

Installation of the PS 16 power supply

A. Mount the power supply indoors on the bulkhead by means of two screws.

Note. The PS 16 Power supply is not waterproof. Do not connect the supply voltage until the installation is completed.

B. Strip the downlead coaxial cable and twist on the F-connector, see fig. Make sure that no parts of the braid are short circuiting the inner conductor. Connect the cord to the terminal marked "antenna". See fig.

Strip the TV/Radio coaxial cable and twist on the F-connector. Connect the cord to one of the terminals marked "TV/Radio output". Or use the 1.5 m ready made coaxial cable (201.412) delivered with the antenna.

Note. To achieve optimum performance, it is essential that the total cable length (between antenna and TV/Radio-set) is no longer than 25 m (45 ft) and that not used outputs is terminated by the 75 ohm termination F-connector delivered with the antenna (500.207).

The coaxial cable must be a low loss 75 ohm type.

Secure the coaxial cable by means of clamps and avoid excessive bends and sharp edges.

Always terminate any unused TV/Radio output with the supplied terminator plug for optimum results.

C. Connect the supply voltage input to the terminals marked GND and "12-30 V DC".

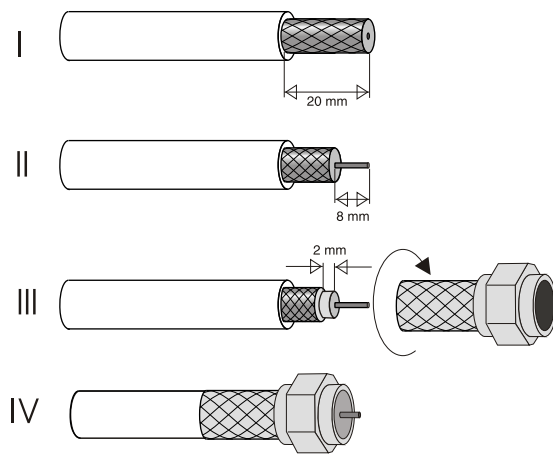
Install the fuseholder with a 400 mA fuse in the positive branch of the power cable.

If AC is required please use a locally supplied adapter. If PS16 is to be mounted on a steel bulkhead, the chassis on the power supply must be galvanically isolated from the bulkhead. Use plastic bushings to isolate the mounting screws.

Note. Inspect the completed installation. Check supply voltage and polarity before switching on. Turn the switch on the right side of PS16 to activate the built in amplifier of the antenna.

D. Tune your TV-set/Radio and check sound/picture quality.

Note. In some ports severe reflections from buildings, cranes etc. can cause distortion due to the nature of the omni-directional receiving antenna.



TECHNICAL SPECIFICATIONS

Frequency range	0.1 - 30 MHz
AM:	40 - 890 MHz
TV/FM:	
Average gain:	25 dB
Noise figure:	max 4.5 dB
Max. output level:	106 dBμV (2 signals-60 dB IMA)
Supply voltage to antenna:	15 V DC ± 10%
Current consumption:	approx 165 mA

Surge

AM:	6 kV
TV/FM:	6 kV
CE-EM	EN 50083-2, EN 61000-3-2:2000 EN 61000-3-3:1995+A1:2001

Temperature range:	-40° - +60° C
Connectors:	75 ohm BNC female
Weight:	1 kg

Wavetraps

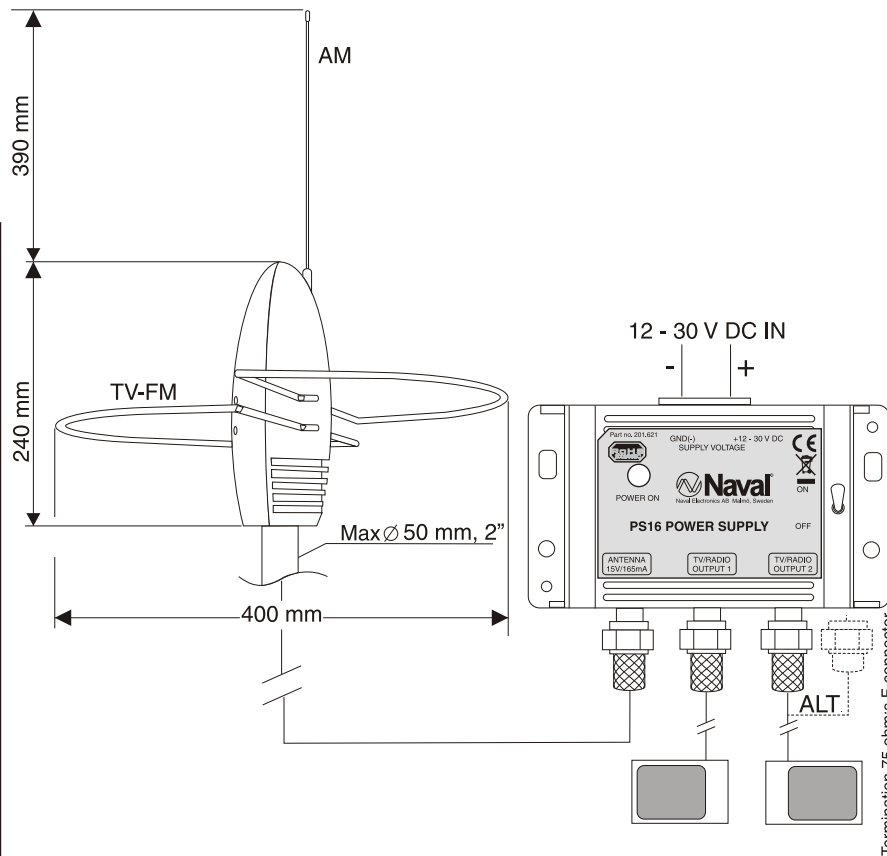
VHF:	156 MHz
AIS:	162 MHz

Certification notes

DNV* Vibration test: IEC 60068-2-6, April 2005

Material

Housing only:	Nylon66+glasfibre IP68
Elements:	Stainless acid proof steel A4 (SUS304)



Since 1971, the objective of Naval Electronics has been to offer the best possible products for TV and Radio reception at sea. Naval began with omnidirectional antennas and is the world leader in this field of technology today. Now, with an expanded product range, the name Naval means much more than antennas. Naval operates in more than 40 countries and has installations on thousands of vessels all over the world.

* Det Norske Veritas

Nargentus®

Digital

Technical manual TV-AM-FM antenna



Naval®

Marine Broadband Communication

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3037D

Nargentus digital is an omni-directional, wideband TV-AM-FM receiving antenna (0.1—890 MHz) for marine use, especially on crafts equipped with one or two radio and TV sets; e.g. on coasters in limited international trade, fishing-boats, tugs, pilot service and rescue cruisers. High efficiency suppression filters prevent interference from VHF telephone and AIS transmitters.

Nargentus is a newly designed low profile antenna, utilizing a low-noise amplifier powered via the coaxial cable.

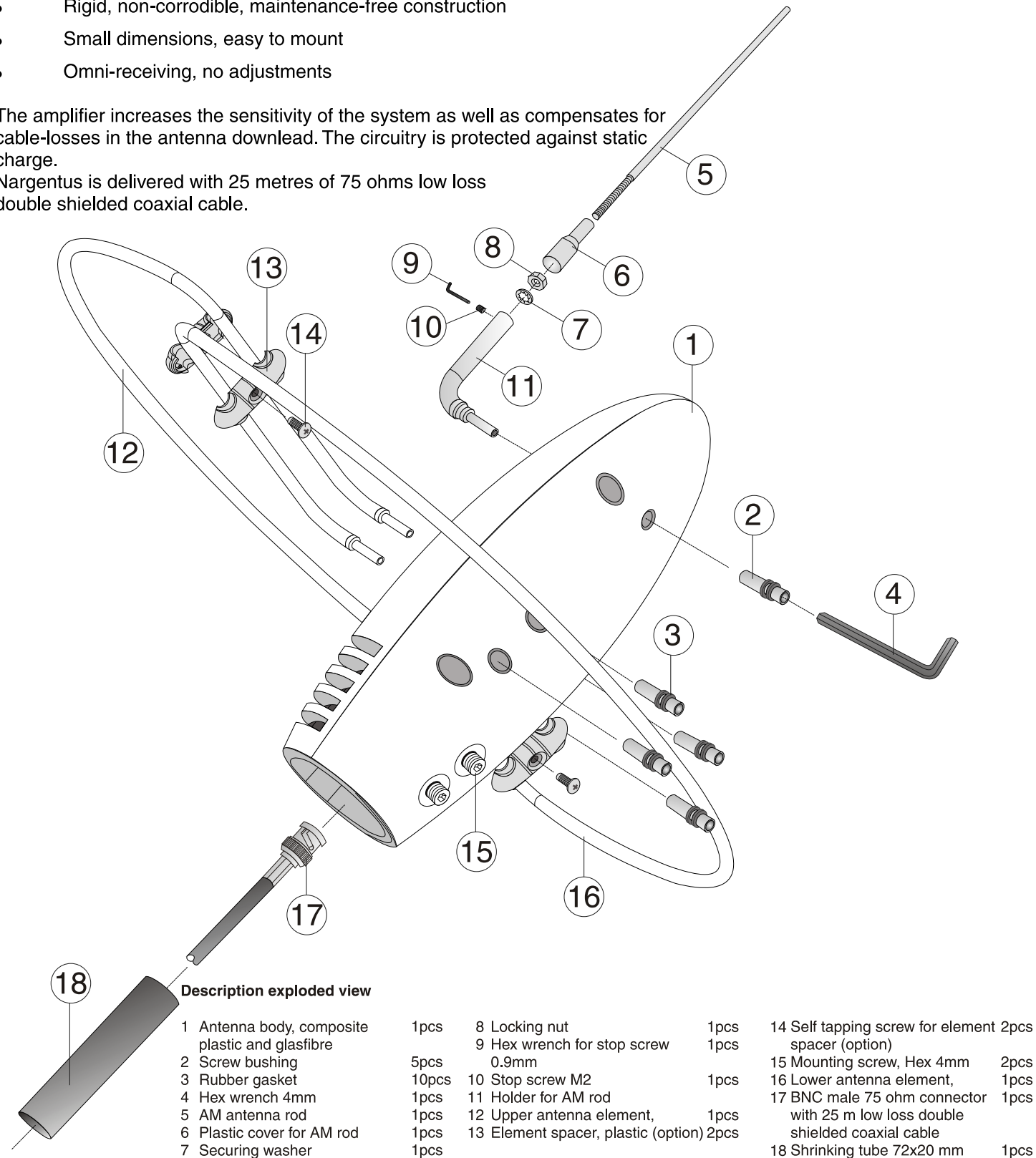
The antenna's exterior is made of glass-fibre reinforced composite which requires no maintenance. All inner parts are embedded in polyurethane foam to protect the antenna from vibrations and water. Connections, bolts and antenna elements are made of stainless acidproof steel (A4/SUS304).

The advantages of Nargentus compared to an ordinary Yagi antenna are

- Rigid, non-corrodible, maintenance-free construction
- Small dimensions, easy to mount
- Omni-receiving, no adjustments

The amplifier increases the sensitivity of the system as well as compensates for cable-losses in the antenna download. The circuitry is protected against static charge.

Nargentus is delivered with 25 metres of 75 ohms low loss double shielded coaxial cable.



Mounting the antenna unit

The antenna should be mounted as high as possible and placed away from funnels, radio communication antennas and radars to avoid reflections and interference.

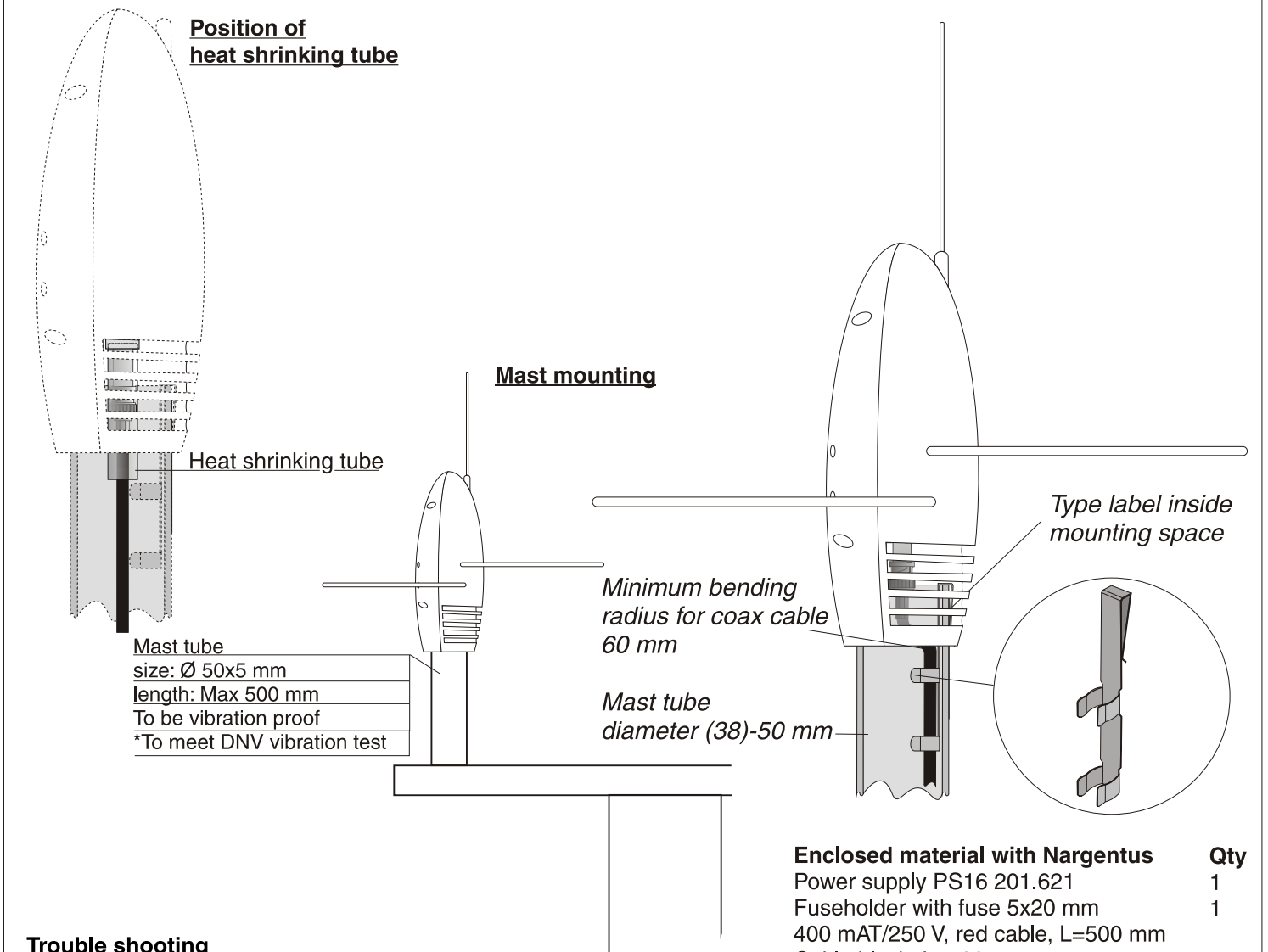
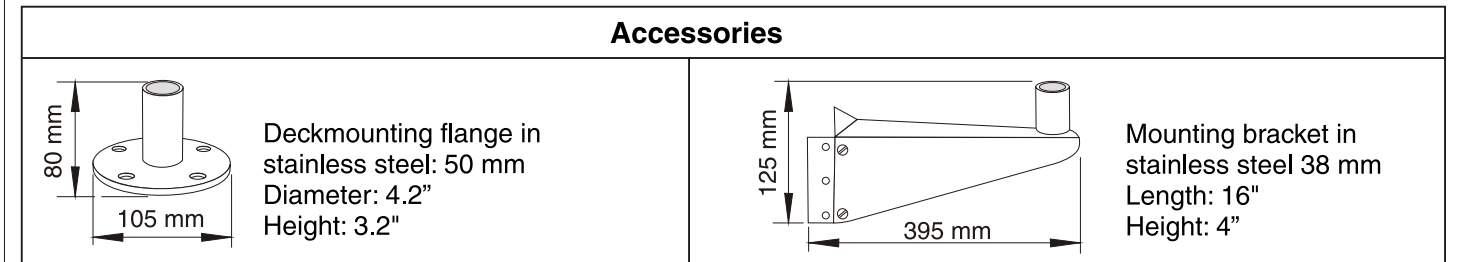
The superior location is in the masthead, with free path in all directions. The antenna can be mounted on a 1.5" —2" or 40—50 mm mast tube, deckmounting flange or mounting bracket. When mounting the antenna, don't use more than 4 Nm (0.40 kpm) torque when tightening the screws. For correct mounting of the cable holder see figure below.

When shrinking the "shrinking tube" (18) be careful to not overheat the antenna body and type label.

The coaxial cable download should be well protected and secured to the mast. Unload the download cable by means of cable clamps and protect it from mechanical damage. Avoid outdoor cable joints, but if necessary, make sure it is waterproof by using self-vulcanizing rubber tape or similar. Avoid excessive bending at the coaxial cable.

Factors, such as transmitting power, polarization, radiation angle and antenna height affect the received signal strength.

In some areas, close to transmitters, overloading of the amplifier and/or TV-set/Radio might occur. Under these circumstances do not interfere with the installation or the TV-set/Radio.



Trouble shooting

If the system is not working properly, please check the following:

1. Proper supply voltage to power supply.
2. Connections.
3. Output voltage from power supply (should be 15 V DC ±10 %).
4. Antenna current (approx. 165 mA).

Enclosed material with Nargentus	Qty
Power supply PS16 201.621	1
Fuseholder with fuse 5x20 mm	1
400 mA/250 V, red cable, L=500 mm	1
Cable black, L=500 mm	1
Self tapping screws with pan head 3/4"	2
F-connectors "twist on"	3
75 ohm termination	1
1.5 m F-IEC cable 201.412	1
Spare fuses 5x20 mm 400 mA/250 V	2
Holder for coaxial cable 162.120	1