Visikom® System Shown with Two CE-2A-AC Telephones

SYSTEM COMPONENTS

PVP-6 Module

PVP-24 with four PVP-6 Modules Installed

ACCESSORIES

CE-2A-AC

DP-1A

TS302A

FEATURES

- Conversational Privacy with Clear Audibility
- Up to 24 Independent and Simultaneous Conversations
- Wide Selection of Telephone Styles and Accessories to Meet Functional Requirements
- Expansion Convenience of Plug-in Interface Modules
- Complete System Includes Built-In Power Supply and Crosstalk Filter Circuitry

APPLICATIONS

Modular telephone intercommunication system provides up to 24 paired conversation paths between handset stations for use where protective physical separation between communicating individuals must be maintained. Typical applications include visitation areas of detention, correctional and penitentiary facilities as well as commercial applications such as customer phones.

Versatile system can parallel more than one handset station on the visitor side of each communication link to accommodate multiple guests (additional family members, attorneys, etc.). Optional activation control and usage-monitoring can also be added via a switch turret with annunciator lights for administrative staff or guard supervision (by others).

GENERAL DESCRIPTION

The Atlas Sound Visikom® System accommodates up to 24 independent telephone conversations of two or more telephone stations each. The unique filter circuitry of the PVP-6 plug-in modules assures absolute privacy and freedom from crosstalk. This plug-in module design provides simple installation, servicing, and expansion capability.

The easy to install Visikom® system is comprised of Model PVP-24 control unit and PVP-6 plug-in interface modules. The system requires standard two form “C” (DPDT) hookswitch telephone stations to operate.

The PVP-24 control unit is a compact, surface mounting (via keyhole slots) cabinet constructed of 18-gauge CRS with a textured black finish. The PVP-24 houses the integral power supply and has four plug-in module slots with adjacent 3⁄4" cable access holes for easy installation of up to four PVP-6 modules. System is secured with a screw-mounted cover.

Each PVP-6 plug-in module will activate up to six isolated telephone lines for a maximum Visikom capacity of 24 lines. Wiring requirements are two-conductor, “telephone style”.

Atlas Sound carries a selection of telephone intercom accessories. For the complete line of options and accessories, see SL8-1434.

Specifications subject to change without notice

VISIKOM SPECIFICATIONS						
MODEL	**DESCRIPTION**	**POWER REQ.**	**POWER OUTPUT**	**CAPACITY**	**DIMENSIONS (W x H x D)**	**WEIGHT**
PVP-24	24 Line Control Unit	117 VAC	8 VAC @ 2 Amps	Four PVP-6 Modules	9½" x 13" x 4½" 241 x 330 x 114mm)	7.6 Lbs. (3.4 kg.)

VISIKOM PVP MODULE SPECIFICATIONS				
MODEL	**DESCRIPTION**	**POWER INPUT**	**OUTPUT**	**WEIGHT**
PVP-6	Plug-in Interface Module	8 VAC	Six Isolated Phone Lines	1.3 Lbs. (.6 kg.)

HANDSET/HOOKSWITCH SPECIFICATIONS*							
MODEL	**MOUNTS**		**HANDSET STYLE**	**HANGER TYPE**	**CORD STYLE**	**HANGER DIMENSIONS (W x H x D)**	**WEIGHT**
	E.O. BOX	**ENCLOSURE**					
CE-2A	2 gang	TS302A	500 Style	Chrome	Coiled Cord	4½" x 4½" x 2¼"	1.2 Lbs. (.55 kg.)
CE-2A-AC	2 gang	TS302A	500 Style	Chrome	25" Armored Cable	4½" x 4½" x 2¼"	1.2 Lbs. (.55 kg.)
DP-1A	Desk Phone	-	2500 Style	Desk Style	Coiled Cord	4¾" x 4¾" x 8½"	2.7 Lbs. (1.2 kg.)

*** See SL8-1434 for complete descriptions and options on handsets and hookswitch specifications.**

SURFACE-MOUNT TELEPHONE INTERCOM HOUSING			
MODEL	**MOUNTS INTERCOM STATION**	**DIMENSIONS (W x H x D)**	**WEIGHT**
TS302A	CE-2A	4 11/16" x 4⅝" x 2 15/32"	1 Lb. (.45 kg.)

ARCHITECTS' AND ENGINEERS' SPECIFICATIONS

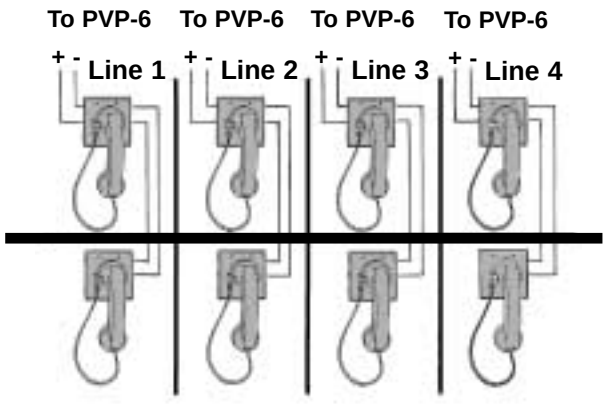
The telephone visitation system shall be Atlas Sound Visikom system or approved equal. Control unit Model PVP-24 shall be self contained and include power supply and provisions to accept up to 24 independent telephone intercom lines. Filter circuitry shall eliminate crosstalk interference and shall be on plug-in modules (Model PVP-6 or approved equal). System shall operate on 117 VAC at 50-60Hz and shall be compatible with standard DPDT handset/hookswitch assemblies (Model Series CE, DP, or approved equal).

TYPICAL VISITATION LAYOUT

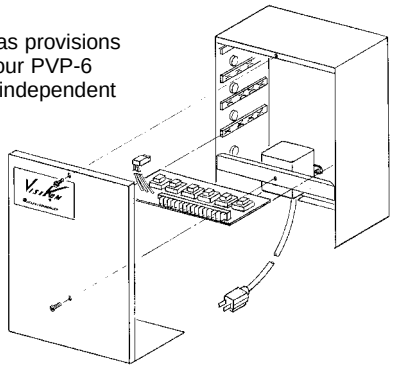
TELEPHONE STATIONS: Model Series CE, DP or equivalent

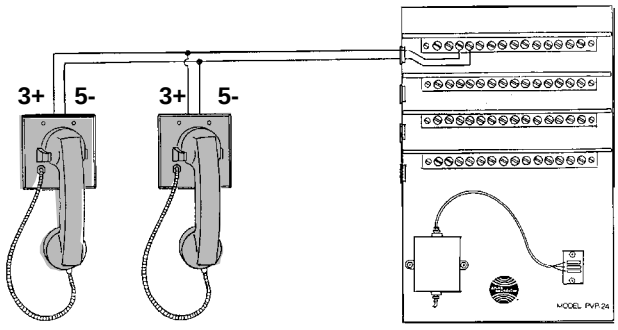
TERMINATION: Connect telephone line to terminals 3(+) and 5(-)

NOTE: More than two telephone stations may be used per line



Model PVP-24 has provisions to accept up to four PVP-6 modules and 24 independent telephone lines.





Specifications subject to change without notice

Northeast Total Communications

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PK101-WA

PK100-WA
on PKS-13A Stand

PK201-WA

PK200-WA

PK301-DA

PK300-DA

APPLICATIONS

PageKom® one and two-line common-talk paging systems (complete with an additional "page only" line) are ideal for use wherever cost-efficient and dependable intercommunication and paging are necessary. The single and two-channel systems are fully compatible so that equipment may be tailored to meet specific application requirements. Typical installations for all models include commercial and service-oriented businesses, as well as manufacturing, production, distribution, and storage facilities.

GENERAL DESCRIPTION

Selection includes one and two-channel models in wall and desktop versions. Models with integrated loudspeaker provide paging flexibility in remote areas where overhead announcements are not practical. PageKom® systems require power control unit Model PKC24-30, a system amplifier (by others), and necessary wiring (by others). Desk phone models also require Model PK10-TA terminal box. For wiring information, refer to wire guide found on page 4 or installation manual #286919.

ONE AND TWO-CHANNEL WALL PHONES

PK101 / PK100 Series. Models PK101-WA and PK100-WA are one and two-line stations, respectively, for wall or pedestal mounting. Assemblies feature a "500" style handset with factory-mounted SPDT-type paging switch, cast metal hookswitch, and LED busy lights mounted within a CRS housing. The transmitter is carbon and the receiver is dynamic. The hookswitch offers two, form-C contacts and an external loudspeaker muting device.
The line-page switch is a double-pole, three-position slide switch with a decorative button. With the switch in the center position, paging may be accomplished without disturbing the "talk" channels. A red LED busy light is used for channel one and a green LED busy light is used for channel two (note: second channel is found on Model PK100-WA only).

Heavy-duty CRS housing is finished in neutral gray epoxy with silk-screened nomenclature. Hook-up terminals are numbered for easy wiring. Dimensions: 6½"H x 4½"W x 2"D (165 x 114 x 51mm). Detailed specifications are found on page 2.

ONE AND TWO-CHANNEL WALL PHONES WITH LOUDSPEAKER

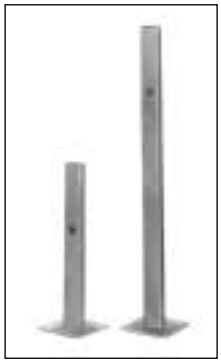
PK201 / PK200 Series. Versatile Models PK201-WA and PK200-WA are one and two-line wall stations, respectively, and incorporate the same features as the PK101/PK100 Series with the addition of an integral loudspeaker. This loudspeaker provides paging capability at the handset. Models are ideal for application in remote and private areas where close-up direct paging transmission is desired.

Units include a 2½" (64mm) loudspeaker and 25-volt transformer with 1/2 and 1-watt taps. The speaker has a 1 oz. magnet, an 8-ohm voice coil, and 200-ohm potentiometer for screwdriver-adjust volume control. To provide uninterrupted conversation and paging capability, the internal loudspeaker is muted when the handset hookswitch is activated. Wall-mount housing is constructed of CRS and finished in neutral gray epoxy. assembly measures: 7⅞"H x 4½"W x 2"D (200 x 114 x 51mm). Detailed specifications are found on page 2.

ONE AND TWO-CHANNEL DESK PHONES WITH LOUDSPEAKER

PK301 / PK300 Series. Desk phone Models PK301-DA and PK300-DA are one and two-line stations, respectively. Units offer the same features as the PK201/PK200 Series except being designed for desktop application. Housings are molded from high-impact plastic and finished in neutral gray epoxy. These desk stations require accessory terminal box Model PK10-TA terminal box (order separately). Detailed specifications are found on page 2.

PKC24-30



PKS-24A PKS-24A

PK10-TA

POWER SUPPLY CONTROL UNIT

PKC24-30. Power controller with full-wave rectifier and pi-section filter delivers 24 volts at 3 amps to service up to 45 stations. A 100K-ohm potentiometer (with screwdriver adjust) controls the input from any background music input to the amplifier. he relay section has two line and one page relay. Relays are 24 VDC, DPDT plug-in type (with 700 ohm coils and 30 mA. operation) complete with dust cover for long life and easy servicing. Assembly also includes a non-switched, 117 VAC convenience outlet. (Maximum current is 250 mA. at 24 VDC; power source and busy-light circuits are fused to prevent overload.)

For expansion convenience, a jumper terminal is provided for simple addition of Atlas Sound auxiliary power supply Model PS24-30 capable of powering up to 45 more stations (90 total). Terminations are screw terminals for system wiring and phono plugs for the amplifier and program source. The CRS housing is finished in black with a textured black cover and measures 3½"H x 13½"W x 7¾"D (89 x 343 x 197 mm). Refer to charts at right for detailed specifications.

PEDESTAL PHONE STANDS (OPTIONAL)

PKS Series. These 13" H and 24" H single pedestal phone stands are available for station mounting in open areas and where free-standing access is preferred. Units mount easily to countertop surfaces and feature a removable top caplug for access to wiring concealed in the leg. Stands are of rectangular CRS tube construction and MIG welded to an 11-gauge CRS mounting base for dependable strength and stability. Finish is neutral gray epoxy. Tubular leg dimensions: 1½" x ¾" (38 x 19mm). Base dimensions: 4" Sq. (102mm). Refer to charts below for detailed specifications.

TERMINAL BOXES

PK10-TA. Terminal box is constructed of rugged CRS and is required for application with Model PK300-DA/PK301-DA desk stations. Unit comes complete with a 10-point barrier strip for screw terminal connection and a six-foot, 10-conductor cable terminated with spade lugs. Terminals are numbered for easy identification. Terminal box is finished in neutral gray epoxy. Dimensions: 5⅝"H x 4⅛"W x 1⅜"D (143 x 105 x 41mm). Refer to charts at right for detailed specifications.

WALL AND DESK PHONES						
DESCRIPTION	**ONE CHANNEL SYSTEMS**			**TWO CHANNEL SYSTEMS**		
MODEL	**PK101-WA**	**PK201-WA**	**PK301-DA**	**PK100-WA**	**PK200-WA**	**PK300-DA**
CARBON TRANSMITTER	50-ohm impedance (nominal)					
DYNAMIC RECEIVER	200-ohm impedance (nominal)					
PAGING SWITCH	**SPDT**					
CHANNEL SWITCH	**DP-3 position**					
VOLUME CONTROL	None	Internal	Internal	None	Internal	Internal
CONTACTS	**Speaker muting**					
CHANNEL LIGHTS	Red LED			Red and Green LEDs		
LOUDSPEAKER	None	2-1/2" (64mm) with 1 oz. magnet		None	2-1/2" (64mm) with 1 oz. magnet	
TRANSFORMER	None	25 volts, 1/2 and 1-watt taps		None	25 volts, 1/2 and 1-watt taps	
CONNECTIONS	**Screw Terminal**					
FINISH	**Neutral Grey Epoxy**					
DIMENSIONS	6.5"H x 4.5"W x 2"D	7.9"H x 4.5"W x 2"D	4.75"H x 9"W x 9"D	6.5"H x 4.5"W x 2"D	7.9"H x 4.5"W x 2"D	4.75"H x 9"W x 9"D
WEIGHT	3 lbs. (1.4 kg)	4 lbs. (1.8 kg)	3.5 lbs. (1.6 kg)	3 lbs. (1.4 kg)	4 lbs. (1.8 kg)	3.5 lbs. (1.6 kg)

PEDESTAL PHONE STANDS FOR PK101-WA / PK100-WA SERIES		
MODEL	**PKS-13A**	**PKS-24A**
FINISH	**Neutral Gray Epoxy**	
DIMENSIONS	Tube: 13"H x 1-1/2"W x 3/4"D; Base: 4" SQ. (330 x 38 x 19mm); (102mm)	Tube: 24"H x 1-1/2"W x 3/4"D; Base: 4" SQ. (610 x 38 x 19mm); (102mm)
WEIGHT	2 lbs. (1 kg)	3 lbs. (1.4 kg)

Specifications subject to change without notice

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POWER SUPPLY CONTROL UNIT	
MODEL	**PKC24-30**
POWER INPUT	105-125 VAC, 60 Hz
CONVENIENCE OUTLET	117 VAC (not switched)
POWER OUTPUT	24 VDC @ 3 amps (operates up to 45 telephones)
EXTERNAL POWER INPUT	24 VDC up to 3 amps (expands system for an additional 45 phones)
AUXILIARY OUTPUT POWER	24 VDC @ 250 mA. fused
FUSED CIRCUITS	Transformer primary, power to busy light circuits, auxiliary output power
RELAYS	Plug-in type with plastic dust cover, DPDT, 24 VDC coil, 3-amp contact rating
PROGRAM INPUT	Any background music source, internal level adjustment
AUXILIARY CONTACTS	SPDT contacts, actuated when paging
TERMINATIONS	Screw terminals for system wiring, phono plugs for amplifier, and program source
FINISH	Black with textured black cover
DIMENSIONS	3½"H x 13½" W x 7¾"D (89 x 343 x 197mm)
WEIGHT	11½ lbs. (5.21 kg)

TERMINAL BOXES	
MODEL	**PK10-TA**
TERMINATION	Screw terminals, one 10-point barrier strip, numbered, and covered
CABLE	6', 10-conductor, terminated with spade lugs
FINISH	Neutral Gray Epoxy
DIMENSIONS	5⅝"H x 4⅛"W x 1⅝"D (143 x 105 x 41mm)
WEIGHT	1½ lbs. (.7 kg)

TYPICAL SYSTEM OPERATION

To initiate a call, the calling party positions the selector switch to an unused line, removes the handset, depresses the page button, and pages the desired party. If using line two, instruct the paged party to select line two or the green light. When the paged party selects the proper channel and lifts the handset, conversation may begin immediately. Replacing both handsets frees the line for future use.

Should both lines be in use, position selector switch to “page only” and lift handset. By depressing page button, you can page the desired party and request that he return your call when the lines are free. During the paging process, any background music will be automatically muted. (Note: it is not necessary to keep the page button depressed while talking.)

ARCHITECT AND ENGINEER SPECIFICATIONS

Telephone Stations. Phone station shall be Atlas Sound Model _____ for (wall, pedestal, or desktop mounting). Handset shall be the standard 500 style and have a carbon transmitter and a dynamic receiver. Paging push switch shall be an SPDT-type. Channel selector switch shall be a double-pole, three-position slide switch with a separate paging position. There shall be terminals for (external, internal) speaker muting when paging and LED busy lights. Nomenclature shall be silk screened.

Add to PK201/200 and PK301/300 Series: Phone station shall have a 21/2" (64mm) dia. integral loudspeaker with a 1 oz. magnet. The line transformer shall be for a 25-volt line with 1/2 and 1-watt taps. Unit shall contain a 200-ohm screwdriver-adjust potentiometer to control speaker level.

Add to PK101/100 and PK201/200 Series: Cast metal hookswitch shall have two form-C contacts and be mounted on a rugged CRS housing finished in neutral gray epoxy.

Add to PK101/100 Series: Pedestal mounting models require phone stand Model ____ measuring (13 or 24) inches high. Stand shall be

constructed of CRS tubing, MIG welded to an 11-gauge CRS mounting base, and finished in neutral gray epoxy.
Add to PK301/300 Series: Unit shall include a neutral gray, high-impact plastic handset and case. Phone station shall be used in conjunction with Atlas Sound terminal box Model PK10-TA.

Power Supply. Control unit shall be Atlas Sound Model PKC24-30. Power supply section shall be 24 volts, 3 amp with a pi-section filter. Unit shall be capable of supplying 45 telephone stations. There shall be a provision to add the power capability of up to 45 additional stations with the addition of an external power supply. Relays shall be the plug-in type with plastic dust covers for protection. Each talk circuit shall have power supplied through a series silicon diode to reduce cross talk. There shall be extra contacts on the page relay for controlling auxiliary equipment. A 100K-ohm potentiometer with screwdriver adjust shall control the music input to the amplifier. Each busy-light channel shall be fused to avoid power supply overload.

Terminal Box. Box shall be Atlas Sound Model PK10-TA. Unit shall be complete with a 6-foot, 10-conductor gray cable terminated with spade lugs. It shall be constructed of CRS and finished in neutral gray epoxy.

Specifications subject to change without notice

WIRE GUIDE

Use this guide when designing a PageKom® installation to determine the proper wire size in conjunction with the number of phones used:

CONDUCTORS

DESCRIPTION	ONE CHANNEL SYSTEMS			TWO CHANNEL SYSTEMS		
MODEL	PK101-WA	PK201-WA	PK301-DA	PK100-WA	PK200-WA	PK300-DA
CONDUCTOR REQUIREMENT	5	7 (includes 2 for loudspeaker)		8*	10 (includes 2 for loudspeaker)	

* Running a 10-conductor cable for the PK100-WA is acceptable. Decision will depend upon the physical layout (i.e., if PK100-WA stations are interspersed, using the 10-conductor cable throughout would be more convenient).

For any installation, twisted pair or shielded pair cable is recommended. Twisted pair cable is usually satisfactory for most systems. For systems that require long cable runs, it is good practice to shield the "talk lines." Twisted pair cable has a certain amount of capacitance between conductors and on long runs can cause crosstalk.

The loudspeaker line pair should be used to power PageKom® phone loudspeakers only. If high power horn loudspeakers are used in the system, a separate loudspeaker line should be installed. Amplifier instability may result if a large loudspeaker load is connected to the loudspeaker line in the multi-pair cable.

WIRE SIZE

The talk and paging circuits will operate efficiently with 22-gauge wire. The busy-light circuits may require a larger wire size depending on the number of phones versus wire length. The charts below can be used as an aid in selecting the wire size for the busy-light circuits. The wire size was calculated based on a 6 to 7-volt drop due to wire resistance. (The 6 to 7-volt drop was chosen for its minimal effect on busy-light brightness.)

The calculations assume that the indicated number of phones are connected to the same wire run. Wire size can be decreased if the system has multiple wire runs with fewer phones per run.

WIRE CHART FOR ONE-CHANNEL PAGEKOM (PK101-WA, PK201-WA, PK301-DA)

CABLE LENGTH (FT.)	2	4	6	8	10	12	14	16	18	20	25	30
1000	22	22	22	22	22	20	20	20	18	18	18	16
900	22	22	22	22	22	22	20	20	20	18	18	18
800	22	22	22	22	22	22	22	20	20	20	18	18
700	22	22	22	22	22	22	22	22	20	20	20	18
600	22	22	22	22	22	22	22	22	22	20	20	18
500	22	22	22	22	22	22	22	22	22	22	20	20
400	22	22	22	22	22	22	22	22	22	22	22	20
300	22	22	22	22	22	22	22	22	22	22	22	22
200	22	22	22	22	22	22	22	22	22	22	22	22
100	22	22	22	22	22	22	22	22	22	22	22	22

NUMBER OF PHONES

WIRE CHART FOR TWO-CHANNEL PAGEKOM (PK100-WA, PK200-WA, PK300-DA)

CABLE LENGTH (FT.)	2	4	6	8	10	12	14	16	18	20	25	30
1000	22	22	22	20	20	18	18	18	16	16	16	14
900	22	22	22	20	20	18	18	18	16	16	16	14
800	22	22	22	20	20	20	18	18	18	16	16	16
700	22	22	22	22	20	20	20	18	18	18	16	16
600	22	22	22	22	22	20	20	20	18	18	18	16
500	22	22	22	22	22	22	20	20	20	20	20	18
400	22	22	22	22	22	22	22	20	20	20	20	18
300	22	22	22	22	22	22	22	22	22	22	20	20
200	22	22	22	22	22	22	22	22	22	22	22	22
100	22	22	22	22	22	22	22	22	22	22	22	22

NUMBER OF PHONES

To use the wire charts follow these simple steps:
- •Determine the number of phone stations.
- •Determine the length of cable in feet needed for the station busy lights.
- •Select the number of phones to be used on the horizontal line on the chart.
- •Follow the column vertically to the correct wire length in feet.

The number in the square will be the recommended wire size.

The following conversions will be useful when 22-gauge wire is paralleled to obtain other gauges:

14 gauge = (7) 22-gauge wires in parallel
16 gauge = (4) 22-gauge wires in parallel
18 gauge = (3) 22-gauge wires in parallel
20 gauge = (2) 22-gauge wires in parallel

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