

ROMTraX Wi-Fi

User Documentation

-- (February 1/2014)



“Keeping business in touch with its people and resources...Anytime, Anywhere!”

Document Revision History

February 11, 2014	Review/Edit	NP
March 28, 2014	Add Set/Haul Deck Switch	NP/NM
	Update Terminal Strip	
	Diagram	
	Updated Specifications	

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Introduction

The ROMTraX Wi-Fi Vessel Monitoring System (ROMTraX) is an advanced satellite communicator with built-in GPS and Wi-Fi. The device wirelessly connects to any compatible Smartphone, tablet, laptop or computer for detailed GPS and Satellite status, two-way communication and is E-Log ready.

The ROMTraX is approved for fishing vessels that are required to participate in the Canadian DFO Vessel Monitoring Program. ROMTraX utilizes the Iridium Satellite Network, MTK3329 GPS technology with anti-jamming and Wi-Fi connectivity. The unit is housed in a UV resistant ABS enclosure and has a 10 meter 4 conductor polyurethane cable with a circular weatherproof connector. Cables are terminated at a 4 terminal strip with a "Super Bright" LED indicator.

An optional battery backup module is available and plugs into the 4 terminal block, the 10ah 12 volt battery meets the DFO requirement of transmitting a position report every five minutes for 48 hours.

ROM Communications VMS Communications Plans

Contact ROM Communications for current plan pricing.

Installation

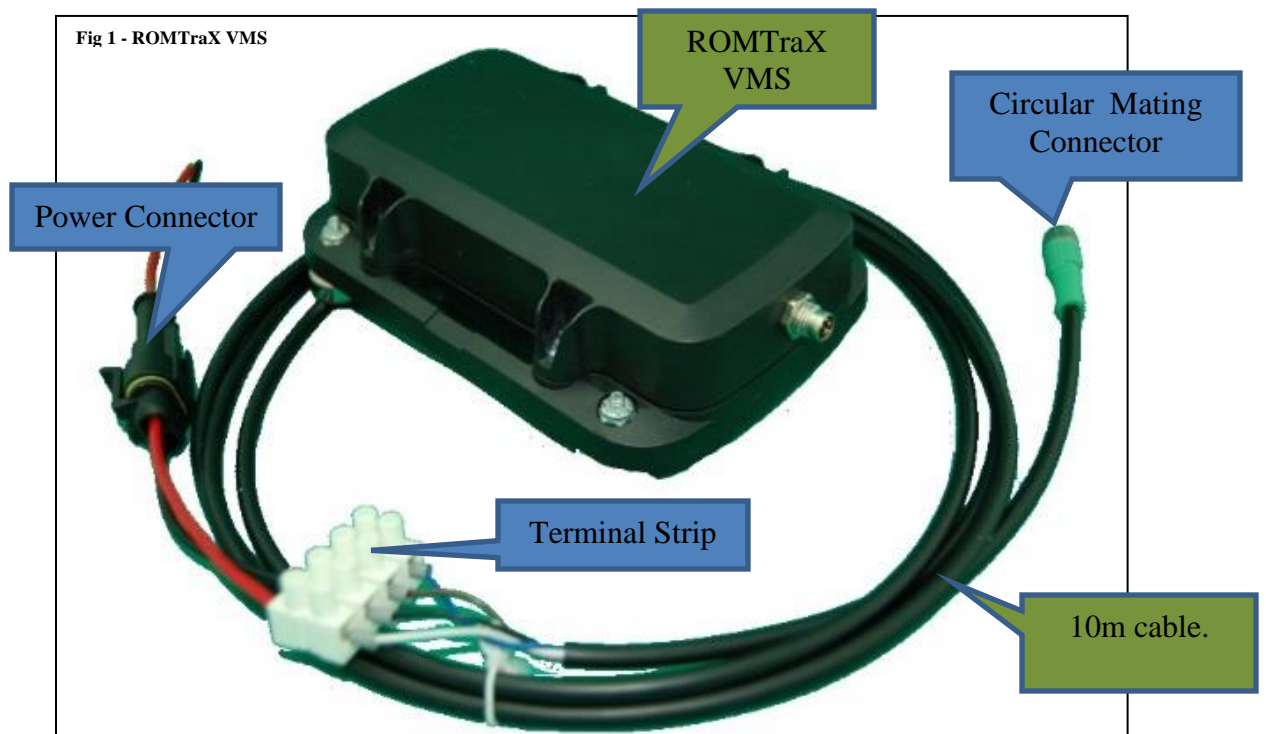
This document covers the steps to install the ROMTraX satellite modem for use with the DFO E-LOG program, ROM's TextAnywhere service and VMS position tracking.



ROMTraX was designed to be simple to install, essentially secure it somewhere with a clear view of the sky and provide a nominal 12 volt DC power supply and it's ready!

1. Equipment supplied

- ROMTraX modem with circular connector
- 10 meter cable with mating connector
- 4 terminal strip with a "Super Bright" LED indicator 6



Optional equipment;

- 12 volt 10ah LiPo battery pack, with integrated charger and indication circuitry
- Rare Earth Magnetic Mounting (100 lb. pull)

2. Site Preparation



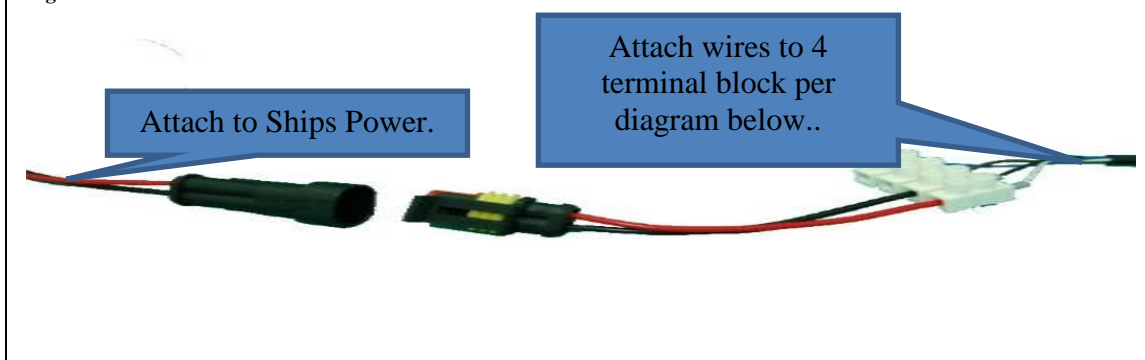
The ROMTraX modem needs to be mounted in a location where it has a clear view of the sky in order for the GPS and Satellite modem to send and receive signals. Avoid mounting the ROMTraX unit near a RADAR transmitter / Radome.

- The ROMTraX modem can be mounted by Silicone Sealant, screws through the 4 mounting holes, strapping/tie straps or the optional rare Earth magnetic feet.
- The location of the ROMTraX should allow for easy feeding of the four conductor cable to the Vessel's 12 volt power supply and 4 terminal strip.
- The 4 terminal strip should be mounted in a location where the LED can be observed.

3. Installation

- Locate the "Activation" Card included with the ROMTraX device and make note of the RID number, place somewhere safe for activation and future status changes or support.
- Mount the ROMTraX modem horizontally in a suitable location with a clear view of the sky. Use Silicone Sealant, the 4 screw holes, strapping/tie straps or the optional rare Earth magnetic feet.
- Feed the 4 conductor cable from the power supply access point to where the Modem is secured; Wrap the end of the cable with electrical tape to prevent damage to the circular connector.
- Screw together the mating connectors on the modem and cable, do not over tighten as it may lose its weather proof status.
- Mount the 4 terminal block in a suitable indoor location where the LED will be visible using the 2 mounting holes or double sided epoxy tape provided.
- Connect the Vessel 12 Volt DC power (fused at 5amps) to the Red (Positive) and Black (Negative) flying lead connected to the 4 terminal block. Ensure correct polarity.

Fig 2 - Power Connector with Terminal





Make sure that the Power polarity is correct. If power is reversed, damage may occur to the ROMTraX Wi-Fi unit and/or other ship systems!

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(Optional) Connect the output of the 12 volt 10 ah Lithium Polymer (LiPo) battery to the above noted red & Black flying leads. Connect the input of the battery pack to the 5 amp fused 12 Volts DC power.

4. Double check correct wiring for the 4 Terminal Strip

White (+) Power	1	O	2	RED Vessel Power (+)
Yellow (-) Power	3	LED	4	Black Vessel Power (-)
RED (+) LED	5	O	6	
Black (Bus)	7		8	Black Set/Haul Deck Switch
*Opt. Deck Switch		O		
(+)	9		10	White Set/Haul Deck Switch
(-)	11	O	12	Green Set/Haul Deck Switch

5. LED Status

LED1	RED	Solid. Indicates unit is fully functional with available Satellite Network and valid GPS position.
	RED	Flashing. Indicates the unit has power but is not operational due to No Satellite Coverage or No Valid GPS position.



A detailed status of the Satellite Network and GPS performance is also available by connecting to a Wi-Fi compatible Smartphone, tablet, laptop or computer. The APP is built-in and requires no programming or additional software.

VMS Use

Basic:

Ensure that the power is properly connected and on.

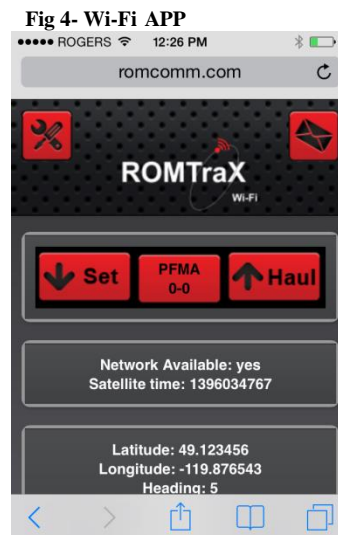
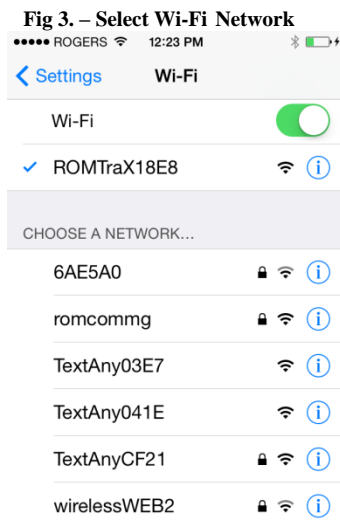
After the device initializes, the RED LED will begin to flash until the device gets a Satellite and a valid GPS lock, once this happens usually within a few seconds to a couple of minutes the LED will turn solid indicating normal operation.

Wi-Fi:

1) Using a compatible Wi-Fi equipped Smartphone, tablet, laptop or PC (Apple, Android or Microsoft) go to your Wi-Fi settings menu and select ROMTraXxxxx as your Wi-Fi connection.

You are now set up to use E-Log if your device has it installed.

2) To use the status or messaging features open your browser and enter 10.10.10.10 in the address bar and press go or hit the return to open the ROMTraX APP.



Only one device can be connected to the Wi-Fi connection at a time, make sure you close the Wi-Fi connection if you wish to have another device access it.



This Wi-Fi connection DOES NOT provide any connectivity to the Internet whatsoever!



To prevent unauthorized use, activate the secured network in the tools menu in the ROMTraX TextAnywhere App.

Settings

The ROMTraX Wi-Fi can be configured for the following options:

1. Enable or Disable Virtual Set/Haul buttons
2. Set WEP network security
3. Set / Update vessel information
4. Outgoing and Incoming message transmission history

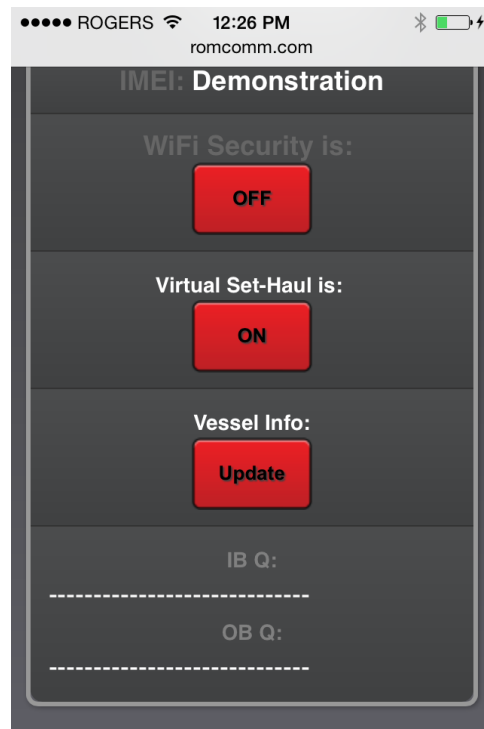


Fig 8 - Setting Page (Bottom)

The following information is displayed about your ROMTraX Wi-Fi unit:

- A. Firmware Version
- B. Webpage Version
- C. Wi-Fi Service ID (SSID)
- D. Unit Serial Number (IMEI)

Set / Haul Feature

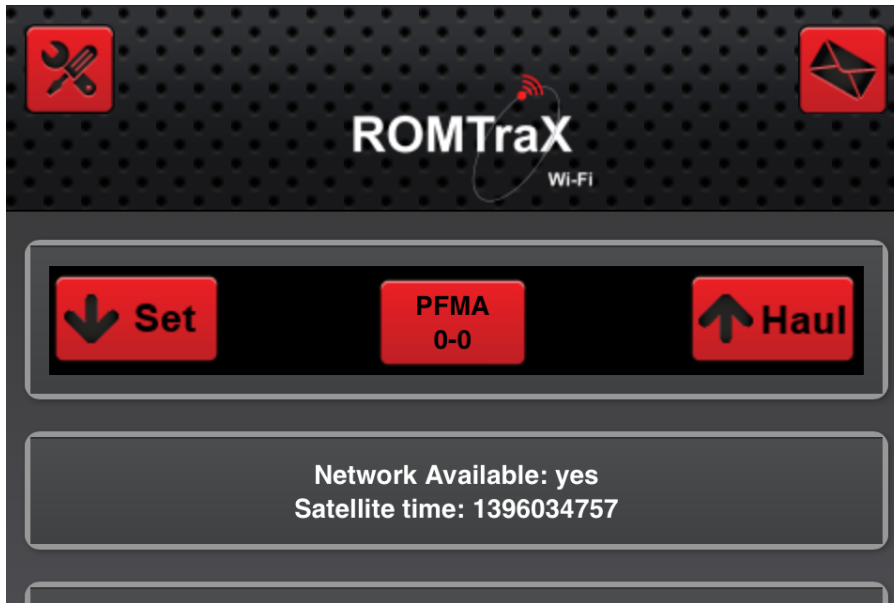


Figure 6 – Virtual Set / Haul Buttons

Your new ROMTraX Wi-Fi comes with some features that enable you to comply with DFO license conditions in place for the spring 2014 Season. Most notably are the virtual set/haul buttons and the Vessel Information set-up.

- 1) Make sure the ROMTraX Wi-Fi has power. Connect it to the ROMTraX APP using your Smartphone, laptop or tablet as described in the *Use section*.
- 2) On the home page you will notice a tool icon in the upper left corner, click on the icon and it will take you to the tool menu. Click on the "Virtual Set-Haul" button to turn "On". Continue down to the next button "Vessel Update" and select "Update". Fill in the required information, the CSP number is the RID number that was on the ID card next to the IMEI.
- 3) Click the arrow in the upper left corner and you will go back to the main menu and the virtual buttons will now be displayed. You will notice the PFMA button in the center which is used to enter the area where you are fishing. The PFMA should be updated each time you go to a new area.
- 4) You are now ready to go fishing, each time you set or haul a trap, simply press the corresponding button to register the location. The system will automatically look after the rest.

5) If you are using the optional set/haul wired deck switch you will only ever have to use the built in APP when moving to a new area to enter the PFMA location.

Optional Set/Haul Deck Switch

The optional smart set/haul deck switch works the same way as the virtual buttons except instead of a pop-up confirmation, you simply press and hold the up or down button until the red indicator light comes on. The indicator light lets you know that the message has been properly received by ROMTraX device with a valid GPS position.

Fig 5 - Set/Haul Deck Switch



Please refer to *Installation section, point 4* for connection instructions.

TextAnywhere Messaging System



What is TextAnywhere?

TextAnywhere is a personal satellite text messaging hotspot for use with compatible Wi-Fi enabled Smartphones, tablets, laptops and computers. The onboard web application eliminates the need for special apps or dedicated hardware, providing Global satellite coverage, true 2-way messaging, no contracts and low cost connectivity for fishermen, remote workers, adventurers and sportsmen alike.

System Features:

- Personal Texting Hotspot (Wi-Fi)
- Iridium Satellite True Global Coverage
- Full 160 Character Text or Email Messages
- Android, Apple, Blackberry & Microsoft Friendly
- Works with Compatible Smartphones, Tablets, Laptops, and Computers
- True 2-way Messaging, Receive Messages Initiated from Standard Cell Phones
- No Apps Required
- Included with your ROMTraX Wi-Fi product
- No Contracts
- Post to Twitter & Facebook

Using TextAnywhere

Send and receive cellular text messages anywhere in Canada & United States or text based emails anywhere in the World. Touch or click the Mail Icon in the upper right corner, the TextAnywhere screen will open (Fig. 9) and simply follow the intuitive graphical user interface (GUI). Compose a new message by clicking on the envelope, entering an email address or cell phone number and typing a 160 character message then hit send.



Fig 9 - TextAnywhere Main Screen

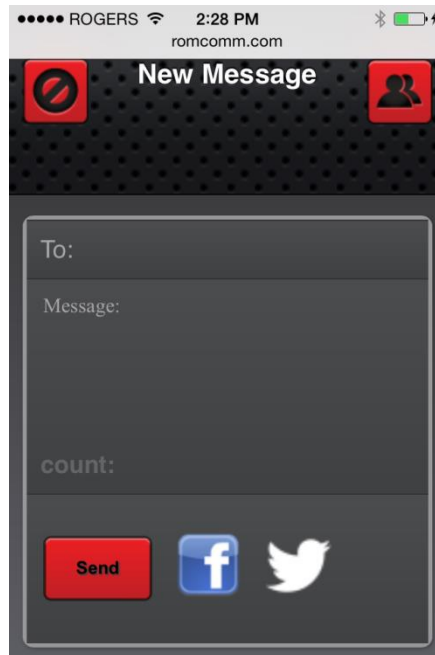


Fig 10 - Send Message screen

Advanced features and security options as well as message history is available by going to <http://www.textanywhere.ca> and logging on as a new user. Your default email address will be your *RID number (see activation card included in the kit) @textanywhere.ca*. Each message received or sent will each count as one message including any satellite checks for stored messages.

Specifications

Temperature

Operating.....	-30 to +45 C
Storage.....	-40 to +60 C

Power Requirements

Voltage (without battery module).....	+12-20V dc
Voltage (with battery module).....	+12-14V dc
Current.....	Nominal: 200mA, Transmit: 1500mA

Interface

I/O...LED.....	Firmware Configurable - Red
I/O...BUS.....	Firmware Configurable - Black
Wi-Fi	100' + Range (unshielded)

Physical

Dimensions.....	140mm (L) x 97mm (W) x 35mm (H)
Weight.....	.54 Kg c/w 10m Cable
Case.....	ABS, UV stable, Weather sealed

Wireless

Carrier Type

Modem Type.....	Iridium SBD
Frequency.....	1616 – 1625 MHz
Latency (Typical).....	6sec – 20sec (Connected)
Antenna	Integrated

GPS

Type.....	MTK3329 (SiRF IV)
Channels.....	66
Time To Acquire.....	Cold: >45 sec Warm: < 5 sec
Antenna.....	Integrated

Wi-Fi

Module Type	IEEE 802.11 b/g/n compatible
Frequency.....	2.4 GHz
Operating Mode	Adhoc
Security	Open / WEP
Antenna	Integrated

Safety Information

Disposal

Dispose of all electronic devices and batteries in compliance with local regulations in your area.

Pacemakers

Follow the guidelines of the Health Industry Manufacturers Association (www.hira.org) as they may be updated from time to time regarding maintaining minimum distance between a handheld wireless device and a pacemaker to avoid potential interference with the pacemaker.

Hearing Aids

Digital wireless devices may interfere with some hearing aids. In the event of such interference, you may want to consult your hearing aid manufacturer to discuss alternatives.

Other Medical Devices

If you use any other personal medical device, consult the manufacturer's guidelines for that device and consult your physician to determine compatibility with your medical device.

Turn your ROMTraX device OFF in or near any health care facility when necessary to comply with posted rules and regulations.

Blasting Areas

To avoid interfering with blasting operations, turn your device OFF when in a "blasting area" or in areas posted: "Turn off two-way radio." Obey all signs and instructions.

Potentially Explosive Atmospheres

Power OFF your device and do not remove your battery when you are in any area with a potentially explosive atmosphere. Obey all signs and instructions. Sparks from your battery or from discharge of static electricity in areas such as gasoline filling stations could cause an explosion or fire resulting in serious injury or even death. Areas with a potentially explosive atmosphere are not always clearly marked, and include fueling areas such as gasoline stations; below deck on boats; fuel or chemical transfer or storage facilities; areas where fuel odors are present (for example, if a gas/propane leak occurs in a car or home); areas where the air contains chemicals or particles, such as grain, dust, or metal powders; and any other area where you normally would be advised to turn off your vehicle.

Warranty

ROM Communications INC. (hereinafter referred to "ROM") warrants that its products are free from defects in material and workmanship within one (1) year of purchase. Subject to the conditions and limitations set forth below, ROM will, at its option, either repair or replace any part of its products that prove defective by reason of improper workmanship or materials. Repaired parts or replacement products will be provided by ROM on an exchange basis, and will be either new or refurbished to be functionally equivalent to new.

This warranty does not cover any damage to this product that results from accident, abuse, misuse, lightening, fire, water, natural or personal disaster, or any unauthorized disassembly, repair, or modification.

THE WARRANTY AND REMEDIES PROVIDED ABOVE ARE EXCLUSIVE AND IN LIEU OF ALL OTHER EXPRESS OR IMPLIED WARRANTIES INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. CERTAIN JURISDICTIONS DO NOT ALLOW THE EXCLUSION OF IMPLIED WARRANTIES. IF LAWS UNDER SUCH JURISDICTIONS APPLY, THEN ALL EXPRESS AND IMPLIED WARRANTIES ARE LIMITED TO THE WARRANTY PERIOD IDENTIFIED ABOVE. UNLESS PROVIDED HEREIN, ANY STATEMENTS OR REPRESENTATIONS MADE BY ANY OTHER PERSON OR FIRM ARE VOID. EXCEPT AS PROVIDED IN THIS WRITTEN WARRANTY AND TO THE EXTENT PERMITTED BY LAW, NEITHER ROM NOR ANY AFFILIATES SHALL BE LIABLE FOR ANY LOSS, (INCLUDING LOSS OF DATA AND INFORMATION), INCONVENIENCE, OR DAMAGE, INCLUDING, BUT NOT LIMITED TO, DIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES, RESULTING FROM THE USE OR INABILITY TO USE THE ROM PRODUCT, WHETHER RESULTING FROM BREACH OF WARRANTY OR ANY OTHER LEGAL THEORY. NOTWITHSTANDING THE FOREGOING, ROM TOTAL LIABILITY FOR ALL CLAIMS UNDER THIS WARRANTY SHALL NOT EXCEED THE PRICE PAID FOR THE PRODUCT. THESE LIMITATIONS ON POTENTIAL LIABILITIES HAVE BEEN AN ESSENTIAL CONDITION IN SETTING THE PRODUCT PRICE.

Certifications & Compliance

FCC COMPLIANCE STATEMENT

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

CANADIAN COMPLIANCE STATEMENT

This digital apparatus is in conformity with standard NMB-003 of Canada.
Cet appareil numérique est conforme à la norme NMB-003 du Canada.

Radio and Television Interference

When installed at a certain location, the machine may cause interference with radio and television reception. If you notice flickering or distorted images or noises on your audio-visual units, your machine may be causing radio interference.

Switch it off, and if the interference disappears, the machine is the cause of radio interference. Perform the following procedure until the interference is corrected.

- Move the machine and the TV and/or radio away from each other.
- Reposition or reorient the machine and TV and/or radio.
- Unplug the machine, TV and/or radio, and re-plug them into outlets that operate on different circuits.
- Reorient the TV and/or radio antennas and cables until the interference stops. For an out-door antenna, ask your local electrician for support.
- Use coaxial cable antennas.

FCC warning: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

- The use of a non-shielded parallel interface cable with the reference devices is prohibited. The length of the parallel interface cable must be 3 meters (10 feet) or less. The length of the serial interface cable must be 600 meters (1970 feet) or less.
- The length of the power cord must be 3 meters (10 feet) or less. This equipment is in the 2nd class category (information equipment to be used in a residential area or an adjacent area thereto) and conforms to the standards set by the Voluntary Control Council for Interference by Information Technology Equipment aimed at preventing radio interference in such residential area.

* When used near a radio or TV receiver, it may become the cause of radio interference. Read the instructions for correct handling.

EU REGULATORY CONFORMANCE

ROM Communications Inc hereby declares that this ROMTraX Wi-Fi device is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC, Directive 2002/95/EC, and Directive 2002/96/EC. The Declaration of Conformity made under Directive 1999/5/EC (HG nr.88/2003).

Contains Transmitter Module(s);

Satellite Modem:

FCC ID: **Q639602**
IC: **4629A-9602**
RoHS Compliant

Wi-Fi Module:

FCC ID: **W70MRF24WG0MAMB**
IC: **7693A-24WG0MAMB**
RoHS Compliant

Glossary of Terms

In this manual, the following terms may be used:

ROMTraX Modem: The ROMTraX modem is the physical device mounted permanently or magnetically to your vessel.

ROMTraX System: Combination of the ROMTraX modem, Optional backup battery software and services.

VMS Vessel Monitoring System

4 Terminal Strip: Terminates the 4 conductor cable from the ROMTraX System to attach power and various I/O devices as well as provide a visual indicator by way of a Red LED as to the operational status of the system.

Iridium: Iridium is the satellite service provider used to transmit data messages for the ROMTraX modem.

TextAnywhere: The text based messaging service included with the ROMTraX system and accessed by Wi-Fi. <http://www.textanywhere.ca>

Wi-Fi: The wireless protocol to connect Wi-Fi enabled Smartphones, tablets, laptops and PC's to the VMS system for status, messaging and E-Log.

Getting Help

- On the web at <http://www.romcomm.com>
- Email us at sales@romcomm.com for product information.
- Email us at techs@romcomm.com for technical assistance.
- On the web at <http://www.textanywhere.ca> for TextAnywhere information
- Call us at **1.877.860.3762**
- Fax us at **1.250.860.3763**

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