OceanTRx7™

Maritime Stabilized VSAT System

Technical Note

Radar Filter (BPF) Installation

TEC32-1101-009_A REV. A

COMMUNICATION WITHOUT BOUNDARIES

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Revision History and Control

REVISION STATUS

Revision Level	Modified Date	Responsible Person	Description of Change	ECO NO.
-	01/09/2013	Albert	New Release	-
A	10/08/2016	Albert	Design update	EC1600395

About this Manual

This manual is designed to guide you through the procedures required for maintaining the LNB for the OceanTRx7™ Maritime Satellite Communication System.

Text Conventions

Style	Indicates	Example
Text	Normal descriptive text	Contents
`Text`	Words or figures that appear on the screen or that should be typed The name of a file or directory	`System Status`
<Text>	A key to be pressed	<ESC>
TEXT	The name of a hardware component	ANTENNA
Text	The name of a GUI element	**Operation Screen**
➢	The description of a procedure	➢ **To configure…**

Notations

	Indicates important information that should be noted.
	Indicates a potential hazard.
	Indicates the safest method of installation or an operation that *must be adhered to.*

Effective Releases

This document is effective for both Or Band™ (AL-7107) and OceanTRx7™ Maritime Satellite Communication Systems.

For a description of the changes between Or Band™ (AL-7107) and OceanTRx7™, refer to the *OceanTRx7™ Maritime Satellite Communication System Release Notes*.

Table of Contents

1 Introduction

1.1 Purpose

The purpose of this Technical Note is to provide detailed instructions on how to install and check RADAR FILTER upgrade KIT

1.2 Description

The RADAR FILTER is a component of the RF FEED that is mounted on the ANTENNA, and filter out of band interference signals from nearby radars that may damage the LNB or impact the system performance

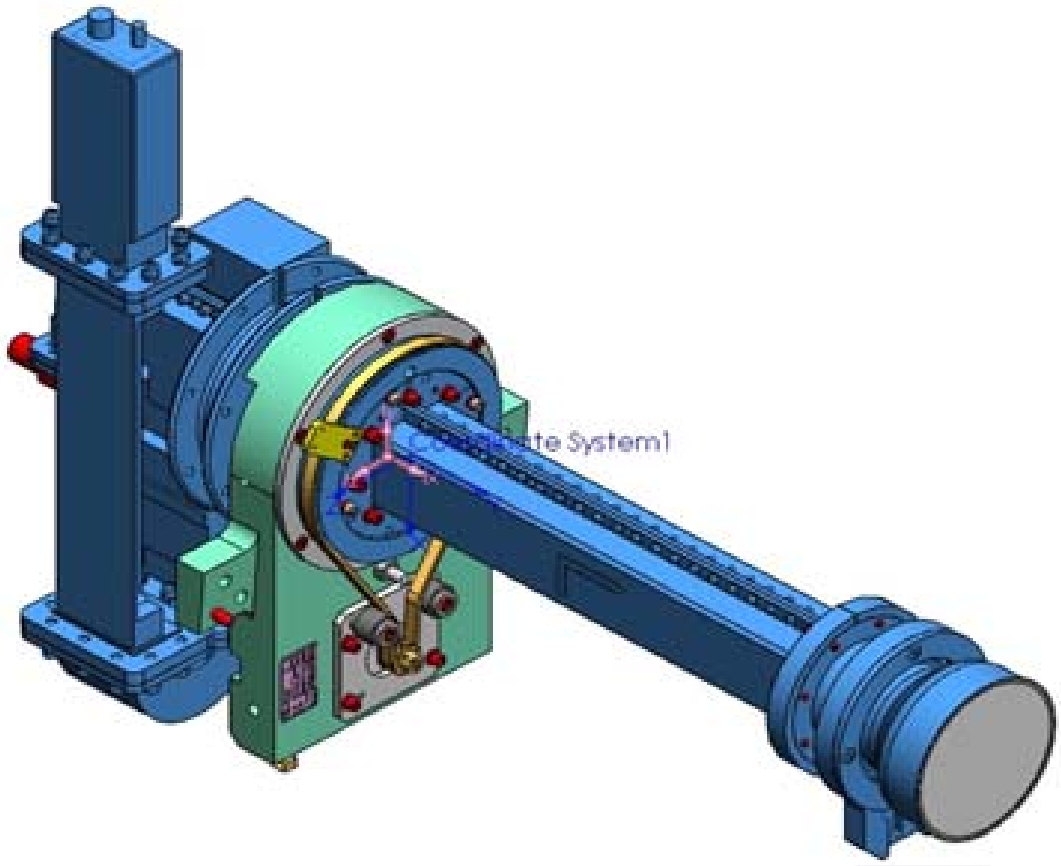


Figure 1-1: Feed with **RADAR FILTER**

1.3 Spare Kit Contents

The following table provides a list of the parts in the RADAR FILTER UPGRADE KIT.

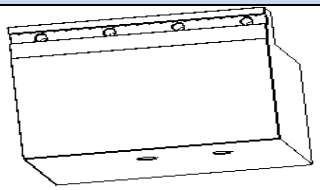
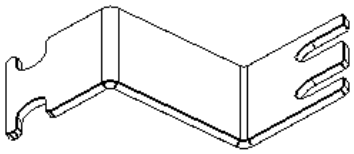
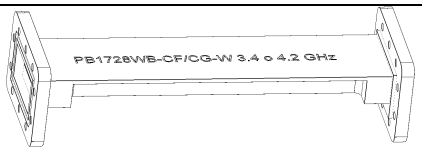
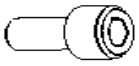
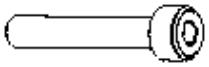
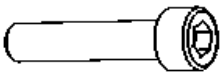
Qty	P/N	Description
1		Counter weight new
1		Support bracket
1		Gasket for LNB
1		Band Pass Filter (depending KIT P/N)
2		Bolt M6X12 for counter weight to support
2		Bolt M4X25mm for counter weight
10		Bolt M4X30mmfor counter weight support
10		Nut 6mm filter to feed
4		WASHER 4mm
10		WASHER 6mm
4		Spring WASHER 4mm
10		Spring WASHER 6mm

Table 1-1: Spare Part Kit Contents

1.4 Required Tools and Parts

The following table provides a suggested list of tools and customer-supplied parts that are needed to perform the procedures in this Technical Note.

Tool/Part Name	Figure
Tie wraps	
Side Cutter	
Allen keys 5 and 4 mm round head	
Open/ring wrench 11 mm	

Table 1-2: Required Tools and Parts

1.5 Before start

1. Open the RADOME hatch.
2. Switch off the ADE POWER BOX at the ANTENNA PEDESTAL base (located inside the RADOME).
3. Toggle the SERVO DRIVER MAINT/OPER switch on the servo driver to MAINT position to release the brake and allows smooth movement of the axis .
4. Manually rotate the PEDESTAL AXES to gain convenient access to the serviced unit.

Make sure you use the WG gaskets to avoid moisture in the feed.
Do not apply excessive force while tighten the RF connectors

WARNING!

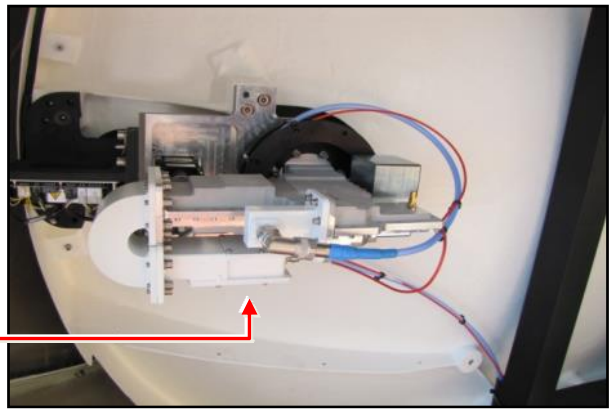
Only qualified and authorized personnel are allowed to carry out system service/maintenance procedures.

2 Installation Procedures

2.1 Removing the LNB

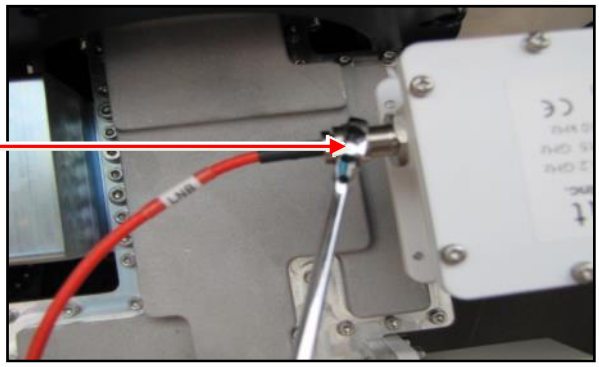
Step 1

Locate the LNB.



Step 2

Using 11mm Open/ring wrench, disconnect the F-Type cable from the LNB connector.



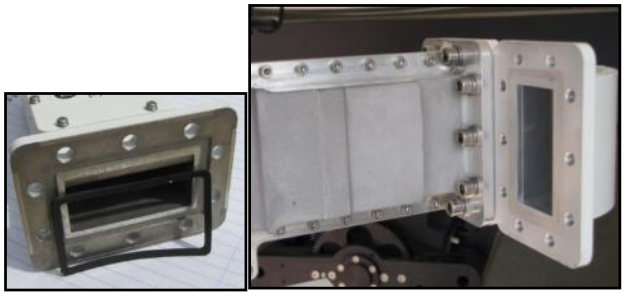
Step 3

Use a 5mm Allen key to remove the ten screws securing the LNB to the RF ASSEMBLY.

Step 4

Remove the LNB while supporting it.

Make sure you keep the gasket.



2.2 Replacing the Counter weight

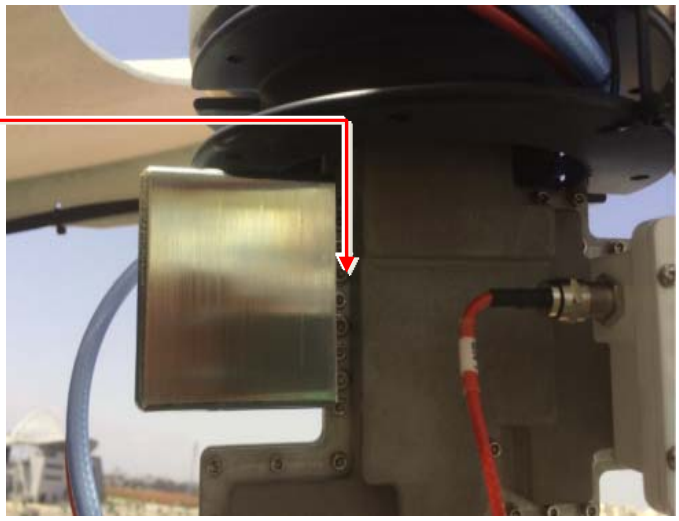
Step 1

Locate the COUNTER WEIGHT.

Step 2

Remove the COUNTER WEIGHT

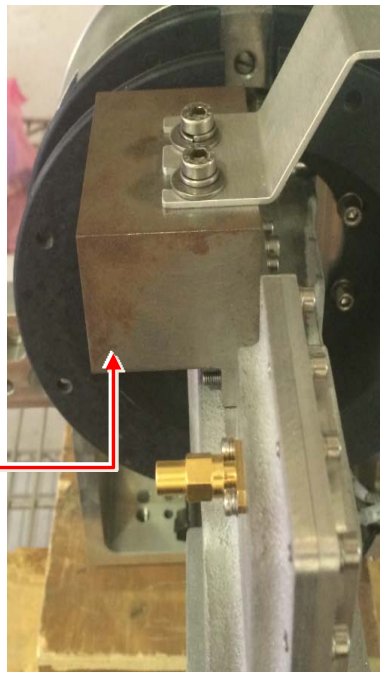
By removing the 4 bolts.



Step 3

Install the new COUNTER WEIGHT using the 4 bolts M4

The striking out side of the counter weight should be on SMA terminator side



2.3 Installing the Filter

Step 1

Install the LNB on the filter flange

Install gaskets between the flange connections on both sides

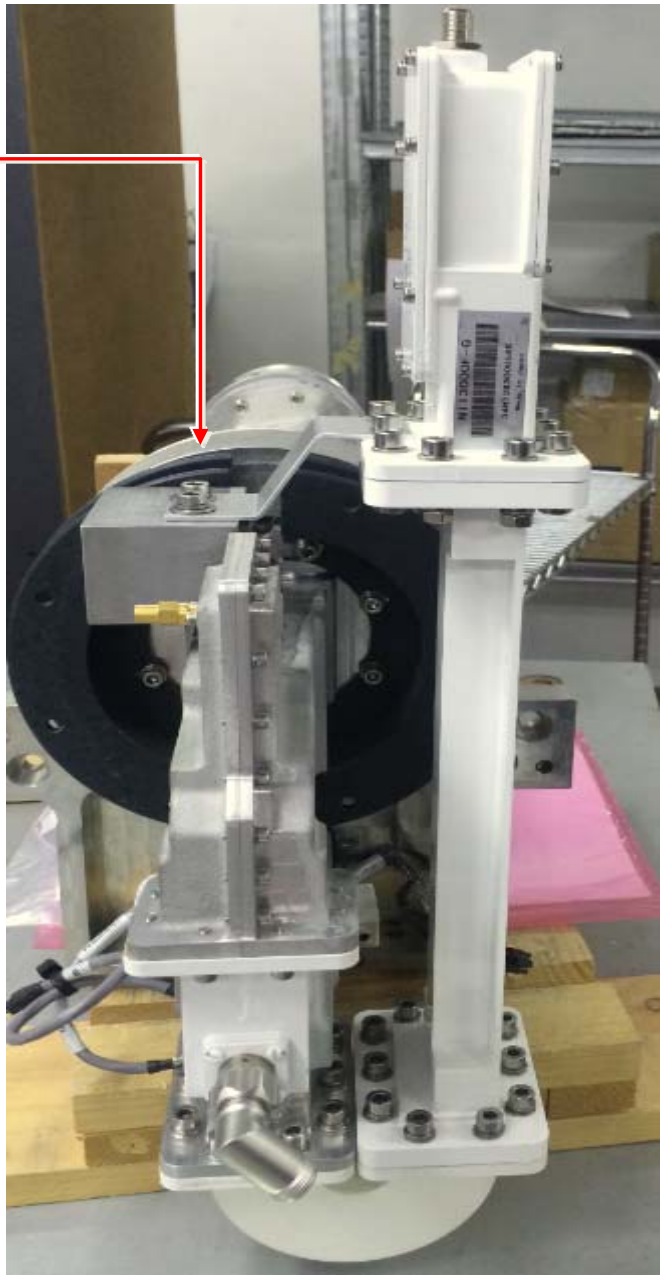
Step 2

Attach the filter to the RX port of the feed

use washers and spring washers for fasteners

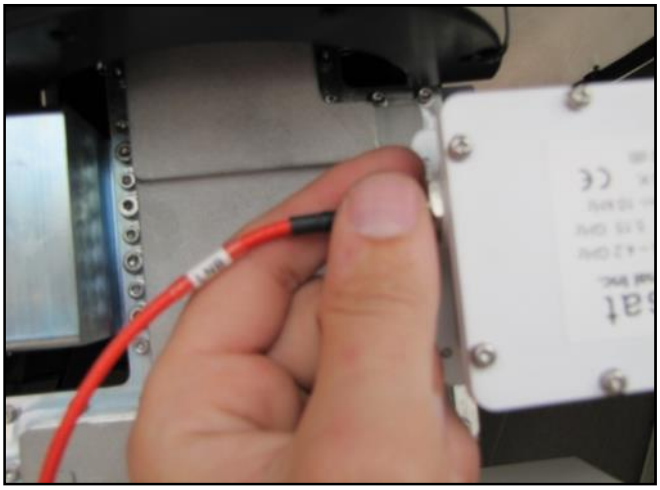
Step 4

Tighten the support bracket bolts to the counter weight



Step 3

Connect the LNB cable to the LNB.

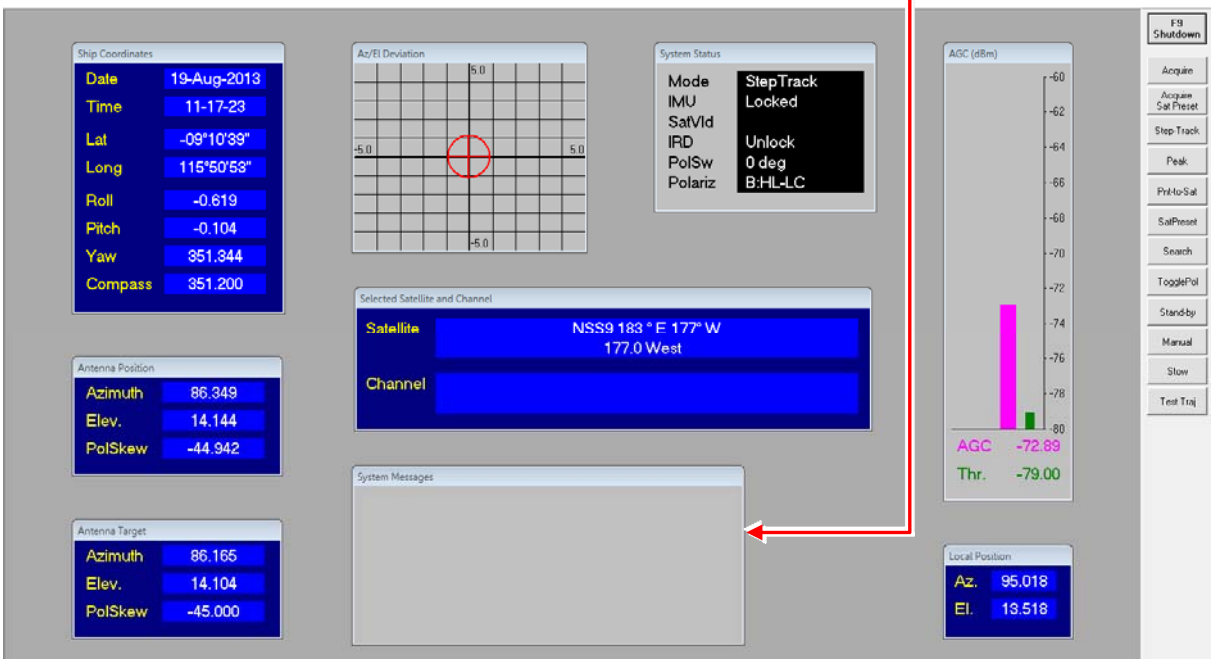


3 Verification Test

➢ **To Perform Verification Test:**

After the RADAR FILTER has been installed, perform the following test procedures to verify system functioning.

1. Start up the system (see the *OceanTRx7™ Installation and Operation Manual*).
2. Verify that all MTSVLINK fields are populated and there are no ERR/WRN system messages.



3. Acquire satellite and verify you have normal AGC level.

4. Check with the NOC and confirm the modem's RF parameters are nominal for the service.