Sonatest

Sitescan Series

QuickStart Guide

Models

D-50 & D-70
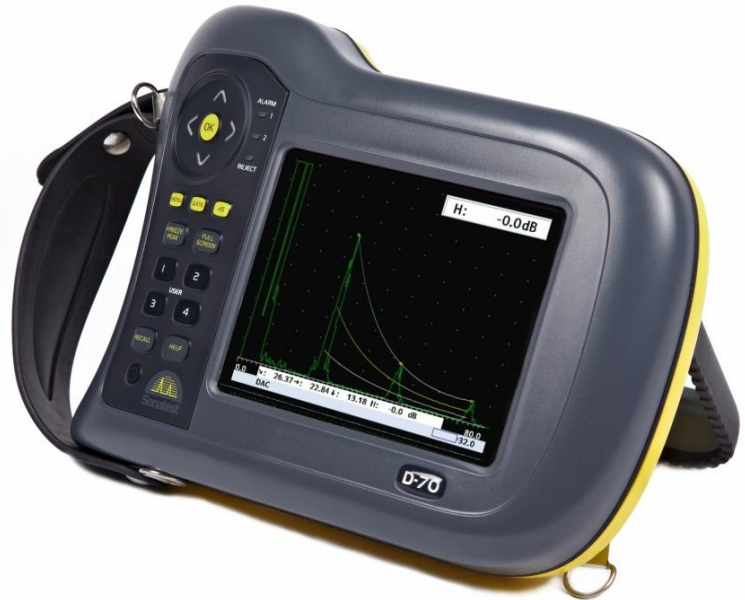
Thank you!

Thank you for purchasing a Sonatest D-70 or D-50. This unit delivers a host of features, making it another outstanding product in the line of Sonatest quality ultrasonic flaw detectors. Please read the section below before using the device.

Before you do anything else, please read this

The following information must be read and understood by users of the Sonatest D-70 /D-50 ultrasonic flaw detector and thickness gauge. Failure to follow these instructions can lead to serious errors in test results or damage to the flaw detector. Decisions based on erroneous results can lead to property damage, personal injury or death. Anyone using this instrument should be fully qualified by their organization in the theory and practice of ultrasonic testing, or under the direct supervision of such a person.

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General Warnings

Proper use of the ultrasonic test equipment requires four essential elements:

- Knowledge of the specific tests or inspections and applicable test equipment.
- Selection of the correct test equipment based on knowledge of the application.
- Competent training of the instrument operator.
- This document provides an introduction to the Sonatest D-70 /D-50 flaw detector. Many other factors can affect the use of this flaw detector. Specific information regarding these factors are beyond the scope of this manual. The user should refer to appropriate textbooks on the subject of ultrasonic testing and thickness gauging for more detailed information.

Specific Warnings

The Sonatest D-70 / D-50 contains a high-energy, precision pulser allowing optimum testing results to be obtained by matching the pulse width to the probe characteristics. This circuitry may be damaged by voltage spikes. It is recommended that the instrument be switched off, or the pulser stopped (by pressing the *[Freeze/Peak]* key) before changing probes.

Disclaimer of Liability

All statements, technical information and recommendations contained in this manual or any other information supplied by Sonatest Limited in connection with the use, features and qualifications of the Sonatest D-70 /D-50 are based on tests believed to be reliable, but the accuracy or completeness thereof is not guaranteed. Before using the product you should determine its suitability for your intended use based on your knowledge of ultrasonic testing and the characteristics of materials. You bear all risk in connection with the use of the product. You are reminded that all warranties as to merchantability and fitness for purpose are excluded from the contract under which the product and this manual have been supplied to you. The Seller's only obligation in this respect is to replace such quantity of the product proved to be defective.

Neither the seller nor the manufacturer shall be liable either in contract or in tort for any direct or indirect loss or damage (whether for loss of profit or otherwise), costs, expenses or other claims for consequential or indirect compensation whatsoever (and whether caused by the negligence of the company, its employees or agents or otherwise).

Your product package may include optional documentation, such as warranty flyers, that may have been added by your dealer. These documents are not part of the standard package.

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This quick start guide will help you get started with your Sonatest D-70 / D-50. In this guide we use the following symbols to indicate important or useful information.

	Notes
	Safety precaution
	Tips

For the complete user guide and other helpful resources, check out the Sonatest support website at
http://www.sonatest.com/support/downloads/

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How to contact Sonatest?

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1. What's in the box

Here's what you should find inside the packaging:

D-70/D-50	Battery	Couplant	Charger
Carry Bag	Mains cable	CD (User manual included)	USB cable

- If any of the above items is damaged or missing, contact your retailer.
- The illustrated items above are for reference only. Actual product specifications may vary with different models.

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2. Get to know your Flaw detector

This section provides the basic information to get you started. For more information on the different functions of the Sonatest D-70 / D-50, see the full user's guide found on the CD or on our website.

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Figure 1: D-70 Rear view

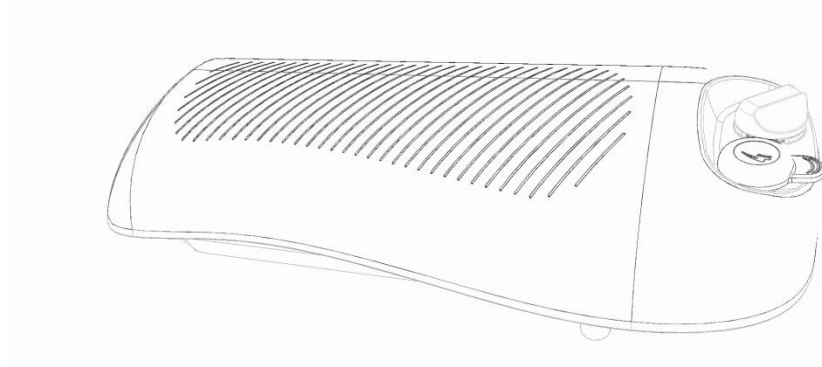# Quick Start Guide – Sonatest D-70/D50 Models

Figure 2: D-70 Front view

3. Before you turn on your Flaw Detector

The Sonatest D-70 / D-50 is powered by a Lithium-Ion battery pack, which is shown below:
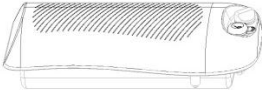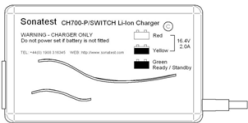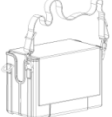
Figure 3: Lithium-Ion Battery

- Connect the battery pack to the instrument via two terminal contact points.

- Secure the battery pack to the rear of the Sonatest D-70 /D-50 with one thumbscrew.

- Use the Sonatest battery pack included with the Sonatest D-70 / D-50 device, then plug the CH700-P adapter into the charger connector located at the back of battery pack.

- Plug the CH700-P adapter into an electrical outlet to start charging the battery. It will take about 3-4 hours for the battery to be fully charged.

- After installing and charging the battery, you are now ready to turn your Flaw Detector ON for the first time. Press [ON/OFF] button to turn on your unit.
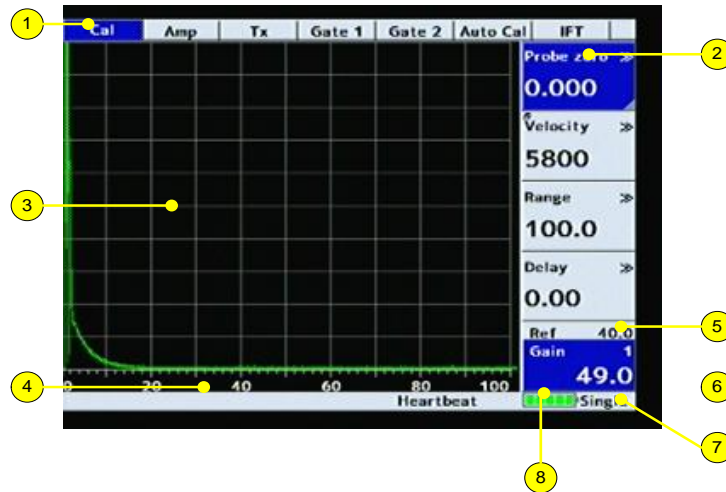
• See the Battery section of the User's Guide for important safety information about battery and charger.   • The battery is shipped with a Maximum of 50% charge.   • The battery can also be charged while disconnected from the unit.

4. Get Started

This section describes an overview of the Sonatest D-70 / D-50 screen.

Figure 4: D-70 screen

(1) **Tab:** The use of [left] and [right] navigation button, enables the user to navigate between tabs. Select Cal tab (as shown above) to configure your flaw detector ready for inspection.

(2) **Sub menu:** Allow the user to configure the parameters for the selected tab. To change Probe zero, Velocity, Range and Delay value. Select the sub-menu by pressing [OK] button, then use [Up] and [Down] navigation button to adjust the selected parameter.

(3) **A-scan:** Display of the transducer signal which is updated 60 times per second.

(4) **Distance axis:** shows the range of the transducer signal in mm, inches or µs.

(5) **Gain Ref/Gain:** By pressing [dB] button the user can switch between gain Ref, Step Gain and gain. Those parameters can be set by pressing [Up] or [Down] navigation buttons.

(6) **Gain Step:** [2] button set how much gain the user wants to increase or decrease (as shown in the figure above the user can increase or decrease the gain by 1).

(7) **Single/double:** Single or double indicates if the device is set on single or dual probe mode. Pressing [4] button to set the type of probe (single or dual) which connected to the Flaw Detector.

(8) **Battery meter:** The battery meter displays the current status of your battery charge.

5. Connect your Flaw Detector to a PC

A USB cable is provided with the Sonatest D-70 /D-50 which allows a bidirectional communication between the Flaw Detector and a PC. **UT-lity** software allows you to transfer file between the Flaw Detector and a PC.

- Make sure **UT-lity** software is installed on your PC.

- **UT-lity** software is provided with the unit. However it is recommended to run the latest version which can be downloaded from our website (http://www.sonatest.com/support/downloads/)

- Connect the USB cable to the Flaw Detector then connect the other end of the cable to the PC.

- When connecting the Flaw Detector to the PC, you may have to wait for Windows to install the USB drivers needed before the connection is ready for use.

- Start **UT-lity**.

For detail on how to use **UT-lity** please refer to the software manual

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6. Troubleshooting tips

Q1 – My unit does not start when press [Power] button?

- Make sure the battery is fully charged and connected to the Flaw Detector.
- If the battery is flat or not fully charged connect the charger supplied with the unit.

Q2 – When the unit is turned off, but the LED on the charger is Red/Amber solid. What does this means?

The battery is charging

Q3 – My battery life is very short despite having charge it for 3-4 hours?

- When you received the unit for the first time, it is strongly recommended to complete a full charge and discharge cycle thus will condition the new battery.
- Additionally doing a full charge and discharge once a month will help to accurately cal-

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ibrate your battery.
- If a battery only last few minutes, even though it is fully charged, this may be because it is no longer accepting charge

Q4 – Why my battery does not very long after only few months of use?

- Apart from the obvious reasons (it too old or has been mistreated), the other reason may be in the way you charge it.
- If a battery is never allowed to fully charge then discharge, it will become "uncalibrat-ed". To prevent that, ensure that every month or so, you should fully charge and then fully discharge the battery.

Q5 – I need more support, where and how can I contact you?

- Please contact your local distributor for additional support or training
- Additionally you can visit our website: www.sonatest.com
- Or can e-mail us at sales@sonatest.com
- For more details please see contact details (page 6)