

SPA8000

Sound system

The SPA 8000 system makes it possible for one to six operators to transmit microphone or pre-recorded announcements to specific zones of a sound system, while the normal audio programme (e.g. background music) is maintained in the remaining zones.

This system was designed to minimize wiring complexity, problems in cable laying, and the number of amplification units needed, especially when numerous audio zones are to be handled at considerable distances (400 m in the most extreme cases). For this purpose, the SPA 8000 features an innovative micro-processor-controlled zone selection system, based on the use of special local receivers that can be installed in the individual rooms. These receivers "dialogue" with the active control console by means of a digital data transmission system, thus permitting the various zones of the system to be activated or deactivated individually or in groups.

The system is composed of one or more BM 8001 control consoles with microphone, a maximum of 31 SZ 8040 local receivers, and the RM 8080 receiver-mixer.

To facilitate search and replacement operations for any local receivers that may be damaged or cables that are interrupted, the SPA 8000 is equipped with a sophisticated diagnostic system which detects these problems and displays the number associated with the affected zone on the BM 8001 console display.

All the SPA 8000 system components are compact and feature sleek contemporary design.

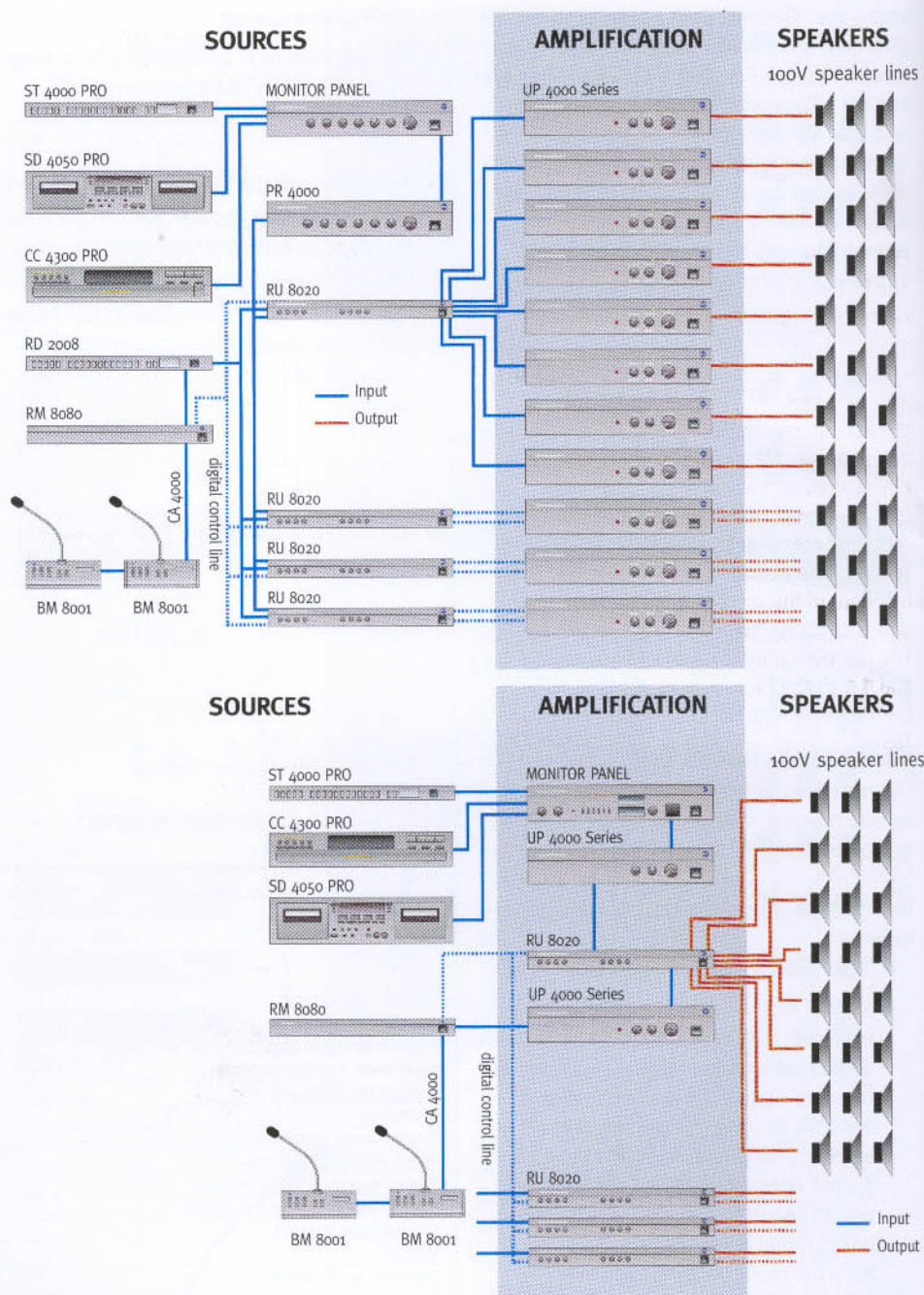


BM8001

Code no. 125.10.007

CONTROL CONSOLE

The system can be composed of a maximum of six BM 8001 control consoles, from which each operator can send announcements to specific audio zones. The announcements can be made directly from the console



microphone, or messages can be sent which have been pre-recorded on other equipment (e.g. the RD 2008 digital recorder). The maximum duration of the message is 12 seconds.

The BM 8001 console also includes an alarm button which sends pre-recorded message number 1 with absolute priority over messages from any other console, and enables a subsequent microphone announcement in all zones of the system.

If there is more than one BM 8001 console in the system, the activation of each can be regulated by means of a 6-level graduated priority system which permits certain consoles to intervene immediately when the system is engaged.

Numerous other functions facilitate and

speed up console operations, including automatic activation/deactivation of all zones simultaneously, storage of 4 configurations with which four groups of pre-defined zones can be recalled and activated, and automatic deactivation of the active console when it has not been used for a certain period of time.

SPA 8000 LIST OF COMPONENTS

- BM 8001 Control console
- RM 8080 Mixer-Receiver
- SZ 8040 Local receiver
- RU 8020 Switching unit
- CA 4000 14-conductor cable

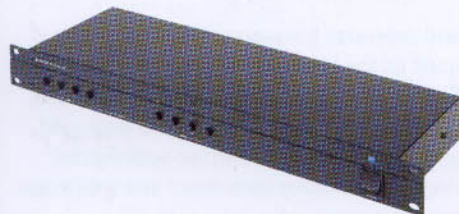


RM8080 Code no. 125.10.009

RECEIVER-MIXER

The RM 8080 receiver-mixer handles and connects all the components of the SPA 8000 system. Specifically, this unit supplies the control consoles and local receivers, controls pre-recorded message playback, transmits the acoustic pre-announcement signal, and connects the SPA 8000 system to the amplification system that handles the audio signals for microphone announcements and pre-recorded messages.

To adapt the audio output of the RM 8080 to the input of the amplification equipment, the unit is equipped with an output level adjuster. The RM 8080 unit has a height of 1 rack unit, and it can be placed on a table or mounted in CR 2500 series rack enclosures using the AR 1051-N accessory (code no. 173.10.058).



RU8020 Code no. 125.10.056

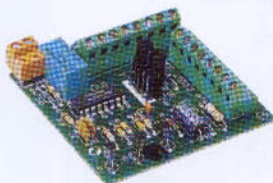
SWITCHING UNIT

The RU 8020 switching unit can be installed in 19" racks and used in the SPA 8000 zone selection system, in alternative to the SZ 8040 local receivers, for selective voice/music switching in 8 audio zones (max. 31 zones with four RU 8020 units). Selection of the zones in which the music is to be interrupted and an announcement transmitted is carried out from the BM 8001 control console by means of a digital data transmission system. Using the 8 "MUSIC ON" keys on the front panel, you can choose in which of the 8 audio zones to play the normal background music and in which zones no music is to be played. The system can be configured in one of the following ways:

Configuration a) The 2 inputs of the unit are driven by two amplifiers, one of which is dedicated to voice transmission and the other to music transmission. The 8 outputs of the unit drive the 8 speakers of the 8 audio zones.

Configuration b) The 2 inputs of the unit are driven by two preamplifiers, one of which is

dedicated to voice transmission and the other to music transmission. The 8 outputs of the unit drive the 8 power amplifiers dedicated to sound diffusion in the 8 audio zones.



SZ8040 Code no. 125.10.008

LOCAL RECEIVER

The system handles a maximum of 31 SZ 8040 local receivers, each of which controls one zone that can include one or more

speakers having a total power of no greater than 60 W.

The SZ 8040 is a very small electronic board, and is thus easily installed inside normal electrical system boxes, either flush-mounted or surface mounted.

CABLE FOR CONNECTING BM 8001 AND RM 8080

CA4000 Code no. 125.10.013

14-conductor cable, with 3 pairs of screened conductors; coil of 100 m (the code no. refers to 1 metre of cable)

SPECIFICATIONS

Frequency response	200 - 6000 Hz
Transmitter oscillation frequency	8,5 kHz
Serial baud rate	1200
Clock frequency	4 MHz
Balanced audio output	0 dB
Microphone	Electret with external 12 Vdc supply
Controls	Numeric keypad - Function keys Configuration recall keys Timer adjustment trimmer for automatic concole disactivation
Indicators	Liquid crystal display Lighted ring for indicating microphone activation
Dimensions (l x a x p)	325 x 75 x 165 mm (without microphone)
Weight	2 Kg

BM 8001

SPECIFICATIONS

Unbalanced audio output	0 dB
Indicators	LED for power on
Controls and functions	Audio output level adjuster Acoustic signal to precede microphone announcements (CHIME)
Power supply	220 - 240 Vac / 50 - 60 Hz
Maximum absorption	150 mA (with maximum system configuration)
Dimensions (l x a x p)	433 x 44 x 244 mm (1 rack unit)
Weight	3,3 Kg

RM 8080

SPECIFICATIONS

Receiver oscillation frequency	8,5 KHz
Maximum power handled	60 W
Power supply voltage	15 - 24 Vdc
Dimensions (l x a x p)	70 x 70 x 20 mm
Weight	60 g

SZ 8040

SPECIFICATIONS

Type	Relay switching with digital control-Rack mount
Inputs for amplifiers/preamplifiers	2
Outputs for power amplifiers/speakers	4 + 4
Maximum power applicable	500 W 350 W 250 W 125 W
Relays for voice/music switching	8 relays - maximum contact capacity 5 A
Auxiliary relay	1 relay with exchange contact when 8 receivers are active maximum contact capacity 2 A
"General Call" function control	Remote control by means of contact or external 10-24 Vdc power supply
Power supply / Consumption	115/230 Vac ($\pm 5\%$) - 50-60 Hz / 15 VA
DC power supply	24 Vdc
Dimensions (1 rack unit height)	482 x 44 x 160 mm
Weight	2,8 kg

RU 8020