Soundweb™

Soundweb™ 9014

Installation Guide

BSS Audio

Regulatory Information

An example of this equipment has been tested and found to comply with the following European and international Standards for Electromagnetic Compatibility (only when used with a metal wallbox).

Radiated Emissions (EU):   EN55022   (1995) Associated Equip.
Immunity (EU):   EN50082/1   (1997) RF Immunity, Fast Transients ESD
Radiated Emissions (USA):   FCC part 15 Class A

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Important safety information - read and follow

It should not be necessary to remove any protective earth or signal cable shield connections to prevent ground loops. Any such disconnections are outside the recommended practice of BSS Audio, and will render the EMC certificate void.

We have written this guide with the aim of helping installers and sound engineers alike to get the most out of the 9014. We recommend that you read this manual, particularly the section on mechanical installation, before attempting to operate the unit.

We welcome any comments or questions regarding the 9014 or other BSS products, and you may contact us at the address or World Wide Web site given below.
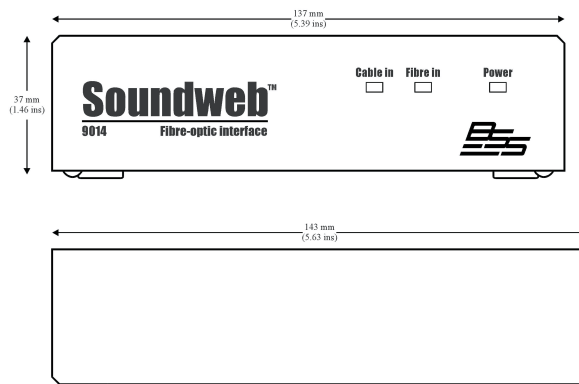
BSS Audio:

Cranbourne House,
Cranbourne Industrial Estate,
Potters Bar,
Hertfordshire,
EN6 3JN.

www.bss.co.uk

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Mechanical Installation

Dimensions of the unit are shown below.

Three 9014 devices can be mounted side-by-side with a 1U panel, available from BSS Audio as part number Z-999-FPNL.

BSS Audio also offer a universal AC input +24V DC power supply, available as part number Z-999-PSU.

The panel can be used to rack mount one or two 9014 devices if required, and can be fitted with the Z-999-PSU power supply, with the use of a PSU tray; part number Z-999-TRAY.

Use

The 9014 requires 12-24v DC to be supplied externally. There are two ways of getting power into the unit:

• Connect a 24v 1A DC power supply to the 2.4mm barrel connector. Up to nine more 9014s may be powered from the paralleled combicon connector.

• Connect a 12-24v DC power supply to the combicon connector.

A pair of 9014 Fibre Interface units are used to replace a standard category 5 Soundweb network cable. Each fibre cable will transfer 8 channels of digital audio plus control data.

To utilise the fibre system, each end of the fibre link requires one 9014 device. Each device is equipped with an RJ-45 Soundweb network cable jack into which the network cable is connected, and two snap-in SC type fibre connectors.

Two fibre cables are then required to connect between 9014 devices - this is to enable the bi-directional data transfer.

Network socket

This connects to either the Network Out socket or the Network In socket on another unit.

The connecting cable is CAT. 5 network cable, terminated with RJ45 connectors, with all 8 cores wired straight through.

Note that the twisted pairs in any CAT.5 network cable must be wired to the following pin pairs at each terminal:

1 (White-Orange) with 2 (Orange); 3 (White-Green) with 6 (Green);
4 (Blue) with 5 (White-Blue); 7 (White-Brown) with 8 (Brown)

Note:

Ensure that all Out sockets are connected to their correct In sockets at each end of every cable. Connecting In - In (or Out - Out) will result in improper operation of the network.

Front panel LED functions

The unit has three LED indicators showing:

Power

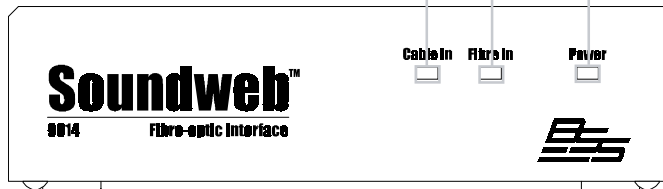Steady - This indicates the power supply is functioning.

Fibre-in

Steady – Data is arriving on the fibre input.

Intermittent – You have exceeded the optical power budget by either exceeding the maximum fibre length or by having too much attenuation in fibre splices. See the specification section.

Cable-in

Steady – Data is arriving on the cable.

Rear panel connections

The unit has the following connections on the rear face:

Power

Phoenix socket: Power supply to or from a 9011 power interface.

Barrel socket: Power supply from a Z-999-PSU power supply.

Network

Signal at the network socket is in electrical form.

The **network socket** is bi-directional, so information can pass in and out of the 9014 unit through this connection simultaneously. It is also auto-sensing, meaning that it can be connected to either an OUT or an IN socket on one of the other Soundweb series units.

Fibre-in/out

Signal at the fibre in/out sockets has been converted to an optical format.

Information arriving from a Soundweb unit at the **network socket** is passed through the 9014 for conversion, and out of the **fibre out** socket.

Information arriving at the **fibre in** socket is passed through the 9014 for conversion and out of the **network socket**.
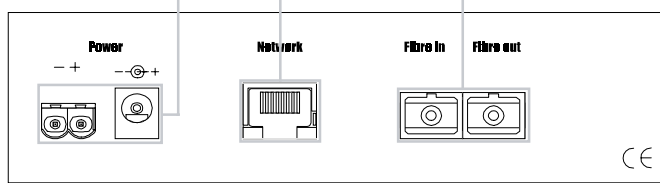
Technical specifications

Power

DC Supply	**12-24V DC**, **<5VA**
Connector	**Phoenix screw terminal** or **2.4mm inline barrel** connector

Network

Single RJ-45 Auto-sensed input node or output node - no setup required.

Max cable length	**20m**

Fibre Connection

Snap-in SC fibre input
Snap-in SC fibre output

Fibre cable

Multimode 62.5/125um or Multimode 50/125um

Optical Power Budget

10dB

Max fibre length	**2000 metres/6550 feet/1.2 miles**

N.B this distance is based on the optical power budget and maximum allowable network delay of one sample in any one ring.

Dimensions	**5.3" x 5.5" x 1.4"**
	135 x 139 x 36mm