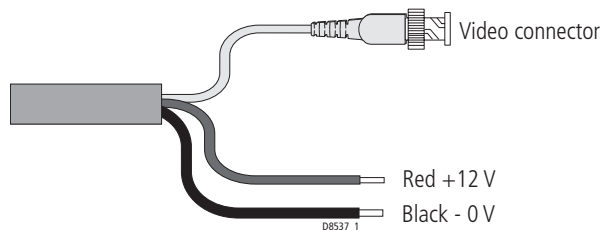The adapter cable should be used to connect the display and the power supply to the camera. The adapter cable connections are shown below.

Video connector

Red +12 V

Black - 0 V

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If you do not have a breaker in the power circuit, an in-line 0.5 A quick blow fuse should be fitted to the positive (red) lead of the cable.

Maintenance and Troubleshooting

Your Raymarine CAM 100 does not contain user-serviceable parts. They should be serviced only by authorized Raymarine service technicians at a Raymarine factory facility.

Routine Maintenance
Routine maintenance should be carried out on a regular basis:

- Examine all cables for signs of damage such as chafing, cuts or nicks.
- Check that all cables are securely connected.
- Spray the camera and lens with fresh water and wipe with a soft lint-free cloth to remove debris or salt deposits.

Troubleshooting

Problem	Solution
Camera does not function	1. Make sure that the cable is sound and that all connections are tight and free from corrosion. 2. Check system fuses. 3. Check that the display is set up correctly to receive the images. Refer to the relevant display handbook for full details.

EMC conformance

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

Technical specification

Format	PAL 752 x 582 pixels NTSC 768 x 494 pixels
Imager	1/3 Sony Super HAD CCD (Super Hi resolution)
Horizontal resolution	550 TVL
Scanning system	PAL 625 lines NTSC 525 lines 2:1 interlaced
Video output	Composite 75 Ohms
Infra red	14 IR LEDs
LED spectrum	30 degrees for 15m
Minimum illumination	0.1 Lux at F2 - no IR, 0 Lux - with IR
Waterproof	IPX6 and CFR46
Power connection	12 V tinned leads
Video connections	Male BNC
Operating temperatures	-10^oC to $+55^o$ C (-14° F to 130° F)
Power consumption	130 mA - day, 280 mA - night, IR on @12 V DC

Technical support

Complete product information and interactive help is available at:
www.raymarine.com

North and South America

Raymarine Technical Support
1-800-539-5539
or, +1 603-881-5200

Product Repair and Service
Raymarine Product Repair Center
21 Manchester Street,
Merrimack, NH
03054-4801
USA

Europe, Middle East, Africa and Australasia

Raymarine Technical Support
+44 (0) 23 9271 4713

Product Repair and Service
Raymarine plc
Anchorage Park
Portsmouth
PO3 5TD
England

Help us to help you
To allow us to respond to your needs faster, please quote the Equipment type, Model number and Serial number when requesting service

Raymarine

Document number: 81272_1 Date: November 2005

Raymarine

CAM 100

D8531_1

User Guide

Introduction

The Raymarine CAM 100 CCTV camera is a high quality 550 TVL horizontal resolution color camera available in two models:

- E03006 - PAL format.
- E03007 - NTSC format.

The camera has 14 infra-red light emitting diodes (LEDs) offering an extraordinary clear view in pitch black darkness. The unit is waterproof to CFR46.

Safety notices

CAUTION: Power supply
The Raymarine CAM 100 CCTV camera is suitable for use on 12 V DC power supply only.

CAUTION: Power supply
A 0.5A quick-blow fuse should be fitted to the positive (red) lead of the camera.

CAUTION: Camera lens
The camera lens cover is made of glass. Care should be taken to avoid personal injury if broken.

CAUTION: Installation
This product IS NOT suitable for installation underwater.

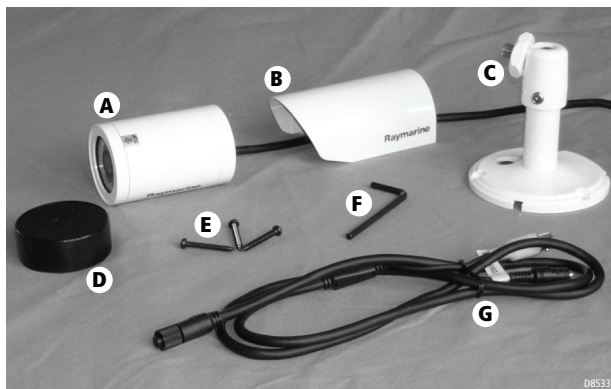**This product contains no user serviceable parts.**

Waste Electrical and Electronic (WEEE) Directive

The WEEE Directive requires the recycling of waste electrical and electronic equipment. Whilst the WEEE Directive does not apply to some of Raymarine's products, we support its requirements as part of our environmental policy and we ask you to be aware of how you should dispose of this product. The crossed out wheelie bin symbol found on our products signifies that it should not be disposed of in general waste or landfill. Please contact your local dealer, national distributor or Raymarine Technical Services for information on product disposal.

What's in the box?

A. CCTV camera
B. Suncover
C. Adjustable mounting bracket
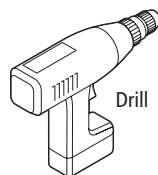**D**. Lens cover

E. Pan head screws x 3
F. Hex key
G. Adapter cable
H. Nylon washers (not illustrated)
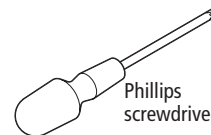
What tools are required?

Drill   Drill bit   Phillips screwdriver

What accessories are available?

To enable you to complete the cabling to install your camera the following accessories are available:

- E06017 - 5m extension cable.
- E06018 - 15 m extension cable.

You can join these cables in any combination to achieve the required cable length, but for optimum performance Raymarine recommend that the total cable length does not exceed 50 m.

Cable runs

You need to consider the following points before installing the system cables:

- You need to connect the camera to the display unit and power supply.
- All cables should be adequately clamped and protected from physical damage and exposure to heat - avoid running cables through bilges or doorways, or close to moving or hot objects.
- Acute bends must be avoided.
- Where a cable passes through an exposed bulkhead or deck head, a watertight gland or swan neck tube should be used.
- CCTV camera cables cannot be cut and rejoined.

Installation

1. Decide the camera position to obtain the best coverage of the selected area.
2. Drill holes for cable runs.
3. Thread the cable into position through the mount .
4. Fix the adjustable mounting bracket into position using nylon washers to protect paintwork under the screw heads.
5. Attach the camera to the mounting bracket and lock in position using the locknut.
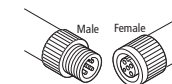
   The head of the bracket can be adjusted vertically through 90° and can be rotated through 360°.
6. Connect the camera to the display and fine tune its orientation to obtain the best picture.
7. Lock the camera into the correct position using the allen key provided.
8. Clip on the suncover.

Cable connections

Male   Female

The extension cables from the camera to the display unit are joined using the male/female twist connectors.