



## SHURE T SERIES WIRELESS SYSTEM

## Specification Sheet

### DESCRIPTION

Shure T Series wireless microphone systems are single-channel systems operating at 10 frequencies in the VHF band between 169.445 MHz and 216.000 MHz. Up to six systems can be operated simultaneously in a single installation, without intermodulation problems. However, each system must operate on a different frequency.

Each system consists of a hand-held T2 Microphone-Transmitter or a T1 Body-Pack Transmitter, and either a single antenna T3 Receiver or a T4 MARCAD® Diversity Receiver. The T1 Body-Pack Transmitter is available with either a micro-miniature lavalier microphone or an instrument cable.

T Series receivers use a noise squelch circuit which analyzes signal *quality* instead of signal strength. This virtually eliminates the possibility of annoying bursts of noise coming through the receiver.

### SYSTEM CONFIGURATIONS

**The Guitarist™** – Body-pack system designed for use with electric guitars, basses, and other electric instruments. The Guitarist system includes the following components:

- T1G Transmitter (with standard 1/4 in. input jack)
- T3 Receiver or T4G MARCAD® Diversity Receiver
- PS20 or PS20E Receiver Power Supply
- Two 2 ft., 1/4 in. Guitar Cables

**The Vocal Artist™** – Hand-held system designed for singers; it features a Shure SM58 or BG3.1 dynamic microphone with a built-in transmitter. The Vocal Artist system includes the following components:

- T2 Microphone-Transmitter (T2/58 with a Shure SM58 or T2/31 with a Shure BG3.1 microphone)
- T3 Receiver or T4V MARCAD® Diversity Receiver
- PS20 or PS20E Receiver Power Supply
- Stand Adapter

**The Presenter™** – Body-pack lavalier system designed for public speaking applications such as lectures and business presentations; it features an omnidirectional Shure WL93 micro-miniature lavalier microphone. The Presenter system includes the following components:

- T1P Transmitter (with Shure WL93 micro-miniature lavalier microphone)
- T3 Receiver or T4V MARCAD® Diversity Receiver
- PS20 or PS20E Receiver Power Supply

### ARCHITECTS & ENGINEERS' SPECIFICATIONS

The wireless microphone system shall operate in the VHF band between 169.445 MHz and 216.000 MHz. Hand-held transmitters shall include an integral dynamic microphone. Body-pack transmitters shall include either a micro-miniature lavalier microphone or an instrument cable, depending on the application.

All transmitters shall operate on a 9V battery and shall have a power on/off switch, a mute switch, an adjustable audio gain control, an LED that indicates the transmitter is on, and another LED that indicates low battery condition. All receivers shall utilize noise squelch circuitry. Diversity receivers shall also utilize signal combining circuitry to achieve the best possible signal-to-noise ratio. The receiver front panel shall have LEDs that indicate RF presence and audio peak. Diversity receivers shall also have front panel LEDs that indicate diversity signal reception. All receivers shall have a 1/4-inch audio output connector; diversity receivers used with a hand-held or body-pack transmitter with a micro-miniature lavalier microphone shall also have an XLR-type balanced audio output connector. All receivers shall have a volume control and an adjustable noise squelch control.

The Shure T Series wireless microphone system is specified.

### OVERALL SYSTEM SPECIFICATIONS

**NOTE:** The following specifications apply to all T Series wireless systems. Additional specifications for each system are listed on the back page.

#### RF Carrier Frequency Range

169.445 to 216.000 MHz

#### Effective Operating Range

100 m (approximately 300 ft.) under typical conditions

#### Audio Dynamic Range

>102 dB, A-weighted

#### Total Harmonic Distortion

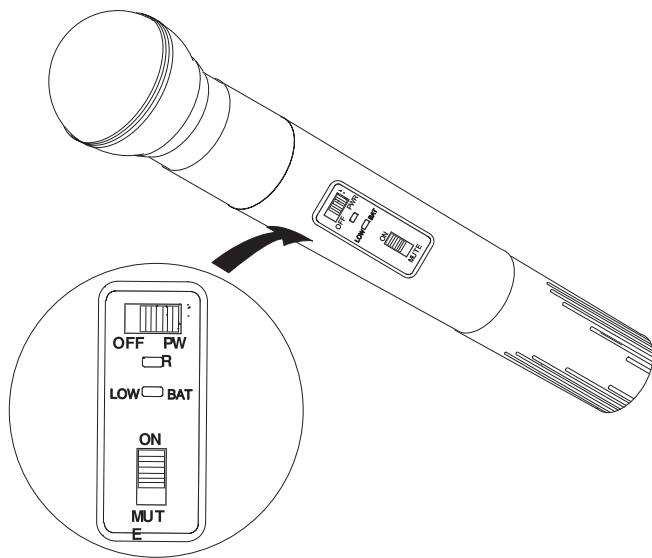
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#### Squelch Type

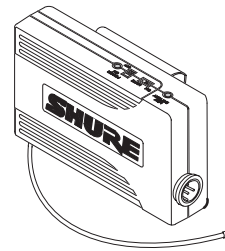
Noise squelch

#### Operating Temperature Range

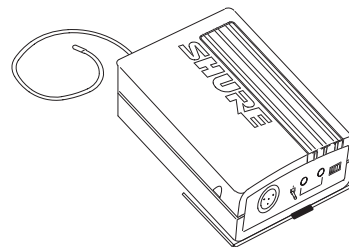
-20° to 50° C (-4° to 122° F)



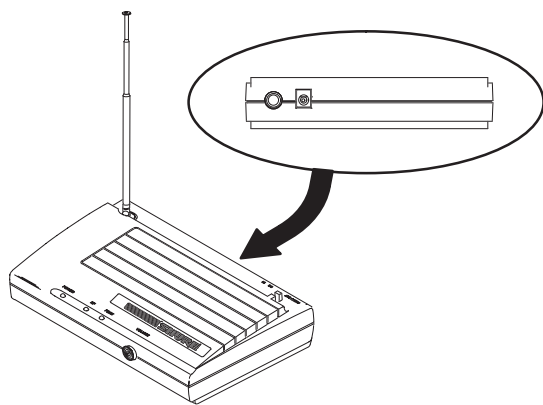
**T2 MICROPHONE-TRANSMITTER**



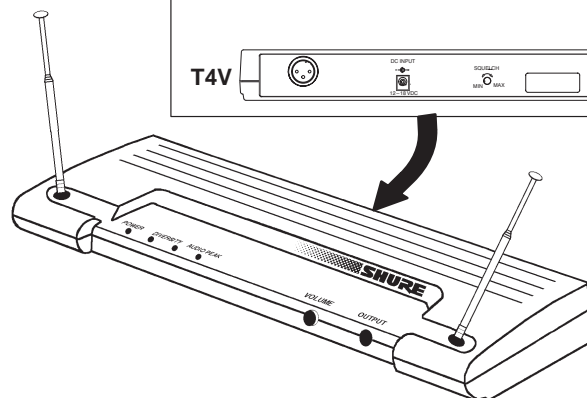
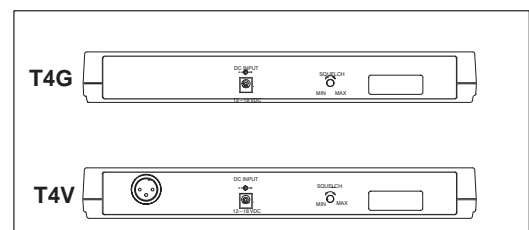
**T1 BODY-PACK TRANSMITTER**



**T11 BODY-PACK TRANSMITTER**



**T3 RECEIVER**



**T4 DIVERSITY RECEIVER**

**SPECIFICATIONS****T1 BODY-PACK TRANSMITTER (T1P AND T1G)****Power Requirements**

9 V alkaline battery (Duracell MN1604 recommended, 1 included); 8.4 V NiCad battery optional

**Output Power**

50 mW, maximum

**Current Drain**

mA, typical

**Battery Life**

18 hours typical with fully charged 9 V alkaline battery, 2 hours typical with fully charged NiCad battery

**Presenter Body-Pack with WL93 Microphone (T1P)**

Frequency Response: 50 to 15,000 Hz

Microphone Polar Pattern: Omnidirectional

**Guitarist Body-Pack (T1G)**

Frequency Response: 30 to 15,000 Hz

Input Connector Type: 1/4 in. phone jack

Input Impedance: 1 M $\Omega$ , 750 pF; same as a 6 meter (20 ft) cable connected to a guitar amplifier

**Dimensions**

6.4 cm H x 10.6 cm W x 2.4 cm D  
(2-17/32 in. H x 4-3/16 in. W x 31/32 in. D)

**Weight:**

99.2 g (3.4 oz)

**Certification**

Type Accepted under FCC Parts 74 and 90  
Certified by IC in Canada under TRC-78

**T2 HAND-HELD TRANSMITTER (T2/58 AND T2/30)****Power Requirements**

9 V alkaline battery (Duracell MN1604 recommended, 1 included); 8.4 V NiCad battery optional

**Output Power**

50 mW, maximum

**Current Drain**

30 mA, typical

**Battery Life**

18 hours typical with fully charged 9 V alkaline battery, 2 hours typical with fully charged NiCad battery

**SM58 Hand-Held (T2/58)**

Frequency Response: 50 to 15,000 Hz

Microphone Polar Pattern: Cardioid (unidirectional)

**BG3.1 Hand-Held (T2/31)**

Frequency Response: 60 to 14,000 Hz

Microphone Polar Pattern: Cardioid (unidirectional)

**Dimensions**

T2/58: 23.6 cm H x 5.1 cm D (9-5/16 in. x 2 in.)

T2/31: 22.2 cm H x 5.1 cm D (8-3/4 in. x 2 in.)

**Weight:**

T2/31 Microphone Transmitter: 275 g (9.7 oz)

T2/58 Microphone Transmitter: 296 g (10.4 oz)

**Certification**

Type Accepted under FCC Parts 74 and 90

Certified by IC in Canada under TRC-78

**T3 RECEIVER****Power Requirements**

12–18 Vdc nominal, 85 mA

**Audio Output Level**

(at 1 kHz modulation, 15 kHz deviation)

Unbalanced: –8.8 dBV

**Audio Output Impedance**

3.3 k $\Omega$

**Output Connectors**

1/4 in. Unbalanced

**Dimensions**

3.5 cm H x 15.2 cm W x 9.8 cm D

(1-3/16 in. x 6 in. x 3-7/8 in.)

**Weight**

192 g (6.8 oz)

**Certification**

Approved under the Notification provision of FCC Part 15  
Certified by IC in Canada under TRC-78

**T4 MARCAD® DIVERSITY RECEIVER (T4V & TVG)****Power Requirements**

12–18 Vdc nominal, 115 mA

**Audio Output Level** (at 1 kHz modulation, 15 kHz deviation)

Unbalanced: –8.8 dBV

Balanced: –24 dBV (T4V only)

**Audio Output Impedance**

Unbalanced: 3.3 k $\Omega$

Balanced: 150  $\Omega$  (T4V only)

**Output Connectors**

T4G: 1/4 in. Unbalanced

T4V: XLR Balanced, 1/4 in. Unbalanced

**Dimensions**

3.6 cm H x 29.2 cm W x 10.3 cm D

(1-7/16 in. x 11-1/2 in. x 4-1/16 in.)

**Weight:**

416 g (14.7 oz)

**Certification**

Approved under the Notification provision of FCC Part 15  
Certified by IC in Canada under TRC-78