



The Tech Works **2528** is a High Power Open-Voice Intercom Amplifier Substation for use with our *Voice-Call* product line. Amplifier has eight digitally controlled speaker select relays for connecting up to eight speakers. Each speaker can be any 25-Volt or 45 Ohm industry standard unit and has an associated call button input for connection of any normally open or normally closed maintained contact closure, or normally open momentary contact, as well as a call confirmation light output. All of our *Voice-Call* products employ solid-state control with a special limiting circuit to guarantee clear and consistent audio communication even in the most difficult acoustical environments. The power amplifier is short circuit protected and current limited for durability. The limiting circuit creates an unbelievable amount of accommodation allowing the operator to hear a whisper from a Substation one-minute and a scream the next without distortion or a change in listening level. The **2528** uses our very fast half-duplex VOX circuitry to communicate with any of our *Voice-Call* Masters over a simple three-twisted pair-wiring network. Our digital control network allows control from any of our Masters or a Personal Computer Interface. Up to (64) **2528** units can be connected to a single expanded network for a total of 512 speaker stations per system. The intercom is housed in a wall mount metal enclosure with a removable top for installer access to adjustments. A 25 pair Amp connector provides easy connection of field wiring via telephone industry standard punch down blocks (not included). In applications such as prisons

2528 INTERCOM AMPLIFIER SUBSTATION

w/REMOTE DIGITAL CONTROL

BENEFITS

- Very Fast VOX Operation
- All Solid-State Switching
- Simple Wiring
- Operates Over Fiber Optic, Microwave Link, or Wire

Design Information

18 VAC - < 2 Amps (12VDC – 165mA)

Dimensions - 6.2" W, 10" H, 2" D.

All Connections are Screw Terminals

Wiring is Three Twisted Pair Cable-22 Awg Min
(1 for Audio, 1 for Data, 1 for Central Power)

Audio Power Output 5 Watts into 45 Ohms

7 Watts into 10 Ohms

Distortion < 0.5%

or security systems, these amplifiers can be located near the speaker stations in an electrical room or terminal closet with just three twisted pair wiring run to the next unit or Master. This eliminates the need for home run wiring all the way home to a Master or Central Matrix Switcher. The **2528** uses a local AC transformer to provide power to the audio amplifier. The AC adapter is included and can be plugged into the nearest outlet. All communication is EIA standard 600-ohm telephone audio and RS485 data and when distance is an issue, fiber optic cable, microwave, and even satellite links can be used between units with the appropriate interfaces and local power source.

Tech Works™



"Making Specialized Communication Easy"

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Associated Equipment

2021	Intercom Speaker Station w/Integral Call-In Switch
2025	Intercom Speaker Station - 8" w/Round White Baffle - Ceiling/Wall Mount
2051	Intercom Patient Speaker Station
2052	Intercom Emergency Pull Cord Speaker with Station Acknowledge Light and Cancel Button
2590	Telephone Interface Master w/Caller I.D. and Digital Control
5221-*	"Help" Push Button w/Acknowledge Light
5234-*	Corridor Light. Passive Device w/4 Red Ultra Bright LED'S
5251	Patient Station w/Acknowledge Light
5252	Emergency Pull Station w/Acknowledge Light
5254	Corridor Light. Passive Device 4 Color
5255-*	Corridor Light. Passive Device 2 Color

DV12400	Power Supply	4.0 AMP	12 Volt DC	UL & CSA Listed
DV121000	Power Supply	10.0 AMP	12 Volt DC	UL & CSA Listed

Architects' and Engineers' Specifications

The Voice Communication System Intercom Substation shall be a surface wall-mounting device in a metal enclosure constructed of cold rolled steel with a powder coat epoxy finish. The Substation shall include a 25 pair Amp connector for connection of up to eight industry standard 25-Volt speaker/microphones, "Call-In" buttons, and "call confirmation" light. Each of the eight speakers shall be individually selectable and each "Call-In" switch shall report separately to a remote Master. The call confirmation light shall *flash* to show a call has been placed and change to *steady* while in communication with a Master. The voice control system shall be very fast with all solid-state switching, hands free with remote Master control. The link can be any communication path that is bi-directional and balanced to ground for 600-ohm loads. The link shall be as specified hereinafter and shall not require multiple conductor wire or home run wiring schemes for full operation. Any system requiring home run or star topology wiring shall not be considered under this specification. A four-position dipswitch, set by the installer, shall determine the Substation address. Any system not capable of installer programmable interaction of Substations shall not be considered under this specification. The Substation shall be an intelligent electronic device requiring no more than 2 Amps at 18 Volts AC for full operation. The Intelligent Substation shall employ EIA standard RS485 digital communication. The system shall operate on three twisted pair parallel wiring. Systems requiring more than three twisted pairs from one station to the next for full operation shall not be considered under this specification.

The Voice Communication System Intercom Substation shall be Tech Works Model 2528.