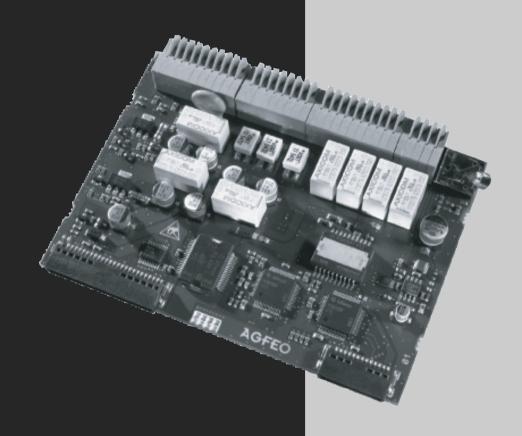
K-Module 544 for: AS 43, AS 45, AS 200 IT





### About this Installation Manual

This user manual is intended for the product and relevant firmware installed at the time of shipment. Should the product be modified with software, which maybe made available by the manufacturer at a later time, then some parts of this manual may no longer be applicable.

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#### Introduction

The AGFEO K-Module 544, can be used with the following Telephone Systems AS 43, AS 45 and AS 200 IT from firmware 7.1 or higher, the available features are listed in the three categories below.

#### - Detector

This offers 4 Alarm Inputs with seperate power supply of +12 Volts 250 mA.

#### - Door Phones

Offers three 2 wire ports including caller ID for analogue telephones, fax machines or AGFEO door phones with special function: Port 1 is switchable to a CE 2 standard two wire door phone, port 2 is switchable to a 4 wire standard door phone to FTZ 123 D 12, port 3 may also be used as a 2 wire analogue port door phone. In addition there are 2 relays available.

#### - Audio

Offers a 3.5 mm jack plug for the connection of MoH or background music, with an output of 0,8 Watt / 8 0hm symmetrical for a speaker connection and a pre-amp output (asymmetrical) for use with an amplifier.

#### **Contents**

- 1 K-Module 544
- 1 Installation Manual
- 4 Termination Resistors 12.1 KOhm

#### Safety Notice:

- 1. Unplug the Telephone System from the 230 V mains socket.
- 2. Unplug and disconnect all external trunk lines from the telephone system.
- 3. Touch briefly the metal shield of the PC / Printer socket underneath the Telephone System. This will ensure that static electricity will be discharged to protect sensitive electronic components within the Telephone System.

#### Module Installation



#### !ATTENTION!

Before removing the module from the packaging touch briefly the metal shield of the PC/ printer socket underneath the telephone system. This will discharge any static electricity to protect the sensitive electronic equipment of the telephone system.

Install the module as described in the installation manual of the telephone system.

### Commissioning

Close the housing!

Plug the telephone system back into the 230 V mains socket.

After loading the programming data of the telephone system via TK Suite Set the K-Module 544 will be displayed under the heading "PBX / Hardware Configuration".

### Contact Assignment K-Module 544

	AL 1 IN AL 1 - AL 2 IN AL 2 - AL 3 IN AL 3 - AL 4 IN AL 4 - AL + AL +	Sensor Input 1 Sensor Earth Sensor Input 2 Sensor Earth Sensor Input 3 Sensor Earth Sensor Input 4 Sensor Earth 12V Voltage Supply
000	U-1 U-2 La1	Door Opener Transformer CE 2-Wire-Door Phone
	Lb1 La2 Lb2	Extension 1 / Speech Path CE 2-Wire-Door Phone  Extension 2 / Speech Path 4-Wire-Door Phone FTZ 123 D 12
	La3 Lb3	Extension 3 / Analogue 2-Wire Door Phone (Analogue Port Door)
	KT 1 KT 2	Bell Push 4-Wire-Door Phone FTZ 123 D 12
	TO 1 TO 2	TO = Relay for Door Latch (4-Wire-Door Phone FTZ 123 D 12)
	TS 1 TS 2	TS = Relay for Door Phone Power (4-Wire-Door FTZ 123 D 12)
	REL 1-1 REL 1-2	Relay 1
	REL 2-1 REL 2-2	Relay 2
	LS 1 LS 2 AUDIO-ASYM GND	Speaker Output, symmetrical, for the direct connection of a loudspeaker Audio Output, asymmetrical, for the connection of an amplifier
	AUDIO IN	Audio In, connection for music source, for MoH or Background Music

#### **Door Phone**

The K-Module 544 has a doorphone connection to CE 2-wire-TFE specification with DTMF signalling. This type of connection will support up to four bell push buttons. In addition the module offers a 4-wire connection to FTZ 123 D 12 specification for the connection of a doorphone with amplifier. This type of connection will support one bell push button.

Further details of doorphone connections can be found on our homepage at: www.agfeo.com.

#### **Connection of a Doorphone**

Connections: (Page 6)

- Connect the potential free contacts of the bell push to KT1 and KT 2.
- Connection of the speech path contacts to La2 and Lb2.
- Operation of the door latch via the relay contacts 'TO'. Max. contact load: 30 VDC/ 1A. The door latch can be operated from any extension, but only if a seperate power supply is connected.
- Control of the doorphone will be via the potential free relay contacts TS. Max. contact load: 30 VDC/1 A

Doorphone Connection to specification FTZ 123 D 12

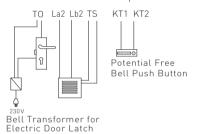
La2, Lb2 = DC free Speech Path

KT1, KT2 = Connection of potential free

Bell Push Button

TO1, TO2 = Relay contacts for Door Latch
[Potential Free]

TS1, TS2 = Relay contacts for the switching of the external amplifier

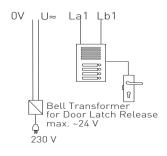


### **Connection of Wiring:**

- Strip cable by 11 mm
- Push the single wire all the way into the connection block **without** pressing the release catch.
- To disconnect a wire, press the release catch with a small screwdriver while at the same time pulling the cable from the connection block.

We suggest to use lightning protection if cables of the telephone system run outside a building.

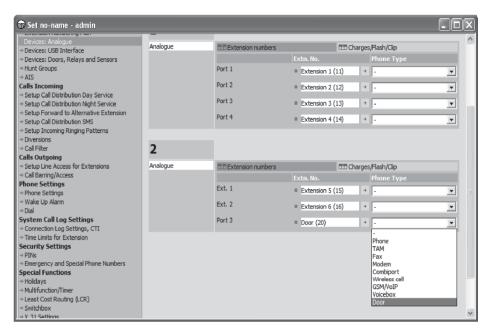
#### Doorphone CE 2-wire connection



## Connection of an AGFEO

### TFE2/TFE4 Doorphone

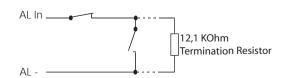
To connect an AGFEO Doorphone to the analogue port of the K-Module 544 you must first set the third port to "Door", which is in the programming section "Extensions/Devices: Analogue".



Please refer to the installation manual of the AGFEO TFE2 / TFE 4 for further settings.

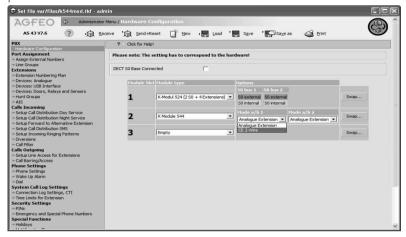
### **Detector Inputs**

You may connect normally closed or normally open contacts to the detector inputs. The module also offers a power supply of 12 V max. 200 mA for the supply of PIR or other detector devices. The detector input contacts are differential contacts and may be either normally closed or normally open or a combination of both (see connection diagram). The last contact must be terminated with a 12,1 KOhm resistor (4 of these are enclosed).

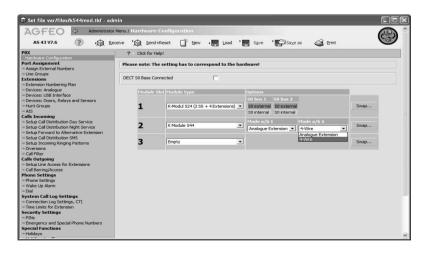


#### Setting the Mode of Operation for Analogue Ports

You may set the a different mode of operation for the analogue port 1 and 2. If you change the analogue port 1 to "CE 2 Wire", then the speech path will be connected via this port.

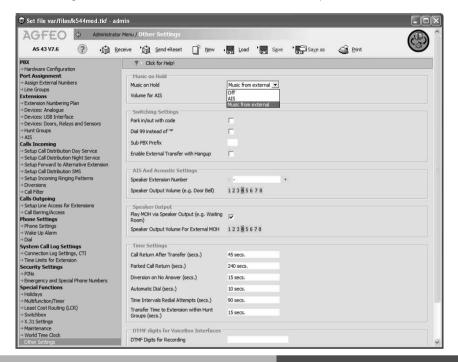


If you change the analogue port 2 to "4 wire", then the speech path will be connected via this port. Bell push buttons and relays will be connected to the appropriate connections of the module.



#### Connection of External Music Source

To connect an external music source you must first change the input to "Music from external". This setting can be found in TK Suite under the section "Special Function / Other Settings".



#### Note

Should you have more than one K-Module 544 in your telephone system, then the external music source connected to the first module slot will be used as external Music on Hold.

If a different background music is to be played to various loudspeakers, then the music source connected to each module will be played to the speaker connected to the same module.

#### Example:

One K-Module 544 is in slot 1, and another K-Module 544 is in slot 2.

Both K-Modules 544 have external music connected to it and both K-Modules 544 also have a loudspeaker connected to the same.

The external music which is connected to the module in slot 1 will also be used for external Music on Hold and be played to the speaker output of the same module, if so set.

The external music which is connected to the module in slot 2 will not be used for Music on Hold, but be played to the speaker connected to the same module, if so programmed.

### **Specifications**

**Analogue Apparatus** 

- Cable Length Analogue Apparatus: 2 x 50 Ohm (ø 0,6 mm, 800 m) - Connection Analogue Devices 2 Wire via Spring Clip Connector

- Dialling Method Loop Disconnect (LD) or DTMF (Dual Tone Multi Frequency)

- Recall Signalling Timed Break Recall (TBR) (Flash) (50 - 180 ms)

Door Phone 1 Doorphone-Connection to FTZ 123 D 12 Connections

1 CE-2-Wire Connection (Telekom-Type Connections)

- Connection Via Spring Clip Connector

- Switching Relays Relay TO and TS may be utilised as either on/off or pulse contacts if

the doorphone FTZ 123 D 12 is not used

- Contact Rating 30 VDC / 1 A or 125 VAC / 0,5 A, Resistive Load

potential free contact with surge arrestor

1 kOhm, 100 nF bridged

Switching Relay

30 VDC / 1 A or 125 VAC / 0,5 A, Resistive Load - Contact Rating

potential free contact with surge arrestor

1 kOhm, 100 nF bridged

Speaker Output 0,8 Watt /8 Ohm symmetrical

0.4 Watt /4 Ohm asymmetrical

**Audio Input** Input Resistance 50 K Ohm



The crossed out wheeled bin on the product means that this belongs to the group of Electro- and electronic apparatus.

In this context you are directed by the European regulation to dispose of used apparatus

- at the point of buying an item of equal proportion / value
- at the local available collection point for disposal

With this you will participate in the reuse of material and valorisation of disused electricand electronic apparatus, which otherwise could be a health hazard and be negative to the environment.



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