



2305 Stabilock®

TETRA Test Set

Getting Started Manual

AG295102

Issue 1

2305 Stabilock® TETRA Test Set

Getting Started Manual

© Aeroflex Ltd. 2013
Longacres House
Six Hills Way
Stevenage SG1 2AN
UK

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Ordering information This guide is issued as part of the **2305 Stabilock**. The ordering number for the product is AG100205.

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About this guide

This section contains the following information:

- 'Purpose and scope' on page viii
- 'Assumptions' on page viii
- 'Related information' on page viii
- 'Technical assistance' on page ix
- 'Conventions' on page ix

Purpose and scope

The purpose of this guide is to help you successfully use the 2305 Stabilock's features and capabilities. This guide includes task-based instructions that describe how to install and use the 2305 Stabilock. Additionally, this guide provides a description of Aeroflex's warranty, services, and repair information, including terms and conditions of the licensing agreement.

Assumptions

This guide is intended for novice and intermediate users who want to use the 2305 Stabilock effectively and efficiently. We are assuming that you have basic computer experience and are familiar with basic telecommunication concepts and terminology.

Related information

Use this guide in conjunction with the following information:

2305 Stabilock TETRA Test Set User Guide, order number AG290102.

Technical assistance

If you need assistance or have questions related to the use of this product, call Aeroflex's technical support. Contact numbers are given at the end of this document.

Conventions

This guide uses naming conventions and symbols, as described in the following tables.

Table 1 **Typographical conventions**

Description	Example
User interface actions appear in this typeface .	On the Status bar, click Start .
Buttons or switches that you press on a unit appear in this TYPEFACE .	Press the ON switch.
Code and output messages appear in this typeface.	All results okay
Text you must type exactly as shown appears in this typeface.	Type: a:\set.exe in the dialog box.
Variables appear in this <typeface>.	Type the new <hostname>.
Book references appear in this typeface.	Refer to Newton's Telecom Dictionary
A vertical bar means "or": only one option can appear in a single command.	platform [a b e]
Square brackets [] indicate an optional argument.	login [platform name]
Slanted brackets <> group required arguments.	<password>

Table 2 Keyboard and menu conventions

Description	Example
A plus sign + indicates simultaneous keystrokes.	Press Ctrl+s
A comma indicates consecutive keystrokes.	Press Alt+f,s
A slanted bracket indicates choosing a submenu from menu.	On the menu bar, click Start > Program Files.

Table 3 Symbol conventions



This symbol represents a general hazard.



This symbol represents a risk of electrical shock.



NOTE

This symbol represents a Note indicating related information or tip.

Table 4 Safety definitions



WARNING

Information to prevent personal injury.



CAUTION

Information to prevent damage to the equipment.

Safety notes

This chapter provides the safety notes for the 2305 Stabilock. Topics discussed in this chapter include:



- 'Precautions' on page xii
- 'External power supply' on page xiv
- 'During maintenance and repair' on page xv
- 'Additional cautions' on page xv
- 'Declaration of EU Conformity' on page xvii

Precautions

These terms have specific meanings in this manual:

WARNING	Information to prevent personal injury.
CAUTION	Information to prevent damage to the equipment.
Note	Important general information.

Symbols used on this product The meaning of hazard symbols appearing on the equipment and in the documentation is as follows:

Symbol	Nature of hazard
	Refer to the operating manual when this symbol is marked on the instrument. Familiarize yourself with the nature of the hazard and the actions that may have to be taken.
	Dangerous voltage

General conditions of use This product is designed and tested to comply with the requirements of BS EN 61010-1 ‘Safety requirements for electrical equipment for measurement, control and laboratory use’, for Class I portable equipment and is for use in a pollution degree 2 environment. The equipment is designed to operate from an installation category II supply.

Equipment should be protected from the ingress of liquids and precipitation such as rain, snow, etc. When moving the equipment from a cold to a hot environment, it is important to allow the temperature of the equipment to stabilize before it is connected to the supply to avoid condensation forming. The equipment must only be operated within the environmental conditions specified in the data sheet, otherwise the protection provided by the equipment may be impaired.

This product is not approved for use in hazardous atmospheres or safety-critical applications.

WARNING

Suitability for use

This equipment has been designed and manufactured by Aeroflex to perform measurements on RF systems. If the equipment is not used in a manner specified by Aeroflex, or if it is damaged, the protection provided by the equipment may be impaired.

Aeroflex has no control over the use of this equipment and cannot be held responsible for events arising from its use other than for its intended purpose.

The safety of any system incorporating this equipment is the responsibility of the assembler of the system.



WARNING

Electrical hazards (AC supply voltage)

This equipment conforms with IEC Safety Class I, meaning that it is provided with a protective grounding lead. To maintain this protection the supply lead must always be connected to the source of supply via a socket with a grounded contact.

Be aware that the supply filter contains capacitors that may remain charged after the equipment is disconnected from the supply. Although the stored energy is within the approved safety requirements, a slight shock may be felt if the plug pins are touched immediately after removal.



WARNING

Ventilation

Before switching on the instrument, ensure that ventilation slots are not restricted, or obstructed with loose material.

Provide clearance of at least 3 cm (1 in) between all sides of the instrument and adjacent surfaces. A failure to provide adequate clearances increases internal temperatures, possibly reducing the reliability of the equipment and degrading its performance, or even causing a fire.

Safety notes

External power supply



Safety advice for the battery module

Do not crush. Do not heat or incinerate. Do not short-circuit. Do not dismantle. Do not immerse in any liquid, the battery may vent or rupture. Do not charge below 0°C (32°F) nor above 45°C (110°F).

External power supply

The external power supply of the 2305 Stabilock is a safety class I equipment as defined in EN 60950.

Do not try to open the power supply. There are no serviceable parts inside. If the power supply is defective you can obtain a new one from Aeroflex (order number AG860224).

Use the supplied power cord or an appropriate replacement.

Do not replace the power cord with an inadequately rated cord.

The power cord set must be an appropriately rated and approved cord-set in accordance with the regulations of the country it is used in.

Power supply ratings

Before powering on, ensure that the operating voltage that is permitted for the instrument is the same as your power source. The external power supply adjusts itself automatically to the applied (permissible) line voltage.

Input voltage range: 100–240 VAC.

Input current: 1.5 A

Frequency range: 50–60 Hz.

Operating temperature: 0–60 °C

Storage temperature: -20–85 °C

Humidity: 93% RH max, non-condensing



Do not interrupt the protective conductor
Risk of electric shock

Any interruption of the protective conductor to the external power supply may result in electric shock.



Do not attempt to service this product yourself
Risk of electric shock

Opening or removing covers of the external power supply may expose you to dangerous high voltage points and other hazards. Refer all servicing to qualified service personnel.

During maintenance and repair

Maintenance and repair is only allowed to specially trained service technicians. Opening a unit without permission causes loss of warranty.

Live parts can be exposed when you open covers or remove components from the external power supply. Connecting parts can also be live.

Capacitors in the power supply can still be charged, even though the instrument has been separated from all voltage sources.

Only use fuses with identical specifications to the replaced ones. You should never patch fuses or short the fuse holder.

Additional cautions

To ensure safe handling and avoid injuries, observe the following:



CAUTION

Only use a 50 Ω N-type connector to connect to the **RF1 IN/OUT** and **RF2 OUT** ports of the 2305 Stabilock. Use of any other connector may result in damage of the instrument.

Safety notes

Additional cautions



CAUTION

Keep the heat sink at the back clear. The instrument may over-heat otherwise.



CAUTION

The maximum input power level at the **RF1 IN/OUT** connector is 70 W continuous level, or 20 W burst TETRA signal. Higher input levels may result in serious damage of the instrument.



CAUTION

Do not feed signals or DC voltage into the **RF2 OUT** port as it may result in serious damage of the instrument.



CAUTION

Operate the instrument within the temperature range from 5°C (40°F) to 45°C (110°F) only. Operation outside this range will lead to invalid results.



Battery module usage

The battery module is for use with the 2305 Stabilock and the 9100 Handheld Spectrum Analyzer Series only. Aeroflex does not accept any liability for damage of the battery or other equipment if the battery module is used with other electric or electronic equipment.

This product is designed for indoor use. As exposure to water may damage the instrument it has to be protected against moisture when used outdoors.

Declaration of EU Conformity

All Aeroflex Ltd products are in compliance with appropriate Directives for CE marking utilizing standards as published in the Official Journal of the European Union; Reference: Safety standard EN 61010-1 and EMC standard EN 61326-1.

A copy of the EC declaration of conformity for the 2305 Stabilock is available on request from Aeroflex Ltd.

Safety notes

Declaration of EU Conformity

Overview

1

This chapter provides a general description of the 2305 Stabilock. Topics discussed in this chapter include the following:

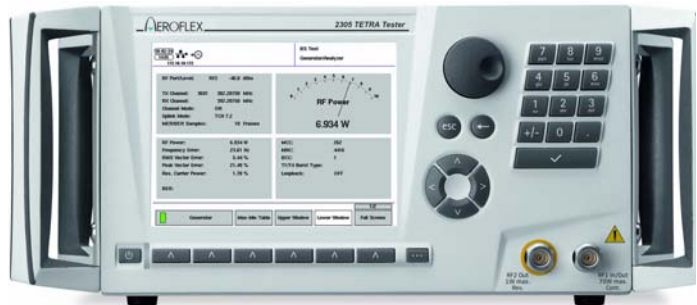
- [‘About the 2305 Stabilock’ on page 2](#)
- [‘Features and capabilities’ on page 3](#)
- [‘Options’ on page 4](#)

About the 2305 Stabilock

Aeroflex's 2305 Stabilock is a mainframe with software available for testing TETRA radio terminals, base stations, or both. Service personnel use the 2305 Stabilock to ensure the quality of the transmitter and receiver.

- Base stations can be tested at output power levels up to 100 W. Base stations with separate connectors for transmitter and receiver can easily be connected.
- Radio terminals can be tested in terms of transmit and receive parameters; the digital circuits are also tested with call setup routines in trunked mode (TMO) or direct mode (DMO).

Features and capabilities



General features

- Field proven due to
 - low weight (< 4 kg)
 - battery option
 - large and high contrast screen
- Remote control for automated testing in service and manufacturing
- RF signals over joint or separate RF ports
- TETRA test signals

Transmitter measurements

- RF power
- Carrier frequency offset
- Burst power profile over time (for mobile stations)
- Timing error (for mobile stations)
- Residual carrier power
- Unwanted output power
- Error vector magnitude (RMS, peak)
- Modulation spectrum
- Constellation diagram

Receiver measurements

- Single-ended and loopback bit error rate (BER) and message erasure rate (MER)

- Test signals: T1 with TCH7.2, TCH2.4, SCH/F, with and without Frame 18
- Paging sensitivity (for mobile stations)

Environmental conditions

For instrument only.

Operating temperature: +5 to +45 °C

For external power supply environmental conditions, see [‘Power supply ratings’ on page xiv](#).

Options

2332 TETRA Base Station Test Option: full transmitter and receiver measurement capabilities

Supports receiver and transmitter measurements at TETRA base stations according to EN 300394: Air interface or external synchronization, different up and downlink test signalling channels and bit error rate. The 2305 Stabilock supports measurements at RF power levels up to 70 W at joint or at separate RF connectors.

2333 TETRA Mobile Station Test Option: ensuring reliability under various conditions

Approved by leading manufacturers of TETRA terminals, this option offers all the test functions needed for radio repair, tuning and preventive maintenance, including the standardized TETRA test modes and application tests for group calls. Frequent preventive testing is important to ensure the mobile stations are fully operational when they are needed most.

2330 DMO Option: expand testing capabilities to TETRA Direct Mode Operation

With the 2330 DMO Option installed, the 2305 Stabilock also understands and analyzes the TETRA DMO protocol for direct communication between two TETRA radios. This enables you to test the single-frequency operation. Requires 2333 TETRA Mobile Station Test Option.

2331 Autotest Option:
efficient and time-saving checks through automated tests

Aeroflex offers a set of automatic test capabilities for the 2305 Stabilock. The 2331 Autotest Option allows you to run typical test sequences automatically on the instrument. You can run tests at the push of a button (with 2333 TETRA Mobile Station Test Option only).

2360 OCXO Option: increasing frequency accuracy

TETRA radios are usually running a reliable AFC (automatic frequency correction) to match frequency offset to the base station. For tests on mobile stations which do not have this feature, Aeroflex offers the 2360 OCXO Option to make the reference frequency of the 2305 Stabilock ten times more accurate.

2361 Battery Option: becoming independent from line power

No need to spend time dismounting radios installed into vehicles: take the tester on the road with the 2361 Battery Option. Using the high-capacity Li-Ion type battery, the 2305 Stabilock becomes independent from other power sources for about two hours. With accessories like the desk charger and extra batteries, engineers are always prepared for a quick emergency mission.

1500 Battery Charger

The desktop charger allows you to recharge a battery while operating the 2305 Stabilock with another battery. This way, your 2305 is always ready for use in the field.

Chapter 1 Overview

Options

Installation

2

This chapter describes how to set up the 2305 Stabilock. The topics discussed in this chapter are as follows:

- ‘Scope of delivery’ on page 8
- ‘Before first-time use’ on page 8
- ‘Setting up the hardware’ on page 8
- ‘Installing and maintaining the battery’ on page 9

Scope of delivery

When unpacking the 2305 Stabilock, ensure that the following items are present:

- instrument (2305 Stabilock) with a dummy battery
- Battery (if ordered), with insulating tape over electrical contacts
- power supply
- power cable for your region
- USB flash drive
- this getting started manual

Before first-time use

The 2305 Stabilock is optionally delivered with a rechargeable battery module. This battery must be charged before first-time use. Please allow six hours to charge the battery while the instrument is connected to an external power supply and switched off. For more information, see section '[Installing and maintaining the battery](#)' on page 9.

Setting up the hardware

The 2305 Stabilock can be operated either with an external power supply or with the built-in battery. For battery operation, refer to '[Installing and maintaining the battery](#)' on page 9. Setting up the instrument to operate with an external power supply is explained here.

If you have a DC source with 11 to 15 V capable of providing 60 W power, you can connect it to the **DC IN** plug on the back panel. Ensure that the voltage polarity is as indicated on the back panel.

If you want to operate the 2305 Stabilock from a standard AC line power source, connect the power supply provided with the instrument to the **DC IN** plug on the back panel, and to the AC source using the power cable delivered with the power supply.

Installing and maintaining the battery



The 2305 Stabilock can be equipped with a rechargeable battery module to enable operation in the field, without AC power. If you ordered your 2305 Stabilock with a battery, that battery must be installed; see instructions on [page 10](#).

The battery must be charged before first-time use. Please allow six hours to charge while the instrument is connected to an external power supply and switched off.

The battery charge status is indicated with a symbol on the screen. See the user guide for detailed information on this symbol.

On the front panel, an LED next to the on/off switch provides basic information about the power supply status. If the LED lights green, an external power source is connected. If the LED lights yellow, an external power source is connected and the battery is being charged.

If the instrument is switched on, the battery takes about three times as long to charge compared with when the instrument is switched off. After eight hours of continuous charging, the battery charger is automatically switched off to ensure that the battery is not damaged by excessive charging periods. The battery may not be fully charged at the time. Therefore Aeroflex recommends charging the battery only while the 2305 Stabilock is switched off.

NOTE

Disconnecting the line cord from the power source resets the eight-hour maximum charging period. In order to make sure that the battery is fully charged when the instrument is switched off, unplug the line cord first and plug it in again.

A completely discharged battery is not recharged if the power supply is connected while the instrument is operating. Therefore it is advisable to switch off the instrument before connecting the power supply to the 2305 Stabilock.



WARNING

Safety advice for the battery module

Do not crush. Do not heat or incinerate. Do not short-circuit. Do not dismantle. Do not immerse in any liquid, the battery may vent or rupture. Do not charge below 0°C (32°F) nor above 45°C (110°F).

Battery module replacement

To replace the battery module, use genuine Aeroflex spare parts only. Contact your local Aeroflex service center or sales representative for a quotation.

The battery module compartment is situated on the back panel of the instrument. You can replace the battery module as follows:

- 1 Switch off the 2305 Stabilock.
- 2 Remove the battery module by pushing the black rubber clasp to the right and pulling the battery module out of the compartment.
Do not try to open the battery module!
- 3 Remove the insulating tape from the new battery.
- 4 Line up the new battery module with the connectors to the bottom and pointing towards the compartment.
- 5 Gently slide the battery module into the compartment until it locks completely.
- 6 Fully charge the new battery.



For optimum performance and lifetime, please follow the advice below:

- Before first-time use, charge the battery completely while the 2305 Stabilock is switched off. This takes about six hours.
- If you do not use the battery module for months, fully charge the battery and remove it from the instrument. Check the battery twice a year and recharge it if necessary — do not store the battery while it is completely discharged.
- Do not store the battery module above 45 °C (110 °F) or below 0 °C (32 °F).
- Do not touch the battery contacts with your fingers. Keep the contacts clean.
- Do not drop the battery module, as it may crack.

Dispose of the battery module safely

Do not simply throw the battery module away. Dispose of the battery in line with national or regional regulations.

Chapter 2 Installation

Installing and maintaining the battery

Operation

3

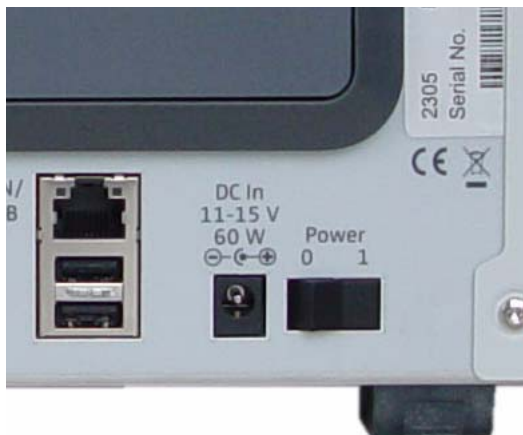
This chapter describes the functionality of the instrument. Topics discussed in this chapter are:

- [‘Connecting the 2305 Stabilock’ on page 14](#)
- [‘Powering the unit’ on page 19](#)
- [‘Using the front panel’ on page 20](#)
- [‘Navigating the user interface’ on page 23](#)
- [‘Maintaining the instrument’ on page 24](#)

Connecting the 2305 Stabilock

The 2305 Stabilock provides different connectors for a variety of applications. The following section describes the connectors available and provides information on technical data and application purposes.

DC IN



The 2305 Stabilock can be operated either from the internal battery or from an external DC source such as the power supply which is delivered with the 2305, or a car battery. The DC voltage must be in the range from 11 to 15 V. In addition, the battery is loaded when an external DC source is connected.

The **DC IN** plug is located on the right-hand side at the back of the instrument. Read more about power supplies in the chapter ["Installation"](#), in particular in the section ["Setting up the hardware"](#) on page 8.

RF1 IN/OUT



RF1 In/OUT is a 50 Ω N-type connector (female) on the right-hand side of the front panel.

Use a 50 Ω shielded RF cable with an N-type connector (male) to connect to the unit under test; simply screw the connector tight to the instrument.

If you have a 50 Ω shielded RF cable with a BNC connector (male), use an N to BNC adapter to connect the cable to the instrument. Aeroflex offers an appropriate adapter.



CAUTION

The maximum input power level at the RF1 In/OUT connector is 70 W continuous level, or 20 W burst TETRA signal. Higher input levels may result in serious damage of the instrument.



CAUTION

Only use a 50 Ω N-type connector to connect to the **RF1 In/OUT** port of the 2305. Use of any other connector may result in damage of the instrument.

RF2 OUT



RF2 OUT is a 50 Ω N-type connector (female) on the front panel. It can be used to feed a signal into the receiver section of the unit under test (for example, a TETRA base station).

Use a 50 Ω shielded RF cable with an N-type connector (male) to connect to the unit under test; simply screw the connector tight to the instrument.

If you have a 50 Ω shielded RF cable with a BNC connector (male), use an N to BNC adapter to connect the cable to the instrument. Aeroflex offers an appropriate adapter.



CAUTION

Do not feed signals or DC voltage into the **RF2 OUT** port as they may result in serious damage to the instrument.



CAUTION

Only use a 50 Ω N-type connector to connect to the **RF2 OUT** port of the instrument. Use of any other connector may result in damage to the instrument.

LAN/USB



There is an RJ-45 LAN plug on the right-hand side of the rear panel. Additional USB plugs can be found below the LAN plug.

The 2305 Stabilock can be controlled from an external computer via a local area network (LAN), using a TCP/IP connection at 10 or 100 Mbit/s. This high-speed connection can also be used to transfer traces to a PC or to update the system software.

The IP address can be obtained automatically from a DHCP server, or set up manually in the system configuration menu or via RS-232.

Setting up the IP address, the command set to control the 2305 and the responses from the 2305 Stabilock are explained in the full user guide.

Connect the instrument to the LAN with a standard LAN cable with RJ-45 connectors. Alternatively, you can connect the instrument to a PC directly using a cross-patch cable.

RS-232



This 9-pin sub-D connector on the rear panel of the 2305 Stabilock can be used to control the 2305 remotely via a serial interface (RS-232). The command set and the responses conform to the SCPI standard and are explained in the user guide.

The RS-232 connector can also be used to load and store results and settings and to update the operating software. See the user guide for more details.

To connect the 2305 to a controlling PC over RS-232, use a null modem (PC to PC) cable.

EXT. REF IN The **EXT. REF IN** plug can be found on the rear panel. It can be used as an input for an external time base (reference clock). If an external 5, 10 or 13 MHz clock is connected, the 2305 automatically uses this clock as a frequency reference, and displays a symbol on the LCD screen. See the user guide for more details.



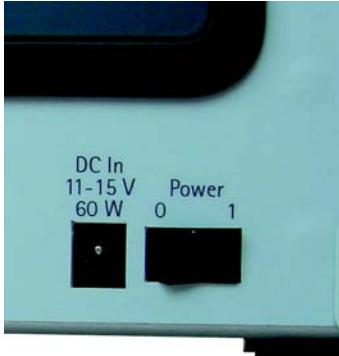
CAUTION

The input for the external trigger signal is designed for TTL input levels only. Higher levels at this port can damage the instrument.

TRIGGER IN/OUT This BNC plug can either provide or accept a TTL trigger signal for synchronization of external equipment with the active slot, frame or multiframe, for example for time synchronization of the 2305 Stabilock with a base station. The actual signal is set by the instrument software; see the user guide for the 2305 Stabilock for more details.

Powering the unit

Switching on the instrument



The 2305 Stabilock has two independent power switches — one on the rear (right-hand side) and one on the front panel (left-hand side). Both must be switched on to operate the instrument.

The power switch on the rear disconnects the battery from the DC voltage supply and the instrument completely. Use this switch to avoid residual currents that may discharge the battery.

Once the instrument is switched on, it takes a couple of seconds for the instrument to load and start its software.

NOTE

The warm-up time for precision measurements is 30 minutes.

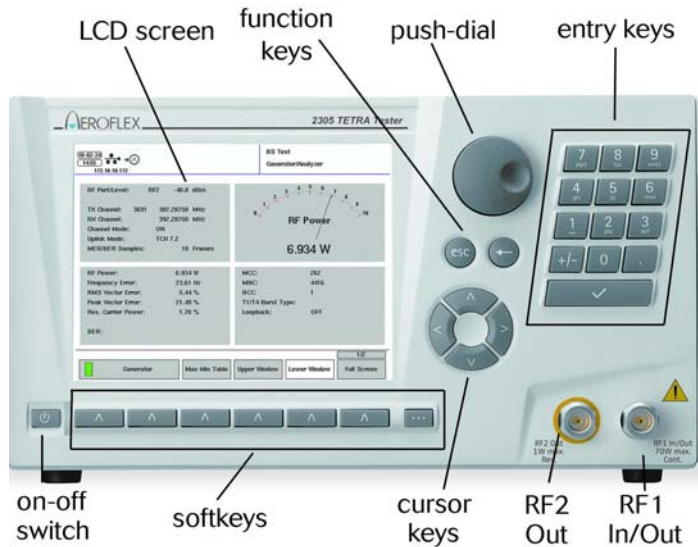
NOTE

Please wait a few seconds between switching the instrument off and on again. It will not start otherwise.

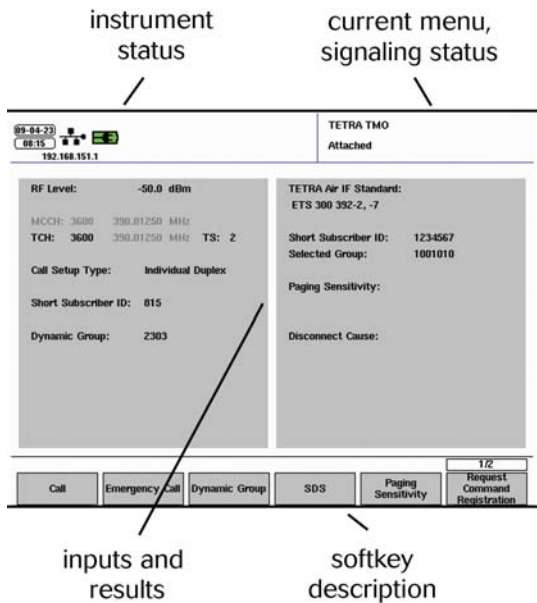
Chapter 3 Operation

Using the front panel

Using the front panel



LCD The LCD screen shows the menus that guide you through configuration and measurements when the 2305 Stabilock is switched on and the operating software is loaded. The menus consist of four different sections:



The top row shows the instrument status on the left. This includes the status of battery, network and USB connections.

On the right-hand side, the top row displays the processing status, for example, the call processing.

The top row displays the meaning of the softkeys that are located beneath the LCD screen. If the description for the right-most softkey displays “1/2” or “2/2” on top, there is a second row of softkeys available. Press the ... key to switch to the alternate softkey menu.

The rest of the display (in the middle) shows input and result fields. If there are input fields available in the menu, these start at the top-left. Graphical output, if available, is displayed on the right-hand side.

Chapter 3 Operation

Using the front panel

Keypad The front panel of the 2305 Stabilock has a number of keys that can be separated into the following sections.

On-off switch See [‘Switching on the instrument’ on page 19.](#)

Softkeys



The softkeys are the six keys below the LCD screen. The meaning depends on the currently active menu and is displayed on the screen, above the softkeys.

If the description for the right-most softkey displays “1/2” or “2/2” on top, there is a second row of softkeys available. Press the ... key to switch to the alternate softkey menu.

Cursor keys



In menu mode (i.e. while not entering text or a new value in an input field), the cursor keys allow you to move up and down, left and right between input fields.

In input mode (i.e. while entering text or values), you can move the cursor between the characters or digits with the help of the cursor keys.

Entry keys



You can open the currently highlighted input field and enter new values or text just by using the entry keys. The Enter key (marked with a tick) is used to accept the current value.

In input fields for numerical values, you can use the numeric keys to enter digits, the +/- key to toggle the sign, and the . key to separate the integer part from the decimal places

of the input value.

In input fields for text, the numeric keys can also be used to enter characters as shown on the key. Just press the respective key multiple times to change to the desired character.

Push-dial



In menu mode, the push-dial can be turned clockwise or anticlockwise to move to a different input field, just like you would do with the Up and Down cursor keys.

In input mode, you can increase or decrease the current value by turning the push-dial. The currently active value is accepted by pressing the push-dial.

Function keys



The Backspace function key can be used in input mode to erase the character in front of the current cursor position.

The Escape function key is used in menu mode to leave the current menu and move one menu level up.

In input mode, the Escape key is used to leave input mode without accepting the current input. The previous input is maintained.

Navigating the user interface

See the 2305 Stabilock User Guide for operation details.

Maintaining the instrument



CAUTION

Keep the heat sink at the back clear, otherwise the instrument may overheat.

Keep the fans, and in particular the one on the back panel, free of any dust and dirt. Frequently remove any dust that may obstruct the ventilation grids.

As with any measuring device, the 2305 Stabilock should be calibrated on a schedule to ensure the required accuracy is maintained.

Cleaning Before starting any cleaning, switch off the instrument and disconnect it from the supply by removing the power cord.

Case exterior: use a soft cloth moistened with water to clean the case; do not use aerosol or liquid solvent cleaners.

LCD: take care not to scratch the LCD during use or when cleaning. Clean the LCD by wiping a slightly damp, soft, lint-free cloth gently over the surface. If this does not remove finger marks, dampen the cloth sparingly with isopropyl alcohol.



WARNING

Isopropyl alcohol is flammable.

Repair



This chapter describes how to return the equipment to Aeroflex

Equipment return instructions

Please contact your local service center for Aeroflex products via telephone or web site for return or reference authorization to accompany your equipment. For each piece of equipment returned for repair, attach a tag that includes the following information:

- Owner's name, address, and telephone number.
- Serial number, product type, and model.
- Warranty status. (If you are unsure of the warranty status of your instrument, include a copy of the invoice or delivery note.)
- Detailed description of the problem or service requested.
- Name and telephone number of the person to contact regarding questions about the repair.
- Return authorization (RA) number (US customers), or reference number (European customers).

If possible, return the equipment using the original shipping container and material. Additional Aeroflex shipping containers are available from Aeroflex on request. If the original container is not available, the unit should be carefully packed so that it will not

Appendix A Repair

Equipment return instructions

be damaged in transit. Aeroflex is not liable for any damage that may occur during shipping. The customer should clearly mark the Aeroflex-issued RA or reference number on the outside of the package and ship it prepaid and insured to Aeroflex.

Publication history

Revision	Changes
1006-300-A	First version.
Issue 1	Safety update revision at Stevenage.

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**CHINA Beijing**

Tel: [+86] (10) 6539 1166
Fax: [+86] (10) 6539 1778

CHINA Shanghai

Tel: [+86] 21 2028 3588
Fax: [+86] 21 2028 3558

CHINA Shenzhen

Tel: [+86] (755) 3301 9358
Fax: [+86] (755) 3301 9356

FRANCE

Tel: [+33] 1 60 79 96 00
Fax: [+33] 1 60 0177 69 22

GERMANY

Tel: [+49] 89 99641 0
Fax: [+49] 89 99641 160

INDIA

Tel: [+91] (0) 80 4115 4501
Fax: [+91] (0) 80 4115 4502

JAPAN

Tel: [+81] 3 3500 5591
Fax: [+81] 3 3500 5592

KOREA

Tel: [+82] (2) 3424 2719
Fax: [+82] (2) 3424 8620

SCANDINAVIA

Tel: [+45] 9614 0045
Fax: [+45] 9614 0047

SINGAPORE

Tel: [+65] 6873 0991
Fax: [+65] 6873 0992

TAIWAN

Tel: [+886] (2) 2698 8058
Fax: [+886] (2) 2698 8050

UK

Tel: [+44] (0) 1438 742200
Fax: [+44] (0) 1438 727601
Freephone: 0800 282388 (UK only)

USA

Tel: [+1] (316) 522 4981
Fax: [+1] (316) 522 1360
Toll Free: (800) 835 2352 (US only)

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web: www.aeroflex.com

Email: info-test@aeroflex.com

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