

SocaTest Manual



Safety Information:

Do not connect any part of this tester to a live circuit.

Do not use it in wet locations.

SocaTest is an industrial product, not a toy. It contains small parts that may be harmful to children if swallowed. Keep this product away from children.

Overview

This cable tester is designed to verify the continuity and integrity of 19-pin Socapex-style cables with automatic detection of ground ring configurations. The device features a display that provides real-time testing status and results.

Features

- Tests 19-pin cables for continuity and shorts
- Automatic ground ring detection (pins 13-19)
- Real-time display feedback
- Automatic cable detection and removal sensing
- Comprehensive open circuit and short circuit detection
- Battery-powered operation with single AA battery

Getting Started

Battery Installation

1. Locate the battery compartment on the back of the device
2. Insert one AA battery, ensuring correct polarity (+ and - markings)
3. Close the battery compartment securely

Power On

1. Locate the ON/OFF switch on the device
2. Slide the switch to the ON position ("I" = on, "O" = off)
3. The display will illuminate and show the startup sequence
4. The device will display "Waiting for Cable" when ready

Operating Instructions

Basic Cable Testing

1. **Connect Cable**
 - Connect the two halves of the tester to each end of a 19 pin cable.
 - Ensure the cable is fully seated and secure
 - The display will change from "Waiting for Cable" to "Cable Detected Testing..."
2. **Automatic Testing Process**
 - The tester automatically begins testing 18 pins (The 19th pin in the center is rarely used)
 - During testing, the display shows:
 - "Testing Pin X/18" (where X is the current pin being tested)
 - Progress indicator showing current pin out of total pins
 - Each complete test cycle takes approximately 1.8 seconds
3. **Reading Test Results**
 - **PASSED:** Cable has correct continuity and no faults
 - **GND RING Cable PASSED:** Cable passed with ground ring detected
 - **FAILED:** Cable has detected faults (shorts or opens)

Understanding Display Messages



Normal Operation

- **"Waiting for Cable"**: Device is ready and waiting for cable connection
- **"Cable Detected Testing..."**: Cable inserted and testing initiated
- **"Testing Pin X/18"**: Currently testing pin X of 18 total pins
- **"Cable Test PASSED"**: All connections verified correct
- **"GND RING Cable PASSED"**: Cable passed with ground ring configuration
- **"Cable Test FAILED"**: Cable has detected faults

Fault Detection

- **"Short X to Y Detected"**: Unwanted connection between pins X and Y
- **"Open X to Y Detected"**: Missing expected connection between pins X and Y
- **"Cable Removed Waiting..."**: Cable disconnected during testing

Ground Ring Detection

The tester automatically detects if pins 13-18 are all interconnected (ground ring configuration):

- When detected, the display shows "GND RING" indicator
- Ground ring connections are considered normal and will not trigger fault messages
- Both ground ring and non-ground ring cables can be tested

Troubleshooting

Display Issues

- **No Display**: Check battery installation and charge level
- **Dim Display**: Replace AA battery
- **Garbled Display**: Power cycle the device (OFF then ON)

Testing Issues

- **"Waiting for Cable" Won't Change**:
 - Ensure cable is fully inserted

- Check cable connector for damage
 - Verify cable has some continuity between pins
- **False "FAILED" Results:**
 - Clean cable connector pins
 - Ensure cable is properly seated
 - Check for bent or damaged connector pins
- **Inconsistent Results:**
 - Remove and reinsert cable
 - Clean both cable and tester connectors
 - Check for loose connections

Battery Life

- Single AA battery provides extended operation (48 hours of use at 8 hours per day)
- Replace battery when display dims or becomes unreliable
- Remove battery for long-term storage