



DESIGNED AND
MANUFACTURED
IN ENGLAND

TARGET NAVTEX v2.0

INSTALLATION AND
USER INSTRUCTIONS

NASA →
MARINE INSTRUMENTS

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RoHS ✓
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INTRODUCTION

The Target navtex V2.0 is a dual frequency navtex receiver allowing reception of either the navtex national (490kHz) service or the international (518kHz) service. Facilities are provided to program the receiver for both stations and messages on each of the two frequencies.

The receiver is simple to use with all instructions clearly displayed on the screen.

A compact stubby antenna is supplied with the receiver.

Whilst the receiver is designed to operate from the vessel's 12 volt system, it can be powered by domestic mains using a regulated 12 volt power supply (not a battery charger). A custom power supply is available from the Nasa Marine spares department. When used in a domestic environment it is important that the negative supply wire is connected to a good ground (e.g. Mains ground or a suitable water pipe) to avoid interference.

NAVTEX Transmissions

NAVTEX is information broadcast as radio signals by coastal navigation authorities world-wide. The signals can travel long distances under favourable circumstances, and so stations within hundreds of miles of each other in each region of the world transmit at different times of the day. Doing so prevents their transmissions interfering, and producing unintelligible signals at the receiver.

Each transmitting station has an identifying letter (known as the "station ident"), which is allocated by the authorities to ensure that no nearby station in each region of the world shares the same letter. A selection of Navarea 1 (United Kingdom) transmitter station idents is shown in Table 1. World-wide station idents and transmission times are listed in the Admiralty List of Radio Signals, Volume 3, published by Her Majesty's Stationery Office (HMSO).

IDENT LETTER INTERNATIONAL		M	Oostende (Thames Est.)	IDENT LETTER NATIONAL	
A	Corsen (Cross)	O	Portpatrick	I	Niton
B	Bodo	P	Netherlands Coastguard	C	Portpatrick
C	Murmansk	Q	Malin Head	U	Cullercoats
D	Grimeton	R	Reykjavick	S	
G	Cullercoats	E	Nitron	IDENT LETTER NATIONAL (Fr)	
H	Bjuroklubb	T	Oostende	E	Corsen
J	Givsløvshammar	U	Stavnas	S	La Garde
K	Niton (French Coast)	V	Vardo		
L	Rogaland	W	Valentia Radio		

National transmissions are in local language only.

MESSAGE

Type Ident Description of message type

- A Navigation warnings covering the station's area
- B Gale Warnings
- C Ice Reports
- D Search and Rescue information (Distress messages)
- E Weather Forecasts
- F Pilot messages
- G Decca information
- H LORAN-C information
- I Omega information
- J SATNAV information
- L Rig lists, submarine and gunnery information
- V Rig movements
- Z No messages on hand

The Navtex Message

All navtex messages begin with a 4 character code. The first letter is the station ident letter, the next is the message ident letter followed by a message reference number. At the end of the message the Target navtex prints the service that was received followed by an error count. The counter represents the total number of corrupted bits in the data stream received. As the navtex performs error correction most of these errors do not result on corrupted characters, however if high counts are received from local stations the installation should be examined.

Each user has different preferences for which stations and messages they want to record (that is, to copy to the display screen and save). The Target Navtex has facilities for including or rejecting selected station idents and message types so that only desired messages are recorded.

All messages are displayed in real time. Only messages programmed in are recorded, whereas those programmed out (rejected) are simply displayed as they arrive, and are not saved. It is a simple matter to return to the programming screens during standby and to change the programming to suit the user's requirements at any time.

A universal convention is to transmit distress or search and rescue messages with a message type D, which navtex receivers are required always to display and record. The Target navtex does so, and to indicate this fact, D cannot be programmed out.

INSTALLING THE ANTENNA

Owing to the low frequency nature of the signal, it is not necessary to mount the antenna at a great height. However many types of electrical apparatus emit interference and it is important that the antenna is well clear of such interference. Troublesome items are alternators, ignition coils, motors, strip lights, inverters etc. Select a position as far from likely sources of interference as is practical and mount the aerial using the flange on the base. Ensure that the antenna is at least 30cms from other metal structures that are parallel to it.

A pushpit mounting bracket is available from your chandler, or Nasa Marine spares department. The bracket permits the antenna to be mounted to any 25mm diameter horizontal rail.

Run the antenna lead back to the receiver. The cable can be shortened or lengthened using standard 75 ohm coaxial cable. Take great care when making connections. Power for the active antenna is supplied by the coax so all joints should be soldered and properly insulated. Alternatively a 7 metre extension cable is available from your chandler, or Nasa Marine spares department.

INSTALLING THE DISPLAY

The Target navtex is not waterproof and should only be cabin mounted. Select a convenient position for the display, secure the mounting cradle with two screws and fit the navtex into the cradle using the side knobs supplied.

Plug the power cable into the socket on the rear of the receiver and connect to 12 volts. (The red wire to positive and the wire with the black stripes to negative. The unit is protected against reverse polarity). Push the moulded antenna plug into its socket on the rear of the receiver. Adjust the display contrast if necessary using the control at the rear of the unit.

USING THE TARGET NAVTEX V2.0

OPERATION.

When power is first applied the display will go to the end of the last message received. In the bottom left corner the words INT or NAT indicate the channel (International 518Khz or National 490Khz) the receiver is operating on. This is the STANDBY screen.

To the right of the word STANDBY live incoming messages are streamed across the bottom of the screen. The UP key lets you go back to earlier stored messages the DOWN key letting you scroll down the selected message. When in the body of a message the UP and DOWN keys allow scrolling through the message. At the start of a message the UP key moves you up to the previous message in memory. At the end of a message the DOWN key moves you down to the next message in memory. In the body of a message, pressing the ENTER key takes you to the beginning of that message. Pressing the ENTER key at the beginning of a message takes you back to the STANDBY screen.

Pressing any key turns on the screen backlight for a period of two minutes. N.B. When text is being written onto the screen a square character is shown at the top right. Whilst this character is displayed the keys are inactive.

PROGRAMMING

It is normal practice to program the navtex receiver to store only the messages of interest to the user. To program the required STATIONS and MESSAGES first go to the STANDBY screen. (Cont)

From here holding the ENTER key depressed for three seconds will take you to the PROGRAM screen. From here you can program INTERNATIONAL stations by pressing UP. You can now use the UP key to flip the case of the STATION ident letter. Stations with upper case ident letters will be stored, those with lower case ident letters will be ignored. Use the DOWN key to roster through all the station ident letters. Pressing ENTER will then allow you to program NATIONAL stations in the same way. Remember each station has a different ident letter for international and national transmissions. Once you have completed station programming press ENTER to exit.

You can now program the message types you want to receive in a similar manner to programming stations. Press the DOWN key to program message types. Use the UP key to flip the case of the message ident letter you want to receive then use the DOWN key to roster through all the message types. When you have completed message programming press ENTER.

You now have the choice of clearing all the stored messages by pressing UP and DOWN together or going to the OPTIONS screen by pressing ENTER. From this screen you can view the signal spectrum by pressing UP and DOWN together. This feature is useful for fault diagnosis. From the OPTIONS screen two presses of the ENTER key will return you to receiving messages on the STANDBY screen.

From the STANDBY screen you can change the operating channel by pressing UP and DOWN keys together. Remember the international channel is in English where ever in the world you may be whereas the national channel will be in the local language.

TROUBLESHOOTING

1. THE UNIT APPEARS TOTALLY DEAD WITH NOTHING ON THE SCREEN

No power to unit. Check 12 volt supply and polarity is correct. Check fuse.

Reboot receiver by pressing all three keys simultaneously. Then turn contrast up (if screen is completely white) or down (if screen is completely black) until display is visible.

2. RECEIVER IS IN STANDBY BUT RECEIVES NO MESSAGES

No messages have been transmitted since the unit was turned on. If local service is selected then check there is a local service available.

The unit is incorrectly programmed. ie - it is not in range of the stations it is programmed to receive. Try programming for all stations and all messages and leave on overnight to see what stations are available.

If there is still no reception check the antenna cable for damage, inspect any joints and remake if defective.

Turn off any piece of equipment that may cause interference.

Shore power supplies can sometimes conduct interference onto the boat so disconnect boat from shore power. Turn off charger, particularly if it is of the inverter type.

3. IS THERE A REBOOT PROCEEDURE?

Yes, press all three keys together, This will reboot the operating software while retaining the message and program memory.

4. MESSAGE ENDS ABRUPTLY WITH THE WORDS “BAD SIGNAL”

A second navtex transmitter has started up before the message has ended. This can occur when a transmitter cannot get all of its information out in its own time slot.

5. MESSAGE ENDS WITH THE WORDS “LOST SIGNAL”

The signal has faded below an acceptable level for too long to be of value.

IMPORTANT READ THIS BEFORE UNPACKING INSTRUMENT

Prior to unpacking this instrument read and fully understand the installation instructions. Only proceed with the installation if you are competent to do so. Nasa Marine Ltd. will not accept any responsibility for injury or damage caused by, during or as a result of the installation of this product. Any piece of equipment can fail due to a number of causes. Do not install this equipment if it is the only source of information and its failure could result in injury or death. Instead return the instrument to your retailer for full credit. Remember this equipment is an aid to navigation and not a substitute for proper seamanship. This instrument is used at your own risk, use it prudently and check its operation from time to time against other data. Inspect the installation from time to time and seek advice if any part thereof is not fully seaworthy.

LIMITED WARRANTY

Nasa Marine Ltd. warrants this instrument to be substantially free of defects in both materials and workmanship for a period of one year from the date of purchase. Nasa Marine Ltd. will at its discretion repair or replace any components which fail in normal use within the warranty period. Such repairs or replacements will be made at no charge to the customer for parts and labour. The customer is however responsible for transport costs. This warranty excludes failures resulting from abuse, misuse, accident or unauthorised modifications or repairs. In no event shall Nasa Marine Ltd. be liable for incidental, special, indirect or consequential damages, whether resulting from the use, misuse, the inability to correctly use the instrument or from defects in the instrument. If any of the above terms are unacceptable to you then return the instrument unopened and unused to your retailer for full credit.

Name _____

Address _____

Dealer Name _____

Address _____

Date of Purchase _____

Proof of purchase may be required for warranty claims.

**Nasa Marine Ltd.
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Declaration of Conformity

NASA Marine Ltd declare this product is in compliance with the essential requirements of R&TTE directive 1995/5/EC.

The original Declaration of Conformity certificate can be requested at info@nasamarine.com

THIS PRODUCT IS INTENDED FOR USE ONLY ON NON SOLAS VESSELS

