Simply Communicate
Analog Partyline Systems
ASL Intercom was established in 1985 with the immediate goal of building intercoms suited to the extreme demands of live entertainment in both portable and installed systems. The company has since broadened into broadcast, industrial and commercial applications, and now offers a full line of analog and digital intercoms backed by prompt, personalized technical support. ASL also offers a Cue Light System.

Information about the ASL Digital Intercom system and the ASL Cue Light system are to be found in a separate brochures.

The Company

ASL Analog Intercom systems

ASL Analog Intercom systems have a proven track record of reliable operation in the most demanding live production, event management, broadcast and industrial applications. The equipment range meets 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 wired beltpacks. 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.

The ASL Analog Intercom line currently comprises both the Basic Series and Pro Series of single and multi-channel systems, and a wide range of Intercom Accessories.

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ASL 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.

- System Frequency Response 200 Hz to 15 kHz.
- Proprietary Frequency Correction for enhanced intelligibility.
- Electronic Switching
- Beltpacks in lightweight PC/ABS or durable aluminum casings.
- Dynamic or Electret microphones may be connected (phantom power standard).
- Adjustable Mic Gain for headset microphone.
- Limiter for gooseneck microphone.
- High Power Headphone Amplifiers (1.3 W nominal @ 200 ohms).
- Automatic Headset Detection. The mic pre-amp is active only when a headset is connected.
- Optional XLR-6 Binaural Headset Connector on multi-channel stations. Internal jumpers allow routing each intercom channel to either the left, or the right or both headset cans.
- Volume Controls, to listen to each channel at any desired volume and to balance levels among channels on multi-channel stations.
- TALK buttons, latching or momentary, with large LED indicators to talk to all user stations on the indicated channel.
- CALL buttons with large LED indicators to call the all user stations on the indicated channel. Keeping a CALL button pushed for more than two seconds activates an internal buzzer.
- Buzzer Volume Trimmer on each user station.
- Side Tone Trimmer for each channel, to adjust the level of the operator's voice as heard through his own headphone or loudspeaker.
- Mic Mute Function on Master Stations and Power Supply Units allowing to temporarily mute the microphones on all connected user stations.
- Buzzer Mute Function on Master Stations and Power Supply Units allowing to mute the buzzers on all connected user stations.
- Auxiliary Program (AUX) Input. Power Supply Units and Master Stations offer a balanced auxiliary input with "ground lift" switch, to insert the auditorium or on-air program audio.
- Local Program Input with volume control on some of the user stations.
- Switch-mode Power Supplies. In case of short circuit or excessive thermal condition, the power supply automatically shuts down. Once the fault is corrected, it automatically resets and restores normal operation.
- DC Input on Master Stations and the PS 289 Power Supply allows connection to an external DC power supply, should 110/240 V mains power not be available, or battery backup power be required.
- System Link on Master Stations and the PS 289 Power Supply Unit. Allows connection to another ASL system, without using power from the other system.
Pro Series Master Stations are available in rack mount and tabletop configurations. Each has its own built-in power supply. Available models provide two channels (PS 279) or six channels (PS 6379 Mk2) of communication.

Common Features on all Master Stations:

- TALK and CALL functions for each channel
- Volume control for each channel
- Mic Mute Send to all remote user stations
- Buzzer Mute Send to all remote user stations
- Auxiliary Program (AUX) input
- System Link
- Auto-resetting switch-mode power supplies
- DC input

**PS 279 2-channel Master Station**

The PS 279 is a 2-channel Master Station with a built-in power supply. Power capacity allows safely driving up to 20 PS Series Beltpacks or 10 Remote 2-ch Speaker Stations. Housed in a 1U metal rack-mount frame, it provides all necessary features for a 2-channel communications system. The balanced Auxiliary Program (AUX) input can be volume controlled and routed to intercom channel A or B or directly to the local headset.

**PS 6379 Mk2 6-channel Master Speaker Station**

The PS 6379 Mk2 6-channel Master Speaker Station is fitted with an electret “noise canceling” gooseneck microphone. A 19” rack mount kit is included in the shipping carton. Power capacity allows safely driving up to 30 PS Series Beltpacks or 15 Remote 2-ch Speaker Stations or 10 Remote 6-ch Speaker Stations.

In addition to the features of the PS 279, the PS 6379 Mk2 offers:

- **IFB** - Channel 5 and 6 can be switched to IFB mode for one-way communication, for instance from a director or producer to a so-called Talent (TV newreader or sports commentator). If an AUX signal is assigned to an IFB channel, the AUX signal will be reduced by an adjustable percentage when the TALK button of that channel is pushed. The Talent may have a Beltpack or a PS 10 Analog IFB Receiver.

- **Speaker ON/OFF Button**

- **Loudspeaker Attenuation** - If a TALK button is pushed, the loudspeaker volume is automatically attenuated. The degree of attenuation is adjustable.

- **Master Volume Control** - For all intercom channels and the PGM input.

**Stage Announce** - This push button routes the signal of the local microphone signal to a line level output.

**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 Talk** - Pushing and holding CALL TO TALK sends a call signal to all channels on which the TALK button is switched on, except for the channels in IFB mode.

**Null Adjust** - For each channel a 2-stage trimmer to minimize the loudspeaker feeding back into the gooseneck microphone and the headset microphone feeding back into the headset can(s).

**Own Voice** - A trimmer to adjust the level of your voice as heard in your headset can(s).

**Program Input** - A balanced audio input (line level), volume controlled on the front panel.

**Aux Inputs** - There are 3 balanced Auxiliary program (AUX) inputs for line levels. By a 3-position switch each intercom channel may be routed to either AUX 1, or AUX 2 or AUX 3. Each channel has an AUX volume control.

**Mic Mute** - In addition to a MIC MUTE button for all channels, MIC MUTE buttons separately for each channel are available.

**Buzzer Mute** - In addition to a BUZZER MUTE button for all channels, BUZZER MUTE buttons separately for each channel are available.
ASL Pro Series Remote Speaker Stations provide reliable, easy-to-use communications facilities for applications requiring one, two, four or six intercom channels. Each is fitted with an internal loudspeaker and an electret 'noise cancelling' 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.) Remote Speaker Stations are powered by Pro Series Master (Speaker) 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 2U 19" rack space.

**Common Features on all Remote Speaker Stations:**
- Accept dynamic or electret microphones (phantom power standard)
- Adjustable Mic gain for gooseneck or headset mic.
- TALK and CALL functions for each channel
- Volume Control for each channel
- Automatic Loudspeaker Attenuation (adjustable)
- Mic Mute Receive (through Power Supply Unit or Master Station)
- Buzzer Mute Receive (through Power Supply Unit or Master Station)

**PS 130 1-channel Remote Speaker Station**
With the PS 130 1-channel Remote 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, 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.

**PS 230 2-channel Remote 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 ear and channel B in the other.

**PS 430 4-channel Remote 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 Remote Speaker Station**
Designed for 6-channel applications, the PS 630 incorporates all features of the PS 130 and PS 430. Additionally, it offers an electronically balanced output of the microphone and electronically balanced PROGRAM input for local monitoring of an audio signal with separate volume control. For each channel, separate XLR connectors for input and party line link are provided on the rear panel.

**Common Features on all Beltpacks:**
- Accept dynamic or electret microphones (phantom power standard)
- Adjustable Mic gain for headset mic
- TALK and CALL functions for each channel
- Volume control for each channel
- Mic Mute Receive (through Power Supply Unit or Master Station)
- Buzzer Mute Receive (through Power Supply Unit or Master Station)

**PS 19 1-channel Beltpack**
1-channel Beltpack in PC/ABS case.

**PS 19A 1-channel Beltpack with Program Input**
1-channel Beltpack with Program audio (PGM) input and separate volume control, in PC/ABS case (PA 19A). A binaural headset connector is optional.

**PS 29 2-channel Beltpack**
2-channel Beltpack in PC/ABS case. A binaural headset connector is optional.

**PS 10 Analog IFB Receiver**
1-channel IFB Receiver for "Listen Only" purposes, in metal case with sprung metal belt clip. The unit has a volume control and a mini jack connector for headphone or earpiece.

There are three Pro Series beltpack options. All are powered via the intercom party line by a Master (Speaker) Station or Power Supply. All three feature a sprung metal belt clip.
Pro Series Power Supplies are of the switch mode type and are auto-resetting. They are designed to provide the required DC voltage needed to power for Pro Series Beltpacks or Speaker Stations. Three different 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.

PS 289 2-channel Power Supply
The PS 289 is a 2-channel Power Supply with all features necessary for a 2-channel communication system. It can safely drive up to 20 Pro Series Beltpacks or 10 Remote 2-ch Speaker Stations. For the Auxiliary program (AUX) input, volume controls to each of both intercom channels are provided. 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. It can safely drive up to 20 Pro Series Beltpacks or 10 Remote 2-ch 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. It can safely drive up to 25 Pro Series Beltpacks or 12 Remote 2-ch Speaker Stations or 9 Remote 6-ch Speaker Stations. A front panel matrix enables independent assignment of two AUX program inputs to any or all intercom channels. For each channel independently, volume controls are provided for each of the two Auxiliary program (AUX) inputs. The PS 680 also features MIC Mute and BUZZER Mute.

Three Pro Series Interfaces are available that afford maximum flexibility in system configuration, and also maintain seamless compatibility with existing communication and auxiliary systems.

- **PS 155 Wireless Interface**
- **PS 260/T 2-channel 4-Wire Interface**
- **PS 150 1-channel Telephone Interface**

**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 party line network. Other applications include injection of external audio signal directly into the ASL intercom channels, or monitoring of the intercom signals by recording devices. The 4-wire connections of the PS 260/T are transformer balanced.

**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. These 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.
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
- System Frequency Response 200 Hz to 15 kHz
- Durable, lightweight PC/ABS beltpack
- Visual and audible call system, with volume trimmer
- Accepts dynamic or electret microphones (phantom powering standard)
- Separate TALK and CALL functions, each with LED indicators
- Auto-resetting switch-mode power supplies
- 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 (-3 dB) and a dynamic range of 80 dB. Output is 790 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 for optimum results with any microphone. A headset detection circuit ensures the mic preamp 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 217 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.

Switch-mode Power Supplies – In case of short circuit or excessive thermal condition, the power supply will self-protect by shutting down. 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 belt packs 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 217) and the 2-channel Power Supply (BS 287) each offer a balanced auxiliary input (individually attenuated for each channel), normally used to carry the auditorium or on-air program audio. The inputs are for line level signals.

Product features in brief:
- Separate TALK and CALL functions for each channel
- Volume Control (LISTEN level) for each channel
- Power Supply capable of driving fifteen BS 17 Beltpacks
- Mic Gain on front panel

Beltpack
BS 17 1-channel Beltpack
The BS 17 is a 1-channel intercom station housed in a strong, lightweight PC/ABS case with nylon clip. It is powered via the intercom line by a BS 217 Master Station or a BS 181 or BS 287 Power Supply.

Power Supplies
BS 287 2-channel Power Supply
The BS 287 is a 2-channel Power Supply Unit with an AUX input for program signals (line level). It is housed in a 1U steel rack-mount case. The BS 287 will safely drive up to fifteen BS 17 Beltpacks when each is set to full volume. BS 181 1-channel Power Supply
The BS 181 is a 1-channel Power Supply Unit, housed in a steel case. The unit enables cost-effective system powering when only one channel is needed. It is capable of safely driving up to fifteen BS 17 Beltpacks when each is set to full volume.

Talkpacks
The Basic Series products are also available as Talkpacks (pre-packed intercom systems) in the following configurations:
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**
As soon as a Call signal appears on the party line to which the IS BLINQ is connected to, it starts flashing.

**IS 141 Sound and Light CALL Beacon**
The CALL light consists of red, dimmable LEDs. The high volume buzzer can be adjusted or switched off.

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

**TR-2 Transformer Box**
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 Switch**
The IS 640/12 Matrix Switch (19”/1U) assigns 12 intercom lines to 6 intercom channels. Matrix Switches can easily be interconnected by a flat cable allowing the user to extend the number of intercom lines indefinitely.

**IS 011/IS011A/IS011B**
Wall Boxes for Intercom lines. Surface or flush mounting.

**IS 01 Extension Spiral Cable**
The IS 01 Spiral Microphone 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 013 Audio Isolator**
Interrupts the audio wire of the 3-wire party line cable.

**IS 03 Intercom Handset**

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

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

**HR-2/E Headset**
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**

**IS 640/12 12-line Matrix Switch**

**IS 456/12 12-line Matrix Switch**
## Pro Series Specifications

**System**
- Dynamic Range: 80 dB (1 kHz, THD < 1%)
- Frequency Response: 200 Hz – 15 kHz (-3 dB)
- Call Signal (send): 2.8 mA
- Call Signal Threshold (receive): < 2.4 V DC
- Operating Voltage: 30 V DC
- Power Interrupt Time (mic mute): 0.1 sec

**Intercom Line**
- Impedance: 390 Ω (1 kHz), 2.2 kΩ (DC)
- Audio Level: nom. -18 dBu, max. 0 dBu

**Switch-Mode Power Supplies**
- Mains Voltage Range: 100 – 240 V AC, 50/60 Hz
- Output Voltage: +30 V DC (+/- 5%)
- Max. Output Power:
  - PS 279/285/289: 75 W
  - PS 680: 2x 45 W
  - PS 6379 Mk2: 105 W

**Mic Pre-amps**
- Gain: 40 – 60 dB (adjustable internally)
- Presence Filter: +6 dB at 5 kHz
- Power to Electret Mic: 9 V DC
- Limiter range: 30 dB

**Headphone Driver Amps**
- Max. Output Level:
  - Monaural: 16 Vrms (at 200 Ω)
  - Binaural: 2x 10.3 Vrms (at 400 Ω)
- Max. Output Power:
  - Monaural: 1.3 Wrms (at 200 Ω)
  - Binaural: 2x 0.27 Wrms (at 400 Ω)

**Speaker Driver Amps**
- Max. Output Power: 1.6 Wrms (at 16 Ω)

**Side Tone**
- Rejection: 0 – 30 dB adjustable

**Buzzer**
- Max. SPL: 90 dBa (at 0.1m)

**Program Input (PS 19A / PS 19AM)**
- Input Impedance: 28 kΩ (line level)
- Nominal Input Level: 0 dBu (line level)
- Max. Input Level: +21 dBu

**Aux Input (PS 279 / 289)**
- Input Impedance: 39 kΩ
- Nominal Input level: 0 dBu
- Max. Input Level: +21 dBu

## Aux Inputs (PS 680)
- Input Impedance: 10 kΩ
- Nominal Input Level: 0 dBu (line level)
- -30 dBu (mic level)
- Max. Input Level: +21 dBu
- Phantom Power: 30 V DC (mic level selected)

**Direct Mic Output (PS 630)**
- Output Impedance: 50 Ω (balanced)
- Nominal Output Level: -6 dBu
- Max. Output Level: -21 dBu

**Stage Announce Output (PS 6379 Mk2)**
- Output Impedance: 50 Ω (balanced)
- Nominal Output Level: 0 dBu
- Max. Output Level: +21 dBu

**DC Inputs (PS 279 / PS 289 / PS 6379 Mk2)**
- Supply Voltage: 24 – 30 VDC

## Basic Series Specifications

**System**
- Dynamic Range: 80 dB (1 kHz, THD < 1%)
- Frequency Response: 200 Hz – 15 kHz (-3 dB)
- Call Signal (send): 2.8 mA
- Call Signal Threshold (receive): < 2.4 V DC
- Operating Voltage: 30 V DC

**Intercom Line**
- Impedance: 350 Ω (1 kHz), 2.2 kΩ (DC)
- Audio Level: nom. -18 dBu, max. 0 dBu

**Switch-Mode Power Supplies**
- Mains Voltage Range: 100 – 240 V AC, 50/60 Hz
- Output Voltage: +30 V DC (+/- 5%)
- Max. Output Power: 45 W

**Mic Pre-amps**
- Gain: 40 – 60 dB
- Presence Filter: -6 dB at 5 kHz
- Power to Electret Mic: 9 V DC

**Headphone Driver Amps**
- Max. Output Level: 11.6 Vrms (at 200 Ω)
- Max. Output Power: 0.7 Wrms (at 200 Ω)

**Side Tone**
- Rejection: 0 – 30 dB adjustable

**Buzzer**
- Max. SPL: 90 dBa (at 0.1m)

## Aux Inputs (PS 629)
- Input Impedance: 2.4 kΩ (line level)
- Nominal Input Level: 0 dBu (line level)
- Max. Input Level: +21 dBu

## TR-2 Technical Specifications

**Frequency Response:**
- 18 Hz – 50 kHz (+/- 0.25 dB)
- (Load = 600 Ω, Source < 50 Ω, Input Level 0 dBu)

**Max. Output Level:** +24 dB
- (THD ≤ 1%, f = 50 kHz, Load = 600 Ω, Source < 50 Ω)
- (f = 5 kHz – 20 kHz, Load = 600 Ω, Source < 50 Ω)

**Insertion Loss:** 2.1 dB
- (Load = 600 Ω, Source < 50 Ω)

**Common Mode Rejection Ratio:**
- at 50 Hz: 95 dB
- at 1 kHz: 75 dB
- at 20 kHz: 45 dB

**Environment Specifications**

**Operating:**
- Temperature Range: -10º to +50º Celsius
- Relative Humidity (non condensing): < 90%

**Storage:**
- Temperature Range: -20º to +80º Celsius
- Relative Humidity (non condensing): < 95%

0 dBu defined as 0.775 Vrms into open circuit

ASL reserves the right to alter specifications without prior notice