



Shakespeare
Super Halo
3G 4G LTE
Marine Cellular
Booster.



CELLULAR ON BOARD

Extending the borders of connectivity

There are a lot of people working from their boats this summer. It's no surprise that one of our number one requests this boating season has been for a cell booster, so that in areas of weak cellular coverage boaters can still get a signal. Almost any device that uses a cell signal can be enhanced with a cell booster.

Cellular boosters or amplifiers require at least some signal to boost; if there is no outside cell signal at the external antenna, then the booster will not work. When there is a signal, an exterior antenna gathers that signal from cell towers, and transmits it to the cellular amplifier. The signal amplifier strengthens the signal and transmits it to the interior panel antenna, which then broadcasts the amplified signal.

CELL BOOSTERS COME in two different flavours. One relays the boosted signal via a wired connection to another device (i.e. smart hub) and the other transmits the signal wirelessly via an internal directional antenna to any nearby cellular device. How the boosted cell signal gets transmitted or relayed, via wired or wireless connections, has implications, each with its pros and cons.

The cell booster that transmits the boosted cell signal via a wire to another device such as a smart hub provides very little signal loss. Once the smart hub receives the boosted cell signal, it converts this signal to wifi to allow any wifi enabled devices to connect to the internet. This sort of conversion, cell to wifi, is identical to what a hotspot does on a smartphone. The main difference is a smartphone cannot receive a boosted cell connection by wire and then convert this wired cell connection to a wifi

signal. In other words, a wired cell booster needs a smart hub to terminate the cell reception and convert it to wifi. Devices on board that require the internet will connect to the smart hub via wifi or a few ethernet ports. The smart hub acts as a hotspot and converts the wifi to cell, to communicate using the boosted cell signal and external omnidirectional (omni) cell antenna.

The second type of cellular amplifier has an internal directional antenna. This allows cellular devices that are forward of the directional antenna to receive a cell signal. The advantage of this cell booster is that no smart hub is needed to translate the cell signal to wifi.

THE MOST POPULAR cell booster we sell is the Shakespeare Super Halo 3G 4G LTE Marine Cellular Booster. It provides 50 dB, five-band signal boosting for voice and text messages and improves 3G, 4G and LTE data connectivity for all devices in its range. It also uses stealth technology, so the uplink becomes dormant

while not in use to save power. It's designed for the marine environment and is weatherproof to withstand severe ocean conditions and humidity. It is also plug-and-play and supports multiple users simultaneously. To make it easy, the kit ships with everything you need for the installation, including the signal amplifier, outside omnidirectional antenna, inside unidirectional antenna, inside patch antenna, power cord and marine coaxial cables.

If you are doing the installation yourself, beware of two main challenges: oscillation and overload. Oscillation occurs when the boosted signal from the inside antenna makes its way to the outside antenna creating feedback. The best way to remedy this is to increase the physical distance between the antennas while ensuring that the inside directional antenna is not pointed at the outside antenna. Overload happens when the outside signal is very strong, and the amplifier is overloaded with too much signal. In most cases, the amplifier will shut down and will not

start again until the boat has moved away from the strong signal.

We recently installed a Super Halo on an older Nordhavn 475. The client, who often took his grandchildren out for the summer, wrote to tell us that they were able to watch movies in an area just off Texada where cell service was usually limited to only two or three bars. Another client who installed the Super Halo last summer decided to stay out longer because the service was so great, and there was no need to return to Campbell River to check in at the office. In this instance, she had remote video monitoring set up so she could review the activity in the works yard from anywhere.

Access to the internet is not only important for work and entertainment, but it is also an easy way to upgrade your navigation software or to get real-time weather data. Installing a cell booster will also provide your cell phone with better signal strength, providing a clearer call and fewer dropped calls while extending the battery life. 



MAPLE BAY
MARINA

*New Boat Yard
Coming Soon!*

LOCAL 250-746-8482 TOLL FREE 866-746-8482
maplebaymarina.com



**PROFESSIONAL SERVICE
WITH A PERSONAL TOUCH**

Repairs • Maintenance • Detailing • Installations • Commissioning

YACHT SALES, CHARTERS AND SERVICES

Conveniently located in Bellingham, WA and Vancouver Island, BC, it's never been easier to keep your vessel in pristine condition year round.

712 Coho Way, Bellingham, WA

360-393-5309

Building 6, 2300 Canoe Cove Rd, N. Saanich, BC

250-889-4134

Email us at: service@nw yachtworks.com

