RX4000

Programmable 2 to 16 zone Voice Alarm / Paging / Background Music System expandable up to 64 zones by interconnecting up to 4 mainframes CP4100.

The system RX 4000 is a feature-packed, fully integrated Voice Alarm (VA), Public Address (PA) and Background Music (BGM) system suitable for use in applications of up to 16 loudspeaker zones (expandable up to 64 zones).

Combining a voice alarm system with a high specification public address system, RX 4000 can be connected to virtually any manufacturer's fire detection system via monitored links from its sounder circuits.

Its heart is a 2U 19" rack mounted mainframe (CP 4100) containing all the logic, routing and prioritising components for the system in a 17-slot frame.

Slot no.1 contains the central processor card, leaving 8 audio input and 8 audio output slots.

Cards fitted into the 8 audio input slots can provide a variety of functions including zoned fire microphones, fireman's microphones, messages, contact inputs, zoned PA inputs and zoned music inputs.

The audio output slots can accommodate either logical input boards LI 4116 or audio output boards OB 4102 (2 zones / each), allowing up to 16 audio zones.

Up to 4 systems can be interconnected to handle up to 64 loudspeaker zones, ideal for high rise buildings, office blocks, sports stadiums, etc.

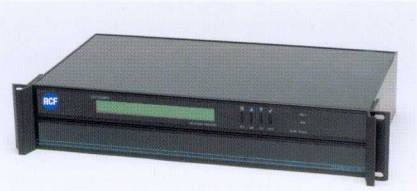
One of RX 4000's main advantages is its revolutionary simulator software that allows the routing and priorities of multiple audio sources to be set up and tested on a PC before assembling the hardware. This is especially useful as it allows the evacuation cause and effect scenarios to be checked and approved before any equipment is purchased.

Different audio inputs, such as fireman's microphone, alert and evacuate messages can be triggered simultaneously. However, the Integrity software allows only the highest priority to be played in a zone. The flexibility of this approach allows normally complex voice alarm systems to be easily realised, providing both the customer and designer with unrivalled confidence and control over site evacuation management.

Main features

- Fully integrated and extremely cost-effective VA, PA and background music solution for theatres, hotels, sports grounds, stadiums, exhibition halls, shopping centres, etc.
- Fully compliant with EN 60849 when installed correctly.
- Unique PC software enables a VA/PA system to be designed and demonstrated prior to purchase and for this configuration to be directly downloaded into the RX 4000 mainframe at commissioning.
- Capacity for all cause and effect scenarios to be tested and auditioned, giving customers and designers unrivalled confidence and control over site evacuation management strategies.
- Simple monitored interface with fire detection systems via normal sounder circuits.
- 8 audio channels means it is ideal for applications requiring complex routing of multiple channels, such as alert, evacuate, bomb and test messages, paging and music.
- 8 audio output slots for dual audio zone cards allowing up to 16 audio zones.
- Large 40 character panel displays date / time, location and engineer configurable fault texts.
- Optional Fireman's paging panel can communicate with the mainframe via an RS422 data network, minimising the number of cables required.
- Volume levels in each zone can be set differently for emergency announcements, ordinary paging and background music.
- Up to 4 systems (4 x CP 4100) can be interconnected to handle up to 64 loudspeaker zones, ideal for high rise buildings, office blocks, sports stadiums, etc..

Components description

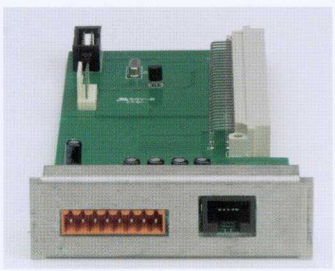


CP 4100

Code no. 171.70.065

– CPU / mainframe

The RX 4000 mainframe consists of the CPU card which controls the system, up to 8 audio input cards and up to 8 audio output cards.
The choice of input and output cards depends on the application and the needs of the client.
Up to 4 CP 4100 may be linked via IT 4133 cards.
The configuration software is included.



IB 4001FM

Code no. 171.70.066

– all call fire mic. input board

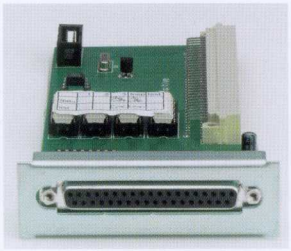
This card is normally used for an all-call fireman's microphone, but can also be used for normal paging microphones or any balanced line level audio source and may be routed to any pre-defined combination of zones. Up to 4 paging units BM 4601 or BM 4631WM can be connected to one IB 4001FM card and they will work on a first-come-first-served basis. When multiple inputs are connected to a single card, they must all page the same audio zones. The card also has two additional monitored switch inputs that are normally used to manually trigger the emergency messages, but can be used for any purpose. The card provides full monitoring of the fireman's microphone(s) in accordance with EN 60849 and a fault will result in a text message being logged and displayed in the Integrity system's LCD.

VB 4134

Code no. 171.70.068

– message board

This card stores Windows ".wav" files in an internal flash memory chip and possesses the capacity to support up to 4 messages of up to 2 minutes in length. Audio quality is selectable by trading off message length (30 seconds total of best quality 16 kHz 16-bit audio). Messages are loaded into the board VB 4134 from a PC using up-load software (not XP). Any failure of memory is flagged to the system as a fault.

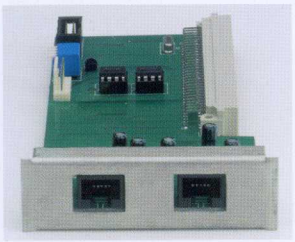


LI 4116

Code no. 171.70.072

– logical input board

This card provides 17 opto-isolated switch inputs (16 latching triggers plus silence) for monitored connection to sounder outputs from a fire detection system. If these outputs are not available a 24 V dc - 50 mA protected voltage output is provided so that normally open relay outputs can be used. Operating any of the inputs triggers pre-set messages in pre-defined zones depending on the way the cause-and effects matrix in the mainframe has been set up unit. The inputs can also be used for any other routing, such as routing music to pre-set zones, in which case, the inputs can be set to automatically un-latch.



IB 4131/16

Code no. 171.70.069

– input board for paging consoles BM 4016

Supports up to 4 paging consoles BM 4016 on a first-come-first-served basis. The keys on the paging panels can be used to selecting zones for paging, controlling background music or triggering messages, depending on the programming of the cause and effects software. If more that one BM 4016 is used, a hub HB 4103/16 is required for connection of the additional units.

HB 4103/16

Code no. 171.70.070

– hub for paging consoles BM 4016

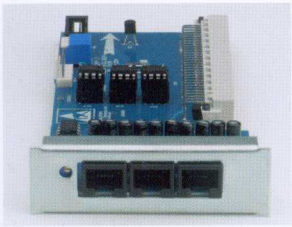
Hub useful to connect up to 4 paging consoles BM 4016 (to board IB 4131/16)

IB 4121BGM

Code no. 171.70.071

– background music input board

Features a pair of phono (RCA) stereo unbalanced inputs. A 4-way dipswitch allows the user to set the sensitivity of the phono connectors for Tape (300 mV), Line (1V) and CD (2V) levels and also enables default selection of audio zones for music. External contacts allow up to 4 individual groups to be manually selected for music, depending on the state of the switch and the programming of the cause and effects software.



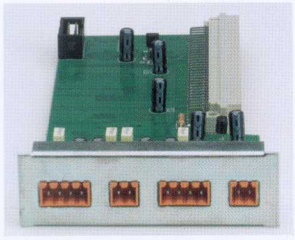
IT 4133

Code no. 171.70.067

– Input board for paging consoles BM 4724WM, BM 4732, BM4756

– Linking board for up to 4 main boards CP 4100

It is normally used to allow up to 4 mainframes CP 4100 to be linked via one or more paging consoles BM 4724WM - BM 4732 - BM 4756. The paging console(s) can page and control messages in any combination of zones in all the 4 mainframes CP 4100 and can display status and fault information from all systems.



OB 4102

Code no. 171.70.073

– 2 zone balanced output board

Provides 2 independent balanced line level audio outputs to drive amplifiers. The card contains an audio selector (which is controlled by the cause and effects software) and a digitally controlled attenuator for each output. A different volume level may be programmed for each type of input (emergency, paging and BGM). The card also reports faults from the amplifiers through a monitored output and provides a closing contact that is typically used for volume restoration or activating beacons when emergency paging occurs.

Peripherals

BM 4601

Code no. 171.70.074

– 1 zone desktop paging console

Line level desktop gooseneck microphone with compressor, noise gate, monitored capsule and wiring. It can be routed to any preset zone combination.

BM 4631WM

Code no. 171.70.075

– wall mounting all call fireman's microphone

– 2 message trigger facility

It comprises a red, wall mounted steel case with fist microphone, 2 message trigger switches and audio processing and monitoring electronics.

BM 4616

Code no. 171.70.074

– 16 zone desktop paging console

It is a neat desk mounted paging console with a noise-cancelling gooseneck microphone for normal paging use. It has 16 programmable buttons for selecting and routing paging or other audio sources to any combination of zones. It can be monitored for faults or not, depending on the application.

BM 4724WM

Code no. 171.70.077

– wall mounting fireman's multi zone paging console

– message controller

– LCD screen for programming, status and fault monitoring

– 24 programmable buttons

BM 4732

Code no. 171.70.078

– desktop multi zone paging console

– message controller

– LCD screen for programming, status and fault monitoring

– 32 programmable buttons

BM 4756

Code no. 171.70.079

– desktop multi zone paging console

– message controller

– LCD screen for programming, status and fault monitoring

- 56 programmable buttons

RB 3300

Code no. 171.20.051

Back-amplifier board

- Main control board for power amplifier and speaker line
- Microprocessor interface for SB 3320 and LB 3340
- Power amplifier change-over circuit built-in

SB 3320

Code no. 171.20.052

Power amplifier and speaker line surveillance card

Amplifier diagnosis

- Line impedance and earth dispersions diagnosis
- Direct priority input on power amplifier controlled

LB 3340

Code no. 171.20.053

Card for automatic digital control of the ambient signal/noise ratio

- Connection for up to four noise detection omnidirectional microphone or loudspeakers
- Preselection for Nighttime sound level attenuation

PS 3400

Code no. 171.30.006

Power supply for Back-amplifier boards

- Electronic protection circuit for voltage, current and temperature
- 19" rack mounting 1U.