

PRO SERIES FEATURES

- One, two, four, and six channel user stations
- Strong ABS beltpacks for light weight or strong aluminium beltpacks for durability.
- Separate CALL and TALK functions with large LED indicators
- Unique visual and audible call system with volume trimmers
- Remote mic mute and buzzer (audio call) mute
- Powering for dynamic or electret headset mics as standard
- Headphone volume and dynamic range exceeds normal industry standards
- Extended frequency response and proprietary frequency correction for high intelligibility
- Individual sidetone and buzzer volume trimmers at each user station
- Auto resetting power supplies for 110/240 V mains
- Auxiliary program inputs
- Electronic switching
- Automatic headset detection
- Optional binaural headset operation for multi channelstations

PRO SERIES INTRODUCTION

The PRO series of ASL Intercom Products offers a complete and professional solution for any size of network where a full duplex party-line communication system is required, that is based on a standard balanced mic cable interconnect system. The installation requires no expert knowledge and a fool-proof wiring concept with superior control layout allows easy installation and comfortable operation.

A current driven interconnect loop ensures operator listening levels do not change as stations are added or removed from the network.

High power push-pull headphone amplifiers provide an extensive dynamic range of 80dB over a frequency range of 200Hz to 15kHz. Proprietary frequency contouring circuitry ensures high intelligibility for voice communications.

HEADSETS

Headsets with dynamic or electret microphones can be connected as standard. The mic gain can be adjusted internally to suit all possible input levels, and a headset detection circuitry ensures the mic pre-amp is active only when a headset is connected. Headset/Speaker volume controls enable the user to listen to the communication signal at any required level and, at multichannel stations, at any required balance.

POWER SUPPLIES

All the power supplies are fully protected such that if there is a short circuit, faulty wiring or a dangerous thermal condition, power will be reduced and eventually shut down. To indicate this condition a warning LED will light up. Once the faulty condition has been removed, the power will auto-

matically reset and full power will be restored.

CALL

A combined visual and audio call system covers light and/or sound sensitive environments. CALL buttons enable the user to generate a call signal to each channel separately. An incoming or outgoing call signal is indicated by a large red LED. If a CALL button is held for more than 2 seconds, the internal audio buzzer is activated. The volume of the buzzer can be trimmed or muted.

TALK

Latching or momentary TALK buttons with LED indicator enable the user to talk to one channel only or to a number of channels simultaneously. The MIC MUTE feature allows station mics to be remotely muted.

SIDE TONE

For each channel at each user station, a sidetone trimmer is provided to adjust the level of the users voice as heard over his own headset or loudspeaker.

AUX PROGRAM INPUT

An auxiliary program input on the master station and all power supply units, with selectable line or phantom powered mic settings, feeds auditorium program onto the intercom line. The input is electronically balanced and switchable between line or 30V phantom powered mic level inputs.

For applications that require it, interface units are available allowing connection of a PRO series intercom network onto a 4-wire communication system, onto a telephone, 2-wire, system, or a connection to simplex wireless systems

PRO SERIES TECHNICAL SPECIFICATIONS

SYSTEM SPECIFICATIONS

intercom line impedance	350 ohms (1 kHz), 2.2 Kohms (DC)
intercom line audio level	nom. -18 dBu, max. +4 dBu
dynamic range	80 dB
call send signal	2.8 mA
call receive signal threshold	+2.4 V DC
supply voltage	+30 V DC (12 V to 32 V)
power interrupt time for mic mute	0.1 sec

POWER SUPPLY

mains voltage range	100 - 240 V AC 50/440 Hz autoselect
DC output voltage	+30 V +/-2% DC
max. output current	PS 278/280: 2 A continuous / 3 A peak PS 680: 4 A continuous / 6 A peak
circuit breaker delay time	0.2 sec
automatic reset time	3.0 sec

MIC. PREAMP

gooseneck microphone type	noise cancelling electret
headset mic. impedance	200 ohms
gain	40 dB - 60 dB (adjustable internally)
presence filter	+6 dB at 5 kHz
frequency response	200 Hz - 15 kHz (-3 dB)
V electret mic	+9 V DC
limiter range (gooseneck mic)	30 dB

HEADPHONES DRIVER AMP

max. load	100 ohms
max. output level	normal 17 V rms binaural 2x 8.5 V rms
max. output power	normal 1 W rms (at 200 ohms) binaural 2x 0.2 W rms (at 400 ohms)

SPEAKER DRIVER AMP (PS 130/230/430/630)

speaker impedance	16 ohms
max. output power	1.3 W rms

SIDETONE

rejection	0 - 30 dB adjustable
-----------	----------------------

BUZZER

max. SPL	100 dBA
----------	---------

AUX INPUT (PS 278/280/680)

input impedance	11 Kohms
gain	0 dB (line level) 20 dB to 40 dB adjustable (mic level)
nominal input level	-20 dBu to +10 dBu (line level) -60 dBu to -10 dBu (mic level)
max. input level	+21 dBu (line level) 0 dBu (mic level)
phantom power	+30 V DC (mic level selected)

PROGRAM INPUT (PS 630)

input impedance	47 Kohms
nominal input level	-12 dBu to +6 dBu
max. input level	+16 dBu

DIRECT MIC OUTPUT (PS 630)

output impedance	50 ohms (balanced)
nominal output level	+6 dBu
max. output level	+24 dBu

Note: 0 dBu defined as 775 mV rms into open circuit.

In keeping with our policy of continued improvement, ASL reserve the right to alter specifications without further notice. This range of products was designed, developed and produced by ASL Intercom BV, Utrecht, Holland.

TALK and CALL functions

For each channel a TALK and a CALL button is provided, both with a LED indicator.

Volume Control

Headset volume control enables the user to adjust the listen level of the communication signals, and, for the PS 29 M dual channel beltpack, to individually adjust the listen level of each channel in any required balance.

Mic Mute

Each beltpack is provided with a mic mute circuitry, allowing a push button on PRO Series master stations or power supplies to mute the headset microphone.

AUX Program Input (PS 19A M only)

A XLR-3 connector on the rear panel is provided allowing an external program signal to be mixed into the headset. It has its own volume control on the front panel.

Binaural Headset Connector (PS 19A M and PS 29 M only)

As an option, a XLR-6 headset connector can be fitted allowing the user to route each channel to a different headset can. For the PS 19A M this allows the intercom signal to be heard at the left headset can and the program signal at the right headset can.

This series of three beltpacks are single or dual channel portable intercom stations housed in a strong aluminium case with a sprung metal belt clip. They are powered via the intercom party line from a PRO Series master station or separate power supply unit. All electronic circuitry is based on surface mount technology, offering maximum durability and ease of technical service.

PS 19 M

SINGLE CHANNEL BELTPACK IN METAL CASE



PS 19A M

SINGLE CHANNEL BELTPACK WITH AUX PROGRAM INPUT IN METAL CASE



PS 29 M

DUAL CHANNEL BELTPACK IN METAL CASE



PS 19



SINGLE CHANNEL BELTPACK IN ABS CASE

PS 19A

SINGLE CHANNEL BELTPACK WITH AUX PROGRAM INPUT IN ABS CASE



DUAL CHANNEL BELTPACK IN ABS CASE



PS 29

This series of three beltpacks are single or dual channel portable intercom stations housed in a strong ABS case with a sprung metal belt clip. The operational features are the same as at the beltpacks in metal case. For all electronic circuitry, conventional (not surface mount) parts are used.

PS 278 DUAL CHANNEL MASTER STATION



The PS 278 is a 2-channel intercom station with a built-in power supply, housed in a 19"/1U metal case. It provides all the features necessary for a two channel communication system, in conjunction with the PRO Series beltpacks and speaker stations.

Power Supply Section

The built-in power supply can safely drive 20 beltpacks or 10 dual channel speaker stations, or a combination of the two.

TALK and CALL Functions

For each channel a TALK and a CALL button is provided, both with a large LED indicator.

Volume Controls

For each channel a headset volume control is provided.

Mic Mute

An ALL MICS MUTE push button is

provided, allowing the user to mute the microphones of all connected PRO Series user stations. When the PS 278 is turned on, all mics are muted automatically.

Buzzer Mute

The PS 278 is provided with an ALL BUZZERS MUTE push button allowing the user to mute the buzzers of all connected user stations.

AUX Program input

A XLR-3 connector on the rear panel allows access to the intercom lines for external audio signals. On the front panel an AUX signal volume control is

provided. Routing switches allow access to channel A, channel B, channel A + B, or to local headset only.

Binaural Headset Connector

As an option, a XLR-6 headset connector can be fitted, allowing the user to hear channel A + AUX program

signal on the left headset can and channel B + AUX program signal on the right headset can. By changing the position of internally mounted jumpers, it is also possible to get channel A + B on the left can and AUX program signal on the right can.

PRO SERIES ARCHITECTS AND ENGINEERS SPECIFICATIONS

The intercom system shall be of the full duplex type and consist of one or more party lines (so-called 'channels'), to which all user stations are connected, enabling the users to 'talk' and 'listen' simultaneously.

The user stations shall be powered by intercom power supplies with built-in line impedance via the interconnecting cables. All interconnecting cables shall be of the balanced microphone cable type with connectors of the XLR-3 type.

All user stations shall have heavy-gauge steel, aluminium or strong ABS housing and high quality controls and connectors. All rack mount housings shall be of 19" format.

All user stations shall provide automatic headset detection and reverse power protection.

All intercom audio circuitry shall provide a dynamic range of 80dB and a frequency range of 200 Hz to 15 kHz (-3dB), high power amplification for headsets of 1 W rms, and a 'high intelligibility' frequency correction.

All user stations shall have a CALL system, offering both flashing visual and audible signalling. It shall be possible to centrally disable all audible CALL signals. Each channel shall have its own CALL button and CALL indicator on each station. All user stations shall have volume control of the audible CALL signal and, for

each channel, trimmers for side-tone adjustment.

All user stations shall have 'Mic Mute' circuitry. A Mic Mute push button on the intercom power supply shall enable the user to centrally disable all microphones connected to the user stations.

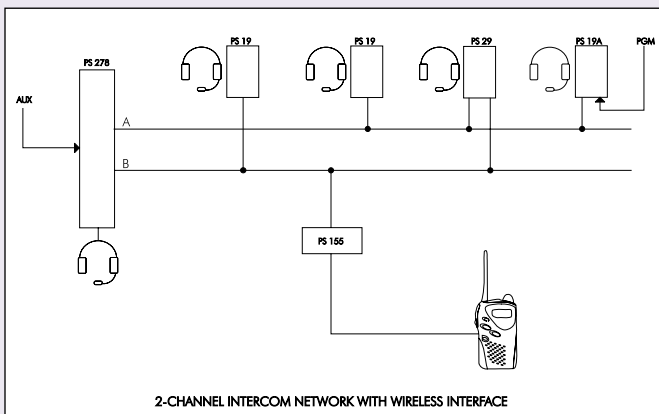
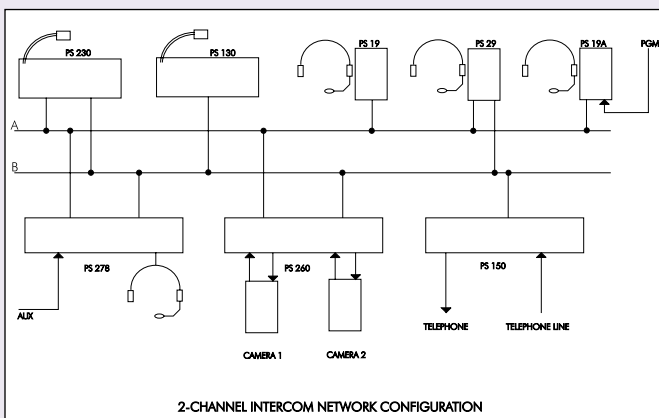
All 'Mic On' (Talk) switches shall have three positions: 'on', 'off' and 'momentary on'. It shall be possible to connect any dynamic headset with headphone impedance 100 ohms - 2K ohms and with a dynamic or electret microphone.

All power supplies shall be of the switched mode type and maybe connected to mains voltages from 100 - 240 V AC (50/440Hz). Power supplies shall be fully protected and shall have LED status indication for 'power on' and 'overload'.

The intercom system shall provide a volume controlled input for balanced auxiliary program audio signals.

The intercom product range shall at least embody a two channel master station with built-in power supply; one and two channel beltpacks; one, two, four and six channel speaker stations; two and six channel separate power supplies, 6-channel matrix switches, 4-wire and telephone interfaces and accessories such as line-sockets, line split boxes, a CALL beacon, headsets and handsets.

The intercom system shall be the PRO series of ASL Intercom.



SINGLE CHANNEL SPEAKER STATION

PS 130



DUAL CHANNEL SPEAKER STATION

PS 230



SIX CHANNEL SPEAKER STATION

PS 630



FOUR CHANNEL SPEAKER STATION

PS 430



This series of speaker stations provide single, dual, four or six channel table top intercom stations, fitted with an electret 'noise cancelling' gooseneck microphone and loudspeaker. The models with suffix 'RM' are identical except the gooseneck microphone is replaced with a small built-in electret microphone. For each type of speaker station, a kit is available for 19" rack mounting (2U).

The speaker stations are powered via the intercom party line from a PRO Series master station or separate power supply unit.

TALK and CALL functions

For each channel a TALK and a CALL push button is provided, both with a large LED indicator.

Volume Controls

Speaker/headset volume controls enable the user to adjust the listen level of each channel in any required balance. In addition, a speaker attenuation trimmer is available to set the required dim level on the loudspeaker, when the gooseneck microphone is active.

Master Volume Control (PS 430/630 only)

To ease operation, a master volume control is provided on the front panel.

Mic Mute

A push button on PRO Series master stations or power supplies allow the user to mute the gooseneck or headset microphone.

Headsets

At a XLR-4 connector on the front panel, headsets with dynamic or electret microphones can be connected as standard. Mic gains for gooseneck and headset mic. can be adjusted internally.

Binaural Headset Connector (PS 230/430/630)

As an option, a XLR-6 headset connector can be fitted allowing the operator to use the headset in a binaural function. By setting internally mounted jumpers, each of the channels can be assigned to either the left headset can, the right headset can, or both headset cans.

Channel on/off function (PS 630 only)

A channel can be switched off by turning the listen level (volume) control of that channel counter clockwise. When a channel is switched off, incoming calls will still be received.

Program Input (PS 630 only)

An electronically balanced input allows volume controlled monitoring of an external audio (program) signal. The Program Volume control knob is on the front panel. The PGM signal will appear on the headset can or loudspeaker (local monitoring only, the signal will not appear on the intercom lines).

Mic Direct Out (PS 630 only)

The pre-amplified an electronically balanced microphone signal is available at the rear panel, which may be sent to paging systems.

PS 130/230 in 19"/2U format



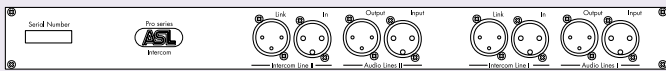
PS 430/630 in 19"/2U format



PS 260(T) DUAL CHANNEL 4-WIRE AUDIO INTERFACE



The PS 260 is designed to interface an ASL intercom system to external audio equipment or to a 4-wire intercom system. This allows fixed 4-wire systems to be temporarily extended with ASL intercom stations, or a 4-wire TV camera intercom can be connected directly onto an ASL network. Other applications for the PS 260 might be the injection of external audio signals into ASL intercom lines or monitoring of the intercom signals by recorders or paging systems.



(Rear panel)

This dual channel unit is housed in a steel 19"/1U case and is powered via the intercom party line from a PRO Series master station or separate power supply unit.

Inputs and Outputs

For each channel an input level control and an output level control are provided on the front panel. The inputs are electronically balanced,

the outputs are transformer balanced. The PS 260T is identical to the PS 260 except that it has transformer balanced inputs.

Sidetone

Trimmers and Test Tone

For each channel, a two stage sidetone trimmer with test tone signal is provided.

PS 150 SINGLE CHANNEL TELEPHONE INTERFACE



The PS 150 is designed to interface an ASL intercom system to a telephone or 2-wire system and is used to allow communication between an ASL intercom network and a standard telephone, or between two ASL intercom networks via a telephone line.

This single channel unit is housed in a steel 19"/1U case and is powered via the intercom party line from a PRO Series master station or separate power supply unit.

Intercom Line Level Controls

Receive and send level controls are provided on the front panel.

Telephone Line Controls

On the front panel are a 'connect' switch and a 'hold' LED indicator.

Sidetone

Trimmers and Test Tone

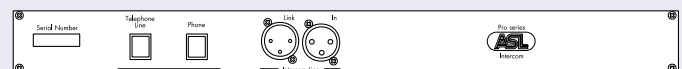
- Two sidetone trimmers are provided:
- a two stage trimmer which controls the internal input/output separation of the intercom line
 - a trimmer which controls the inter-

nal input/output separation of the telephone line.

The PS 150 has a built-in test tone signal to aid side-tone adjusting procedures.

Headset

A XLR-4 connector on the front panel allows a headset to be connected for monitoring the side-tone adjusting procedures.



(Rear panel)

PS 155 WIRELESS INTERFACE

The ASL PS 155 is designed to be a tabletop, single channel audio interface between simplex wireless intercom systems and ASL partyline intercom systems. Special attention has been paid to the ease of operation by the user, enabling the user to expand his intercom system with a reliable and locally approved wireless intercom system.

Input / Output

Both in/outputs are transformer balanced. In receive mode (RX) the audio from the wireless system is sent to the wired intercom system. Its volume can be controlled via a 'Receive' volume knob. In transmit mode (TX) the audio signal from the wired intercom system is sent to the wireless system. Its volume can be controlled via a 'Send' volume knob.

Sidetone

A three stage, high rejection, sidetone circuit can be adjusted to maximum setting using the built-in test tone generator. This gives the user an optimum performance for all transmit modes available.

Three modes are available to switch from receive to send. The users select the most appropriate with a switch at the front panel. These modes are:



CALL

Transmit mode can be enabled by pushing any CALL button at the connected intercom units. All audio present at the wired intercom will be broadcasted onto the wireless system. The buzzers of all connected stations are automatically disabled in this mode.

PTT

Transmit mode can be enabled by an external switch that can be connected to the PS 155.

VOX

Transmit mode can be enabled by an audio detection circuit on the wired intercom. The VOX circuit has a special frequency contouring circuit that is optimised for the human voice. The attack level and release time can be adjusted at the front panel.

PS 280 DUAL CHANNEL POWER SUPPLY



The PS 280 is a dual channel power supply in a 19"/1U metal case. It provides all the features necessary for a 2-channel communication system in conjunction with PRO series belt packs and speaker stations.

The PS 280 can safely drive 20 belt packs or 10 dual channel speaker stations, or a combination of the two.

Mic Mute

The PS 280 is provided with an ALL MICS MUTE push button allowing the user to mute the microphones of all

connected PRO Series user stations. When the PS 280 is turned on, all mics are muted automatically.

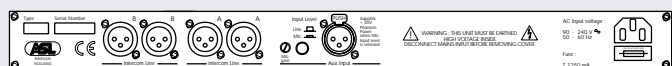
Buzzer Mute

The PS 280 is provided with an ALL BUZZERS MUTE push button allowing the user to mute the buzzers of all connected user stations.

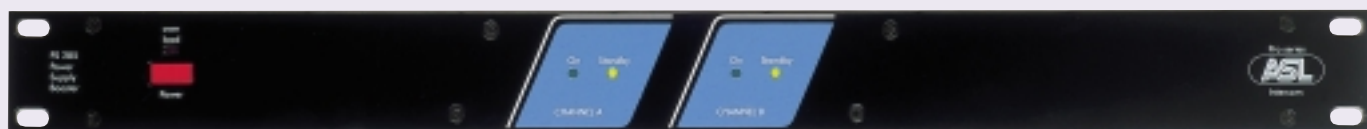
AUX Program Input

A XLR-3 connector on the rear panel allows access to the intercom lines for external audio signals. An AUX signal volume control for each channel is provided at the front panel.

(Rear panel)



PS 285 DUAL CHANNEL BOOSTER POWER SUPPLY



The PS 285 is designed for use as an auxiliary 2-channel power supply unit, should the main power supply of an intercom network be insufficient to drive the required number of stations. The unit has to be placed in a network in such a way that it feeds its own group of user stations.

The PS 285 is housed in 19"/1U metal case and is capable of safely driving 20 belt packs or 10 dual channel

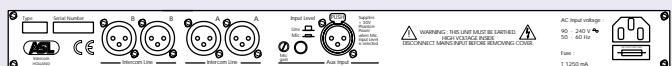
speaker stations, or a combination of the two.

Remote controlled Standby Mode

This feature enables the user to activate or de-activate the PS 285 with the power on/off switch of the main power supply. The standby LED's on the front panel illuminate if there is

no line power (from the main power supply) available at the input connectors. The PS 285 will not supply power until the standby mode has been released by providing line power at the input.

(Rear panel)



PS 680 SIX CHANNEL POWER SUPPLY



The PS 680 is a six channel power supply in a 19"/1U metal case. It provides all the features necessary for a 6-channel communication system in conjunction with the PRO Series belt packs and speaker stations.

The PS 680 is capable of safely driving 40 belt packs or 20 dual channel speaker stations, or a combination of the two.

Mic Mute

The PS 680 is provided with an ALL MICS MUTE push button allowing the user to mute the microphones of all connected PRO Series user stations. When the PS 680 is switched on, all mics are muted automatically.

Buzzer Mute

The PS 680 is provided with an ALL BUZZERS MUTE push button allowing the user to mute the buzzers of all connected user stations.

Remote Mic/Buzzer Mute

A 25 pin sub-D connector on the rear panel allows the user to connect a switchbox with push buttons for remotely muting the mics or buzzers for each channel separately.

AUX Program Inputs, AUX Matrix

Two XLR-3 connectors on the rear panel allow access to the intercom lines for two external audio signals.

On the rear panel, gain pots are provided for adjusting mic level signals. Two AUX signal master volume controls (one for each AUX input) and an AUX Matrix are provided at the front panel, having two AUX signal volume controls (input 1 and 2) for each channel.

(Rear panel)

