

# FUSION® MS-NRX300 Installation Instructions

## Important Safety Information

### ⚠ WARNING

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

### ⚠ 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.

## Getting the Owner's Manuals

To fully understand the features and operations of your stereo, you can get the latest stereo owner's manual and translations of manuals from the web. You can also download the full remote owner's manual for more information about using this remote.

- 1 Go to [www.fusionentertainment.com/marine](http://www.fusionentertainment.com/marine).
- 2 Select the product.
- 3 Select **Manuals & Downloads**.
- 4 Select a manual.

## Tools Needed

- Phillips screwdriver
- Drill
- 2.5 mm ( $3/32$  in.) drill bit
- 50 mm (2 in.) hole saw
- Marine sealant (optional)

## Connection Considerations

You can connect the MS-NRX300 remote control to the FUSION stereo using a FUSION remote control network or an existing NMEA 2000® network, depending on the stereo. Some stereo models support the powered NMEA 2000 network connection only.

You may need to obtain a red, NMEA 2000 Power Cable (CAB000541) and an additional NMEA 2000 T-connector (CAB000581) to create a NMEA 2000 network.

### Remote Control Network Connection Considerations

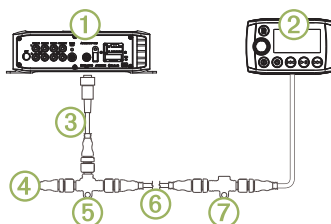
You can connect the remote control to the stereo using an unpowered remote control network if you have the following conditions.

- You do not have a full NMEA 2000 network on your boat.
- You are connecting three or fewer MS-NRX300 remote controls to one FUSION stereo.
- You are connecting to a FUSION stereo that provides power to the remote, such as a FUSION MS-UD650, MS-AV650, MS-UD750, MS-AV750, MS-BB300, or MX-RA205 stereo.
- You are not connecting to a FUSION stereo that does not provide power to the remote, such as a FUSION MS-BB100 or MS-RA70 stereo.

When connecting the MS-NRX300 remote control to an MS-UD650, MS-AV650, MS-UD750, or MS-AV750 stereo using the unpowered remote control network, you must use the cable located in the wiring harness at the rear of the stereo. When connecting the MS-NRX300 remote control to an MS-BB300 or MX-RA205 stereo using the unpowered remote control network, you must use a red, powered drop

cable (CAB000862). You do not need to connect the remote control network to another power source.

**NOTE:** When connecting to an MS-UD650, MS-AV650, MS-UD750 or MS-AV750 stereo through a remote control network, you must enable the NRX POWER setting to provide power to the remote control. Select  > **SETTINGS** > **NRX POWER**.



Item	Description
①	FUSION stereo
②	MS-NRX300 remote control
③	WIRED REMOTE cable from the stereo wiring harness or red, powered drop cable (CAB000862)
④	NMEA 2000 female terminator
⑤	NMEA 2000 T-connector (CAB000581)
⑥	NMEA 2000 backbone cable, 6 m (20 ft.)
⑦	NMEA 2000 inline terminator

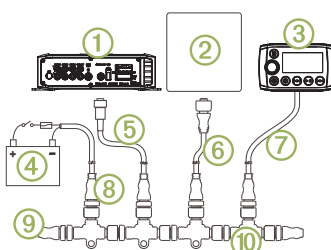
### NMEA 2000 Connection Considerations

You can connect the remote control to the stereo using a powered NMEA 2000 network if you have a powered and properly balanced NMEA 2000 network on your boat or you have these conditions.

- You are connecting more than three MS-NRX300 remote controls to one FUSION stereo.
- You are connecting to a FUSION stereo that does not provide power to the remote, such as a FUSION MS-BB100 or MS-RA70 stereo.

An unlimited number of MS-NRX300 remote controls can be connected to the NMEA 2000 network.

Through the NMEA 2000 network, you can control a connected FUSION stereo on compatible devices, such as the MS-NRX300 remote control and compatible chartplotter.

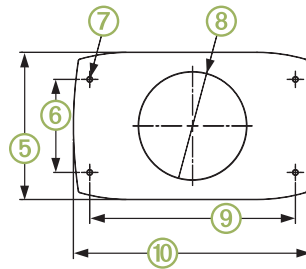


Item	Description
①	FUSION device
②	Compatible chartplotter
③	MS-NRX300 remote control
④	12 Vdc power source with an ignition or in-line switch
⑤	FUSION NMEA 2000 drop cable This can be extended to a maximum length of 2 m (6 ft.) using a standard NMEA 2000 cable.
⑥	NMEA 2000 drop cable
⑦	MS-NRX300 remote control drop cable. This can be extended to a maximum length of 2 m (6 ft.) using a standard NMEA 2000 cable.
⑧	NMEA 2000 power cable, 2 m (6 ft.) (CAB000541)
⑨	NMEA 2000 terminator or backbone cable
⑩	NMEA 2000 T-connector (CAB000581)

## Mounting Considerations

When selecting a mounting location, observe these considerations.

- The device must be mounted in a location where there is at least 75 mm (3 in.) of clearance behind the mounting surface and you can access the controls after it is mounted.
- If you want to mount the device outside the boat, it must be mounted in a location well above the waterline, where it is not submerged.
- If you want to mount the device outside the boat, it should be mounted in a location where it will not be damaged by a docks, pilings, or other pieces of equipment.



Item	Measurement
⑤	70 mm (2 3/4 in.)
⑥	43 mm (1 11/16 in.)
⑦	2.5 mm (3/32 in.) (pilot hole bit)
⑧	42 mm (1 5/8 in.) (hole saw)
⑨	95 mm (3 3/4 in.)
⑩	110 mm (4 3/8 in.)

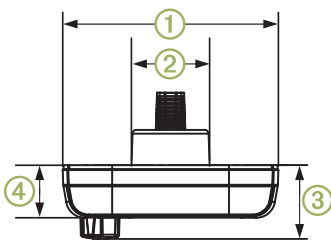
### Mounting the Remote Control

- 1 At the mounting location, use a 50 mm (2 in.) hole saw to cut through the mounting surface.
- 2 Place the remote control in the cutout and mark the pilot holes.
- 3 Remove the remote control from the cutout, and using a 2.5 mm (3/32 in.) drill bit, drill the pilot holes.
- 4 Apply marine sealant around the cutout (optional).
- 5 Place the gasket on the back of the remote control.
- 6 Feed the attached NMEA 2000 cable through the cutout.
- 7 Place the remote control in the cutout.
- 8 Secure the remote control to the mounting surface using the included screws.
- 9 Install the decorative bezel around the edges of the remote control.
- 10 Route the NMEA 2000 cable away from sources of interference and connect it to the NMEA 2000 network or the FUSION remote control network.

### More Information

#### Specifications

Specification	Measurement
Operating voltage	From 10.8 to 16 Vdc negative ground
Electrical input current	110 mA at 12 Vdc
NMEA 2000 Load Equivalency Number (LEN)	3 (150 mA)
Operating temperature	From 0 to 50°C (from 32 to 122°F)
Storage temperature	From -20 to 70°C (from -4 to 158°F)
Water rating	IEC 60529 IPX7



Item	Measurement
①	110 mm (4 5/16 in.)
②	42 mm (1 5/8 in.)
③	28 mm (1 3/32 in.)
④	16.5 mm (4 1/64 in.)

### Supported NMEA 2000 PGN Information

PGN Number	Data Field
127250	Heading sensor reference: <ul style="list-style-type: none"> <li>• 0: True</li> <li>• 1: Magnetic</li> </ul>
128259	Water speed reference: <ul style="list-style-type: none"> <li>• 00: Paddle wheel</li> <li>• 01: Pitot tube</li> <li>• 02: Doppler log</li> <li>• 03: Correlation log (ultrasound)</li> <li>• 04: Electromagnetic (EM) log</li> </ul>
128267	Water depth: <ul style="list-style-type: none"> <li>• Offset add or subtract</li> </ul>
129025	Position: <ul style="list-style-type: none"> <li>• Latitude and longitude</li> </ul>
129026	Course Over Ground (COG) and Speed Over Ground (SOG) <ul style="list-style-type: none"> <li>COG reference: <ul style="list-style-type: none"> <li>• 0: True</li> <li>• 1: Magnetic</li> </ul> </li> </ul>
129029	Global Navigation Satellite System (GNSS) position data
129284	Navigation data: <ul style="list-style-type: none"> <li>• ETA date</li> </ul>
130306	Wind data reference: <ul style="list-style-type: none"> <li>• 0x02 : Apparent wind (relative to the vessel centerline)</li> </ul>
130310	Water temperature and air pressure
130311	Water temperature and air pressure
130312	Temperature and temperature source: <ul style="list-style-type: none"> <li>• - 00 : Sea temperature</li> </ul>
130314	Actual pressure and pressure source: <ul style="list-style-type: none"> <li>• 00 : Atmospheric pressure</li> </ul>
130577	Direction data and COG reference: <ul style="list-style-type: none"> <li>• 0: True</li> <li>• 1: Magnetic</li> </ul>

### Registering Your FUSION MS-NRX300

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

- Go to [www.fusionentertainment.com](http://www.fusionentertainment.com).
- Keep the original sales receipt, or a photocopy, in a safe place.

### Software Updates

For best results, you should update the software in all FUSION devices at the time of installation to ensure compatibility.

Go to [www.fusionentertainment.com/marine](http://www.fusionentertainment.com/marine) to download the latest software. Software updates and instructions are available on your device product page.