

FUSION[®] MS-RA55

MARINE ENTERTAINMENT SYSTEM
OWNER'S MANUAL



ENGLISH

FUSION[®]
FUSIONENTERTAINMENT.COM

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Getting Started

⚠ WARNING

See the *Important Safety and Product Information* guide in the product box for product warnings and other important information.

Stereo Controls



Dial ①	<ul style="list-style-type: none"> Turn to adjust the volume. Press to switch between zones to control the volume. Turn to move through the menus or adjust a setting. Press to select the highlighted option.
☰	Select to open a menu. Select to return to the previous screen or menu.
↻	Select to change the source (AM, FM, BT, or AUX). Press repeatedly to scroll through the available sources.
⏻	Select to turn on the stereo. Press and hold to turn off the stereo.
🔇	Select to mute and un-mute the stereo.
⏮	BT source: Select to skip to the previous track. AM or FM source: <ul style="list-style-type: none"> Select to tune to the previous station or preset (preset mode with two or more presets saved). Press and hold for faster tuning (manual mode only).
⏸	BT source: Select to pause or resume. AM or FM source: <ul style="list-style-type: none"> Select to cycle through the tuning modes (auto or manual) and presets (when two or more presets are saved). Press and hold to save this station as a preset.
⏭	<ul style="list-style-type: none"> BT source: Select to skip to the next track. AM or FM source: <ul style="list-style-type: none"> Select to tune to the next station or preset (preset mode with two or more presets saved). Press and hold for faster tuning (manual mode only).

Using the Dial to Select Items

You can use the dial to highlight and select items on the screen.

- Turn the dial to highlight an item on the screen.
- Press the dial to select the highlighted option.

Adjusting the Volume

- Use the dial to adjust the volume.
- If necessary, press the dial to switch between zones.
TIP: To control all zones at the same time, press the dial until all zones are highlighted.

Entering Text

You can enter text to change some settings values on this device, such as changing the name of the device.

- Use the dial to choose a letter, and press the dial to select it.
- If necessary, select ⏮ to erase a character.
- Add additional letters to finish entering the text.
- Select ▶ to save the new text.

Adjusting the Backlight Brightness and Contrast

- Select ☰ > **SETTINGS** > **LCD**.
- Press the dial to select brightness or contrast.
- Adjust the brightness or contrast.

- Select ☰ to exit the menu.

Stereo Screen

The information displayed on the stereo screen varies depending on the source selected. This example shows the stereo playing a track on a device connected using Bluetooth® wireless technology.



①	Source
②	Play status icon
③	Track details (if available)
④	Elapsed time
⑤	Current track number out of total number of tracks in the playlist (if available)
⑥	Track duration (if available)

Connecting an Auxiliary Device

You can connect various auxiliary devices to the stereo, such as TVs, DVD players, game consoles, and media players. These devices have either RCA connectors, a line output, or a headphone output jack.

- Locate the auxiliary connectors on the wiring harness.
- If necessary, connect an RCA-to-3.5 mm adapter cable to the auxiliary device.
- Connect the auxiliary device to the RCA connectors on the wiring harness.

Bluetooth Device Playback

You can control the playback using the stereo, but you cannot browse the music collection. You should select a song or playlist on the media device.

The availability of song information, such as song title, artist name, and track duration, depends on the capability of the media player and music application. The shuffle and repeat status icons are not supported over Bluetooth wireless technology.

Connecting a Compatible Bluetooth Device

You can play media from a compatible Bluetooth device using the Bluetooth wireless connection.

- Select the Bluetooth source.
- Select ☰ > **DISCOVERABLE** to make the stereo visible to your compatible Bluetooth device.
- Enable Bluetooth on your compatible Bluetooth device.
- Bring the compatible Bluetooth device within 10 m (33 ft.) of the stereo.
- On your compatible Bluetooth device, search for Bluetooth devices.
- On your compatible Bluetooth device, select the RA55 stereo from the list of detected devices.
- On your compatible Bluetooth device, follow the on-screen instructions to pair and connect to the discovered stereo.


When pairing, your compatible Bluetooth device may ask you to confirm a code on the stereo. The stereo does not display a code, but it does connect correctly when you confirm the message on the Bluetooth device.

- 8 If your compatible Bluetooth device does not immediately connect to the stereo, repeat steps 1 through 7.

Bluetooth Range Information

The stereo and Bluetooth wireless devices have a range of 10 m (33 ft.). For optimal performance, the Bluetooth wireless device should also have a clear line of sight to the stereo.

Bluetooth Source Settings

With the BLUETOOTH source selected, select .


DISCOVERABLE: Allows the stereo to be visible to Bluetooth devices. This setting turns off automatically after two minutes to prevent possible interruption to audio after pairing a Bluetooth device to the stereo.

Radio




To listen to AM or FM radio, you must have a suitable marine AM/FM antenna properly connected to the stereo and be within range of a broadcasting station. For instructions on connecting an AM/FM antenna, see the stereo installation instructions.

Setting the Tuner Region

You must select the region you are in to receive AM and FM stations properly.

- 1 Select  > **SETTINGS** > **TUNER REGION**.
- 2 Select the region you are in.


Changing the Radio Station


- 1 Select an applicable source, such as **FM**.
- 2 Select  repeatedly to move through the tuning modes:
 - Select **AUTO** to scan and stop on the next available station.
 - Select **MANUAL** to select a station manually.
 - Select **PRESETS** to select a saved station preset.
- 3 Select  or  to tune to the station.

Presets

You can save your favorite AM stations and FM stations as presets for easy access.


Saving a Station as a Preset

- 1 With an applicable source selected, tune the stereo to a station.
- 2 Select  > **PRESETS**.
- 3 Select **SAVE CURRENT**.


TIP: You can quickly save the selected station as a preset by holding .

Selecting a Preset from a List

Before you can select a preset from a list, you must save at least one station as a preset.

- 1 Select the applicable source.
- 2 Select  > **PRESETS**.
- 3 Select a preset from the list.

Removing Presets

- 1 With an applicable source selected, select  > **PRESETS** > **REMOVE PRESET**.
- 2 Select an option:
 - To remove one preset, select the preset.
 - To remove all presets, select **REMOVE ALL PRESETS**.

General Settings

Select  > **SETTINGS**.

NOTE: When an option button is filled, the option is on. When the option button is clear, the option is off.

ZONE: Enables you to set the balance, volume limit, and names of the speaker zones.

ZONE > TONE: Adjusts the bass and treble tones.

LCD: Adjusts the backlight brightness and contrast settings (*Adjusting the Backlight Brightness and Contrast, page 1*).

LANGUAGE: Sets the language on the device.

POWER SAVE: Disables the LCD backlight after one minute of inactivity to save battery power.

TUNER REGION: Sets the region used by FM and AM.

SET DEVICE NAME: Sets the name for this stereo (*Entering Text, page 1*).

ABOUT: Shows the software version for the stereo.

Appendix

Registering Your FUSION® MS-RA55

Help us better support you by completing our online registration today.

- Go to www.fusionentertainment.com.
- Keep the original sales receipt, or a photocopy, in a safe place.

Cleaning the Device

- 1 Dampen a soft, clean, lint-free cloth with fresh water.
- 2 Gently wipe the device.

Troubleshooting

The stereo does not respond to key presses

- Turn off power to the stereo for two minutes to reset the stereo.

My Bluetooth audio is interrupted by short breaks

- Ensure the media player is not covered or obstructed. Bluetooth technology performs best with line-of-sight operation.
- Bring the media player within 10 m (33 ft.) of the stereo.
- Turn off the **DISCOVERABLE** setting after pairing a Bluetooth device to the stereo.

The stereo does not display all song information from my Bluetooth source

The availability of song information, such as song title, artist name, and track duration, depends on the capability of the media player and music application.

Album cover artwork and shuffle and repeat status icons are not supported by this stereo on Bluetooth technology.

Reducing Unexpected Noise

If the stereo is subject to strong electrical interference, this interference might be heard through the speakers. You should take appropriate action to suppress or reduce the noise.

- Add clip-on ferrite beads to the cables connected directly to the product.
- Add clip-on ferrite beads to the device in the vessel that is causing the interference.
- Disconnect the AUX input cable from the RCA connector when it is not used.

- For additional information, go to www.fusionentertainment.com and contact Tech Support.

Specifications

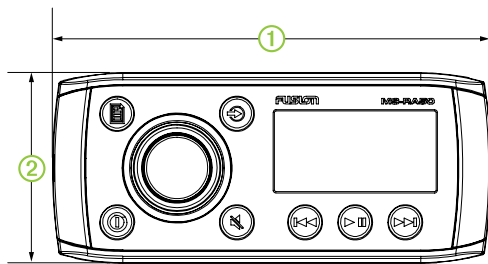
General	
Weight	556 g (19.6 oz.)
Water resistance	IEC 60529 IPX5
Operating temperature range	From 0 to 50°C (from 32 to 122°F)
Storage temperature range	From -20 to 70°C (from -4 to 158°F)
Input voltage	From 10.8 to 16 Vdc
Fuse	15 A
Current (max.)	15 A
Current (muted)	Less than 350 mA
Current (standby)	Less than 5 mA
Compass-safe distance	15 cm (5.9 in.)

On-board, Class AB Amplifier	
Output music power per channel	45 W max. x 4 channels at 4 Ohms per channel
Total output music power	180 W max.

Tuner	Europe and Australasia	USA	Japan
FM radio frequency range	From 87.5 to 108 MHz	From 87.5 to 107.9 MHz	From 76 to 95 MHz
FM frequency step	50 kHz	200 kHz	50 kHz
AM radio frequency range	From 522 to 1620 kHz	From 530 to 1710 kHz	From 522 to 1620 kHz
AM frequency step	9 kHz	10 kHz	9 kHz

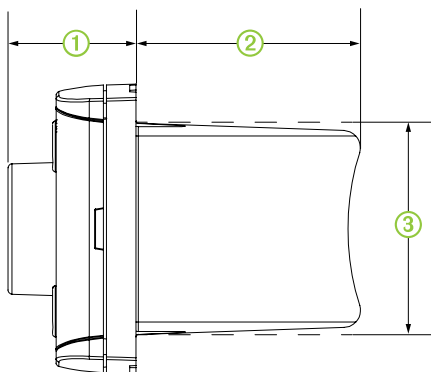
Stereo Dimension Drawings

Front Dimensions



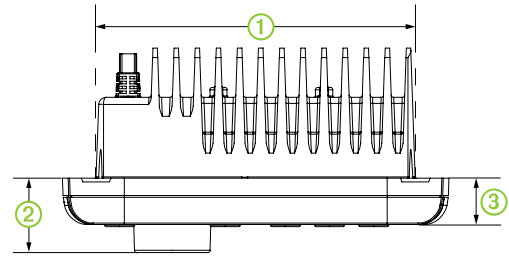
①	160 mm (6.3 in.)
②	71.5 mm (2.8 in.)

Side Dimensions



①	32 mm (1.25 in.)
②	52 mm (2 in.)
③	50 mm (2 in.)

Top Dimensions



①	130 mm (5.1 in.)
②	32 mm (1.25 in.)
③	20 mm (0.8 in.)

FUSION SUPPORT

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FUSION® MS-RA55 Quick Start Manual



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MS-RA55 Quick Start Manual

Getting Started

Stereo Controls



Dial ①	<ul style="list-style-type: none"> • Turn to adjust the volume. • Press to switch between zones. • Turn to move through the menus or adjust a setting. • Press to select the highlighted option.
	Select to open a menu. Select to return to the previous screen or menu.
	Select to change the source. Press repeatedly to scroll through all available sources.
	Select to turn on the stereo. Hold to turn off the stereo.
	Select to mute and un-mute the stereo.
	BT source: Select to skip to the previous track. AM or FM source: <ul style="list-style-type: none"> • Select to tune to the previous station or preset (preset mode with two or more presets saved). • Hold for faster tuning (manual mode only).

	BT source: Select to pause or resume. AM or FM source: <ul style="list-style-type: none"> • Select to cycle through the tuning modes (auto or manual) and presets (when two or more presets are saved). • Hold to save this station as a preset.
	<ul style="list-style-type: none"> • BT source: Select to skip to the next track. • AM or FM source: <ul style="list-style-type: none"> ◦ Select to tune to the next station or preset (preset mode with two or more presets saved). ◦ Hold for faster tuning (manual mode only).

Using the Dial to Select Items

You can use the dial to highlight and select items on the screen.

- Turn the dial to select an item on the screen.
- Press the dial to select the highlighted option.

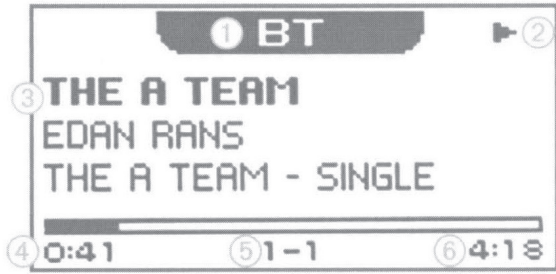
Adjusting the Volume

- 1 Use the dial to adjust the volume.
- 2 If necessary, press the dial to switch between zones.

TIP: To control all zones at the same time, press the dial until all zones are highlighted.

Stereo Screen

The information displayed on the stereo screen varies depending on the source selected. This example shows the stereo playing a track on a device connected using Bluetooth® wireless technology.



①	Source
②	Play status icon
③	Track details (if available)
④	Elapsed time
⑤	Current track number out of total number of tracks in the playlist (if available)
⑥	Track duration (if available)

Playing Media

Connecting a Compatible Bluetooth Device

You can play media from a compatible Bluetooth device using the Bluetooth wireless connection.

- 1 Select the Bluetooth source.
- 2 Select **DISCOVERABLE** to make the stereo visible to your compatible Bluetooth device.
- 3 Enable Bluetooth on your compatible Bluetooth device.
- 4 Bring the compatible Bluetooth device within 10 m (33 ft.) of the stereo.
- 5 On your compatible Bluetooth device, search for Bluetooth devices.
- 6 On your compatible Bluetooth device, select the stereo from the list of detected devices.
- 7 On your compatible Bluetooth device, follow the on-screen instructions to pair and connect to the discovered stereo.

When pairing, your compatible Bluetooth device may ask you to confirm a code on the stereo. The stereo does not display a code, but it does connect correctly when you confirm the message on the Bluetooth device.

- 8 If your compatible Bluetooth device does not immediately connect to the stereo, repeat steps 1 through 7.

Setting the Tuner Region

You must select the region you are in to receive AM and FM stations properly.

- 1 Select **SETTINGS > TUNER REGION**.
- 2 Select the region you are in.

Changing the Radio Station

- 1 Select an applicable source, such as **FM**.
- 2 Select **▶||** repeatedly to move through the tuning modes:
 - Select **AUTO** to scan and stop on the next available station.
 - Select **MANUAL** to select a station manually.
 - Select **PRESET** to select a saved station preset.
- 3 Select **◀◀** or **▶▶** to tune to the station.

Saving a Station as a Preset

- 1 With an applicable source selected, tune the stereo to a station.
- 2 Select **PRESET**.
- 3 Select **SAVE CURRENT**.

TIP: You can quickly save the selected station as a preset by holding **▶||**.

More Information

Getting the Owner's Manual

You can get the latest owner's manual and translations of manuals from the web.

- 1 Go to www.fusionentertainment.com/marine.
- 2 Select your product.

3 Select **Manuals & Downloads**.

4 Select a manual.

Registering Your FUSION® MS-RA55

Help us better support you by completing our online registration today.

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- Keep the original sales receipt, or a photocopy, in a safe place.

MS-RA55 Manuel de démarrage rapide

Mise en route

Touches du système stéréo



Molette ①	<ul style="list-style-type: none">• Tournez la molette pour régler le volume.• Appuyez pour changer de zone.• Tournez la molette pour parcourir les menus ou configurer un réglage.• Appuyez sur la molette pour sélectionner l'option mise en surbrillance.
	Appuyez sur cette touche pour ouvrir un menu. Appuyez sur cette touche pour revenir à l'écran précédent ou au menu.
	Sélectionnez cette touche pour modifier la source. Appuyez plusieurs fois pour parcourir les différentes sources disponibles.

	Appuyez sur cette touche pour mettre la chaîne stéréo sous tension. Maintenez cette touche enfoncée pour mettre la chaîne stéréo hors tension.
	Appuyez sur cette touche pour désactiver ou réactiver le son.
	Source BT : appuyez sur cette touche pour passer à la piste précédente. Source AM ou FM : <ul style="list-style-type: none">• Appuyez sur cette touche pour atteindre la station ou la station pré réglée précédentes (mode pré réglage avec au moins deux pré réglages enregistrés).• Maintenez cette touche enfoncée pour parcourir les stations plus rapidement (mode manuel uniquement).
	Source BT : appuyez sur cette touche pour mettre pause ou reprendre la lecture. Source AM ou FM : <ul style="list-style-type: none">• Appuyez sur cette touche pour faire défiler les modes de réception radio (automatique ou manuel) et les stations pré réglées (à condition qu'au moins deux stations pré réglées aient été enregistrées).• Maintenez cette touche enfoncée pour enregistrer cette station dans les stations pré réglées.
	<ul style="list-style-type: none">• Source BT : appuyez sur cette touche pour passer à la piste suivante.• Source AM ou FM :<ul style="list-style-type: none">◦ Appuyez sur cette touche pour atteindre la station ou la station pré réglée suivantes (mode pré réglage avec au moins deux pré réglages enregistrés).◦ Maintenez cette touche enfoncée pour parcourir les stations plus rapidement (mode manuel uniquement).

Utilisation de la molette pour faire des sélections

Utilisez la molette pour mettre en surbrillance et sélectionner les éléments qui apparaissent à l'écran.

- Tournez la molette pour sélectionner un élément à l'écran.
- Appuyez sur la molette pour sélectionner l'option mise en surbrillance.

Réglage du volume

1 Utilisez la molette pour régler le volume.

- Si besoin, appuyez sur la molette pour basculer entre une zone et une autre.

ASTUCE : pour commander toutes les zones au même moment, appuyez sur la molette jusqu'à ce que toutes les zones soient mises en surbrillance.

Ecran de la chaîne stéréo

Les informations qui apparaissent à l'écran de la chaîne stéréo varient en fonction de la source sélectionnée. Dans cet exemple, la chaîne stéréo lit une piste enregistrée sur un appareil connecté à l'aide de la technologie sans fil Bluetooth.



①	Source
②	Icône d'état lecture
③	Informations sur la piste (si disponibles)
④	Temps écoulé
⑤	Numéro de piste sur nombre total de pistes dans la liste de chansons (si disponible)
⑥	Durée de la piste (si disponible)

Lecture de fichiers multimédia

Connexion d'un appareil Bluetooth compatible

Vous pouvez lire des fichiers multimédia à partir d'un appareil Bluetooth compatible à l'aide d'une connexion Bluetooth sans fil.

- Sélectionnez la source Bluetooth.
- Sélectionnez > **DECOUVRABLE** pour que votre appareil Bluetooth compatible puisse détecter le système stéréo.

- Activez Bluetooth sur votre appareil Bluetooth compatible.
 - Approchez l'appareil Bluetooth compatible à moins de 10 m (33 pi) de la chaîne stéréo.
 - Sur votre appareil Bluetooth compatible, recherchez des appareils Bluetooth.
 - Sur votre appareil Bluetooth compatible, sélectionnez la chaîne stéréo dans la liste des appareils détectés.
 - Sur votre appareil Bluetooth compatible, suivez les instructions à l'écran pour coupler et connecter l'appareil à la chaîne stéréo détectée.
- Lors du couplage, votre appareil Bluetooth compatible peut vous demander de confirmer un code sur la chaîne stéréo. La chaîne stéréo n'affiche pas de code, mais elle se connectera correctement dès lors que vous confirmerez le message sur l'appareil Bluetooth.
- Si votre appareil Bluetooth compatible ne se connecte pas immédiatement à la chaîne stéréo, répétez les étapes 1 à 7.

Définition de la région du syntoniseur

Vous devez choisir la région dans laquelle vous vous situez pour recevoir des stations AM et FM correctement.

- Sélectionnez > **PARAMETRES > REGION SYNTONISEUR**.
- Sélectionnez la région dans laquelle vous vous situez.

Changement de station radio

- Choisissez une source appropriée, comme la source **FM**.
- Appuyez plusieurs fois sur pour faire défiler les modes de réception radio :
 - Sélectionnez **AUTO** pour balayer les stations et atteindre la station suivante disponible.
 - Sélectionnez **MANUEL** pour choisir une station manuellement.
 - Sélectionnez **PREREGLAGES** pour choisir une station pré réglée.
- Sélectionnez ou pour atteindre la station suivante ou précédente.

FUSION SUPPORT

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USA **623 580 9000**
Pacific **+64 9 369 2900**



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MS-RA55 Installation Instructions

Important Safety Information

⚠ WARNING

Failure to follow these warnings and cautions could result in personal injury, damage to the vessel, or poor product performance.

See the *Important Safety and Product Information* guide in the product box for product warnings and other important information.

This device must be installed according to these instructions.

Disconnect the vessel's power supply before beginning to install this product.

Before applying power to this product, make sure it has been correctly grounded, following the instructions in the guide.

⚠ CAUTION

Always wear safety goggles, ear protection, and a dust mask when drilling, cutting, or sanding.

NOTICE

When drilling or cutting, always check what is on the opposite side of the surface.

You must read all installation instructions before beginning the installation. If you experience difficulty during the installation, contact FUSION Product Support.

What's In the Box

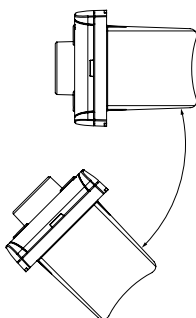
- Mounting gasket
- Four 6-gauge, self-tapping screws
- Power and speaker wiring harness
- Two screw covers

Tools Needed

- Phillips screwdriver
- Electric drill
- Drill bit (size varies based on surface material and screws used)
- Rotary cutting tool or jigsaw
- Marine sealant (optional)

Mounting Considerations

- The stereo must be mounted on a flat surface.
- The stereo must be mounted in a location that allows open airflow around the rear of the stereo for heat ventilation.
- If you are installing the stereo in a location that may be exposed to water, it must be mounted within 45 degrees of the horizontal plane.



- If you are installing the stereo in a location that may be exposed to water, the cable should have a drip loop to allow water to drip down off the cable and avoid damage to the stereo.
- If you need to mount the stereo outside a boat, it must be mounted in a location far above the waterline, where it is not submerged.
- If you need to mount the stereo outside a boat, it should be mounted in a location where it cannot be damaged by docks, pilings, or other pieces of equipment.
- To avoid interference with a magnetic compass, the stereo should be installed at least 15 cm (5.9 in.) away from a compass.

Mounting the Stereo

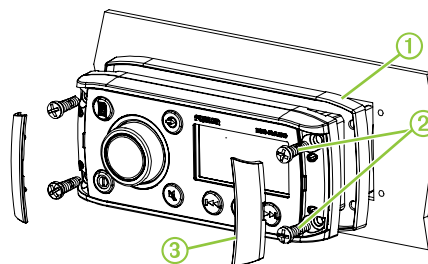
NOTICE

Be careful when cutting the hole to mount the stereo. There is only a small amount of clearance between the case and the mounting holes, and cutting the hole too large could compromise the stability of the stereo after it is mounted.

Be careful when installing the stereo in an aluminum boat or a boat with a conductive hull, if you require the electrical system to be isolated from the boat hull.

Before you can mount the stereo in a new location on the mounting surface, you must select a location in accordance with the mounting considerations.

- 1 Trim the template and make sure it fits at the mounting location.
- 2 Adhere the template to the mounting surface.
- 3 Using a drill bit appropriate for the mounting surface, drill a hole inside the corner of the dashed line on the template to prepare the mounting surface for cutting.
- 4 Using a rotary-cutting tool, cut the mounting surface along the inside of the dashed line on the template.
- 5 Place the stereo in the cutout to test the fit.
- 6 If necessary, use a file and sandpaper to refine the size of the cutout.
- 7 After the stereo fits correctly in the cutout, ensure the mounting holes on the stereo line up with the pilot holes on the template.
- 8 If the mounting holes on the stereo do not line up, mark the new pilot-hole locations.
- 9 Using an appropriately sized drill bit for the mounting surface and screw type, drill the pilot holes.
- 10 Remove the template from the mounting surface.
- 11 Make the necessary wiring connections ([Connections](#), page 2).
- 12 Place the mounting gasket on the back of the stereo ①.

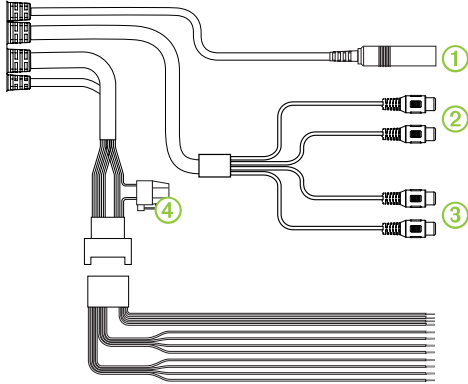


- 13 Place the stereo in the cutout.
- 14 Secure the stereo to the mounting surface using the included screws ②.
- 15 Snap the screw covers in place ③.

Connections

The stereo must be connected to power, to speakers, and to media input sources to function correctly. You should carefully plan the layout of the stereo, speakers, and your input sources before making any connections.

Wiring Harness Wire and Connector Identification



Wire Function	Wire Color/ Number	Notes
Antenna	①	Connects the stereo to a typical AM/FM antenna using an RF coaxial connector. If you are installing the stereo on a boat with a metal hull, you must use a ground-dependent antenna, and if you are installing the stereo on a boat with a non-metal hull, you must use a ground-independent antenna. See the installation instructions provided with your antenna for more information.
Auxiliary in left Auxiliary in right	②	Provides a red and white RCA stereo line input for audio sources, such as a CD or MP3 player.
Zone 1 line out (left) Zone 1 line out (right)	③	Provides a full-range output to an external amplifier, and is associated with the volume and tone for zone 1.
Power (+)	Red (yellow on some wire harnesses)	Connects to the positive terminal of a 12 Vdc power source capable of supplying 15 A.
Ground (-)	Black	Connects to the negative terminal of a 12 Vdc power source. This wire should be connected before connecting the yellow wire. All accessories connected to the stereo must share a common ground location.
Amplifier on	Blue	Connects to an optional external amplifier to turn it on when the stereo turns on.
Dim	Orange	Connects to the boat's illumination wire to dim the stereo screen when the lights are on. The gauge of the illumination wire must be suitable for the fuse supplying the circuit it is connected to.
Speaker zone 1 left (+)	White	
Speaker zone 1 left (-)	White/black	
Speaker zone 1 right (+)	Gray	
Speaker zone 1 right (-)	Gray/black	

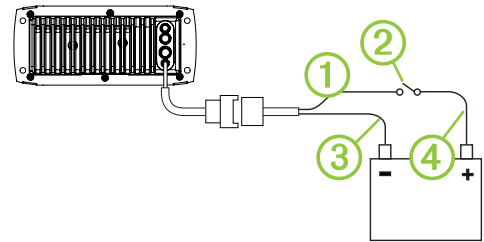
Wire Function	Wire Color/ Number	Notes
Speaker zone 2 left (+)	Green	
Speaker zone 2 left (-)	Green/black	
Speaker zone 2 right (+)	Purple	
Speaker zone 2 right (-)	Purple/black	
Fuse	④	Contains the 15 A fuse.

Connecting to Power

When connecting the stereo to power, you should connect it through the ignition or another manual switch.

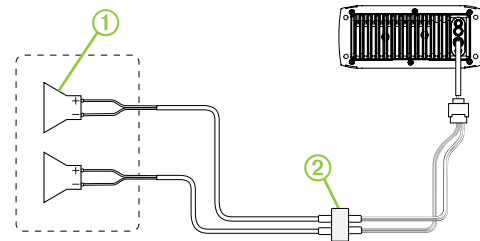
If it is necessary to extend the power and ground wires, use 14 AWG (2.08 mm²) wire. For extensions longer than 1 m (3 ft.), use 12 AWG (3.31 mm²) wire.

- 1 Route the power wire ① to the ignition or another manual switch ②, and route the black ground wire ③ to the battery.



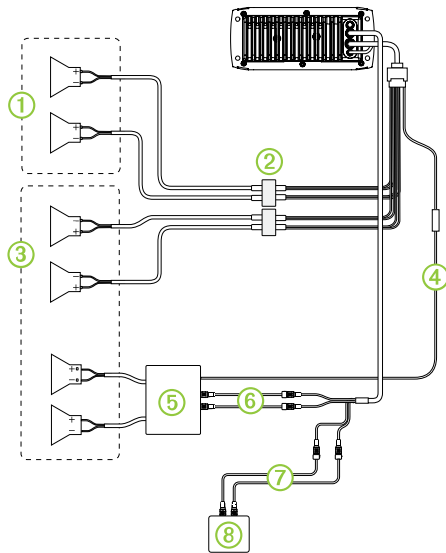
- 2 If necessary, route a wire ④ between the switch and the battery .
- 3 Route the wiring-harness plug to the stereo.
Do not connect the wiring harness to the stereo until after all of the bare wire connections have been made.
- 4 Connect the black wire to the negative (-) battery terminal.
- 5 Connect the power wire to the ignition or another manual switch, and connect the switch to the positive (+) battery terminal if necessary.
- 6 Connect the wiring harness plug to the stereo.

Single-Zone System Wiring Diagram



①	Speakers
②	Water-tight connection

Complete System Wiring



Item	Description
①	Zone 2 speakers
②	Water-tight connection
③	Zone 1 speakers
④	Amplifier-on signal wire
⑤	Powered amplifier
⑥	Zone 1 line out
⑦	Line in cable
⑧	Auxiliary line in device

Stereo Information

Specifications

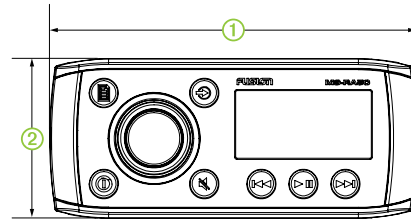
General	
Weight	556 g (19.6 oz.)
Water resistance	IEC 60529 IPX5
Operating temperature range	From 0 to 50°C (from 32 to 122°F)
Storage temperature range	From -20 to 70°C (from -4 to 158°F)
Input voltage	From 10.8 to 16 Vdc
Fuse	15 A
Current (max.)	15 A
Current (muted)	Less than 350 mA
Current (standby)	Less than 5 mA
Compass-safe distance	15 cm (5.9 in.)

On-board, Class AB Amplifier	
Output music power per channel	45 W max. x 4 channels at 4 Ohms per channel
Total output music power	180 W max.

Tuner	Europe and Australasia	USA	Japan
FM radio frequency range	From 87.5 to 108 MHz	From 87.5 to 107.9 MHz	From 76 to 95 MHz
FM frequency step	50 kHz	200 kHz	50 kHz
AM radio frequency range	From 522 to 1620 kHz	From 530 to 1710 kHz	From 522 to 1620 kHz
AM frequency step	9 kHz	10 kHz	9 kHz

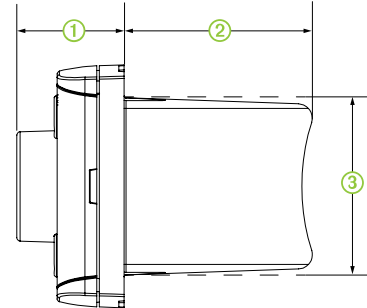
Stereo Dimension Drawings

Front Dimensions



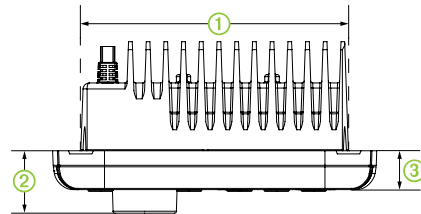
①	160 mm (6.3 in.)
②	71.5 mm (2.8 in.)

Side Dimensions



①	32 mm (1.25 in.)
②	52 mm (2 in.)
③	50 mm (2 in.)

Top Dimensions



①	130 mm (5.1 in.)
②	32 mm (1.25 in.)
③	20 mm (0.8 in.)

Reducing Unexpected Noise

If the stereo is subject to strong electrical interference, this interference might be heard through the speakers. You should take appropriate action to suppress or reduce the noise.

- Add clip-on ferrite beads to the cables connected directly to the product.
- Add clip-on ferrite beads to the device in the vessel that is causing the interference.
- Disconnect the AUX input cable from the RCA connector when it is not used.
- For additional information, go to www.fusionentertainment.com and contact Tech Support.

Cleaning the Device

- 1 Dampen a soft, clean, lint-free cloth with fresh water.
- 2 Gently wipe the device.

Registering Your FUSION MS-RA55

Help us better support you by completing our online registration today.

- Go to www.fusionentertainment.com.

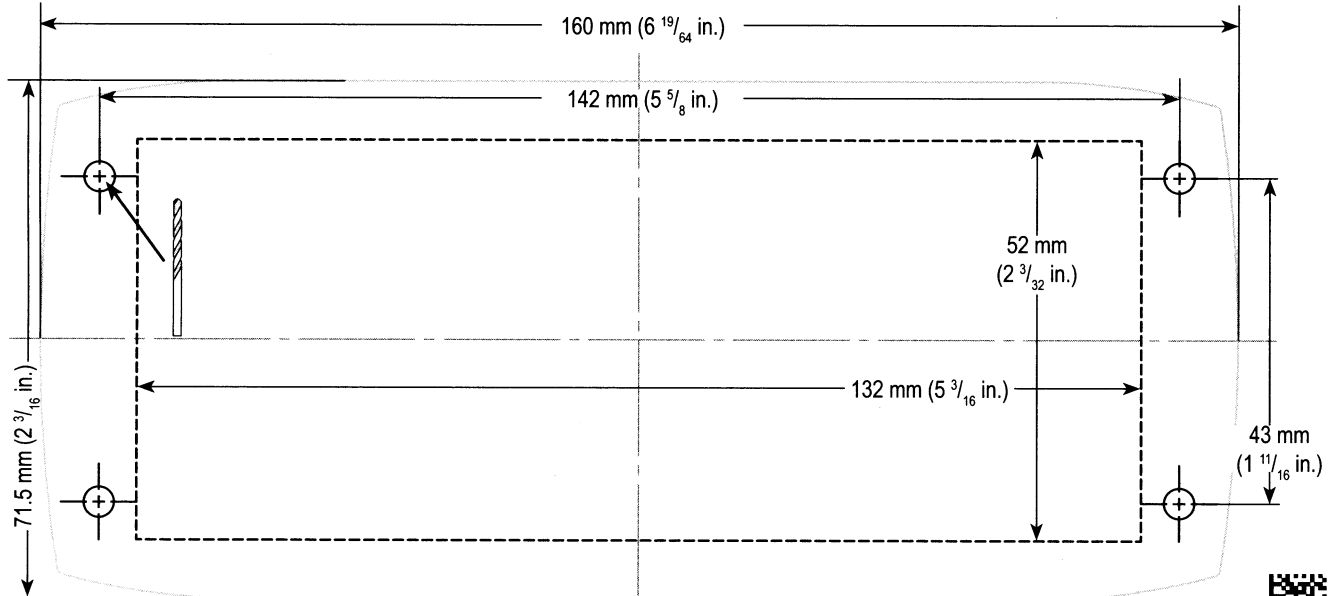
- **Keep the original sales receipt, or a photocopy, in a safe place.**

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Unexpected Noise

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- Add clip-on ferrite beads to the cables connected directly to the product.
- Add clip-on ferrite beads to the device in the vessel that is causing the interference.
- Disconnect the AUX input cable from the RCA connector when not used.
- For further information, go to www.fusionentertainment.com and contact Tech Support.

Bruits imprévus

Si le système stéréo subit de fortes interférences électriques, ces dernières peuvent être transmises par les haut-parleurs. Vous devez alors prendre les mesures nécessaires pour éliminer ou réduire ces bruits :

- A l'aide de clips de fixation, ajoutez des noyaux de ferrite sur les câbles directement connectés au produit.
- A l'aide de clips de fixation, ajoutez des noyaux de ferrite sur l'appareil du bateau qui est à l'origine des interférences.
- Lorsqu'il n'est pas utilisé, déconnectez le câble d'entrée AUX du connecteur RCA.
- Pour plus d'informations, rendez-vous sur le site www.fusionentertainment.com et contactez l'assistance technique.

Rumore imprevisto

Se lo stereo è soggetto a forti interferenze elettriche, tali interferenze potrebbero essere avvertite tramite gli altoparlanti. Sarà necessario prendere le misure necessarie per eliminare il rumore.

- Aggiungere dei manicotti di ferrite ai cavi collegati direttamente al prodotto.
- Aggiungere dei manicotti di ferrite al dispositivo nell'imbarcazione che causa l'interferenza.
- Scollegare il cavo di ingresso AUX dal connettore RCA quando non è in uso.
- Per ulteriori informazioni, visitare il sito Web www.fusionentertainment.com e contattare il Supporto tecnico.

Unerwartete Störgeräusche

Falls das Radio starken elektrischen Interferenzen unterliegt, sind diese u. U. über die Lautsprecher zu hören. Ergreifen Sie geeignete Maßnahmen, um Störgeräusche zu unterdrücken oder zu reduzieren:

- Bringen Sie Klappferrite an den Kabeln an, die direkt mit dem Produkt verbunden sind.
- Bringen Sie Klappferrite an dem Gerät auf dem Schiff an, das die Störungen verursacht.
- Trennen Sie das AUX-Eingangskabel vom RCA-Stecker, wenn es nicht verwendet wird.
- Weitere Informationen finden Sie unter www.fusionentertainment.com, oder wenden Sie sich an den technischen Support.



Ruido inesperado

Si el sistema estéreo está sujeto a intensas interferencias eléctricas, es posible que esta interferencia se oiga a través de los altavoces. Debes tomar las medidas adecuadas para suprimir o reducir el ruido:

- Añade núcleos de ferrita de clip a los cables conectados directamente al producto.
- Añade núcleos de ferrita de clip al dispositivo de la embarcación que está causando la interferencia.
- Desconecta el cable de entrada auxiliar del conector RCA cuando no se utilice.
- Para obtener más información visita www.fusionentertainment.com y ponte en contacto con el departamento de asistencia técnica.

Ruído inesperado

Se o sistema estéreo for submetido a uma forte interferência elétrica, essa interferência pode ser ouvida pelos alto-falantes. Você deverá tomar as medidas adequadas para suprimir ou reduzir o ruído:

- Adicione contas de ferrite com cliques aos cabos conectados diretamente no produto.
- Adicione contas de ferrite com cliques no dispositivo na embarcação que está causando a interferência.
- Desconecte o cabo de entrada AUX do conector RCA quando não estiver sendo usado.
- Para obter mais informações, acesse www.fusionentertainment.com e entre em contato com o suporte técnico.

Onverwachte ruis

Als de stereo onderhevig is aan sterke elektrische interferentie, kunt u dit mogelijk horen door de luidsprekers. U kunt de volgende acties ondernemen om de ruis te onderdrukken of verminderen:

- Bevestig ferrietkralen op de kabels die direct zijn aangesloten op het toestel.
- Bevestig ferrietkralen op het toestel in de boot dat de interferentie veroorzaakt.
- Ontkoppel de AUX-ingangskabel van de RCA-connector als deze niet in gebruik is.
- Ga voor meer informatie naar www.fusionentertainment.com en neem contact op met Tech Support.

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Important Safety and Product Information

WARNING

Failure to heed the following warnings could result in an accident resulting in death or serious injury.

Marine Operation Warnings

- You are responsible for the safe and prudent operation of your vessel. This device does not relieve you from the responsibility of safely operating your vessel. Avoid navigational hazards and never leave the helm unattended.
- Always be prepared to promptly regain control of the vessel. Use caution near hazards in the water, such as docks, pilings and other vessels.

Hearing Damage Warning

Listening to the stereo at high volume can cause damage to your hearing.

Product Environmental Programs

Information about the Garmin® product recycling program and WEEE, RoHS, REACH, and other compliance programs can be found at www.garmin.com/aboutGarmin/environment.

Declaration of Conformity

Hereby, Garmin declares that this product is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC. To view the full Declaration of Conformity, go to www.fusionentertainment.com.

Innovation, Science and Economic Development Canada Compliance

This device complies with Innovation, Science and Economic Development Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Radio Frequency Radiation Exposure

This device is a mobile transmitter and receiver that uses an internal antenna to send and receive low levels of radio frequency (RF) energy for data communications. The device emits RF energy below the published limits when operating in its maximum output power mode and when used with Garmin authorized accessories. To comply with RF exposure compliance requirements, the device should be installed and operated with a minimum of 20 cm (7.87 in.) between the device and your body. The device should not be used in other configurations. This device must not be co-located or operated in conjunction with any other transmitter or antenna.

FCC Compliance

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and may cause harmful interference to radio communications if not installed and used in accordance with the instructions. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet that is on a different circuit from the GPS device.
- Consult the dealer or an experienced radio/TV technician for help.

This product does not contain any user-serviceable parts. Repairs should only be made by an authorized Garmin service center. Unauthorized repairs or modifications could result in permanent damage to the equipment, and void your warranty and your authority to operate this device under Part 15 regulations.

Software License Agreement

BY USING THE DEVICE, YOU AGREE TO BE BOUND BY THE TERMS AND CONDITIONS OF THE FOLLOWING SOFTWARE LICENSE AGREEMENT. PLEASE READ THIS AGREEMENT CAREFULLY.

Garmin Ltd. and its subsidiaries ("Garmin") grant you a limited license to use the software embedded in this device (the "Software") in binary executable form in the normal operation of the product. Title, ownership rights, and intellectual property rights in and to the Software remain in Garmin and/or its third-party providers.

You acknowledge that the Software is the property of Garmin and/or its third-party providers and is protected under the United States of America copyright laws and international copyright treaties. You further acknowledge that the structure, organization, and code of the Software, for which source code is not provided, are valuable trade secrets of Garmin and/or its third-party providers and that the Software in source code form remains a valuable trade secret of Garmin and/or its third-party providers. You agree not to decompile, disassemble, modify, reverse assemble, reverse engineer, or reduce to human readable form the Software or any part thereof or create any derivative works based on the Software. You agree not to export or re-export the Software to any country in violation of the export control laws of the United States of America or the export control laws of any other applicable country.

Limited 1-Year Marine Consumer Warranty

Garmin New Zealand Limited, trading as FUSION® Entertainment ("FUSION"), warrants that this FUSION Marine product is free from defects in material and workmanship, according to the following terms and conditions:

- The initial limited warranty for the FUSION product purchased extends to the first 12 months beginning on the date of purchase of the product.
- The limited warranty extends only to the original consumer purchaser (consumer) of the product and is not assignable or transferable to any subsequent purchaser/end user.
- The limited warranty extends only to consumers who purchase the product in one of the countries (or areas) set forth on www.fusionentertainment.com. The limited warranty is only valid in FUSION's intended country (or area) of sale of the product.
- During the limited warranty period, FUSION or its authorised service network will repair or replace (at FUSION's discretion), any defective product or parts thereof with new and return the product to the consumer in working condition. No charge will be made to the consumer for either parts or labour in repairing or replacing the product. All replaced parts and cosmetic parts should be free of defects at the time of shipment and, therefore shall not be covered under these limited warranty terms.
- Repaired product will be warranted for the balance of the original warranty period or for ninety (90) days from the date of repair, whichever is longer.
- All warranty claims must be accompanied with a copy of this warranty card, and a copy of proof of purchase.

The consumer shall have no coverage or benefits under this limited warranty if any of the following conditions are applicable:

- The product has been subject to: abnormal use, abnormal conditions, improper storage, unauthorised modifications, unauthorised connections, unauthorised repair including but not limited to use of unauthorised spare parts in repairs, misuse, neglect, abuse, accident, alteration, improper installation, acts of God, spill of foods or liquids, maladjustment of customer controls or other acts which are beyond the reasonable control of FUSION, including deficiencies in consumable parts such as fuses, and breakage or damage to antennae unless caused directly by defects in materials or workmanship, and normal wear and tear of the product.
- FUSION was not notified by the consumer of the alleged defect or malfunction of the product during the applicable limited warranty period.
- The product serial number or the accessory date code has been removed, defaced or altered.
- The product was used with or connected to an accessory not supplied by FUSION or fit for use with FUSION product, or used in a manner other than its intended use.

If a problem develops during the limited warranty period, the consumer should take the following step-by-step procedure:

- 1 The consumer shall return the product to any authorised FUSION dealer in authorised sales countries for repair or replacement processing. FUSION assumes no freight or shipping responsibility for returning goods to an authorised FUSION dealer, or return freight from an authorised dealer to the consumer submitting the warranty claim.
- 2 The consumer shall be charged for any parts or labour charges not covered by this limited warranty. The consumer shall be responsible for expenses related to removal and reinstallation of the product.
- 3 If the product is returned to FUSION after the expiration of the warranty period, FUSION's normal service policies shall apply and the consumer will be charged accordingly.

THE BENEFITS CONFERRED BY THIS LIMITED WARRANTY APPLY TO THE EXTENT THAT THEY ARE NOT SUPERCEDED BY ANY OTHER RIGHTS AND REMEDIES UNDER ANY APPLICABLE LEGISLATION THAT CANNOT BE EXCLUDED. OTHERWISE, TO THE EXTENT PERMITTED BY LAW, ANY IMPLIED WARRANTY IS EXCLUDED AND THE FOREGOING WARRANTY IS THE PURCHASER'S SOLE AND EXCLUSIVE REMEDY AND IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED. TO THE EXTENT PERMITTED BY LAW, FUSION SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES OR A LOSS OF ANTICIPATED BENEFITS OR PROFITS, OUT OF USE OR INABILITY TO USE THE PRODUCT.

- Applicable law may not allow the limitation or exclusion of liability in some situations therefore the above limitations or exclusions may not apply to you.
- FUSION neither assumes nor authorises any authorised service centre or any person or entity to assume for it any other obligation or liability beyond that which is expressly provided for in this warranty.

- All warranty information, product features and specifications are subject to change without notice.

Limited 1-Year Marine Consumer Warranty for Australian Consumers

Garmin Australasia, 30 Clay Place, Eastern Creek, NSW 2766, Australia.

EMAIL: australia@fusionentertainment.com PHONE: 1800 235 822

THE FUSION PROMISE OF QUALITY LIMITED 1-YEAR CONSUMER WARRANTY

This warranty is given in addition to other rights and remedies available to the consumer under Australian Consumer Law. In addition to the FUSION Warranty, our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

Garmin New Zealand Limited, trading as FUSION Entertainment ("FUSION"), warrants this FUSION Product including, Speaker, Subwoofer, Amplifier, Head Unit, or genuine FUSION Accessory 'product' is free from defects in materials and workmanship, in accordance with the following terms and conditions:

- The limited warranty for the FUSION product purchased is only available for twelve (12) months after the date of purchase.
- The limited warranty extends only to the original consumer of the product and may not be assigned or transferred to any other person or consumer without FUSION's prior written consent being provided.
- During the limited warranty period, FUSION or its authorised service network will repair or replace any defective or faulty product or parts at its own cost.
- Repaired or replaced product will be warranted for the balance of the original warranty period or for ninety (90) days after the date of repair, whichever is longer.
- All warranty claims must be notified to FUSION or its authorised Dealer in writing during the warranty period accompanied with a copy of this warranty card, proof of purchase date and the product with an intact and unaltered serial number or accessory date code.

This warranty will not apply if:

- The consumer causes the Product to be of unacceptable quality or fails to take steps to prevent the product from becoming of unacceptable quality and/or it is damaged by abnormal use. Examples of goods becoming of unacceptable quality or of abnormal use by the consumer include:
 - Storage of product under improper conditions.
 - Exposure to excessive moisture or dampness.
 - Exposure to excessive temperature extremes or other adverse environmental conditions.
 - Unauthorised modifications of product, connections or otherwise unauthorised repairs including, but not limited, to the use of unauthorised parts in the repair of products.
 - Improper use of or installation of, or interference with, product adjustments or controls and or including antenna breakage or damage due to misuse.
 - Damage caused by consumables or by electricity supply.
 - Acts of god (force majeure), exposure of product to food spills, or any other type of fluid ingress.
 - Using the product in a way for which was not intended to be used or connecting it to an accessory not supplied by, specified by, or authorised by FUSION.
 - Any other abnormal use of or conduct causing product to become of unacceptable quality.

Other exclusions:

- This warranty extends to the repair or replacement of FUSION product only and the consumer is responsible for any expenses relating to the removal or installation of the product or related services including the cost of delivering the product to FUSION or its authorised dealer.
- Repair work conducted by FUSION after this warranty has expired or if this warranty for any other reason this FUSION warranty does not apply is subject to FUSION's normal service policies and FUSION charges for labour and material may apply.
- This is a manufacturers warranty provided to consumers of FUSION products. Variations to this warranty may only be made by FUSION and will be notified to the customer in writing or issued on the FUSION website. FUSION Dealers, agents and authorised dealers are not authorised to make changes or vary this FUSION warranty.
- All warranty information, product features and specifications are subject to change without notice.
- FUSION is not responsible for replacing or the cost of replacing any consumer data lost occurring either due to equipment failure or during the repair and replacement process.