

What to Consider when Choosing a Marine VHF Radio

Radio is an important safety tool for all mariners who venture out on the water, whether offshore or on inland waterways. VHF marine radios are used for; contacting harbours & marinas, summoning rescue services or routine ship-to-shore and ship-to-ship communication.

Knowing what radio to choose can be quite confusing because of the range of models and features available. Here, we go through some important considerations when choosing a marine portable or fixed VHF radio.

Why do I Need a VHF Radio?

Primarily you need it to communicate for safety with the coastguard and other boats and ships. It could save your life.

How Many Types of VHF Radio are There?

There are two types: handheld and fixed panel-mount radios.

Handheld VHF's are small, portable and suitable for small vessels without a battery source; or as emergency back-up for a fixed radio, or as personal radios for crew and use in tenders.

Panel-mount radios are permanent, fixed and ideal as the main radio. They offer greater range than a handheld because of their extra power, generally 25W and external antenna.

What Type is Best for Me?

Look at why you need a VHF. If you are a dinghy sailor, jet skier or sea kayaker, space will be an issue. A buoyant waterproof handheld with long battery life may be desirable for day-long sessions.

A handheld should be straightforward to use under pressure with easy shortcuts and an intuitive user interface. A clear screen and a good battery life are also important.

A DSC handheld radio allows you to contact a similarly equipped craft directly, by means of a unique MMSI number, or, a distress signal containing your identity and location can be sent by the simple press of a button.

Moving onto cruiser's and RIBs's venturing further out to sea, a small budget, fixed radio with extra range may be worth considering.

A large motorboat or yacht sailing further offshore, will need a greater range, so a fixed mount unit would be a better solution. A larger vessel may opt for dual-station control with a remote handset. All yacht and motorboats should consider AIS, either receiver only or a Class B transponder.

All recent fixed-mount marine VHF radios have DSC calling capability, allowing you to alert other boats, ships and shore stations with the single press of a distress button. When connected to a GPS, these DSC capabilities include; position polling and a variety of group calling options. Some offer the ability to connect to a remote microphone and act as an inter-ship intercom system.

Some radios also have automated fog horns that connect to an external hailer horn. Some have built-in hailers that double as a public address system.

Fixed radios do require installation, including connection to a power source, VHF antenna and GPS. Although quite straightforward to a DIY enthusiast, help from your BMEEA dealer may be needed. Think carefully before installing. If space is tight, a black box solution may enable you to install a high end radio out of sight, whilst still being able to control the set via a portable handset.

What features do I need?

1. Easy Operation

Most handheld VHF's offer basic functions. Others offer extras such as DSC. Extra features are being developed and integrated in modern fixed and handheld units. It is important to bear in mind that in an emergency you want a radio that is easy to operate and control.



2. Waterproofing

Don't be confused with waterproof values. Submersible, IPX7, is more preferable to something that is only splashproof, such as radios which are classified IPX4.

3. Buoyancy

One of the biggest handheld radio developments of recent years has been buoyancy technology. If by accident you drop your radio over the side, it will return to the surface so that you can retrieve it. To aid retrieval, some handheld sets also have strobe lighting to make them visible in the water.

4. ATIS Programmable

If you are going to the continent, make sure that your radio set is ATIS programmable. This can be set up by your supplying dealer.

5. Dual/Tri Watch & Scan

The set you choose should have dual or tri watch functions for scanning between channels whilst monitoring Channel 16, as well as a customisable scan function so you can monitor all the channels you need, without missing a call.

Other Considerations

1. Power*

Power can be used to improve the signal quality. Remember, more power out means more power in, giving shorter battery life for handhelds or non-recharging batteries. Always start with the lowest power setting and work up. On a fixed unit you should expect at least 25W (PEP) transmit power and on handheld units you should expect no lower than 5W(PEP).

*Some channels (Ch. 15, 75 & 76) operate on 1W only. This should automatically be selected by your radio.

2. Handheld Battery Life

If you are worried about running your battery low, there are several things you can consider. A good Lithium Ion battery can provide power enough for a typical day at sea. Alternatively a spare battery or battery case that holds disposable cells or perhaps a 12V. lead could be used.

3. Active Noise-Cancelling Technology

If you know that you will be operating in loud environments such as on a motor cruiser it may be worth considering a set with active noise-cancelling. Some of the latest radios feature this noise-cancelling technology to digitally remove background noise and transmit your voice clearly. Active noise-cancelling also improves an incoming signal therefore increasing voice clarity.

4. Last Call Voice Recording

If you sail as part of a group or are involved with racing, a last-call voice recording function, available on some sets, automatically saves the last incoming call(s) for a short time. This is a very useful function when you need to clarify information, as it allows you to listen again without needing the call to be repeated.

5. Do I need a Licence to Operate a Marine VHF Radio?

The Marine Radio Short Range Certificate remains a legal requirement for the use of marine VHF. To use a marine VHF radio, the user and the vessel will need a relevant licence. The vessel's licence is similar to a car tax disc, but is also the key to obtaining an MMSI number, which uniquely identifies your vessel. The user requires a radio 'driving licence' and there are two different types available.

For VHF only, the SRC (Short Range Certificate) instructs users in radio etiquette and procedures. VHF operation itself is fairly straightforward. However, the course also teaches you about digital selective calling (DSC) functions and emergency procedures.

Points to Check before You buy

1. Accessories

If you are purchasing a handheld VHF, the radio should come as standard with a battery and charger, belt clip and antenna. If you are a serious user or semi-commercial user you may want to know if the radio you are buying has the necessary accessories available to help you, for instance; are there headsets, cases or speaker microphones available?

2. Warranty & Support

A warranty is a guarantee of your peace of mind. You need to purchase a radio that the dealer and manufacturer can back up in terms of product and build quality. Some manufacturers offer 3-Year warranty.



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