

Microsound Systems

MF A02

MF A08

MF A20

Apartment Intercom System

Instruction Manual

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16 April 2008

1. General Description

1.1. Features

1. One door station or two door stations with switcher.
2. 2 to 20 handsets.
3. 3 common wires through out plus 1 call wire per handset.
4. Two handsets on one number.
5. The system is lightning protected.
6. Door station is surface mounted and weather protected.

2. Operating

2.1. Calling

1. Press required number.
2. The calling tone will be heard softly from the loud speaker.
3. When the handset is lifted there will be open communication to the handset.
4. If the person wishes to let you in they can push the "Door release button".
5. As soon as the handset is replaced the call is cancelled.

3. Installation

1. Three common wires from the door station to the handset plus one call wire per handset. A core each for Ground, Receive (Rx) and transmit (Tx). Twisted pair cable must not be used, rather a plain ten core cable 0.8mm. Fire Alarm cable must be used, which has an overall mylor screen.
2. The screen must be earthed at one point to protect against lightning. Where a main cable run enters a block of units it can be reduced in size to a 0,5 mm cable, to make termination at the handsets easy.
3. All junction boxes must have isolation points to allow for easy disconnection of cable runs.
4. All cables must be marked.
5. The door station must also be wired to the door release strike and power supply. A separate 15v DC power supply is required per system. The power supply must have built in lightning protection or a lightning protection plug.
6. If two door stations are installed a MFAS2 switcher must be used between all the handsets and the door stations. The switcher requires +15V and GND. The main door station must be connected to D/S 1 the secondary door station to D/S 2 and all the handsets to H/S. The individual call wires from both door stations must be common together and then wired to the handsets. D/S 1 is normally connected to all the handsets. If any button on D/S2 is pressed the busy line will cause the switcher to change over to D/S2 for predetermined time set by SW1 in 5 second binary steps. Minimum time 5 seconds maximum time 80 seconds.

3.1. Handset connections

Microsound handset (RJ 11)

1	Individual call wire.	(+)
2	Gnd Common	Ground from door station. (-)
3	Rx Common	Receive from door station. (R)
4	Tx Common	Transmit from door station. (T)

3.2. Door Station Connections

1.	+15vdc	Power from power supply
2.	Gnd	Ground from power supply
3.	DS1	Door strike. Normally Open contact
4.	DS2	Door strike
5.	Gnd	To handset. Common to all handsets
6.	Tx	Transmit to handset. Common to all handsets
7.	Rx	Receive to handset. Common to all handsets

3.3. Power Supply Connections

1.	+15vdc	Connect to door stations
2.	Gnd	Connect to door stations
3.	Neutral	Mains (220vac)
4.	Live	Mains (220vac)

4. Audio level adjustments

1. TX adjust level from the door station to the handsets.
2. RX adjusts level from the handsets to the door station.
3. These adjustments are best set when the complex system is installed.

5. Technical Information

5.1. Cable requirements

Three common wires to each handset plus one call wire per handset. Maximum accumulated length 500 metres using 0.8mm fire alarm cable.

5.2. Door Station

MFA02 size	:	136mm high x 101mm wide x 80/60mm deep
MFA08size	:	161mm high x 156mm wide x 80/55mm deep
MFA20 size	:	292mm high x 156mm wide x 80/55mm deep
Mounting	:	Surface.
Finish	:	Weather proof box constructed of mild steel and powder coated. The front is constructed of anodised aluminium.

Power: 15 vdc 70 ma

5.3. Handset

Size	:	215 mm x 96 mm wide x 65 mm high.
Power	:	15 vdc 10 ma (idle). 15 ma (ringing)

6. First Line Service

6.1. Test Voltages

	RX Green	TX Yellow
Idle	6	6
Handset up	1	6
Speech	1	6
Door release	1	0
Handset down	6	6

6.2. Operation

TX line

1. TX audio.
2. Detects when the door release button is being pressed.

RX line

1. RX audio.

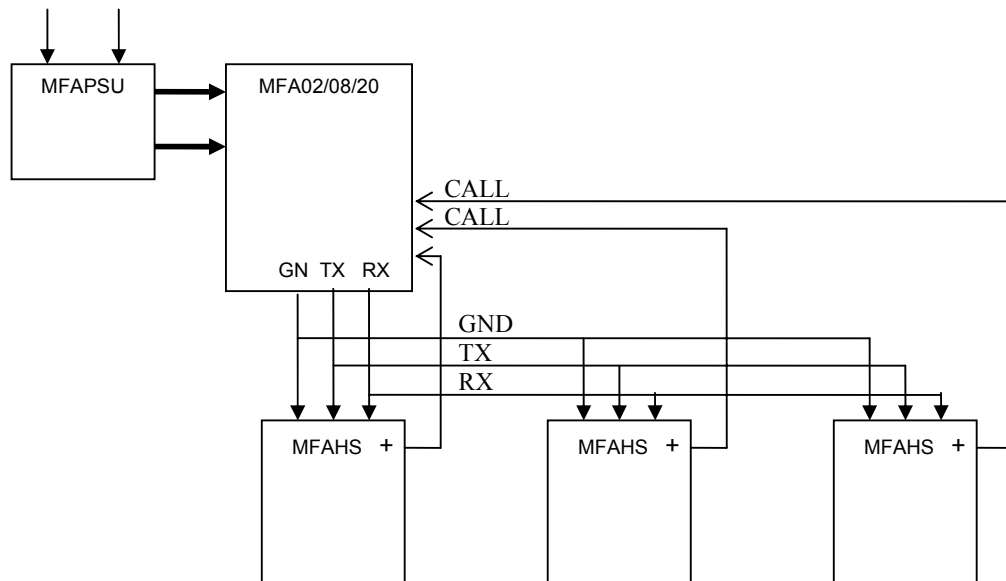
CALL

1. 14v to call handsets.

GND

1. Ground to all handsets.

7. Wiring



Basic layout (one door station)

8. Guarantee

The MFA02/08/20 is guaranteed by the manufacture for a period of six months from the date of delivery against faulty components and faulty workmanship (ex factory).

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