

# TRANSOM MOUNT TRANSDUCERS

## Installation Manual



Dual Frequency Aquaducer  
(depth 200/50 kHz, speed,  
temperature transducer)



Mk3 Transom Mount  
Aquaducer (depth, speed,  
temperature transducer)



Mk2 Transom  
Mount Depth



Mk2 Transom Mount  
Aquaducer (depth, speed,  
temperature transducer)



Mk3 Transom  
Mount Depth

# NAVMAN

### **FCC Statement**

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a normal installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an output on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced technician for help.
- A shielded cable must be used when connecting a peripheral to the serial ports.

## Introduction

This manual describes how to install NAVMAN's Transom Mount Transducers:

- Dual Frequency Aquaducer (depth 200/50 kHz, speed, temperature transducer).
- Mk3 Transom Mount Aquaducer (depth, speed, temperature transducer).
- Mk3 Transom Mount Depth Transducer.
- Mk2 Transom Mount Aquaducer (depth, speed, temperature transducer).
- Mk2 Transom Mount Depth Transducer.

### What comes with a transducer

- Transducer with mounting bracket and cable [Mk2 and Mk3 Aquaducer cable 26 ft (8 m), Dual Frequency Aquaducer and depth only transducer cable 33 ft (10 m)].

- Four mounting screws for transducer.
- Bag with cable cover, two cable clamps and their four mounting screws.
- This installation manual.

### Spare parts

These spare parts are available from your NAVMAN dealer:

- Mk3 and Dual Frequency Aquaducer Transom Mounting bracket.
- Mk2 Transom Mounting bracket.
- Aquaducer paddlewheel.
- Mk2 and Mk3 Aquaducer extension cable 13 ft (4 m).
- Dual Frequency Aquaducer extension cable 13 ft (4 m).

### Important

It is the owner's sole responsibility to install and use NAVMAN's transducers in a manner that will not cause accidents, personal injury or property damage. The user of this product is solely responsible for observing safe boating practices.

**Transducer installation:** The choice, location and angle of the transducer is the most critical part of installation. If installation is not correct, the unit can not perform at its designed potential. If in doubt, consult your NAVMAN dealer. Ensure that any holes cut are in a safe position and will not weaken the boat's structure. If in doubt, consult a qualified boatbuilder.

NAVMAN NZ LIMITED DISCLAIMS ALL LIABILITY FOR ANY USE OF THIS PRODUCT IN A WAY THAT MAY CAUSE ACCIDENTS, DAMAGE OR THAT MAY VIOLATE THE LAW.

**Governing Language:** This statement, any instruction manuals, user guides and other information relating to the product (Documentation) may be translated to, or has been translated from, another language (Translation). In the event of any conflict between any Translation of the Documentation, the English language version of the Documentation will be the official version of the Documentation.

This manual represents the transducer installation procedures as at the time of printing. Navman NZ Limited reserves the right to make changes to specifications without notice.

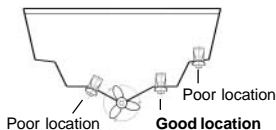
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## Position of transducer

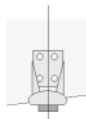
Transom mount transducers are suitable for planing hulls less than 26 ft (8 m) long, with outboard or stern-drive power. They are unsuitable for boats with propellers forward of the transom, prominent keels or displacement hulls.

Select a position for the transducer that will:

- Be away from the propellers or propeller wash and on the downstroke side of the propeller/s (normally the starboard side).
- Have a smooth, clear flow of water at all times, which means that the transducer should not be in line with any hull projections, openings or planing strakes.



- Always have the entire bottom face of the transducer under water, when the boat is stopped or at speed.
- Not interfere with, or be damaged by, launching or retrieving if the boat is trailered.
- Be convenient for the cable to go through the transom into the boat.



Fit the transducer so that its axis is vertical.

## Installing

**Important:** Do not cut the transducer cable to shorten it.

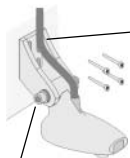
- 1 Select a suitable position for the transducer (see *Position of transducer* - previous page).
- 2 Tear the drilling template from inside the back cover of this manual and cut to size.
- 3 Hold the drilling template in place on the transom.

Mark four screw holes through the template so that they will be positioned in the middle of the transducer bracket's slots:

- For fibreglass (GRP) or wooden hulls, ensure the entire bottom face of the transducer will always be approximately 1/4" (6 mm) (dual frequency transducer 1/2" (12 mm)) beneath the surface of the water, including when the boat is at speed.
- For aluminium hulls, ensure the entire bottom face of the transducer will always be approximately 1/2" (12 mm) (dual frequency transducer 3/4" (18 mm)) beneath the surface of the water, including when the boat is at speed.

**Note:** *Locating the screws at the mid-points in the slots enables the transducer to be moved up or down later.*

- 4 Drill the four screw holes 5/64" (2 mm) diameter and at right angles to the transom, so that when the screws are tightened the screw heads sit flat.



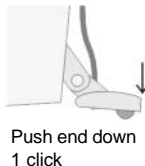
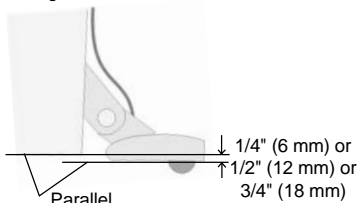
Drill 5/64" (2 mm), apply sealant in holes (after adjusting and testing)

Screw transducer onto transom

Pivot bolt

- 5 Attach the mounting bracket with the four longer stainless screws provided, slide the bracket up or down until the screws are in the middle of the slots, then tighten the screws temporarily.
- 6 If necessary, loosen the transducer pivot bolt so that the transducer can rotate.

**Note:** *the transducer rotates in 'clicks' of 7 degrees.*

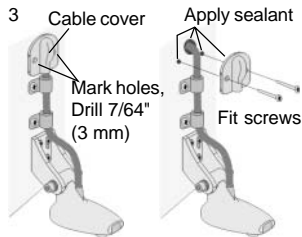
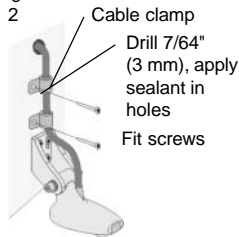
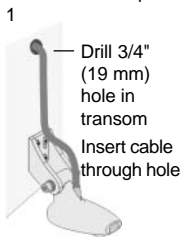


Push end down  
1 click

- 7 Hold a straight edge on the bottom of the hull and rotate the transducer so that the bottom surface of the transducer is parallel to the bottom of the hull (to the closest click).
- 8 Push the end of the transducer down by one click. Tighten the pivot bolt until the rubber washer on the pivot bolt starts to compress, then add another 1/4 turn. If the transducer kicks up when at speed, then tighten the pivot bolt more.

**Note:** *The face of the transducer should face forward by about 7 degrees when the boat is moving.*

If the cable is to pass through the transom:



Drill the hole a safe distance above water line.

If you are unsure where to put the hole, consult a qualified boatbuilder.

**Do not cut the cable.**

Fit one or two cable clamps on transom to hold cable.

**Important:** Fit a cable clamp close to the transducer. This may prevent the transducer from causing damage should the bracket break while the boat is moving.

Fit cable cover over cable hole in transom.

Fill the following with sealant:

- Cable hole in transom.
- Inside the cable cover.
- The screw holes.

## Wiring

The transducer has a cable to connect it to the navigation instrument. When fitting this cable:

- Keep the cable away from other cables and equipment (for example fluorescent lights, power inverters and VHF transmitters).
- Do not cut the cable.
- If necessary, extend the cable by adding a NAVMAN 13 ft (4 m) extension cable (a

maximum of one cable can be used).

Ensure no cable connectors lay in the bilge.

**Note:** There is no extension cable available for the FISH 4100.

- Secure the cable at regular intervals.
- Refer to the navigation instrument's installation manual for instructions on how to connect the cable to the instrument.

## Adjusting and testing

Adjust and test the transducer after the transducer and instrument have been installed and with the boat in at least 6 ft (2 m) of water.

- 1 With the boat moving slowly, turn the instrument on. If the depth does not display, follow the troubleshooting instructions in the instrument manual.
- 2 Gradually increase boat speed. If the depth does not display then:
  - i Remove any oil from the transducer by wiping the face of the transducer with mild detergent on a cloth.
  - ii Adjust the angle of the transducer by pushing the end down another click.
  - iii Loosen the screws then slide the transducer mounting bracket down or up in steps of 0.1" (2.5 mm) to achieve

best high speed performance. Several adjustments might be required to find the optimum position.

- iv Review the position of the transducer (see *Position of transducer* at the beginning of this manual).

- 3 Once adjustments are completed, ensure that all screws are tight, the pivot bolt is tight and all holes are filled with sealant.

**Note i:** If the transducer kicks up at high speed then the pivot bolt needs to be tighter.

**Note ii:** If you find that your transducer is causing a 'Rooster tail' then the likely cause is the transducer being mounted too deep. Lifting the transducer mounting on the transom should solve the problem.

## Cleaning and maintenance

Clean a transducer with a damp cloth or mild detergent. Avoid abrasive cleaners and petrol or other solvents. When repainting the hull, cover or remove any transducers. Do not paint the transducer. Do not use a high pressure water blast on a speed sensor paddlewheel as it may damage the bearings.

**NORTH AMERICA**  
NAVMAN USA INC.  
18 Pine St. Ext.  
Nashua, NH 03060.  
Ph: +1 603 577 9600  
e-mail: sales@navmanusa.com

**OCEANIA**

New Zealand  
Absolute Marine Ltd.  
Unit B, 138 Harris Road,  
East Tamaki, Auckland.  
Ph: +64 9 273 9273  
e-mail:  
navman@absolutemarine.co.nz  
Papua New Guinea  
Lohberger Engineering  
Lawes Road, Konedobu  
PO Box 810  
Port Moresby  
Ph: +675 321 2122  
Email: loheng@online.net.pg  
Australia  
NAVMAN AUSTRALIA PTY  
Limited  
Unit 6 / 5-13 Parsons St,  
Rozelle, NSW 2039, Australia.  
Ph: +61 2 9818 8382  
e-mail: sales@navman.com.au

**SOUTH AMERICA**

Argentina  
Costanera UNO S.A.  
Av Presidente R Castillo y  
Calle 13  
1425 Buenos Aires, Argentina.  
Ph: +54 11 4312 4545  
e-mail:  
purchase@costanerauno.com.ar  
Website:  
www.costanerauno.ar  
Brazil  
REALMARINE  
Estrada do Joa 3862,  
CEP2611-020,  
Barra da Tijuca, Rio de Janeiro,  
Brasil.  
Ph: +55 21 2483 9700  
e-mail:  
vendas@marinedepot.com.br  
Equinaut Com Imp Exp de  
Equip Nauticos Ltda.  
Av. Diario de Noticias 1997 CEP  
90810-080, Bairro Cristal, Porto  
Alegre - RS, Brasil.  
Ph: +55 51 3242 9972  
e-mail:  
equinautic@equinautic.com.br  
Transom Mount Transducers Installation Manual

**ASIA**

China  
Peaceful Marine Electronics Co. Ltd.  
Hong Kong, Guangzhou,  
Shanghai, Qindao, Dalian.  
E210, Huang Hua Gang Ke Mao  
Street, 81 Xian Lie Zhong Road,  
510070 Guangzhou, China.  
Ph: +86 20 3869 8784  
e-mail: sales@peaceful-marine.com  
Website: www.peaceful-marine.com  
India  
Access India Overseas Pvt  
A-98, Sector 21, Noida, India  
Ph: +91 120 244 2697  
Email: vkapil@del3.vsnl.net.in  
Indonesia  
Polytech Nusantara  
Graha Paramita 2nd Floor  
Jln Denpasar Raya Blok D2 Kav  
8 Kuningan, Jakarta 12940  
Tel: 021 252 3249  
Korea  
Kumhomarine Technology Co., Ltd.  
#604-842, 2F, 1118-15,  
Janglim1-Dong, Saha-Gu  
Busan, Korea  
Ph: +82 51 293 8589  
e-mail: info@kumhomarine.com  
Website: www.kumhomarine.com  
Maldives  
Maizan Electronics Pte. Ltd.  
8 Sosunmaga Male  
Ph: +960 78 2444  
Email: ahmed@maizan.com.mv  
Singapore  
RIQ PTE Ltd.  
81, Defu Lane 10, Hah Building,  
#02-00 Singapore 539217  
Ph: +65 6741 3723  
e-mail: riq@postone.com  
Taiwan  
Seafirst International Corporation  
No.281, Hou-An Road  
Chien-Chen Dist.  
Kaohsiung, Taiwan R.O.C.  
Ph: +886 7 831 2688  
e-mail: seafirst@seed.net.tw  
Thailand  
Thong Electronics (Thailand)  
Company Ltd.  
923/588 Thaprong Road,  
Mahachai,  
Muang, Samutsakhon 74000,  
Thailand.  
Ph: +66 34 411 919  
e-mail: thonge@cscoms.com

Vietnam  
Haidang Co. Ltd.  
16A/A1E, Ba thang hai St.  
District 10, Hochiminh City.  
Ph: +84 8 86321 59  
e-mail: sales@haidangvn.com  
Website: www.haidangvnm.com

**MIDDLE EAST**

Lebanon and Syria  
Letro, Balco Stores,  
Moutran Street, Tripoli VIA Beirut.  
Ph: +961 6 624512  
e-mail: balco@cyberia.net.lb  
United Arab Emirates  
Kuwait, Oman, Iran & Saudi Arabia  
Abdullah Moh'd Ibrahim  
Trading, opp Creak Rd.  
Baniyas Road, Dubai.  
Ph: +971 4 229 1195  
e-mail: mksq99@email.com

**AFRICA**

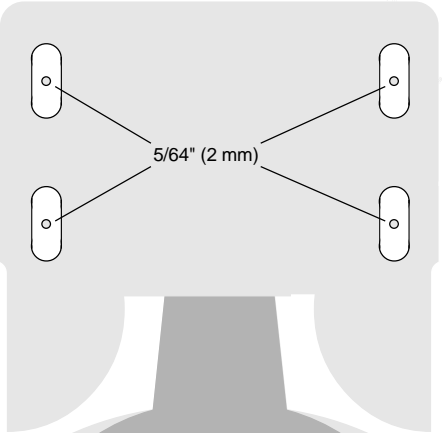
South Africa  
Pertec (Pty) Ltd Coastal,  
Division No.16 Paarden Eiland Rd.  
Paarden Eiland, 7405  
Postal Address: PO Box 527,  
Paarden Eiland 7420  
Cape Town, South Africa.  
Ph: +27 21 511 5055  
e-mail: info@kfa.co.za

**EUROPE**

France, Belgium and  
Switzerland  
PLASTIMO INTERNATIONAL  
15, rue Ingénieur Verrière,  
BP435,  
56325 Lorient Cedex.  
Ph: +33 2 97 87 36 36  
e-mail: plastimo@plastimo.fr  
Website: www.plastimo.fr  
Germany  
PLASTIMO DEUTSCHLAND  
15, rue Ingénieur Verrière  
BP435- 56325 Lorient Cedex.  
Ph: +49 6105 92 10 09  
+49 6105 92 10 10  
+49 6105 92 10 12  
e-mail:  
plastimo.international@plastimo.fr  
Website: www.plastimo.de  
Italy  
PLASTIMO ITALIA  
Nuova Rade spa, Via del Portasso 5  
I-16015 CASELLA SCRIVIA (GE).  
Ph: +39 1096 8011  
e-mail: info@nuovarade.com  
Website: www.plastimo.it

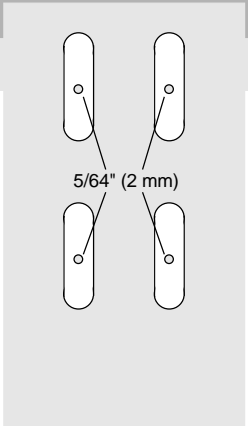
Holland  
PLASTIMO HOLLAND BV.  
Industrieweg 4-6,  
2871 RP SCHOONHOVEN.  
Ph: +31 182 320 522  
e-mail: info@plastimo.nl  
Website: www.plastimo.nl  
United Kingdom  
PLASTIMO Mfg. UK Ltd.  
School Lane - Chandlers Ford  
Industrial Estate,  
EASTLEIGH - HANTS S053 ADG.  
Ph: +44 23 8026 3311  
e-mail: sales@plastimo.co.uk  
Website: www.plastimo.co.uk  
Sweden, Denmark or Finland  
PLASTIMO NORDIC AB.  
Box 28 - Lundenvägen 2,  
47321 HENAN.  
Ph: +46 304 360 60  
e-mail: info@plastimo.se  
Website: www.plastimo.se  
Spain  
PLASTIMO ESPAÑA, S.A.  
Avenida Narcís Monturiol, 17  
08339 VILASSAR DE DALT,  
(Barcelona).  
Ph: +34 93 750 75 04  
e-mail: plastimo@plastimo.es  
Website: www.plastimo.es  
Portugal  
PLASTIMO PORTUGAL  
Avenida de India N°40  
1300-299 Lisbon  
Ph: +351 21 362 04 57  
e-mail:  
plastimo@siroco-nautica.pt  
Other countries in Europe  
PLASTIMO INTERNATIONAL  
15, rue Ingénieur Verrière  
BP435  
56325 Lorient Cedex, France.  
Ph: +33 2 97 87 36 59  
e-mail:  
plastimo.international@plastimo.fr  
Website: www.plastimo.com  
WEST OF WORLD /  
MANUFACTURERS  
Navman NZ Limited  
13-17 Kawana St. Northcote.  
P.O. Box 68 155 Newton,  
Auckland, New Zealand.  
Ph: +64 9 481 0500  
e-mail:  
marine.sales@navman.com  
Website: www.navman.com

Made in New Zealand  
MN000163D



Mk3

Dual Frequency  
Aquaducer



Mk2

Lon 174° 44.535'E

Lat 36° 48.404'S

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