



# ASL Analog Intercom



**H**eadquartered in Utrecht, the Netherlands, ASL Intercom BV was established in 1985 by current Managing Director Eric de Bruyn.

Formerly a founding principal of Ampco Pro Rent, a highly regarded Dutch sound hire firm, de Bruyn formed ASL Intercom with the immediate goal of building intercoms suited to the extreme demands of live entertainment and broadcast production in both portable and installed systems. The company has since broadened into industrial and commercial applications, and now offers a full line of analog, digital and wireless intercoms backed by prompt, personalized technical support.

The ASL Analog Intercom line currently comprises both the Basic Series and Pro Series of single and multi-channel systems. ASL also offers the Wireless Series intercoms (operating in the 2.4 GHz band), the Cue Light System and a wide range of Intercom Accessories.

## ASL Analog Intercom Systems

ASL Analog Intercom systems have a proven track record of reliable operation in the most demanding live production, broadcast and industrial applications. Two Series are available to meet every need, from single-channel systems with only three or four user stations to highly complex, multi-channel systems with multiple speaker stations as well as both wired and wireless belt packs. Regardless of system size, all ASL Analog Intercoms are easy to install and simple to operate. Perhaps most importantly, all will provide reliable and highly intelligible voice communications, even after years of hard use in stressful work environments.

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## Basic Series: Intercom simplicity

The Basic Series provides a cost-effective solution in more limited applications that require full duplex, party line communication. All interconnections are made with standard, balanced microphone cable with XLR-3 connectors. Installation requires no expert knowledge, and clear layout of controls assures trouble-free operation with a very short learning curve. A current-driven interconnect loop ensures that operator listening levels do not change as stations are added to or removed from the network.

### Features Summary

- Durable, lightweight ABS beltpack
- Visual and audible call system, with volume trimmers
- Accepts dynamic or electret microphones (phantom powering standard)
- Separate TALK and CALL functions, each with LED indicators
- Auto-resetting switch-mode power supplies for 110 V or 240 V mains
- Proprietary frequency correction for enhanced intelligibility
- Automatic headset detection
- Auxiliary program input

### Features in Detail

**Headphone Amplifiers** – High-quality, push-pull headphone amplifiers contribute to a system frequency response of 200 Hz to 15 kHz and a dynamic range of 80 dB. Output is 500 mW @ 200 ohms. A proprietary frequency contouring circuit optimizes voice range reproduction to ensure exceptionally high intelligibility even in high ambient noise environments.

**Headset Connections** – Both the Master Station and beltpack accept either dynamic or electret microphones as standard. Mic gain is adjustable internally for optimum results with any microphone. A headset detection circuit ensures the mic pre-amp is active only when a headset is connected. A volume control enables the user to listen at any desired volume, and to balance levels on the two channels of the BS 216 Master Station.

**Side Tone** – Each user station includes a side tone trimmer for each channel to allow adjustment of the operator's voice level as heard through his or her own headset or loudspeaker.

**Switch-mode Power Supplies** – In case of short circuits, faulty wiring or excessive thermal conditions, the Power Supply will self-protect by reducing power output, eventually shutting down under prolonged extreme stress. Once the fault is corrected, the power supply automatically resets and restores normal operation.

**TALK Function** – TALK button with green LED indicator connects to all user stations and beltpacks on the indicated channel.

**CALL Function** – The combined audible and visual CALL alert adapts to both sound- and light-sensitive environments. An incoming or outgoing call signal is indicated by a large red LED. Pushing the CALL button for more than two seconds activates the internal BUZZER. Volume of the BUZZER can be trimmed or muted.

**AUX INPUT** – The 2-channel Master Station (BS 216) and Power Supply (BS 286) each offer a balanced auxiliary input (individually attenuated) normally used to carry the auditorium or on-air program audio. Inputs may be switched between line level and microphone level with 30 V DC phantom powering.

### Master Station

#### BS 216 2-channel Master Station

The BS 216 is designed to function as the master unit in an ASL Analog Intercom system. It is suitable for use in both portable and fixed installations. The BS 216 incorporates its own built-in switch-mode universal power supply, and operates as a dual channel power supply for driving connected beltpacks.

#### Product features in brief:

- Separate TALK and CALL buttons with LED indicators for each channel
- Volume control (LISTEN level) for each channel
- Power Supply capable of driving fifteen BS 15 Beltpacks to full volume
- AUX input volume control separately adjustable for each channel
- 30 V DC phantom power at Aux input when 'mic level' is selected

### Beltpack

#### BS 15 1-channel Beltpack

The BS 15 is a 1-channel intercom station housed in a strong, lightweight ABS case. It is powered via the intercom line by a BS 216 Master Station or a BS 181 / BS 286 Power Supply.

### Power Supplies

#### BS 181 1-channel Power Supply

The BS-181 is a 1-channel Power Supply housed in a steel case. It has the capacity to power up to fifteen BS 15 Beltpacks to full volume. The BS 181 enables cost-effective system powering when only one channel is needed.

#### BS 286 2-channel Power Supply

The BS 286 is a 2-channel, switch-mode Power Supply with an AUX input for program signals. It is housed in a 1U steel rack-mount case. The BS 286 will safely drive fifteen BS 15 Beltpacks when each is set to full volume. Separate volume controls for the AUX input allow aux program levels for each channel to be adjusted independently.

### Talkpacks

The Basic Series products are also available as Talkpacks (pre-packed intercom systems) in the following configurations:

	BS 216	BS 181	BS 15	HS-1/D	HS-2/D
Talkpack 1		1	2		
Talkpack 2		1	2		2
Talkpack 2-1		1	2	2	
Talkpack 3	1		2		

BS 216 2-channel Master Station



BS 15 1-channel Beltpack



BS 181 1-channel Power Supply



Talkpacks



BS 286 2-channel Power Supply



## Pro Series: Simply the best in analog intercom

The ASL Pro Series offers comprehensive and highly flexible systems solutions for full duplex, party-line communications. The Pro Series can accommodate multiple channels, very large user station counts, and both wired and wireless user stations. Though extensive configurations are possible, all interconnections are based on standard balanced microphone cable (XLR-3 connectors), and installation requires no expert knowledge. Clear layout of controls makes operation essentially foolproof, even in under time pressures and in low light environments. Exceptional build quality and careful quality control assure reliable performance for many years.

### Features Summary

- Latching or momentary function on TALK buttons
- User stations with 1, 2, 4 or 6 channels
- Beltpacks available with either lightweight ABS or durable aluminum casings
- Separate CALL and TALK functions each with large LED indicators
- Unique visual and audible call system with volume trimmers
- Remote mic mute and audible call (buzzer) mute
- Accepts dynamic or electret microphones (phantom power standard)
- Headphone volume and dynamic range exceed industry norm
- Extended frequency response and proprietary frequency correction for high intelligibility
- Individual side tone and buzzer volume trimmers for each user station
- Auto resetting switch-mode power supplies
- Auxiliary program inputs
- Electronic switching
- Automatic headset detection
- Optional binaural headset operation on multi-channel stations
- DC input
- System Link

**Headset Facilities** – Both the Master Station and Beltpack accept either dynamic or electret microphones as standard. Mic gain is adjustable internally for optimum results with any microphone. A headset detection circuit ensures the mic pre-amp is active only when a headset is connected.

**Volume controls** – Volume controls enable the user to listen to each channel at any desired volume, and to balance levels among channels on multi-channel stations.

**Optional Binaural Headset Connector** – As an option, an XLR-6 headset connector can be fitted for use with binaural headsets. Internal jumpers allow setting of channel assignments to either or both headset transducers. On units with an AUX input, the intercom channel can be routed to the left headset can and the program channel to the right transducer.

**Side Tone** – Each user station includes a side tone trimmer for each channel to adjust level for the operator's voice as heard through his or her own headset or loudspeaker.

**Switch-mode Power Supplies** – In case of short circuits, faulty wiring or excessive thermal conditions, the power supply will self-protect by reducing power output, eventually shutting down under prolonged extreme stress. Once the fault is corrected, the power supply automatically resets and restores normal operation.

**TALK Function** – TALK button with green LED indicator connects to all user stations and Beltpacks on the indicated channel.

**CALL Function** – The combined audible and visual CALL alert adapts to both sound- and light-sensitive environments. An incoming or outgoing call signal is indicated by a large red LED. Pushing the CALL button for more than two seconds activates the internal BUZZER. Volume of the BUZZER can be trimmed or muted.

**AUX INPUT** – Power Supplies and Master Stations offer a balanced auxiliary input normally used to carry the auditorium or on-air program audio. The line-level input has a "ground lift" switch.

**MIC MUTE** – An ALL MIC MUTE push button is provided on each Master Station and Power Supply, allowing the user to temporarily mute the microphones on all connected user stations. The PS 4379 and PS 6379 also have separate MIC MUTE buttons for each channel. All mics are muted automatically during power-up on the Master Station or Power Supply.

**BUZZER MUTE** – A BUZZER MUTE push button on each Master Station and Power Supply allows the user to mute the buzzer on all connected user stations. The PS 4379 and PS 6379 additionally have separate BUZZER MUTE push buttons for each channel.

### Features in Detail

**Headphone Amplifiers** – High-quality, push-pull headphone amplifiers contribute to a system frequency response of 200 Hz to 15 kHz and a dynamic range of 80 dB. Output is 1 W nominal @ 200 ohms. A proprietary frequency contouring circuit optimizes voice range reproduction to ensure exceptionally high intelligibility even in high ambient noise environments.



Pro Series Master Stations are available in rack mount and tabletop configurations, and each has its own built-in power supply. Available models provide two channels (PS 279), four channels (PS 4379) or six channels (PS 6379) of communication.

### PS 279 2-channel Master Speaker Station

The PS 279 is a 2-channel Master Speaker Station with a built-in power supply. Housed in a 1U metal rack-mount frame, it provides all necessary features for a 2-channel communications system using Pro Series Beltpacks or Speaker Stations.

### PS 4379 4-channel Master Station with Loudspeaker

The PS 4379 4-channel Master Station with Loudspeaker is fitted with an electret “noise canceling” gooseneck microphone and loudspeaker. Also available is an “RM” version that replaces the gooseneck microphone with a small, built-in electret mic. A 19” rack mount kit is available.

### PS 6379 6-channel Master Station with Loudspeaker

The PS 6379 6-channel Master Station with Loudspeaker is fitted with an electret “noise canceling” gooseneck microphone and loudspeaker. Also available is an “RM” version that replaces the gooseneck microphone with a small, built-in electret mic. A 19” rack mount kit is available.

#### Additional features offered on all models:

**SYSTEM LINK** – An additional XLR-3 connector for each channel allows connection to another ASL system with matched impedance, and without using power from the other system.

**DC INPUT** – A 12 – 28 V DC input allows connection to an external DC power supply, should 110/240 V mains power not be available, or should battery backup power be required.

#### Additional features offered on PS 4379 and PS 6379 only:

**STAGE ANNOUNCE** – This push button routes the local microphone signal to a line level output.

**IFB** – Any channel can be switched to IFB mode for monitoring purposes or for one-way communication, i.e. director or producer to talent. If an AUX signal is assigned to the IFB channel, volume will be reduced by 50% with factory setting when TALK button is pushed. Amount of attenuation is user adjustable.

**TALK TO ALL** – Pushing and holding the TALK TO ALL button sends the microphone signal to all channels except those in IFB mode. However, setting the “IFB in Talk All” DIP-switch to the ON position will send the microphone signal to IFB channels as well.

**CALL TO ALL** – Pushing and holding CALL TO ALL sends a call signal to all channels not in IFB mode.

**NEAR STATION FUNCTION** - To prevent system feedback, two stations in the same room can be linked as “near stations”. The listen level is dimmed whenever one of the stations is talking on the same channel as the linked station is currently listening.

**EXTENDED STATION** – Two stations may be linked for create a station with 8, 10 or 12 channels. When linked, one station will be the master with an active gooseneck/electret microphone. Speakers and microphones on the other units will be switched off.

PS 4379 4-channel Master Station with Loudspeaker



PS 6379 6-channel Master Station with Loudspeaker



PS 279 2-channel Master Speaker Station



# Pro Series Speaker Stations and Beltpacks

ASL Pro Series Speaker Stations provide reliable, easy-to-use communication facilities for applications requiring one, two, four, or six intercom channels. Each is fitted with an internal loudspeaker and an electret 'noise canceling' gooseneck microphone. (Models with the suffix "RM" are identical except the gooseneck microphone is replaced with a small electret microphone built into the front panel.) Speaker stations are powered by Pro Series Master Stations or Power Supplies via the intercom party line. A rack-mount kit, available for each model, enables mounting of the angled tabletop cabinet in a 2 U 19" rack space.

## Speaker Stations

### Common Features on All Units:

- Accepts dynamic or electret microphones as standard. Mic gain for gooseneck or headset mics is adjustable internally.
- TALK and CALL functions
- MIC Mute (through PSU or Master Station)
- BUZZER MUTE (through PSU or Master Station)
- VOLUME Control for each channel

### PS 130 1-channel Speaker Station

With the PS 130 1-channel Speaker Station, speech intelligibility is optimized through use of low-noise, high-speed op-amps, a speech presence filter, and a specially developed bridged headphone amplifier. The front panel incorporates a Volume (listen level) control; Talk and Call buttons; and trimmers for buzzer volume, speaker attenuation, and side tone. An input limiter allows close-up use of the microphone without overload and distortion. Loudspeaker dimming is automatic when the microphone is in use. A front-panel connector is provided for use of a handset or headset; microphone and speaker are disabled automatically. Communication is clear and comfortable even in high-noise environments. Intercom connector is on the side panel to accommodate surface mounting on a wall.

### PS 230 2-channel Speaker Station

The PS 230 2-channel Speaker Station incorporates all features of the PS 130, with availability of two intercom channels, each with separate volume control. Additionally, a XLR-6 binaural headset connector option is available. When connected to a binaural headset, the user hears channel A in one can and channel B in the other.

### PS 430 4-channel Speaker Station

Designed for 4-channel applications, the PS 430 incorporates all features of the PS 130 and PS 230, including the binaural headset option. Internal jumpers allow each channel to be assigned to

either the left or right headset can, or to both. It also includes a master volume control.

### PS 630 6-channel Speaker Station

Designed for 6-channel applications, the PS 630 incorporates all features of the PS 130 and PS 430. Additionally, it offers a separate electronically balanced PROGRAM input for local monitoring of an audio signal with separate volume control; and an electronically balanced output of the microphone. For each channel, separate XLR connectors for input and link are provided on the rear panel.

## Beltpacks

The ASL Pro Series offers six beltpack options, with three each in ABS or metal cases. (Metal case designated by the suffix "M".) All are powered via the intercom party line by a Master Speaker Station or Power Supply. Also, all six feature a sprung metal belt clip.

The corresponding models in metal and ABS cases are functionally identical, allowing both types to be "mixed and matched" in any system.

### PS 29/29M 2-channel Beltpack

2-channel Beltpack in ABS case (PS 29) or metal case (PS 29M). A binaural headset connector is optional.

### PS 19/19M 1-channel Beltpacks

1-channel Beltpack in ABS case (PS 19) or metal case (PS 19M).

### PS 19A /PS 19AM 1-channel Beltpacks with Program Input

1-channel Beltpacks with program (AUX) input and separate volume control in ABS case (PS 19A) or metal case (PS 19AM). A binaural headset connector is optional.

PS 130 1-channel Speaker Station



PS 230 2-channel Speaker Station



PS 430 4-channel Speaker Station



PS 630 6-channel Speaker Station



PS 130 1-channel Speaker Station (rack mounted)



PS 230 2-channel Speaker Station (rack mounted)



PS 430 4-channel Speaker Station (rack mounted)



PS 630 6-channel Speaker Station (rack mounted)



PS 19/19M 1-channel Beltpacks



PS 29/29M 2-channel Beltpacks



PS 19A/PS 19AM 1-channel Beltpacks with Program Input



# Pro Series Power Supplies and Interfaces

Pro Series Power Supplies are designed to provide the required DC voltage needed to power for Pro Series Beltpacks or Speaker Stations. Three different Power Supply models are offered to fit the needs of various intercom system configurations with either two or six channels. All are housed in rugged, 1U rack-mount frames. Three Pro Series Interfaces are available that afford maximum flexibility in system configuration, and also maintain seamless compatibility with existing communication and auxiliary systems.

## Power Supplies

### PS 289 2-channel Power Supply

The PS 289 is a 2-channel Power Supply housed in a 1U metal case. It provides power and all necessary features for a 2-channel communications system comprising up to 20 Pro Series Beltpacks or 10 Pro Series Speaker Stations. Individual volume controls are provided for each of two AUX inputs. The PS 289 also features MIC Mute, BUZZER Mute, System Link, and DC Input.

### PS 285 2-channel Booster Power Supply

The PS 285 2-channel Booster Power Supply functions as an auxiliary 2-channel Power Supply should the main Power Supply be insufficient to drive the required number of user stations. The unit is placed in the network to feed a dedicated group of user stations; powering is sufficient for 20 Pro Series Beltpacks or 10 Speaker Stations. The PS 285 also features a remote controlled Standby mode.

### PS 680 6-channel Power Supply

The PS 680 is a 6-channel Power Supply with all features necessary for a 6-channel communication system using Pro Series Beltpacks and Speaker Stations. Power capacity allows use with up to 40 beltpacks and 20 Speaker Stations. A front panel matrix enables independent assignment of two AUX program inputs to any or all intercom channels. In addition to global MIC and BUZZER Mute switches, the PS 680 provides a 25-pin D-sub connector on the rear panel for connection to an external switch box with push-buttons for remote MIC or BUZZER mute on each channel independently. Individual volume controls are provided for each of two AUX inputs. AUX inputs (Mic or Line level).

## Interfaces

### PS 260/T 2-channel 4-Wire Interface

The PS 260/T 2-channel 4-Wire Interface enables connection of an ASL Pro Series intercom system to external audio equipment or to a 4-wire intercom system. Fixed 4-wire systems can be temporarily extended with ASL intercom stations, or a 4-wire TV camera intercom can be connected directly to an ASL network. Other applications include injection of external audio signal directly into the ASL intercom channels, or monitoring of the intercom signals by recording devices or paging systems.

### PS 150 1-channel Telephone Interface

The PS 150 1-channel Telephone Interface connects an ASL Pro Series intercom with a telephone or 2-wire system. It enables communication between an ASL intercom network and a standard telephone, or between two ASL intercom networks via a telephone line.

### PS 155 Wireless Interface

The PS 155 is a 1-channel audio interface for connecting simplex wireless intercom systems (PTT wireless intercom i.e. Motorola, Kenwood) to all ASL Analog Intercom systems.. Special attention has been paid to ease of operation, enabling users to expand a wired ASL intercom with a locally approved wireless intercom subsystem.

Three modes are available to switch between send and receive, selectable on the front panel. The modes are:

**PTT** – Transmit mode enabled via an external switch connected to the PS 155.

**VOX** – Transmit mode enabled by an audio detection circuit on the wired intercom. The VOX circuit includes a special frequency contouring circuit for the human voice, with attack and release times adjustable on the PS 155 front panel.

**CALL** – Transmit mode enabled by pushing any CALL button on connected intercom units. All audio present at the wired intercom will be broadcast into the wireless system. Buzzers of all connected stations are automatically disabled in this mode.

PS 155 Wireless Interface



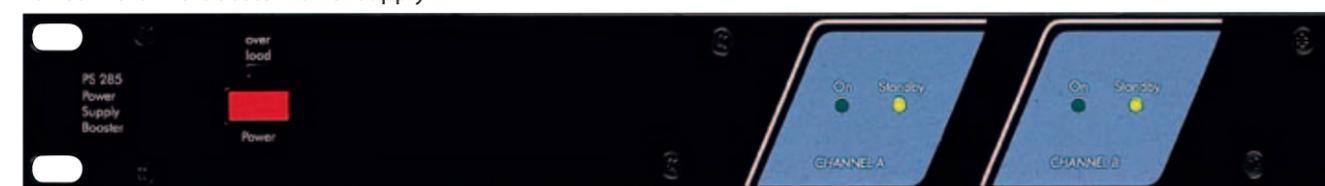
PS 260/T 2-channel 4-Wire Interface



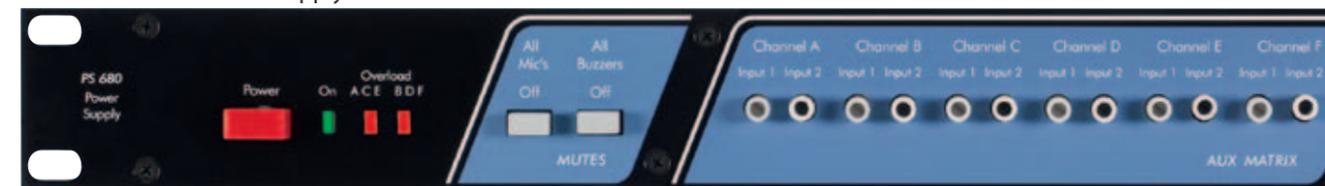
PS 289 2-channel Power Supply



PS 285 2-channel Booster Power Supply



PS 680 6-channel Power Supply



PS 150 1-channel Telephone Interface



The ASL Wireless Intercom allows simple, reliable expansion of a wired intercom system for greater flexibility in applications where user mobility is of paramount importance. ASL wireless systems are short-to-medium range and can be configured using 1- or 2-channel Beltpacks, and either 2- or 4-channel wireless base stations. The system operates within the global license-exempt frequency of 2.4 GHz, with a maximum of eight full duplex wireless intercom connections available. An audio frequency range of 100 Hz – 12 kHz allows high speech intelligibility as well as a natural voice quality that prevents listener fatigue.

## Base Stations

### System Specifications

- Frequency range: 2.4 - 2.483 GHz
- Channel bandwidth: 7 MHz
- Number of full duplex RF connections: 8
- TX output power: 12 dBm
- Receive sensitivity: -91 dBm
- Audio sample rate: 24 kHz
- Audio quality: 16 bits TX output

### WS 200 2-channel Wireless Base Station

For full duplex connections, the WS 200 2-channel Wireless Base Station contains two send/receive modules. A maximum of eight full duplex connections at one location is possible by connecting either two WS 400 stations or four WS 200 stations.

Interfacing to a Wired Intercom – Using switches on the rear panel of the base station, each send/receive unit may be routed to either the built-in two-channel (A and B) partyline interface, or to a 4-wire intercom system. Input and output volumes can be adjusted using trimmers on the rear panel of the base station.

### WS 400 4-channel Wireless Base Station

For full duplex connections, the WS 400 4-channel Wireless Base Station contains four send/receive modules. A maximum of eight full duplex connections at one location is possible by connecting either two WS 400 stations or four WS 200 stations.

### Beltpacks

#### WS 19 1-channel Wireless Beltpack

The WS 19 1-channel Wireless Beltpack features a Volume Control, TALK and CALL functions with LED indicators, a MIC mute circuit, and a BUZZER mute circuit.

#### WS 29 2-channel Wireless Beltpack

The WS 29 2-channel Wireless Beltpack features a Volume Control, TALK and CALL functions with LED indicators, a MIC mute circuit, and a BUZZER mute circuit. In addition, the WS 29 also offers a MIX control that allows a user to listen to either Channel A, Channel B or to both channels at any required relative level balance.

WS 19 1-channel Wireless Beltpack



WS 29 2-channel Wireless Beltpack



WS 400 4-channel Wireless Base Station



WS 200 2-channel Wireless Base Station



The complete ASL Cue Light system consists of one or more TS 120 12-channel Master Stations, the required number of TS 10 Cue Light Receivers, and the optional TS 99 Preset Control unit. Connections between Master Stations and Receivers utilize standard microphone cables with XLR-3 connectors.

Two or more TS 120 Master Stations can be interlinked using the D9 connectors on the rear panel. Linking two units, for example, creates a 24-channel cue light system. Up to twelve units may be linked in this manner, for a maximum of 144 channels. Regardless of how many units are linked, only one TS 99 Preset Controller is required.

### TS 120 Cue Light Master Station

This 2U rack-mount unit includes 12 cue light channels, plus two global push buttons for "All Selected Channels Go" and "Clear." Each cue light channel has push buttons for ATTN (attention) and GO, with a bi-color status LED that illuminates red in ATTN mode and green in GO mode. The presence of a connected TS 10 receiver is detected automatically; if no receiver is present, the channel is ignored by the TS 120. The auto-select power supply may be connected to voltages from 100 – 240 V at 50 or 60 Hz.

button and a large green LED indicating the GO signal. The TS 10 receiver is powered by the TS 120 Cue Light Master Station.

### TS 99 Cue Light Preset Control

The TS 99 Preset Control is powered by the TS 120 via the interconnecting cable. It can hold a maximum of 100 presets, stored in non volatile memory. Each preset is a selection out of maximum 144 channels, obtained when twelve TS 120 master stations are linked (see above 'Linking two or more TS 120 Master Stations'). Each preset has its page number, which is selected and displayed in the LED screen by using the 'up' and 'down' push buttons.

### TS 10 Cue Light Receiver

This ABS box has a large red LED indicating the ATTN (Attention) signal, an acknowledge (ACKN)

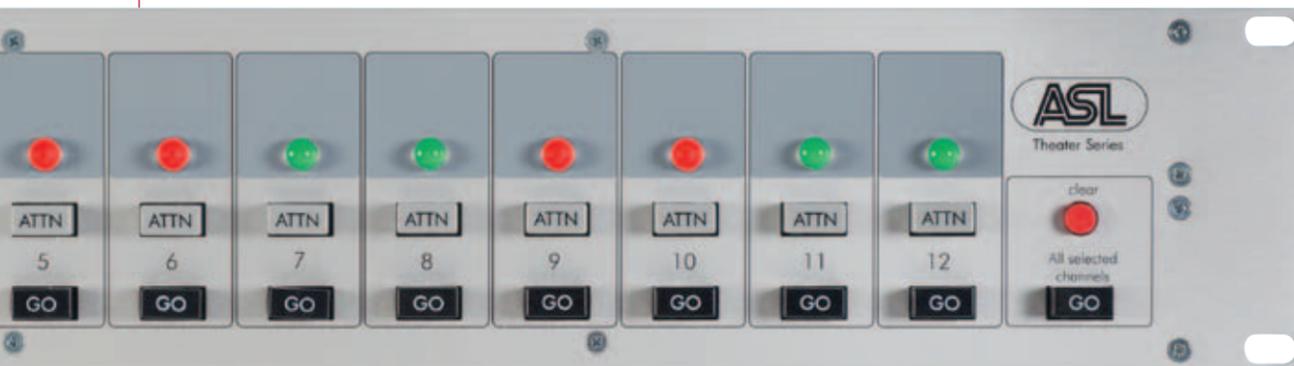
TS 99 Cue Light Preset Control



TS 10 Cue Light Receiver



TS 120 Cue Light Master Station



ASL provides a complete array of intercom accessories, allowing system designers to customize each intercom configuration to match specific application requirements. All ASL accessories are designed to exacting tolerances, and manufactured using high-grade components, in order to provide years of reliable service in either portable/touring or fixed installation applications.



### IS BLINQ LED CALL Light

The XLR-3 connector is mountable to the output of a Beltpack or to an XLR microphone cable connected to an ASL Intercom output.



### IS 141 Sound and Light CALL Beacon

The CALL light consists of red, dimmable LEDs. The high volume buzzer can be adjusted or completely switched off.



### IS Series Split Box

The IS 026 Intercom line Split Box features two XLR-3 female into six XLR-3 male connectors.



### IS 011/IS011A/IS011B

Wall Boxes for intercom lines. Surface or flush mounting.



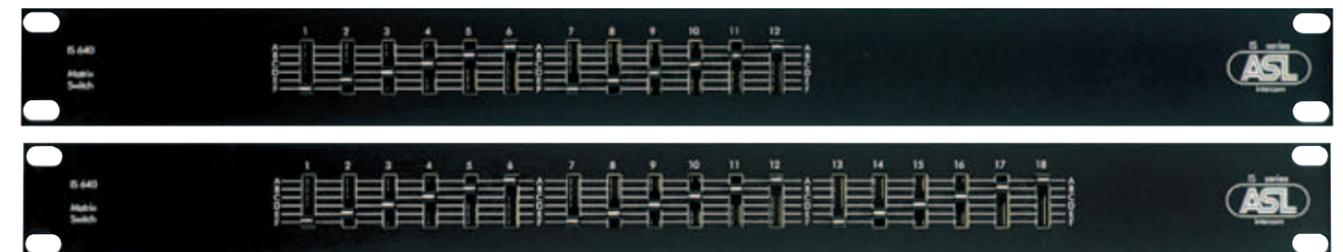
### TR-2 Transformer

Transformers are sometimes the only way to interconnect audio equipment safely and properly. The TR-2 is fitted with professional (broadcast) specification transformers and all the required connectors.



### IS Series Matrix Switches

The IS 640/12 and IS 640/18 Matrix Switches assign either 12 or 18 intercom lines to 6 intercom channels (19"/1U). Units can easily be interconnected by a flat cable allowing the user to extend the number of intercom lines indefinitely.



### HS-1/D Headphones

HS-1/D is a lightweight, half open, single muff headset with dynamic microphone, cable and XLR-4 connector.



### HS-2/D Headphones

HS-2/D is a lightweight, half open, double muff headset with dynamic microphone, cable and XLR-4 connector.



### HR-2/E Headphones

HR-2/E is a double muff, closed headset with noise canceling electret microphone (left or right-side use), cable and XLR-4 connector.



### IS 01 Extension Spiral Cable

The IS 01 Spiral Extension Cable is fitted with XLR-3 connectors and will extend up to 3.5 m.



### IS 02 Headset Extension Cable

The IS 02 is a 3 m Headset Extension Cable fitted with an XLR-4 connector.



### IS 03 Intercom Handset



## Pro Series Specifications

### System

- Dynamic range: 80 dB (1 kHz, THD < 1%)
- Call signal (send): 2.8 mA
- Call signal threshold (receive): +2.4 V DC
- Supply voltage: +30 V DC (12 to 32 V DC)
- Power interrupt time (mic mute): 0.1 sec

### Intercom Line

- Impedance: 350 ohm (1 kHz) / 2.2 kOhms (DC)
- Audio level: nom. -18 dBu, max. +4 dBu

### Switch-Mode Power Supplies

- Mains voltage range: 100 - 240 V AC, 50/60Hz
- Output voltage: +30 V DC (+/- 5%)
- Max. output power:
  - PS 285: 45 W
  - PS 279/289: 75 W
  - PS 680: 2x 45 W
  - PS 4379: 100 W
  - PS 6379: 150 W

### Mic Pre-amps

- Gooseneck microphone: Noise cancelling electret
- Headset mic impedance: 200 ohms
- Gain: 40 - 60 dB (adjustable internally)
- Presence filter: +6 dB at 5 kHz
- Frequency response: 200 Hz - 15 kHz (-3 dB)
- Power to electret mic: +9 V DC
- Limiter range (gooseneck mic): 30 dB

### Headphones Driver Amps

- Max. Output Level:
  - normal: 14 Vrms (@ 200 ohms)
  - binaural: 2 x 10.6 Vrms (@ 400 ohms)
- Max. Output Power:
  - normal: 1 Wrms (@ 200 ohms)
  - binaural: 2 x 0.28 Wrms (@ 400 ohms)

### Speaker Driver Amps

- (PS 130/230/430/630/4379/6379)
- Speaker impedance: 25 ohms
- Max. output Power: 2.9 Wrms

### Side Tone

- Rejection: 0 - 30 dB adjustable

### Buzzer

- Max. SPL: 100 dBA

### Program Inputs (PS 630/4379/6379)

- Input impedance: 47 kOhms
- Nominal input Level: -12 to +6 dBu
- Max. input level: +16 dBu

### Aux Inputs (PS 279/289/4379/6379)

- Input impedance: 11 kOhms
- Gain: 0 dB (line level)
- Nominal input level: -20 to +10 dBu (line level)
- Max. Input level: +21 dBu (line level)

### Aux Input (PS 680)

- Input impedance:
  - 30 kOhms (line level)
  - 4.6 kOhms (mic level)
- Nominal input level:
  - 18 to +6 dBu (line level)
  - 38 to -14 dBu (mic level)
- Max. input level:
  - +22 dBu (line level)
  - +2 dBu (mic level)
- Phantom power: +30 V DC (mic level selected)

## Direct Mic Outputs (PS 630/4379/6379)

- Output impedance: 50 ohms (balanced)
- Nominal output Level: +6 dBu
- Max. output Level: +24 dBu

## DC Inputs (PS 279/289/4379/6379)

- Supply voltage: 12 - 28 V DC

## Basic Series Specifications

### System

- Dynamic range: 80 dB (1 kHz, THD < 1%)
- Call signal (send) : 2.8 mA
- Call signal threshold (receive): +2.4 V DC
- Supply voltage: +30 V DC (12 V to 32 V DC)

### Intercom Line

- Impedance: 350 ohm (1kHz) / 2.2 kOhms (DC)
- Audio level: nom. -18 dBu, max. +4 dBu

## Switch-Mode Power Supplies (BS 216/181/286)

- Mains voltage range: 100 - 240 V AC, 50/60Hz
- Output voltage: +30 V DC (+/- 5%)
- Max. output power: 45 W

### Mic Pre-amps

- Headset mic impedance: 200 ohms
- Gain: 40 - 60 dB (adjustable internally)
- Presence filter: +6 dB at 5 kHz
- Frequency response: 200 Hz - 15 kHz (-3 dB)
- Power to electret mic: +9 V DC

### Headphone Driver Amps

- Max. output level: 10.6 Vrms (@ 200 ohms)
- Max. output power: 0.5 Wrms (@ 200 ohms)

### Side Tone

- Rejection: 0 - 30 dB adjustable

### Buzzer

- Max. SPL: 100 dBA

### Aux Inputs (BS 216/286)

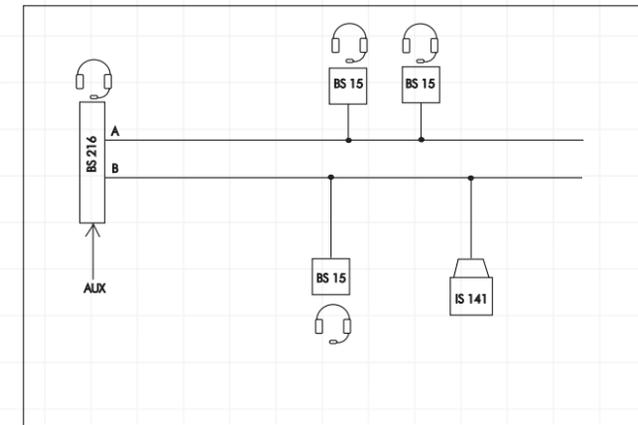
- Input Impedance:
  - 30 kOhms (line level)
  - 4.6 kOhms (mic level)
- Nominal input level:
  - 18 to +6 dBu (line level)
  - 38 to -14 dBu (mic level)
- Max. input level:
  - +22 dBu (line level)
  - +2 dBu (mic level)
- Phantom power: +30 V DC (mic level selected)

0 dBu defined as 775 mVrms into open circuit

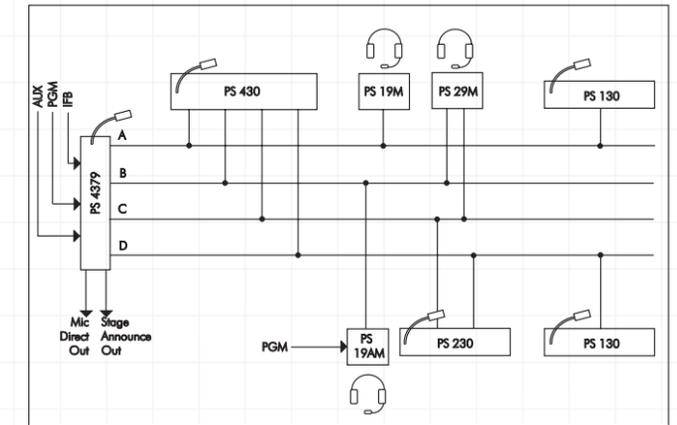
## TR-2 Technical Specifications

- Max. output level: +26 dBu
- Frequency response: 12 Hz - 40 kHz (+/- 0.25 dB)
- Total harmonic distortion:
  - < 0.02% at any output level up to 0 dB
  - < 0.03% at any output level up to +10 dB
- Insertion loss: 1.6 dB
- Common mode rejection ratio:
  - at 50 Hz: 78 dB
  - at 1 kHz: 69 dB
  - at 20 kHz: 42 dB

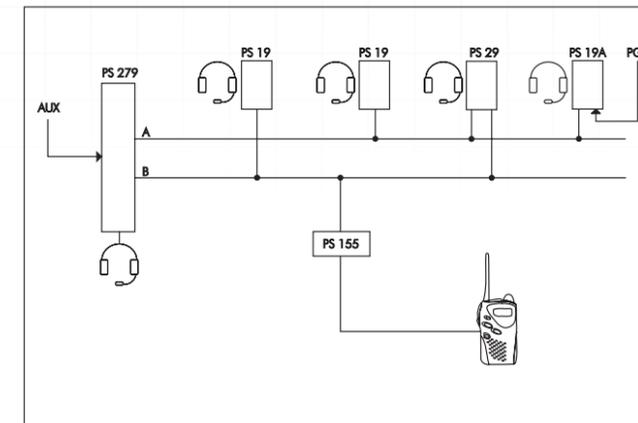
ASL reserve the right to alter specifications without further notice.



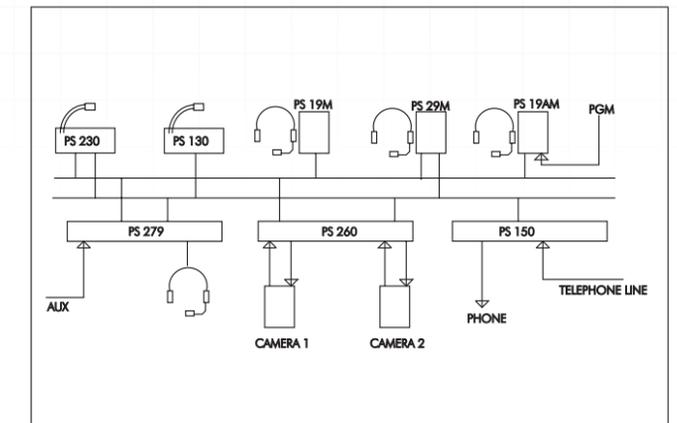
2-CHANNEL INTERCOM NETWORK / BASIC SERIES



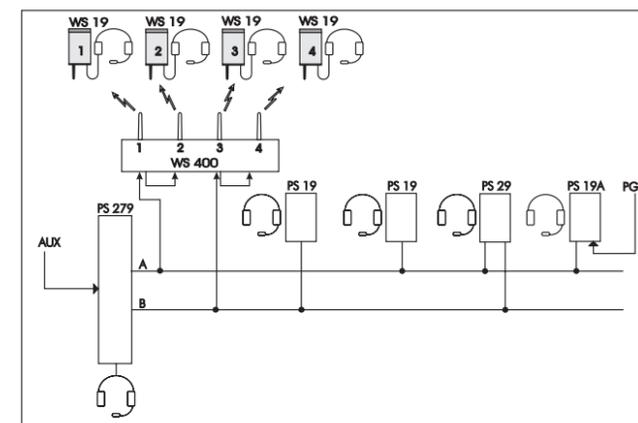
4-CHANNEL INTERCOM NETWORK / PRO SERIES



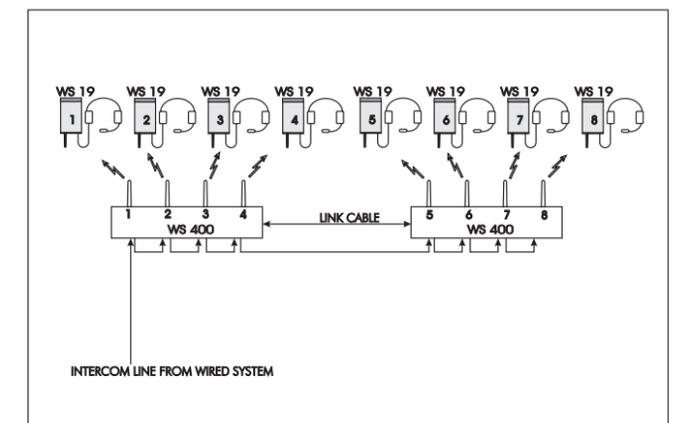
2-CHANNEL INTERCOM NETWORK WITH WIRELESS INTERFACE



2-CHANNEL INTERCOM NETWORK WITH AUDIO INTERFACE AND TELEPHONE INTERFACE



2-CHANNEL INTERCOM NETWORK WITH 4 WIRELESS BELTPACKS  
2 WIRELESS BELTPACKS ON LINE A - 2 WIRELESS BELTPACKS ON LINE B



MAXIMUM NUMBER OF WIRELESS BELTPACKS CONFIGURATION



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