# **B Two-Wire Intercom**

#### Security Systems

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### RTS<sup>®</sup> Two-Wire Intercom

- Founded in 1975, based in California, USA
- Telex<sup>®</sup> acquired RTS<sup>®</sup> in 1989
- RTS<sup>®</sup> TW: Two wire unbalanced intercom, two audio channels on a twisted pair
- Applications
  - Theatre
  - Broadcast
  - Concert
- Benefits
  - Easy to install/expand
  - Only TW system with 2 audio channels on a mic cable



#### RTS<sup>®</sup> Two-Wire Intercom ► What is a Party-Line System?



BOSCH



RTS<sup>®</sup> Two-Wire Intercom ► What is a Two-Wire System?

- What is a Two-Wire System?
  - A communication system with audio input and output that is run on the same set of wires.
- System types
  - Audiocom<sup>®</sup>: Balanced Operation
  - RTS<sup>®</sup> TW: Unbalanced Operation; True Two-Wire
  - Clear-Com<sup>®</sup>: Unbalanced Operation; Three-Wire



### RTS<sup>®</sup> Two-Wire Intercom ► How Does RTS<sup>®</sup> Two-Wire Work?





RTS<sup>®</sup> Two-Wire Intercom ► Definitions

## Balanced

An intercom system that carries audio "HI & LO" and voltage on both conductors (Audiocom<sup>®</sup>)

## Unbalanced

An intercom system that carries audio on one conductor with common ground. (Clear-Com<sup>®</sup>, RTS<sup>®</sup>-TW)

## • Wet

A channel of intercom that is carrying DC-voltage

• Dry

# A channel of intercom that is without voltage



### RTS<sup>®</sup> Two-Wire Intercom ► Definitions

Party-Line Intercom

A system in which all participants are engaged in the same conversation or conference. Known as Two-Wire or TW.

- Matrix Intercom System
   A system which is designed primarily for point to point private conversations between individuals. Known as Four-Wire or point to point
- TW

An audio communication system that carries all of the system's requirements on one pair of wire for each line (channel) of communication

Power Supply

The Fuel for the intercom system. Usually one or two power supplies to supply all power needed for a RTS intercom system

- **Master Station** A Multi-Channel station that is self powered
- User Station A one or two channel station that need power from the system power supply



RTS<sup>®</sup> Two-Wire Intercom ► System Advantages

- Two channels on one Mic cable
- Large selection of products targeting a wide range of the communications market
- State-of-the-art mechanical and audio design



## RTS<sup>®</sup> Two-Wire Intercom ► System Configurations

- Power Supply
- Master Station
- User Stations

RTS<sup>®</sup> Two-Wire Intercom ► Power Supplies ► PS-15



- Single Channel Power Supply "Power on one channel"
- High-Performance
- Provides impedance generator "Constant Audio Termination"
- Two Channel operation on one MIC cable



### RTS<sup>®</sup> Two-Wire Intercom ► Power Supplies ► PS-31



- High-Performance
- Provides impedance generation "Constant Audio Termination"
- Three Channels. operation, all powered
- Three program inputs with level adjust to be routed to any of the intercom three channels
- Audio and LED failure alarm indication



### RTS<sup>®</sup> Two-Wire Intercom ► Powered Master Stations ► Model 803 Master Station



- 12 channels talk/listen stations
- Call light, Remote Mic Kill, Headset Stereo Connector, 2 program inputs. External HDST, Panel Mic and speaker operation
- VOX, single channel level adjust and 6 programmable switches
- Could be easily optioned for IFB, ISO and 4 wire operation
- 6 programmable output relays
- Key Pad with DTMF function for telephone dialing



# RTS<sup>®</sup> Two-Wire Intercom ► Powered Master Stations ► MCE-325



- 4 Channels or 2 Channels Master Station
- Program input with level adjust
- Can be converted to 2 Channels 4 wire
- Extra un-switched Mic output for IFB and ISO operation
- Call light and remote Mic kill signals send/receive with LED indicators
- Many other programmable features



#### RTS<sup>®</sup> Two-Wire Intercom ► Accessories



## MCS-325

 Speaker unit work with MCE-325, MRT-327

## LMS-325

- Line Monitor Speaker, RTS CH #1, #2 or both
- Self powered and has an easy connection to the line



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#### RTS<sup>®</sup> Two-Wire Intercom ► User Stations ► BP-325



- 2 Channel Beltpack, Stereo/Mono HDST connection, individual control for each channel
- Program input with individual level control
- Call light, Mic kill controls and indications



#### RTS<sup>®</sup> Two-Wire Intercom ► User Stations ► BP-351



- 2 Channel select Beltpack
- Call light and Remote Mic Kill "receive only"
- Rugged extrusion chassis
- Digi-action talk key "Momentary or permanent talk".



#### RTS<sup>®</sup> Two-Wire Intercom ► User Stations ► BP-319



- Single Channel Beltpack
- Call light, Remote Mic Kill "receive only"
- Rugged extrusion chassis
- Digi-action talk key "Momentary or permanent talk"



### RTS<sup>®</sup> Two-Wire Intercom ► User Stations ► MRT-327



- 2 Channel select Rackmount user station
- Call light and Mic Kill "receive only"
- Rugged extrusion chassis. Headset or Panel Mic operation
- Digi-Action talk Key "Momentary or permanent talk. Speaker output jack.



#### RTS<sup>®</sup> Two-Wire Intercom ► User Stations ► RM-325



- 2 Channel Rackmount, Stereo/Mono HDST station, individual control for each channel
- Program input with individual level control
- Call light, Mic kill controls and indications



#### RTS<sup>®</sup> Two-Wire Intercom ► User Stations



## CM-300

- Wall mount 2 channels
- Headset Station with call light



• 2 Channels Console

CARB MIC

TW INTERCOM SYSTEM

 Mount station with Call light



#### RTS<sup>®</sup> Two-Wire Intercom ► User Stations ► WMS-300



- 2 channels, wall mount speaker station
- Call light indicator
- Could be optioned for Panel Mic
- Excellent mechanical design



### RTS<sup>®</sup> Two-Wire Intercom ► User Stations ► SPK-300



- 2 channels, Desktop Speaker Station
- Call light indicator
- Could be optioned for Panel Mic
- Excellent mechanical design



### RTS<sup>®</sup> Two-Wire Intercom ► IFB Accessories



## 4010

**IFB Master Station** 

- Three audio inputs select IFB Master Station. One stage announce adjustable output
- 4 outputs IFB Beltpack station



# 4030

**IFB Beltpack** 

- Has two audio inputs/two audio outputs
- (interrupt/none Interrupt) with two volume level control knobs



## RTS<sup>®</sup> Two-Wire Intercom ► IFB Control Stations





- There are three types of IFB Panels
- 4001 Panel, Has 4 IFB switches and one SA
- 4002 Panel, Has 8 IFB switches and one SA
- 4003 Panel, Has 12 IFB switches and SA
- "SA" is stage announce



# RTS<sup>®</sup> Two-Wire Intercom ► Interface Units ► Combination of Systems?





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RTS<sup>®</sup> Two-Wire Intercom ► Interface Units ► How do I Interface?

- Four-Wire to Two-Wire: use Model SSA-324 or SSA-424.
  - Comes with Call Light Option
  - Audiocom<sup>®</sup>/RTS<sup>®</sup>-TW/Clear-Com<sup>®</sup>
     Compatible
- Telephone with dial, busy signal and hybrid use Telos Link product

   Call Light Indicator



# RTS<sup>®</sup> Two-Wire Intercom ► Interface Units ► SSA-324



- Four-Wire to Two-Wire Analog System-to-System Adapter
- Input/Output Audio Adjust
- Interface Two Channels A & B
- Call Light Option
- High/Low Frequency Adjust
- RTS<sup>®</sup>, Audiocom<sup>®</sup> & Clear-Com<sup>®</sup> Compatible
- Perfect for Fixed Installation



### RTS<sup>®</sup> Digital Matrix Intercom ► Interface Units ► SSA-424



- Four-Wire to Two-Wire Digital System-to-System Adapter
- Input/Output Audio Adjust
- Interface Two Channels A & B
- Call Light Option
- Channel Assign & Status Bar
- RTS<sup>®</sup>, Audiocom<sup>®</sup> & Clear-Com<sup>®</sup> Compatible
- Automatic Frequency Nulling
- Perfect for use in OB Vans



# **RTSWire Intercom**

# www.rtstw.com

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