



Using the Plena VAS Mic/Line input with zone selection

This application note requires firmware v2.13 and above



1. Introduction

The Bosch IP audio unit was introduced among others to answer the need for supervised remote audio and calls over IP combined with remote controls.

Plena Voice Alarm System gives the possibility to route the Mic/line input to one or more preconfigured zones. The zone selection is done with use of the hardware input triggers ($\geq$ v2.13) or with use of the software triggers that can be accessed with use of the Plena Open Interface. ($\geq$ 2.16)

Advantages of this function:

- 1) You are able to build a supervised Emergency call station using the IP audio module, build-in supervised trigger inputs and a condenser or dynamic microphone.
- 2) You can span large distances with the advantage of supervised audio and contacts which enables large distance emergency call station functionality using the Bosch IP-audio interface.
Combined with the Plena Open Interface a full automatic Alarm, Announcement and BGM system can be build.

This application note will guide you through the software and hardware setup, using these functions. The application note is intended for advanced users.

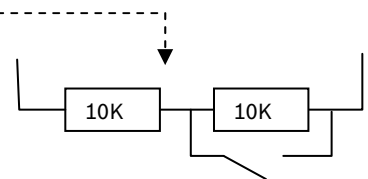
2. Applications

2a Create an Emergency Call station:

Hardware setup:

- Hardware:
 - Microphone (condenser or dynamic) (e.g. LBB 9082/00)
 - Supervised hardware triggers
 - Voice Alarm controller (LBB 1990)
 - At least One (or more) IP-audio unit (PRS-1AIP1)

- System setup:
 - 1 or 2 channel configuration
 - Supervision resistors on all input contacts



IP Audio setup:

Settings on the IP-Audio unit:

- Choose the correct microphone type and set the supervision
- Using a single IP audio unit you need to set the "loop in to out" to yes.
If you use a send and a remote IP audio unit, skip this setting (2).
- Set the pilot tone to "yes"



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Voice Alarm Controller v2.16 and higher

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VAS Software setup:

System

Number of routers: 1

Number of call stations: 1

Number of call station keypads:

☒ EMG call station enable

Call station 1: 1

Call station 2: 0

Call station 3: 0

Call station 4: 0

Call station 5: 0

Call station 6: 0

Call station 7: 0

Call station 8: 0

Number of RC panels: 0

Number of RCP extensions:

RC panel 1: 0

RC panel 2: 0

☐ 3-wire local volume control

☐ Digital message control
only controls business messages

☒ EMG all call

☒ Alternating broadcasting

☐ Message is stopped when trigger is released.

☒ Enable Soft Triggers (RS232)

Save Cancel Close

Do **not** enable the EMG call station setting, this is a future setting, which has nothing to do with this setup.

Action programming

Unit: Controller

Front panel EMG Trg. / Fault Det. Business Trg. / Fault Det. Mic / Line input Soft Triggers (RS232)

Message	Fault
1	Message: Evac 1 Select Zone: None Priority: 9
2	Message: Evac 1-5 Select Zone: None Priority: 9
3	Message: Mic/Line Input Select Zone: Restaurant Priority: 10
4	Message: Mic/Line Input Select Zone: All Zones Priority: 11
5	Message: None Select Zone: None Priority: 9
6	Message: None Select Zone: None Priority: 9

Message Repeat: Continuous Action: Close Type: Momentary Pre EMG message announcement: None

Save Cancel Close

Settings on the Plena configuration software. Settings must be done at the action programming section

- 1) Choose trigger action "Message"
- 2) Select message "Mic/line input"
- 3) Select the zone to which the "Mic/line" input should be routed
- 4) Assign a priority to the contact

Selecting the Mic/line as message disables VOX operation. A pop-up informs you about it.

As long a "Mic/line" is assigned as a triggered message, the Mic/line VOX configuration section is grayed out.

Front panel EMG Trg. / Fault Det. Business Trg. / Fault Det. Mic / Line input Soft Triggers (RS232)

Priority: 2

Select Zone: All Zones

After configuration, save and upload all settings, connect the hardware and test your configuration.

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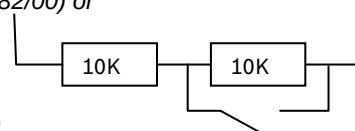
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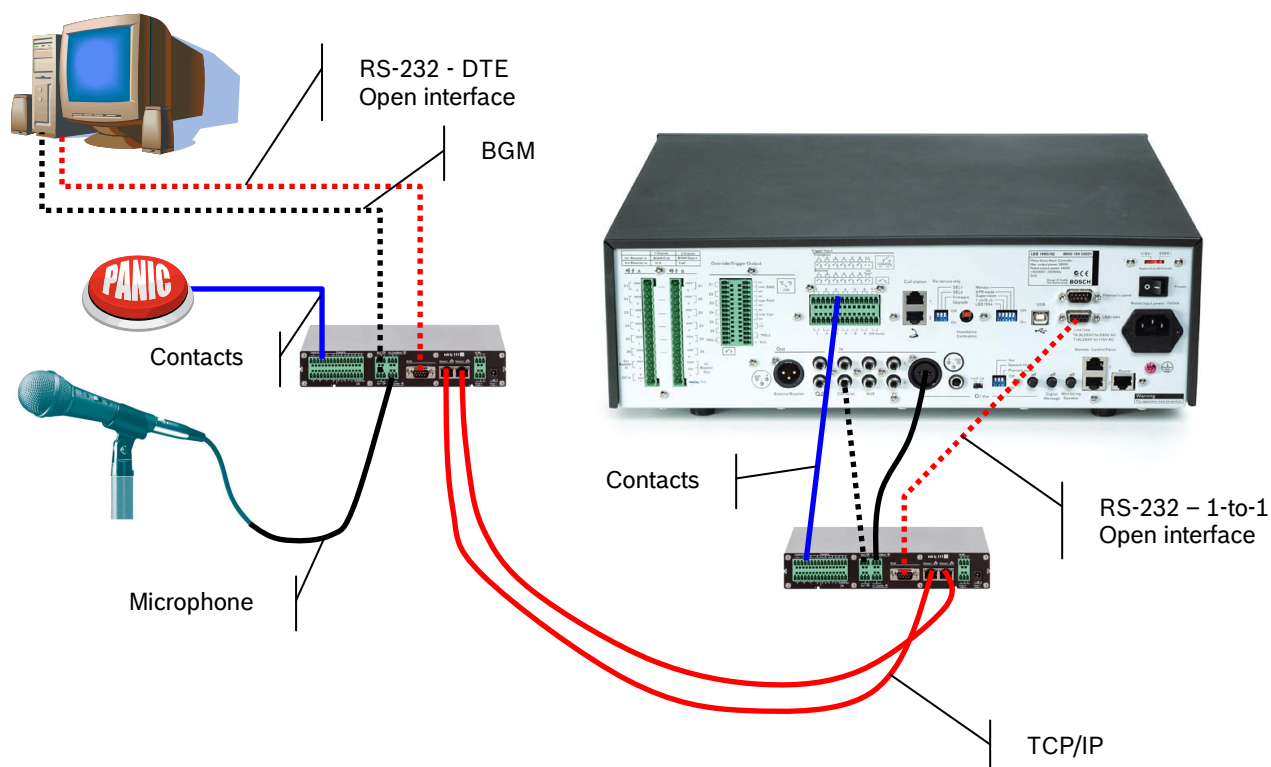
2b Span supervised audio over large distances:

Hardware setup:

- Hardware:
 - Microphone (condenser or dynamic) (e.g. LBB 9082/00) or BGM Source (e.g. PLN-DVDT)
 - Supervised hardware triggers ----->
 - Voice Alarm controller (LBB 1990)
 - At least two (or more) IP-audio units (PRS-1AIP1)
 - If a full automatic BGM system is used, a custom program to control the VAS via the open interface. (Open interface protocol is available)
 - RS-232 cables, 1x DTE wired, 1x straight forward wired (1-to-1)



- System setup:
 - 1 or 2 channel configuration
 - Supervision resistors on all input contacts



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VAS Software setup:

The basic software setup is the same as 2a create an Emergency Call station.

IP Audio setup:

The IP-Audio device setup should be:

- 4) Choose the correct microphone type and set the supervision, if a BGM source is used, select Line in
- 5) Set Loop in out to "no" unless you need local monitoring or loop through functionality
- 6) Set the pilot tone to yes for EMG mic use. Otherwise switch it off.

VAS Software setup:

Do **not** enable the EMG call station setting, this is a future setting, which has nothing to do with this setup.

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Voice Alarm Controller v2.16 and higher



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Message	Fault	Message	Select Zone	Priority
1		Message: Evac 1	Select Zone: None	Priority: 9
2		Message: Evac 1-5	Select Zone: None	Priority: 9
3		Message: Mic/Line Input	Select Zone: Restaurant	Priority: 10
4		Message: Mic/Line Input	Select Zone: All Zones	Priority: 11
5		Message: None	Select Zone: None	Priority: 10
6		Message: None	Select Zone: None	Priority: 9

Message Repeat: Continuous
Action: Close, Type: Momentary, Pre EMG message announcement: None

Buttons: Save, Cancel, Close

Configuration must be done within the action programming section

- 5) Choose as trigger action "Message"
- 6) Select message "Mic/line input"
a pop-up will appear telling you that Vox will be disabled
- 7) Select the zone to which the Mic/line should be routed
- 8) Select the priority of the contact

VOX operation and configuration disabled:

The microphone/line VOX configuration is grayed out as long as a Mic/line input is configured by a trigger input action.

Priority: 2
Select Zone: All Zones



3. Definitions, acronyms and abbreviations

AN	Application note
VAS	Voice Alarm System
MIC	Microphone level
Pcs	Pieces
EMG	Emergency
RS-232	Serial communication interface
Open Interface	Communication protocol to control the VAS
BGM	Background music
VOX	Voice activate function
Mic.	Microphone

4. Special Note Open Interface

The Plena Voice Alarm System is provided with an Open interface

The open interface from firmware versions up to v2.14, are downwards compatible.

With the introduction of v2.15 and higher the open interface is not backwards compatible anymore to versions lower than v2.15. The open interface has been changed to enable the integration with the Bosch Fire fireman panels FPA1200 and FPA5000.

5. About

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