HFI-SIM-01

ALTAIR WALL SOUNDER MODULE

928ah/01 *
928z/01 **
HFI-SIM-01 + HFC-WSR-03 *
HFI-SIM-01 + HFC-SBR-23-03 **

OVERVIEW

This add-in interface module permits the use of the **HFC-WSR-03** and **HFC-SBR-23-03** conventional sounders on an Altair intelligent loop.

COMPATIBILITY

This module is compatible only with:

- Intelligent control panels and systems based on the Argus Security Altair protocol.
- the conventional **HFC-WSR-03** sounder and **HFC-SBR-23-03** sounder/VAD.

For more specific information regarding compatibility refer to your fire security system supplier and the technical documentation concerning the control panel in use.

INSTALLATION - IMPORTANT NOTES

This module must be wired according to the wiring details described in this manual.

Disconnect the intelligent loop from the control panel before wiring.

Test the **HFI-SIM-01** and **HFC-WSR-03 / HFC-SBR-23-03** assembly after installation.

ASSOCIATED DEVICE'S INSTALLATION INSTRUCTIONS

This manual provides installation instructions limited only to the **HFI-SIM-01**.
For specific installation instructions about the **HFC-WSR-03** and **HFC-SBR-23-03** refer to their separate manuals:

HFC-WSR-03 installation instructions code: **L20-CWSXX-1400**

HFC-SBR-23-03 installation instructions code: **L20-CWSVX-1400**

BEFORE ADDING IN THE MODULE

As described in the **HFC-WSR-03** / **HFC-SBR-23-03** manuals remember to:

1) Detach the front sounder body from the sounder back box.
2) Prepare the cable entry (or entries) on the sounder back box.
3) Fix the sounder back box to the wall.

Furthermore:

4) Assign a loop address to this module (as described below).

ADDRESS ASSIGNMENT

An address must be assigned to the device:

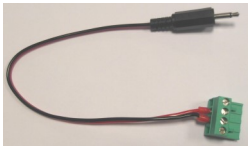
- The address must be unique: no other device on the intelligent loop must have the same address.
- It is possible to select an address between 1 and 240.

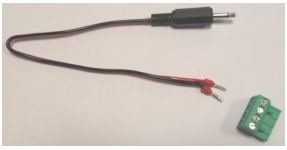
In order to address the module, use one of the following methods:

- Use the **HFI-DPT-05** manual programmer: this must be connected to the intelligent interface module using a suitable connector; for further information consult the manual programmer's instructions and refer to the following "CONNECTION TO THE HFI-DPT-05 MANUAL PROGRAMMER" section.
- Perform the automatic addressing routine from the control panel once all loop devices have been wired.
  This method can be used only if the control panel has been designed with this functionality; in any case, refer to your control panel manual and, above all, your system supplier, since **performing this process is not possible on all types of installations**.

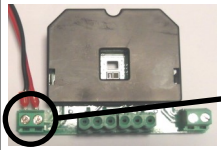
For identification purposes, it is possible to record the loop number and device address on the module label.

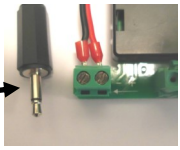
CONNECTION TO THE HFI-DPT-05 MANUAL PROGRAMMER





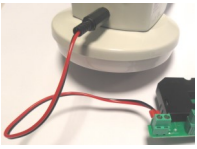
Unscrew and detach the terminal block from the jack connection cable (supplied with the **HFI-DPT-05**).





Insert and **SECURE using screw terminals**:

- The **BLACK** wire into the **Loop in (-)** terminal block.
- The **RED** wire into the **Loop in (+)** terminal block.



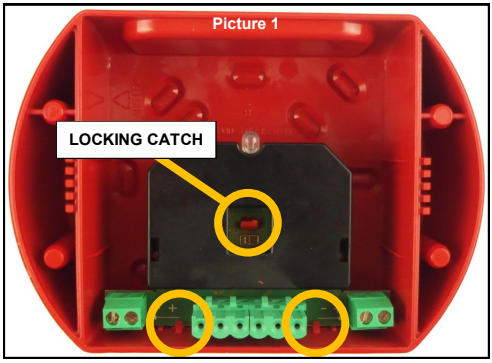
Insert the cable jack into the jack port of the **HFI-DPT-05**.

Cable connections to the module terminal blocks must be firm and secure: disconnection during address programming can damage the device beyond repair.

INSTALLATION PROCEDURE FOR THE MODULE

1) Insert the terminal edge of the module between the securing points on the wall of the back box..

2) Gently push down the module body so that the locking catch engages fully to hold the PCB in place. Check that it feels secure.



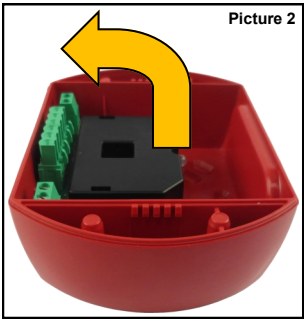
When assembling or removing the front operating section of the sounder to/from the back box, be careful to ensure the interconnection block is not twisted which may cause damage. Perform these operations without using excessive force.

REMOVAL PROCEDURE FOR THE MODULE

If required for any reason, the module can be removed from the back box as follows:

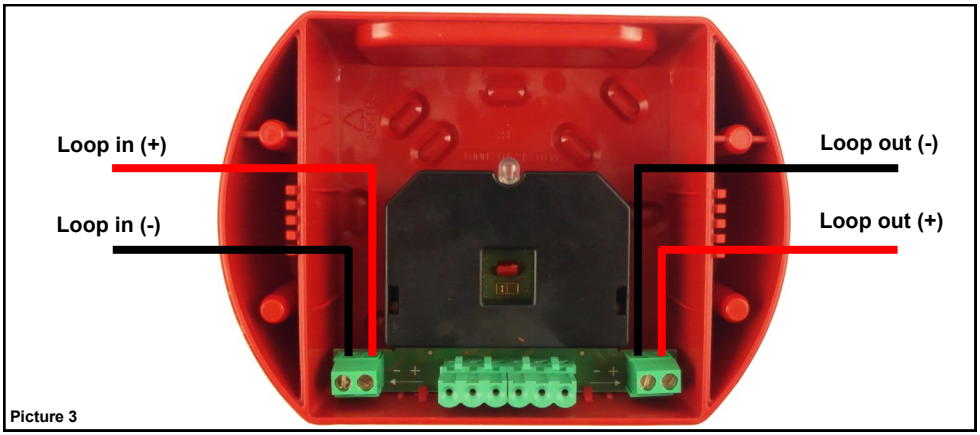
1) Gently release the locking catch allowing the module to lift and rotate to release from the side wall.

2) Remove the module.



WIRING

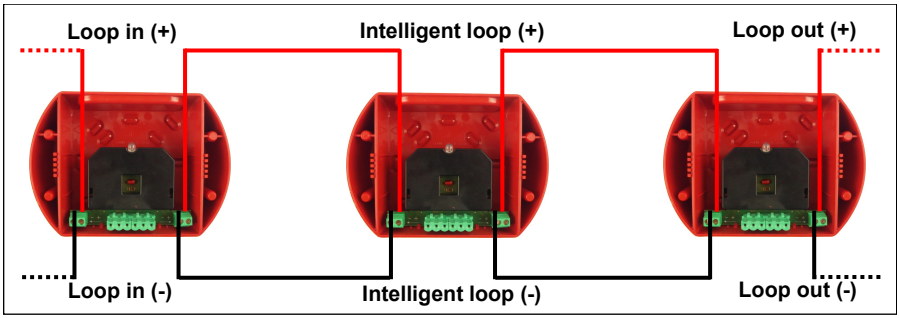
Connect the loop wiring to the module as illustrated in picture 3 and explained in table 1; a loop wiring example is illustrated in picture 4.



Picture 3

Terminal block number	Terminal block denomination	Description
1	**Loop in (-)**	Connection for the intelligent loop's input negative (-) cable.
2	**Loop in (+)**	Connection for the intelligent loop's input positive (+) cable.
3	**Loop out (-)**	Connection for the intelligent loop's output negative (-) cable.
4	**Loop out (+)**	Connection for the intelligent loop's output positive (+) cable.

Table 1



Picture 4

LOOP SHORT CIRCUIT PROTECTION

The **HFI-SIM-01** and **HFC-WSR-03 / HFC-SBR-23-03** assembly is protected from wiring short circuits. If one of the local loop circuits suffers from a short circuit the isolator will open and protect until the short circuit condition is resolved.

BEFORE FITTING THE SOUNDER BODY

As described in the **HFC-WSR-03** / **HFC-SBR-23-03** manuals remember to:

1) Set the output tone.

2) Set the output volume.

TESTING

1) Activate the alarm or evacuation condition at the control panel.

2a) Check the acoustic output is operating.

2b) Check the visual alarm output is operating (**HFI-SIM-01 + HFC-SBR-23-03** assembly only).

3) Press the SILENCE SOUNDERS button (or equivalent) and ensure all Audio Visual type devices have been silenced before continuing.

4) Reset the system from the control panel.

All devices must be tested after installation and periodically as required by local standards and codes of practice.

TECHNICAL SPECIFICATIONS (HFI-SIM-01 + HFC-WSR-03) *	
Power supply voltage range	15 - 40 Vdc (24 Vdc standard value)
Activated current load range, volume set to HIGH. Dependent upon tone selected	5 - 8 mA at 24 Vdc
Acoustic emission frequency range. Dependent upon tone selected	440 - 2900 Hz
Maximum acoustic intensity, volume set to HIGH. Valid for all tones	100 dB(A) ± 3
Tolerated temperature range	-10 °C / +55 °C
Maximum tolerated humidity	85% RH (without condensation)
Height	185 mm
Diameter	130 mm
Weight	290 g

TECHNICAL SPECIFICATIONS (HFI-SIM-01 + HFC-SBR-23-03) *	
Power supply voltage range	15 - 40 Vdc (24 Vdc standard value)
Activated current load range, volume set to HIGH. Dependent upon tone selected	11 - 25 mA at 24 Vdc
Acoustic emission frequency range. Dependent upon tone selected	440 - 2900 Hz
Maximum acoustic intensity, volume set to HIGH. Valid for all tones	100 dB(A) ± 3
Visual Alarm Device (VAD) frequency	0.5 Hz
VAD flash coverage	W - 2.5 - 7 (122.5 m^3)
Tolerated temperature range	-10 °C / +55 °C
Maximum tolerated humidity	85% RH (without condensation)
Height (base included)	192 mm
Diameter	130 mm
Weight (base included)	320 g

*** Consult the latest version of the TDS-ALWSX document for further information, obtainable from your supplier.**

SHORT CIRCUIT ISOLATORS SPECIFICATIONS *	
Rated continuous current with the switch closed (I_C **max**)	1 A
Current at which the device reconnects (I_{SC})	2 - 3 mA at 15 V 3.5 - 5.5 mA at 24 V 6 - 10 mA at 40 V
Leakage current with the switch open (I_L)	3.5 - 4.5 mA at 15 V 6 - 8 mA at 24 V 11.5 - 13.5 mA at 40 V
Series impedance with the switch closed (Z_C)	0.150 Ω (typical) 0.500 Ω (maximum)
Voltage at which the device isolates (V_{SO})	10 - 12.6 V
Isolator closed status time at power-on	40 - 70 ms
Delay before opening isolator in short circuit conditions	50 - 95 ms
Delay before closing isolator when short circuit has been removed	5 - 15 ms

WARNINGS AND LIMITATIONS

Our devices use high quality electronic components and plastic materials that are highly resistant to environmental deterioration. However, after 10 years of continuous operation, it is advisable to replace the devices in order to minimize the risk of reduced performance caused by external factors. Ensure that this device is only used with compatible control panels. Detection systems must be checked, serviced and maintained on a regular basis to confirm correct operation.
Smoke detectors may respond differently to various kinds of smoke particles, thus application advice should be sought for special risks. Detectors cannot respond correctly if barriers exist between them and the fire location and may be affected by special environmental conditions.
Refer to and follow national codes of practice and other internationally recognized fire engineering standards.
Appropriate risk assessment should be carried out initially to determine correct design criteria and updated periodically.

WARRANTY

All devices are supplied with the benefit of a limited 3 years warranty relating to faulty materials or manufacturing defects, effective from the production date indicated on each product.
This warranty is invalidated by mechanical or electrical damage caused in the field by incorrect handling or usage.
Product must be returned via your authorized supplier for repair or replacement together with full information on any problem identified.
Full details on our warranty and product's returns policy can be obtained upon request.

CE 2831 18 HF-20-011CPR HF-20-012CPR

UKCA 0832 21 HF-20-011UK HF-20-012UK

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HFI-SIM-01
EN 54-17:2005 & EN 54-18:2005
+ with HFC-WSR-03
EN54-3:2001+A1:2002+A2:2006
+ with HFC-SBR-23-03
EN54-3:2001+A1:2002+A2:2006
EN54-23:2010

For use in compatible fire detection and alarm system.