

### MRT-327 User Station

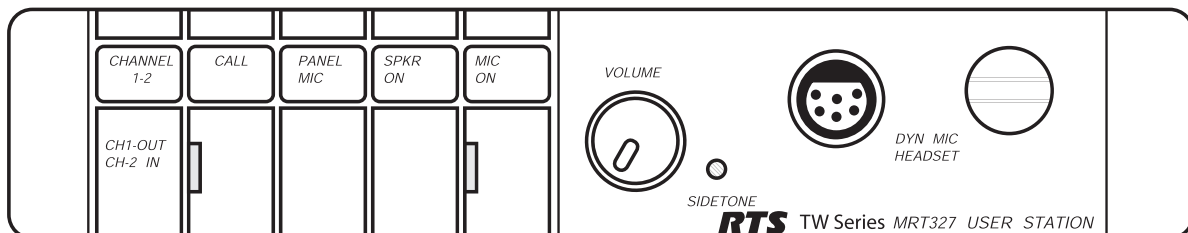


The MRT-327 is a 2-channel intercom station for use in RTS-TW intercom systems. It may be used as a headset station or as a speaker station (with an optional MCS-325 modular speaker). The MRT-327 may be installed in optional console or rack mount configurations.

### Features

- The MRT-327 can send and receive 20kHz call signals.
- The MIC on/off switch can be used as a momentary push-to-talk switch or as a latching on/off switch.
- The MRT-327 can receive 24kHz talk-off (mic kill) signals for deactivation of the MRT-327 microphone from a remote location.
- The microphone pre-amplifier circuit contains a limiter which helps to equalize output for different voice levels.
- The standard MRT-327 accepts a dynamic-mic headset used in conjunction with an external speaker located on the rear panel. It also has an optional jack for an MCP-90-xx gooseneck panel microphone.
- The MRT-327 receives operating power from the intercom line. It may be internally modified for local powering from a separate DC power supply or batteries.

### Line Drawings



## Specifications

### General

Input DC Voltage:

Mode: 18 to 35 volts DC

Local Power: 15 to 35 volts DC (12 to 15 volts DC, reduced performance)

DC Current Drawn from TW Line

Quiescent: 45mA ±10%

Operating, 25Ω phones: 75mA ±10%

Operating, 25Ω phones + call light:

90mA ±10%

Operating, 8Ω speaker:

240mA ±10%

Operating, 8Ω speaker + call light:

300mA ±10%

DC Current Drawn from TW Line

### Notes:

Operating current is measured with output level at 10dB below clipping.

Local power option draws no current from TW line.

Impedance Across Line:

10kΩ, minimum (designed for use with 200Ω "TW" intercom lines)

Environmental Temperature:

Operating: 0°C to 50°C

(32°F to 122°F)

Storage: 40°C to 85°C

(104°F to 185°F)

Humidity:

Operating and Storage: 5% to 95%, non-condensing

Noise Contribution:

(Ch 2): <-60dBp

(Ch 1): <-80dBp

### Microphone Preamplifier

Input Impedance:

470Ω ±5% (dynamic mic)

Source Impedance:

200Ω, (nom.)

Maximum Input Level:

150 millivolts

Frequency Response

(-54dB input): 100Hz to 8kHz ±3dB

Limiter Range:

30dB

Carbon Mic Excitation Current:

10mA, (nom.)

### Microphone Current Source

Output:

3.3 mA into 200Ω = ±1 volt peak, (nom.)

### Speaker Amplifier

Maximum Voltage Gain:

30dB

Frequency Response:

100Hz to 8kHz ±4dB

Output Power:

1.5 watts into 8Ω (nom.)

Speaker DIM (speaker muting during mic activation) adjustable,

-4 to -30dB (Factory set to -6dB)

### Headphone Amplifier

Voltage Gain:

34dB

Output Voltage:

8 volts peak-to-peak into 25Ω (nom.)

Output power:

½ watt peak into 25Ω

Frequency Response:

150Hz to 10kHz ±3dB

Headphone Impedance Range:

25 to 600Ω (600 to 2000Ω with reduced levels)

Sidetone Adjustment Range:

-20dB to full on

### Call Light

Signalling Frequency:

20kHz ±100Hz

### Talk-Off

Frequency:

24kHz ±100Hz

### Connectors

Dynamic Microphone Headset:

XLR type 6 pin female

Panel Microphone:

¼-inch standard phone jack, 3-circuit

Line Input:

One (1) XLR type 3-pin female and one (1) XLR type 3-pin male, wired in parallel

### Mechanical

Dimensions:

1.71" (44mm) H x 8.2" (208mm) W x

9.0" (228mm) D

Weight:

2.75lb (1.25kg)

Construction/Finish:

Aluminum case, thermoplastic front panel, light gray finish

## Order Information

MRT327 A4F • MRT-327 A4F • 2 user programmable modular user station

MRT327 A5F • MRT-327 A5F • 2 user programmable modular user station

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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