

Feature rich, high performance...realistic budget

Intercom Messenger

Effective Communication...
...Made Simple



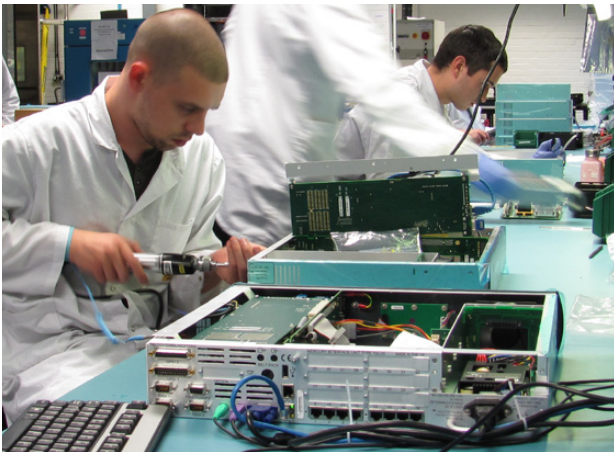
trilogy

Trilogy's headquarters in
Hampshire, United Kingdom



"Innovation, quality and customer service are the foundations of our business"

Trilogy is a UK based company which has been serving the Broadcast and Professional Media industries for over 25 years, specialising in high performance communications (Intercom) systems as well as video and audio reference products. Our clients are located in over 70 countries and range from major broadcasters including the BBC, CBS, ARD, Al Jazeera and TVNZ to smaller TV production companies, universities and institutions such as the European Parliament.



Innovation has always been at the heart of Trilogy's products, developing the world's first all-digital Sync Pulse and Test Signal Generators and pioneering the introduction of IP Intercom in Broadcast, over 10 years ago. Our systems are used in high profile live environments operating around the clock, and by their very nature are critical to success, making the reliability and high quality technical support we deliver absolutely essential.

The benefits of Trilogy's IP based voice communications

technology have also been recognised in many other industries including Defence, Emergency Services and numerous Industrial applications, which has aided our continuous growth over recent years, particularly in export where Trilogy is proud to have won the Queen's Award for Enterprise: International Trade 2009.

In the world of Broadcast Intercom our class-leading Gemini system maintains the reputation for 'peace-of-mind' reliability established by our earlier Commander and Orator systems but also incorporates both programme quality distributed audio and IP communications in a single unified system. This enables a more de-centralised approach to be adopted for larger systems, rather than using a single large central matrix, either within a building complex or throughout an international network.

Messenger is the latest addition to Trilogy's intercom portfolio, and is primarily aimed at smaller applications, whilst enabling future expansion to be achieved within a realistic budget.

Key Facts About Trilogy

- UK owned
- ISO 9001:2008 accredited
- 25 year track record around the globe
- Installations in over 70 countries
- Headquarters in Andover, United Kingdom and dedicated sales and support offices in the USA
- In house research, product development and quality assurance

Messenger Intercom - An Introduction

Messenger fulfils the need for a cost effective intercom solution without the installation, operational and future expansion constraints of more traditional 2 and 4 wire systems. From the factory configured Base System, Messenger can evolve to suit the emerging communication needs of the organisation.

At the heart of a Messenger system, the central matrix combines best of breed intercom functionality and expansion possibilities with the reduced cost of an entry level product. It offers full software programmability, choice of operator panels and other devices and has built-in IP capability.

Flexibility is the key to managing future requirements, and Messenger's architecture allows you to develop the system as and when you wish, whether it is for a simple studio or OB, or a more complex multi-site intercom operation.

A single Messenger matrix can be expanded at any time to 16 or 24 panel / 4 wire ports and up to 4 channels of analogue telephone interfacing. For larger requirements, multiple Messenger matrices can be interconnected via the optional IP gateway over any standard network, utilising Trilogy's proven IP based communications technology. This enables systems to be connected over multiple sites or to other current or legacy Trilogy systems including Gemini, Commander or Orator.

"Having had extremely positive experiences with Trilogy products over a number of years we chose Trilogy's new Messenger Intercom as it offered the university a cost effective investment with a great blend of features, functionality and ease of use."

*Sean Lancaster, Senior Lecturer - Media Technology,
Southampton Solent University*

Key Benefits

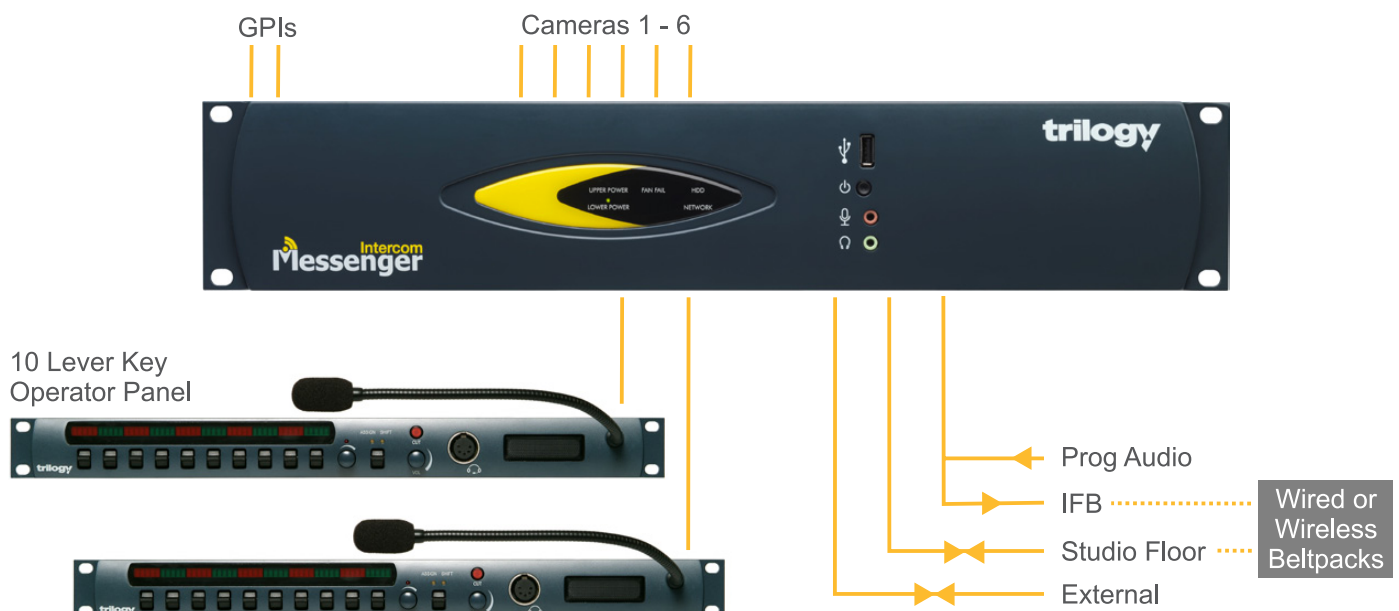
- Ideally suited to Television and Radio Studios, OBs, Events and Fly-Aways, Media Schools, Conference Facilities and more
- High level intercom features and functionality but within a realistic budget
- Simple installation and set-up
- User friendly configuration and operation
- Based on proven technology with built-in IP capability
- Extensive range of control panels, interfaces and portable intercom solutions
- Seamless interfacing with other Trilogy systems including Gemini, Commander, Orator and Mercury

The standard Base System comprises an 8 port Messenger matrix, a pair of 10 key 1RU control panels and is pre-configured for 4 panel ports (Director, Audio, Engineering and Edit), 3 audio 4 wire ports and a single port with internal audio mixer / distribution amplifiers for interfacing up to 6 camera channels, as shown in the diagram below.

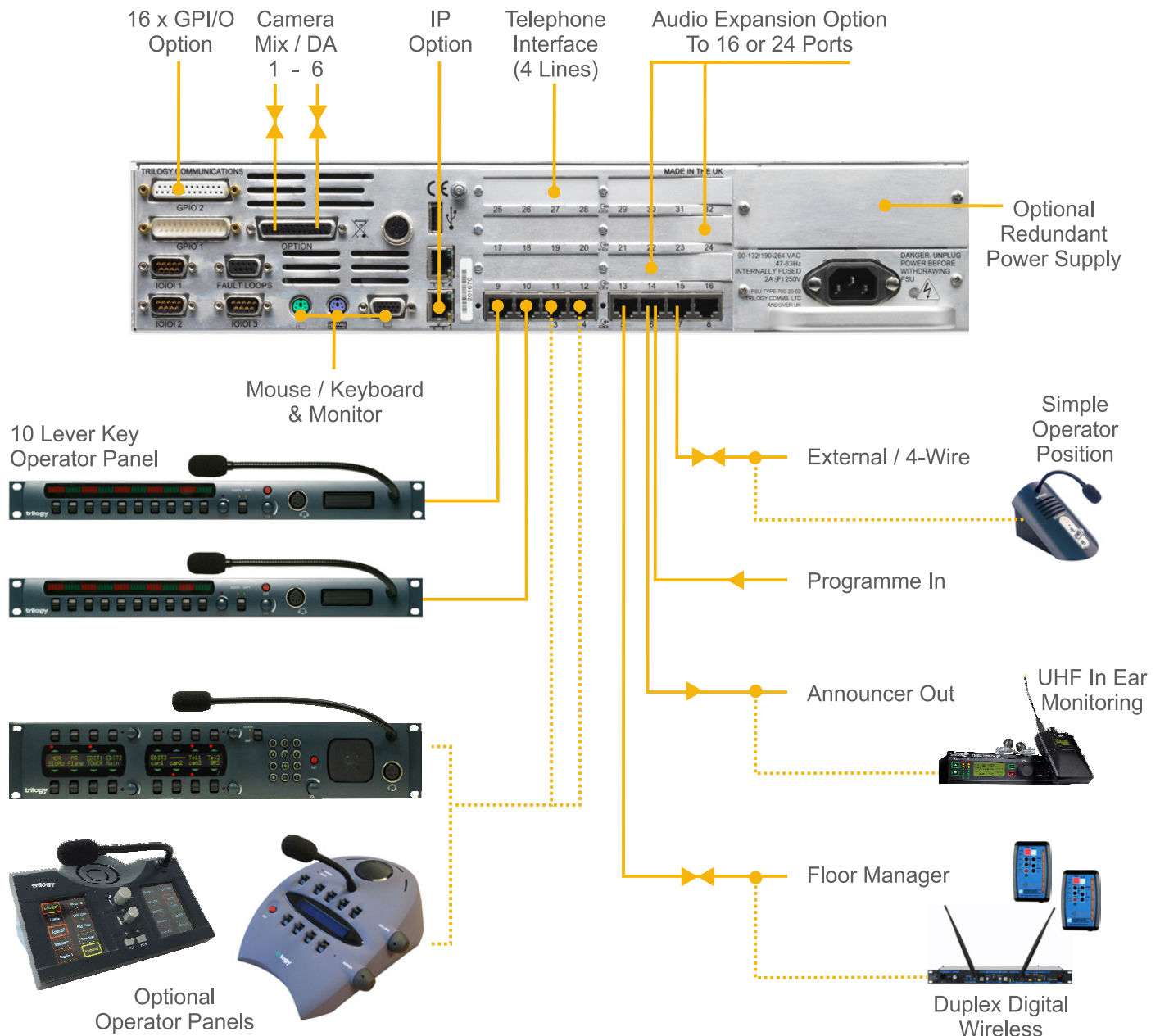
The 4 wire audio ports are initially allocated for Studio Floor Manager, Interrupted Foldback (IFB) for an Announcer (Presenter) and one external 4 wire. Our aim is to provide a 'plug and play' small studio intercom to be put into operation within minutes of delivery. There is even an optional cable and connector pack to assist installation and interfacing to external systems such as Camera Control Units (CCU) and GPIs.

Alternative or additional control panels can be supplied together with other options such as matrix expansion to 16 or 24 ports, redundant power supply and configuration software. The initial configuration is intended to support a typical studio system arrangement although alternative configurations can be supplied by Trilogy or created using the optional Gateway Configuration software.

Messenger Base System (8 Port)



Messenger Intercom Options



Messenger Options

- Redundant power supply
- Alternative or additional control panels with lever keys or touchscreens
- 8 port audio expansion board for any combination of panels and audio I/O
- 4 channel analogue telephone interface
- IP network facilities for single and multiple systems
- Factory configuration service to meet requirements
- Gateway Configuration Software – also compatible with Trilogy's Gemini intercom
- 16 channel GPI Input and Output expansion
- Additional DSP capacity for extended telephony and up to 24 IP voice channels
- Session Initiation Protocol (SIP) for interfacing to other IP based communication systems

Telephony

Integrating an intercom with a variety of telephone devices, whether they are external land lines, mobiles or internal subscribers can be vital in many media organisations, including news bureaux, sports venues and journalists on the move who need to remotely select their cue feed.

A Messenger matrix can be fitted with a telephone interface serving up to four separate lines, with incoming and outgoing dialling, auto-answering and DTMF control of audio routing, which enables remote users to access their IFB feed, independently from a system administrator.

Storage of external phone numbers and use of short codes permits single button dialling from any operator panel, saving time and reducing the risk of entering an incorrect number.

Gateway Software

Messenger takes advantage of the same Gateway software as Gemini, Trilogy's class-leading distributed matrix intercom and therefore enjoys the full feature set that you would expect from such a system – permitting any combination of private one-to-one, group calling, conference communication and IFBs, with complete control over all audio levels and routing, telephony and GPIs.

Special Intercom Group facilities are often used to allow busy production directors to be in full communication with key studio staff.

Separate speak and listen labels allow ports to be configured with independent inputs and outputs such as input for Programme Audio and output for IFB, therefore maximising the efficient use of all available ports.

Databases and Configuration

A Messenger Base System is supplied with a number of factory configured databases stored on the unit's solid state drive, enabling the system to be put into service immediately. The databases provide a complete set up for the control panels included and other facilities normally required in a simple TV studio operation, such as Camera operators, Floor Managers and Presenters.

Updates to the database for operational changes or for system expansion can be carried out by employing the optional Gateway configuration editor, or they can be provided by Trilogy's system specialists and installed via the front panel USB port, using just a keyboard, mouse and monitor connected to the Messenger matrix.

Standard Features

- Pre-stored standard configurations
- Unique 'Mirror Dimming' facility to avoid acoustic feedback
- IFB (Interrupted Foldback) on any output with programme audio dim or cut
- Multiple GPI inputs and outputs for control of audio routing
- Advanced 4 channel telephony option with auto-answer and direct dialling
- Signal detection and Vox operation

Where a system is initially required with 16 or 24 ports, Trilogy offer a service to design a bespoke database to meet customer specific requirements utilising our extensive experience of intercom system design which now spans over a quarter of a century.

Advanced Control

For larger matrices or networked systems, Gateway's Access Management facility supports multiple administrators, each with their own defined area of authority, while additional software applications are available to further augment the range of control and audio management facilities, offering one touch audio, conference and IFB assignment and monitoring plus an API for 3rd party control.

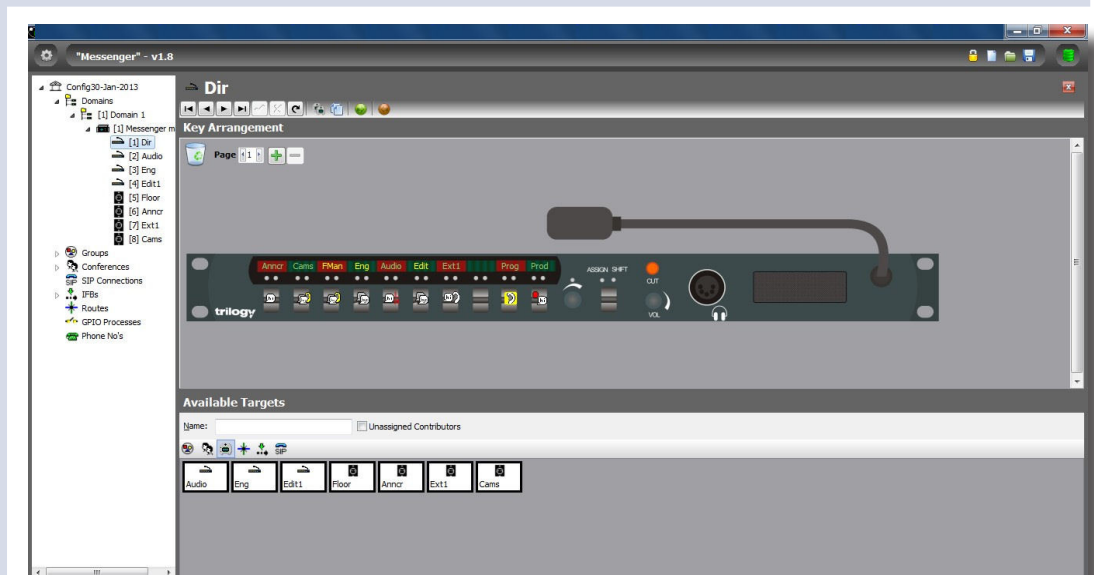
Session Initiation Protocol (SIP)

SIP support for interfacing to other IP based systems and devices e.g. VoIP phone systems and SIP enabled smart phones and tablets is available as an optional feature.

Gateway Configuration Editor

Gateway provides the ability to configure all system parameters, whether it is just a change to key assignments, audio level adjustments, or extensive re-configuration of an entire matrix network. The intuitive graphical interface even allows selection of simple and advanced modes to suit the user's needs and capabilities. Connected via any standard network, changes may be implemented remotely, with the majority of functions carried out while the system remains in live operation.

Management of Messenger has been taken to a new level with a system maintenance utility that performs many engineering and maintenance functions. It enables users to verify the entire system status including control panel connections, audio routes and IP network parameters.



Messenger Control Panel Options

Any Trilogy control panel may be used with Messenger, and the range includes lever key and touchscreen units in either rack mount or desktop format. All panels include a gooseneck microphone, internal speaker and headset connector together with a configurable selector switch and master volume control.

The dual action lever key switches may be configured in many different combinations of latching / momentary operation, or listen and speak modes, to suit individual operator preferences, saving on the total number of switches needed for any given user. Each switch has an associated 5 character display, together with LEDs for indication of switch status, incoming calls and signal presence.

Connectors for local audio inputs, outputs, footswitch and GPI signals are a standard feature with all rackmount control panels, allowing them to be simply interfaced with other audio equipment or nearby control systems.

The assignable rotary encoder enables adjustment of individual audio levels, as well as being used to navigate the panel's menus, change the panel set-up or re-assign switch functions.



Touchscreen Panels

The rack-mount and desktop Touchscreen panels offer a powerful feature set with intuitive operation for anyone familiar with smart phones and tablets. The enhanced features and capabilities found in these panels are simply not possible with conventional switch and display technology and include...

- Sophisticated menus for personalising panel audio and control parameters
- 8 character display
- Pop-up telephone dial pad
- Colour coded key functions for listen / speak
- Individual audio level adjustment with in-built displays
- Signal presence and incoming call signalling
- Audio replay facility with adjustable time window



Portable Communications

In most Broadcast and TV Production facilities, some members of the operational team need the flexibility of portable communication devices, enabling them to work freely throughout studio areas or an OB venue. In order to provide a turnkey communication solution, Trilogy can supply portable units selected from a wide choice of technologies to provide a solution best suited to each application.

For studio floor personnel and presenters, you can choose between a range of traditional 2 or 4 wire beltpacks or wireless devices such as full duplex license free (DECT) equipment, semi-duplex UHF and UHF In-Ear Monitoring units.

Although many “mobile operators” now prefer the freedom of wireless there are still situations and environments where simple wired beltpacks meet the requirements in terms of functionality, ease of use and cost. Operators on Party Line (2 wire) systems typically share a limited number of channels, while in 4 wire systems, each Beltpack has a separate matrix connection, allowing private communication but also ‘conferencing’ set-up within the Messenger matrix.

Any of these systems can be simply connected to Messenger via balanced audio inputs and outputs and configured for independent use or built into groups, giving similar operational characteristics to 2 wire party line systems.



Licence Free Wireless portables for Studio Floor Use

The license-free wireless beltpack system is typically recommended for TV studio Floor Managers, with options for lightweight single and dual channel units. Base stations can also act as a host for 2 wire Beltpack equipment, enabling Messenger to be seamlessly and flexibly integrated with all 2 wire and wireless users.

2 and 4 Wire Beltpack Systems

The 2 wire range also includes single and dual channel wired beltpacks, featuring hands free or push to talk operation, visual and audible call signalling and simple adjustments for audio levels to suit different headset types. Their metallic construction is designed for intense use in all fixed or portable environments.



Simple 4 wire beltpacks complete the range of portable options, without the need for any 2 to 4 wire interface, and separately powered from the Messenger's +/- 12V DC outlet.

UHF In Ear Monitoring (IEM) for Presenters/Announcers

These systems include both 4 and 20 selectable channel base stations and portable receivers, with several frequency range / channel options available, all with dual audio capability and normally supplied with presenter's acoustic tube earpiece.

Semi-Duplex UHF Wireless

Where greater distances are required to provide coverage in larger Outside Broadcast (OB) and sports applications, a variety of UHF semi-duplex beltpack systems can be supplied, together with a full range of wireless support equipment.

In addition to the wide range of Trilogy supplied portable communications, capital costs can be kept to a minimum by using existing customer inventories or user preferences can be catered for by the selection of a preferred manufacturer or model.



Specifications

Mechanical/Environ	Number of Ports	8 – 24 per matrix, depending on configuration
	GPI – Inputs (per matrix) / GPI – Outputs (per matrix)	2 as standard, option for 16 closure to ground / 16 opto-isolated
	Approvals	Emissions - EN55022, Immunity - EN55024, Safety - EN60950
	Power	Nominal 100-264 VAC. 47-63Hz 125 VA fully equipped Internal Fuse - 2A (F) 250V IEC mains connector with retainer
	Dimensions (WxDxH)	483mm (19") x 370mm (14.5") x 88.9mm (3.5")
Audio	Weight	6kg fully loaded (13.5lbs)
	Type	Balanced audio on RJ-45
	Nominal Input Level	0dBu
	Maximum Input Level	+20dBu
	Input Level Adjustment	Via software from -9dB to +12dB in steps of 1.5dB
	Nominal Output Level	0dBu
	Maximum Output Level	+20dBu
	Output Level Adjustment	Via software from -34.5dB to +12dB in steps of 1.5dB Mute option
Panel	Type	RS422 balanced data, directly coupled
	Data Rate / Protocol	230.4k baud, Proprietary protocol
	Recommended Cable Type	CAT5e UTP
	Maximum Cable Length	300m

Ordering Information

Base Systems		
Messenger Base System comprising an 8 port matrix with single power supply unit, solid state drive with factory configured database and 2 x 10 key 1RU control panels with 2 x 2 metre Cat 5 test cables		MBS-02
Messenger Base System comprising an 8 port matrix with single power supply unit, solid state drive with factory configured database and 1 x 10 key 1RU control panel with 1 x 2 metre Cat 5 test cable		MBS-01
Messenger Base System comprising an 8 port matrix with single power supply unit, and solid state drive with factory configured database and no control panels or cables		MBS-00
System Options		
2nd power supply unit for full redundancy		RED-PSU
Cable pack containing mating connectors for GPI inputs & outputs (25 way D male and female), +/- 12 V DC outlet (3 pole Hirose), IEC power, and breakout cable assembly for mixed cameras (25 way D plug to 6 RJ 45 free sockets)		CAB-KIT
4 channel analogue telephone interface, with dial in / out and auto-answer facility		TEL-4
16 input and output GPI option to replace 2 channel interface in Base Systems		GPI-16
Option for alternative factory configuration of Base System to customer specification		CONFIG-8
Option for alternative factory configuration of expanded matrix systems to customer specification		CONFIG-16/24
24 channel DSP expansion to support voice traffic over IP networks		DSP-24
Gateway Configuration Editor for a single Messenger matrix system		GCE-01
Control Panel Options		
2RU panel with 16 lever keys and 5 character LCD		2RU-16L
2RU panel with 16 lever keys, dial keypad and 5 character LCD		2RU-16LD
2RU panel with 30 touchscreen buttons		2RU-30T
2RU panel with 32 lever keys and 5 character VFD		2RU-32L
Desktop panel with 8 lever keys and 5 character LCD		DESK-8L
Desktop panel with 20 touchscreen buttons		DESK-20T

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