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STENTOFON - All IP, flexible solutions taking you into 2008	4
STENTOFON Security Sectors	
AlphaCom E and its SIP interface	13
LAN Infrastructure	
System Management	17
Stations	
IP Stations and Accessories	18
Desktop/Wall Stations	
Flush/Surface Mount Stations	23
Control Room Master Station and Accessories	25
Industrial Stations and Accessories	
Tamper and Vandal Resistant Stations and Accessories	
Station Kits	
Exchanges	
IP Station Licenses	
SIP Station Licenses	
AlphaNet and Multi-module VoIP Licenses	
SIP Trunking VoIP Licenses	
SIP Equipment	
Digital Gateway	
Upgrade Kits	
Feature Cards	
Accessories	
Connection Material	
Spares	
System Management Software	
AlphaPro	
AlphaVision	
Reference Sheets	
Pro700 - Your hidden business asset	47
Master Stations	49
Substations	50
Tamper Resistant Stations	50
Accessories	
Station Kits	
Power Supplies	
• •	
Bi-Way - Security Window Communication System	55
Starter Kit	
Accessories	58



# All IP, flexible solutions taking you into 2008

Launched in 2006, Zenitel's most important product, AlphaCom E, the STENTOFON and VINGTOR intercom and marine communication system based on IP, is now the backbone of Zenitel's major product portfolio. The full IP range comprises IP exchanges, IP sub-stations, IP master stations and IT/IP standards compliance, and constitutes an integral part of a total security management solution, with security maintained through the in-built firewall and redundant network.

# Standard Compliance

Using open standards such as SIP and Web 2.0 services, AlphaCom E connects many security audio systems like intercom, radio, Public Address, telephony and control rooms,to create a cohesive integrated solution. AlphaComE caters for sites that require half a dozen stations in a single location, to systems with several thousand users spread around multiple international sites.

# **Integrated Solutions**

Both new and existing customers can use AlphaCom E for its networking capabilities as well as integration to the IT operation, with no extra infrastructure cost. Standard compliance meanwhile reduces integration time, cost and risk for the organisation but provides additional building blocks.

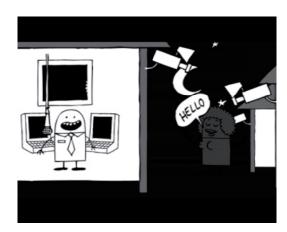
From total cost of ownership through to reliability and the technology used, Zenitel's STENTOFON solutions offer considerable and note worthy advantages to the distributor, installer and end user.

# A relentless dedication to Voice in security

STENTOFON began life in 1946 as Stentor Radiofabrikk, specializing in radio communication systems for ships and for fishing boats. Stentor later extended its range with intercom systems that it sold under the brand name STENTOFON.

Today it is one of the most important brand names in Zenitel's portfolio bringing you the new generation of IP exchanges, the STENTOFON AlphaCom E. This new solution is an evolution into IP technology while maintaining full backwards compatibility for existing projects. STENTOFON AlphaCom E and the other solutions in the range open up new opportunities and markets, and confirm Zenitel's leading position in the security field.

Over a century after it first began, one element has always remained strong through the company's history, its belief in one single principle - helping people communicate when it is really necessary. Zenitel's solutions are voice driven because Zenitel knows that when people are in trouble, they call out, they listen, and they start to talk.



STENTOFON products give security a voice.

See www.zenitel.com to download the video.



# Performance with possibilities

Whether you are looking to update to the latest feature set and IP capability with the exchange of a single card, or looking to a STENTOFON system for the first time, with STENTOFON you'll find an integrated solution where no compromise has been made.

- AlphaCom E serves systems that range in size from perhaps half a dozen stations in a single location, to systems where there are several thousand users spread around multiple international sites.
- Through the powerful global group call feature you can address thousands of people worldwide, at the push of a button.
- A wide range of stations and substations complement the portfolio and adapts the core platform to a comprehensive range of applications.
- AlphaCom E has a high level of supervision. Wiring, audio loop and cabinet subscriber boards are all supervised. No need to send guards out to check stations on a daily basis.
- AlphaCom E is developed with the purpose of providing the fastest possible action in an
  emergency situation. Therefore, several security features are built into the easy to use control
  room station. Examples of important security features are call prioritization, queuing of calls
  according to priority and time of arrival, auto acknowledgment to call-in point by e.g. flashing
  station lamp, group call, busy override and remote door handling.
- The AlphaCom E critical communication system has exceptional audio intelligibility (10-18khz bandwidth) over phones (3.4khz).
- Event trail is also available via system log and call recording.

This has led to wide project experience, which all through these years, has led to the STENTOFON brand seducing more prestigious and demanding customers such as Capitol Hill in the United States, Microsoft and Beijing Capital International Airport to mention a few.

# Made to improve operational efficiency

Adap	otabili	ty and	ease of	use
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To the general public, an intercom is a box on a wall with a button, and the important thing is to make sure that when the button is pressed, the right things happen. A lot of functionality may be hidden, such as call forwarding, VOX switching, automated voice prompts and CCTV switching. When used regularly by trained personnel, a STENTOFON intercom system can give access to the full power of the building security and management system: control of doors and cameras, instant communications with other staff, and making announcements.

#### Seamless networking between sites

Availability of low-cost broadband connections, together with the reasonable starting price of smaller exchanges, enables multiple sites to be connected cost-efficiently as a single network. In security and entry control applications, for example, this means that one security post can readily cover a number of buildings or sites. It also means that at the press of a button, people can immediately be in touch even though they may actually be located in different countries.



Security through integration	Integral security means the harmonious inter-operation of the various sub-systems: CCTV, IP and PBX telephony, radios, DECT, PA, barriers, and door locks etc. AlphaCom E is specifically designed to achieve a high level of integration with other associated systems.
Industry standard interfaces	Through supporting industry standard protocols (SNMP, syslog, HTTP, HTTPS, XML, NTP, OPC, SIP) for integration, supervision and maintenance, the management and operation of the STENTOFON AlphaCom E system can be aligned to the other IT systems, reducing operating costs and increasing efficiency.
Efficient system change and upgrading	Using remote system logon, system behaviour and software upgrades can be managed from a central location for all sites.
Automatic monitoring and supervision	AlphaCom E's advanced network monitoring and supervision function allows fast detection, identification and repair of faults, throughout the system, to create a secure IT operation. User actions and faults can be logged and information can be distributed by e-mail, SMS or other means to the control room, mobile maintenance staff or any other person in the organisation who needs the information.
Always operational	AlphaCom E continuously monitors all connections to ensure complete integrity; when you need to make that one important call, the system works. Using its inbuilt redundancy feature, each site can have its own local intelligence that automatically reports if a fault occurs. Alternative routing is implemented to overcome network problems, no matter what technology is employed to link the sites together.
Several layers of security – CCoIP®	High security is the first and most important issue for Zenitel, even more so now the STENTOFON AlphaCom E is in the IP domain. The AlphaCom E has multiple levels of user authorization and logon. It has dual IP/Ethernet ports with built-in firewall, which allows separation of physical security network and IT administration network. IP forwarding is disabled to secure that AlphaCom E is not a backdoor between networks. The IP stations meanwhile have an adaptive end-node firewall built in.

AlphaCom offers Stanlow an unrivalled communication solution. It fulfills our criteria of being reliable and durable, coupled with unsurpassed sound quality, advanced functionality and complete ease of use.

Dave McCarthy, Stanlow Communications Team Leader



# A reliable and dependable investment

With Zenitel you know you are making an investment and can be confident it will stand the test of time.

# **Backwards Compatibility**

Zenitel is proud to say and promise it has made the change to IP technology and applications support without losing backwards compatibility with existing equipment and applications. IP has been put in as the core of the system - it's 'native IP' as they say - and it's not an add-on or external VoIP module; at the same time compatibility backward is being maintained with all of the existing AlphaCom equipment: both exchanges and stations. Anyone can claim to have products that are 'future proof' but the proof of being future proof is to launch products that are backward compatible.

# Scalability

The AlphaCom E provides an open, modular platform and scalable architecture, optimizing your investments. Your initial investment is protected because new services, capabilities and capacity extension will be easily implemented by way of downloadable software. At the same time, you can be sure of capitalizing on the latest technological advances.



STENTOFON AlphaCom E is superior, technologically advanced, and it offers the possibility of harnessing important processing power or extra capacity.

At Beijing Capital International Airport we choose to work with companies which can match our needs as a large and growing international air hub. In order to safeguard the airports investment, we now always insist on backwards compatibility to existing equipment, which has benefited the airport this time round and will do so again in the future.

Mr. Zhengkai, Electronic Maintenance Department Assistant Manager, BCIA









# **Building Security**

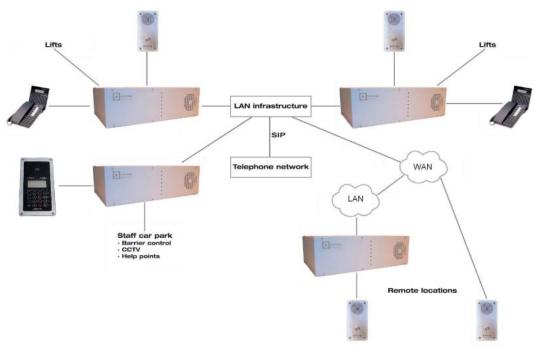
- 60 years of experience in security intercom

For over 60 years, the STENTOFON brand of intercom systems has provided thousands of customers worldwide with communications for critical applications, including public and private building security. In addition to the numerous specialist buildings, corporate buildings, head offices, libraries and town halls around the globe also rely daily on STENTOFON. In the building security market, STENTOFON AlphaCom E provides internal communication for reception areas and meeting rooms, external communication, door communication and for other public areas such as parking and elevators.

When it comes to choosing a communication system for these demanding environments, systems must be judged for speed of call setup, communication clarity, flexibility, reliability and ease of integration with CCTV, access control and alarm systems. These elements combined provide a total security solution. Nothing is faster or more reliable than intercom.

VoIP technology allows the AlphaCom E system to perform seamlessly over a building's network, across town or worldwide.

When communication is critical, look to the STENTOFON brand, the brand security professionals depend on.







# **Airports**

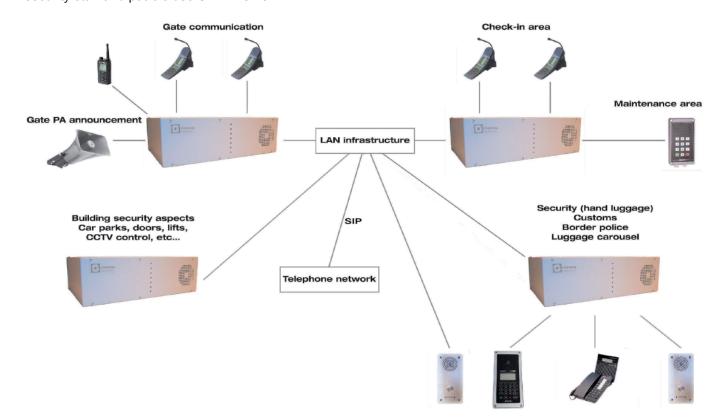
# - the STENTOFON brand is an industry leader in the intercom market

Millions of people fly on thousands of planes every day and with large numbers of people passing through airports, such large gatherings in relatively small spaces presents an obvious target for terrorism and other crime.

Airport security provides a first line of defense against attacks and crime. From the external fences which enclose the airport to sensitive areas like terminals and baggage handling facilities, security checkpoints and security staff and patrols use STENTOFON

AlphaCom E for effective internal communications. The STENTOFON AlphaCom E system offers internal communications, airport announcements, group calls, alarm distribution and more. These features allow an airport to easily customize its communications for specific requirements and needs.

When communication is critical, look to the STENTOFON brand, the brand security professionals depend on.







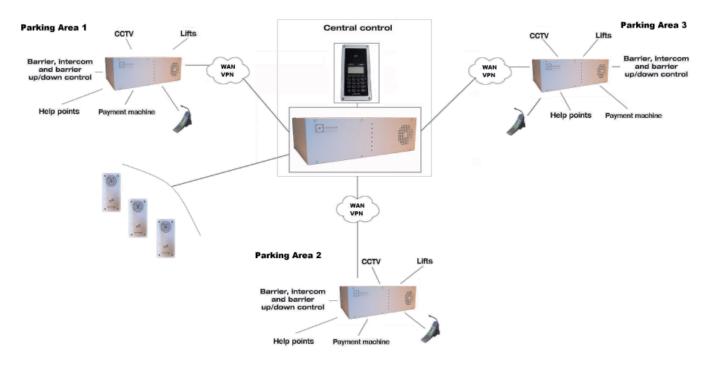
# **Parking**

- integrated communication and security solutions specifically for parking facilities

When it comes to parking facilities, STENTOFON AlphaCom E offers fast, clear and easy to integrate communication system for protecting people and property. Most parking complexes are multi-storied, unattended areas where efficient security can be a problem. Security performance and emergency response time can be greatly improved with an integrated STENTOFON AlphaCom E communication system. VoIP technology allows the system to perform seamlessly over a building's network, across town or worldwide.

From parking areas in high rise buildings to office complexes, STENTOFON answers all your communication requirements and needs. A variety of rugged, tamper-resistant stations, designed for use in parking stairwells, elevators, ramps, automatic entry ways and other security sensitive areas, are available. STENTOFON offers maximum integration flexibility, with CCTV, access control and alarm systems.

When communication is critical, look to the STENTOFON brand, the brand parking professionals depend on.







# **Hospital**

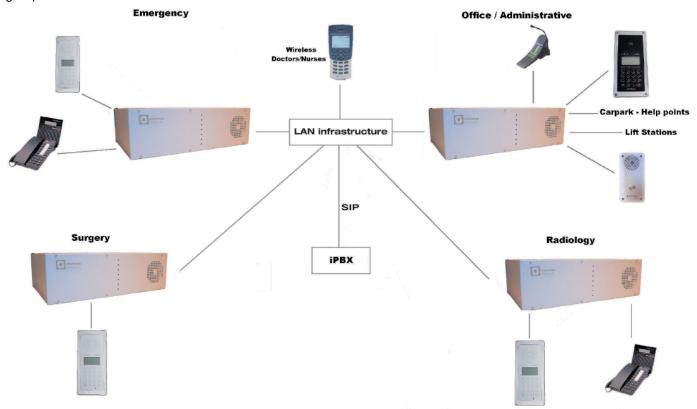
- providing reliable, quality communications for the world's most demanding hospitals

Hospitals around the globe look to STENTOFON for effective internal communications. When it comes to choosing a communication system for these demanding environments, systems must be judged for speed of call setup, communication clarity, ease of use and reliability. And when compared to a standard telephone system, nothing is faster than intercom.

The STENTOFONAlphaCom E system offers internal communications, overhead paging/public address, group

calls and alarm distribution. Using Voice over IP (VoIP) whilst maintaining the rich features and flexibility the AlphaCom system is known for, a hospital can easily customize its communications for specific requirements and needs.

When communication is critical, look to the STENTOFON brand, the name hospitals depend on.







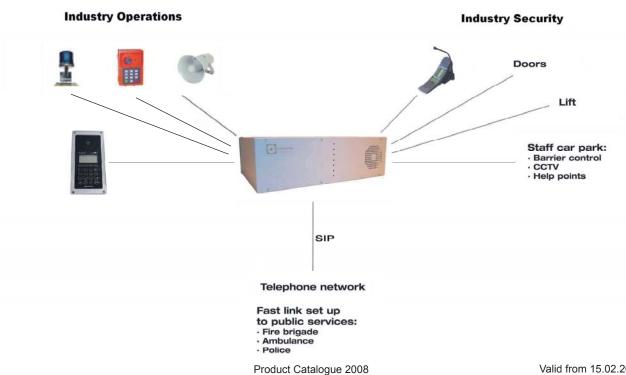
# **Industry**

### - STENTOFON industrial reliability in all elements

From the initial primary sector converting natural resources into primary products, to the secondary sector of manufacturing, Zenitel's success within the Industry sector lies in its ability to deliver totally security, safety and operational communication systems. Regardless of the working conditions, there is a STENTOFON specialist stations or terminal for every environment and the STENTOFON system itself is adaptable to the size of the company now, and as it grows.

Offering flexible integration to CCTV, voice communication, alarms, access control and remote control functions, the STENTOFON intercom exchange can perform almost any conceivable logic, control,

mathematical or time related function, with endless possibilities for: routing and re-routing a call, an alarm function, barrier control and more. Unlike a telephone system, the STENTOFON system continuously monitors all connections, allowing you to make that one vital call and confirming our reputation for reliability. When communication is critical, look to the STENTOFON brand, the name industrial professionals depend on.







# **Prisons**

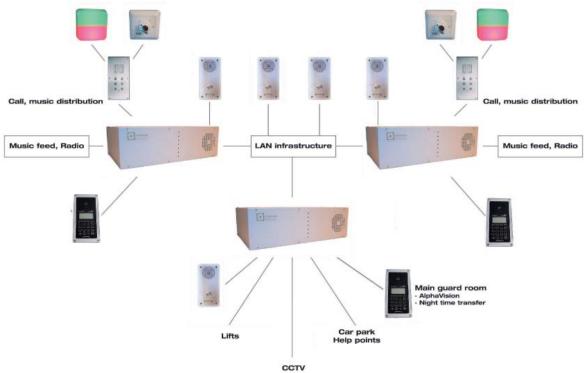
#### - the world's most secure prisons use STENTOFON

STENTOFON has a unique Cell Call system and it's already installed in multi-complex prisons and correctional facilities across the world.

Prisons require a tailored, cost effective solution that integrates well with existing platforms, so the STENTOFON AlphaCom E system has built in compatibility with existing or future security systems, integrating administrative communications, audio paging, alarm distribution, wireless signaling, the telephone network and 'man down' systems for guard protection; the latter a primary concern of any correctional facility. Light signaling is an essential part, enhancing and securing the operation

in case of mains breakdown, and the cell stations themselves incorporate redundant backup connections for power and signaling. Tamper resistant, weather resistant and custom designed stations are available for each critical environment and all are easy to use – once a call has been placed, speech can be made hands-free. VoIP technology allows the STENTOFON AlphaCom E system to perform seamlessly over a building's network, across town or worldwide.

When communication is critical, look to the STENTOFON brand, the brand correctional security professionals depend on.







# Infrastructure

- integrated communication and security solutions specifically for public and private highways

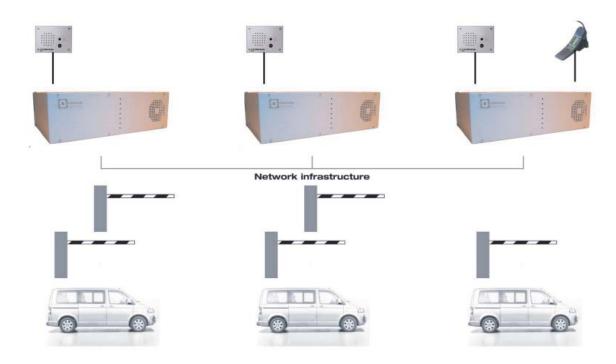
On the highway, speed and dependability is of the essence. Operators of road infrastructures, road toll operators and those with private or commercial access and estate roads, find by using STENTOFON AlphaCom equipment, roads, motorways and associated systems can be kept satisfactorily operational, kept safe for customers and staff and later be adapted to cope with changes in traffic or regulations.

People using the highways can make a call any time of the day or night and talk to somebody to help them with the barrier, or any other sort of problem. The IP system

integrates with the CCTV system so a solution of audio together with video solves any problems that users may have, and with simple call management and a queuing system there are no lost calls or busy tones.

VoIP technology allows the AlphaCom E system to perform seamlessly over a building's network to a single supervision center, across town or even worldwide.

When communication is critical, look to the STENTOFON brand, the brand infrastructure professionals depend on.



Exchanges at different entry and exit points along the road





# AlphaCom E and its SIP Interface

- SIP opens up your intercom and internal communications system to the external world

SIP (Session Initiation Protocol) is a standard protocol for IP-telephony, which is supported by most manufacturers of VoIP equipment. The implementation of the SIP protocol in the AlphaCom E allows users of the AlphaCom E to call users of SIP based equipment and vice versa. Today a wide variety of SIP-equipment exists such as iPABX's, network gateways, telephones and telephone adapters.

#### SIP trunks

A SIP trunk is a VoIP link to another SIP based telephone system. This can be an iPBX with its own SIP interface or a gateway to an analogue, ISDN or GSM line.

The AlphaCom E SIP trunk interface provides a cost effective, high capacity (up to 20 channels) and flexible solution to link in almost any telephone system. The SIP trunk solution support features such as calling name presentation, calling number presentation, IVR, door

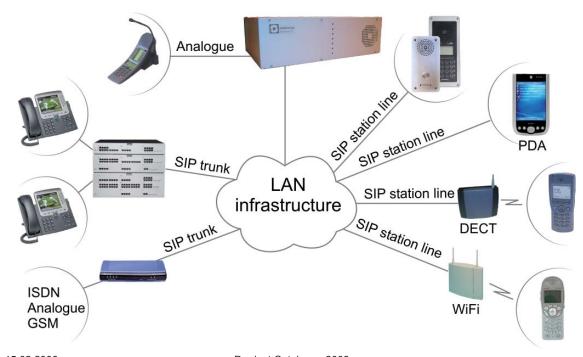
opening, and shared global numbering plans to name a few.

#### **SIP stations**

Through the AlphaCom E's SIP Registrar it is possible to define SIP stations as AlphaCom E extensions. Each SIP station is defined as a global number and can be called directly from any intercom station in the system. SIP stations can call all intercom stations.

SIP stations can be IP telephones, IP-DECT telephones, PC and PDA with soft clients or a telephone adapter linking in ISDN or analogue telephones.

There are many manufacturers of SIP based equipment. For an overview of tested equipment and functionality, please contact the Customer Engineering department <a href="mailto:support.stentofon@zenitel.com">support.stentofon@zenitel.com</a>







# LAN Infrastructure

- in touch at a touch - anywhere

#### **IP and Distances**

On IP it is possible to connect an intercom station to an exchange which is on the other side of the world. Yet, under certain circumstances there is a distance limitation which is much lower than what can be reached with conventional analogue stations.

The AlphaCom E and its IP stations are equipped with RJ45 connectors for direct connection to an Ethernet network, cabled with a CAT5 structured cabling system.

Ethernet over CAT5 cabling has a distance limitation of 100 meters between back-to-back connected units. When the IP station needs to be placed at a distance further than 100 meters from the last switch a different method of connection must be found. There are several alternatives for this.

#### **Optical fibre**

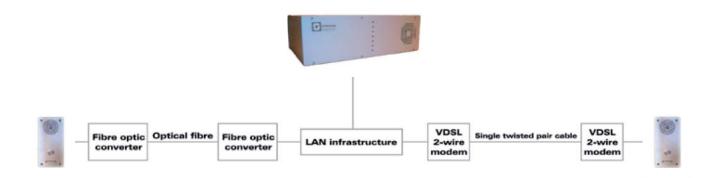
Through the use of optical fibre converters it is possible to substantially extend the distance between switch and end-point. The maximum distance depends on the types of fibre and converter which are used. There are different options available, of which the main ones are multi-mode and mono-mode fibers.

- Multi-mode fibres can reach distances of up to 2 km
- Mono-mode fibres can reach distances of up to 120 km Note that these distances also depend on the quality of the fibre and the wavelength of the light. Always consult the specifications of the manufacturer.

#### **VDSL - 2-wire modems**

VDSL stands for Very high speed Digital Subscriber Line. A VDSL modem converts between Ethernet and a single twisted pair telephone cable. The maximum distance that can be reached is 1900 meters. A VDSL modem measures the link quality and adapts the transmission speed to that link. At a distance of 1900 meters, the speed has dropped to 1 Mbit/sec, which is still more than sufficient for five IP intercom stations.

There are several manufacturers of fibre optic and VDSL converters. In general this equipment will work well if the recommendations of those manufacturers are followed. For an up to date list of to Zenitel known manufacturers, please contact the Customer Engineering department, support.stentofon@zenitel.com







# System Management

- made for IP / environment

#### Savings on integrated system management

Reduced cost for AlphaCom E administration requires integration with the IT supervision and administration tools. It is quite usual that IT departments take ownership of supervision, maintenance and fault handling of all equipments connected to the IP/IT network.

Zenitel recognizes the challenges of STENTOFON managing equipment connected to dynamic IP networks. When connecting a security audio system like the STENTOFON AlphaCom E to an IP/IT network, a set of new challenges and opportunities are emerging. Downtime on the intercom network is costly, and the network requires speedy repairs if faults occur.

The IP/IT network is a multi-vendor environment, which requires standard protocols for supervision and maintenance. The AlphaCom E supports industry standard protocols (SNMP, syslog, HTTP, NTP) for supervision and maintenance, which allow aligning the management and operation of the AlphaCom E system to the other systems handled by the IT department. The STENTOFON AlphaCom management tools and services help to optimize the total cost of ownership and operational efficiency.

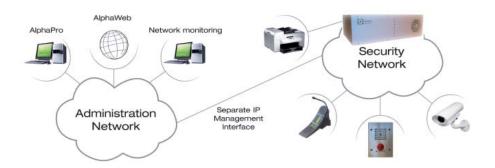
# Savings through easy maintenance and upgrade

AlphaCom E provides an advanced network monitoring and supervision function allowing fast detection, identification and repair of faults. The monitoring and supervision functions are available through standard web-browsers like Internet Explorer / Mozilla Firefox or through standard network monitoring tools like HP OpenView.

Simultanous upgrades of the AlphaCom E network together with other part of the IT system reduces cost and improves user quality; this requires fast and automatic software upgrade procedures. The AlphaCom E supports easy to use Web-based software upgrade procedures, with cluster programming of the nodes. The AlphaCom E will automatically distribute software to all STENTOFON IP stations connected to the node.

# Maintaining network security

High security is the first and most important issue now that the AlphaCom E has landed in the IP domain. The AlphaCom E has multiple levels of user authorization and logon. It has dual IP/Ethernet ports with built-in firewall, which allows separation of physical security network and IT administration network. IP forwarding is disabled to secure that AlphaCom E is not a backdoor between networks. The IP stations have an adaptive end-node firewall built in.





# IP Stations and Accessories





#### 1008010000

#### **IP CRM V Master**

- Made for Critical Communication over IP CCoIP®
- Large high contrast display with backlight for excellent readability
- Superb audio technology
- Made for control room applications
- Noise canceling goose-neck microphone
- Optional handset unit
- Integrated Web server for easy configuration and monitoring
- Remote automatic software update

Size (WxHxD) in mm: 125x280x30

Weight in g: 370

Expected delivery from 1/6-2008



#### 1008031000

# IP Flush Master, display

- Made for STENTOFON Critical Communication over IP CCoIP®
- Large high contrast display with backlight for excellent readability
- Superb audio technology
- Optional handset unit
- Integrated Web server for easy confi guration and monitoring
- Remote automatic software update

Size (WxHxD) in mm: 125x280x30

Weight in g: 370

Expected delivery from 1/6-2008



#### 1008032000

# IP Flush Master, display and gooseneck

- Made for STENTOFON Critical Communication over IP CCoIP®
- Large high contrast display with backlight for excellent readability
- Superb audio technology Noise cancelling gooseneck microphone
- Optional handset unit
- Integrated Web server for easy confi guration and monitoring
- Remote automatic software update

Size (WxHxD) in mm: 125x280x30

Weight in g: 370

Expected delivery from 1/6-2008



#### 1008015000

#### IP OR Master, display

- Made for STENTOFON Critical Communication over IP (CCoIP®)
- Large high contrast display with backlight for excellent readability
- Flat chemical resistant and anti-bacterial front surface for easy cleaning
- Superb audio technology possible to talk and listen at a distance (5m)
- Integrated Web server for easy confi guration and monitoring

• Remote automatic software update

Size (WxHxD) in mm: 125x280x30

Weight in g: 370

Expected delivery from 1/6-2008





#### **Handset for IP Flush Masters**

Additional module for IP CRM V Master.

Expected delivery from 1/6-2008



1008093000

# **IP Master Station Kit, PCB**

This is the same PCB as is used in the 1008010000. Intended for local manufacturing of IP-CCoIP stations.

Expected delivery from 1/6-2008



1008041100

# Weather and Vandal Resistant IP Substation

with 1 vandal proof button.

- · Weather and vandal resistant
- · Remote software upgrade, configuration and monitoring
- · Dual Ethernet ports for daisy chaining IP stations or connection of other IP devices
- · Possible connection to external IP video camera
- One relay output for door lock control or flash strobe light, etc. Size (WxHxD) in mm: 92 x 180 x 54 Weight in kg: 0.8



1008098100

#### Flush Mount Back Box for 1008041100

Size (WxHxD) in mm: 80 x 168 x 50

Weight in kg: 0.8



1008098000

# On Wall Mount Back Box for 1008041100

Size (WxHxD) in mm: 92 x 180 x 52

Weight in kg: 0.8



1008051000

# Weather and Vandal Resistant IP Substation for 3 gang Back Box

with 1 red mushroom vandal proof button.

- · Weather and vandal resistant flush mount design
- · Remote software upgrade, configuration and monitoring
- · Dual Ethernet port for daisy chaining IP stations or connection of other IP devices
- · Possible connection to external IP video camera
- One relay output for door lock control or flash strobe light, etc. Size (WxHxD) in mm: 114 x 160 x 63

Weight in kg: 0.8





# 3 gang Flush Mount Back Box for 1008051000

Size (WxHxD) in mm: 95 x 145 x 65

Weight in kg: 0.8



1008090200

#### **IP Substation Kit**

- Optional conformal coating for use in harsh environments
- · Remote software upgrade, configuration and monitoring
- Dual Ethernet ports for daisy chaining IP stations or connection of other IP devices, like an IP video camera
- · Relay output for e.g. door lock control
- Tamper alarm input. Enables manufacturing of EN 81-28 and 81.70 compliant lift stations.

Size (WxHxD) in mm: 72 x 110 x 20

Weight: 100 g



1008091000

# Mounting and Assembly Kit for IP Substation

The IP Substation Kit itself includes the PCB. An optional Mounting and Assembly Kit includes gaskets, two inch loudspeaker, loudspeaker housing and microphone with mounting block for call LED.



1008092000

# 5 Buttons - Mushroom Type, Red

Buttons are ordered separately in sets of 5 pcs. or purchased locally.

- Vandal proof 30  $\text{mm}^{\varnothing}$  mushroom type, mounting hole 22.5  $\text{mm}^{\varnothing}$ 



1008092100

#### 5 Buttons - Stainless Steel

Buttons are ordered separately in sets of 5 pcs. or purchased locally.

- Vandal proof 22 mm<sup>Ø</sup> stainless steel, mounting hole 19.2 mm<sup>Ø</sup>







# **Dual display station**

Desktop master station with full access to all features in the STENTOFON AlphaCom Exchanges. Delivered without the optional gooseneck microphone module.

Size (WxHxD) in mm: 72 x 140 x 270

Weight in kg: 0.4

1007007010

### Microphone for Dual Display Station

Gooseneck microphone module.



1007001210

#### **Desk Master Station**

Slimline with handset and D-10 dialler, grey/black Size (WxHxD) in mm: 112 x 132 x 260 Weight in kg: 0.64

Requires separately ordered station cable.



1007034210

#### **Desk Master Station**

Desk or Wall  $\,$  with handset and D-10 dialler, grey/black Size (WxHxD) in mm: 225 x 75 x 176

Weight in kg: 0.7

Requires separately ordered station cable.



1007036210

#### **Desk/Wall Master Station**

Desk or Wall with D-10 dialler, grey/black Size (WxHxD) in mm: 168 x 75 x 176

Weight in kg: 0.5

Requires separately ordered station cable.



1007001310

#### **Desk Master Station, Display**

Slimline with handset and D-10 dialler and display, grey/black

Size (WxHxD) in mm: 112 x 132 x 260

Weight in kg: 0.6

Requires separately ordered station cable.



100703/310

# **Desk/Wall Master Station, Display**

Desk or wall with handset and D-10 dialler and display, grey/black Size (WxHxD) in mm:  $225 \times 75 \times 176$ 

Weight in kg: 0.7

Requires separately ordered station cable.





# **Desk/Wall Master Station, Display**

Desk or wall with D-10 dialler and display, grey/black Size (WxHxD) in mm: 168 x 75 x 176 Weight in kg: 0.5 Requires separately ordered station cable.



1007070090

**Desk Master Station , Display**Slimline with handset and D-10 dialler and display, grey/black Size (WxHxD) in mm: 112 x 132 x 260 Weight in kg: 0.6

Requires separately ordered station cable.



1007071090

# **Desk/Wall Master Station, Display**

Desk or wall with D-10 dialler and display, grey/black Size (WxHxD) in mm: 168 x 75 x 176 Weight in kg: 0.5

Requires separately ordered station cable.



1007072090

# **Desk/Wall Master Station, Display**

Desk or wall with handset and D-10 dialler and display, grey/black Size (WxHxD) in mm: 225 x 75 x 176 Weight in kg: 0.7 Requires separately ordered station cable.

# Sockets



Wall Socket, RJ45, Surface Mounted

Wall Socket, RJ45, Flush Mounted

### Cable



EPKAB98510

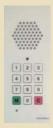
3 meters Station Cable with RJ45 Connector

EPKAB98515

0.5 meters Station Cable with RJ45 Connector



#### Flush/Surface Mount Stations



1006036600

#### **OR Master Station**

The 1006036600 is a master station, designed for use in hospital operating rooms. Controls for speaker volume and microphone sensitivity are set internally.

The totally flat surface of this station has a Mylar covering to allow easy wipe down and sterilization.

Size (WxHxD) in mm: 125 x 280 x 66

Weight in kg: 0.7

Requires 1000602000 flush or 1000603000 surface back box.



1007036600

#### **OR Master Station with Display**

The 1007036600 is a master station, designed for use in hospital operating rooms. It features 4 programmable direct access keys and an LCD-display. Controls for speaker volume and microphone sensitivity are set internally. The totally flat surface of this station has a Mylar covering to allow easy wipe down and sterilization.

Size (WxHxD) in mm: 125 x 280 x 66

Weight in kg: 0.7

Requires 1000602000 flush or 1000603000 surface back box.



1007040000

#### Wall Master Station, Standard

The 1007040000 master station is designed for on wall or flush mounting in locations where the use of desktop stations is impractical. The full keypad gives access to all features of the AlphaCom E exchange. Size (WxHxD) in mm: 125 x 280 x 53

Weight in kg: 0.6

Requires 1000602000 flush or 1000603000 surface back box.



1007042000

#### Wall Master Station, Display

The 1007042000 master station is designed for on wall or flush mounting in locations where the use of desktop stations is impractical. The full keypad gives access to all features of the AlphaCom E exchange. In addition the station has a display and 8 Direct Access Keys.

With display and with 8 DAK (direct access keys).

Size (WxHxD) in mm: 125 x 280 x 53

Weight in kg: 0.6



1007043000

# **Console Master Station**

The 1007043000 master station is designed for for use in a console and is equipped with a gooseneck microphone. The full keypad gives access to all features of the AlphaCom E exchange. In addition the station has a display and 8 DIrect Access Keys.

Size (WxHxD) in mm: 125 x 280 x 53

Weight in kg: 0.8



1007046000

# Wall Substation

With (1) doorbell button, weather resistant. Size (WxHxD) in mm: 125 x 280 x 53

Weight in kg: 0.6

Requires 1000602000 flush or 1000603000 surface back box.



# **Back Boxes and Front Panel**



1000602000

#### Back Box - Flush

For in wall mounting of the 1006036600, 1006036600, 1007040000, 1007042000, 1007043000, 1007046000 stations.

Size (WxHxD) in mm: 120 x 260 x 62

Weight in kg: 0.6



1000603000

### **Back Box - Surface**

For on wall mounting of the 1006036600, 1006036600, 1007040000, 1007042000, 1007043000, 1007046000 stations. Size (WxHxD) in mm: 138 x 280 x 65 Weight in kg: 1

1000602800

#### **Front Panel**

For back boxes above.



#### Control Room Master Station and Accessories



1007006101

#### **Control Room Master IV**

Includes 4 x 20 character alphanumeric LCD display with backlight, 4 programmable singletouch keys (DAK) with 2 independent programmable LED's each, full dialling keypad, programmable buzzer, 1W speaker and gooseneck microphone. Station can be mounted in desktop housing or flush.

Requires 12 V DC power supply.

Size (WxHxD) in mm: 125 x 280 x 25

Weight in kg: 0.75



1007006110

### Control Module for CRM V

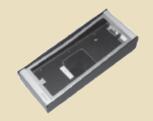
48 single touch keys with 2 independent programmable LED's each. Maximum 2 DAK-48 Units per CRM IV station. Size (WxHxD) in mm: 125 x 280 x 30 Weight in kg: 0.3



1007006190

#### **Handset Unit**

with PTT-function. Size (WxHxD) in mm: 125 x 280 x 30 Weight in kg: 0.45



1007006180

# Single Back Box

Size (WxHxD) in mm: 135 x 320 x 75 Weight in kg: 1



1007006181

# **Double Back Box**

Size (WxHxD) in mm: 265 x 320 x 75 Weight in kg: 2



1007006182

# **Two Housing Mounting Kit**

For mounting of single+double or double+double desktop houses. Weight in kg: 0.1



### Industrial Master Stations



1007080000

#### **Light Industrial Master Station with Loudspeaker**

Splashproof, grey bayblend plastic housing. Built-in speaker, Mic. & LED. 10W VOX-operated amplifier for ext. 8-20 Ohm loudspeaker Size (WxHxD) in mm: 124 x 244 x 63 Weight in kg: 0.9



1007082000

Noise Cancelling Industrial Master Station
Weatherproof. Noise cancelling Mic. & LED. 10W VOX-operated amplifier for ext. 8-20 Ohm loudspeaker. Size (WxHxD) in mm: 160 x 240 x 137 Weight in kg: 1.1



1007086000

# **Heavy Duty Industrial Master Station**

Master station with free access to all extensions and features. 10W VOX-operated amplifier for ext. 8-20 Ohms loudspeaker.

Size (WxHxD) in mm: 160 x 260 x 100

Weight in kg: 1.1 Equipped with 4 direct access keys.

#### **Industrial Substations**



1007083000

# **Heavy Duty Industrial Substation**

Weatherproof. Noise cancelling microphone and built-in loudspeaker, 10W VOX-operated amplifier for external loudspeaker. Programmable call button, simplex and cancel buttons.

Size (WxHxD) in mm: 160 x 260 x 92

Weight in kg: 1.1



1007085000

# **Heavy Duty Industrial Substation**

Weatherproof. Noise cancelling microphone and built-in loudspeaker, 10W VOX-operated amplifier for external loudspeaker. Programmable call button.

Size (WxHxD) in mm: 160 x 260 x 92

Weight in kg: 1.1



#### Accessories for Industrial Stations



VMP-211

#### Handset for Industrial Stations

Size incl. handset (WxHxD) in mm:  $80 \times 250 \times 155$  Weight in kg: 0.9



VMP-250

#### **Handset for Industrial Stations**

Size incl. handset (WxHxD) in mm:  $98 \times 242 \times 153$  Weight in kg: 0.9



VMP-36-PEL

#### **Headset with 10m Cable**

- Includes switchbox with ON/OFF and Talk push-button w/ belt clip.
- Standard with 10 meter cable.
- · To be used in noisy areas.



VMP-36-PELP

# Portable headset with 10m Cable and Plug

- Headset for connection to CD-7 Plug Box for VMP-36-PELP. Includes switchbox with ON/OFF and Talk push-button w/ belt clip.
- · Standard with 10 meter cable and plug 4 pin Amphenol.
- · To be used in noisy areas.



CD-7-VMP

#### **Plug box Water Tight**

- Is a watertight plug box
- Is designed to be used together with PRO-36-PELP, portable headset
- Has socket with dustcap
- Supports headset with ON/OFF button
- · Is delivered for on wall mounting



HP-15

# Horn Loudspeaker, 8 ohm, 15W

General purpose 15W horn speaker. Can be used with 1000614100 amplifier.



VML-1520

# Horn Loudspeaker, 20 ohm, 15W

General purpose 15W horn speaker. Can be connected directly to the speaker output of the 1007082000 and 1007086000 industrial stations.



EOTRF10115

# 220V AC/12V AC Transformer for Industrial Stations with Power Amplifier



EHS-240

Rotary light, 24V DC, Orange Can be used in noisy areas to indicate a call.



EHS-2200

# Rotary light, Mains 220-240V AC, Orange Can be used in noisy areas to indicate a call.

# Tamper and Vandal Resistant Stations and Accessories



1070601010

#### **Tamper Resistant Substation**

with 1 button.

Size (WxHxD) in mm: 190 x 140 x 64

Weight in kg: 1.15

Requires 1000629700 flush or 1000629800 surface backbox.



1070601020

#### **Tamper Resistant Substation**

with 2 buttons (to call second master or music selection).

Size (WxHxD) in mm: 190 x 140 x 64

Weight in kg: 1.15

Requires 1000629700 flush or 1000629800 surface backbox.



1000629700

#### **Back Box - Flush Mount**

for tamper resistant substations above.

1000629800

#### **Back Box - Surface Mount**

for tamper resistant substations above.



1007061000

# **Tamper and Vandal Proof Station**

with 1 button.

- Intercom station designed for prison and correctional facilities.
- Tamper and scream alarm, guard presence mode and several I/Os for adaptation to local needs.
- Vandal proof design with 2.5 mm steel front, sensor button, microphone/speaker protection and water resistant.
- Integrated light signalling system.
- Redundant backup for power and signalling.

Size (WxHxD) in mm: 128 x 264 x 51

Weight in kg: 0.95





#### **Tamper and Vandal Proof Station**

with 5 buttons.

- Intercom station specially designed for prison and correctional facilities.
- Tamper and scream alarm, guard presence mode and several I/Os for adaptation to local needs.
- Bed light control and music distribution with volume control and channel indication.
- Vandal proof design with 2.5 mm steel front, sensor buttons, microphone/speaker protection and water resistant.
- Integrated light signalling system.
- Redundant backup for power and signalling.

Size (WxHxD) in mm: 128 x 264 x 51

Weight in kg: 0.95



#### 1007060130

#### **Corridor Lamp**

The unit has 2 LED lamp sections (red and green) to indicate the status of the related Tamper and Vandal Proof Station: Idle, Call, Alarm and Guard present.

Delivery: On request.



#### 1007060120

#### **Remote Call Button**

This is a tamper proof button which for example can be connected to the 1007061000 and 1007063000 stations as an additional call button.

Delivery: On request.



#### 890070737601

# **Back Box with Anchors, Flush Mount**

for tamper and vandal proof stations. Size (WxHxD) in mm: 256 x 124 x 60



#### 1007060150

# **Back Box, Wall Mount**

The 1007060150 consists of a wall mount back box and a bracket specifically designed to mount the 1007061000 and 1007063000 stations into this box.

Size (WxHxD) in mm: 130 x 265 x 67



#### Station Kits



1007060100

### **Feature Station Kit Including Accessories**

The kit includes the electronics board, speaker, microphone, gasket and a connector to build a station as the 1007061000 and 1007063000 but with a customised front plate. This board can provide the following features to a station based on it:

- Scream alarm
- I/O for control and status indication
- Tamper alarm
- Sensor keys

Size (WxHxD) in mm: 190 x 82 x 40



1007060105

#### **Features Station Kit**

The kit includes the electronics board as used in the 1007061000 and 1007063000 stations. This board can provide the following features to a station based on it:

- Scream alarm
- I/O for control and status indication
- Tamper alarm

Size (WxHxD) in mm: 80 x 140 x 35





1007060110

#### Set of Sensor Keys

These keys are intended to be used with kit 1007060100 to manufacture a similar station as the 1007061000 and 1007063000 but with a customised front plate.

There are 10 keys in a set.

Front plate key hole diameter in mm: 16

Depth in mm: 2.5



QHF1028

#### Snake Eye Screwdriver (Driver#4)



QHF1029

Bit for QHF1028 1/4"





1000132100

# Master station kit

With rubber keypad for 1007040000-type station





1000142500

# Master station kit for display station

With rubber keypad. Can be connected to display. Master station kit for 1007042000-type station.





A100C01425

# Master station kit for display station

Without keypad. PCB only.



1007102000

#### **Substation Kit**

This kit includes the 1307 substation board, 45 Ohm weather resistant loudspeaker, electret microphone with mounting material, one tamper-proof button and all other necessary station accessories.





#### AlphaCom E7 Package - version 10

Complete system with Power Supply Board, Processor Board, and 2 Subscriber Boards. Documentation CD with complete AlphaCom documentation and AlphaPro programming tool. Size without brackets (WxHxD) in mm: 427 x 133 x 280 Weight in kg: 7



1009607300

### AlphaCom E7 with License for 12 Stations

AlphaCom E7 Package - version 10Complete system with Power Supply Board, Processor Board, and 12 IP station licenses.Documentation CD with complete AlphaCom documentation and AlphaPro programming tool.

Size without brackets (WxHxD) in mm:  $427 \times 133 \times 280$  Weight in kg: 6



1009620000

# AlphaCom E20 for 19" Rack Mounting - AC - version 10

Complete system with AC Power Supply, Processor Board, Program Board, 2 Subscriber Board and 2 Subscriber Cables 100 9501 011 and AlphaCom documentation CD.

Size (WxHxD) in mm: 482 x 265 x 365

Weight in kg: 17



1009626000

# AlphaCom E26 for 19" Rack Mounting - AC - version 10

Complete system with AC Power Supply, AMC-IP Processor Board, Program Board, 2 Subscriber Boards and 2 Subscriber Cables 100 9501 011 and AlphaCom documentation CD.

Size (WxHxD) in mm: 483 x 841 x 365

Weight in kg: 39



1009626100

# AlphaCom E26 Floor Cabinet - version 10

This cabinet is supported with extra side and top panels but without a distribution field. Complete system with AC Power Supply, AMC-IP Processor Board, Program Board, 2 Subscriber Boards and 2 Subscriber cables 1009501011 and AlphaCom on documentation CD.

Size (WxHxD) in mm: 483 x 841 x 513

Weight in kg: 46



1009626200

# AlphaCom E26 Floor Cabinet with Distribution Field - AC - version 10

This cabinet is supported with extra side and top panels but without a distribution field. Complete system with AC Power Supply, AMC-IP Processor Board, Program Board, 2 Subscriber Boards and 2 Subscriber cables 100 9501 011 and AlphaCom documentation CD.

Size (WxHxD) in mm: 483 x 841 x 593

Weight in kg: 54



#### **IP Station Licences**

1009641001

**IP Station License for 1 Station** 

1009641xxx

IP Station License for xxx Stations (001<=xxx<=552)

1009641552

**IP Station License for 552 Stations** 

IP stations require a license. They do not require additional hardware such as an ASLT card. The maximum number of stations which is supported by an exchange is 552. These can all be IP stations if the network to which they are configured support multicast. If this is not the case, the maximum number of supported IP stations in an exchange is 138.

#### SIP Station Licences

1009643001

SIP Station License for 1 SIP Telephone

10096430vv

SIP Station License for yy SIP Telephones (01<=yy<=50)

1009643050

SIP Station License for 50 SIP Telephones

Each telephone requires a SIP station license. SIP telephones can be physical units but also SIP softphone clients on a PC or PDA.

# AlphaNet and Multi-module VoIP Licences

1009640002

AlphaNet and Multi-Module VolP Licence for 2 Static Lines

Multi-module requires licenses in each module, max 4 modules.

1009640008



AlphaNet and Multi-Module VoIP Licence for 8 Dynamic Lines

Multi-module requires licenses in each module, max 4 modules.

1009640016

AlphaNet and Multi-Module VoIP Licence for 16 Dynamic Lines

Multi-module requires licenses in each module, max 4 modules.

1009640030

AlphaNet and Multi-Module VolP Licence for 30 Dynamic Lines

Multi-module requires licenses in each module, max 4 modules.

AlphaNet and multi-module linking for the AlphaCom E exchanges can be via data networks. This does not require additional hardware inside the exchange, but opening up the capability requires the correct licence. Licenses are required in all connected modules and nodes. There is no difference whether a license is used for an AlphaNet or a multi-module connection.

A static license means that the destination of an audio link needs to be defined at commissioning, a dynamic link is a common resource, and can be used for any audio link that requires connection. The data links between modules and nodes are not licensed.



# SIP Trunking VoIP Licences



1009642001

SIP Trunking, 1 Line

1009642002

SIP Trunking, 2 Lines

1009642004

SIP Trunking, 4 Lines



1009642104

SIP Trunking, 4 Lines - upgrade from 2 Lines

1009642008

SIP Trunking, 8 Lines

1009642016

SIP Trunking, 16 Lines

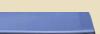
SIP trunking gives the possibility to connect an AlphaCom E to a telephone network, either directly to a SIP enabled telephone system or through a gateway to an analogue or ISDN (BRI or PRI) system.

# SIP Equipment

#### **Analogue FXO Gateways**

Makes it possible for external analogue equipment and telephony services to connect to the STENTOFON Alphacom E Audio platform easily via a standard analogue FXO interface.

- Totally flexible positioning of the gateway IP interface to the AlphaCom
- Caller-ID of incoming caller can be presented to callee
- Default simplex from sub-station through gateway gives high quality voice connection even in high noise environments
- DTMF signals are sent during connection (makes possible open door features)
- Incoming calls get second dialing tone, and then station number can be dialled.



2200001000

#### AudioCodes MP-114 Gateway

- Supports 4 analogue FXO lines
- · Web management for easy configuration and installation.



2200001008

### AudioCodes MP-118 Gateway

- Supports 8 analogue FXO lines
- Web management for easy configuration and installation.

**Digital Gateway** 



2200001132

### AudioCodes Mediant 1000 with 1 E1/T1 port

AudioCodes Mediant 1000 gateway. Support for 1 E1 link

2200002000

#### 19" Rack Mounting Kit for AudioCodes MP-11X GW

Allows mounting in standard 19" rack.



HEN

1009642902MP-114

# Gateway bundled with 2 SIP trunk licenses

HEN

1009642904

MP-114 Gateway bundled with 4 SIP trunk licenses

HEN

1009642908

MP-118 Gateway bundled with 8 SIP trunk licenses

# Upgrade Kits



1009202000

# Processor Board, AMC-IP - version 10

The AMC-IP card is the next generation multiservice processor card for the AlphaCom E series. As standard it is part of every AlphaCom E exchange package, but as it also supports all traditional AlphaCom feature cards. It can be used to upgrade already installed AlphaCom 80+ and 138 exchanges to become AlphaCom E20 and E26 exchanges.

The card is made for critical communications and security solutions and features an embedded Linux operating system, integrated media processing engine, packet processing engine, HW encryption and storage module.

Weight in kg: 0.5



1009511000

#### AMC - IP Filter Card

This filter card is equipped with 2 ethernet and has 2 serial port connectors. Weight in kg: 0.1





# **Subscriber Line Board, ASLT**

Each board provides 6 intercom subscriber connections. Weight in kg: 0.5



1009102000

#### Subscriber Line Board, ATLB

Each board provides 6 analogue telephone (DTMF) connections. Weight in kg: 0.5



1009303001

# **General Purpose Audio Interface, AGA**

The AGA card is a multi-purpose analogue audio card and can be used for different applications:

- · Audio Program Inputs
- Multi-module Linking
- AlphaNet
- Audio-only Station
- Public Address

Weight in kg: 0.5



1009304005

# Stored Voice Playback Board, ASVP

This board supports applications requiring pre-recorded audio messages. Time or date can easily be added to each message to act as an accurate information tool. A set of standard alarm messages such as 'Fire Alarm' and 'Theft Alarm' are available. Custom specified messages can be delivered. Weight in kg: 0.5

1009304001

# Norwegian version

1009304002

**Finnish version** 

1009304003

**Danish version** 

1009304004

**German version** 

1009304006

French version

1009304011

Swedish version



#### Accessories



#### 2030010260

#### **Mains Transformer 6A**

This transformer can be used on AlphaCom M and AlphaCom E7 packages up to 24 lines. 230-250V AC, 50-60Hz / 24V AC, 150VA. EN 61558-2-6 Size (WxLxH) in mm:  $92 \times 130 \times 87$ 

Weight in kg: 2.4



#### 2030010270

#### **Mains Transformer 11A**

This transformer is recommended for AlphaCom M and AlphaCom E7 packages up to 36 lines. 230-250V AC, 50-60Hz / 24V AC, 260VA. EN 61558-2-6.

Size (WxHxD) in mm: 106 x 153 x 98

Weight in kg: 4.2



#### 1009703000

### Power Supply, APWR - AC version

This unit is needed if the AlphaCom exchange has more than 102 subscribers or power redundancy is required and the exchange originally is equipped with an AC-power supply. Weight in kg: 5.0



#### 1009505000

# Filter Board and Speech Adapter with Relay, FBSAR

This board holds two audio channels to act as a galvanic interface between the AlphaCom exchange and external PA- or non-selective radio Systems. One of the channels is equipped with relays and optocouplers for non-selective radio keying and control. Both channels hold electronics to filter the 40 kHz data carrier tone used in display stations, that might cause amplifier overheating on common PA Systems. Weight in kg: 0.1



#### 1009960100

#### Microphone Amplifier for Dynamic & Electret Mic., MADER

With this board it is possible to have two way communication in conjunction with an external 8 to 40 Ohms loudspeaker. With this board it is also possible to make announcements by use of a common dynamic microphone. By use of an RCI and 1 pair of additional cable the microphone On/Off button can activate pre-programmed loudspeaker zones for announcements.

Weight in kg: 0.1



#### 1000614100

#### **Power Amplifier Board**

Amplifier giving 6W into 20 ohm and 20W into 4 ohm. Weight in kg: 0.2



#### 1009970200

# Relay Board, MRBD

Board with 6 relays for external control. The board is controlled by the AlphaCom software and can be mounted in the AlphaCom exchange or in connection to the RIO-unit.

Weight in kg: 0.1





1009970500

#### Remote Input / Output Controller, RIO

For connection of technical alarm inputs and distribution of remote control outputs within an AlphaCom system. Distributed I/O device with built in 8 remote control inputs and logic for 18 remote control outputs per unit. Up to 140 alarm inputs within the same AlphaCom exchange. Up to 30 RIO's can be connected to an exchange thereby controlling up to 500 RCO's.

Size in mm: 125 x 225 x 50

Weight in kg: 0.55



1009970101

#### **Power Distribution Board**

This Board is used when it is necessary to supply external equipment such as FBSAR with power from the AlphaCom exchange. The power distribution board applies to the AlphaCom E20, E26, 80+ and 138 only, not the AlphaCom E7 and AlphaCom M. Weight in kg: 0.1



1009990200

#### **Anti-static Wrist Strap**

Du to possible ESD damage Zenitel strongly recommends using the Antistatic Wrist-strap kit.



1009971000

#### InterGuard 60W Amplifier, 100V Line

For background music, voice based alarm and announcements.

The InterGuard 60 is equipped with a Volume Override function. By use of two volume controls it is possible to preset two different volumes for the amplifier output. The Override volume is activated by an external input on the amplifier. The InterGuard 60 is also equipped with an AUX input making it possible to connect a local program source in addition to the AlphaCom input. If both are in use at the same time, the audio signal from the AlphaCom has priority and the local program will be muted. The InterGuard 60 amplifier is equipped with fault monitoring of lines, power and amplifier. Fault reporting is via the AlphaCom exchange. The amplifier connects to the AlphaCom via the a,b,c,d-wires. Connection to the AlphaCom with Volume Override control from the AlphaCom, is via the a,b,c,d plus one additional pair.

Size (WxHxD) in mm: 3,5 x 12 x 120

Weight in kg: 1.2







#### VPA-120

#### 19" Power Amplifi er 120W

- \* Booster unit designed for mounting in 19" rack system
- \* Two microphone inputs
- \* Outputs: 100V and Low impedance for monitoring
- Input by XLR sockets, output connection by using screw terminals.
- \* Priority with chime function
- \* Bass and treble controls.
- \* Overload, fault indication and amplifi er monitoring
- 24 VDC/800 mA power is available on the back panel to feed external equipment.
- \* Equipped with fan for forced ventilation of the fi nal power stages

Dimension: 482W X 133H X 420D 19" rack monting

Weight: 18.2 Kg

# New



#### VPA-240

#### 19" Power Amplifier 240W

- \* Booster unit designed for mounting in 19" rack system
- \* Two microphone inputs
- Outputs: 100V and Low impedance for monitoring
- \* Input by XLR sockets, output connection by using screw terminals.
- \* Priority with chime function
- \* Bass and treble controls.
- Overload, fault indication and amplifi er monitoring
- \* 24 VDC/800 mA power is available on the back panel to feed external equipment.
- \* Equipped with fan for forced ventilation of the fi nal power stages

Dimension: 482W X 133H X 420D 19" rack monting

Weight: 21.2 Kg

# New



#### VPA-400

#### 19" Power Amplifier 400W

- Booster unit designed for mounting in 19" rack system
- Two microphone inputs
- Outputs: 100V and Low impedance for monitoring
- Input by XLR sockets, output connection by using screw terminals.
- Priority with chime function
- · Bass and treble controls.
- Overload, fault indication and amplifi er monitoring
- 24 VDC/800 mA power is available on the back panel to feed external equipment.
- Equipped with fan for forced ventilation of the fi nal power stages

Dimension: 482W X 133H X 420D 19" rack monting

Weight in kg: 24.2





#### BF-560T

#### Loudspeaker, Flush Munted, 6W, 100V Line

Ceiling loudspeaker.
Diameter in mm: 165
Depth in mm: 107
Weight in kg: 1.2





#### CAR-4T

#### Loudspeaker, Wall mounted, 4W, 100V Line

Double faced loudspeaker. Diameter in mm: 152 Depth in mm: 90 Weight in kg: 1.5





## Hornspeaker, 15W, Water Tight

General purpose 15W horn loudspeaker. To be used together with 100V line amplifier, with 2.8m cable.

Dimensions (WxHxD) in mm: 250x145x298

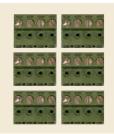
Weight in kg: 1.35.



#### Installation Cable Type & Distance for ASLT and ATLB

Wire diametre	Max. distance ASLT	Max. distance ATLE
0.5 mm 24 AWG	1.4 km 5,000 feet	6 km 20,000 feet
0.6 mm 22 AWG	2.0 km 7,000 feet	8 km 26,000 feet
0.8 mm 20 AWG	3.4 km 11,000 feet	10 km 33,000 feet
0.9 mm 18 AWG	4.0 km 13,000 feet	10 km 33,000 feet

#### Connection Material Used in AlphaCom M and AlphaCom E7



#### 1009501100

#### Connection Kit ASLT / AGA / AE1 / ATLB

This kit contains the necessary hardware for connection of the installation cable to the back plane of the AlphaCom M and AlphaCom E7 exchange.

## Connection Material used in AlphaCom E20, E26, 80+ and 138

Note: Also used for AGA board when the AGA board is used in AlphaNet or 'AGA stations'



#### 1009501011

#### 1.5m Flat ASLT Connection Cable with Filter Board

Complete with plug for Subscriber Connection Board. This cable is normally used when the exchange is delivered with a distribution field.

1009501014

#### 3m Flat ASLT Connection Cable with Filter Board

Complete with plug for Subscriber Connection Board. This cable is normally used when the exchange is delivered with a distribution fi eld.



#### 1009501021

#### 5m Round ASLT Connection Cable with Filter Board

This cable is normally used when the distribution field is placed away from the exchange. The free end of the cable is unterminated.



#### 10m Round ASLT Connection Cable with Filter Board

This cable is normally used when the distribution field is placed away from the exchange. The free end of the cable is unterminated.





#### 1009501041

#### Filtercard with 6xRJ45 Connectors

Allows direct connection of a CAT5 installation cable to the back of the exchange. Can be used for ASLT and ATLB cards.



#### 1009930200

## **Connection Board for ASLT, Krone Terminals**

Fits on distribution field or main distribution frame (MDF).





#### 1009501031

## 1.5 m Flat ATLB Connection Cable with Filter Board

Complete with plug for Subscriber Connection Board. This cable is normally used when the exchange is delivered with a distribution field.



#### 3m Flat ATLB Connection Cable With Filter Board

Complete with plug for Subscriber Connection Board. This cable is normally used when the exchange is delivered with a distribution field.



#### 1009930202

#### **ATLB Connection Board, Krone Terminals**

Fits on distribution field or main distribution frame (MDF).



#### 1009930300

## **Installation Set, Program Connection**

Makes it possible to connect 16 program sources to the AGA board.



#### 1009930303

#### Installation Set, Multi-Module Audio Connection

Use this set for connection when two or more AlphaCom exchanges shall be locally expanded (max. 1 m distance between exchanges).



#### 1009503000

#### **APC Connection Kit**

Consisting of APC filter card and APC connection board. This kit is required to access the 6 RCI and 6 audio program inputs of the APC.





1009201000

#### **Processor Board, AMC - version 9**

This board contains software and hardware controlling the AlphaCom system. Weight in kg: 0.5



1009301000

## **Program & Clock Board, APC**

This board controls the back plane board clocking. It also controls the speed of the fans. It contains circuitry for 6 audio program feed channels with galvanic isolation.

Weight in kg: 0.5



A100C07814

## PSU for the AlphaCom M and AlphaCom E7



1009509000

#### **Installation Set for AE1**



#### **Public Network Interface, PNCI**

Unit for incoming and outgoing calls between intercom stations and public/private telephone network, or to provide dialup tie-line between two intercom exchanges. Size (WxHxD) in mm:  $243 \times 235 \times 30$ 

Weight in kg: 2.1

1009400100

**PNCI UNIT Norway (General version)** 

1009400110

**PNCI-UNIT Sweden** 

1009400120

**PNCI-UNIT Finland** 

1009400130

**PNCI-UNIT Denmark** 

1009400140

**PNCI-UNIT Germany** 

1009400210

**PNCI-UNIT Switzerland** 

1009400240

**PNCI-UNIT Austria** 

1009930140

PNCI Cable Set for AlphaCom

# STENTOFON

#### System Management Software



#### **AlphaPro**

AlphaPro is the tool for the configuration of the AlphaCom E system. It is self contained, simple to install and use. When a new exchange shall be configured, the exchange is given a working default factory setting.

The operator can then modify the settings such as:

- Directory (type of station, line interface, display name and more)
- Define groups (cell groups, guard groups)
- Interface to CCTV, PA, paging, DECT
- AlphaNet
- And other custom behaviour.

There are currently over 100 defined features which can be programmed with AlphaPro.

AlphaPro is an off-line tool. This means that it is possible to enter all parameters without the necessity of being connected to the exchange. Once all parameter are entered, AlphaPro can be connected to the exchange and the parameters can be sent. AlphaPro can also upload configuration information from an exchange.

AlphaPro connects to an exchange via the IP network or a local RS232 interface.

#### AlphaPro E versions:

The AlphaPro comes in three versions. A hardware dongle is used to differentiate between the different versions. There are two types of hardware key, a parallel port key and an USB port key.

The versions of AlphaPro are:

#### AlphaPro E7

AlphaPro E7 runs without a hardware key. It gives access to all features except AlphaNet, but only for 36 subscribers.

1009293100

#### AlphaPro Lite

With parallel port dongle.

1009293120

#### AlphaPro Lite

With USB dongle.

AlphaPro Lite uses the Lite hardware key. It gives access to a limited range of features for all subscribers and is intended for customer maintenance of systems.

100 9291100

#### AlphaPro Professional

With parallel port dongle.

100 9291120

## AlphaPro Professional

With USB dongle.

AlphaPro Professional uses the Professional hardware key. It gives access to all features for all stations. This version must be used when you want to make extensive changes to the Autoload.



#### 1009294100

## **AlphaVision**

Wth parallel port dongle

Control handler software for all AlphaCom E exchanges. AlphaVision gives information to an operator about events inside the exchange, such as call requests and allows the operator to respond to such events. The screen is divided into a number of functional areas such as a Call request list, Map area, and others. Icons associate with intercoms, remote inputs and remote outputs can be placed in the maps. The behaviour of AlphaVision can be extended and changed via a built-in scripting language.



1009294120

# AlphaVision With USB dongle



Since all of the Banks have their own network, in the future it will be possible to connect all branches via IP for communication from intercom to intercom, on one common intercom platform across the US.

Federal Reserve Banks, Major cities across the USA

# **Building Security**



#### Federal Reserve Banks

#### Major cities across the USA

Thirty two of the thirty five Federal Reserve Banks in the USA use STENTOFON security communications, including Federal Reserve Georgia and Federal Reserve Michigan. The Federal Reserve System is a banking system with banks acting as fiscal agents for the US Treasury. Many use large AlphaCom systems integrated to the CCTV system, the access control system and DVR's. Since all of the Banks have their own network, in the future it will be possible to connect all branches via IP for communication from intercom to intercom, on one common intercom platform across the US.



## The Port of Bayonne

#### Tarnos, Saint Bernard and Blancpignon, France

The Port of Bayonne covers a widespread area and has a privileged position over the ports of the Iberian Peninsula. The Port of Bayonne, and its 'Manager', the Chamber of Commerce & Industry of Bayonne-Pays Basque (CCI), selected an AlphaNet VOIP architecture with 5 AlphaCom E7's in an IP network. The exchanges locally on the site are connected via a Fiber Optic link. The remote exchanges are connected via the public ADSL network from French Telecoms. All AlphaCom E exchanges have an interface with the CCTV and the Building Management System allowing the users of the Port to have an integrated communication and security solution. Automatic alarm feedback to the Building Management System provide a number of report types.



# The University of Texas at San Antonio (UTSA)

#### San Antonio, Texas - USA

The UTSA is the second largest component in The University of Texas System and one of the state's fastest-growing public universities. To provide student, faculty and visitor security at the 600 acre site, UTSA installed seven AlphaCom's which create a seven node AlphaNet. All stanchions and substations located throughout the university provide emergency/security communications to designated master stations. UTSA is now upgrading all AlphaCom exchanges to the latest VoIP technology – STENTOFON AlphaCom E, which will allow for future expansion possibilities. Archive logging of events and real time audio announcements are just a few of the many standard features offered in the AlphaCom E intercom system.



# Pharmaceutical company Weifa

#### Kragerø, Norway

Weifa AS is a Norwegian pharmaceutical company specializing in pharmaceuticals and fine chemicals for the world markets. To improve in-house security and protect its modern technological developments in formulation, bioavailability and newer aspects of drug administration, Weifa upgraded its analogue AlphaCom system to the new AlphaCom E in November 2007. Using an IP exchange in each factory, the system is now networked over IP using the customers own IP network and both sites are interfaced to the wireless pocket paging and PA system. Using around 200 stations at the main site and about 60 at the other, the main features are conversation, announcement, pocket paging and door/gate control for all staff.

www.zenitel.com



"It speaks volumes that these premier museums use the STENTOFON brand for their communications. Institutions holding millions in priceless pieces rely on us for internal and security communications."









# **Building Security**



#### The Louvre Museum

#### Paris, France

The Louvre Museum is the largest museum in the world housing 35,000 works of art. The museum benefits from a huge security system and Security Officers account for over half of Louvre's 2,000 employees. More than 200 anti-vandal door substations provide access control for Security Officers and personnel. Thanks to the interface with video function, the STENTOFON system restricts access to specific zones and above all, the storage rooms: the huge and sacred heart of the museum. The choice to migrate to a new platform was made for two main reasons, to open up the existing system to IP to cope with any increase in museum visitors, and to benefit from the new security this system implies.









# The New Musèe Quai Branly

#### Paris. France

Zenitel was chosen to provide a reliable, high performance security intercom solution to Musee du Quai Branly, dedicated to arts, cultures and civilisations. The key objective was to provide a means of contact between sixty points and the control station and of course, to assist security and maintain people's safety within the museum. Zenitel provided an exchange which always allows multiple calls to be queued with positive feedback to the caller (never a busy tone). Zenitel has been informed it was the systems and the company's flexibility which was an important factor in their final system choice. For example, Zenitel was able to meet a special customer request that the stations should follow a special colour treatment in order to be integrated with the harmony of the site.









#### **Holocaust Museum**

#### Washington, District of Columbia, USA

The installation at the Holocaust Museum comprises a STENTOFON exchange linked with the museum's video and access control systems. STENTOFON intercoms are located at all entrances and at various key areas inside the museum.



## Stavanger Fire Brigade

### Stavanger, Norway

Stavanger is one of the biggest cities in Norway, and commonly referred to as the oil capital because it is the main seat for all oil activity in Norway. There are four fire stations in the region which Zenitel upgraded from Touchline to AlphaCom in 2004, then to AlphaCom E in 2007. The new system connects all four fire stations together over IP and is integrated to the PA system and alarm tone generators to enable the main station to activate remote alarms and provide alarm announcements to the other sites. This is possible using two STENTOFON E20 exchanges and two smaller E7's.



"At BCIA we choose to work with companies which can match our needs as a large and growing international air hub. In order to safeguard the airports investment, we now always insist on backwards compatibility to existing equipment, which has benefited the airport this time round and will do so again in the future.

Mr Zhengkai, Electronic Maintenance Department Assistant Manager, BCIA







# **Airports**



# **Beijing Capital International Airport (BCIA)**

Beijing, Peoples Republic of China

Following the successful upgrade to STENTOFON AlphaCom E in 2006, BCIA's extremely high network capacity, critical communication system will now expand into Terminal 3. Zenitel's systems are used for PA gate announcements, gate and check-in desk communications, communication with security staff, baggage areas, airline back offices and more. The new system will extend its integration to the security system, the information integration system, the master clock system, access control, public address and a PABX system via SIP trunking. In the future, integration to Cisco, TETRA radio and CCTV can be made, and special applications can be created by interfacing to other 3rd party systems as annual passenger throughput increases.



# Shanghai Pudong International Airport (SPIA)

Shanghai, People's Republic of China

SPIA is currently the sixth busiest air freight hub and a major international gateway into China and East Asia. The airport employs STENTOFON standard VoIP protocols for audio encoding and control, and utilizes standard TCP/IP protocols for video and data transmissions, providing an area-wide network or broadcast and communication system at four key locations: the Traffic Operation Centre, the Airport Operation Centre, the Gate Wing and Gate Check In. The system is run by four IP exchanges connecting with Cisco Call Manager through 4 times 16 SIP trunk lines; integration is also provided to an 800m TETRA radio interface, the public network and PA. There are over 200 IP substations in the AlphaCom E system – it is possible to see the status of the stations as icons in the GUI.



# **Dubai International Airport**

**Dubai, United Arab Emirates** 

Zenitel is pleased to be associated with Dubai International Airport's major US\$4.1 billion airport expansion program assisting its increase with 24 dedicated gates. A STENTOFON baggage handling intercom system is installed with an exchange integrated to the building management system. STENTOFON barrier intercom systems, an integrated intercom and PA system for airport ground operations, and a Vehicular Tunnel Intercom System are all in use. Terminal 1 and Concourse 1 shall be integrated with an Alcatel PABX on QSIG and telephone lines on SIP analogue trunk gateways. Each will link to over 100 desktop master stations and 30 control room stations and further industrial stations will be used in T1. AlphaNet will be used throughout.



# **Incheon International Airport (IIA)**

Seoul, Korea

One of the largest airports in Asia, IIA adopted the STENTOFON system some years ago and will again extend the system in 2008. First specified as a simple PABX, the AlphaCom has shown along the years the huge variety of its capabilities and is now the central integrated communication and security system. For the intercom, paging, PA and security communication, STENTOFON systems have been installed at the passenger terminals, perimeter areas, transportation center, and other facilities like the extended fence area, which connect to the existing system network. Other systems such as the Intruder Detection System, Access Control System, CCTV System, Voice logger and PA-system are interfaced to the AlphaCom System. All exchanges are interconnected in a network (AlphaNet).

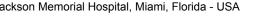
www.zenitel.com

When Communication is Critical



Fundamental measures have been put in place to prevent visitors from obtaining full access to various locations throughout the hospital, including 380 tamper and weather resistant STENTOFON stations, master stations in primary departments and CRMs (Control Room Masters) in central security.

Jackson Memorial Hospital, Miami, Florida - USA



# **Hospitals**



# **CHPF Hospital Complex**

#### Tahiti Island, The Pacific

The CHPF, a new hospital complex in Tahiti, chose STENTOFON because their research proved it to be the most reliable and evolutionary system on the market. The hospital complex is equipped with nine AlphaCom E7's connected to a data-processing network VDI. The intercom system manages the security communications between the 210 stations located at doors and entrances, reception, control rooms and departments. Zenitel's specialist operating room station was also specified to provide instant, hands-free communication from any location in the operating room. As a complete system, it will function in autonomous mode and will manage its own fault monitoring and supervision to allow hospital security and communication

to continue even if the IT network fails





# The University Hospital of Münster

#### Münster, Germany

The University Hospital of Münster is one of the largest hospital-complexes for specialised medical care in northern Germany. With approximately 2,500 stations, 210 loud speaker lines and 156 fire sections, the Clinic's alarm system is also one of the largest in Europe. The multiple, daily use of the stations secures regular control of the ability to transmit alarms. The stations can also be used by the fire department to communicate with the room where the alarm was initiated. In addition, every station has its own amplifier and its own cabling so during any disruptions, a maximum of one station is affected and not an entire group of stations. The total system is EVACom compliant and prepared for a sound evacuation system.



# Jackson Memorial Hospital

#### Miami, Florida - USA

When it comes to security procedures, Jackson Memorial Hospital is ranked among the best hospitals in America, and is an example of how to incorporate the latest technology for effective and enhanced security. To keep security and emergency processes in check, the hospital has installed access control, video and intercom at all entrance locations and migrated from traditional AlphaCom to IP. Over 380 tamper and weather resistant stations are positioned at every entrance and other high level security points. Since placing security guards at every entrance is impractical and cost prohibitive, security electronics were installed to offer the optimum security solution.

www.zenitel.com



# Pro700: Your hidden business asset

Would your company benefit from quicker communication between your employees? Are there areas in your business where it is hard to locate people?

Would you like to improve your customer service – resolve customer queries more quickly, lessen customer delays and increase your throughput?

Would you like to reduce crime levels in your company? And would your public facing staff benefit from a discreet, silent alarm button linked to your own security?

Many quandaries but just one solution: the affordable Pro700.

#### Offices

**Pro700** offers the simplicity and convenience of rapid hands-free communication in the work situation, both at offices and at loading bays. At the same time, it provides announcements and background music as a PA system. Add the security option of controlling/opening the front and back entrances and an emergency station in the elevator, and it becomes an investment which is hard to beat.

#### Shops

**Pro700** is the easy-to-use security and communication system for the small shop. During late hours, the cashier can call colleagues for backup with the single touch of a hidden key. Food stores, convenience stores, clothes stores, they all share the need to cover, efficiently, announcements, price requests and respond to delivery and customer calls whether these be at the front of house or at the delivery area.

#### Industry

**Pro700** also allows efficient communication in difficult to reach places and where dirt, dust, or noise makes normal communication impractical. With fast access to colleagues, a large station range and easy-to-use features, Pro700 is the preferred solution for small industries or production cells in larger plants.

#### Door entry/elevator system

**Pro700** offers communication and remote opening of front and back entrances – or multiple doors if necessary. Ideally suited for multiple entrances/multiple elevator facilities, Pro700 is particularly ideal when there are staffing changes throughout the day.

#### Medical

**Pro700** offers a new station incorporating the latest micro ban or anti-bacterial technology, suitable for clean areas. Easy to install and easy to use (hands free), Pro700 is suitable for a multitude of environments in the healthcare sector – from the surgery to psychiatric homes to private hospitals.

#### Gas stations

**Pro700** is the easy-to-use security and communication system for the gas station. During late hours, the cashier can talk to customers at the pump without leaving the till unattended – superior service and superior security in one system. The rugged station range is ideal for the tough and diverse environment offering both weatherproof, tamper proof and industrial grade stations.

#### Holding areas, prisons and treatment facilities

With rugged stainless steel stations and sophisticated surveillance features, **Pro700** is ideal for small jails or similar environments where a small number of mobile staff must cope with a varying number of inmates. Each cell can be equipped with a local call indication lamp/response button for time-saving responses by the guard in the corridor. With optional sound detection, **Pro700** is also ideally suited for treatment facilities or detox centres, where it is necessary to communicate with and monitor clients for their own protection.







Used daily by thousands of businesses, public service buildings and security companies throughout the world, there isn't a better time to invest in your communication.

#### **Specification**

Stations 40 max, 16-20 recommended

Channels 1 x conversation

1 x program distribution

Audio input Aux line,  $100 \text{mV}/600 \Omega$  max

Power source 12V DC (100m)

18V DC (300m) 0.6mm cable

27V DC (500m)

Max cable run Std: 120nF/km-700m in a system Good:47nF/km-1700m

• Easy to use

· Cost efficient

· Excellent sound quality

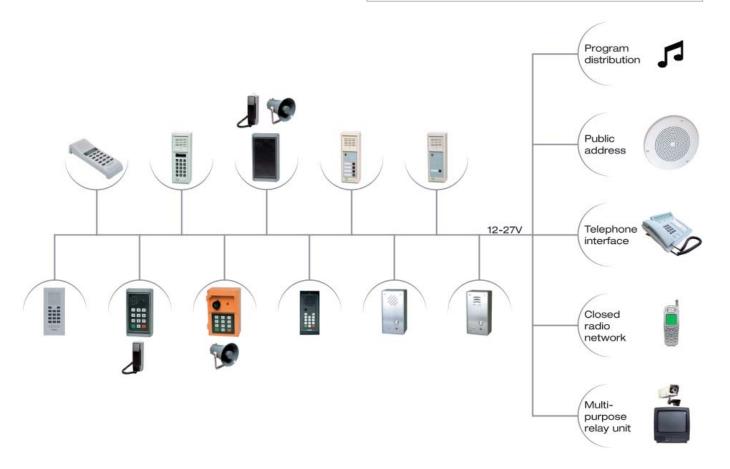
· No central station required

· New, modern station design

· Simple installation and extension

• Simple integration with radio/PA systems

• Hidden alarm button for 'silent' alarm and 'emergency call'







AA711

#### Desk/Wall Master Station, with Display

Although only the size and weight of a conventional telephone handset, the AA711 combines all essential functions needed for effective internal communication: loudspeaking handsfree, softspeaking confidential, and total privacy. In addition, the station supports external call and silent alarm buttons, suitable for security applications and is also equipped with a built-in relay for control of cameras, external call warning lamps, etc. The cabinet of the AA711 station is cast in high-grade, impact-resistant ABS plastic with a satin finish. The AA711 station is designed for desk use or wall-mounting, using a handy wall-bracket GF732.

Colour: Grey

Size (WxHxD) in mm: 68 x 225 x 45

Weight in kg: 0.3



AA702

#### Wall Master Station with Display

The AA702 has the same basic features as the desk/wall master station AA711. The surface mounted station can easily be converted to a flush mounted model by use of a clip-on front plate BF636. The housing is high-grade, impact resistant ABS.

Colour: Grey

Size (WxHxD) in mm: 80 x 220 x 51

Weight in kg: 0.4



#### AA703

#### **Industrial Master Station**

The AA703 is a surface mounted station, a splashproof model designed for humid, dirty and outdoor conditions. It has a flame retardant and chip-resistant casing of durable Bayblend plastic. The front can be removed to allow easy access during installation and service. The station has an internal 3W amplifier and the speaker volume is adjustable with switches located inside the station, four levels. In addition to the built-in loudspeaker, the unit is prepared for the connection of an external speaker. As an optional feature, the 10W power amplifier FC740 may be used with this speaker. The FC740 also allows you to use the loudspeaker both as loudspeaker and microphone if required (talk-back). The AA703 offers a remote control output via a built-in relay, which can be used to drive external call indicators (lamp/buzzer) or for general remote control facility activated by the calling subscriber.

Colour: Grey

Sixe (WxHxD) in mm: 124 x 244 x 63

Weight in kg: 0.8



AA704

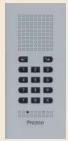
#### **Console Master Station**

The AA704 station is designed for console mounting or wall mounting using back box 6030 for surface mounting. The keyboard folio of UV-cured PVC is resistant to numerous fluids and chemicals. The keyboard is equipped with backlight and the light intensity can be adjusted with a variable resistor accessible at the front. The station is ideally suited as 'control desk station' in correctional institutions, prisons, police stations, marine environment etc. The station has an internal 3 Watt amplifier and the speaker volume is adjustable with switches located inside the station, four levels. An external 10W power amplifier unit FC740 can easily be connected where additional output volume is needed. The AA704 offers a remote control output via a built-in relay, which can be used to drive external call indicators (lamp/buzzer) or for general remote control facility activated by the calling subscriber.

Colour: Dark grey

Size (WxHxD) in mm: 125 x 280 x 50

Weight in kg: 0.5



AA706

#### **Clean Room Station**

The Clean Room Station type AA706 is designed for hospital operating theatres, patient solitary confinements and other clean rooms. The station front foil is made with Microban technology which provides dependable and constant protection against bacterial contemination. When bacteria come into contact with the foil, the antimicrobial function disrupts the bacterial cell wall killing or inhibiting bacterial growth. Further more, the station foil is resistant to chemicals and cleaners, and has an excellent scratch resistance. When flush mounted in the wall and sealed along the rim, there is no risk of fluid penetration into the station. The station has a full digit keyboard and has access to all features offered by the Pro700 intercom system. The station includes a sensitive microphone and a loudspeaker with 3W amplifier. The line and station status is indicated by a tri-color LED.

Colour: Light grey

Size (WxHxD) in mm: 125 x 280 x 50

Weight in kg: 0.9





AA705

#### **Heavy Industrial Master Station**

The Heavy Industrial Master Station is a splashproof model designed for humid, dirty and outdoor conditions and areas where extreme noise occurs. The station is equipped with a noise cancelling microphone. The station consists of an orange makrolon plastic housing and a folio keyboard. The station has an internal 3 Watt amplifier and the speaker volume is adjusted with switches located inside the station, four levels. The unit requires connection of an external loudspeaker. As an optional feature, the 10W power amplifier FC740 may be used with this speaker. The FC740 also allows you to use the loudspeaker both as loudspeaker and microphone if required (talk-back). The AA705 offers a remote control output via a built-in relay, which can be used to drive external call indicators (lamp/buzzer) or for general remote control facility activated by the calling subscriber.

Colour: Orange

Size (WxHxD) in mm: 160 x 240 x 137

Weight in kg: 1

#### Substations



AB708

#### Wall Substation with 'Doorbell' Function or 1 Direct Dial Button

The AB708 station is similar to the Wall Master Station AA702, but without a display and full keypad. It is designed for indoor conditions and is suitable as a door station. The station is equipped with a call button activating the door bell function to all stations belonging to this feature. Stations receiving the distinctive door bell chime pattern can reply to the door call by dialling 5. A normal two way connection is then established. Re-programming the station allows dialling to subscriber no. 13 only. The surface mounted station can easily be converted to a flush mounted model by using the clip-on front plate BF 636.

Colour: Grey

Size (WxHxD) in mm: 80 x 220 x 51

Weight in kg: 0.4



AB709

#### **Wall Substation with 3 Direct Dial Buttons**

The AB709 station is similar to the Wall Master Station AA702, but without display and full keypad. It is designed for indoor conditions and is suitable as a door station. The key pad has 3 dial buttons which are preprogrammed to call station numbers 11, 12 and 13. When these buttons are used in combination with the X-button (X + call button), calls can be made to subscriber no. 21 (X+11), Programme Distribution Channel (X+12) or subscriber no. 23 (X+13). The station is also equipped with a cancel button.

Colour: Grey

Size (WxHxD) in mm: 80 x 220 x 51

Weight in kg: 0.4

#### **Tamper Resistant Stations**





AB731/AB731-F

# Tamper Resistant Station with 1 Call Button, Surface Tamper Resistant Station with 1 Call Button, Flush

These stations are compact, dust resistant units with a very robust construction. The stations are made in stainless steel with a 2.0 mm thick front-plate. The construction ensures optimal protection of the push-button, microphone and loudspeaker. The stations are ideally suited for applications in correctional institutions, prisons, police stations, car parks, subway stations etc. The stations are equipped with a built-in relay. The stations have an internal loudspeaker with a 3 Watt amplifier. An external speaker can easily be connected. The stations are equipped with a call button for establishing connection with extension number 13. The same call button may optionally be used for 'door bell' function or the CAS function.

AB731: Tamper Resistant Station with 1 Call Button, Surface

Size (WxHxD) in mm: 90 x 180 x 65

Weight in kg: 1.5

AB731-F: Tamper Resistant Station with 1 Call Button, Flush

It comes with a light back box for EMC protection. When an optional backbox is needed for concrete mounting, the unit BF934 must be ordered.

Size (WxHxD) in mm: 130 x 220 x 60

Weight in kg: 0.9







AB731A/AB731A-F

# Door Station with 1 Call Button, Surface Door Station with 1 Call Button, Flush

These door/vandal proof stations are compact, dust resistant with a very robust construction. The stations are made in stainless steel with a 1.5 mm thick front-plate. The construction ensures optimal protection of the push-button, microphone and loudspeaker. The stations are ideally suited for applications in corrdors, outdoor car parks, subway stations etc. The stations are equipped with a built-in relay. The station has an internal loudspeaker with a 3 Watt amplifier. An external speaker can easily be connected. The stations are equipped with a call button for establishing connection with extension number 13. The same call button may optionally be used for door bell function or the CAS function.

AB731A: Door Station with 1 Call Button, Surface

Size (WxHxD) in mm: 90 x 180 x 65

Weight in kg: 1.5

AB731A-F: Door Station with 1 Call Button, Flush

The AB731A-F is for flush mounting and comes with a light backbox for EMC protection. When an optional backbox is needed for concrete mounting, the unit BF934 must be ordered.

Size (WxHxD) in mm: 130 x 220 x 60

Weight in kg: 0.9



BC735

#### **Multipurpose Unit**

This is a multipurpose unit in a splashproof housing designed for humid, dirty and outdoor conditions. It consist of a flame and chip resistant casing of durable Bayblend plastic. The front can be removed to allow easy access during installation and service. The unit has neither loudspeaker nor microphone. Two external speakers must be added, alternatively, a separate dynamic microphone may be connected. The station has an internal 3 Watt amplifier and the speaker volume is adjustable with switches located inside the station, four levels. An external 10 Watt power amplifier unit FC740 can easily be connected, where additional output volume is needed. This also allows you to use the loudspeaker both as loudspeaker and microphone if required, (talk-back). The BC735 unit has a built in relay which functions as a remote control device or an additional warning signal output.

Colour: Grey

Size (WxHxD) in mm: 124 x 244 x 63

Weight in kg: 0.8

#### Note:

AA705, AA703, BC735 external speaker impedance, minimum 20 ohms without FC740. With FC740, minimum 4 ohms.

#### Accessories

RJ45 RJ45

Cable, 2m, 8 wires, RJ45-RJ45



Cable, 6m, 8 wires, RJ45-RJ45

BE6/12

Cable, 2m spiral, 8 wires, RJ45-RJ45

BF947

Cable, MULTINET, 2m, 4 wires, (No prog. distr)

BF948

Cable, MULTINET, 2m spiral, 4 wires, (No prog. distr)





#### WALL BRACKETS/FRONT PLATES/BACK BOXES

GF732

Wall Bracket for AA711, grey

BF636

Front Plate for Flush Stations AA702/AB708/AB709

Size (WxHxD) in mm: 140 x 280 x 4.5

BF934

Backbox for Stations AB731-F and AB731A-F, Flush

Size (WxHxD) in mm: 134 x 104 x 60

BF635

Backbox for Stations AA702, AB708, AB709, Flush

Size (WxHxD) in mm: 112 x 266 x 60

1000602000

Backbox for Station AA704 and AA706, Flush

Size (WxHxD) in mm: 120 x 280 x 62

1000603000

Backbox for Station AA704 and AA706, Surface

Size (WxHxD) in mm: 137 x 284 x 65



#### **INSTALLATION PARTS**

**KR171** 

Wall Socket, RJ45, Surface Mounted

KB172

Wall Socket, RJ45, Flush Mounted



#### PRO-36-PEL

#### **Headset with 10m Cable**

- · Includes switchbox with ON/OFF and Talk push-button w/ belt clip.
- Standard with 10 meter cable.
- · To be used in noisy areas.

Works with the following Pro700 stations: AA703/AA704/AA705/BC735



#### PRO-36-PELP

#### Portable headset with 10m Cable and Plug

- Headset for connection to CD-7 Plug Box for PRO-36-PELP. Includes switchbox with ON/OFF and Talk push-button w/ belt clip.
- Standard with 10 meter cable and plug 4 pin Amphenol.
- · To be used in noisy areas.

Works with the following Pro700 stations: AA703/AA704/AA705/BC735



#### CD-7

#### **Plug box Water Tight**

- A watertight plug box designed to be used together with PRO-36-PELP, portable headset
- Socket with dustcap
- Headset with ON/OFF button
- · Delivered for bulkhead mounting
- · Is suitable for installation in noisy or deck areas





#### PRO221

#### Handset, Flush Mounted

The handset unit PRO221 is designed to be used together with main station AA704 for flush mounting in consoles. The built-in loudspeaker in AA704 is disconnected when lifting the handset for private conversation.



#### PRO211

#### Handset, Wall Mounted

The handset unit PRO211 is designed to be used together with main station AA703 and made for wall mounting. The built-in loudspeaker in AA703 is disconnected when lifting the handset.



#### GD745

#### Handset Module, Surface For stations A703/AA704/AA705, BC735

#### Station Kit



#### BD702

#### **Substation Kit**

Based on PCB for station AB731 Contents of station kit BD702:

- Built-in relay
- Internal 3W amplifier
- Speaker and speaker housing.

#### Interface Units



GH750

Multipurpose Relay Unit, (e.g. camera switch)

HD752

Autodialler for P.A., Radio Networks, Audio Interface, etc.

HD754

**Telephone Interface** 

FC740

**10W Amplifier** 

For stations AA703/AA704/AA705/BC735

**DP996** 

**Scream Alarm Module** 



## **Power Supplies**



LA617

**Power Unit** 

220V/18V DC, 1 AMP, for max. 5 stations.



LA618

**Power Unit** 

220V/18V DC, 4 AMP, for max. 20 stations.



LA925

**Power Unit** 

220V/27V DC, 5 AMP, for max. 25 stations.

# The following items are available until stock is empty:

AA701

Desk/Wall master

Replaced by AA711.

AB707

**Desk / Wall substation** 

With 3 call buttons.

GF632

Wall bracket

For AA701, AB707.



# Bi-Way:

# **Security Window Communication System**

The **Bi-Way** system solves the communication problem between people on both sides of security glass partitions. The built-in duplex controller switches the speech direction to permit natural two-way conversation in varying noise levels, on either side of the counter, without push buttons.

#### **System Description**

The **Bi-Way** system provides a safe, hygienic, efficient and comfortable working environment for counter personnel and makes normal conversation and personal service possible, while maintaining security.

**Bi-Way** two-way conversation is suitable for communicating with your callers, visitors, interviewees or customers, and avoids the need for your employees and yourself at be put at risk. The system is renowned for its excellent sound quality.

#### Bi-Way starter pack



The installation is easy and flexible – the operator's unit can be freestanding, wall or flush-mounted. The loudspeakers can be mounted to the glass, wall or desk on both sides of the public stand and the microphone is fixed to the glass by self-adhesive tape.

#### Accessories

A goose-neck microphone can be mounted to eliminate extreme ambient noise



A handset or headset with microphone can be used to eliminate noise, or for private conversations



A flush-mount frame should be used for built-in mounting



Standard loudspeakers may be substituted by a flush-mount type



To serve hearing disabled customers, a hearing aid amplifier and radiator loop pad can be added



#### Operation

In day to day use, the Bi-Way operator's unit is switched on, the sound is adjusted to a convenient level and the counter attendant is ready for the first customer. In addition to the on/ off switch, you can set the unit to 'stand-by' mode — this will minimize the ambient noise from the public side in waiting periods. To increase the sound at the public side, a 'Push-to-talk' button will compensate for ambient noise, to attract attention or to serve people with reduced hearing. If a goose-neck microphone is mounted, you can toggle between this and the built-in microphone.





#### **Application**

Bi-Way is suitable for many applications:

#### Where there is danger

of robbery or violence like banks, post offices, ticket offices, cashier windows, petrol stations or offices for social services such as interview rooms

#### Where security has to be maintained

like passport controls, foreign offices, embassy receptions, guarded entrances and police stations to taxi offices, movie theatres, stadiums and theme parks

#### Where health issues exist

such as hospitals and medical centre reception areas

#### **System Features**

- Compact and easy to install
  - one person installation
- · No holes required in the security glass
- · Field of vision not obstructed
- · Wide frequency range for optimal sound quality
- Design suits all decors









LBB 7026/65

#### **Bi-Way Starter Kit**

This kit consists of an LBB 7026/60 Operator's unit, the LBB 7026/73 External microphone, the LBB 7026/80 Loudspeaker kit and the LBB 7102/60 Power supply. The Operator's unit includes a microphone select button for switching to an optional microphone, stand-by button to set the system in reduced volume listening mode, push-to-talk button and an ON/OFF button.



LBB 7026/60

#### **Bi-Way Operator's Unit**

This unit contains all the electronics for one counter position including microphone and loudspeaker. The unit is designed for desk or flush mounting.

Size (WXHXD) in mm: 93 x 65 x 224 mm

Weight in kg: 0.3



LBB 7026/73

#### **Bi-Way External Microphone**

Uni-directional and noise cancelling microphone for connection to the operator's unit to improve flexibility.



LBB 7026/80

#### **Bi-Way Loudspeaker Kit**

2 loudspeaker cabinets with self-adhesive tape and 10 m flexible loudspeaker cable. Includes alco-pad for screen cleaning.

Size (WXHXD) in mm: 105 x 106 x 72

Weight in kg: 0.2



LBB 7102/60

#### Power Supply 12V/8W

230V AC, +6/-10%. 50/60 Hz. Double insulated and thermal fused.

Size (WXHXD) in mm: 100 x 51 x 63

Weight in kg: 0.5



LBB 7026/71

#### **Bi-Way Gooseneck Microphone for Operator Console**

Optional directional microphone for extreme noise conditions. Frequency range: 100 - 10,000 Hz, impedance 1,000 ohms.

Size (LxD) in mm: 320 x 12

Weight in kg: 0.1



LBB 7026/81

#### **Bi-Way Flush Mount Loudspeaker Kit**

Optional 6 W loudspeakers for flush-mount applications in desk or wall.

Impedance: 20 ohms.

Size (Diam.xD) in mm: 160 x 58

Weight in kg: 0.7



#### Accessories



LBB 7026/83

#### **Bi-Way Headset**

Headset with microphone for connecting to the Bi-Way operator's unit. Picture for illustration only. Supplied headset may have a slight different design.



LBB 7073/82

#### **Handset with Cradle Kit**

Optional handset for wall mounting in difficult noisy conditions or for situations where confidentiality is required.



LBB 7073/70

#### Flush-Mount Frame to Operator's Unit

Flush-mount frame for operator's unit. Desk or wall mounting. Size (WxHxD) in mm: 130 x 265 x 18 Cut-out hole (WxHxD) in mm: 107 x 231 x 63



LBB 7073/61

#### Flush-Mount Back Box - 60 mm

For flush mounting of the Bi-Way operator's unit. Station cord and termination included. The Bi-Way operator's unit needs a flush mount frame.

Size (WxHxD) in mm: 120 x 254 x 60

Cut-out hole (WxHxD) in mm: 108 x 234 x 60



LBB 7073/84

#### **Cradle Bracket**

For table-top use of the Bi-Way operator's unit.



LBB 7026/82

#### **Bi-Way Hearing Aid Kit**

Hearing aid loop antenna and amplifier.

To be used with 230 V/12 V AC, 8 W power supply.





LBB 7102/63

# **PSU, Hearing Aid Unit, 12 V AC** 230 V/12 V AC. 8 W power supply with Euro-connector.



LBB 7102/64

# PSU, Hearing Aid Unit, 12V AC 240 V/12 V AC. 8 W power supply with UK-connector.

# Three inventive Norwegian companies have merged into a global market player for internal communication systems

Shortly after World War II, and independently of each other, three enterprising Norwegians started the development, production and marketing of internal communication systems. Gustav A. Ring (Ring-Master), Otto S. Knudsen (STENTOFON) and Max Manus (M100) put all their resources into the production of simple communication systems that soon caused a sensation in the intercom world. Tough competition between them inspired each to continuously develop new systems, features and solutions for an ever-increasing number of market segments and applications. In 1997 Ring-Master and STENTOFON merged to become Stento ASA. The M100 system produced and marketed by Philips was acquired in 1999. This combined the three strongest and most established Norwegian companies in the field of internal communication. More recently, Stento ASA merged with SAIT Radio Holland in May 2000, then, in December 2001, the company changed its name to Zenitel. The company today is reinforcing the strong STENTOFON brand name within the group.

# From life-saving operations at sea to security and communication in a world perspective

The brand STENTOFON is widely recognised as the leading brand for integrated security intercom communication systems, particularly when special operations or special purpose stations are required. STENTOFON has earned a reputation for having the most flexible, reliable and superior quality hands-free communication system today. STENTOFON used to be the name of a Norwegian company which later changed its name to Stento, the company that some years ago merged with the Belgian company SAIT-RadioHolland. Today it is one of the most important brand names of Zenitel's brand portfolio. In 2005 the new generation of IP exchanges, the STENTOFON AlphaCom E was announced. This new solution is an evolution into IP technology while maintaining full backwards compatibility for existing projects. This STENTOFON solution opens up new opportunities and markets and has confirmed STENTOFON's strong position as a leading brand name in the business.

