

Station Master

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Station Master is part of the Sonifex range of professional audio products designed for building radio stations on a budget. It combines into a single package all the equipment required for audio distribution, studio switching, talkback and monitoring for up to 4 studios.



Station Master Front View.

Studio Switching

Station Master accepts stereo audio feeds from up to 4 studios, switching them individually to transmission using Offer and Accept operation. The output of the current on-air studio is distributed to the other studios via a dedicated bus, avoiding the need for multiple studio distribution links.

The output of the Station Master is provided as a stereo pair and as a mono-feed of the stereo source. The studio switching is achieved using latching relays which retain their switch status if a power-failure occurs.

Delay Control

A profanity delay can be controlled by the Station Master allowing you to install just one delay unit that can be shared by your studios and used by the studio currently on-air.

Monitoring

The Station Master is fitted with a pair of true PPM meters, or VU meters, for monitoring up to 8 stereo sources. These sources consist of the connected studios

and four external sources such as news feeds or off air receivers.

The audio can be monitored via headphones, or output to a power amplifier, or via the internal power amplifier, capable of driving 10W into 8Ω speakers. There are also two 1/4" jack insert points on the front panel for using the Station Master to monitor from a jack-field.

Audio Distribution

Station Master distributes up to 4 incoming stereo signals to each of the connected studios without the need for external distribution amplifiers. These signals, such as off-air receivers, news feeds and outside broadcasts, can be professional balanced inputs or at domestic unbalanced line levels. The gain of the incoming stereo signals can be adjusted from the front panel. Distribution gain is controlled by a preset potentiometer.

Talkback

The Station Master's talkback system acts as the master station for talkback with 4 satellite systems. These can either be the connected studios or other locations such



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Station Master Rear View.

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as a record library or engineering workshop. Individual satellites can talk to each other or broadcast to all stations.

Logging

To allow for logging of broadcasts the Station Master has a stereo balanced output for professional logging equipment, together with 3 sets of phono unbalanced outputs for connection to domestic VCR/ DVD equipment.

Power Failure

In the event of a power failure to the Station Master, it will continue to route the current on-air studio to the stereo transmission output. Also, when power is re-applied, all switching, including the Offer and Accept switching, will re-initialise to the configuration when power was lost. This means that your on-air studio can continue transmitting, even if power to the Station Master has failed.

Saves you money

Combining several features into one unit gives significant cost savings over purchasing the discrete parts that Station Master replaces, without any compromise on quality.

Easy to install

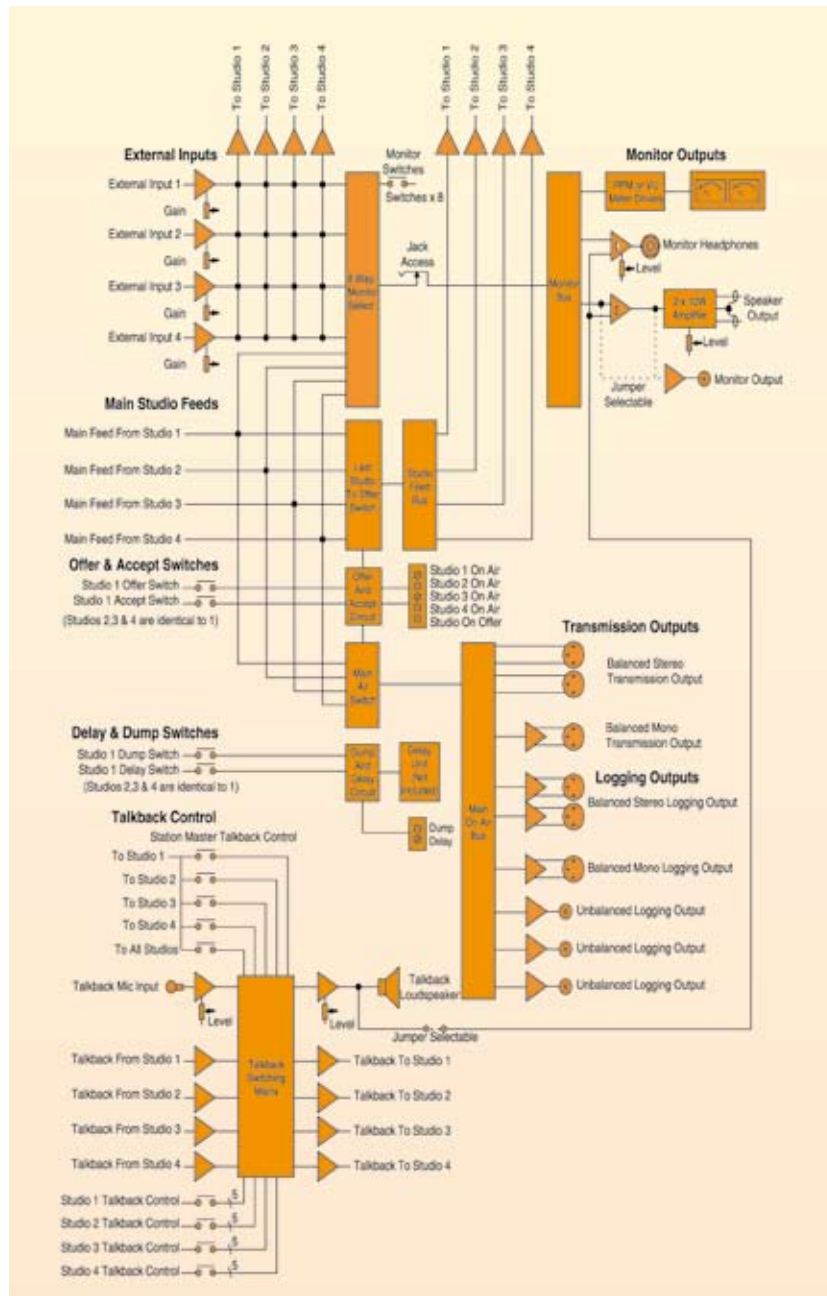
A single unit simplifies installation allowing cables to be neatly routed with a minimum of connection distances between audio circuits.

Requires less space

Station Master is a 3U high 19" single rackmount unit which replaces up to 11U of rack space that discrete components can occupy.

Offers high reliability

If power to the Station Master fails, it keeps the output routing as set and remembers this state, providing continuity on restoration of power.



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When a studio is on-air, it has accepted the request to transmit and the Accept lamp is illuminated. When a studio reaches the end of its broadcast, the presenter presses the Offer button and the Offer buttons in all connected studios will illuminate to indicate that the transmission is ready to be passed to another studio.

Offer And Accept Switching - How It Works

To Accept the offer, a studio must bring up the "Last Studio to Offer" on the mixer and press the Accept button.

The transmission path is then immediately taken from the accepting studio and its Accept light is illuminated. All the Offer lights in other studios are simultaneously extinguished. Station Master's front panel shows the status of studios with a LED indication.

Talkback Connections

Talkback switches must be connected to each studio. Station Master has a set of switches for communication with these studios, together with a talkback level control for altering the level of talkback received from other studios to the in-built speaker. A microphone can be plugged directly into the front of the Station Master for sending talkback to other studios, the level of which may be adjusted via the mic level potentiometer. Talkback is operated by pressing and holding down the button for the chosen studio.

The Station Master is compatible with the TB-SD and TB-SR talkback intercoms.

A 2 studio version can be upgraded to a 4 studio version by adding the optional SM2 switching card.



Station Master Technical Specification

Inputs/Outputs

Transmission Outputs:	Balanced feed-through of transmission inputs via relay contacts
Mono Output:	<75Ω electronically balanced
Stereo Line Inputs:	>20kΩ electronically balanced
Stereo Line Outputs:	<75Ω electronically balanced
Professional Logging Outputs:	<75Ω electronically balanced
Domestic Logging Outputs:	<75Ω unbalanced
Domestic Monitor Outputs:	<75Ω unbalanced
Monitor Speaker Outputs:	10 Watts into 8Ω
Monitor Insert Input:	>20kΩ electronically balanced
Headphone Output:	Drives 600Ω stereo headphones
Talkback Mic Input:	>1.5kΩ electronically balanced
Talkback Line Inputs:	>10kΩ unbalanced
Switch Inputs:	Momentary closure to common.
Lamp Outputs:	Open Collector reference to common Voltage for lamps is supplied

Frequency Response

Mic Input:	40Hz to 20kHz, -1dB, +0dB
Line Inputs:	20Hz to 20kHz, -0.5dB, +0dB

Noise (20Hz to 20kHz)

Mic Input E.I.N.:	-128dB with 200Ω source
Stereo Line Inputs:	-96dB (ref. +8dB)

Connections

Transmission Outputs:	3 x XLR 3 pin male balanced (1 stereo, 1 mono)
Mono Output:	XLR 3 pin male balanced
Stereo Line External Inputs:	25 pin D-type plug male
Studio Line Inputs/Outputs:	25 pin D-type plug male
Studio Talkback & Controls:	25 pin D-type socket female
Talkback Mic Input:	XLR 3 pin female balanced
Professional Logging Outputs:	3 x XLR 3 pin male balanced (1 stereo, 1 mono)
Domestic Logging Outputs:	3 x Phono sockets unbalanced
Domestic Monitor Output:	Phono sockets unbalanced
Monitor Speaker Outputs:	Quick connect spring loaded lever terminals
Headphones:	¼" (6.35mm) Stereo jack socket
Monitor Insert:	2 x ¼" (6.35mm) Stereo jack sockets

Equipment Type

SM24-PPM or SM24-VU:	Station Master with switching and talkback for 2 studios (PPM meters, or VU meters)
SM44-PPM or SM44-VU:	Station Master with switching and talkback for 4 studios (PPM meters, or VU meters)
SM2:	Add-on cards to upgrade from SM24 to SM44

Physical Specification

Dimensions (Raw):	13.5 cm (3U) (H) x 48.3 cm (19" Rack fitting) (W) x 30 cm (D) 5" (3U) (H) x 19" (W) x 12" (D)
Dimensions (Boxed):	35cm (H) x 66cm (W) x 66cm (D) 14" (H) x 26" (W) x 26" (D)
Weight:	12.0 kgs. (Shipping weight : 15kg) 26.4lbs. (Shipping weight: 33lbs)