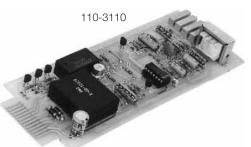
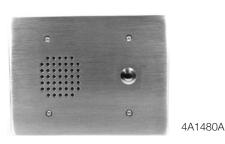


# **Correctional Products**







4A1485A

#### Overview

9A1895 Correctional Institution Remote Call-In Switch
The Dukane Model 9A1895 Correctional Institution Remote CallIn Switch consists of a moisture and damage proof momentary
pushbutton switch mounted on a single-gang faceplate. The
switch is flush-mounted from the front. The call-in switch operates
in conjunction with a remote station. A call is placed by pressing
the button on the call-in switch, then conducting two-way voice
communications with the central through the remote station.

The pushbutton switch is mounted on a heavy-gauge stainless steel faceplate, which is mounted in turn to a flush backbox. All mounting hardware is tamper resistant.

## 4A1480A and 4A1485A Vandalproof Intercom Stations With Call-in Switch

The Dukane Model 4A1480A and 4A1485A Vandalproof Intercom Stations with Call-In Switch are flush-mounted and consist of a water and flame resistant speaker/microphone with Mylar® cone and momentary call-in switch. The stations operate as both microphone and speaker to provide two-way voice communication with a central station. Pressing the momentary switch signals a call to the central station.

The speaker/microphone and momentary call-in switch are mounted to a heavy-gauge stainless steel faceplate, which is mounted to a standard three-gang (4A1480A) or two-gang (4A1485A) masonry backbox. The speaker/microphone cone is protected from flame or liquids by five barriers. Three of these barriers are metal plates with strategically positioned holes for speaker cone protection. The fourth barrier is perforated vinyl, and is placed between the other three barriers in front of the speaker cone. The Mylar speaker cone provides a fifth barrier that is moisture proof.

#### 110-3110 Audio Level Monitor Card

The Dukane Model 110-3110 Audio Level Monitor Card is a voice/ sound operated switch. The card is designed to detect unusually loud voices and sounds emanating from high security areas, such as cells, and to transmit an indication of this situation to a control center. Two sets of contacts are used to bypass the audio input when the monitor source is used for intercommunication or paging.

The threshold levels at which the switch will respond are set by four potentiometers: Spike Delay, Time Delay, Day Level, and Night Level. The day and night levels are preset to compensate for the differences in the ambient noise levels during these periods. A control is provided to an external day/night switch that allows a supervisor to quickly set the switch for either mode. One set of contacts are available for user purposes such as external circuits or annunciators.

The 110-3110 will operate with the Dukane StarCall Plus or independent hard-wired intercom system.

#### 110-3112 Audio Level Monitor Card Cage



The Dukane Model 110-3112 Audio Level Monitor Card Cage will accept up to 13 Dukane Model 110-3110 Audio Level Monitor Cards. The cards plug into the sockets mounted in the backplane of the cage. Terminations are made to the cards by means of insulation displacement plug-in connectors that are inserted into the terminal pins at the rear of the cage at each card position. A front cover is provided for the cage that is easily removed by a quarter turn fastener providing access to the cards for adjustment.

#### 9A1875B Remote Intercom Amplifier



The Dukane Model 9A1875B Remote Intercom Amplifier acts as an interface between communications systems and intercom speakers. The 9A1875B can be located up to 300 feet (91.4 m) from its host systems as required by facility and communications system design. Greater separations are possible by using preamplifiers in the lines between the 9A1875B and the voice input components. The 9A1875B accepts microphone, speaker, push-to-talk, and carbon handset intercom inputs from most communications systems, and provides auxiliary line level outputs to page amplifiers.

The 9A1875B operates in half-duplex mode when connected to remote intercom stations, with the system operator controlling audio direction. Audio direction is controlled by a push-to-talk switch or, if a carbon handset is used, the remote amplifier's built-in voice operated switching (VOX) circuitry. Contacts are provided to allow handset VOX override in noisy environments. The 9A1875B provides full-duplex operation during master station-to-master station communication through handsets.

The speaker monitor level can be preset or adjusted up or down from a remote location by single switch closures, with each closure increasing or decreasing the volume. A station speaker volume control is located on the rear panel of the amplifier. A rear panel plug-in connector makes installation and servicing easy.

Each 9A1875B has a built-in tone generator that provides a supervisory tone and six user-selectable tones (alarm, hi-lo, wail, warble, repetitive chime, and steady tone) to indicate emergencies or other events.

#### 7A1060A Armored Telephone Intercom Station

The Dukane Model 7A1060A Armored Telephone Intercom Station is designed for visitor's telephone-to-telephone communication in a correctional institution or as a security phone station for the Dukane StarCall Microprocessor Controlled Commercial Sound & Communications System. This is a ruggedly constructed telephone handset/hookswitch station with an armored cord and an 11-gauge stainless steel wallplate. Handset ear and mouth pieces are non-removable. The wallplate is secured to a standard two-gang wall box with hexagonal tamper resistant screws that require a special hex key tool for removal. The dynamic element receiver and carbon element transmitter are contained in a black, high impact plastic handset housing.



Flush-mount shown

### Standard Features

#### 9A1895 Correctional Institution Remote Call-In Switch

- Momentary, pushbutton, dry contact switch
- · Moisture and damage proof
- Flush-mounted with tamper resistant hardware
- 11-gauge stainless steel

#### 4A1485A Vandalproof Intercom Station With Call-in Switch

- Improved audio design
- Water and flame resistant
- Momentary call-in switch
- Flush-mounted
- 11-gauge stainless steel
- · Mounts in standard two-gang masonry backbox
- Includes 6-lobe Torx® security screws

#### 4A1480A Vandalproof Intercom Station with Call-in Switch

- Improved audio design
- · Water and flame resistant
- · Momentary call-in switch
- Flush-mounted
- 11-gauge stainless steel
- Mounts in standard three-gang masonry backbox
- Includes 6-lobe Torx® security screws

#### 110-3110 Audio Level Monitor Card

- · Adjustable day and night sensitivity
- Day/night mode selectable
- Adjustable time delay
- Plug-in design
- · Works with Dukane annunciator switch module

#### 110-3112 Audio Level Monitor Card Cage

- Plug-in connection
- Modular construction
- Easy expansion
- Standard 19-inch mounting

#### 7A1060A Armored Telephone Intercom Station

- · Combination handset/hookswitch
- Armored cord
- Tamper resistant mounting hardware
- Stainless steel wallplate

#### 9A1875B Remote Intercom Amplifier

- 16-Watt intercom amplifier
- Advanced solid-state design
- Plug-in connector for easy installation
- Up/down monitor speaker volume control
- Full-duplex handset-to-handset operation
- Auxiliary line level output to page amplifierSelectable supervisory and emergency tones

Engineers' Specifications

### 9A1895 Correctional Institution Remote Call-In Switch

The Correctional Institution Remote Call-In Switch shall be Dukane Model 9A1895. The switch shall be a momentary, pushbutton, dry contact type that is moisture and damage proof. The contacts shall be rated at three amperes, 300 watts AC with a non-inductive load. It shall be a single pole, single throw momentary action switch, attached to the faceplate from the rear so that it cannot be removed when installed.

The pushbutton shall be captive within the faceplate. It shall be constructed so that it does not provide a permanent closure or call-in indication when operated. The switch shall operate in conjunction with a remote station and shall be mounted on a faceplate of 11-gauge stainless steel, which shall be mounted in turn to a heavy-gauge steel backbox.

The faceplate shall be finished in 11-gauge stainless steel. It shall be 4-1/2 inches (11.4 cm) high and 2-3/4 inches (7 cm) wide. The switch shall extend 1-1/8 inches (2.9 cm) behind the panel. The assembly shall weigh 1 pound, 3 ounces (0.5 kg).

4A1485A Vandalproof Intercom Station With Call-in Switch The 4A1485A Vandalproof Intercom Station with Call-In Switch shall be flushmounted and shall consist of a water and flame resistant speaker/microphone with Mylar cone and momentary call-in

switch. The station shall operate as both microphone and speaker to provide two-way voice communications with a central station. Pressing the station's momentary switch shall signal a call to the central station.

The speaker/microphone and momentary call-in switch shall be mounted to a heavy-gauge, stainless steel faceplate, which shall be mounted to a standard two-gang masonry backbox. The speaker/microphone cone shall be protected from flame or liquids by five barriers. Three of these barriers shall be metal plates with strategically positioned holes for speaker cone protection. The fourth barrier shall be perforated vinyl, and shall be placed between the other three barriers in front of the speaker cone. The Mylar speaker cone shall provide a fifth barrier that is moisture proof.

4A1480A Vandalproof Intercom Station With Call-in Switch The Dukane Model 4A1480A Vandalproof Intercom Station with Call-In Switch shall be flush-mounted and shall consist of a water and flame resistant speaker/microphone with Mylar cone and momentary call-in switch. The station shall operate as both a microphone and a speaker to provide two-way voice communication with a central station. Pressing the momentary switch shall signal a call to the central station.

The speaker/microphone and momentary call-in switch shall be mounted to a heavy-gauge, stainless steel faceplate, which in turn shall mount to a standard three-gang masonry backbox. The speaker/microphone cone shall be protected from flame or liquids by five barriers. Three of these barriers shall be metal plates with strategically positioned holes for speaker cone protection. The fourth barrier shall be perforated vinyl, and shall be placed between the other three barriers in front of the speaker cone. The Mylar speaker cone shall provide a fifth barrier that is moisture proof.

#### 110-3110 Audio Level Monitor Card

The Audio Level Monitor Card shall be Dukane Model 110-3110. The card shall be designed to plug into the Dukane Model 110-3112 Audio Level Monitor Card Cage. Two sets of contacts shall be available for bypassing the audio. One set of contacts shall be available to control external circuits or annunciators. The card shall contain preset controls to compensate for differences in the ambient noise levels during day and night operation. A control shall be provided to set the number of audio spike repetitions before the card indicates excessive audio. A time delay control shall establish the delay time before the card gives an indication. The indication shall be through a dry set of contacts to control an external annunciator or audio monitor. The minimum operating signal level shall be 2mV. The card shall operate on 24Vdc at 40mA. The dimensions of the card shall be 6-7/8 inches (17.5 cm) long, 2-3/4 inches (7 cm) wide, and 1 inch (2.54 cm) deep. The net weight shall be 3-1/4 ounces (91 g).

#### 110-3112 Audio Level Monitor Card Cage

The Audio Level Monitor Card Cage shall be Dukane Model 110-3112. The card cage shall be capable of being mounted in a standard 19-inch (48.3 cm) rack. The card cage shall have a capacity of 13 Dukane Model 110-3110 Audio Level Monitor Cards. Terminations shall be made by means of insulation displacement connectors to the terminal pins at the rear of the cage at each card position. A front panel shall be provided that is easily removed, by means of a quarter turn fastener, to provide access to the cards for adjustment purposes. The card cage shall receive 24Vdc power from an external power supply. The dimensions of the cage shall be 19 inches (48.3 cm) wide, 3-1/2 inches (9 cm) high, and 8-1/2 inches (22 cm) deep. The finish shall be charcoal-colored baked enamel, and the unit shall weigh 5 pounds (2.3 kg) net without cards.

#### 7A1060A Armored Telephone Intercom Station

The Armored Telephone Intercom Station shall be Dukane Model 7A1060A or an approved equal. The transmitter shall have a carbon element of nominal 200 Ohms impedance, and the receiver shall have a dynamic element of nominal 50 Ohms impedance. The handset cord shall be an armored four-conductor cable with a locking collar and locking E-ring for strain relief. The telephone station shall require 12Vdc at 0.012 amps minimum through 24Vdc at 0.025 amps maximum. The terminations shall be to screw terminals. The handset shall be black colored, made of high impact plastic, and the wallplate shall be 11-gauge stainless steel. Handset ear and mouth pieces shall be non-removable. The hookswitch shall have two form "C" switches. Mounting hardware shall be tamper resistant. The station shall mount to a RACO #951 or equivalent, two-gang box with a RACO #821 cover or equivalent, or to a RACO #696 two-gang masonry box or equivalent. The net weight of the station shall be 1-1/2 pounds (0.7 kg).

#### 9A1875B Remote Intercom Amplifier

The remote intercom amplifier shall be the Dukane Model 9A1875B or equal. It shall be completely solid-state for reliability and shall accept microphone, speaker, push-to-talk, and carbon handset intercom inputs from a remotely located communications control panel. The amplifier shall provide auxiliary line level outputs for connection to external paging amplifiers, with six selectable emergency tones and a selectable supervisory tone.

The amplifier shall be capable of up to 300 feet (91.4 m) of separation from its host communications system. Distances greater than 300 feet shall be possible by the use of preamplifiers in the lines between the amplifier and its host system.

The amplifier shall be equipped with rear panel mounted plug-in connectors for ease of installation and servicing.

The volume level of a monitor speaker connected to the amplifier shall be preset or adjustable from a remote location by switch closures. Each switch closure shall increase or decrease the monitor speaker volume. The amplifier shall provide for monitor speaker muting during paging. Station speaker volume shall be adjustable by a control mounted on the rear panel of the amplifier.

The amplifier shall provide half-duplex operation during communication with remote intercom stations and shall provide voice operated switching (VOX) for this communication when carbon handsets are used. The amplifier shall provide contacts to defeat handset VOX when required because of noisy environments. The amplifier shall provide full-duplex operation during master station-to-master station communication through handsets.

The amplifier shall be 1-3/4 inches (4.5 cm) high by 19 inches (48.3 cm) wide and 10-1/2 inches (26.7 cm) deep, and shall weigh 7 pounds, 3 ounces (3.2 kg). The amplifier shall be finished in charcoal-colored, baked enamel.

## Specifications

	Intercom Station With Call-in Switch
Function	Designed for use as a remote intercom speaker station in correctional institution intercom
	systems
Speaker	2-1/2 in (6.4 cm) Mylar cone, 8-ohm impedance
Speaker Matching Transformer	Dukane Model 710-3092 with 0.5W, 1W, and 2W taps at 25V and 0.5W, 1W, 2W, and 4W taps at 70V
Switch	Pushbutton, momentary, one Form "A" dry contact
Switch Contact Rating	100mA to 400mA @ 48V
Switch Life Ratings	50,000 cycles minimum @ 200mA, 48Vdc 1,000,000 cycles minimum—mechanical
Faceplate Grille	11-gauge stainless steel
Dimensions	5-1/4 in (13.3 cm) wide by 5-1/4 in (13.3 cm) high and 2-3/4 in (7 cm) deep
Net Weight	Approximate shipping weight 3 lb (1.4 kg)
Backbox	RACO #696 or equivalent 3-3/4 in (9.5 cm) wide, 3-3/4 in (9.5 cm) high, 3-1/2 in (8.9 cm) deep

4A1480A Vandalproof Intercom Station With Call-in Switch	
Function	Designed for use as a remote intercom speaker station in correctional institution intercom systems
Speaker	2-1/2 in (6.4 cm) Mylar cone, 8-ohm impedance
Speaker Matching Transformer	Dukane Model 710-3092 with 0.5, 1, and 2 watt taps at 25V and 0.5, 1, 2, and 4 watt taps at 70V
Switch	Pushbutton, momentary, one Form "A" dry contact
Switch Contact Rating	100mA to 400mA @ 48V
Switch Life Ratings	50,000 cycles minimum @ 200mA, 48Vdc 1,000,000 cycles minimum—mechanical
Faceplate Grille	Fabricated from 11-gauge stainless steel
Dimensions	7-1/8 in (18.1 cm) wide by 5-1/4 in (13.3 cm) high and 2-3/8 in (6 cm) deep
Net Weight	Approximate shipping weight 3 pounds (1.4 Kg)
Backbox	RACO #697 or equivalent 5-19/32 in (14.2 cm) wide, 3-3/4 in (9.5 cm) high, 3-1/2 in (8.9 cm) deep

110-3110 Audio Level Monitor Card	
1mV	
24Vdc at 40mA per card	
Spike Delay, Time Delay, Day Level, and Night Level	
One SPDT, contact rating 2A at 26Vdc, or 1A at	
115Vac, non-inductive load	
One 4PDT, contact rating 2A at 26Vdc, or 1A at	
115Vac, non-inductive load	
6-7/8 in (17.5 cm) long, 2-3/4 in (7 cm) wide, 1	
inch (2.54 cm) deep	
3-1/4 oz (91 g)	

110-3112 Audio Level Monitor Card Cage	
Capacity	Thirteen Model 110-3110 Audio Level Monitor Cards
Power Required	24 Vdc At 40 mA per card
Terminations	Pin type
Finish	Charcoal-colored baked enamel
Dimensions	19 in (48.3 cm) wide by 3-1/2 in (9 cm) high by 8-1/2 in (22 cm) deep
Net Weight	5 lb (2.3 kg) without cards

Transmitter	elephone Intercom Station  Carbon Element, 200w Impedance (approx.)
Receiver	Dynamic element, 50W impedance (approx.)
Handset Cord	Armored, four-conductor
Talluset Colu	Locking collar and locking E-ring for strain relief
Power Required	12Vdc at 0.012A (minimum) through 24Vdc at 0.025A (maximum)
Terminations	Screw terminals
Handset	Black, high impact plastic
Wallplate	11-gauge stainless steel
Hookswitch	Two form "C" switches
Mounting Hardware	Tamper resistant
Net Weight	1-1/2 Lb (0.7 Kg)
Usable Wall Boxes	RACO #951 or equal 2-gang box, 1-5/8 in (4.1 cm) deep, with RACO #821 or equal 2-gang 3/4 in (1.9 cm) raised cover RACO #696 or equal 2-gang masonry box, 3-3/4 in (9.5 cm) high by 3-5/8 in (9.2 cm) wide by 3-1/2 in (8.9 cm) deep

9A1875B Remote Intercom Amplifier	
Rated Output	25V balanced output, 16W (rms)
Frequency Response	Designed for maximum intelligibility
Noise Level	Better than -54dB
Monitor Speaker Output	8W @ 2V Maximum
Page Output	Auxiliary level, 10kW at 1V, with page activation contact closure
Tone Selection	Supervisory tone – connect its control line to common. Tone will sound periodically when system is in listen mode during active intercom connection. Alarm, hi-lo, wail, warble, repetitive chime, steady tone – connect their respective control lines to common.
Microphone Input Sensitivity	500mV @ 150W (single ended or balanced line), condenser or low impedance
Handset	Carbon transmitter, dynamic receiver
Weight	7 pounds, 3 ounces (3.2 kg)
Power Required	24Vdc at 1.5A
Dimensions	1-3/4 in (4.5 cm) high, 19 in (48.3 cm) wide, and 10-1/2 in (26.7 cm) deep
Finish	Charcoal-colored, baked enamel

### Ordering Information

Model	Description
4A1480A	Vandalproof Intercom Station With Call-in Switch
4A1485A	Vandalproof Intercom Station With Call-in Switch
110-3110	Audio Level Monitor Card
17A365	24Vdc Regulated Power Supply (for 110-3110)
110-3112	Audio Level Monitor Card Cage
7A1060A	Armored Telephone Intercom Station
17A365	24Vac Regulated Power Supply (for hardwired visitation IC) — one per 70 sets of phones (for 7A1060A)
9A1875B	Remote Intercom Amplifier



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