
5105-Series Controller Features

- Cost-effective Solid-State Intercom
- Expandable to 96 Stations
- Privacy and Pre-announce Tones are User Selectable
- Telephone Paging to Multiple Paging Zones or All Call
- Easy Operation - Compatible with Existing Phone Systems
- Customer Configured via Software (optional)
- Optional Direct Architectural Room Dialing
- One Administrative Phone Port with Emergency Override Port
- Time-tone Signaling
- Optional Enhance Feature Card Add-on

Description

The Simplex 5105 is a high performance micro-processor controlled Building Communications System. It can be programmed for one-way, two-way, group call, and all call functions to speaker circuits using electronic switching.

The technologically advanced design of the 5105 uses no cumbersome mechanical switches, eliminating electrical and mechanical problems. Electronic switching allows paging and intercom function via a Touch-tone phone using simple commands.

A basic 5105-9001 system is factory configured to provide communications ability for up to 24 locations. If needed, the system can be easily enlarged by adding expansion cabinets accommodating groups of 24 stations to a combined total of 96 stations.

The basic 5105 system speaker circuits are pre-assigned to group call bins consisting of six speakers per group, with dial codes enabling the user to connect to multiple group combinations. All Call paging is also available.

Operation – Basic 5105 System

A 5105 has provision for one Administrative phone port with an overriding emergency All Call page port. Any standard touch-tone telephone can be used on either of these ports. A microphone and contact may also be used on the emergency page port instead of a telephone. Calls from any of the system's call-in stations are routed to the administrative phone for two-way communications. Three call-in priority levels are possible; low (Stations 21-24 only), normal, and emergency. Basic Caller ID (CLID), consisting of a pre-assigned two or three-digit number, is

available to the administrative phone port (using the supplied Administrative Phone with Display) for instant caller identification, especially important for emergency calls. The 5105 has been designed to interface with conventional in-house phone systems without the need for costly interface modules. In most applications, the existing phone system will access the 5105 communications system via one of its outside line ports (loop start trunk port required). The 5105's station speakers are directly coupled to the program and intercom amplifiers, eliminating conventional transformer losses and frequency limitations, and provides a much clearer signal for talk-back modes. This ensures system reliability since any shorted circuit only affects the one group of speakers; all other system speaker groups remain operational.



5105-Series Controller Base Unit

Each intercom station has the ability to place normal or emergency calls. Normal calls are placed by pushing the call button once; emergency calls are initiated by four repeated button pushes. Stations 21-24 have the ability to be programmed "low" priority. These four stations also have a relay contact associated with them to facilitate electric door latch operation. When a call is initiated from one of these four stations, the attendant presses the "*" key twice to unlock the door. This feature is especially useful in applications where access to building facilities need to be monitored and controlled.

The 5105 Administrative Phone has a 20-call queue. Emergency calls are placed at the top of the queue, followed by normal then low priority calls. In the event the Administrative station is handling calls, emergency calls will cause a distinctive triple signal in the phone as well as the calling speaker, while normal and low priority calls cause a double signal. The attendant simply presses “# #” to answer the next call in the queue.

The 5105 system is capable of playing background music to speakers not involved in hands-free communications or a one-way page. The groups of speakers to receive the audio source are determined by dip-switch settings during system installation. Typical applications for this feature include warehouse and factory areas where background music is desired.

Group paging is accomplished via the administrative phone by dialing the specific code associated with a pre-set page group. Multiple page groups can be simultaneously accessed by first dialing the serial page access code followed by the desired page group codes. To make an All Call page, the administrator dials the All Call page code.

The 5105 has the capability of “Meet-Me” and “Follow-Me” functions. The attendant makes a group or All Call page and waits for their called party to respond. The called party can then press any of the system’s call buttons twice to be connected to the attendant. To relocate, the caller initiates the Follow Me function by pressing another call switch twice. The individual is then re-connected to the attendant from his/her new location. Ideal uses for these features include store and warehouse inventory areas. Ability to locate key employees that may be anywhere in your facility at a given time when you need to communicate with them is an important element in any business.

A time-tone may be externally or internally generated and sounded through the system’s speakers. An external master clock is required for selecting time-tone schedules on the basic 5105. Work and Cleanup schedules can be easily broadcast to employees.

The basic 5105 has provisions for adding a printer to log system call activities.

All basic 5105 functions are programmed by circuit board “dipswitch” settings, or the 5105-9101 Enhancement can be purchased.

Optional Enhanced 5105 System

An optional 5105-9101 Enhanced Feature Card is available. By adding this feature card, all 5105 functions are programmed using a Microsoft Windows-based application.

All basic 5105 functions are available under the enhanced mode as well as the following features:

- Time and Date available to printer output
- Time and Date available for administrative phone

Caller ID display

- Enhanced CLID showing name/location of caller
- Time sync output available
- Four user defined page groups
- Riot mode (emergency call operation only)
- Programmable class of service (call buttons):
 - Normal call
 - Normal/Emergency call
 - Emergency only
- 1-4 digit Architectural Room numbering plan
- Auxiliary serial port for PC programming tool
- Real-time clock for time-tone schedule functions:
 - Six user defined event schedules
 - Up to 256 events maximum
 - One schedule/event active at any one time
 - Time sync output
- Optional Modem Package
 - Allows programming changes via modem from remote location (requires connection to C.O. Line or PBX station)

Both the basic and enhanced 5105 has the capability of adding the optional 5105-9202 external battery back-up, allowing system operation during a power failure. Paging system operation during a power failure helps to ensure the safety of a building’s occupants during an emergency evacuation situation. One back-up unit is required per 24 stations.

Multiple Basic or Enhanced 5105 systems (up to six) can be linked, allowing All Call paging or Emergency Override paging to be transmitted to more than one system. In a multi-building location, one 5105 system’s administrative phone can be designated as the global paging master, with all other 5105 systems having local paging capabilities only, with master override.



Typical Administrative Phone with Caller ID

Systems Integration

The 5105 is easily integrated with premise Key and PBX telephone systems. When integrated with the Simplex 5195 PBX system, the following features are available:

- Caller ID trunk integration (when call button provided)*
- Access to intercom and paging functions through PBX phones
- Universal night ring
- Override paging
- Evacuation tone activation

*Caller ID information can be passed from the 5105 system through the 5195 Caller ID trunk to an administrative phone equipped with a display. This is especially useful during emergency call-in situations, as the exact caller location is displayed. Station emergency call button must be provided.

Specifications

Attendant Port

- ♦ Loop Start Access (E-Key CO Line, Single-Line Port, Trunk Port of PABX)
- ♦ DTMF Access
- ♦ Caller ID Compatible
- ♦ Tip and Ring Input Impedance 600 W
- ♦ Tip and Ring Input Level -10 dBm Nominal

Ring Supply

- ♦ 90 VAC, 30 Hz - Ring Patterns
 - 2 Sec. ON, 4 Sec. OFF - American
 - 1 Sec. ON, 4 Sec. OFF - Dutch
 - Double Ring - British

Override Page Port

- ♦ Loop Start Access (E-Key CO Line, Single-Line Port, Trunk Port of PABX)
- ♦ Telephone System Page Port Access
- ♦ Tip and Ring Input Impedance 600 W
- ♦ Tip and Ring Input Level - 10 dBm Nominal

Background Music Amplifiers

- ♦ Input Impedance 10 kW
- ♦ Frequency Response 50 Hz to 17 kHz ± 3 dB
- ♦ Distortion <1.0%
- ♦ Signal to Noise -70 dB
- ♦ Output Impedance 45 W
- ♦ Output Power 1 watt per zone

Page Amplifiers

- ♦ Frequency Response 150 Hz to 17 kHz ± 3 dB
- ♦ Distortion <1.0%
- ♦ Signal to Noise -70 dB
- ♦ Output Impedance 45 W

Power Requirements

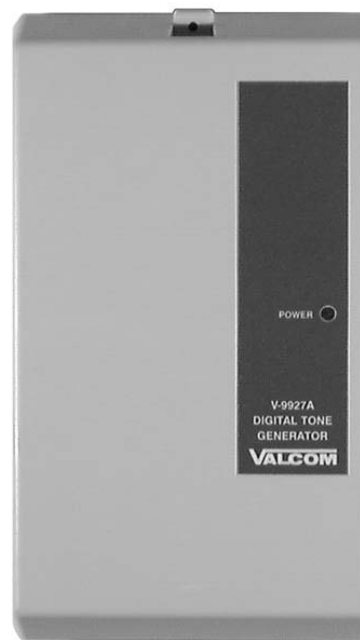
- ♦ Operating Voltage 120/240 VAC
- ♦ Current 1.0A @ 120 VAC, 0.5 A @ 240 VAC
- ♦ Frequency 50/60 Hz

Additional Inputs

- ♦ Inhibit (Ground Activated)
- ♦ Emergency Tone Input
 - Input Impedance 10 kW
 - Input Level -10 dBm
- ♦ Time Tone Input
 - Input Impedance 10 kW
 - Input Level -10 dBm
- ♦ Printer Port
 - Serial Type
 - Baud Rate 9600
 - 8 Data Bits, No Parity, 1 Stop Bit
- ♦ Environment
 - Temperature 0 to 40° C
 - Humidity 0 - 85% Non-precipitating
- ♦ Dimensions
 - Base Unit 19" H x 10-3/4" W x 3-3/8" D
 - Expander Unit 19" H x 8-3/4" W x 3-3/8" D

5105 Optional Equipment

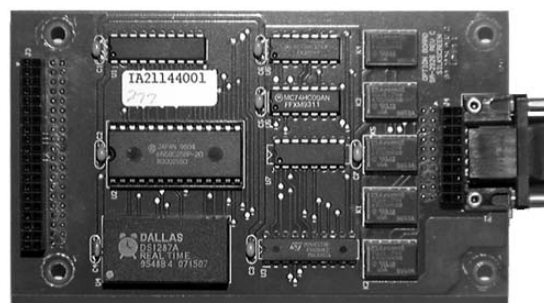
The illustrations that follow show some of the optional equipment available for the 5105 TrueCom systems.



5105-9203 Tone Generator



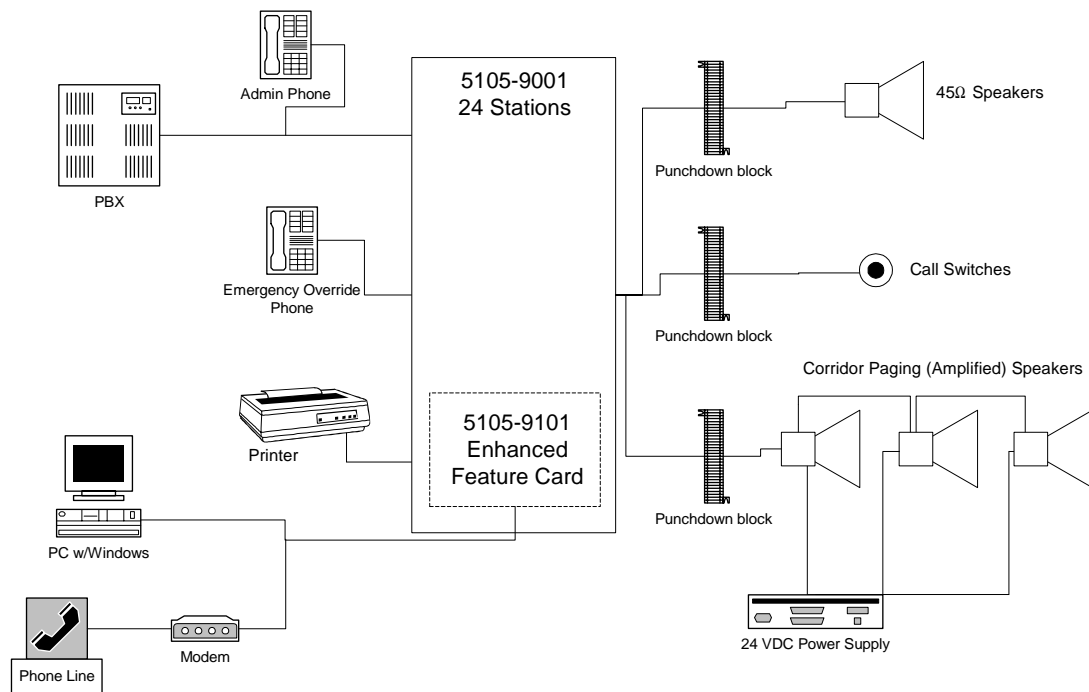
5105-9202 Battery Backup



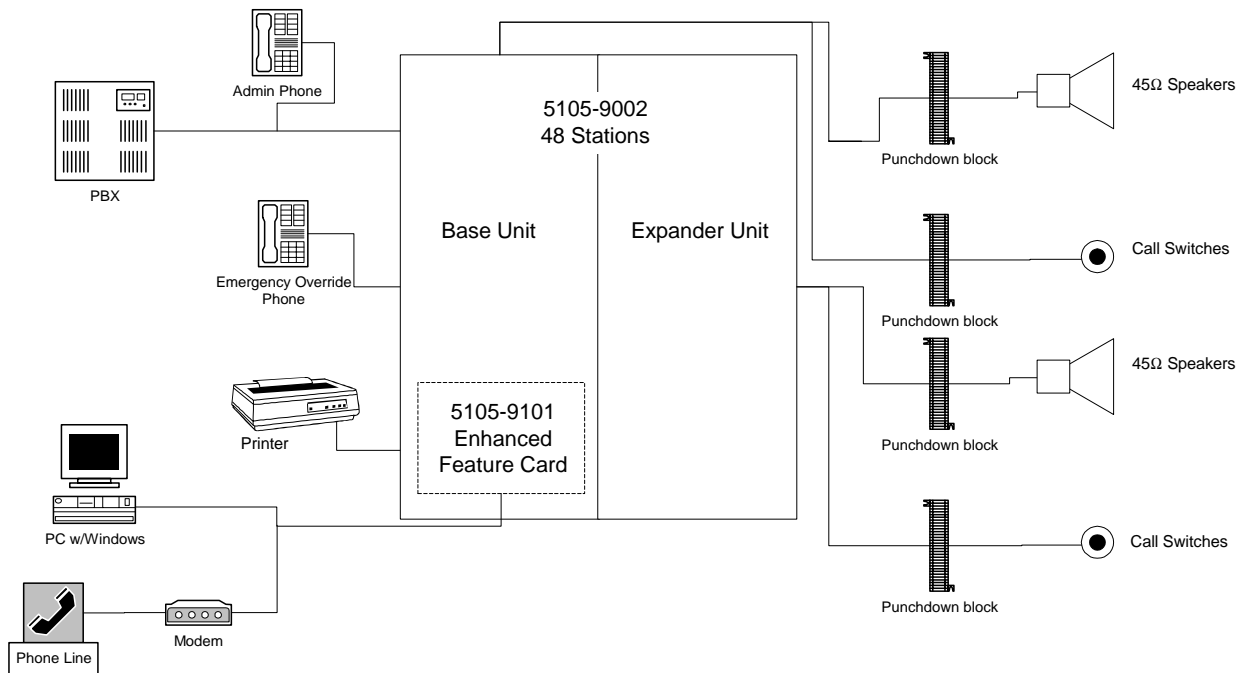
5105-9101 Enhanced Feature Card



**5105-9202 48-Station System
(Includes 5105-9201 Expander Module)**



5105-9001 System Block Diagram



5105-9002 System Block Diagram

5105 System Configuration

Part Description	5105-9001 Qty Each PID 24 Stations	5105-9002 Qty Each PID 48 Stations	5105-9003 Qty Each PID 72 Stations	5105-9004 Qty Each PID 96 Stations
5105 Basic Unit	1	1	1	1
5105-9201 24-Point Expander	0	1	2	3
5105-9801 Shipping Group	1	1	1	1
5100-9920 Punch Block	3	5	7	9
5120-9930 25-Pair Cables (5 feet)	3	5	7	9
6-Outlet Surge Suppressor	1	1	2	2
5120-9901 Telco Modular Single-Gang Plate	1	1	1	1
Administrative Phone with Display	1	1	1	1
5105-9101 Enhanced Feature Card	Optional	Optional	Optional	Optional
5105-9202 Battery Backup Unit*	Optional (1)	Optional (2)	Optional (3)	Optional (4)
5105-9203 Tone Generator	Optional	Optional	Optional	Optional
5105-9204 Tone Generator Power Supply**	1	1	1	1
5120-9237 Modem***	Optional	Optional	Optional	Optional

* Quantity required per system when ordering option.

** Quantity required when ordering a 5105-9203 Tone Generator

*** 5105-9101 Enhanced Feature Card must be ordered for modem operations.

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