

# THE SEEKER 300 SERIES & THE SEEKER 300 SERIES VIDEO INSPECTION SYSTEMS



# DCS200/DCS200-09/DCS200-05 DCS300/DCS300-09/DCS355

**USER'S MANUAL** 

Please read this manual carefully and thoroughly before using this product.

## **CONTENTS**

Introduction
Features
Probe Tip Accessories
Product Overview
Battery Installation
Disconnecting and Reconnecting the Probe
Installing the Accessories
Operating Instructions
Basic Operation
Image Rotation and Zoom Operation
Camera Tipped Probes
Operating Precautions
Maintenance Instructions
Trouble Shooting
Specifications
Warranty Information11
Return For Repair Policy11

#### INTRODUCTION

The Seeker™200 and Seeker 300 Series Inspection Systems have been designed as a user friendly and economical way of viewing hidden problems and increasing productivity. Each system has a high clarity color LCD for clear imaging. The differences between the 3 systems are the size of the screen and the diameter of the probes. The Seeker™200 Series has a 2.4" (60.9mm) diagonal screen and the Seeker™300 Series has a 3.5" (88.9mm) diagonal screen. The camera head is housed inside the tip of each probe with adjustable white LED lights, which helps you to see in those dark gaps and holes. These video inspection systems have the advantage of clear images, easy operation and portability. They are widely used in applications such as HVAC/R building, aviation and vehicles maintenance.

#### **FEATURES**

- DCS200 Series: 2.4" (60.9mm) Color LCD Screen for a crystal clear image
- DCS300 Series: 3.5" (88.9mm) Color LCD Screen for superb clarity and viewing effect
- Camera-tipped probes are flexible and strong with built-in adjustable LED lighting, and are slim enough to perform automotive engine check-up
- Flexible probes retain configured shape to suit different inspection needs
- · View findings instantaneously
- 2X digital zoom and 180° image rotation
- · Optional probes of different diameters and lengths
- All probes are interchangeable between DCS100, DCS200, DCS300 and DCS400 series

#### PRODUCT OVERVIEW

- A. LCD Screen
- **B.** Image Rotation
- C. Image Zoom
- D. Battery Compartment
- E. ON/OFF Switch / **LED Lighting Intensity**
- F. Probe Connector
- G. Probe
- H. Camera Head

#### 12mm Probe accessories

- I. Magnetic Tip J. Hook Tip
- K. 45° Mirror Tip

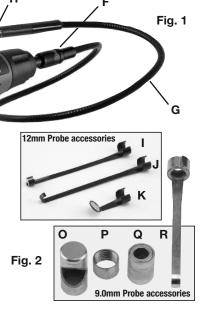
- M N
  - 5.5mm Probe accessories

#### 5mm Probe accessories

- L. Mirror
- M. Thread Protector
- N. Ball Guide

#### 9.0mm Probe accessories

- O. Mirror
- P. Thread Protector
- Q. Magnet
- R. Hook



#### **BATTERY INSTALLATION**

- Use the included Phillips screwdriver to open the screw on the battery compartment cover (See Fig. 3).
- Insert one "9V" alkaline battery into the battery compartment (See Fig. 4). Close the battery cover and fasten the screw.





Fig. 4

#### PRECAUTIONS!

- Remove the battery before storing the unit for a long period of time.
- Be sure to install the battery with the correct polarity as indicated in the battery compartment.
- Properly dispose of the batteries. Exposure to high temperatures can cause the batteries to explode.
   Do not dispose in fire. Place tape over the terminals to prevent direct contact with other objects. Some countries have regulations concerning battery disposal. Please follow all applicable regulations.

# DISCONNECTING AND RECONNECTING THE PROBE:

All of the probes from these 3 systems are interchangeable and in the case of the 12mm dia. probe, you can add extensions to extend the camera tip up to 16 ft. (5m). To disconnect the probe from the display unit, twist



the retaining collar counter clockwise several turns and pull away from the unit. Then pull the probe straight away from the unit. To reconnect the probe or probe extensions to the display unit, make sure the keyed ends are properly aligned (See Fig. 5). Once they are aligned, tighten the retaining collar by twisting it clockwise.

#### **INSTALLING ACCESSORIES: (From Fig. 2)**

**12mm dia. tip:** The three accessories include mirror tip, hook tip and magnetic tip. All are attached to the camera head the same way. As shown in Fig. 6, slip the semicircle end of the accessory over the flats of the camera head and then press down to fix as shown in Fig. 7.





5.5mm dia. tip and and 9.0mm dia. tip: Each of the three accessories screw directly onto the top of the probe. The thread protector is used when the mirror or the ball guide are not attached.

#### **OPERATING INSTRUCTIONS**



Fig. 8

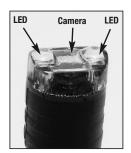
#### **BASIC OPERATION:**

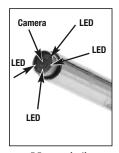
To turn the unit on, hold the LCD display unit facing you (See Fig. 8). Roll the on/off/brightness switch away from you to turn the power on. The switch then acts as a dimmer for the LED's in the tips of the probes. Activating the switch also illuminates the LCD screen. Note: There is no auto off. Make sure to roll the switch back towards you until it clicks to turn off the unit after use.

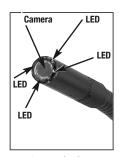
#### IMAGE ROTATION AND ZOOM OPERATION

The left button on the back of the monitor housing is the "Image Rotation" button. Press once to flip image (seen in the LCD monitor) by 180°. The right side button is the "Zoom" button. Press this multiple times to achieve a full 2X enlargement of the image (seen in the monitor).

#### **CAMERA TIPPED PROBES**







12mm probe tip

5.5mm probe tip

9mm probe tip

#### **OPERATING PRECAUTIONS!**

- Maximum bending radius is 2"; exceeding this may damage the probe.
- Do not use the probe (camera head) to clear pathways or clogged areas.
- The hand-held display unit is NOT waterproof and may become damaged when exposed to water. The camera head of the probe and its cover are waterproof, but NOT acid-proof or fireproof. Exposure to these materials will damage the camera heads protective plastic. Avoid submerging the camera head into corrosive solvents. Do not expose to high temperatures.
- Do not place the camera head or probe into areas that may contain exposed live electrical wires.
- For construction: When inspecting inside walls, make sure there are no exposed live wires, if you are not sure, shut off the circuit breaker to the whole area before probing with the scope.
- For automobile engine inspections: Be sure the automobile is not running during inspection. Metal and liquid under the hood may be hot. Don't submerge the camera head in oil or gasoline.

#### MAINTENANCE INSTRUCTIONS

- Service must be performed by qualified repair personnel.
- When servicing this product, only use identical replacement parts. Use of unauthorized parts or failure to follow maintenance instructions will void the warranty.
- · Disassembling this unit will void the warranty.
- Do not use acetones to clean this product. Use mild soap and a soft cloth to clean. Gently clean the LCD with a dry cloth.

#### TROUBLE SHOOTING

Symptoms	Reasons	Solutions
Display is on, but no image	The probes connection to the main grip is loose	Tighten connection and try again
	Cameras head covered by debris or safety cap is on	Clean camera head
LED's on the camera head are dim at max bright     Color display changes to black and white     Color display turns itself off after a period of time	Low battery	Replace battery
The product won't turn on	Dead battery	Replace battery

### **SPECIFICATIONS**

#### **CAMERA TIPPED PROBES**

	12mm	9mm	5.5mm
Resolution (pixels NTSC)	320 x 240	240 320 x 240 320 x 240	
Resolution (pixels PAL)	704 x 576	704 x 576 704 x 576	
Minimmum Focus Distance	100mm (4")	10mm (0.5 in.)	
Field of View	60°	60°	60°

Image Display	DCS200 Series	2.4" (60.9mm) TFT/LCD
	DCS300 Series	3.5" (88.9mm) TFT/LCD
		2x digital zoom
		180° image rotation
Resolution		320 x 240 pixels
Probe Length (supplied)		39" (1m)
Light Source		Adjustable LED
Power Source		One "9V" alkaline battery
Estimated Battery Life		About 2.5 hours
Operating Temperature		32° to 113°F (0° to 45°C)
Operating Humidity		5% to 95%RH non-condensing
Storage Temperature		-4° to 140°F (-20° to 60°C)
		≤85% (w/o battery)
Body Dimensions	DCS200	8.5 x 4.6 x 3.2 in.
	Series	(215 x 156 x 80mm)
	DCS300	8.5 x 4.6 x 3.8 in.
	Series	(215 x 156 x 96mm)
Weight		Approx. 16 oz. (454g)

#### WARRANTY INFORMATION

#### THREE YEAR LIMITED WARRANTY

The General Tools & Instruments (General®) DCS200 Series and DCS300 Series digital video Inspection Systems are warranted to the original purchaser to be free from defects in material and workmanship for a period of three (3) years. Subject to certain restrictions, General will repair or replace this instrument, if after examination, it is determined by General to be defective in material or workmanship.

This warranty does not apply to damages that General determines to be from an attempted repair by non-authorized personnel or misuse, alterations, normal wear and tear or accidental damage. The defective unit must be returned to General Tools & Instruments or a General authorized service center, freight prepaid and insured.

Acceptance of the exclusive repair and replacement remedies described herein is a condition of the contract for purchase of this product. In no event shall General be liable for any incidental, special, consequential or punitive damages, or any cost, attorneys fees, expenses, losses alleged to be as a consequence of any damage due to failure of, or defect in any product including, but not limited to, any claims for loss of profits.

TIP! Most parts of this products can be recycled.
Please refer to your local regulations for proper disposal.

#### RETURN FOR REPAIR POLICY

Every effort has been made to provide you with a reliable, product of superior quality. However, in the event your instrument requires repair, please contact our Customer Service to obtain a RGA# (Return Goods Authorization) before forwarding the unit via prepaid freight to the attention of our Service Center at this address:

General Tools & Instruments 80 White Street New York, NY 10013 212-431-6100

Remember to include a copy of your proof of purchase, your return address, and your phone number and/or e-mail address.



# **Specialty Tools & Instruments**

#### **GENERAL TOOLS & INSTRUMENTS**

80 White Street New York, NY 10013-3567 PHONE (212) 431-6100 FAX (212) 431-6499

TOLL FREE (800) 697-8665

e-mail: sales@generaltools.com www.generaltools.com DCS200/DCS300 Series User's Manual

Specifications subject to change without notice

©2010 GENERAL TOOLS & INSTRUMENTS

NOTICE - WE ARE NOT RESPONSIBLE FOR TYPOGRAPHICAL ERRORS.

MAN#DCS200/DCS300 Series

11/23/10