Ray240 VHF Radio

Service
Programming Kit

Document Number: 83175_1
Date: July 2004

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Important information

Introduction

The Ray 240 service programming kit provides the hardware to program a Ray240 base unit. The PE68HC12BDM software on the supplied CD-ROM is compatible with a PC running any of the following:

- Windows 98.
- Windows 2000.
- Windows XP.
- Windows ME.

Safety notices

WARNING: Electrical safety
Make sure that the power supply to the Ray240 base unit is switched off before removing the cover.

WARNING: Product installation
This equipment must be installed and operated in accordance with the Raymarine instructions provided. Failure to do so could result in poor product performance, personal injury, and or damage to the boat.

EMC conformance

All Raymarine equipment and accessories are designed to the best industry standards for use in he recreational marine environment. Their design and manufacture conforms to the appropriate Electromagnetic Compatibility (EMC) standards, but correct installation is required to ensure that performance is not compromised.

Handbook information

To the best of our knowledge, the information contained in this handbook was correct as it went to press. However, our policy of continuous product improvement ad updating may change specifications without prior notice. As a result unavoidable differences between the product and handbook may occur from time to time. Raymarine cannot accept any responsibility for any inaccuracies or omissions it may contain.

Programming kit contents

The Ray240 Service Programming Kit, Part No. E46025, contains the following items:

Part No.	Description
15508	PROG12Z - Programmer software CD-ROM
1509	USB-ML-12 Programming dongle and cable
83715_1	Ray240 Service Programming Handbook

Programming software installation
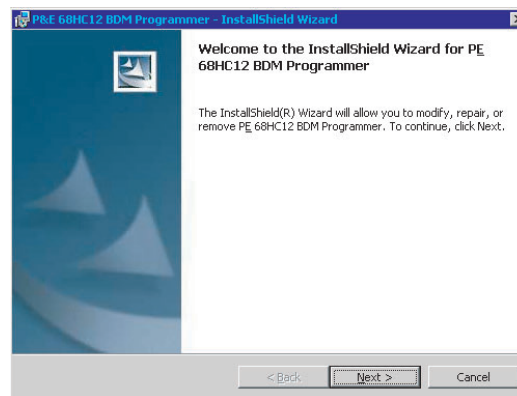
Introduction

The CD-ROM in this kit contains the software required to operate the programming dongle.

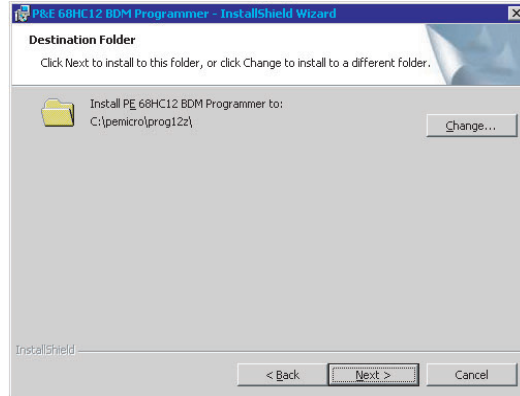This section deals how to install the programming software onto your PC.

Installation

To install the programming software using the CD-ROM:

1. Insert the CD into the computer's CD-ROM drive. After a few moments the Install Shield Wizard Welcome screen is displayed.

2. Click *Next,* and follow the on-screen instructions.

    If the Install Shield Wizard does not automatically run;

1. Select **Start/Run** from the computer taskbar and type **e:\setup.exe** (substitute the drive letter of your CD-ROM drive for 'e' if it is different). After a few moments the Install Shield Wizard Welcome screen is displayed.

2. Click *Next,* and follow the on-screen instructions.

IMPORTANT: Do NOT change the destination folder from the default of C:\PEMICRO\PROG12Z. If this default is changed, the installation of software into the Ray 240 base unit will fail.

3. After the software has been installed, complete the registration and click *Send Registration*. This will ensure that any software updates are automatically received.
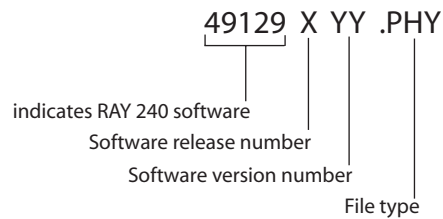

4. Restart your computer. It is now ready for you to use the PE68HC12BDM programmer.

Ray 240 software files

Introduction

Before programming a Ray 240 base unit, the software files mst be downloaded and installed into the directory C:\PEMICRO on the PC that the programming software was installed on. These files will have the following formats:

- 49129XYY.PHY
- 49129XYY.CFG
- 49129XYY.LNK

```
49129  X  YY  .PHY
```

indicates RAY 240 software
Software release number
Software version number
File type

Downloading software files

The latest version of software for the Ray 240 should be downloaded from:

www.raymarine.com

You must have Dealer sign-in privileges to access the software site.

To download files:

1. Log- in using your User name and Password via the *Dealer Log-in* page. A new *Dealer* button appears.
2. Click the *Dealer* button and navigate to the *Software downloads* page.
3. Navigate to the *Ray 240* page and download the latest issue of software files.

   These should be unzipped into the *C:\pemicro* directory on the computer that contains your programmer software.

Ray 240 programming procedure

Introduction

This section details the programming procedure for the Ray 240 base unit after successful download of the latest software files.
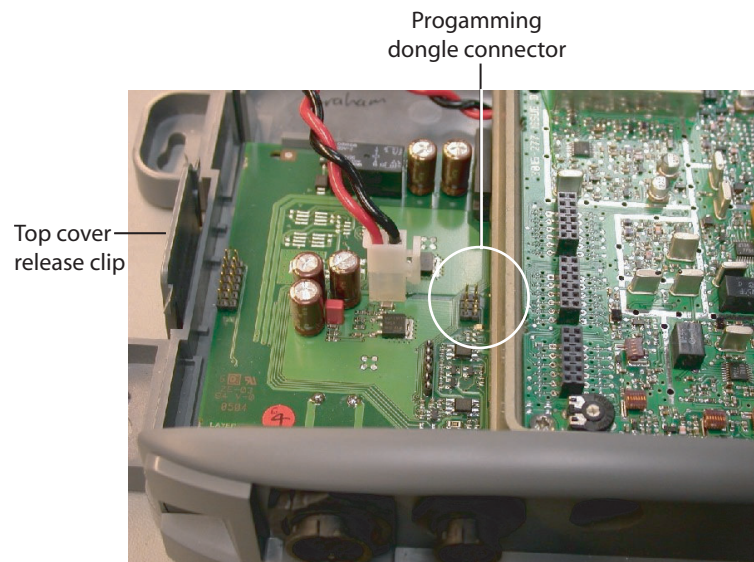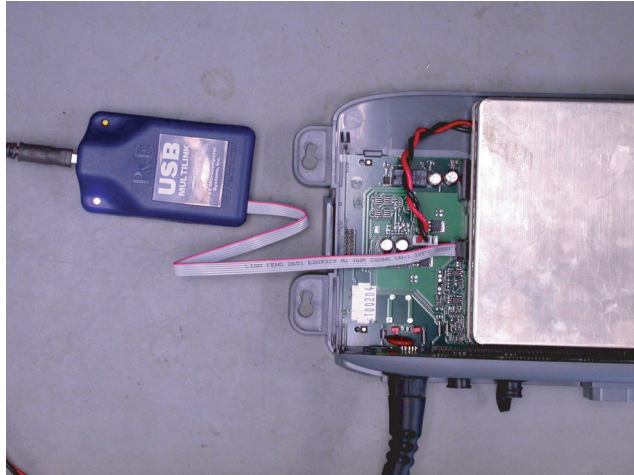
Programming the base unit

To program the Ray240 base unit:

1. Plug the programming dongle into the USB port of your PC.

2. Switch off and remove the power cable from the Ray240 base unit.

3. Disconnect the handsets, interface cables and aerial connection from the base unit.

4. Remove the top cover of the unit.

   The top cover is removed by pressing and hold in the tab on the side of the unit and lifting the top cover up and to the left to clear the heatsink.

5. Connect the 6-way cable from the programming dongle into the Ray 240 base unit PCB ensuring correct orientation and alignment.

Progamming
dongle connector

Top cover
release clip

6. Re-connect the power cable to the base unit and switch ON.

7. In the C:\PEMICRO folder, double-click the 49129XYY.LNK shortcut icon. The programming of the base unit now starts. The software will automatically close on completion.

8. Switch off and remove the power cable from the Ray240 base unit.

9. Remove the 6-way cable connection from the base unit PCB.

10. Replace and secure the top cover of the base unit.

11. Re-connect the handsets, interface cables and aerial connection from the base unit.

12. Re-connect the power cable to the base unit and switch ON. The software version number is displayed briefly at the bottom right-hand corner of the handset display.

13. Check that the radio functions correctly.