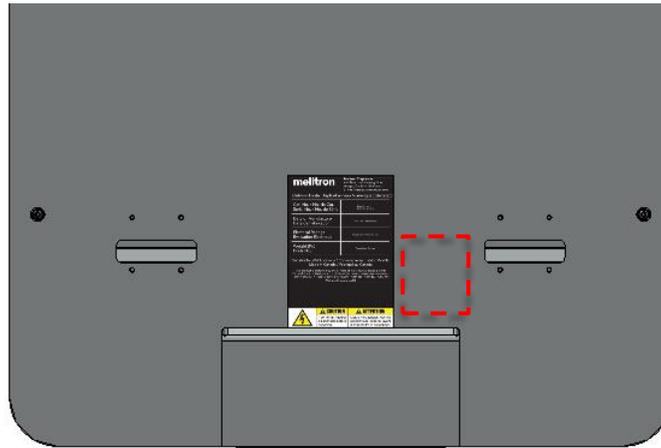


- Re-install the middle and bottom rear covers
- Tighten 6x screws for the middle cover and 4x screws for the bottom cover using T30 Torx security bit

## 4.4 Labelling

- Apply “retrofit kit” label from the hardware kit onto the rear bottom cover of the unit, beside the existing label (see Figure 17)

Figure 17: Location for label



## 5. Filter Maintenance

- Due to different environments the unit is installed in, the period in which to check the filter will vary.
- Filter should be checked periodically to make sure if the filter is still functioning and not dirty.
- Remove the bottom rear cover at the back of the unit, then the front cover of the media player enclosure as seen in Figure 12, to access the filter within the front cover. Check the filter if it needs to be replaced.
- If so, use the spare filter that was provided and located inside the unit. If need be, use the specifications below to help buy one.

Specification	
Length	10" Nominal (9.5" Actual)
Width	10" Nominal (9.5" Actual)
Depth	1" Nominal (0.75" Actual)
Filter Material	Synthetic Material, Suitable for outdoor applications
Filtration Rating	Minimum MERV 5/G3 rating or equivalent
Frame Material	Beverage board or similar
Initial Resistance	Maximum 0.23 in WC @ 300 FPM

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