Telex®

Professional Intercom Systems

Audiocom™ Intercom Systems

Designed by professionals, for professionals

A new way of thinking

Intercom systems have evolved into a vital tool for production applications ranging from live sound reinforcement, sports communication, medical communication, video production, and television broadcast production. Over the years, in an effort to create the "ideal" format, numerous manufacturers developed several incompatible formats which have become a major stumbling block for many intercom users.

The new generation of Audiocom intercoms was designed from the start to be incredibly versatile, whether that means using balanced or unbalanced formats, single or two-channel lines, wet or dry operation, or even limited rack space. These products also keep your future options open by offering expandability as your needs grow.

Audiocom modular series components can adapt to unlimited configurations, from simple belt pack party lines, to sophisticated director-controlled networks with multiple channels, IFBs and matrix control. Interface modules allow complete compatibility with telephone lines and carbon camera headset systems. Conventional microphone cable connects networks of up to 22 channels of combinations of user stations, belt packs, speaker stations, and power supplies. Telex also offers Radiocom wireless intercom for professionals that require the added convenience of wireless operation. Radiocom wireless intercom products can be used in conjunction with wired systems, or separately as a stand alone system.

System Architecture

Audiocom components are engineered to receive "phantom power" from the 24 Vdc system power supply. Stationary user stations will operate in a "dry" mode when supplied with 12 volts DC from a wall pack supply. The term "dry" refers to an intercom channel that has audio but not the usual 24 volt phantom power on the channel. Dry operation has several advantages over "wet" operation in that it's generally quieter, reduces the need and cost of system power supplies, and takes up less rack space. System configurations can include a mix of wet and dry channels, depending on the station equipment assigned to the particular channel. Generally, most belt pack and speaker stations require a wet channel and thus need a system power supply. System power supplies for wet operation are available in single, two-channel, and four-channel versions, with capabilities to run up to 40 headset stations.

Balanced or Unbalanced — Maximum Flexibility

Audiocom's 300 ohm balanced line operation allows convenient station wiring and provides maximum protection from electro-magnetic interference generated from sources such as fluorescent lights, patch panels or light dimmers. A balanced system also makes longer cable runs possible . . . even exceeding five thousand feet. Portable Audiocom components connect easily with standard two-conductor shielded mic cable, while fixed stations can be wired with common two-conductor shielded cable, telco twisted pairs, or almost any conventional wiring. Microprocessor control in each Audiocom station allows easy conversion from balanced line operation to unbalanced operation for compatibility with Telex RTS TW series products or other unbalanced two-wire systems such as Clear-Com.*

Built Tough

Intercom systems must be tough, dependable and user-friendly. That's why every National Football League team uses Audiocom for critical sideline communications. Our rugged metal framework protects against electro-magnetic and radio frequency interference, while the advanced surface mount circuit boards ensure compact size as well as long term reliability. Sturdy extruded metal belt packs offer lightweight durability, while low profile recessed controls protect against inadvertent switching and damage from rough handling. All mains powered components are U.L. and CSA listed.

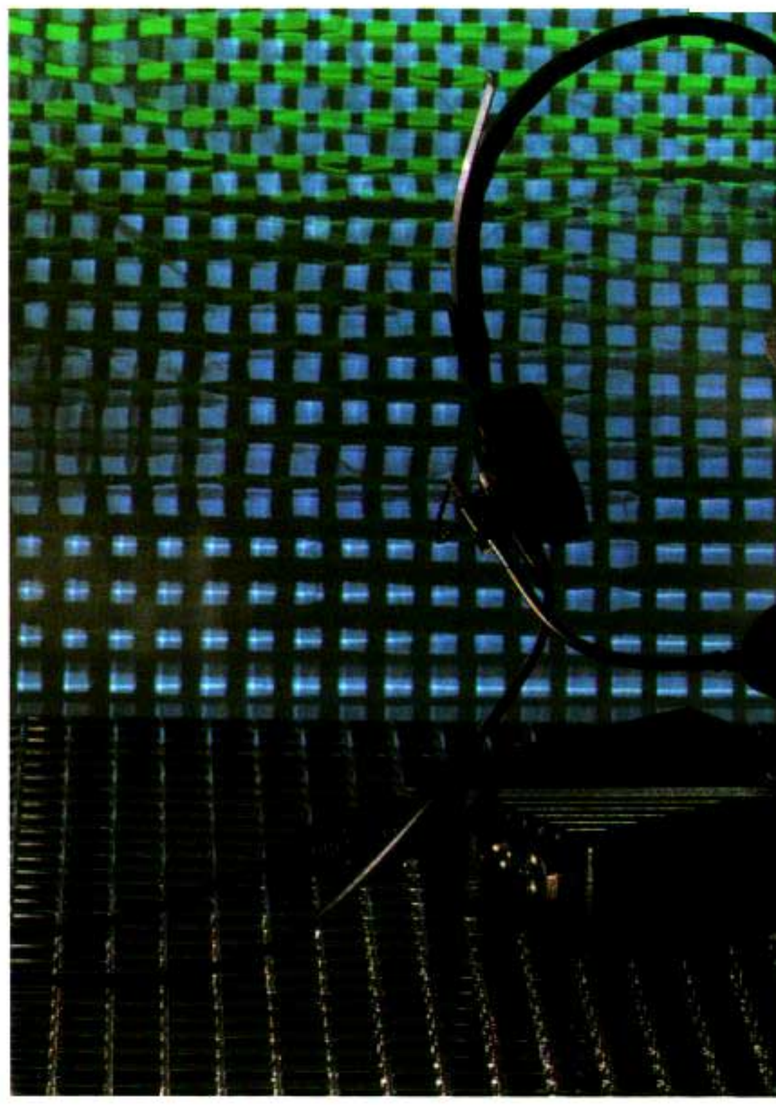
Headsets

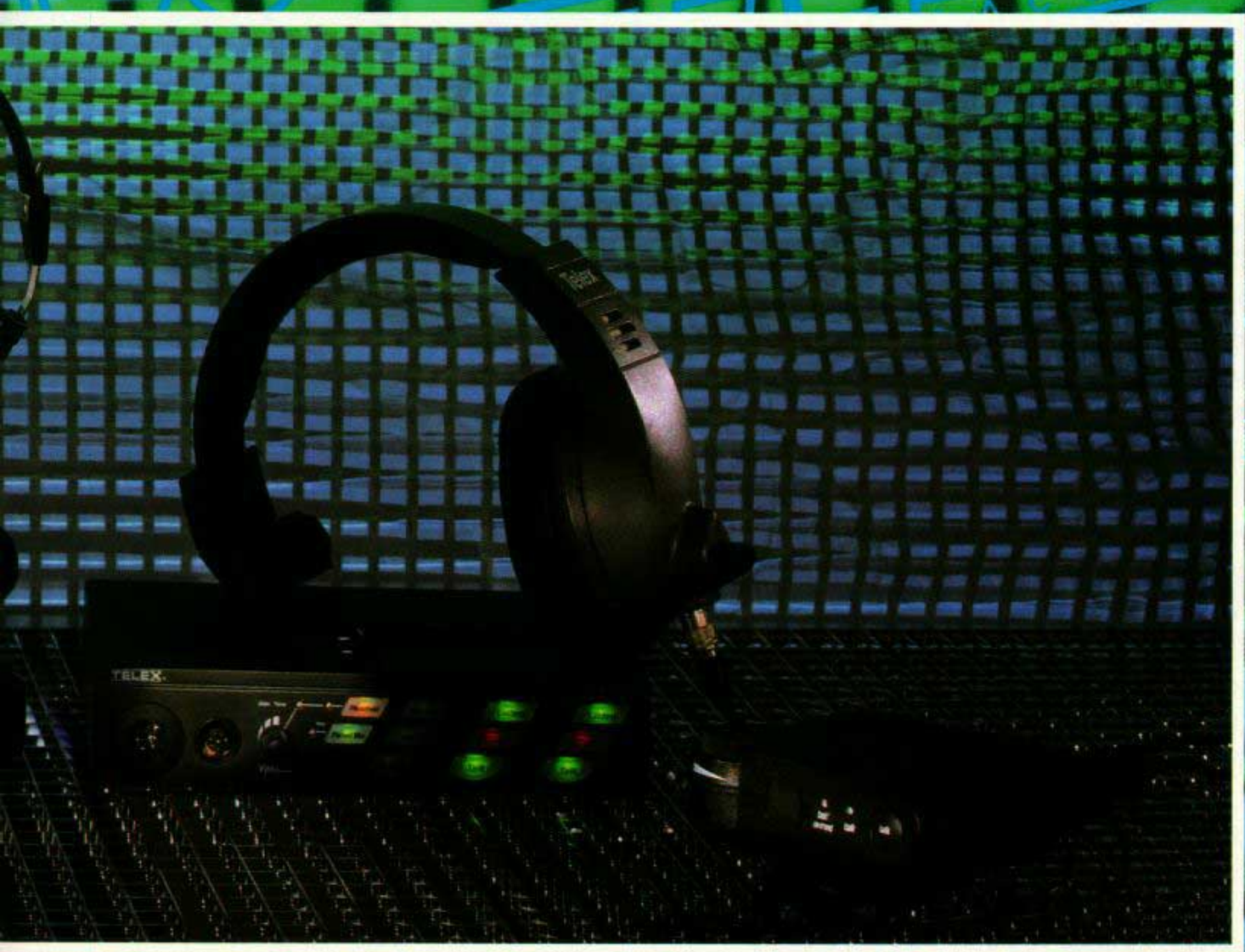
Durable, quality headsets are an important link in an intercom system. Telex is the recognized leader in headset development, from aviation and education, to broadcast and sports applications. Audiocom features a popular headset line which emphasizes clear, concise communication coupled with outstanding durability. Our headset line offers lightweight, full cushion, and hearing protection models for virtually any application.

Flexibility with Economy

Audiocom features a modular design, so components may be purchased separately for affordable system expansion of up to 22 channels. This means that as your requirements grow, your intercom system can grow as well, without the expense of replacing inflexible master stations. Modular series components make the most of limited rack space because these components are only one-quarter to one-half rack space wide, and only one rack space high. Audiocom operates efficiently with very low power consumption at 24 Vdc, but also tolerates a wide range of supply voltage from 12 V to 30 V. The common mode rejection is high, and the system is immune to cable phase reversal due to the internal transformer coupling.

*Clear-Com is a registered trademark of Clear-Com Intercom Systems




TELEX

User and Expansion Stations

US-2000
EGM-12N Microneck optional.

US-2000

Two Channel User Station

Order No. 90007322-000

The advanced microprocessor-controlled US-2000 features two independent party line channels, with separate Talk/Listen and Call buttons for each channel. The station also incorporates a Mic Kill feature which allows the director to turn off all microphones on selected channels with the push of a button. The All Talk button allows the director to conveniently talk to all channels simultaneously. The separate stage announce output is useful for paging outside of the intercom system when connected to an external public address system. The US-2000 has a mono headset jack, and a separate receptacle for either a plug-in gooseneck microphone or stereo headset. It also features a vox circuit for the gooseneck and headset mics for hands-free operation. IFB (interrupt foldback), with a choice of mute or mix of the incoming program signal is built-in for each channel, with a rear panel gain control. The microprocessor has several programming features including a beep tone confirmation of function button action, light signal receive, IFB select, and a 1 KHz test tone for optimum system nulling.

ES-4000

Four Channel Expansion Station

Order No. 90007325-000

With the addition of the ES-4000, system expansion beyond two channels no longer requires a completely new system and budget. The ES-4000 four-channel expansion unit adds another four channels of intercom/IFB to the US-2000. A total of five ES-4000s can be added to a US-2000 for a system configuration as large as 22 channels. The US-2000/ES-4000 units are compatible with balanced as well as unbalanced intercom systems in both the RTS by Telex and Clear-Com formats.

US-2000/ES-4000 Powering

The US-2000 and ES-4000 require the addition of system power supplies for "wet" channel operation. As an option, they may be run "dry" and locally powered by a PS-L wall transformer. System configurations can include a mix of wet and dry channels depending on the station equipment assigned to the particular channel. If you are not sure that you will require a system power supply, contact your local Telex Audiocom dealer.

US-2000 and ES-4000 Standard Features

A. Mono Headset Connector

***B. Panel Microphone or Stereo Headset Connector** – accepts a Telex gooseneck (Model EGM-12N or EGM-18N) or stereo headset.*

***C. Headset Volume Control** (listen level).*

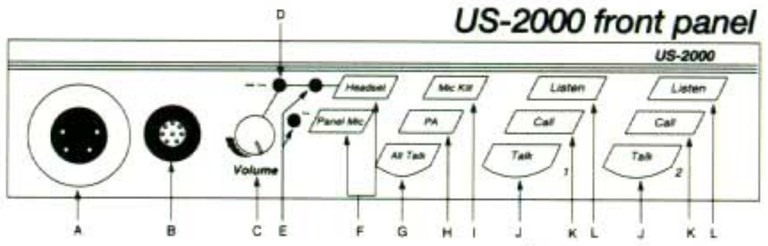
***D. Sidetone Control** – adjusts your own voice level heard in the earphones.*

***E. Hands-free VOX Level Adjustment** (separate controls for headset and panel mic) – these adjust the voice level required to activate the mic when VOX mode is on.*

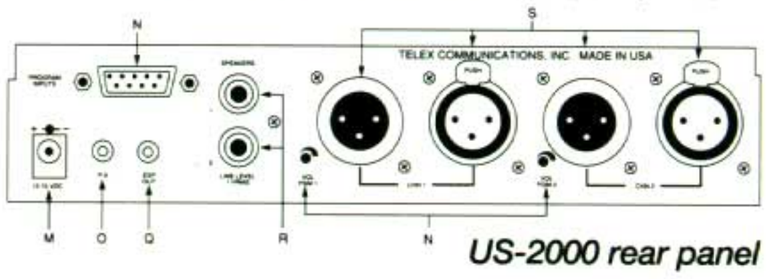
***F. Headset and Panel Mic Keys** – activate these functions one of three ways: 1) tap key once for **latched mode** (key glows green), tap again to turn off; 2) press and hold key for **momentary mode**, release key to turn off; 3) with Headset or Panel Mic off, tap key twice for **VOX mode** (key glows orange when no audio is present, and green when you speak into headset/mic). Tap key once to turn off.*

***G. All Talk Key** – allows user to talk on all US-2000 and ES-4000 channels at once.*

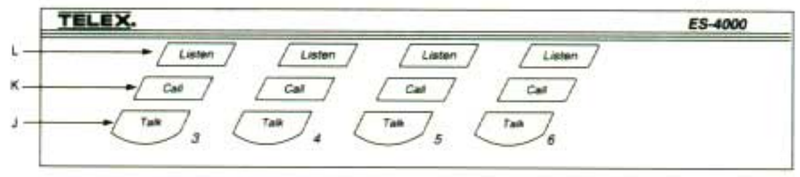
US-2000 front panel



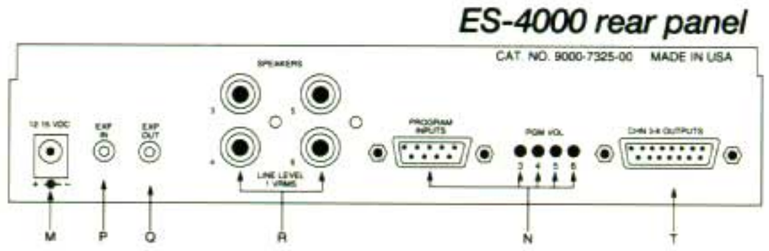
US-2000 rear panel



ES-4000 front panel



ES-4000 rear panel



Select either Headset or Panel Mic on US-2000, then press and hold the US-2000's All Talk key. Key glows green. Release All Talk key to exit.

***H. PA Key** – select either Headset or Panel Mic, then press and hold PA key to talk on a public address system connected to the PA output jack (rear panel). Key glows green.*

***I. Mic Kill Key** – sends a 24 kHz signal that causes specially-equipped stations on a selected channel to turn off any activated mics on that channel. Tap Mic Kill key on US-2000 once (key blinks green). Press Talk or Listen key to kill desired channels, or press US-2000's All Talk key to kill mics on all channels. Tap Mic Kill key to exit or wait for time-out to expire.*

*Press and hold US-2000's Mic Kill key to access **Program Kill** (key glows green and current Program Kill status will be displayed). Press a Talk key to enable or disable program audio on that channel.*

*Press and hold US-2000's Mic Kill key to access **Headset Audible Call Alert** (key glows green and current Call Alert status will be displayed). When all Call keys are lit, Call Alert is enabled. Press any Call key to enable or disable Call Alert. Tap Mic Kill key to exit.*

***J. Talk Keys** (one for each channel) – select either Headset or Panel Mic on US-2000, then activate Talk key by: 1) tapping key once for **latched mode** (key glows green), tap again to exit; 2) press and hold key to talk **momentarily**, release key when finished.*

***K. Call Keys** (one for each channel) operate in two ways – 1) **Call receive** – key blinks red for incoming call signal (will cause a beep in headset if call alert is enabled). Activate Talk key to respond. 2) **Call send** – press and hold Call key until a verbal response is received (the Listen key for that channel turns on automatically).*

***L. Listen Keys** (one for each channel) operate in two ways – 1) Tap key once to listen in **latched mode** (key glows green), tap again to turn off. 2) Press and hold key to listen **momentarily**. Release key to turn off listen.*

***M. 12-15 VDC Input Jack** – each station has the ability to accept power through local power jack (normally US-2000/ES-4000 are powered from the system power supply, but when using the station with other US-2000s/ES-4000s, the units can be run dry using only the local power input and a suitable 12V source such as the PS-L.).*

***N. Program Inputs Connector and Program Volume Controls** (one for each channel) – channel's program source preselected through 9-pin input connector.*

***O. PA Output Jack** – for connection to external public address amplifiers.*

***P. EXP IN Jack** – ES-4000: connects to the EXP OUT of the US-2000, or "daisy chains" to the EXP OUT of the next ES-4000 up the line.*

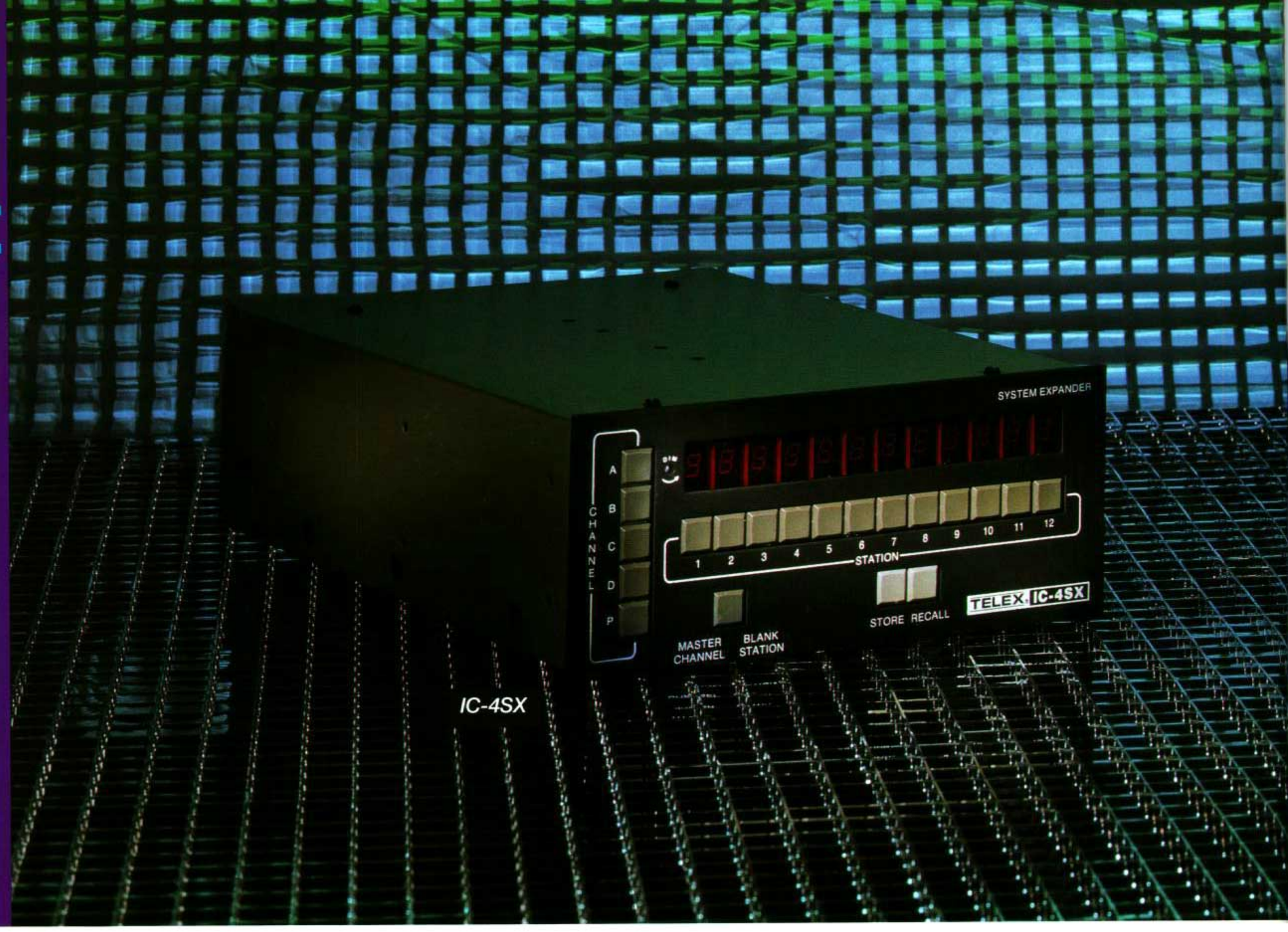
***Q. EXP OUT Jack** – US-2000: connects to the EXP IN jack of the ES-4000. ES-4000: "daisy chains" to the EXP IN jack of the next ES-4000 down the line.*

***R. Speaker Output Jacks** (one for each channel) – connects to the input jacks of optional SPK-1000 powered speaker, or to an amplifier auxiliary input.*

***S. Channel 1 & 2 Intercom Channel Connectors** – US-2000: each channel has a male and female connector for easy installations.*

***T. Channel 3-6 Outputs Intercom Channel Connectors** – ES-4000: connects to an optional PS-4000 power supply. 15-pin connection cable included.*

Electronic Source Assign Panel and Power Supplies



IC-4SX

IC-4SX

Electronic Source Assign Panel

Order No. 96210-000

The IC-4SX offers a versatile and convenient way to set up a closed circuit intercom channel/station matrix. It gives four intercom channels greatly expanded station selection capability, making it possible to assign any of 12 stations (up to 40 belt packs) to four channels (ABCD) or a private position. Each station can consist of one belt pack headset station, or a number of belt packs daisy-chained together. All individuals on the same station in a private mode can communicate with one another, but are completely isolated from the master station *and* all other remote stations. But all stations assigned to a given alphabetical channel are connected and can communicate freely.

Once a desired network configuration is set, it can be stored, reprogrammed, or recalled at any time. When the system is turned off, it will return to the last program displayed when power is returned, with all stored information in memory. A PS-X power supply is required to power the IC-4SX.

PS-X NOT SHOWN

Power Supply

Order No. 90007427-000

24 V power supply provides 2.0 amps of current for IC-4SX and user stations. Line connection is a universal I.E.C. type mains. Compact unit is one-half rack space wide by one rack space high.

SPS-2000

Two Channel Power Supply with Self-Amplified Speaker

Order No. 90007333-000

PS-4000

Four Channel Power Supply

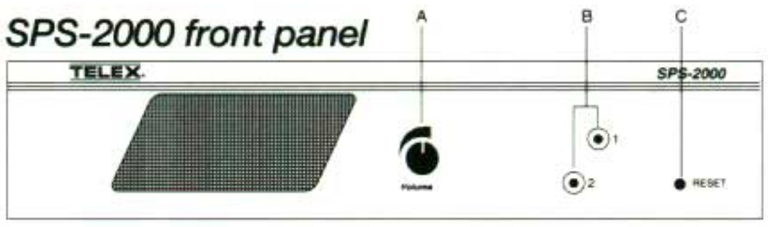
Order No. 90007336-000

The **SPS-2000** and **PS-4000** feature a 2.0 Amp switching power supply with automatic load balancing for systems that have a heavy current draw on one channel over the other. This feature provides the required current up to the 2.0 amp limit of the supply to the channel that demands it. Each channel is equipped with a bi-color LED fault detector which glows green under normal conditions and red during a fault condition. Each channel is independently monitored so that a fault condition on one channel will not affect operation on the other channel. The IEC type power cord and automatic voltage select circuitry make this an ideal product for universal world 110-250 Vac use. By setting an internal dip switch, both the SPS-2000 and PS-4000 are compatible with Audiocom balanced line format, as well as RTS by Telex TW and other unbalanced systems, such as Clear-Com. The internal 2.0 amp supply is sufficient current to run up to 40 belt packs. Both units are U.L. and CSA listed.

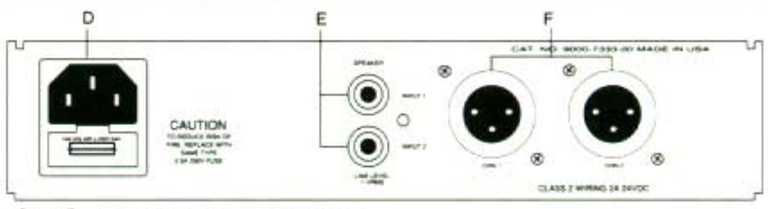
In addition, the **SPS-2000** includes a completely independent built-in 5-watt amplified speaker. The amplified speaker offers two line level inputs. This unique combination saves on precious rack space by combining the speaker and power supply in a compact one rack space high by one-half rack space wide unit. The SPS-2000 has two XLR-3 male connectors for channel connection. The internal amplified speaker uses two RCA type connectors for signal input.

SPS-2000 (top)
PS-4000 (bottom)

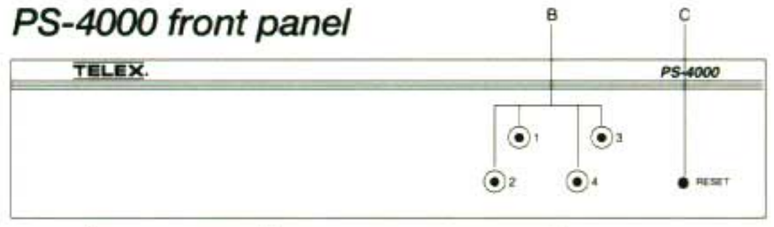
SPS-2000 front panel



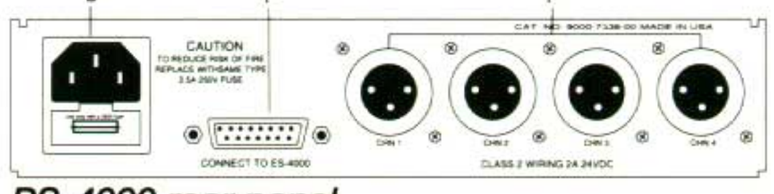
SPS-2000 rear panel



PS-4000 front panel



PS-4000 rear panel



The four-channel **PS-4000** uses a DB-15 connector for signal input, and four separate XLR-3 male connectors for channel connection. It features twin discrete format control sections, which makes it possible to run two channels balanced and two channels unbalanced in the same system. The unit is a compact one rack space high by one-half rack space wide.

PS-2L

Two Channel Power Supply

Order No. 96167-000

The two-amp PS-2L power supply will power up to 40-50 user stations. Using the combine/isolate switch, a director can set up two separate networks of remote stations and use them as two isolated groups, or on a party line. Unit can be field modified for 220 Vac operation, and rack mounting brackets are available. The PS-2L is designed for balanced line operation only.

PS-1F

Single Channel Flush Mount Power Supply

Order No. 92890-000

A 500 mA, flush mount power supply, the PS-1F is able to power up to 25 belt pack headset stations. Connections are made via a three wire barrier strip to permit wire rap terminals, or screw clamp wiring connections. The PS-1F is designed for balanced line operation only.

PS-1F Flush Mount and Two Channel PS-2L

SPS-2000, PS-4000 Standard Features

***A. Volume Control** – simultaneously adjusts the speaker level for both speaker input lines (SPS-2000).*

***B. Channel Power Status Indicators** – glow green for normal operation, red if there is a short circuit or fault condition on a power output line. (SPS-2000/PS-4000).*

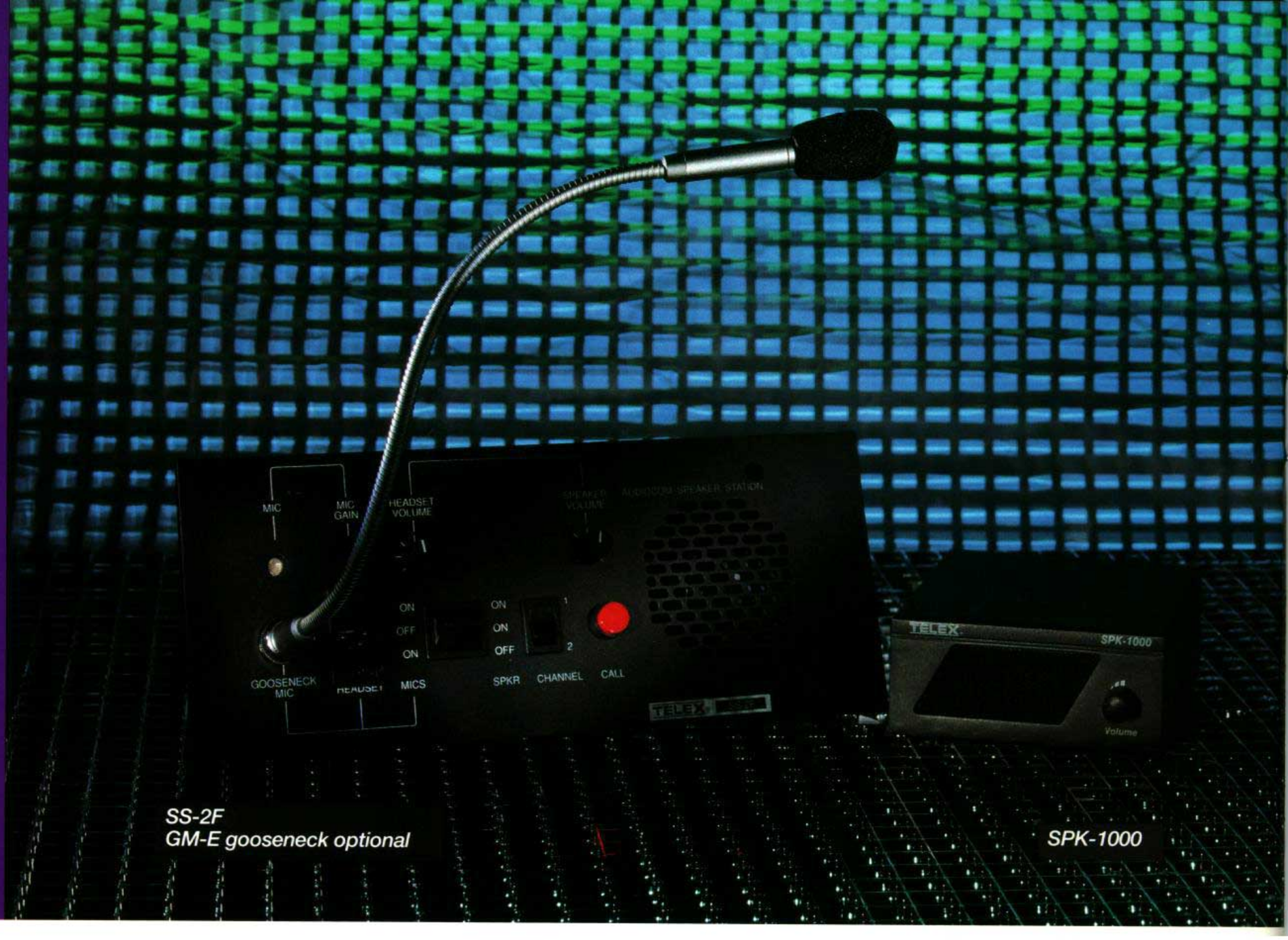
***C. Reset** – power status indicators remain red after sensing a fault, until power is interrupted from the SPS-2000 or rest is pressed. (SPS-2000/PS-4000).*

***D. AC Power Inlet** – I.E.C. type universal connects the unit to an AC line and holds the line fuse (SPS-2000/PS-4000)*

***E. Speaker Input RCA Jacks** – connect to the speaker outputs of a US-2000 or ES-4000 station. May also be used to connect audio input from any other line-level program source. (SPS-2000).*

***F. CHN 1 and CHN 2 XLR-3M Intercom Channel Connectors** – carry power to intercom user stations and provide channel termination for the audio signal. (SPS-200 – the PS-4000 has four XLR-3M connectors and one 15-pin connector for use with ES–4000).*

Speaker Stations



SS-2F
GM-E gooseneck optional

SPK-1000

SS-2P NOT SHOWN

Portable Two Channel

Order No. 96550-001

SS-2F

Flush Mount

Order No. 96544-001

The SS-2P/SS-2F receives power from the intercom system channel. A convenient internal switch allows system compatibility between balanced and unbalanced line operation. The SS-2F is designed to flush mount into a standard 5 gang mason box (Steel City #GW535C).

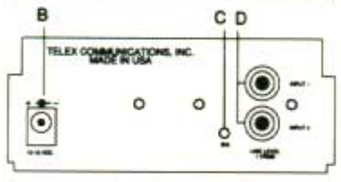
SPK-1000

Two-input Powered Speaker Monitor

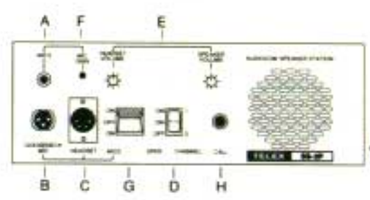
Order No. 90007326-000

The new SPK-1000 Powered Speaker Monitor presents an alternative to expensive monitor systems. It includes its own 5-watt speaker and amplifier, and 47K ohm line level dual channel input with balance control. Up to four units will fit in one rack space!

SPK-1000 front panel



SPK-1000 rear panel



SS-2P/SS-2F front panel

SS-2P only rear panel

SPK-1000 Standard Features

***A. Volume Control** – simultaneously adjusts the speaker level for both speaker input lines.*

***B. 12-15 VDC Input Jack** – plug the supplied UL and CSA listed wall pack into the 12-15 Vdc input jack, then into an ac outlet for power.*

***C. Balance Control** – adjusts the relative level of Input 1 and Input 2 signals.*

***D. Speaker Input Jacks** – connect to the speaker outputs of a US-2000 or ES-4000 station; also connect audio input from some other line-level program source. One 3′ RCA type patch cord included.*

SS-2P/SS-2F Standard Features

***A. Built-in miniature condenser microphone** picks up normal voice levels from arm's length.*

B. Connection for optional Telex GM-E electret condenser gooseneck microphone.

C. Standard 4-pin dynamic headset input.

***D. Channel select switch** provides two channel versatility.*

***E. Volume controls** for headset and speaker.*

***F. Screwdriver mic gain** for built-in mic.*

***G. Rocker switch** controls three operating modes: **full duplex intercom, receive only,** and momentary **hold-to-talk button** which automatically mutes speaker when built-in mic is keyed.*

H. Call light button.

***I. XLR-6 connectors** (SS-2P), and **screw terminals** (SS-2F) on rear of unit allow daisy chaining.*

Headsets, Handsets and Microphones

V-210 (Order No. 300027-001)
V-220 (Order No. 300027-002)
MB-11 Mic (Order No. 300028-000)
CA-20 Cord (Order No. 300029-001)
The V-Series headsets are high fidelity, studio quality products that may be tailored to most any need using modular cord sets and microphones. The V-210 is a single-sided headset, the V-220 is dual-sided, and both have a unique ball and socket boom with a hinge on boom's center for extra-flexible mic movement. The V-Series features unique floating earcups which adjust to virtually any head size or shape for maximum comfort. Adjustable earcups offer top audio response and noise reduction. A wide variety of cord sets are available, including the CA-20 XLR-4 female, with 5′ cord (listed above), and the CA-22 XLR male, with 5′ cord (Order No. 300029-000). Two modular mic capsules are offered: the MB-11 supercardioid dynamic (listed above), and the MB-12 supercardioid electret (Order No. 300028-001).

PH-8 (Order No. 70415-001)
Super lightweight, single-sided headset for the ultimate in day-long comfort. High quality monaural dynamic earphone with dynamic noise cancelling microphone on adjustable boom that can be bent to practically any mouth-to-mic position. Straight cord with female XLR-4 type plug.

PH-4 (Order No. 70340-000)
PH-5 (Order No. 70350-000)
Super lightweight, dual-sided for day-long comfort. High quality monaural (PH-4) or binaural (PH-5) dynamic earphones with dynamic noise cancelling microphone on adjustable boom. Straight cord with female XLR-4 type plug (PH-4) or XLR-5 type plug (PH-5).

PH-1 (Order No. 64438-005)
Single-sided headset allows user to have one ear open. Dynamic, monaural earphone with foam-filled cushion, covered in supple polyurethane and cushion cover sock. Noise cancelling dynamic microphone is attached to a continuously adjustable ball joint which allows placement on either side of the head. Five foot straight cord with clothing clip and female XLR-4 type plug.

PH-2 (Order No. 64437-006)
PH-3 (Order No. 64437-007)
Dual muff headset with circumaural foam ear cushions effectively reduce ambient noise. Dynamic monaural (PH-2) or binaural (PH-3) earphones with a dynamic noise cancelling microphone on ball joint boom. Five foot straight cord with clothing clip and female XLR-4 type plug (PH-2), or XLR-5 type plug (PH-3).

HD-3A (Order No. 63700-011)
Dual-sided hearing protection headset with noise cancelling dynamic microphone and Environmental Protection Agency Noise Reduction Rating (NRR) 21. Coil cord with female XLR-4 type plug.

PH-10 (Order No. 70470-003)
Dual-sided monaural hearing protector type headset with noise cancelling dynamic microphone on ball joint boom. Dual mono dynamic earphones with Environmental Protection Agency Noise Reduction Rating (NRR) 24. Straight cord with XLR-4F type plug. Optional gel filled cushions available (Order No. 64301-000).

PH-16 (Order No. 70770-003)
High noise attenuating, dual receiver headset with noise cancelling dynamic microphone for use under helmet. Straight cord with XLR-4F type plug. Environmental Protection Agency Noise Reduction Rating (NRR) 24. Optional gel filled cushions available (Order No. 64301-000).

HM-100 (Order No. 60837-032)
Dynamic, noise cancelling microphone with push-to-talk switch for handheld operation. Transmits clear voice communications even in noisy environments. Coil cord with female XLR-4 type plug.

EGM-12N (Order No. 90007355-000)
EGM-18N (Order No. 90007355-001)
12″ (EGM-12N) or 18″ (EGM-18N) Micro Neck™ gooseneck microphone with windscreen, matte black finish, Neutrik bayonnet type connector, and cardioid pickup pattern. Designed for use with US-2000 user station.

GM-E (Order No. 96212-000)
NOT SHOWN
Electret condenser gooseneck microphone for use with SS-2P or SS-2F speaker stations.

HS-6A (Order No. 96145-000)
Telephone style handset with convenient PTT switch and hanging metal bracket. Dynamic earphone and microphone elements. Coil cord with female XLR-4 type plug.

Headset Stations

BP-1 *BP-2* *1C-1/LS*

BP-1

Single Channel Belt Pack

Order No. 96600-001

BP-2

Two Channel Belt Pack

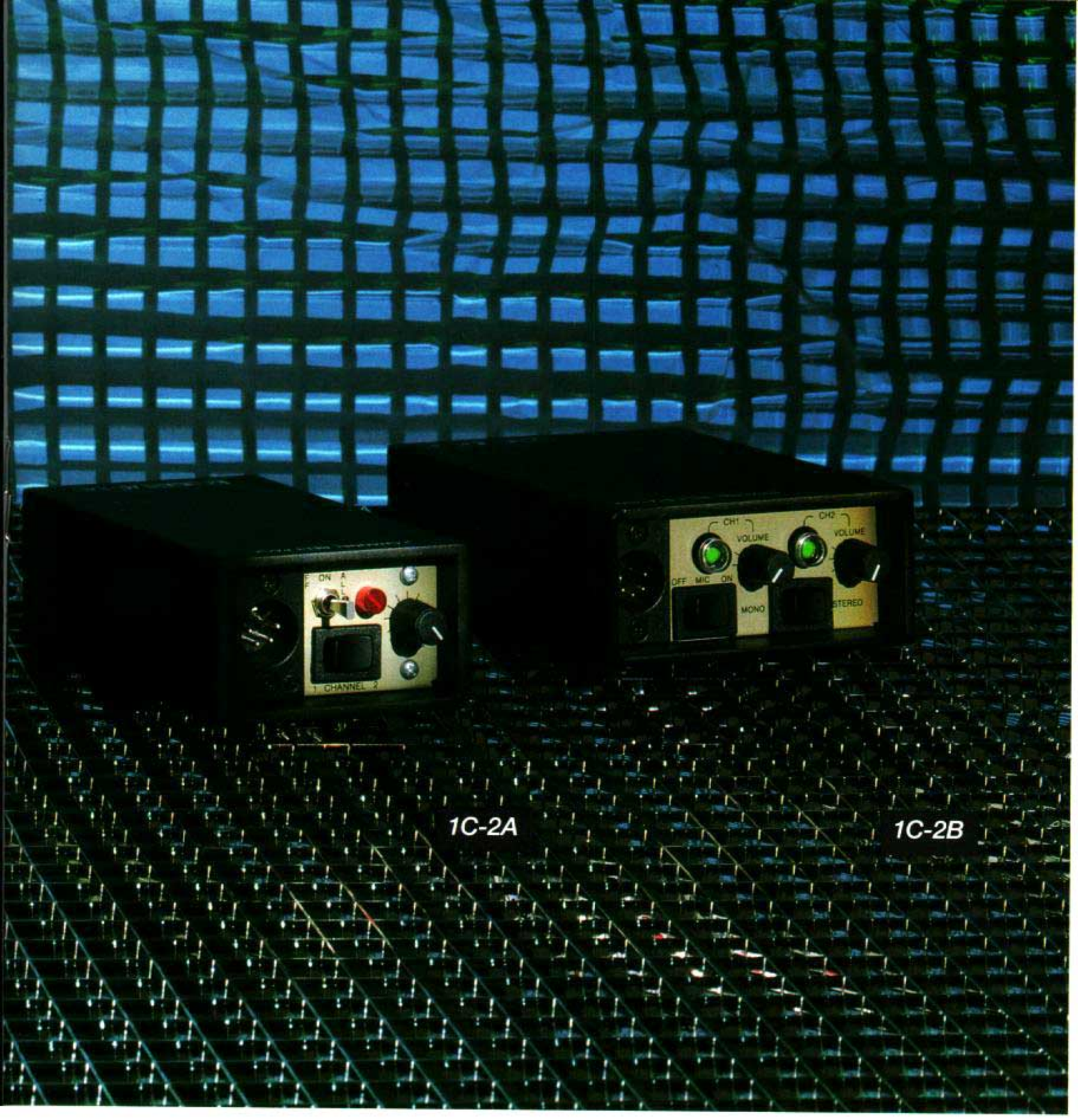
Order No. 96600-000

Telex Audiocom remote headset stations are compact units designed for convenient belt pack portability, and are compatible with balanced or unbalanced systems. All belt packs include XLR-type male and female connectors to allow daisy chain line connections, and feature a black matte finish for unobtrusive stage presence during theater blackouts.

Standard Features

- **Fully Compatible** with unbalanced systems (such as Clear-Com) via a select switch concealed under the rear cover. Accepts both Audiocom 20 kHz and Clear-Com dc Call-Signals.
- **Tactical Feel Keypad** – features shaped, easy-to-read identification function controls which protect unit from damage and inadvertent switching.
- **Large Volume Control** – is ergonomically designed to provide ease of operation while protecting from inadvertent bumping.
- Stylish, compact and lightweight yet extremely **sturdy construction** features Makroblend* UT-400 polycarbonate. All control surfaces and the rear cover are fully gasketed with Neoprene to resist moisture.
- **Dual Function Talk Button** – Press and hold for momentary talk feature, press twice for latched-on, hands-free talk mode.
- Headset and cable **connections are at the bottom of the unit** for ease of use and added comfort. This feature reduces total length considerably from units with connections at both ends of the belt pack.
- BP-2 two channel unit has **Channel Select Switch** for remote station channel control.
- **Call and Mic-on LED** lights make status monitoring easy. **Call-Signal** feature transmits light signals to other stations.
- **BP-1 has one XLR-3M and one XLR-3F** type connector. **BP-2 has two universal 6-pin XLR** type connectors (one male, one female), which accept both Switchcraft and Neutrik models.
- **Surface mounted** PC boards and components make the BP series belt packs highly reliable.
- **Dimensions/Weight** – 4.25″ W × 4.125″ H × 2.0″ D (108 × 105 × 51 mm), 8 oz (227 g).

*Macroblend UT-400 is a registered trademark of Mobay Chemical Corporation



1C-2A

1C-2B

IC-IF/LS

IC-2AF

The IC Series Metal Belt Packs

The IC Series metal belt packs are the original portable Audiocom headset stations for balanced line systems. A male XLR type headset connector with listen, volume control, microphone on/off switch, and call light controls are conveniently located on the top panel. The heavy gauge aluminum housing is virtually crush proof, and includes a recessed control panel which avoids damage or inadvertent switching. Tapped screw holes are provided to fasten the unit to a video or film camera if desired. The Telex RM-13 rack mount kit enables mounting in any EIA rack.

IC-1/LS

Single Channel Belt Pack

Order No. 92850-004

This unit is a single channel belt pack with Call-Signal. It features a call light and an off-on-call switch which uses an inaudible 20 kHz tone to activate light signal transmission to other remote stations.

IC-2A

Two Channel Belt Packs

Order No. 96118-000

This two channel belt pack is switch selectable which allows the user to actively select either of two channels of communication from the remote station. It also includes adjustable sidetone, and features Call-Signal, and two 6-pin XLR type Neutrik connectors.

IC-2B

Two Channel Binaural Belt Pack

Order No. 96099-000

This two channel belt pack without Call-Signal features a mono/stereo switch for binaural capability, with separate listen controls for each channel. Also included are adjustable sidetone, and a 1/4″ connector for carbon headsets (as used in TV camera intercom circuits).

Flush Mounts

IC-1F/LS

Single Channel with Call-Signal

Order No. 92860-004

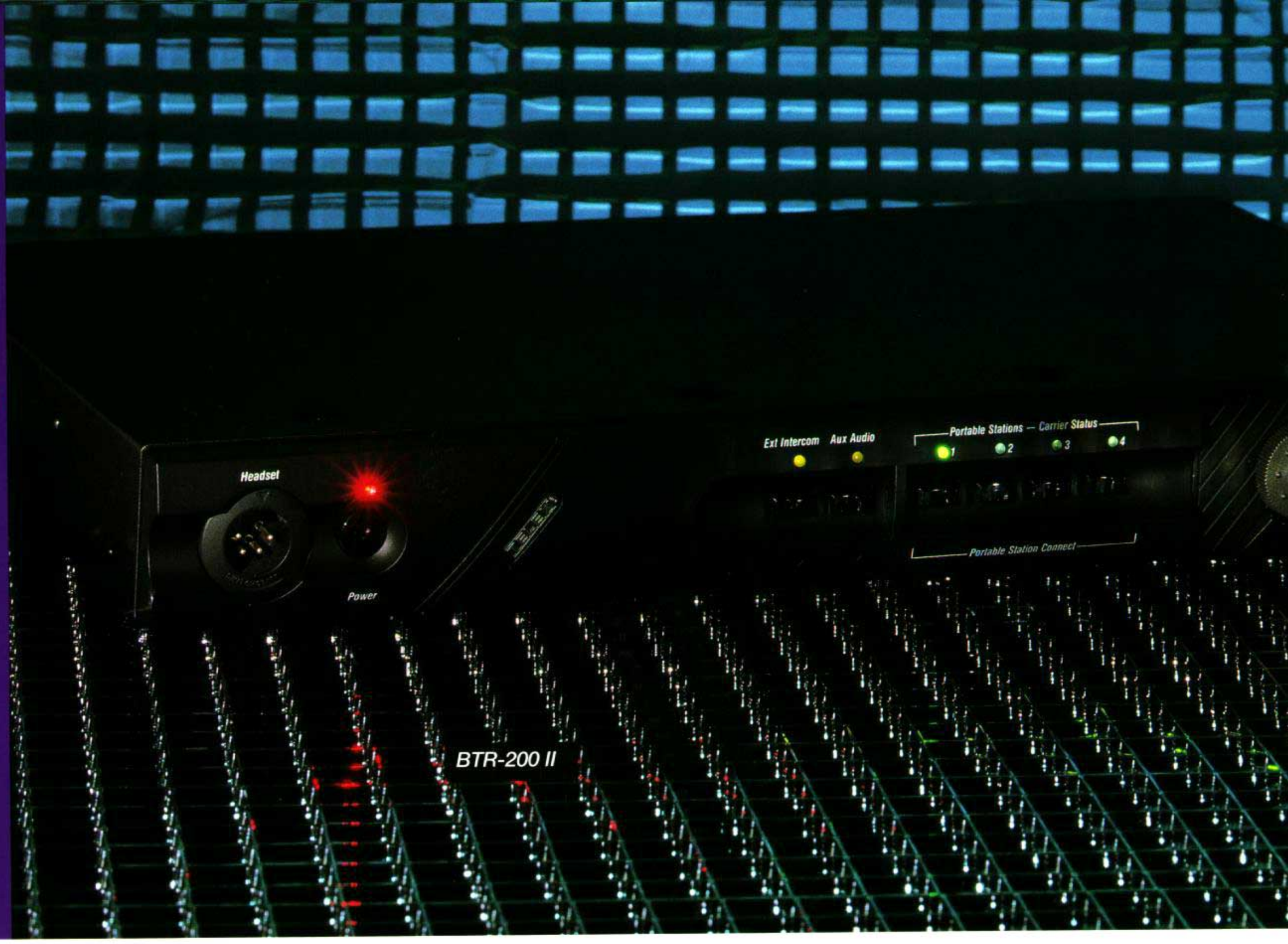
IC-2AF

Two Channel with Call-Signal and Sidetone

Order No. 96129-000

These permanent remote headset stations allow flush mount installation in standard two gang electrical wall boxes (not supplied). The stainless steel matte black front plate provides a male XLR-4 type headset connector with mic on/off switch, a listening volume control, and call signalling. The IC-2AF also includes a sidetone feature, and two-channel switch selector.

Radiocom™ Wireless Intercom System



BTR-200 II

Base Station Repeater

Order No. 70683-XXX*

Radiocom is a wireless alternative to any intercom system. It performs like a wired intercom system, yet provides the flexibility of wireless operation. The VHF highband companded Radiocom offers audio quality rivaling the best wireless microphone systems, but in a full duplex configuration. The system is the perfect option for floor managers, directors and others who require the freedom that only a wireless intercom can provide. The Radiocom system has a built-in interface for connection to Audiocom balanced line systems, RTS by Telex TW, and other unbalanced systems such as Clear-Com. Radiocom can be used to augment an existing wired intercom or used as a stand alone system. Other interfaces such as the IF-1 and RTS SSA-324 allow Radiocom to be used with telephone systems as well as other four-wire systems.

The BTR-200 II is a four channel base station repeater with four receive channels and one common transmit channel. Four belt pack transceivers can be operated in a full duplex network from one BTR-200 II.

Carefully selected frequency groups in the 150 to 216 MHz VHF range avoid interference from low band signals. High selectivity between channels is achieved through an exclusive computer-designed system of IF filters, and a double conversion IF for greater selectivity and adjacent channel rejection.

Nine pre-selected frequency groups are available from stock and come installed for your convenience. Two BTR-200 II base stations can be connected together to create a larger network of up to eight belt pack transceivers. Applications requiring multiple base stations and numerous beltpacks can be arranged with custom frequencies. Consult your Telex Radiocom dealer for details.

The BTR-200 II includes one 5/8 wave transmit antenna and one 5/8 wave receive antenna, and comes complete with rack brackets for mounting into a single rack space. Radiocom is backed by a three year warranty. All Telex products are designed and manufactured in the USA, so technical assistance, system design, and service is always available.

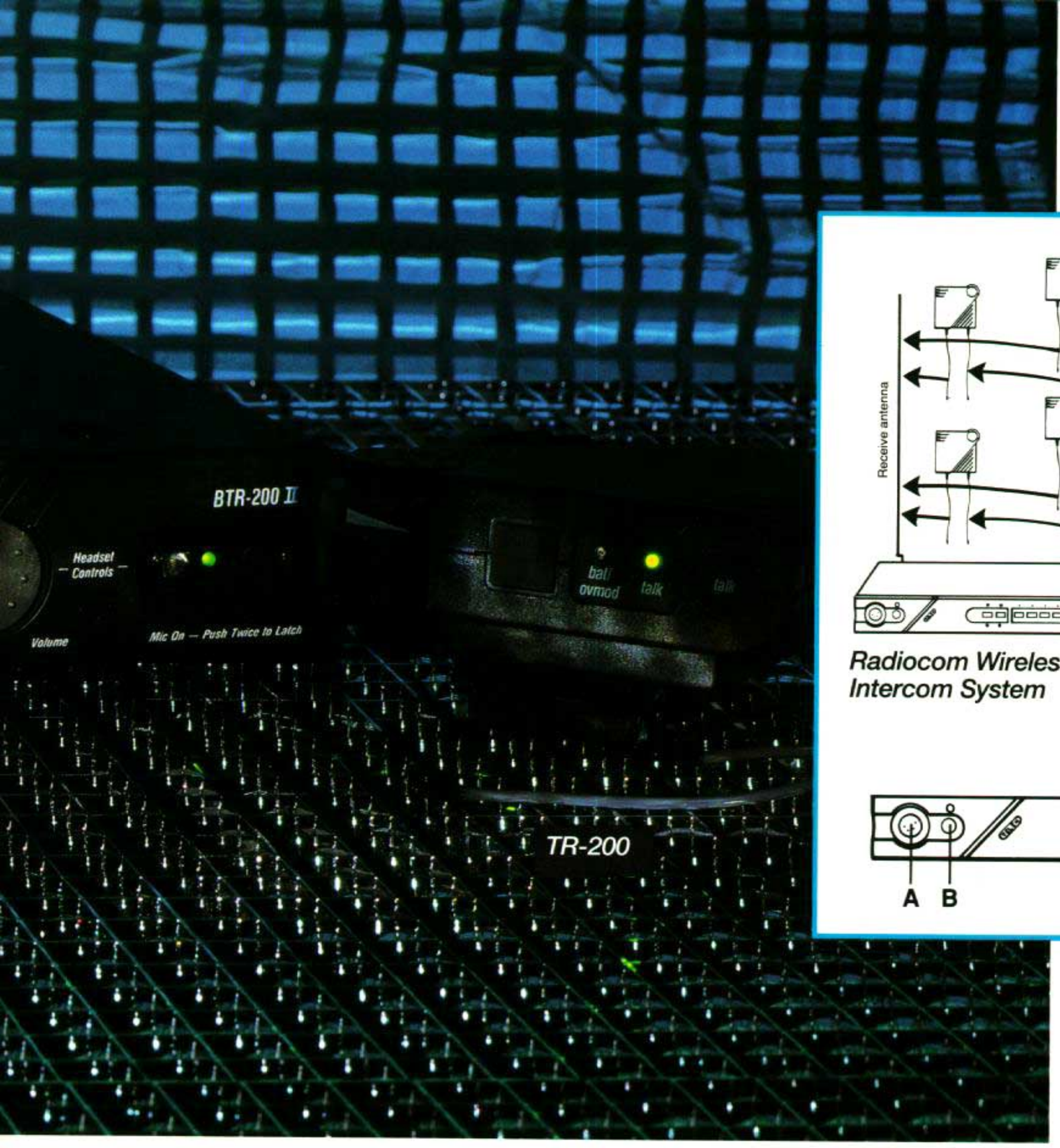
*The last three digits of the Order No. (XXX) determine frequency. Consult price sheet for frequency choices.

TR-200/TR-200P

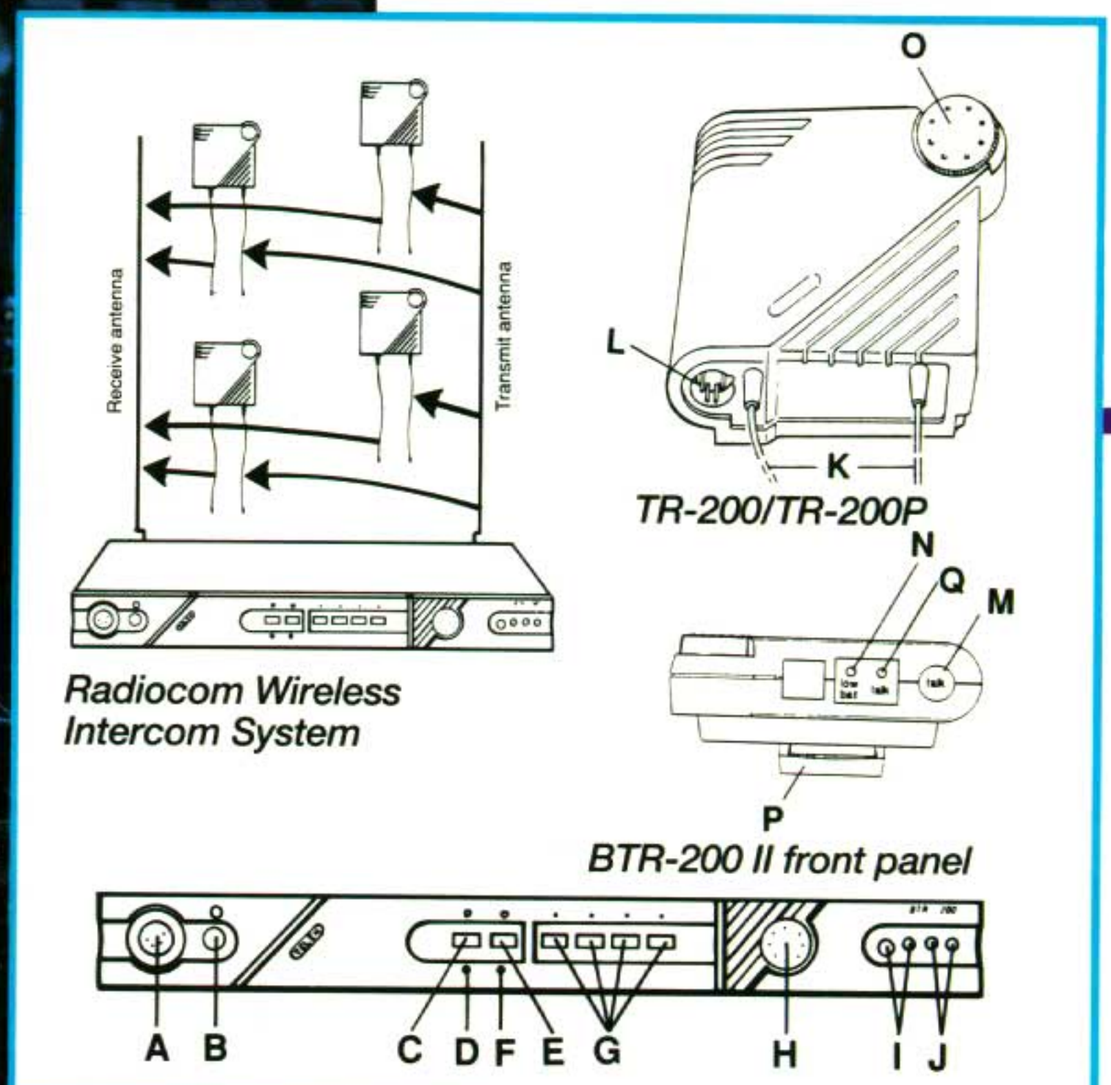
Belt Pack Transceivers

Order No. 70681-XXX*/ 70681-XXX*-1

The **TR-200's** compact size, light weight and modern design enable it to withstand years of drops, moisture and wear and tear. What makes the TR-200 so durable? Surface mount, low profile controls protect the electronics, and the case is made from a revolutionary polycarbonate material called Makroblend UT-400. It provides remote headset communication between the base and other TR-200s. Belt packs operate on two discrete frequencies; one for transmit, and one for receive. This dual frequency operation allows the



TR-200



Radiocom Wireless Intercom System

TR-200/TR-200P

BTR-200 II front panel

user to talk into the intercom system and listen at the same time in full duplex. (Full duplex refers to talk/listen simultaneously like normal conversation.) The TR-200 features a dual function talk button that acts as a momentary on when pushed once, and locks on when tapped twice. The volume control doubles as the on/off switch for the unit. The TR-200 operates on 6 AA size batteries, which snap into a convenient sled and fit securely behind the TR-200 belt clip. One sled of alkaline batteries will operate one TR-200 in full duplex mode for 24 hours of continuous operation. Optional NiCd batteries are also available with a life between charging cycles of approximately 10 hours.

The **TR-200P** is the logical solution for situations where more than four belt packs are required per base. Personnel using TR-200Ps can listen to audio from the system, but can only transmit when their base channel is clear. It will not transmit until the talk button is activated. TR-200Ps and standard TR-200s cannot be mixed on the same base channel, but can be integrated into the same system.

BTR-200 II Standard Features

A. Four-pin Headset Connector.

B. Power-on Button and LED.

***C. External Intercom** – On/off button and LED for wired intercom connections (functions as channel select in RTS by Telex TW intercom mode).*

D. Trimmer Pot for Wired Intercom Volume Adjustment.

***E. Auxiliary Audio** – On/off button and LED for auxiliary audio source. Audio can be fed to the system, allowing each station to monitor on-stage mics, PA, program or other sources.*

F. Trimmer Pot for Auxiliary Audio Volume Adjustment.

***G. Portable Station Connect Buttons and Carrier Status LEDs** – Individual push buttons control remote station reception, while LED indicators quickly inform the operator which channels are operating.*

H. Headset Volume Control.

***I. Mic On Button and LED** – Dual talk function – push once for push-to-talk or twice in rapid succession for latched hands-free mode.*

J. Recessed Mic Gain Control and LED.

TR-200/TR-200P Standard Features

K. Two attached 1/4-wave flexible wire antennas.

***L. Four-pin male connector for headset** – Compatible with most standard four-pin intercom headsets, which means big savings for those who want to add Radiocom to their current system, but have a sufficient supply of headsets.*

***M. Dual function talk button** – Press once for push-to-talk, and press twice for latched hands-free talk mode.*

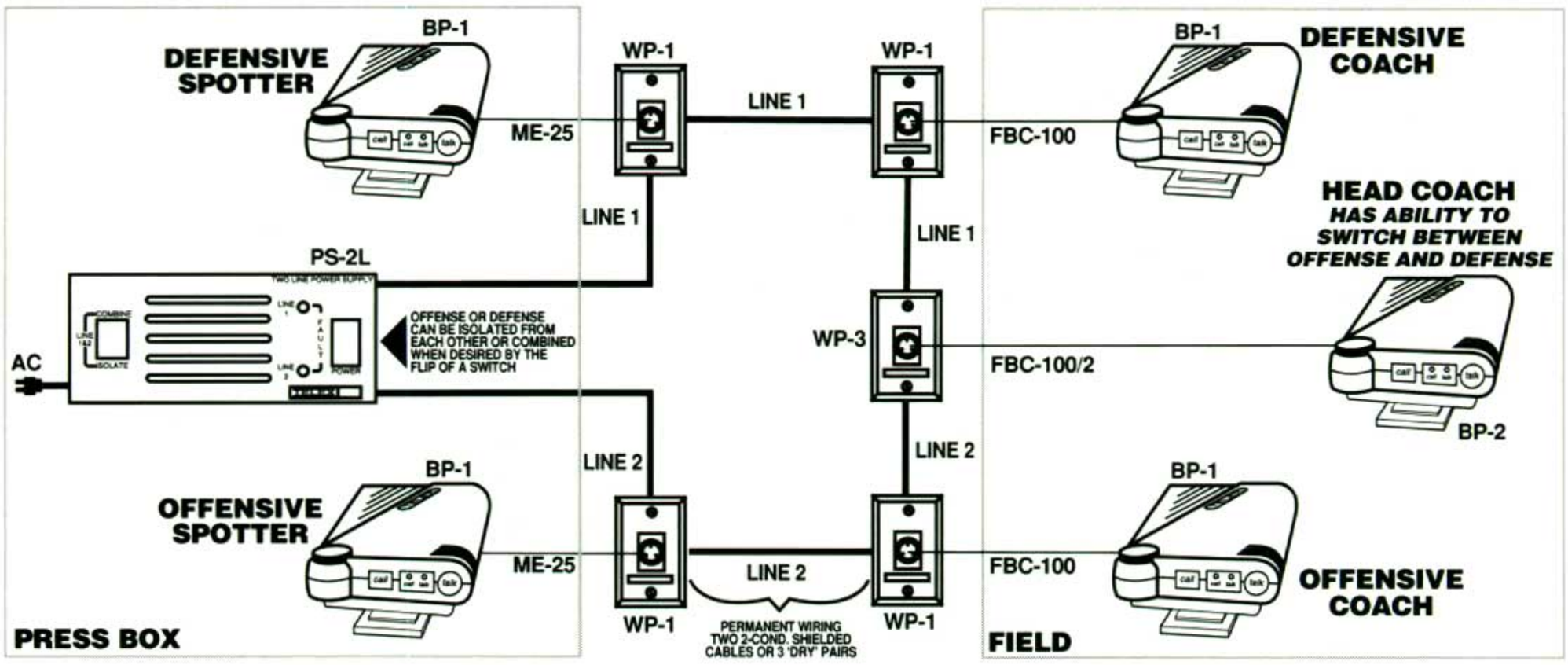
***N. Low Battery LED** – Lights continuously when batteries are low. Unit has an impressive **24-hour battery life** when using six alkaline "AA" batteries. (Expect ten hours with optional "AA" rechargeable NiCd batteries. BC-4 catalog #70741-000).*

O. Large, easy-to-feel headset volume control.

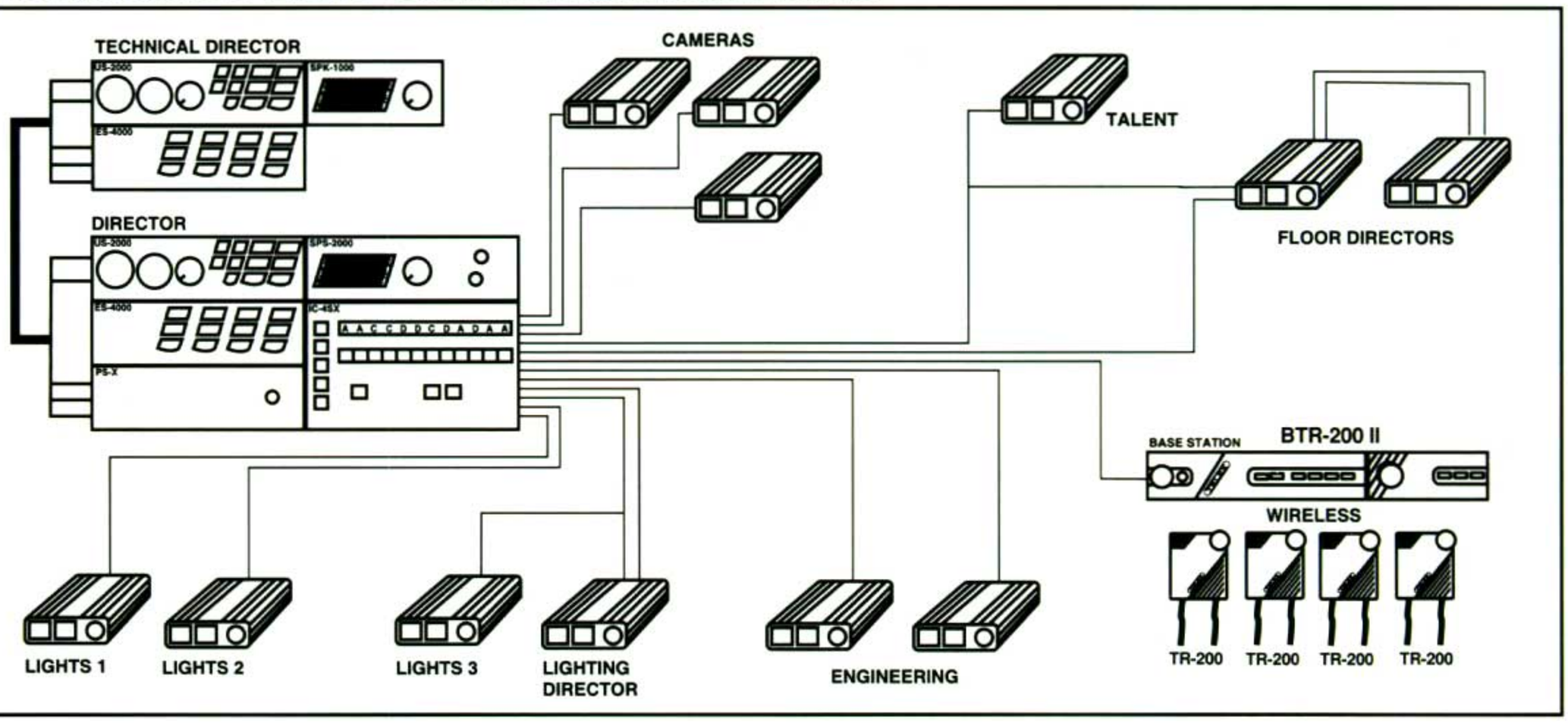
P. Wide, sturdy belt clip.

Q. Talk indicator LED.

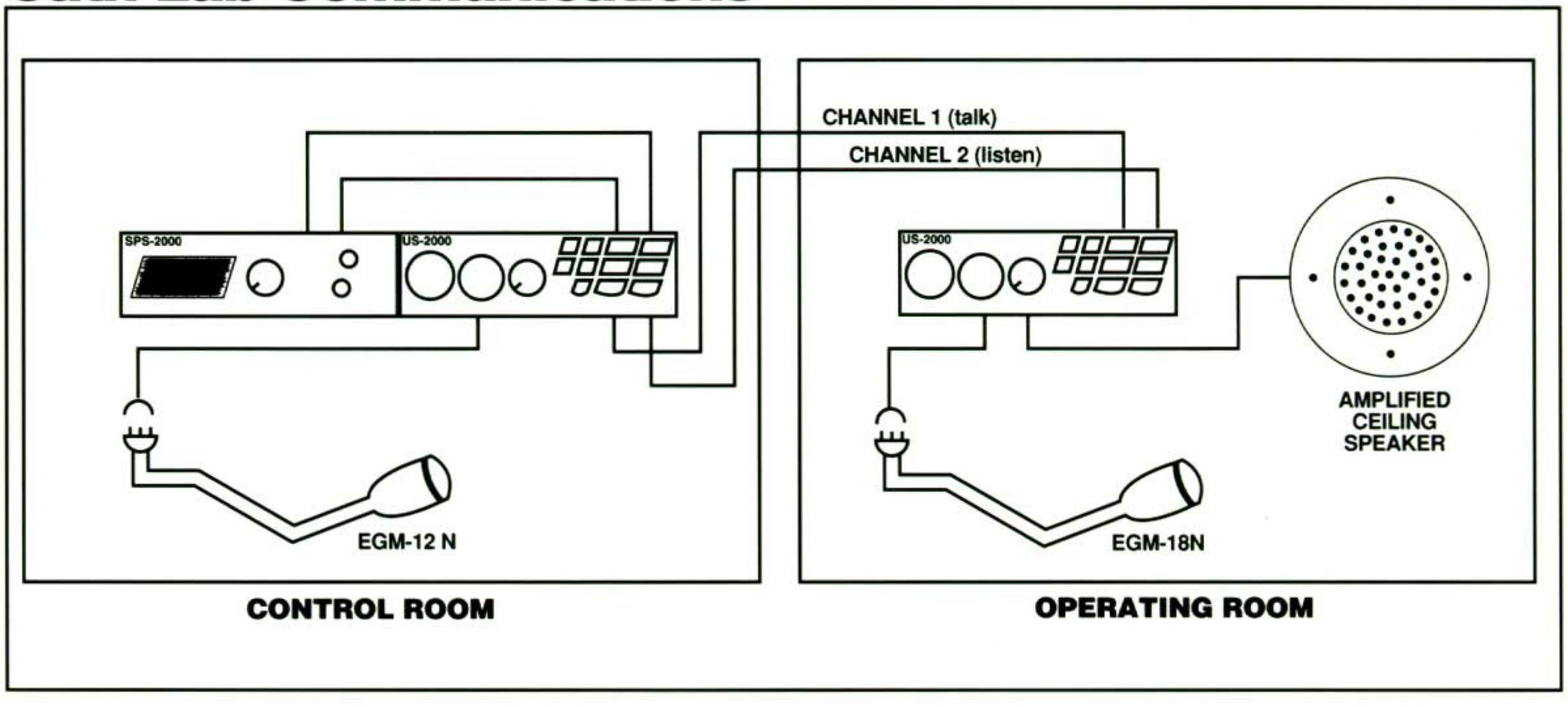
Football Communications



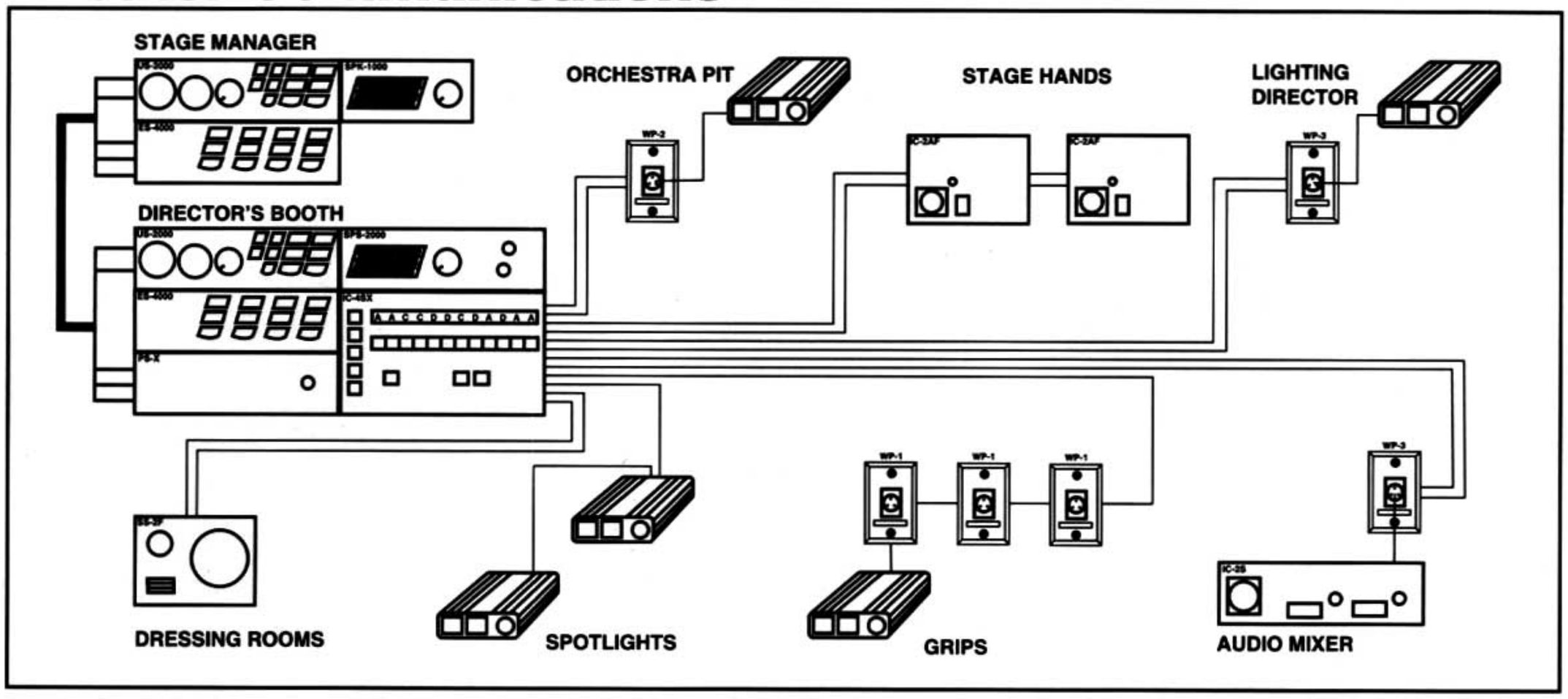
Broadcast Van Communications



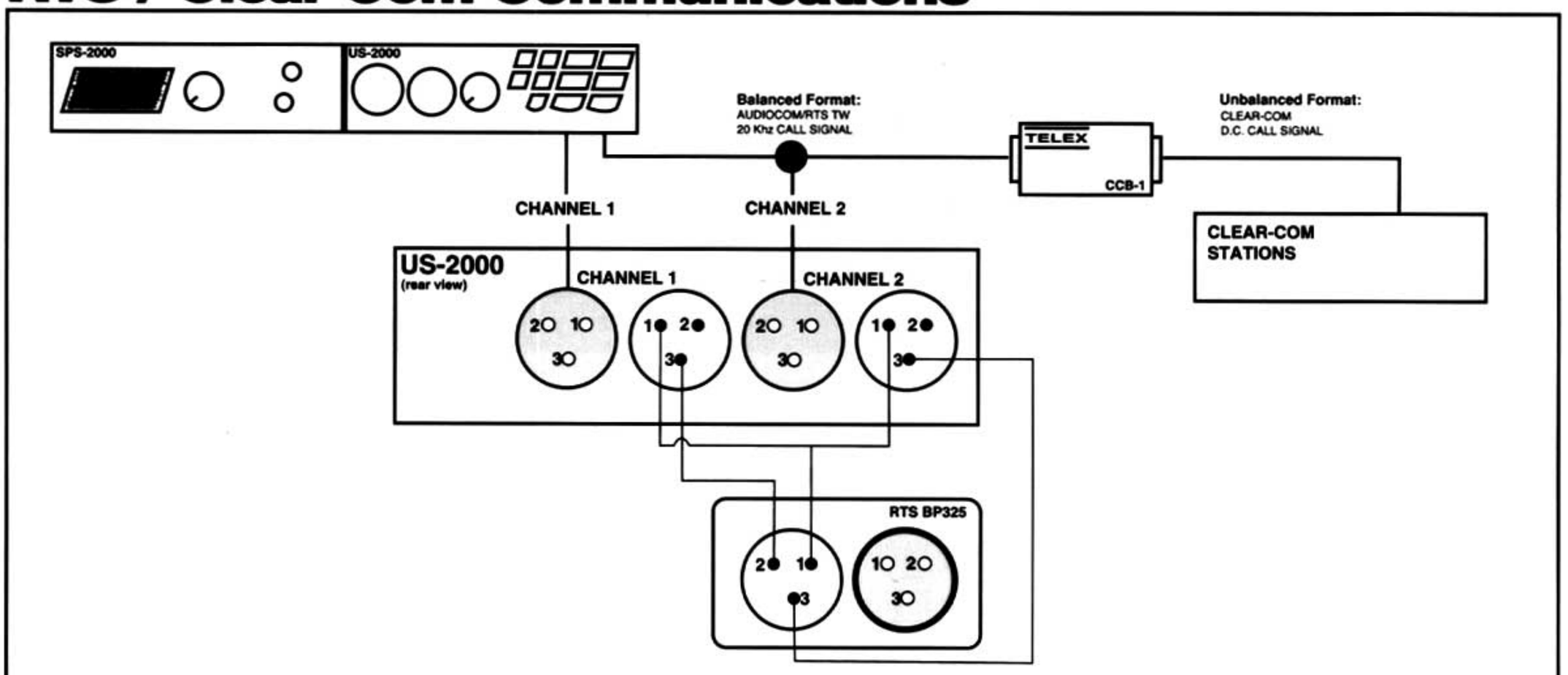
Cath Lab Communications



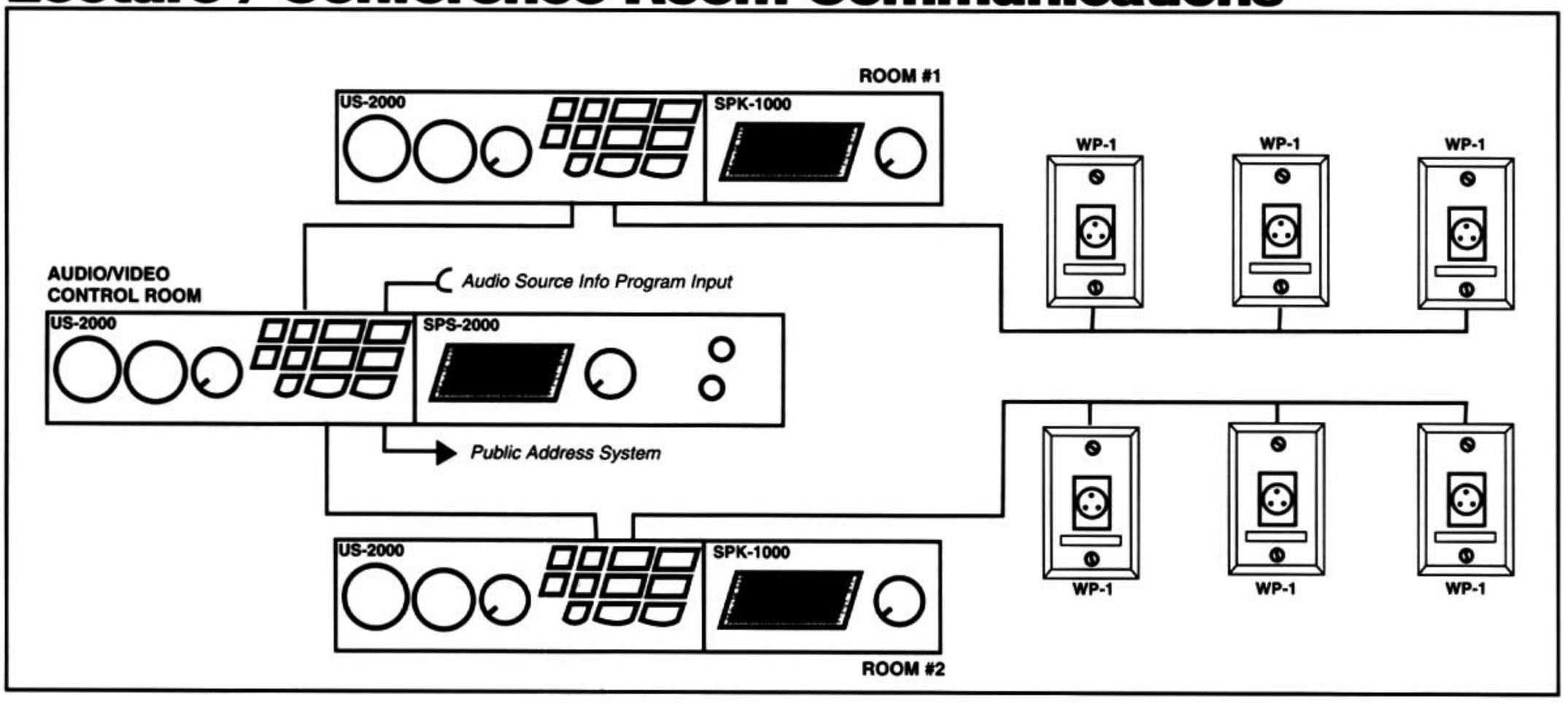
Theater Communications



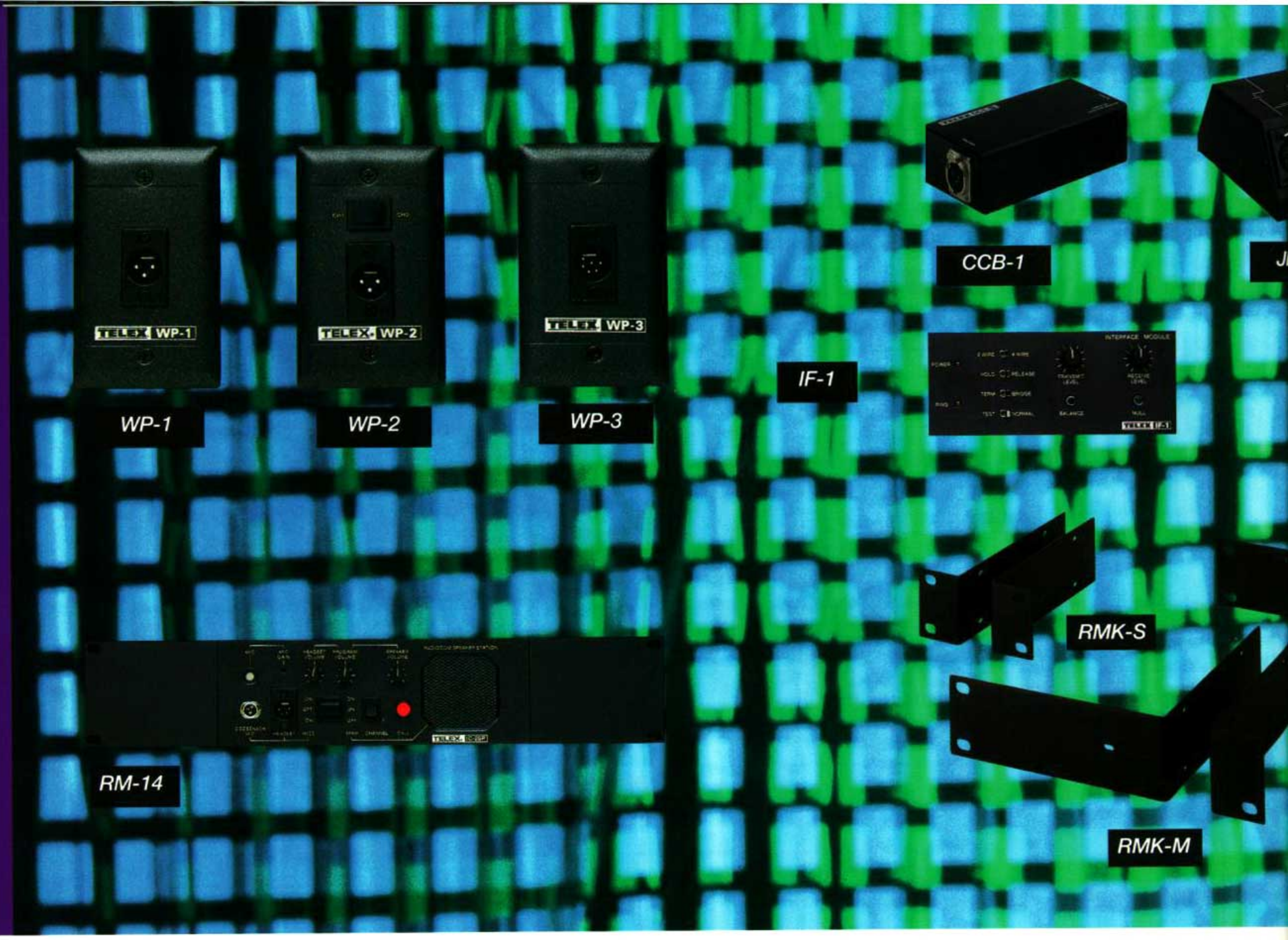
RTS / Clear Com Communications



Lecture / Conference Room Communications



Accessories



Cables

For intercom connections between stations, microphone type audio connecting super flex cables with black connectors are available in several lengths.

Microphone Type Intercom Cables
(male & female XLR-3 type connectors)

ME-25 25′ (7.6 m) **96150-000**
ME-50 50′ (15.2 m) **96150-001**
ME-100 100′ (30.4 m) **96150-002**

Two Channel Intercom Cables
(male & female XLR-6 type connectors)

ME-25/2 25′ (7.6 m) **96151-000**
ME-50/2 50′ (15.2 m) **96151-001**
ME-100/2 100′ (30.4 m) .. **96151-002**

Headset Extension Cables
(male & female XLR-4 type connectors)

HE-15 15′ (4.57 m) **92925-000**
HE-30 30′ (9.14 m) **92925-001**

Heavy Duty Sports Cables
(includes thimbles and strain relief clip)

FBC-100
100′ (30.4 m) **300045-000**

FBC-100/2
2 channel, 100′ **300045-001**

Miscellaneous Accessories

WP-1 Single Channel Wall Plate – male XLR-3 type conn..... **96136-000**

WP-2 Single Channel Wall Plate with Two-Channel Switch – male XLR-3 type conn. **96136-001**

WP-3 Two-Channel Wall Plate – male XLR-6 type conn. **96136-002**

RMK-S Single Rack Mount Kit for one US-2000, ES-4000, PS-4000 or SPS-2000 in center of 19″ rack **90007352-000**

RMK-D Dual Rack Mount Kit for two: US-2000s, ES-4000s, PS-4000s, or SPS-2000s (side by side in 19″ rack) **90007353-000**

RMK-M Quad Rack Mount Kit mounts 1/4 rack components (SPK-1000) with 1/2-rack components (US-2000, ES-4000, PS-4000), or 3-1/4-rack components together in 19″ rack. **90007354-000**

RM-14 Rack Mounting Brackets for remote speaker station SS-2P **92793-003**

BH-1 Belt harness for use with heavy duty sports cables. Provides added strain relief for belt pack. **590010-000**

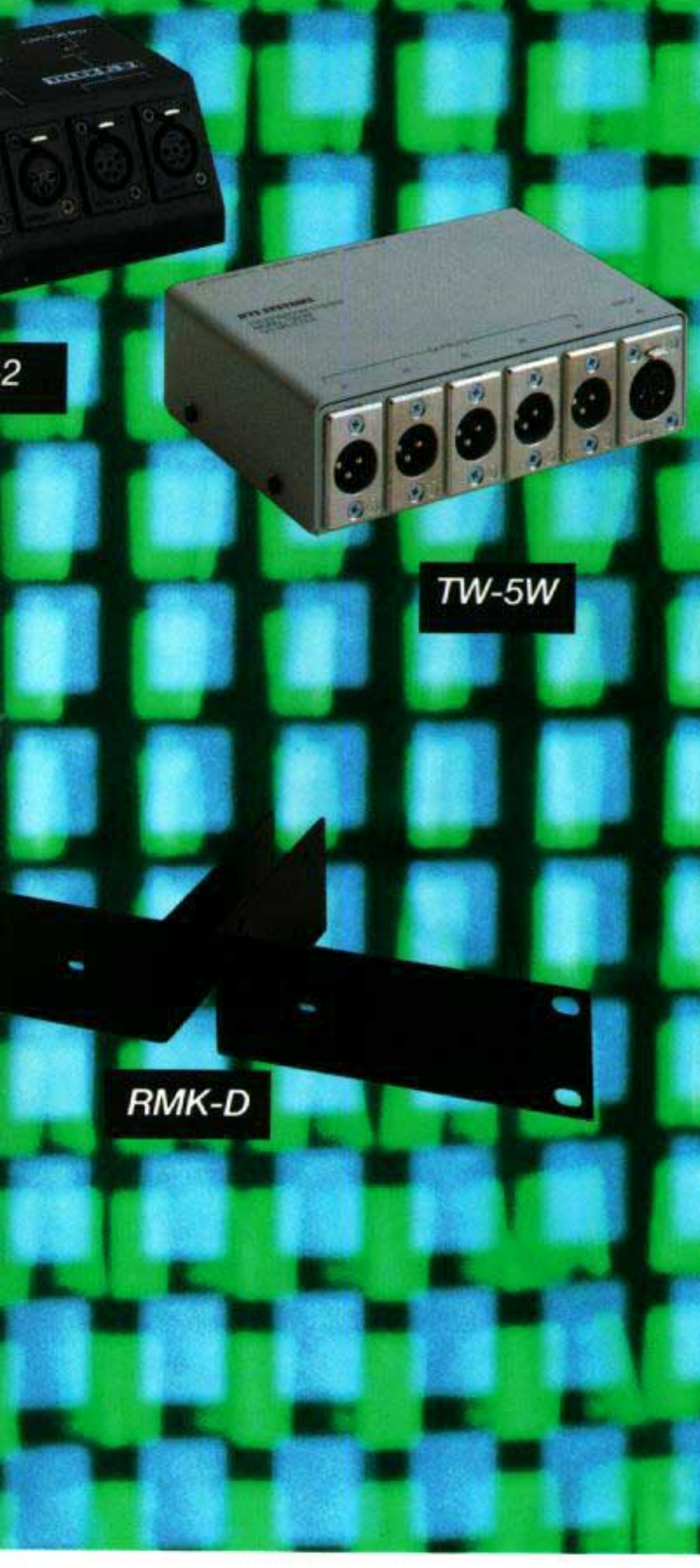
Not shown:

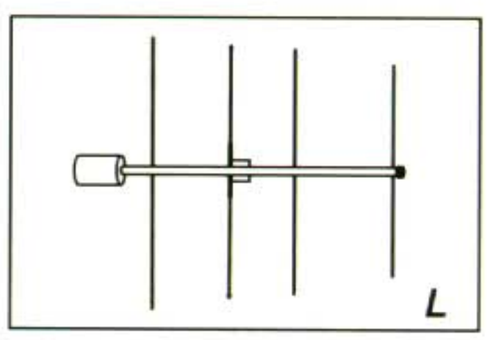
RM-11 Rack Mounting Brackets for one PS-2L, IF-1 or IC-4SX. **94398-000**

RM-12 Rack Mounting Brackets for two (side by side) PS-2L, IF-1 or IC-4SX **92793-001**

RM-13 Rack Mounting Brackets for IC-series belt pack stations **96125-000**

IC-1B Electronic Circuit Board – from the IC-1/LS belt pack; ideal for custom installations – requires external volume control knob, mic on/off switch, and connectors ... **90906-148**





Belt Clip Replacements:

Metal (with screws) **92873-001**
Gray Plastic..... **96605-001**
Black Plastic..... **96605-000**
Screws for Plastic Clips **540081**

Service Manuals for Audiocom Master stations and power supplies (except US-2000, ES-4000, SPS-2000 and PS-4000). **38109-311**

Service Manuals for all accessories..... **38109-312**

Interface/Accessories

IF-1 Interface provides interconnection between Audiocom and other wired intercoms or telephone lines. It will adapt non-modular Audiocom products to RTS by Telex or any universal, 2 or 4-wire circuitry or carbon system, and is rack mountable with optional adapter kit. Can be powered locally or from the intercom channel. **94400-000**

CCB-1 Telex/Clear-Com Interface is designed to interface Audiocom balanced lines with unbalanced line products (Clear-Com)..... **96230-000**

TW-5W Splitter Box one in five out cable splitter..... **9000322400**

JB-2 Junction Box is a breakout box that can take one two-channel cable and split it into two single-channel outputs, or it can take two single-channel cables and combine them to form one single two-channel cable. It includes one male and one female XLR-3 type connector for each channel, and one male and two female XLR-6 type connectors for channels one and two combined.... **96139-000**

Not shown:

I-B/U Interface Adaptor Cable converts from Neutrik 6-pin to Switchcraft 6-pin **96566-000**

Radiocom Accessories

A. **CX-4** Coax antenna cable 4′ (1.2 m) **63901-001**

B. **CX-25** Coax antenna cable 25′ (7.6 m) **63901-000**

C. **UA-58L** 5/8 wave transmit/ receiver antenna low, 154-172 MHz **878553**

Not shown:

TX-58H 5/8 wave transmit antenna high, 177-184 MHz **878555**

RX-58H 5/8 wave receive antenna high, 205-216 MHz **878554**

D. **NCB-AA** NiCd AA battery for TR-200 (requires 6) **7800-86**

E. **TRH-1** leather swivel holster with belt loop for TR-200 ..... **70898-000**

F. **ASA-1** Mic stand bracket for 5/8 wave antenna **63907-000**

G. **AWB-1** Wall bracket for 5/8 wave antenna **63906-000**

H. **PA-2** Power supply for BTR-200 II 120 V **59702-001**

I. **PA-2E** Power supply for BTR-200 II 240 V **59224-002**

J. **BC-4** NiCd batteries, sled and 120 V charger (batteries included) **70741-000**

K. **BSL-1** Spare battery sled for TR-200 (batteries not included) **878557**

L. **YAG-1** directional Yagi antenna 150-157 MHz **879909**

Not shown:

YAG-2 directional Yagi antenna 169-186 MHz **879908**

YAG-3 directional Yagi antenna 204-216 MHz **879907**

Not shown:

ALP-1 Directional log antenna 150-175 MHz **63910-000**

Audiocom Nominal System Specifications

Audio Line Impedance: 300 ohm resistive termination for system

Station Bridging Impedance: (Individual Stations) 10K ohms nominal

dc Line Voltage: 24 Vdc nominal – 12 to 30 Vdc operational

Wiring Requirements: 3/c cable (triplex) or 2/c shielded microphone cable

Station Inputs

Microphone (electret): Designed for 2-10K ohm mics

Microphone (dynamic): Designed for 50-600 ohm mics

Microphone (carbon): Designed for 20-50 ohm mics

Line: 10,000 ohm-balanced transformer coupled

Station Outputs

Headphone: Designed for 150-600 ohm phones (75 mW into 150 ohms minimum)

Line: 10 mW into 300 ohms (+10 dBm) minimum

Operating Distance: Typical two station system with a single 24 Vdc power supply, 5 miles without light signalling using no. 24 AWG stranded twisted cable.

Signal Loss per mile of copper cable:

20AWG	22AWG	24AWG	26AWG
2.71dB	3.98dB	5.69dB	7.85dB

NOTE: System performance over long distances is controlled by two key factors:

1) dc voltage drop in the wiring is determined by cable length, wire size and current drain of the stations connected.

2) Audio signal attenuation is determined by the length and size of wire plus the capacitance of the cable. Loss of signal level may be compensated by increasing the station gain (volume level) when needed.

Environment

Storage: –13°F to +158° F (–25°C to +140°C)

Operation: +5°F to +140° F (–15°C to +60°C)

Relative Humidity: 0% to + 95% (non condensing)

Individual Audiocom Specifications

Products	DC Requirements	No Talk	D.C. During Talk	D.C. During Light Signal
SPK1000	12-18 Vdc	100 mA	800 mA (max)	N. A.
US2000	12-30 Vdc	65 mA	80 mA	150 mA
ES4000	12-30 Vdc	65 mA	80 mA	150 mA
IC-4SX	24 Vdc	120 mA (min)	—	240 mA (max)
IC-1B, IC-1F	24 Vdc	8 mA	12 mA	—
IC-1/LS, IC-1F/LS	24 Vdc	12 mA	20 mA	30 mA
IC-2A,IC-2AF	24 Vdc	16 mA	24 mA	35 mA
IC-2B	24 Vdc	12 mA	24 mA	—
BP-1/BP-2	24 Vdc	30 mA	45 mA	45 mA
SS-2P, SS-2F	24 Vdc	100 mA	250 mA	150 mA
IF-1	24 Vdc	20 mA	20 mA	—
CCB-1	24 Vdc	8 mA	8 mA	12 mA

Power Supply D.C. Outputs

Products	Input Requirements	Power Output
SPS2000	95-255 VAC, 50-400 Hz	2.0 Amps/48 watts (2-channels)*
PS4000	95-255 VAC, 50-400 Hz	2.0 Amps/48 watts (4-channels)*
PS-X	95-255 VAC, 50-400 Hz	2.0 Amps/48 watts*
PS-1F	105-125 VAC, 50-60 Hz	0.5 Amps/12 watts (single channel)
PS-2L	105-125 VAC, 50-60 Hz	2.0 Amps/48 watts (2-channels)

All models Available in 220 VAC

*Current draw in excess of 1.5 Amps may require an external cooling fan. Contact factory for details.