

### Technical Data Sheet

Innovating the Future of Global Communications

# RM-325 User Station



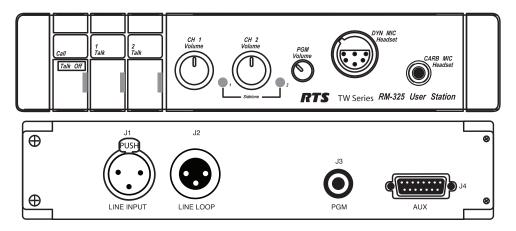
The RM-325 is a 2-channel intercom user station for the RTS-TW Intercom System. It is designed for use with a headset, and it can be placed on a desktop, or rackmounted with optional rackmount hardware.

#### **Features**

- · Talk button with talk-on indicator for each channel.
- Talk buttons feature dual-action, momentary/latching talk operation.
- External talk switch input (for footswitch etc.) for each channel via the Aux connector.
- Separate listen volume control for each channel, and a listen volume control for the program input.
- The RM-325 accepts a stereo (default), dynamic-mic headset or a monaural, carbon-mic headset.
- Dynamic-mic headset connector features a balanced, dynamic mic input, and a mic on/off switch input.
- Talk-off (mic kill) signaling the RM-325 can send and receive talk-off signals.

- Talk-off send and receive can be independently enabled/disabled via internal DIP switches.
- Call signaling there is a call button and indicator, and the RM-325 can send and receive call signals.
- Program Input balanced program audio may be input via the ¼-inch stereo phone jack (PGM) or via the AUX connector.
- Line/Local power options by default, the RM-325 receives operating power from intercom channel 1.
   Alternatively it may be configured to receive power from channel 2 or from a local, 24VDC power source connected to the AUX connector.
- Separate sidetone control for each intercom channel.

## Line Drawings



### **Specifications**

#### **TW System Specifications**

DC Operating Limits (station to power supply):
About 5,000 ft. (1.5 km) with #22 AWG wire
Audio Operating Limits (locally powered stations):

About 10,000 ft. (3 km) with low-capacitance cabling

System Capacitance:

0.3mF, maximum (10,000 ft. [3 km] cable at 30 pF/ft.)

Intercom Channels:

Station Output Level: 0.77Vrms (0 dBu) nominal Channel Terminating Impedance:  $200\Omega \pm 5\%$  Station Bridging Impedance: greater than  $10k\Omega$ 

Call Signalling:

Send: 20kHz ±100Hz, 0.3Vrms nominal Receive: 20kHz ±200Hz, 0.1Vrms

Talk- Off Signalling:

Send: 24kHz ±100Hz, 0.3Vrms nominal Receive: 24kHz ±200Hz, 0.1Vrms

#### **RM-325 General Specifications**

Power Requirements, Channel Powered RM-325: 30VDC nominal (standard TW line), 45 to 75mA Power Requirements. Locally Powered RM-325:

24VDC nominal, 45 to 75mA Environmental Requirements:

Storage: -40°C to 125°C (-40°F to 257°F); 0% to 95% humidity,

non-condensing

Operating: 0°C to 50°C (32°F to 122°F); 0% to 95% humidity,

non-condensing Dimensions:

1.72 in (44 mm) H, 8.2 in (208 mm) W, 8 in (203 mm) D

Weight:

2 lb 12 oz (1.23 kg) Noise Contribution:

Less than -75dB on the line Common Mode Rejection Ratio: Greater than 40dB from the line

Program Input:

Maximum Input Level: 20dBu Nominal Input Level: -10 to +8dBu

Frequency Response: 100Hz to 12kHz ±3dB

Headphone Amplifier

Voltage Gain: 30 ±3dB from the line Maximum Output: 150mW into  $50\Omega$ 

Frequency Response: 100Hz to 8kHz ±3dB nominal

Output Voltage Level: 8 volts peak-to-peak Headphone Impedance: 50 to  $600\Omega\,$ 

Sidetone:

20dB minimum range, adjustable

Microphone Preamplifier:

Maximum Voltage Gain: 54dB

Frequency Response: 100Hz to 8kHz, nominal

Input Impedance: 1.0kΩ, balanced

Limiter Range: 30dB Total Harmonic Distortion:

Less than 0.2% nominal at Channel output

#### **RM-325 Connectors**

**Auxiliary Connector** 

Type: DB-15F

Pin 1: Program input low

Pin 2: Program input high

Pin 3: Unswitched mic output high

Pin 4: Foot switch in, channel 1

Pin 5: Foot switch in, channel 2

Pin 6: Local power (+24VDC)

Pin 7: Remote mic switch in

Pin 8: Not Used

Pin 9: Common

Pin 10: Common

Pin 11: Common

Pin 12: Foot switch channel 1 common

Pin 13: Foot switch channel 2 common

Pin 14: Local power common

Pin 15: Remote mic switch common

**CARB MIC Headset Connector** 

Type: 1/4-inch, 3-Conductor Phone Jack

Tip: Microphone input high (or mic switch contact)

Ring: Headphone high Sleeve: Common

**DYN-MIC Headset Connector** 

Type: XLR-6F 6-Pin Female Audio Connector Pin 1: Headset dynamic microphone low Pin 2: Headset dynamic microphone high

Pin 3: Headphone and mic switch common

Pin 4: Headphone left high Pin 5: Headphone right high

Pin 6: Remote microphone switch contact

Intercom Line Input Connector

Type: XLR-3F 3-Pin Female Audio Connector

Pin 1: Common

Pin 2: Intercom channel 1 audio and power

Pin 3: Intercom channel 2 audio

Intercom Line Loop Connector

Type: XLR-3M 3-Pin Male Audio Connector

Pin 1: Common

Pin 2: Intercom channel 1 audio and power

Pin 3: Intercom channel 2 audio

**Program Input Connector** 

Type: 1/4-inch, 3-Conductor Phone Jack

Tip: Program input high Ring: Program input low Sleeve: Common

### **Order Information**

RM-325 A5F • RM-325 A5F • 2-channel binaural (stereo) programmable modular user station RM325 A4F • RM-325 A4F • 2-channel binaural (stereo) programmable modular user station with A4M headset connector

The specification information is preliminary and is subject to change without notification. Brand names mentioned are the property of their respective companies.



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