

AUDIO CONTROLLED SWITCHING MODULES

Specifications - Model 588C

GAIN.....	Microphone Setting = 17-55dB, Adjustable Line Setting = 6-40dB, Adjustable
THRESHOLD RANGE.....	30dB, Adjustable
DUCKING RANGE.....	0-60dB, Adjustable
ATTACK TIME.....	0.2us To 50ms, Adjustable
RELEASE TIME.....	200ms To 5 seconds, Adjustable
FREQUENCY RESPONSE.....	30Hz To 20KHz, +0, -1dB
DISTORTION.....	0.35% Maximum @ +15dBm
NOISE.....	-82dB Below 0dBm
POWER REQUIREMENTS.....	+15-18VDC @ 40ma Per Section
SIZE.....	2.5" x 8.0" x 1.1"

Architect's & Engineer's Specifications

The noise gate/ducker shall be constructed as a plug-in printed circuit board module. It shall be designed to allow up to 10 modules to fit in a rack mount card frame, requiring no more than 3.5 inches of vertical rack space. The noise gate/ducker shall be unpluggable from the front of the card frame, without the need to disconnect wires attached to the rear connector.

Each noise gate/ducker module shall contain two separate microphone/line, transformer isolated inputs. In addition, the module shall have provision for direct inputs to the summing buss. Channel one

shall function as a gated channel, with adjustable gain, threshold, attack & release times. Channel two shall function as a ducked channel, with adjustable gain, and attenuation. Both channels shall have a discrete, unbalanced output. In addition, each module will have a summed, transformer isolated output. The summed output will be the aggregate signal of channel one and two. The control circuitry for the gating/ducking action shall be driven by the output of channel one microphone/line amplifier. The noise gate/ducker shall be:

PROTECH AUDIO Corp. Model 588C

Specifications - Model 589

INPUT IMPEDANCE.....	Mic = 1.1K Ohms, Line = 10K Ohms
INPUT LEVEL RANGE.....	-90 dB To +30dB
PREAMPLIFIER GAIN.....	0-50dB, Adjustable
PREAMPLIFIER OUTPUT (Max).....	+20dBm
GATE SENSITIVITY.....	Minimum = -90dB, Maximum = +30dB
TURN-OFF DELAY.....	0.5-5 Seconds, Adjustable
REMOTE SENSING POT.....	10k Ohms
NOISE.....	-127 EIN
DISTORTION.....	0.25% Maximum, 30 Hz To 20KHz @ +14dB Out
CONTACT CONFIGURATION.....	CMOS = 2A, Relay = 2C
RESISTANCE, CMOS.....	On = 65 Ohms, Off = 5 Megohm Minimum
POWER REQUIREMENTS.....	+15-18VDC @ 55ma Per Section
SIZE.....	8"D x 2.5"H x 1"W

Architect's & Engineer's Specifications

The audio controlled switch (VOX) shall be constructed as a plug-in printed circuit board module. It shall be designed to allow up to 10 modules to fit in a rack mount card frame, requiring no more than 3.5 inches of vertical rack space. The audio controlled switch (VOX) shall be unpluggable from the front of the card frame, without the need to disconnect wires attached to the rear connector.

The audio controlled switch (VOX) shall have a built-in preamplifier capable of accepting microphone or line level audio signals. The gain of the preamplifier shall be adjustable via an on-board trimpot.

The preamplifier shall have a transformer isolated output capable of driving a 600 ohm line. The audio controlled switch (VOX) shall have both CMOS and relay closures, selectable via an on-board slide switch. The unit shall have provision for threshold adjustment from an on-board trimpot, and a remotely located potentiometer. An on-board trimpot shall be provided for release time adjustment. An on-board LED indicator shall be provided to indicate VOX switch action.

The audio controlled switch (VOX) shall be PROTECH AUDIO Corp. Model 589.

ACCESSORIES

CARD FRAME PACKAGE.....Model 858B
Includes Card Frame, Backplane, and Plug-In Power Supply Card.
Allows mounting of up to 9 audio cards.

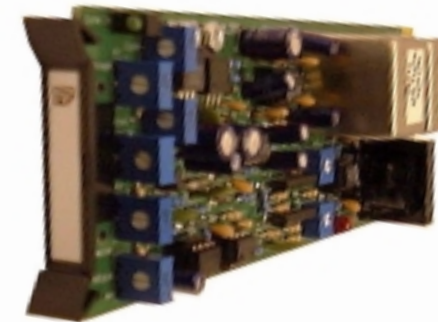
CARD FRAME PACKAGE.....Model 857B
Includes Card Frame and Backplane Assembly. For use with external power supply Model 66708. Allows mounting of up to 10 audio cards.

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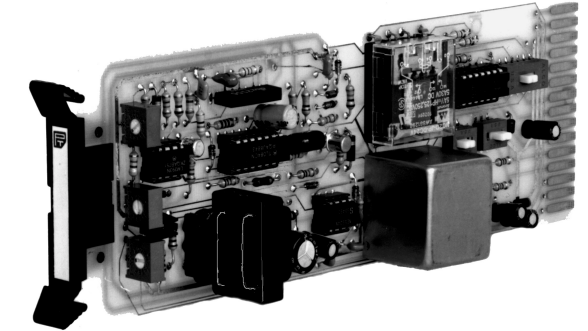
AUTHORIZED DEALER

AUDIO CONTROLLED SWITCHING MODULES

Noise Gate/Ducker For Voice-Over Model 588C



Audio Controlled Switching Solid-State and Relay Model 589



www.protechaudio.com

The Model 588C Switching Mixer is a high quality automatic switching device designed for use in professional audio applications. The unit can function as a 2 x 1 mixer with mic/line inputs, a 2 x 1 switching mixer, a summing amplifier with gated input, and an automatic voice-over-signal priority switching device. Multiple units may be daisy chained to provide additional levels of automatic priority switching.

The initial circuit starts with two individual channels, each one capable of accepting either a mic or line input signal. An input select switch on each input channel, allows the user to select which type of input will be used. Each input is balanced, transformer isolated. In the microphone position, 15 volts phantom power is supplied to the input circuit. The gain of each input channel is individually adjustable.

The second portion of the circuit consists of a voltage controlled amplifier (VCA) placed into a parallel position on each input channel. The two VCA's are controlled by a common logic circuit. The logic circuit is controlled by the signal level present at the output of the channel one line/preamplifier. When this output level exceeds the predetermined level (adjustable via the threshold trimpot), channel one switches on, thru to the output of the card, while channel two turns down or off, to the output of the card.

The Protech Audio Model 589 is a high quality audio controlled switch coupled with a professional quality preamplifier. The unit is designed for applications requiring switch closures to follow the presence of an audio signal. The unit is capable of functioning in a wide variety of installations. A typical application would be the turning on of bypass relays in paging systems during priority announcement. Multiple units may be used to design a multi-level priority system. The switch-selectable remote threshold capability allows this unit to serve well in systems requiring different threshold levels at different times of the day. The built-in preamplifier is a very cost effective feature, eliminating the need for separate microphone or line level preamplifiers.

The Model 589 features two different types of closures, CMOS and Relay. The relay closures are reconfigured in two Form C contact arrangements. The CMOS closures are arranged in two Form A contacts. The relay closures are capable of switching high current loads. The CMOS is recommended for lower level audio (microphone level) switching, since they introduce no switching noise.

AUDIO CONTROLLED SWITCHING MODULES

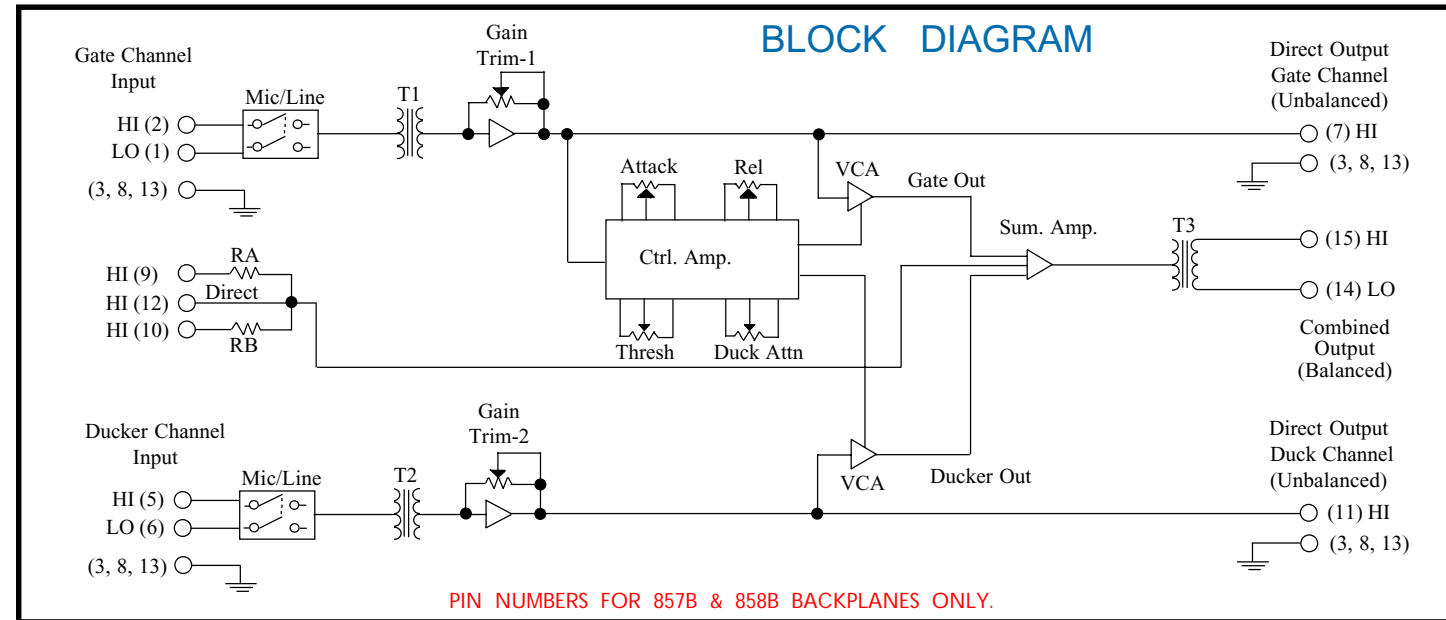
PROTECH®

Engineering Data

1/03

NOISE GATE/DUCKER

MODEL 588C



The Model 588C Noise Gate/Ducker is a high quality automatic switching device. The unit is designed to function as a 2 x 1 mixer with mic/line inputs, with automatic ducking of channel 2 input. The unit also has a summing amplifier input, a gated input, and an automatic voice-over-signal priority switching device. Multiple units may be daisy chained to provide additional levels of priority switching.

The initial circuit starts with two individual channels, each one capable of accepting either a mic or line input signal. An input select switch on each input channel, allows the user to select which type of input will be used. Each input is balanced, transformer isolated. The gain of each input channel is individually adjustable.

The second portion of the circuit consists of a voltage controlled amplifier (VCA) placed into a parallel position on each input channel. The two VCA's are controlled by a common logic circuit. The logic circuit is controlled by the signal level present at the output of the channel one line/preamplifier. When this output level exceeds the predetermined level (adjustable via the threshold trimpot), the channel one switches on, thru to the output of the card, while channel two turns off, to the output of the card.

The amount of attenuation (ducking) applied to channel two is adjustable, via the attenuation trimpot. The output of both VCA's is fed into a summing amplifier, and on to a common, balanced transformer isolated output. When the channel one input signal falls below the predetermined level, channel one turns off, and channel two fades back on. The speed with which the switching happens, is adjustable, via the attack and release trimpots mounted on the front of the card. By feeding the output of one card into the #2 input of another card, multiple levels of switching may be configured, each with it's own level of priority.

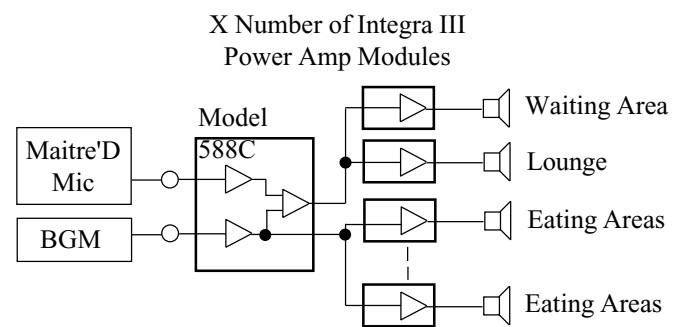
In addition to the two mic/line inputs, the Model 588B allows access to the summing amplifier, for additional mixing. Signals fed into these inputs will not be attenuated by the automatic switching action of the card.

The Model 588C also features direct unbalanced outputs from both mic/line amplifier channels, for driving devices such as monitor amplifiers or meters.

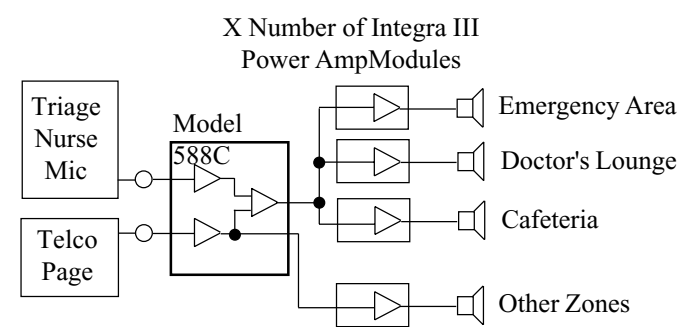
As one of the INTEGRA III SYSTEM cards, each of the three power amplifier cards may be mounted in any of the system enclosures manufactured by PROTECH AUDIO Corporation. For additional information or applications assistance contact:

SALES ENGINEERING

Typical Application - Restaurant

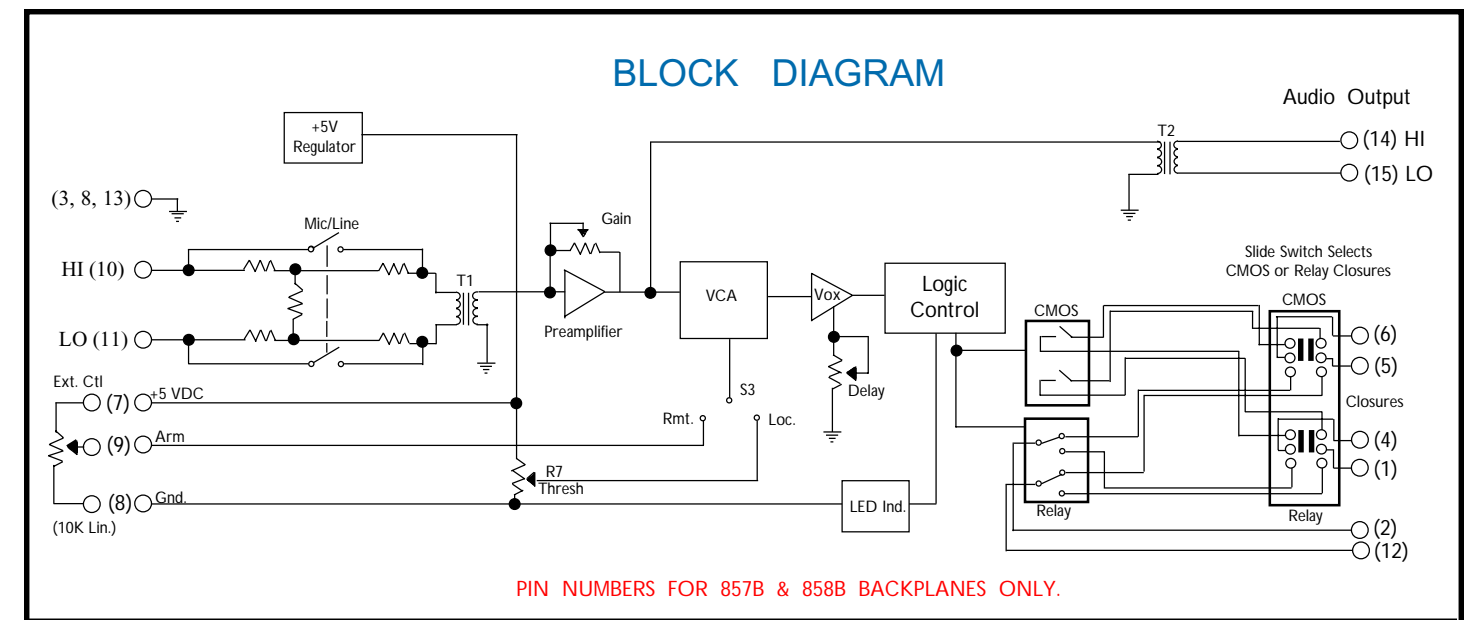


Typical Application - Hospital



MODEL 589

AUDIO CONTROLLED SWITCH



The Protech Audio Model 589 is a high quality audio controlled switch coupled with a professional quality preamplifier. The unit is designed for applications requiring switch closures to follow the presence or absence of an audio signal. Multiple units may be used to design a multi-level priority system. The switch-selectable remote threshold capability allows this unit to serve well in systems where other audio controlled switches would not function.

Typical applications are security monitoring systems, scream or noise alerts, or emergency paging override.

The preamplifier input section is switchable, to allow either microphone level, or line level operation. The input is transformer isolated. The audio signal is amplified as necessary, with gain adjustable via an on-board trimpot, and then fed to both a logic control section, and a 600 ohm output transformer.

The logic section accepts the amplified audio signal, compares the level to the threshold setting, and if it exceeds the setting, activates the switch closures.

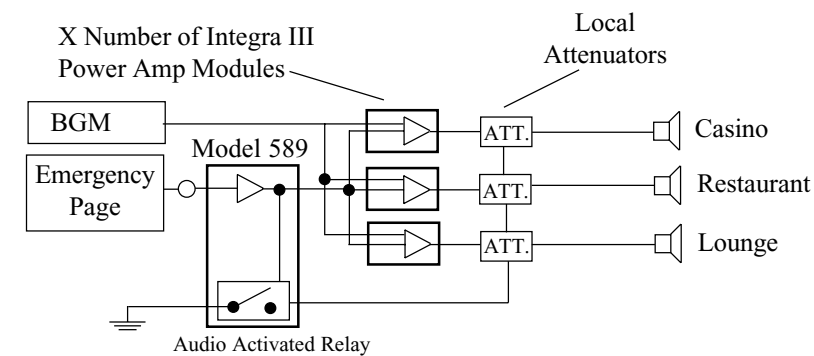
The Model 589 features two different types of closures, CMOS and Relay. The relay closures are reconfigured in two Form C contact arrangements. The CMOS closures are arranged in two Form A contacts. The relay closures are capable of switching high current loads. The CMOS is recommended for lower level audio switching, since they introduce no noise to the switching process.

The threshold setting is adjustable via an on-board trimpot, or by throwing an on-board switch, the threshold may be controlled via a remotely located potentiometer. This feature allows the person at the remote control to adjust the turn-on point, keeping unwanted audio off the program channel.

As one of the INTEGRA III SYSTEM audio modules, the Model 589 may be mounted in any of the system enclosures manufactured by PROTECH AUDIO. The Model 858B Card Frame Package allows mounting of up to 9 audio cards in just 3.5" of vertical rack space. The Model 857B Card Frame Package will allow mounting of up to 10 audio card in the same space.

For additional information or applications assistance contact: SALES ENGINEERING

Typical Application - Casinos, Office Buildings, Etc.



Contact Choices

