

SPL160 AIS Splitter - Installation Guide

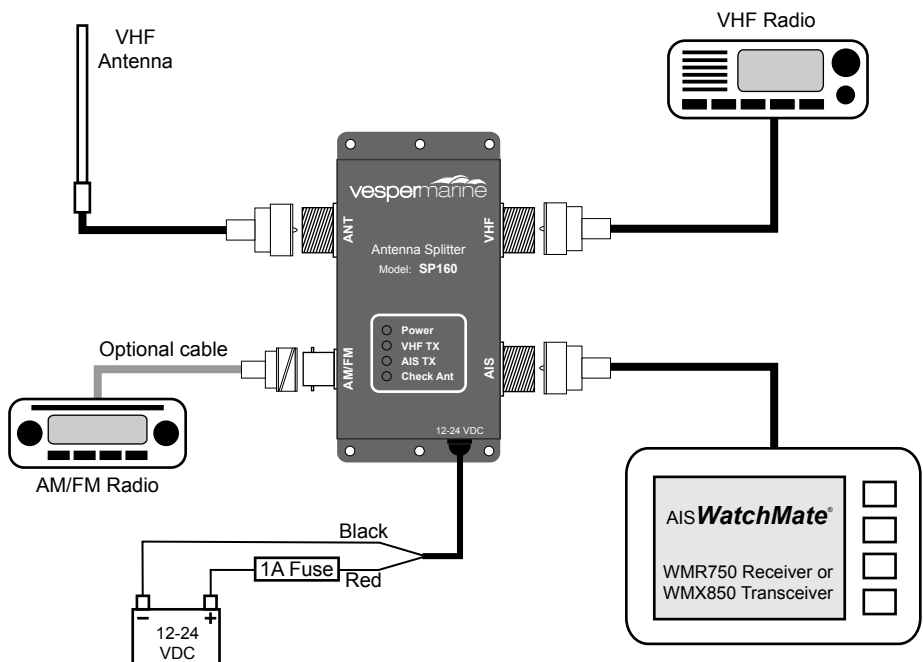
The SPL160 AIS/VHF Antenna Splitter is used to share a single VHF antenna for both VHF radio and an AIS receiver or transceiver. It can also supply a feed for your AM/FM radio.

Items needed to install:

- 12-24V DC power. Always install a 1A fuse and/or circuit breaker.
- Four 3mm (#4) screws for mounting.
- Two standard 50 Ω VHF patch cables (PL259) of adequate length to reach from your selected installation location to your VHF radio and AIS receiver or transceiver.
- An optional BNC-to-Motorola Plug cable is available for connecting to most AM/FM radios.

Installation:

- Select a suitable location. Often this is near an existing VHF radio since the antenna cable is located there.
- The unit is water resistant to protect it against the marine environment, however it is recommended to install it in a dry location.
- If power will be switched with a circuit breaker, ensure the splitter always has power whenever the AIS transceiver is active. This may be easily accomplished by using the same circuit breaker as the AIS transceiver. Always use a 1A fuse.



Features:

- Ultra low insertion loss.
- Low noise amplifier improves AIS receive performance.
- AIS sensitivity is increased to -119dBm when used with AIS **WatchMate** 850.
- Fail-safe, always gives priority to VHF radio even if the power is switched off.

Indicators:

- Green power indicator. The splitter must have power for the AIS transceiver to work.
- Amber VHF TX is illuminated whenever the VHF radio is transmitting.
- Amber AIS TX is illuminated briefly whenever the AIS transceiver is transmitting.
- Red "Check Ant" indicates an antenna problem such as a short or open circuit. This indicator will light only when the VHF is transmitting on high power. You can check your installation by switching to high power and pressing the talk button. Although this indicates a potential antenna problem, it is only an indicator and does not affect the splitter's functions.

VHF In-Use Indicator on AIS **WatchMate** 850:

The SP160 splitter may be used with any AIS receiver or transceiver. However, when used with an AIS **WatchMate** (WVMX850) this symbol is displayed on the WatchMate screen whenever the VHF radio is transmitting.



Specifications:

Size (including connectors)	135mm (5 3/8") x 107mm (4 1/4") x 56mm (2 1/4")
Power	12-24 VDC, <0.8 W (nominal)
Maximum current	270 mA
Operating temperature	-15°C to +55°C (5°F to 131°F)
Frequency range	156 MHz to 163 MHz
Insertion loss, VHF transmit	1 dB
Insertion loss, VHF receive	1.5 dB
Insertion loss, AIS transmit	1 dB
Gain, AIS receive	12 dB
Noise figure	<1.5 dB
Antenna port impedance	50 Ω, SO239 connector
VHF & AIS port impedance	50 Ω, SO239 connector
AM/FM port impedance	75 Ω, BNC connector
Switching time	<10 μS
Max. VHF transmit power	25 W
Max. AIS transmit power	12.5 W
Limited warranty	Two years from date of purchase. Includes parts and labor. Excludes freight. Proof of purchase required.

vespermarine

103 Westhaven Drive, St. Mary's Bay
PO Box 91164, Victoria Street West
Auckland 1142, New Zealand

+64 (0)9 950 4848

www.vespermarine.com
support@vespermarine.com