



# ISD-2500 Series Installation, Operation and Maintenance Guide

### APPLICABLE MODEL NUMBERS

ISD-2501UW  
ISD-2501UR

ISD-2502UW  
ISD-2502UR

ISD-2501UWS  
ISD-2501URS

ISD-2502UWS  
ISD-2502URS

This device must be installed in accordance with the Network Monitor Controller's (NMC) Installation, Operation and Maintenance Manual, P/N 077.0024, and must be installed per the requirements of NFPA 72, ULC S524 and the Authority Having Jurisdiction (AHJ). This device must be installed by qualified and trained personnel.

**STOP** **IMPORTANT NOTE: This is an Audible Fire Alarm Signaling Device. It does NOT detect smoke, heat, fire or carbon monoxide.**



**UL Listed**  
UL 464 – Audible Signal Appliances  
UL 1971 – Signaling Devices for the Hearing Impaired



**ULC Listed**  
CAN/ULC S525 – Audible Signal Devices for Fire Alarm Systems, Including Accessories  
CAN/ULC S526 – Visual Signal Devices for Fire Alarm Systems, Including Accessories

### General Description

The Series 2500 ISD is an Audible Fire Alarm Signaling Device. Its intended use is to provide in-suite Fire Alarm Audible and Visual indication (with strobe model) when installed with a listed Signalink Technologies Network Monitor Controller (NMC). When configured properly, the ISD can be plugged into any standard 120VAC receptacle where it receives fire alarm signals from and sends status signals to the NMC. The ISD is uniquely addressed and is constantly supervised by the NMC for network connectivity and operational status. The ISD contains a rechargeable battery pack that will, in the event of power loss, maintain standby communications for up to 24 hours when the ISD is properly maintained. The ISD features on-board diagnostics which monitors its battery, piezo and optional strobe. The ISD also features a single LED indicator which indicates the ISD's status: Normal (Green), Fault (Amber) and Alarm (Red). The ISD has a readily accessible pushbutton that may be used to manually test the device or for Canadian models, silence the alarm. When pressed to test the ISD, the piezo will sound and if it is a horn / strobe model, it will flash the strobe. The ISD is also capable of being tested remotely by the NMC. Refer to the NMC Installation, Operation and Maintenance Manual.

### Installation

This device must be installed in accordance with NFPA 72, ULC S524 and as required by the Authority Having Jurisdiction (AHJ). This device must be installed by a qualified and trained service technician. This device must be properly configured by the Network Monitor Controller (NMC) for proper operation. Improper installation and configuration of this device will result in the failure of the device to operate properly or as intended.

**IMPORTANT:** Record the ISD's VID number or, if using Signalink's Configuration Software, scan the ISD's bar code located on the back of the ISD prior to mounting to the wall. This number is the ISD's unique address and is used during the configuration and enrollment of the ISD. The VID number is printed on the bar code label.

**IMPORTANT:** Ensure that the ISD's battery is securely connected as it may have become loose or disconnected during shipping and handling. Remove the battery cover on the back of the ISD and verify a proper and secure battery connection. Reattach the battery cover.

**STOP** **WARNING:** Do not install this device directly above, or in close proximity of, any heating apparatus such as base-board heaters, radiators or vents. **FOR INDOOR USE ONLY.**

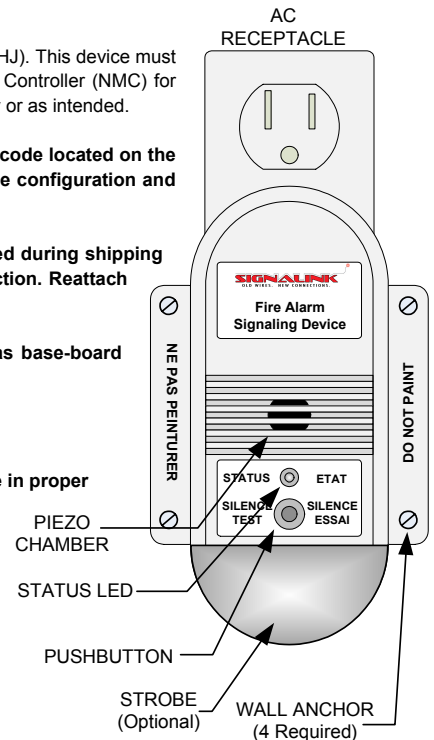
**IMPORTANT: DO NOT PAINT.**

**IMPORTANT:** The AC receptacle that this device is to be plugged into must be in properly installed and must be in proper working order.

This ISD will not function properly if the AC receptacle:

- Contacts have tarnished due to age
- Contacts have spread apart due to wear
- Contacts are contaminated with paint or other foreign matter
- Is not mounted flush with the wall plate
- Is recessed (pushed back) into the wall due to over use or faulty installation
- Is loose, cracked or broken
- Is on a light switch or can be manually or automatically switched off
- Is mounted horizontally

It is strongly recommended that the receptacle be properly replaced if it shows any signs of the above. Locate a receptacle that will allow the ISD to produce the maximum sound pressure output to the targeted area. **Do not install behind furniture or any other obstruction that will impede the performance of this device.** If required by code or AHJ, a dedicated receptacle may be required to be installed. It is generally acceptable to mount the ISD on the lower receptacle of a duplex receptacle. Plug the ISD into the receptacle and secure it to the wall with wall anchors **USING ALL 4** mounting locations. This is also strongly recommended to maintain good connectivity. When the ISD is first plugged in, the piezo will perform an automatic self-test by briefly sounding the piezo and flashing the strobe (if equipped). Once installed, press the TEST button to ensure operation of the pushbutton, piezo and strobe (if equipped). The ISD's status LED will be blinking amber until it is configured by the NMC. **The ISD must now be added and configured by the NMC.** Refer to the NMC's Installation, Operation and Maintenance manual for further details.



**STOP** **\*\*\* EXTREMELY IMPORTANT \*\*\*** This device will NOT function properly until it has been configured by the NMC. **Failing to properly configure this device may result in the device failing to go into alarm. Refer to the NMC's Installation, Operation and Maintenance manual for further details.**

# ISD-2500 Series

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### Configuring the ISD

Refer to the ISD Installation section of the NMC Installation, Operation and Maintenance manual for detailed explanation. Add the ISD's VID and location (suite) number to the NMC's ISD list. If there are several ISDs to be installed, it is recommended that all the ISDs be installed and added to the ISD list at the same time. Once the ISD list in the NMC has been updated, enroll the ISDs per the ISD Installation section of the NMC Installation, Operation and Maintenance manual. Once the ISD is enrolled, the status LED should be green. If it fails to turn green, see the ISD Operation section of document.

**▲ IMPORTANT: Adding the ISD's VID and location in the NMC does NOT mean that the ISD has been configured. The ISD must go through the enrollment process from the NMC to be properly configured.**

### Testing the ISD

It is required that all ISDs be tested immediately after installation and periodically thereafter. Testing methods must comply with NFPA 72, ULC S536 and the Authority Having Jurisdiction (AHJ). In addition to the required periodic testing procedures, ISDs have the capability to be tested individually, or all, from the NMC without putting the entire fire alarm system into alarm. The ISDs can be put into an alarm DRILL test mode or PIEZO test mode, individually or all. In the DRILL mode, the ISD(s) will go into an alarm mode, changing the Status LED to red, sounding the piezo and flashing the strobe (if equipped). In the PIEZO test mode, the ISD will test the presence of its piezo and strobe (if equipped) and reports its status back to the NMC. **This test does NOT test the sound pressure output or strobe intensity of the device.** The ISD may also be tested locally by pressing the Test pushbutton on the front of the ISD. When pressed, the ISD will sound the piezo and flash the strobe (if equipped) for as long as the pushbutton is pressed. Refer to the NMC's Installation, Maintenance and Operation manual for further details.

### ISD Operation

#### **Power-Up**

When power is applied to the ISD, the Status LED will blink amber indicating that it has not been configured. Once the ISD has been properly configured, the Status LED will turn green and will periodically blink, indicating proper communications with the NMC, for a period of one hour after it has been configured. After one hour the Status LED will be green and continuously on. A continuously green Status LED is the NORMAL state of the ISD.

#### **Alarm**

When the ISD is in alarm, the Status LED will turn red, the piezo will sound and the strobe will flash (if equipped). The ISD will continue into alarm until it is reset by the NMC. If the ISD is configured as a Canadian device, the pushbutton on the front may be used to locally silence the ISD. The built-in timer is set to 10 minutes and is not configurable. The strobe, if equipped, will continue to flash regardless if the ISD has been silenced. If, after 10 minutes, the ISD has not been reset by the NMC, the ISD will return the piezo to the alarm state until the pushbutton is pressed or the ISD has been reset.

#### **Faults**

The ISD has on-board diagnostics which continuously checks its battery status, communications, AC power and piezo and strobe presence. If there is a fault or failure of any of these conditions, the Status LED will turn to amber. Additionally the NMC will indicate a trouble condition and what the nature of the fault is.

#### **Unplugged State – Turning the ISD off.**

In the event that the ISD loses AC power AND loses communications with the NMC for longer than 4 minutes, the ISD will go into the Unplugged state. When in the Unplugged state, the ISD's Status LED will blink red. After approximately 10 minutes of being in the Unplugged state, the ISD will begin to chirp. The ISD may be completely turned off by pressing the front pushbutton.

#### **Communication Diagnostic Mode**

It is often desired, for troubleshooting purposes, to have a visual indication if the ISD is properly communicating with the NMC. When in this mode, the Status LED will blink each time it communicates with the NMC. To enter this mode, press the TEST pushbutton on the front of the ISD. It will stay in this mode for 1 hour however it will continue to operate normally during this period.

#### **Status LED Operation (Summary)**

Green Steady – Normal Operation, Normal State

Green Blinking Periodically – Communications Diagnostic Mode

Amber Blinking – **Device NOT Configured**

Amber Steady – Fault – AC Loss, Communications Loss, Battery Fault, Piezo Fault, Strobe Fault

Red Steady - Alarm

Red Blinking – Unplugged State

#### **Pushbutton Operation (Summary)**

Push-to-Test – Sounds the piezo, flashes strobe (if equipped) and enters Communications Diagnostic Mode.

Push-to-Silence – Canadian units only – Only if in alarm - silences the device piezo for 10 minutes, strobe (if equipped) continue to flash.

Push-to-Off – Shuts off the unit entirely – Only if in Unplugged State

### Maintenance

This device offers the best performance and life when properly maintained. This device should be tested and maintained in accordance with NFPA 72, ULC S536 and per the Authority Having Jurisdiction (AHJ). The batteries should be checked and tested per NFPA 72 or ULC S536 on an annual basis minimum. Inspect each unit for damage. Ensure the device is securely mounted with the four wall anchors intact. Ensure the piezo chamber is unobstructed and the strobe lens (if equipped) is clear. Remove any dust or contaminants from the unit.

### Battery Replacement

Replace the battery if the batteries fail the periodic maintenance test, if the ISD is indicating a battery fault or every 5 years minimum. To replace the battery, remove the unit from the wall and open the battery cover. Unplug the battery and dispose of properly. Replace the battery with a Signalink Technologies battery, P/N 440.0003 ONLY. Ensure the connection is secure and replace the battery cover. Reattach the ISD to the wall.

NOTE: Depending on the state of the replacement battery, a Battery Fault may be indicated until the battery has received an adequate charge.

### Specifications

Power (Normal Operating Range)	102-132VAC, 60Hz, 0.5A (Standby 0.25A)	Sound Pressure Output @ 0 degrees (on axis)	87dBA (Decibels A Weight)
Battery Transfer Voltage	Less than 102 VAC	Sound Pressure Output @ 70 degrees (off axis)	84dBA (Decibels A Weight)
Battery Voltage / Capacity	11.1VDC, 2200mAh	Sound Pressure Output @ 80 degrees (off axis)	81dBA (Decibels A Weight)
Battery Type	Lithium Ion w/ Protection Circuit	Light Intensity (Strobe)	30CD ULC, 20CD UL

### FCC Statement

This device complies with part 15 of the FCC rules. Operation is subject to the following conditions: (1) This device may not cause harmful interference and (2) this device must accept any interference received, including interference that may cause undesired operation.