PHABRIX Sx range

Fan Replacement Manual PHSXPN-1052

Loudspeaker Replacement Manual HW-SxE Speaker (32mm Speaker + Fan style)
Loudspeaker Replacement Manual HW-SxA Speaker (36mm Speaker only style)

Release information

Manual Release:

Fan & Loudspeaker Replacement   19 May 2015

Disclaimer

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RMAs

Units that are to be returned to PHABRIX for repair must have a Return Merchandise Authorization (RMA) number.

It is **IMPORTANT** that a RMA letter and number is issued by PHABRIX **BEFORE** the unit is returned.

To request a RMA number email;

 info@phabrix.com

ESD Protection

Please use anti static wrist straps and a properly grounded work area when servicing this product.

Avoiding Personal Injury

This instrument is serviceable by qualified personnel only.

No user serviceable parts are provided.

Units should be returned to your local PHABRIX agent for servicing.

The Operator should NOT remove the case from the unit.

Do not spill any liquid onto the unit or its power adaptor.

Power supply

Make sure that the unit is connected to the correct power supply voltage. A power supply adaptor is supplied with the unit which may be connected to any AC power supply between 100 and 240VAC at 50-60Hz. Only the supplied power adaptor should be used with the unit. Do not use a damaged AC cable with the unit as it may cause a shock or fire hazard. Replacement AC cables are available from your local PHABRIX agent.

If the battery is at too low a voltage for correct operation, the unit will not fully power up but will wait until the AC adaptor is connected. The LCD screen will display a warning message if this is true.

Operating Temperature

The unit should only be operated between 0 and 40 °Centigrade. If the unit is operated at a higher temperature there is a possibility of a fire hazard. If the temperature is changed rapidly from a cold environment to a hot environment, moisture can be created internally which can cause malfunction or damage the unit. Allow the unit to sit for 30 minutes without power applied to reduce any possibility of condensation.

Input/Output terminals

Do not connect the input or output BNC connectors to external power as this can damage the internal circuitry and cause the unit to work incorrectly.

When not in use

Disconnect the unit from the power supply and AC power source when not in use.

Maintenance

Wipe the case and buttons gently with a soft cloth lightly dampened with a neutral cleaning agent. A screen cleaning cloth may be used to clean the LCD. Do not apply force to the LCD when cleaning or it may become damaged.

Remove the power supply from the unit and turn OFF before cleaning. Do not allow any water or other liquid to enter the unit while cleaning.

Servicing

This section describes how to replace various sub assemblies within the Sx range of hand held units.

The end caps, BNC and LAN end plates are the only external replaceable parts. All other items will require the case to be separated.

Before beginning work on the SX unit please observe the correct anti-static handling procedures.

Ensure the unit is switched off and the DC power lead is disconnected.

Only the disassembly procedure is described in this manual. To assemble the unit, reverse the process.

Tools

The Sx unit is a relatively simple assembly and requires few tools.

|	
#2 pozidrive screwdriver	Endplates / PCB fixing screws
Small flat bladed screwdriver	Loudspeaker
14mm box spanner	BNC retaining nuts
M3 box spanner	SxD/E fan and speaker bracket.
M2.5 box spanner	SxD/E fan
Fine tip pliers	Keyboard locating pegs

 When replacing parts in the Sx range always replace the nuts and screws for new ones.

End cap removal

To expose the endplates and case fixing screws remove the rubber end caps. Gently peel them off each end remembering to prise them over the retaining lugs on each end plate.

Retaining lug
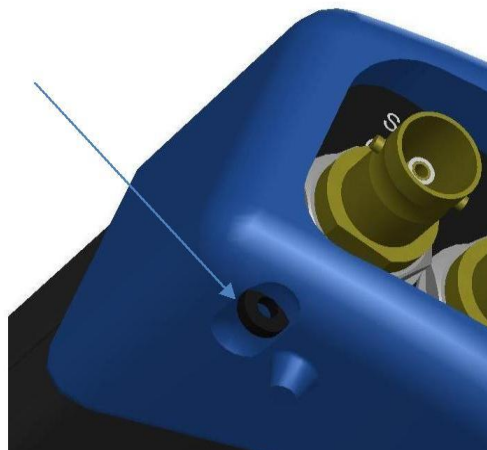
Case separation

The printed circuit board that contains the BNCs is attached to the base metalwork so to separate the case remove the top 2 countersink screws on the BNC end plate and all screws holding on the LAN plate.

Each case half contains a printed circuit board connected via 2 multi-way connectors located under the row of switches. When separating the case, gently pull the 2 halves apart without twisting as this may cause damage. There is also a speaker cable linking the case halves in the SxA and fan and speaker cables in the SxD and SxE.

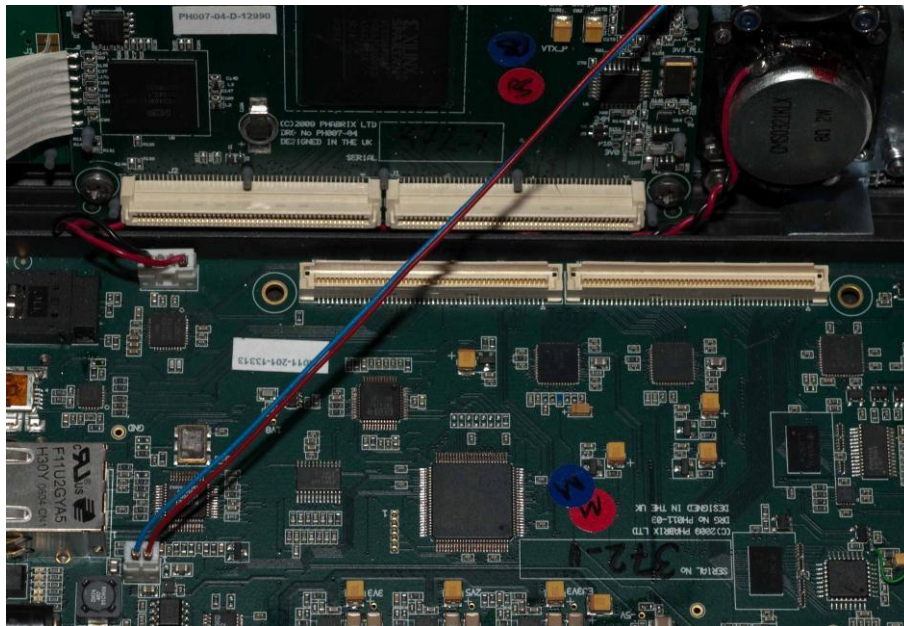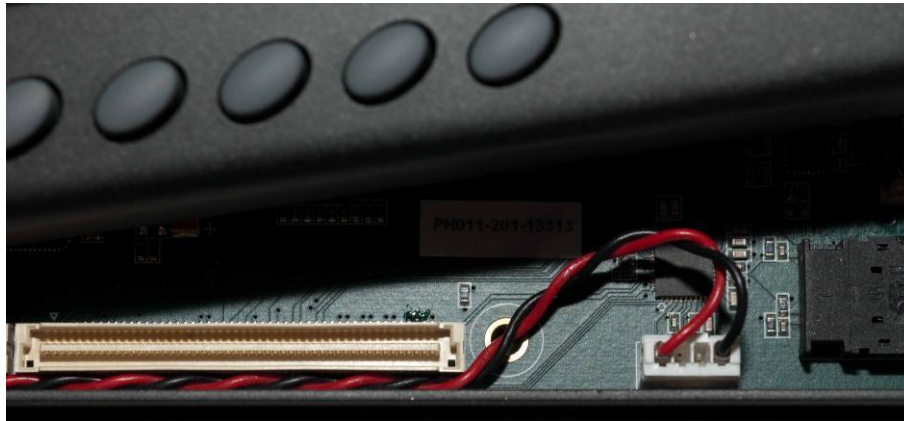Once apart disconnect the cables.
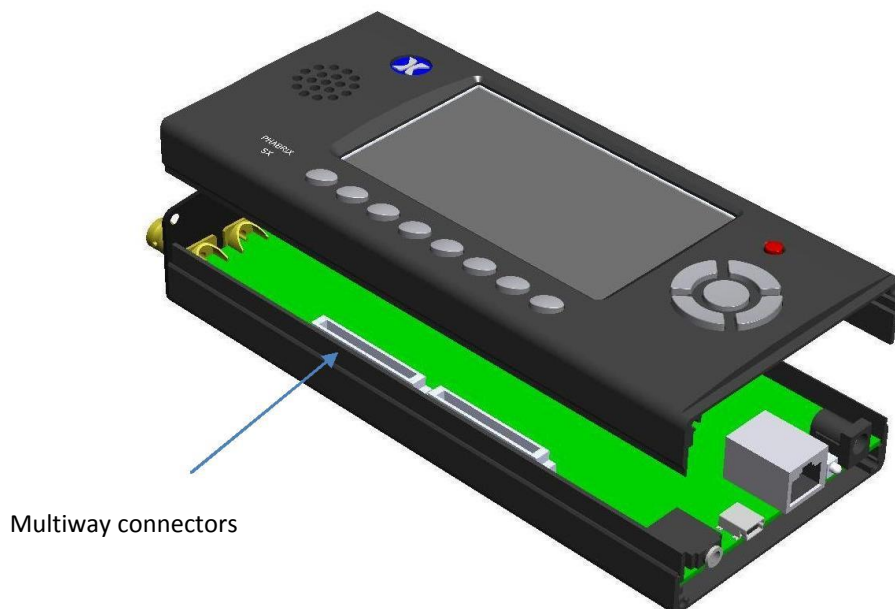
Multiway connectors

The speaker cable on the SxE is routed behind the multi way connectors. It is important that it is placed in this position when re-assembling.
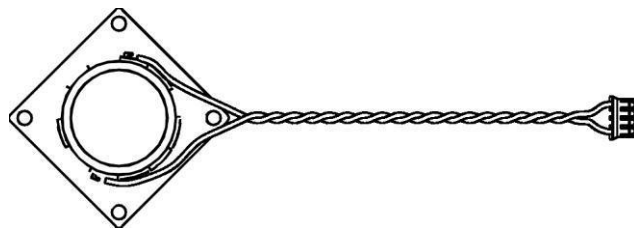
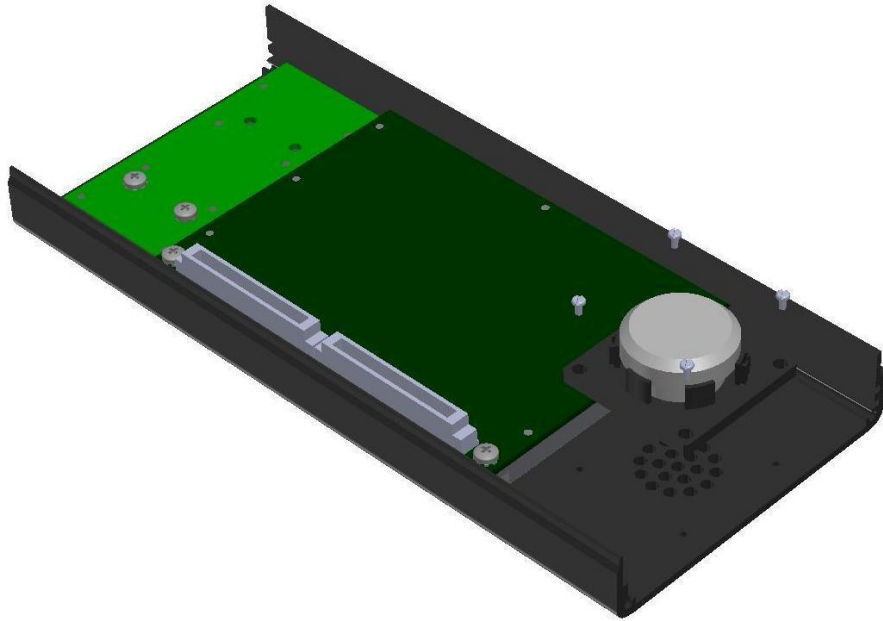Routing the speaker on the SxA and SxD is not important.

Cable routing

SxD and SxE internal connections.

SxA loudspeaker replacement

The loudspeaker is located in the upper case assembly next to the main board and

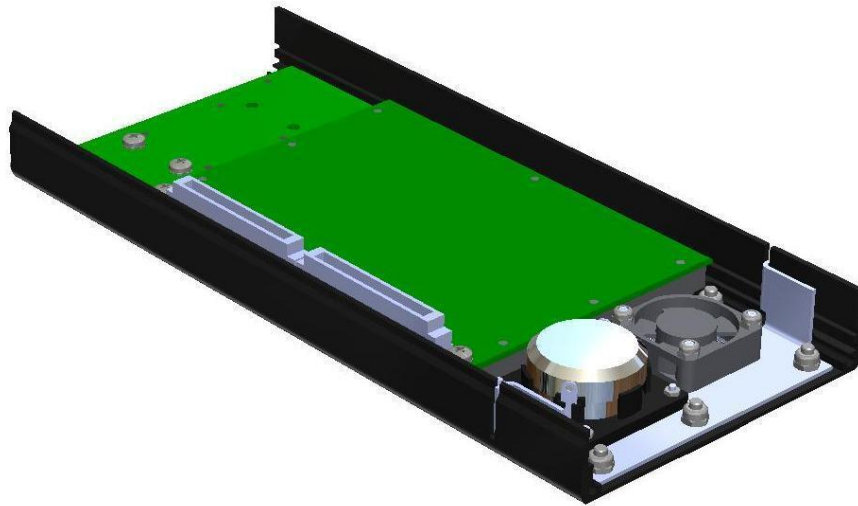LCD. To replace the loudspeaker undo the 4 off M1.6 x 6mm screws.

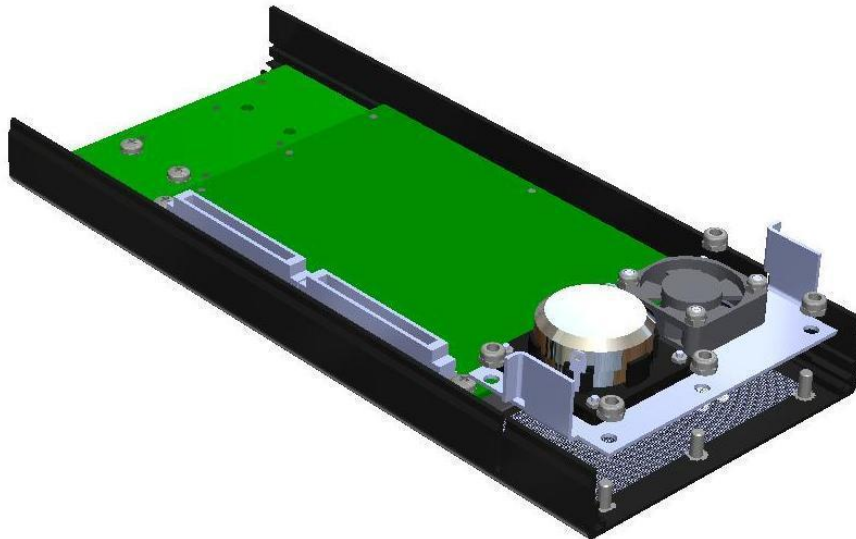36mm Speaker   Part #   HW-SxA Speaker

Replace the loudspeaker assembly.

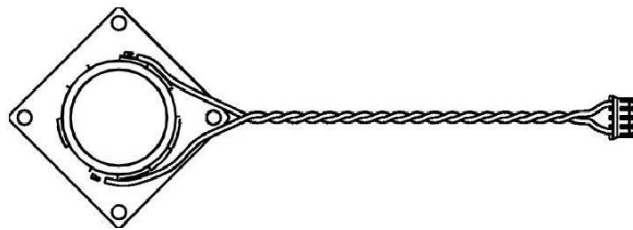## SxD/E fan and loudspeaker replacement

The fan and loudspeaker are located on a bracket in the upper case assembly next to the main board and LCD. To replace the fan undo the 3 x M2.5 locknuts using a box spanner.

To replace the speaker remove the bracket assembly by undoing the 4 x M3 lock nuts and M3 pillar.

With the bracket removed from the upper case assembly the speaker can be replaced by undoing the 4 off M1.6 screws.
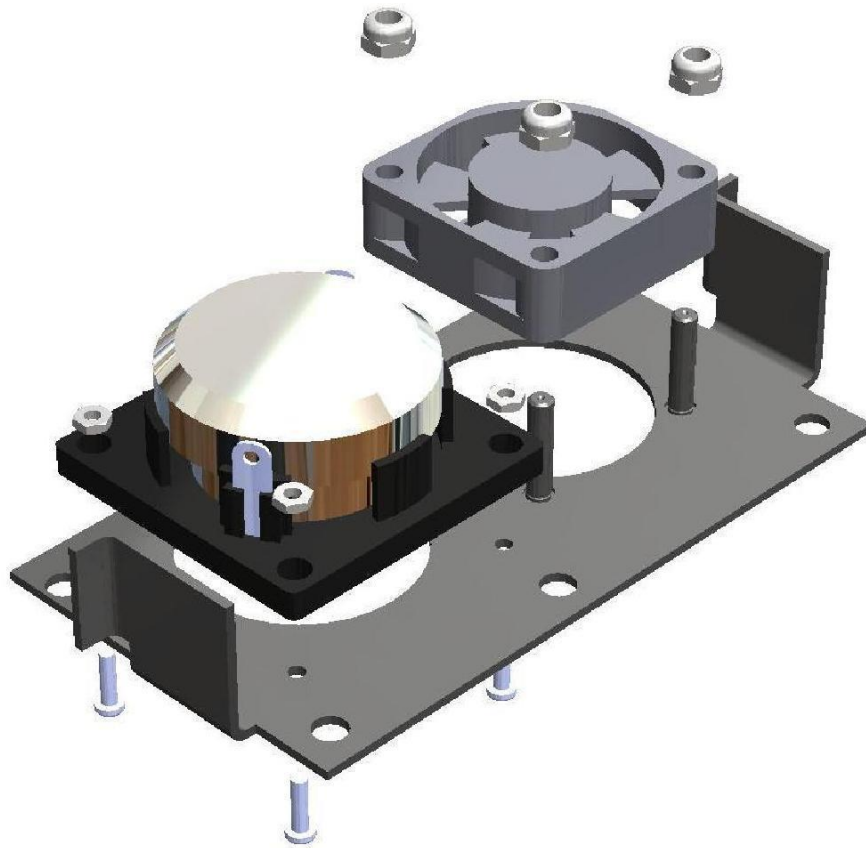
32mm Speaker   Part #   HW-SxE Speaker
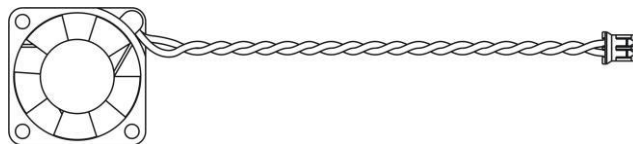
25mm fan   Part #   PHSXPN:1052

See page 8 for cable routing when re-assembling unit.

SxD/E fan and loudspeaker mesh

When replacing the fan on the SxD and SxE it is recommended to change or clean the fan mesh as well.

With the fan and speaker assembly removed, see page 10, lift the mesh out. It is located between the M3 studs.
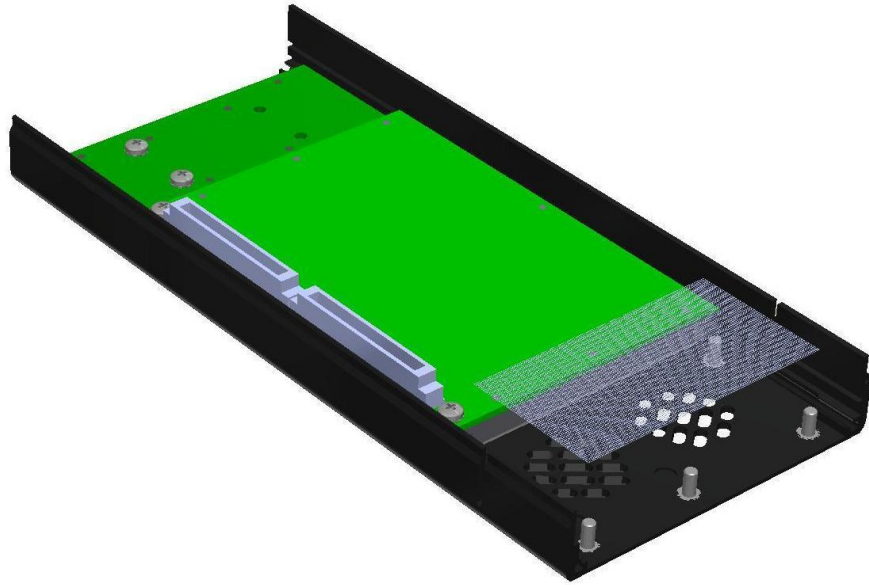
Return to Base servicing

Units which require servicing or repairs other then listed in this manual should be returned to PHABRIX Ltd.

It is **IMPORTANT** that a RMA letter and number is issued by PHABRIX **BEFORE** the unit is returned to us.

To request a RMA number email;

info@phabrix.com

Operating conditions

External Power Supply

DC-5V 5V

Maximum Input signals

SDI input(s)   +/- 2V

REF input: +/- 2V

LCD Monitor

The LCD may have some pixels that are always turned ON or always turned OFF. This is normal and should not affect normal operation.

LCD Flicker

The unit supports many video standards. The input SDI signal is displayed asynchronously and may flicker on the waveform display or picture display. The unit stores the input SDI signal internally, and then reads the internal frame using the LCD sync signal, which is asynchronous to the input SDI signal. LCD flickering may occur if a frame is skipped or repeated.

Remote Network Operation

Remote network operation is only guaranteed when connected to a local machine.

Disposing of the unit

This product is subject to the European WEEE (Waste Electrical and Electronic Equipment) directive and should be disposed of according to the regulations of each country.

This unit contains a Lithium Polymer battery which should be disposed of correctly.

Specifications

LCD Display

Display Type	4.3 inch TFT colour
Display Format:	480 x 272 24 bits
Backlight	Variable brightness
Screen Saver	Reduces brightness after user adjustable time under battery operation.

SDI Inputs

Supported standards	525/59.94, 625/50, 720p/23.98,24/25/29.97/30/50/59.94/60 1035i/59.94/60 1080psF/23.98,24/25/29.97/30 1080i/50/59.94/60 1080p/23.98,24/25/29.97/30/50/59.94/60
Connector	BNC
Input Impedance	75 ohm terminated
Input Return Loss	>= 15dB (5MHz to serial clock frequency)
Maximum Input Voltage	+/- 2V

AES Inputs

Connector	BNC
Input Impedance	75 ohm terminated
Maximum Input Voltage	+/- 2V
Sample Rates	The input has a sample rate converter and so will accept any sample rate from 32kHz to 192kHz.

AES Outputs

Connector	BNC
Input Impedance	75 ohm terminated
Sample Rate	48kHz

External Reference

Input Signal	Tri-level or Bi-Level (black burst) syncs 50/59.94/60Hz
Connector	BNC
Input Impedance	75 ohm terminated
Maximum Input voltage	+/- 2V

External Control

Ethernet	IEEE802.3 100Mb/s
Ethernet Connector	RJ-45
USB	USB 1.1 OTG (On the go - simulates flash disk)
USB Connector	Mini-AB

Headphone Output

Connector	Miniature 3.5mm Stereo Jack

General

Environment	
Operating Temperature	0-40 °C
Operating Humidity	<85% RH (no condensation)
Power Requirements	AC 90-250V 50/60Hz 10W max
Dimensions	230 (L) x 93(H) x 45(D) mm
Weight	2kg
Accessories	Instruction Manual on CD AC Adaptor Power Cord Carry Case