

Nav6a Plus NAVTEX System

ANTENNA OPTIONS

The Nav6aplus is not supplied with an antenna as standard, although ICS offer the following antenna options:

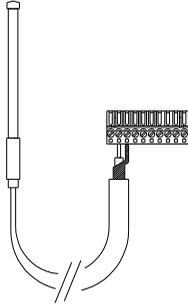
Passive 50 ohm 0.45metre tall

Active 50 ohm 1metre tall

Alternatively you may wish to use a backstay as an antenna or you may wish to run a wire around your headlining in the cabin. All of these options are catered for in the Nav6aplus, the suitability of each option will greatly depend upon your own circumstances. For instance, running a wire around the cabin in a steel boat may not be very successful.

Nav6a Plus NAVTEX System

Passive 50 ohm Antenna



ICS recommend using a passive 50 ohm antenna that has been specified for NAVTEX use. A suitable antenna is the ICS 904.02 although an equivalent antenna specified for operation at 490kHz *and* 518kHz would be acceptable.

The receiver pcb linker settings should be:

LK100 should not be fitted

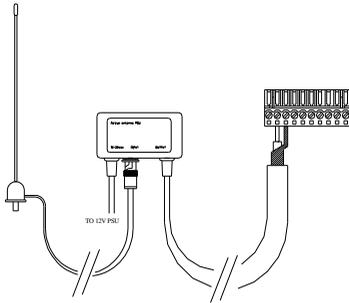
LK101 should not be fitted

The antenna should be connected to ANT+ (antenna coax centre) and ANT- (antenna coax screen) on the receiver unit connector.

CONNECTOR PIN	CONNECTION
1	-
2	Antenna coax centre connection
3	Antenna coax screen
4	Connection to Display SCREEN
5	Connection to Display 0V (BLACK)
6	Connection to Display 12V (YELLOW)
7	Connection to Display RS485_A (BLACK)
8	Connection to Display RS485_B (WHITE)

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Active 50 ohm Antenna with External PSU Interface Box



ICS recommend using an active 50 ohm antenna that has been specified for NAVTEX use.

A suitable antenna is the ICS 905.02 although an equivalent antenna specified for operation at 490kHz *and* 518kHz would be acceptable.

If the active antenna is supplied with an external PSU interface box then this should be used.

The receiver pcb linker settings should be:

LK100 should not be fitted

LK101 should not be fitted

The antenna should be connected to ANT+ (antenna coax centre) and ANT- (antenna coax screen) on the receiver unit connector.

CONNECTOR PIN	CONNECTION
1	-
2	Antenna coax centre connection
3	Antenna coax screen
4	Connection to Display SCREEN
5	Connection to Display 0V (BLACK)
6	Connection to Display 12V (YELLOW)
7	Connection to Display RS485_A (BLACK)
8	Connection to Display RS485_B (WHITE)

Nav6a Plus NAVTEX System

Active 50 ohm Antenna without External PSU Interface Box

ICS recommend using an active 50 ohm antenna that has been specified for NAVTEX use.

A suitable antenna is the ICS 905.02 although an equivalent antenna specified for operation at 490kHz *and* 518kHz would be acceptable.

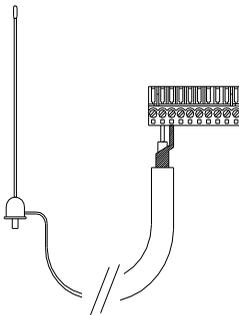
If the active antenna is not supplied with an external PSU interface box then the antenna should be installed as follows.

The receiver pcb linker settings should be:

LK100 should be fitted in the '50ohm active antenna' position

LK101 should be fitted in the 'Hi-Z antenna' position

The antenna should be connected to ANT+ (antenna coax centre) and ANT- (antenna coax screen) on the receiver unit connector.



CONNECTOR PIN	CONNECTION
1	-
2	Antenna coax centre connection
3	Antenna coax screen
4	Connection to Display SCREEN
5	Connection to Display 0V (BLACK)
6	Connection to Display 12V (YELLOW)
7	Connection to Display RS485_A (BLACK)
8	Connection to Display RS485_B (WHITE)

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Using a Back Stay as an Antenna

A back stay may be used as an antenna if a suitable 50 ohm matching balun is fitted. ICS Technical Support may be able to offer advice on this point.

The receiver pcb linker settings should be:

LK100 should not be fitted

LK101 should not be fitted

The balun 50 ohm output should be connected to ANT+ (balun coax centre) and ANT- (balun coax screen).

On no account should the back stay be connected into the Hi-Z input on the Nav6aplus connector.

<i>CONNECTOR PIN</i>	<i>CONNECTION</i>
1	-
2	Balun coax centre connection
3	Balun coax screen
4	Connection to Display SCREEN
5	Connection to Display 0V (BLACK)
6	Connection to Display 12V (YELLOW)
7	Connection to Display RS485_A (BLACK)
8	Connection to Display RS485_B (WHITE)

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Using a Wire in the Cabin as an Antenna

A long wire routed safely out of harm's way (for instance under the headlining in your cabin) may be used as an antenna in some circumstances. ICS Technical Support may be able to offer advice on this point. (Note that this method of connection is not highly recommended, an antenna mounted above decks is the preferred approach).

The receiver pcb linker settings should be:

LK100 should be fitted in the 'Hi-Z antenna' position

LK101 should be fitted in the 'Hi-Z antenna' position

The wire should be connected to the HI-Z input on the receiver unit connector.

CONNECTOR PIN	CONNECTION
1	Hi-Z wire antenna
2	-
3	-
4	Connection to Display SCREEN
5	Connection to Display 0V (BLACK)
6	Connection to Display 12V (YELLOW)
7	Connection to Display RS485_A (BLACK)
8	Connection to Display RS485_B (WHITE)

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Grounding

For *some* installations where local interference is thought to be limiting receiver performance, it may be necessary to ground the screen of the antenna coaxial cable.

This technique is only applicable where a 50 ohm antenna is employed (connected to ANT+ & ANT-).

Connect the outer screen of the antenna coaxial cable (ANT- on the receiver unit connector) to a good electrical ground. This can either be a specially installed ground plate, or the keel bolts on a non-encapsulated keel. If electrical isolation is to be maintained then this should be done via a 0.1uF 50V capacitor.

If in doubt consult your dealer.