

TELEX COMMUNICATIONS, INC.  
9600 Aldrich Ave. So., Minneapolis, MN 55420 U.S.A.

## MODEL FMR-2 WIRELESS RECEIVER

### GENERAL DESCRIPTION

The Telex Model FMR-2 True Diversity Wireless Microphone Receiver, used with a Telex Belt-Pack or Handheld Transmitter, is designed for demanding professional users in broadcast, theatres, houses of worship, and live sound reinforcement applications. The single-channel Pos-i-Phase™ True Diversity FM Receiver operates on selected VHF frequencies from 150-216 MHz. Ten stock frequencies are available for immediate delivery, and at least fifteen systems can be used simultaneously on separate channels.

The FMR-2 may be powered from either 115 Vac, 50/60 Hz or 13.6 Vac/Vdc. The unit is protected by a user-replaceable 0.5 mA fuse. The unit is rack-mountable in single or double configurations and occupies two rack spaces.

### DESIGN FEATURES

The chassis and cover are painted steel which provides 100% shielding. Circuit boards are 0.062-inch (1.57 mm) thick, glass-epoxy composition with liberal use of 5% tolerance capacitors and metal film resistors. The highly selective IF section features a specially designed 9-pole linear phase filter system which helps to eliminate out-of-band interference without distorting the phase of the audio signal. The Receiver incorporates patented\* Pos-i-Phase™ diversity circuitry which eliminates drop-outs from signal cancellation. The Receiver features a compander in the audio section for expanded dynamic range and noise reduction. Pos-i-Squelch™, a special noise-sensing squelch circuit, is used to eliminate annoying squelch breaks from spurious RF noise. The power supply is a wall type, UL and CSA listed design, with a heavy-duty cord and plug.

### OPERATING FEATURES

The front panel has two, ten-segment, multi-color LED displays: one for signal strength and the other for VU level. There is a two-position, push-type power on/off switch with an LED indicator. There is an auxiliary output provided with taps at 8 ohms, 10k ohms, and 600 ohms, and a continuously variable attenuator. The rear panel has two PL-259 (UHF type) antenna connectors for the supplied  $\frac{3}{8}$ -wave gain antennas. The audio output is a balanced XLR with a volume attenuator, switchable from either line or microphone. The microphone level is adjustable from -10 dBm max to -60 dBm. The line output is fixed at +13.5 dBm. The 2.0 mm power input jack and fuse holder are located on the rear panel. All control designations are clearly silk-screened on the unit.

\* Patent No. 4,293,955



### SPECIFICATIONS

**Frequency Response:** 50 Hz to 15 kHz  $\pm 1$  dB

**Squelch Quieting:** 125 dB

**Squelch Level:** 1  $\mu$ V, internally adjustable

**Antenna Impedance:** 50 ohms nominal

**Hum and Noise:** -125 dB

**Audio Output:**

Auxiliary: 8 ohms, 75 mW max  
600 ohms, 40 mW max  
10K ohms, 0.2 mW max

**Microphone/Line:**

Line: 600 ohms, +13.5 dB max  
Microphone: 200 ohms, -10 dB max  
Microphone Adj: -10 dB, -50 dB min

**Power:** 115 Vac, 50/60 Hz, 3 watts

**Temperature Range:** 0° F to 130° F  
(-18° C to 55° C)

**Weight:** 5.5 lbs (2.5 kg)

**RF Sensitivity:** Less than 0.5  $\mu$ V (12 dB SINAD)

**Ultimate Quieting:** 100 dB (A weighted)

**Image Rejection:** Greater than 75 dB

**Signal-To-Noise Ratio:** 96 dB typical  
(102 dB, A weighted)

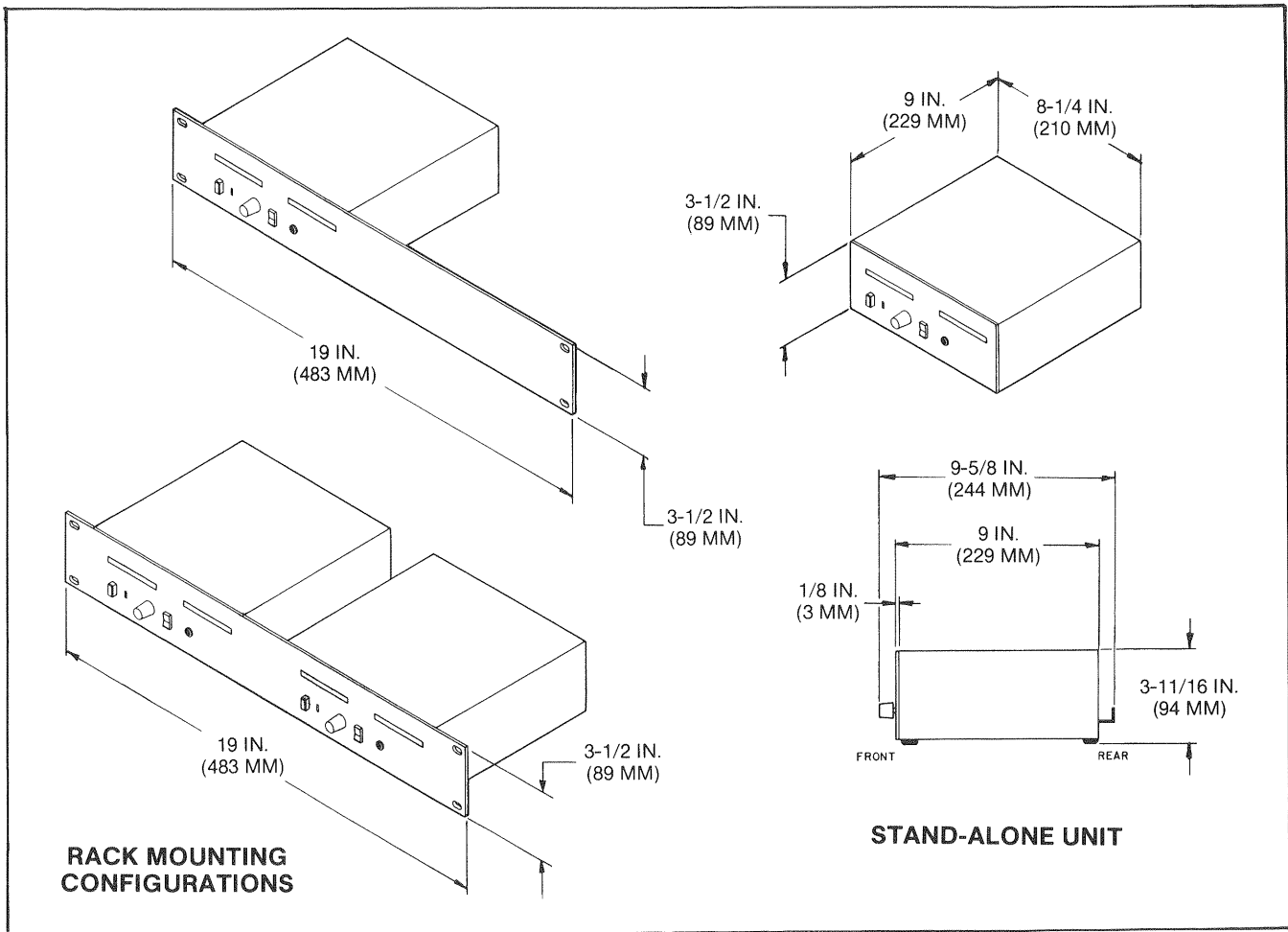
**Fuse:** (1) 0.5 mA fast blow

**Dimensions:** 8¼ in. W x 9 in. D x 3½ in. H  
(210 mm x 229 mm x 89 mm)

TELEX®

MODEL FMR-2  
WIRELESS RECEIVER

## DIMENSIONS



## ARCHITECT'S AND ENGINEER'S SPECIFICATIONS

The Telex Model FMR-2 Wireless Microphone Receiver shall be a single-channel, crystal-controlled oscillator, operating on selected frequencies from 150-216 MHz. The Receiver shall incorporate Pos-i-Phase™ diversity circuitry to eliminate dropouts from phase cancellation. The Receiver shall incorporate 9-pole linear phase filters in the RF circuitry for maximum selectivity and allow operation of at least fifteen simultaneous systems on separate channels. The Receiver shall incorporate a compander system to assure maximum dynamic range and noise reduction. The Receiver shall have Pos-i-Squelch™, a signal-sensing squelch circuit which will not open the squelch for spurious RF noise. The Receiver shall be powered either by 115 Vac, 50/60 Hz, or 13.6 Vac/Vdc, and a 240 Vac version shall be available for overseas operation. The Receiver shall

be protected by a user-serviceable 0.5 amp fuse. The Receiver shall be rack-mountable. The Receiver shall use 5/8-wave remote antennas with PL-259 (UHF type) connectors. The Receiver shall incorporate a ten-segment LED bar graph display for VU level and another for RF level. The Receiver shall provide a balanced output switchable from line or microphone through a male XLR connector. The microphone output level shall be adjustable with a variable attenuator. The Receiver shall provide an auxiliary output switchable from 8 ohms, 10K ohms and 600 ohms with a volume attenuator. The Receiver shall be certified under FCC rules, Part 15, and DOC certified under RSP 121. The Receiver shall be a Telex Model FMR-2 Pos-i-Phase™ True Diversity Wireless Receiver.

## ORDERING INFORMATION

Telex Model FMR-2 Wireless Microphone Receiver ..... Catalog No. 64213-XXX