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IMPACT Voice Alarm Systems

The **IMPACT** on decreasing installation and maintenance costs.

The **IMPACT** of configurable modular design on space saving.

The **IMPACT** of technology on the environment.

BRACE YOURSELF FOR IMPACT



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Remote controlled Zone-Expander

Built to meet the highest expectations, still remain user friendly, flexible and cost effective, **IMPACT** sets a new course for the Voice Alarm System industry.

The **IMPACT** system consists of only two chassis, one controller that transfers the network data stream to the amplifier and a **DCA-2.500** amplifier completed with at least one **4E-SW6** module. The **4E-SW6** is an intelligent 2-into-6 Remote Controlled Zone Expander and zoning module that subdivides broadcasts into a multiple of six sub-areas. The **4E-SW6** provides 'built-in' loudspeaker monitoring.

Now it is time to think smart and combine battery charger capabilities with the integrated power amplifier. The **DCA-2.500** amplifier not only drives the system up to an impressive 1000 Watt, but it also charges and surveys a scalable battery pack for up to three 1000 Watt amplifiers. This not only reduces hardware and rack-space but most importantly, it decreases installation and operational costs whilst increasing reliability. Simple to configure with its easy to use GUI tool guiding software you create a systems solution with multiple Voice-Alarm zones, paging-zones and music areas in minutes. High quality DSP-processing guarantees state of the art audio performance throughout the building as well as highly intelligible pre-recorded and live message broadcast for both commercial and live-safety applications.

IMPACT comes with a wide range of touchscreen emergency consoles, wall-box and desktop paging consoles. The Global Network connects up to 32 **CONTROLLERS** and over 200 paging consoles, GPIO modules and **4E-SW6** zone switching modules offering a staggering size of up to 1500 speaker-lines!



4E-CMP

Commercial paging console with gooseneck microphone and push-button panel.



4E-CMT

Commercial paging console with gooseneck.



4E-FM

Fireman-microphone, wall and desktop version.



4E-FMT

Fireman-microphone with touchscreen control, wall and desktop version.



4E-FMTC

Fireman-microphone with touchscreen and gooseneck for commercial paging.



4E-FMWB

Fireman-microphone wall-box.

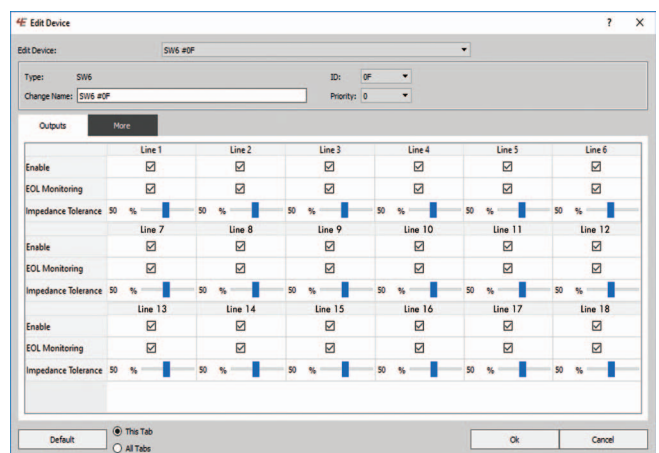
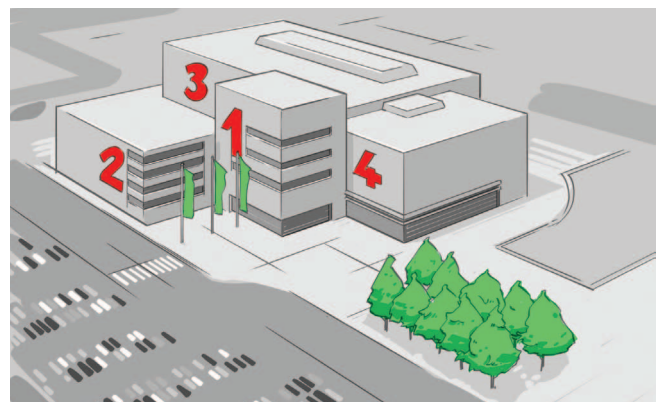


4EVAC MANAGER

4EVAC Manager is an overall programming application tool that provides a comprehensive application specific interface to your **IMPACT** and **COMPACT500** networked system. The software provides an overview of your overall system status and makes system operation very easy through an intuitive and secure user interface configuration tool that makes complex programming and service easier than ever.

4EVAC Manager programming application for **IMPACT** and **COMPACT500** system provides:

- Quick download and upload of the system configuration;
- Update of firmware and configuration over the Network to all-devices (Each **CONTROLLER** or **COMPACT500** holds a complete copy of the system configuration file);
- Flashcard exchange protocol for quick system update / programming in case of computer access disability or emergency purpose.



CONTROLLER / Audio matrix

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The **CONTROLLER** is the heart of the **IMPACT** system. Housed in a 1U 19-inch rack-mountable frame, it manages all **VACIE** operations. This involves the management and prioritising of audio streams coming from the network.



DCA 2.500 / D-Class Charger Amplifier

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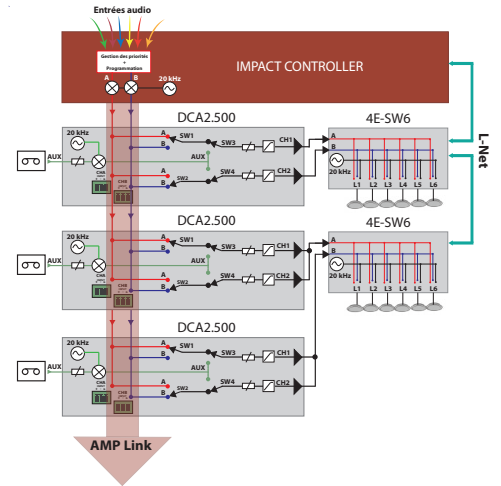
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Standing apart from any conventional power amplifier, the **DCA2.500** features an in-built scalable battery charger with a temperature sensor that is EN54-4 compliant.



4E-SW6 / Remote Controlled Zone Expander module

The **4E-SW6** Remote Controlled Zone Expander module is a simple and cost-effective way to distribute various speaker loads dynamically over multiple speaker-lines.



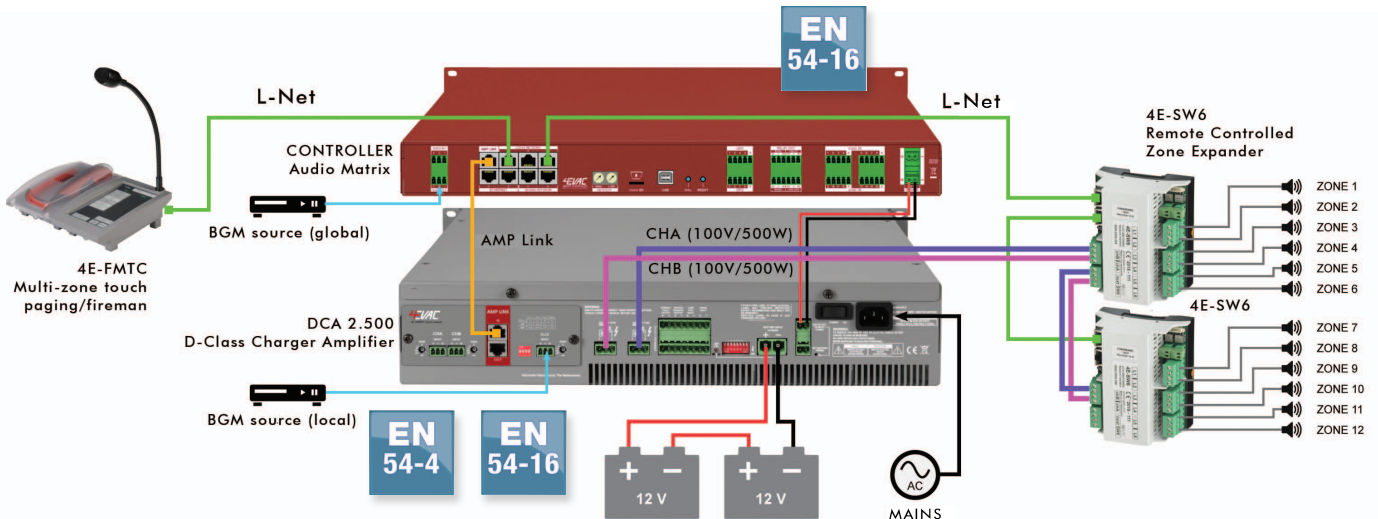
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IMPACT system basic features complying to EN54-16:

- Power amplifier, 2 x 500 W
- Back-up amplifier included
- Battery charger for 30 min full-load and 24 hours standby
- 12-loudspeaker lines / zones with EOL using 4E-SW6
- Simultaneous Paging & BGM or EVAC & ALERT into all-zones
- Phased evacuation into all-zones
- Multiple message player
- 32 x GPIO for fire-panel triggering
- Local aux/music entry on amplifier for commercial use into all-zones.

Component used:

- 1 x CONTROLLER
- 1x DCA2.500
- 2 x 4E-SW6
- 1 x 4E-FMTC (optional Wallbox Fireman microphone)
- 12 x EOL module
- 2 x 12 VDC/38 AH batteries



CONTROLLER / Audio matrix

The **CONTROLLER** deals with inputs according to their own signal priority table, distributing the audio using the digital AMP-link module, which handles two prioritised streams through a dynamic assignment technique, to a maximum of 32 **DCA-2.500** amplifiers.

The **4E-SW6** remote controlled zone expanders units, housed remotely in the easy-wire racks, work directly to the **CONTROLLER**. This set-up routes audio from the A and B channels of the amplifier into the required speaker lines and zone or zones.

The **CONTROLLER** manages two simultaneous audio streams over an expandable switching matrix. This facilitates expanding from a minimum of 6 speaker lines to a maximum of over 1500 speaker lines, which can be grouped into a maximum of 255 virtual paging zones.

The **CONTROLLER** provides all mandatory indicators according to the EN54-16 standard and provides GPI and GPO interfacing, global and local network ports, TCP-IP ports and an AMP-link that interfaces with the **DCA-2.500** amplifiers over a dedicated RS485 bus for audio and data control.

Offering 'dynamic-load-distribution' over the speaker lines from 1 Watt to 200 W, one **CONTROLLER** can manage up to 32 x **DCA-2.500** amplifiers with a combined output power of up to 32,000 W.

The **CONTROLLER** uses the same **4EVAC Manager** as the **COMPACT500**, making the interaction between the two systems straightforward and enabling them to be easily combined into one system.

CERTIFICATION: EN54-16:2008

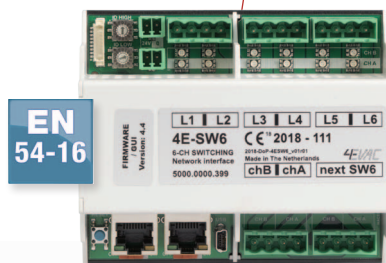
CERTIFICATION: EN54-16:2008

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The **CONTROLLER** integrates seamlessly with the **COMPACT500** box-on-the-wall VACIE system, which offers maximum versatility and meets today's challenging market demands.

Small loads are a perfect match for the **4E-SW6** REMOTE CONTROLLED ZONE EXPANDER module. A simple way to distribute various loads over a multiple of 6-speaker lines / zones.

No rack build, No engineering!



4E-SW6 / Remote Controlled Zone Expander module

The **4E-SW6** Remote Controlled Zone Expander module is a simple and cost-effective way to distribute various loads over a multiple of 6-speaker lines / zones.

The **IMPACT** concept is simple yet powerful: to provide more coverage, with a higher number of zones produced either from just one amplifier or only a few amplifiers.

When combined with **4EVAC's** **DCA-2.500**, or other single high-power two-channel amplifier, the **4E-SW6** switching module generates simultaneous EVAC and **ALERT** announcements or paging messages and background music (**BGM**) into six switched speaker lines. By adding more **4E-SW6** switching modules it is possible to produce any multiple of six speaker lines.

More zones, Fewer amplifiers!

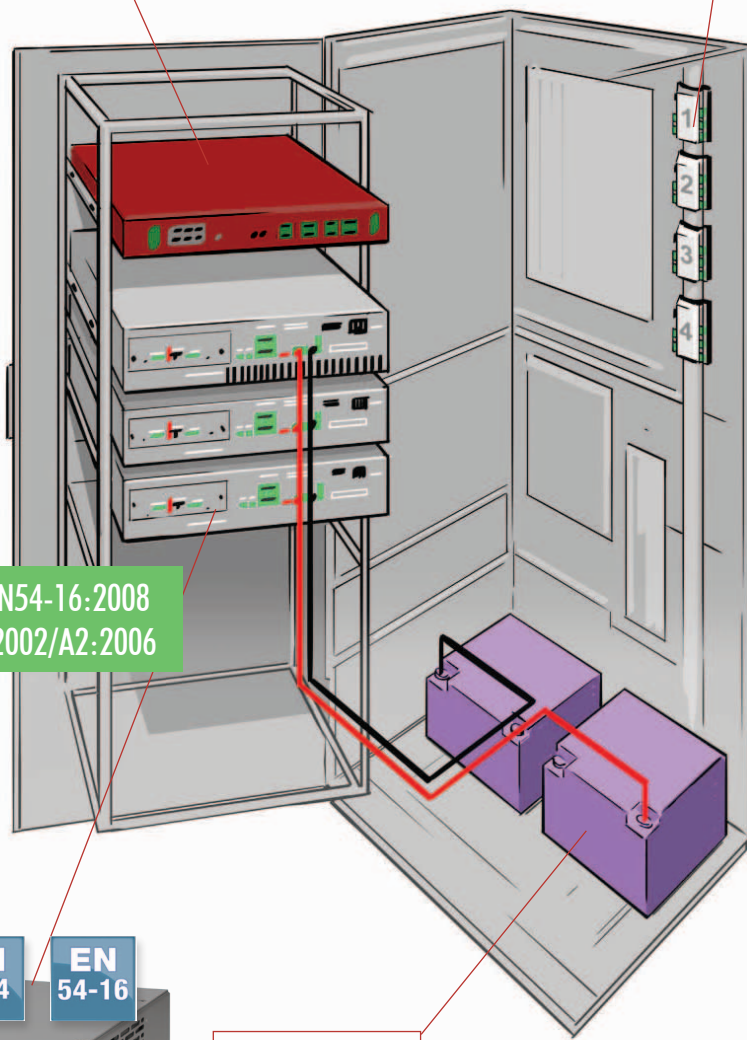
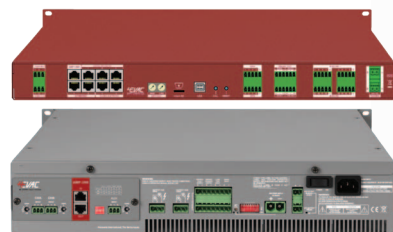
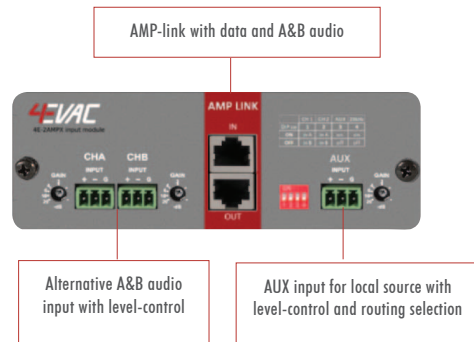
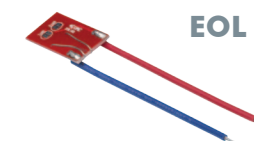
Powered by a single **DCA-2.500** two channel amplifier, the **4E-SW6** switching module provides simultaneous, uninterrupted paging and **BGM** for six manageable speaker lines. A third internal channel is used by the surveillance tone generator to continuously check the

integrity of the cable and detects any faults. The third internal channel can also be addressed if the speaker lines need to be silenced.

The cable integrity detection process works by the **4E-SW6** generating a separate AC carrier for each individual line. This is received by a simple, cost effective end-of-line module (**EOL**), creating a cable monitoring system that checks for short- and open-line faults.

The **4E-SW6** switching module is easy to install. It comes in a quick-snap DIN-rail housing and is supplied with speaker line connectors that directly accept external field cabling up to 2.5 mm²/12 AWG.

Each speaker line is able to support loads from as small as 1W to as big as 200 W. This 'dynamic-load-distribution' makes **IMPACT** the most flexible and versatile VACIE system in the industry and optimises the use of all modules on the network.



CERTIFICATION: EN54-16:2008
EN54-4:1997/A1:2002/A2:2006

DCA 2.500 / D-Class Charger Amplifier

The **DCA-2.500** D-Class amplifier provides powerful audio amplification certified to EN54-16 and EN54-4. It delivers 2 x 500 W outputs and is housed in a 2U 19-inch rackhousing. Up to three **DCA-2.500** amplifiers can be stacked together sharing a single battery pack, providing back-up power and recharging capabilities.

The amplifier has been designed along 'modern-art' lines and features a transformer-less design with 100V outputs for distributed loudspeaker systems. With cutting edge design the **DCA** amplifier sets a standard for the most demanding projects.

The **DCA-2.500** boasts a dual voltage mains supply combined with a secondary 24 VDC battery backup, crucial for ultimate reliability and durability in a VACIE system.

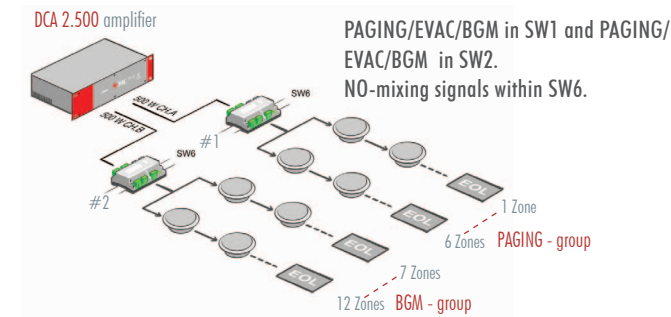
A Master/Slave system architecture, dictated by the AMP-LINK, regulates the battery charging procedure and status control.

The AMP-LINK module offers a local analogue AUX entry for local music playback into channel A and/or B. This allows for third party commercial use integration, hence still complying to the VACIE standards.

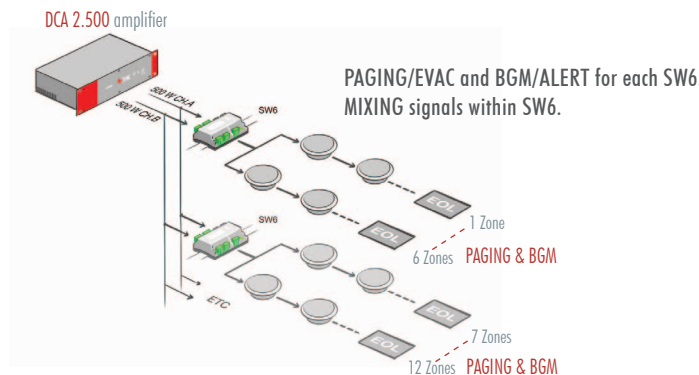


The **IMPACT** on the batteries.

Using two amplifier channels of the **DCA 2.500** amplifier, the **4E-SW6** switching module provides simultaneously paging in **SW6 #1** and background music in **SW6 #2** with 500 W per **4E-SW6** switching unit.



Using two amplifier channels of the **DCA 2.500** amplifier, the **4E-SW6** switching module provides simultaneously paging and **BGM** in each **4E-SW6** with the limitation of 500 W for the whole system.



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