Application Note
PAVIRO Factory Default System - v1.0

BOSCH

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PAVIRO Factory Default System
This application note describes the functions, installation and operation of this system.

Component list:
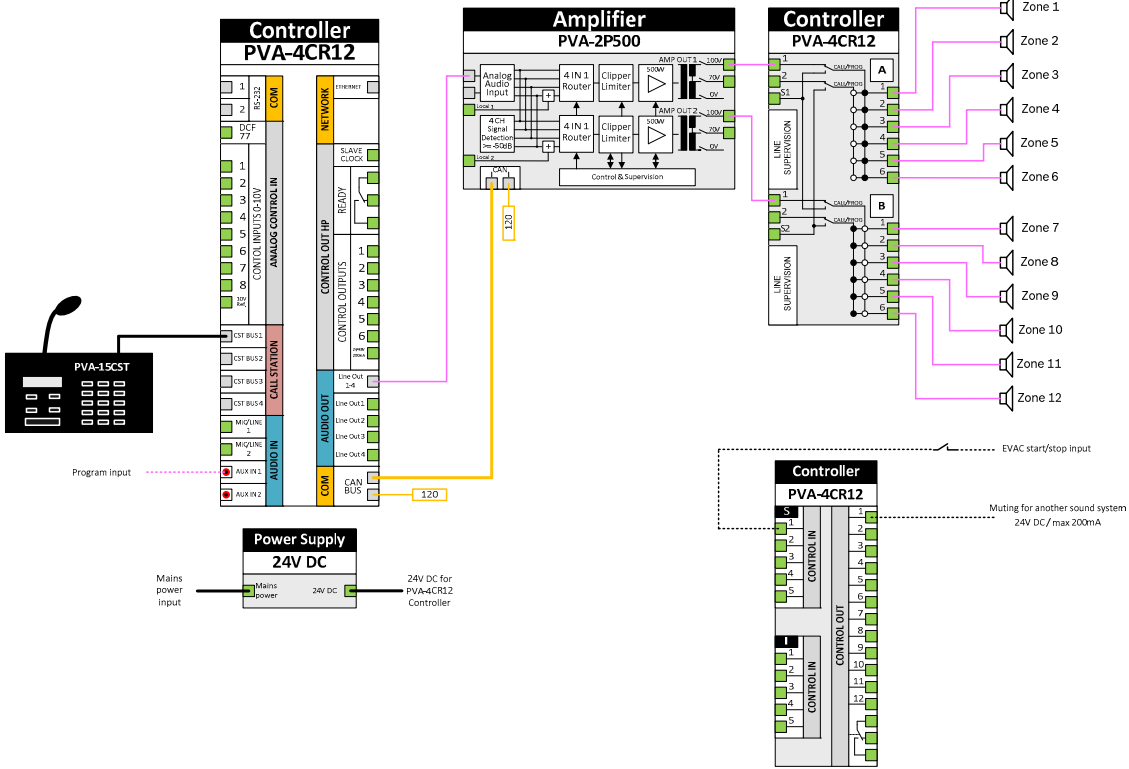A basic system consists of:
- 1x PVA-4CR12 Controller
- 1x PVA-2P500 Amplifier
- 1x PVA-15CST Call Station
- 1x 24V/2A Power supply

System features:
- 12 loudspeaker zones via 2 router clusters
- For each router cluster (zone 1-6 and zone 7-12) 500W loudspeaker load can be connected
- Selective announcement to each of the 12 loudspeaker zones via the call station
- A background music (program) source can be selectively activated by the call station into each loudspeaker zone (option)
- Maximum two audio signals can be activated simultaneously, but only one signal per router cluster
- The English EVAC-message "incident" can be triggered by a contact (option)
- A logical output is provided to mute external systems when an announcement or EVAC-message is active (option)

Block Diagram:

System Behavior:

The system has to be operated with the call station PVA-15CST, only the evacuation is triggered by an external normal open contact.

The operation of the call station is explained in the following figure:

Pressing the "Acknowledge" button confirms a new error, and disables the signal tone at the same time. Press the button again to show the next error message.

Press the "ON / OFF" button to turn the system on or off.

LED ON = System on
LED OFF = System standby

Loudspeaker zone selection buttons

By pressing the button an announcement can be made to the preselected loudspeaker zone(s). Multiple selection is possible.
If there's no selection when pressing the button an error beep sounds.
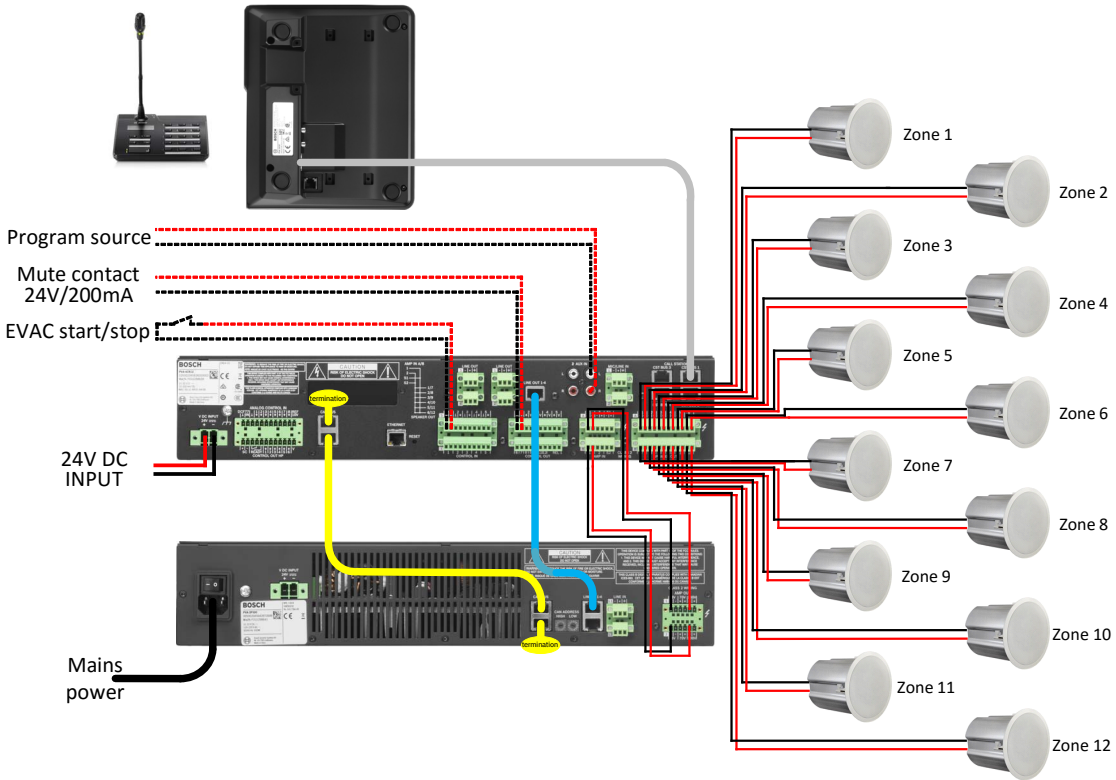
Press the button "System Fault" to acknowledge or reset a system fault that is indicated at the call station.

LED ON = System Fault active

Pressing the "Program Menu" button, the background music can be activated in the selected loudspeaker zones by the loudspeaker zone selection buttons. This mode is automatically left after 10 seconds or by pressing the "Acknowledge" button

<u>HINT:</u>
More information about the call station is available in the "PAVIRO Call Station PVA-15CST" operation manual.

System installation:

Program source

Mute contact 24V/200mA

EVAC start/stop

24V DC INPUT

Mains power

Zone 1
Zone 2
Zone 3
Zone 4
Zone 5
Zone 6
Zone 7
Zone 8
Zone 9
Zone 10
Zone 11
Zone 12

- Create the cabling as shown in the wiring diagram. Take in account the requirements in the operation manuals PVA-4CR12 and PVA-2P500 in the chapter "Connections".
  NOTE: Unused loudspeaker outputs do not have to be wired.
- The CAN-BUS has to be terminated with the enclosed terminating resistors.
  NOTE: It is not allowed to terminate the audio Line 1-4.
- The connections drawn in dashed lines are optional and have to be wired only when the respective function is used.
- After finishing the cabling, the CAN address has to be set to "01" on the PVA-2P500 amplifier.
  NOTE: Before the address is set, make sure the PVA-2P500 is disconnected from the mains.

o   Now the system can be connected to the power supply and activated.

- o The address of the call station PVA-15CST must be set to "01".
  This is done via the menu of the call station:

  - o *To open the main menu, press the ▲ Button keep it held down and press the ▼ button at the same time.*
  - o *Press the ▼ button until you reach the "CST Setup" menu item.*
  - o *After pressing the ↵ button, the "Input Password" dialog is showing.*
  - o *Press the button "2" (on the right side) four times and then the ↵ button.*
  - o *Press the ▼ Button, to navigate to the "CST Setup Menu" menu item and then the ↵ button.*
  - o *The display shows "CAN Address".*
  - o *Press the ↵ button.*
  - o *Change the address with the ▲ button from "0" to "1" and press then the ↵ button.*
  - o *Press twice the ESC button to exit the menu.*

- o The date and clock settings are done via the PVA-15CST call station menu

  - o *To open the main menu, press the ▲ Button keep it held down and press the ▼ button at the same time.*
  - o *Press the ▼ button until you reach the "Date / Time" menu item.*
  - o After pressing the ↵ -button, the current date and time can be entered by using the numeric keys 0-9.
  - o *Press the ↵ button after the input and then the ESC button.*

- o The date / time display can also be switched off, by the menu of the call station PVA-15CST.
  - o *To open the main menu, press the ▲ Button keep it held down and press the ▼ button at the same time.*
  - o *Press the ▼ button until you reach the "CST Setup" menu item.*
  - o *After pressing the ↵ button, the "Input Password" dialog is showing.*
  - o *Press the button "2" (on the right side) four times and then the ↵ button.*
  - o *Press the ▼ Button, to navigate to the "CST Setup Menu" menu item and then the ↵ button.*
  - o *Press the ▼ button until you reach the "Show Date & Time" menu item.*
  - o *Press the ↵ button.*
  - o *Change the value with the ▲ button from "on" to "off" and press the ↵ button.*
  - o *Press twice the ESC button to exit the menu.*

- • The system is ready for operation if all steps above are successful performed.

Fault description and their elimination:

The following table gives an overview of faults that may occur and how they can be eliminated.

Explanation of the table
- **CST TEXT =**   The error text that is displayed in the PVA-15CST call station
- **DESCRIPTION =** Description of this error type
- **ACTION =**   Actions to eliminate the fault

CST TEXT	DESCRIPTION	ACTION
Contr. Data Fault	Memory or Read/Write error.	Controller defect, must be repaired by ASA.
Watchdog Fault	Watchdog error of the device. The system has rebooted.	Press the "System Fault" button on the call station to reset the error.
Contr. SW Fault	The device firmware version is not compatible with the IRIS-Net version used.	A firmware update of the Controller is necessary.
Contr. HW Fault	Error in the power supply or the A/D converters of the device.	Controller defect, must be repaired by ASA.
Temperature Fault	Temperature overload of the device.	The internal temperature of the controller is too high. Ensure sufficient cooling.
DSP System Fault	Error during the processing of audio data.	Controller defect, must be repaired by ASA.
Message Fault	Collected Error of the message manager.	Further details are provided in the message manager dialog (ERROR STATES).
CAN Bus Fault	Fault condition on the CAN bus (Amplifier and Router communication).	Further details are provided in the Interface dialog (CAN INTERFACE).
CST Bus Fault #%u	Fault condition on the CST bus (call station communication). The parameter %u gives the slot number of the erroneous module.	Check cable connections between the call station and call station port.
Int.Router DSP Fault	Error in the digital signal processing (DSP) of the device.	Controller defect, must be repaired by ASA
Int.Router HW Fault	Hardware error.	Controller defect, must be repaired by ASA
Int.Router TMP Fault	Temperature overload of the device.	The internal temperature of the controller is too high. Ensure sufficient cooling.
Int.Router PLT Fault	Missing pilot tone at input 1 of cluster A.	Check cable connections between amplifier output and AMP-IN 1 cluster A.
Int.Router PLT Fault	Missing pilot tone at input 1 of cluster B.	Check cable connections between amplifier output and AMP-IN 1 cluster B.
CST Fault #%u	A connected PVA-15CST call station has transferred an error message. The parameter %u gives the address of the erroneous call station.	Further details are provided in the PVACST dialog (Supervision).
Amplifier Fault #%u	A connected PVA-2P500 power amplifier has transferred an error message. The parameter %u gives the address of the erroneous amplifier.	Further details are provided in the PVAAMP dialog (Supervision).