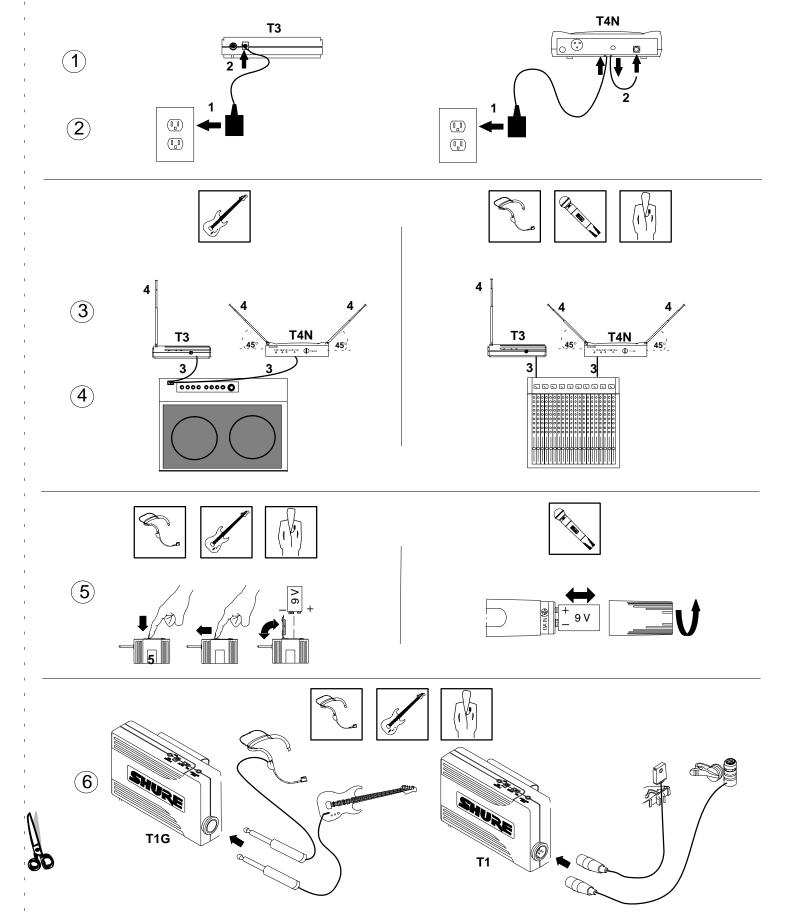
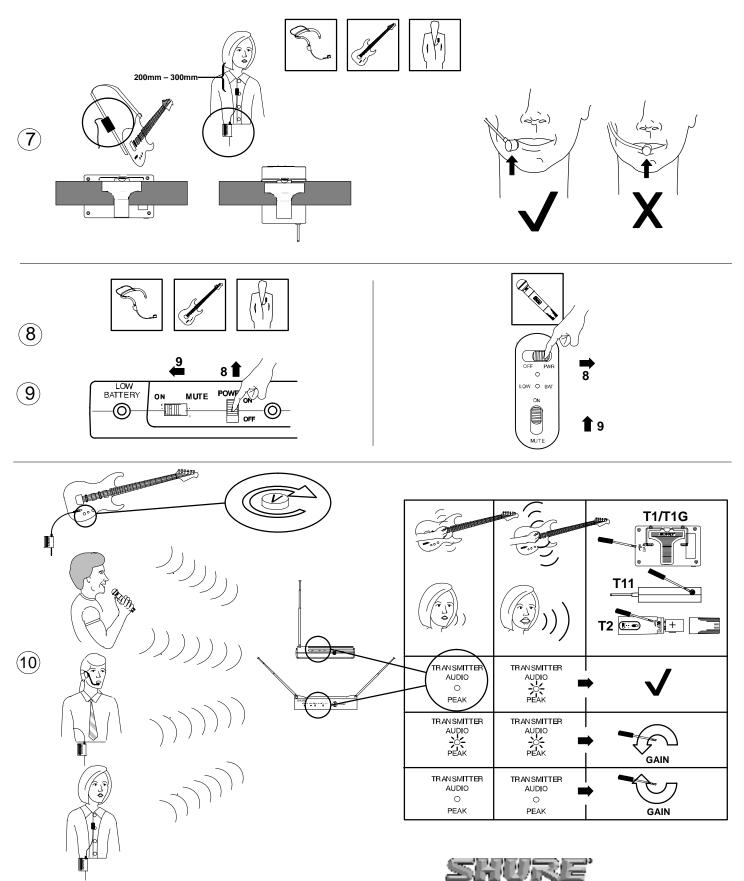


# T Series Wireless System User Guide

Pat. Des 6,296,565







SHURE Incorporated Web Address: http://www.shure.com 222 Hartrey Avenue, Evanston, IL 60202–3696, U.S.A. Phone: 847-866–2200 Fax: 847-866-2279 In Europe, Phone: 49-7131-72140 Fax: 49-7131-721414 In Asia, Phone: 852-2893-4290 Fax: 852-2893-4055 Elsewhere, Phone: 847-866–2200 Fax: 847-866-2585

# SHURE T SERIES USER GUIDE

This user guide provides detailed instructions for your T series wireless system. To get your system up and running in minutes, see the T Series Quick Set Up Guide.

Your new T Series system is designed to give you both the freedom of a wireless system and world-famous Shure sound quality. This manual covers both Standard and Diversity versions of each of the T Series systems: The Guitarist™, The Vocal Artist™, The Presenter™, The Headset™, and The Bodypack Wireless™ systems.

Wireless System Components	The Vocal Artist  Hand-held system for singers.	The Guitarist  Bodypack system for electric and bass guitarists. Can also be used with other electric instruments	The Headset  Bodypack system for applications requiring hands-free operation, such as aerobics or percussion	The Presenter  Bodypack system for public speaking, theater, or business presentations.	The Bodypack Wireless  Configurable systems for use with various microphones.
Transmitter	T2 Handheld Transmitter	T1G Bodypack Transmitter (T11 Europe)			dypack (T11 Europe)
Microphone	SM58 <sup>®</sup> or PG58 <sup>™</sup>	_	WH20 Headset Microphone	WL93 omnidirectional lavalier, WL185 cardioid or WL184 super cardioid	_
Receiver	T3 single antenna or T4N Diversity				
Power Supply	PS20 (105–125 VAC, 60 Hz) or PS20E (230 VAC, 50 Hz) or PS20UK (230 VAC, 50 Hz)				
Battery	9-volt alkaline (Duracell MN 1604)				
Supplied Accessories	Carrying and storage case; Receiver feet; Hook and loop fastening strips; gain adjustment screwdriver				
Accessories	microphone stand adapter	1/4" to 1/4" cables (2); (Europe: 1/4" to Mini Connector and 1/4" to 1/4")			

## RECEIVER FEATURES

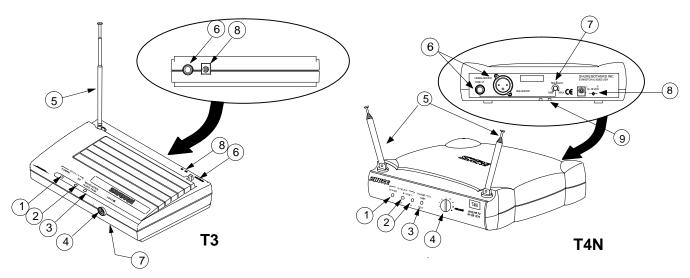


FIGURE 1. T3 AND T4N RECEIVER FEATURES

- Power On Indicator: Glows green when the receiver is powered on.
- RF Signal Indicator: T3: Glows yellow when RF (radio frequency) signals are received. T4N: One of two indicator lights glows when RF is received by antenna A or B.
- Transmitter Audio Peak Indicator: Flashes red when the audio signal received approaches overload clipping level.
- 4. **Volume Control:** Adjusts the output volume of the receiver. *Does not affect Transmitter Audio Peak indicator.*
- Telescoping Antenna(s): Receives signals from the transmitter.

- Audio Output: Provides mic level signal for connection to amplifiers or mixing consoles. T3: 1/4 inch phone jack. T4N: 1/4 inch phone jack and male XLR connector.
- 7. **Squelch Control:** This control is factory pre-set and normally requires no adjustment. See "Wireless System Adjustments."
- 8. Power Input: Accepts power from supplied AC adapter.
- Power Cable Retainer: T4N only. Secures the AC adapter cable to the receiver.

### TRANSMITTER FEATURES =

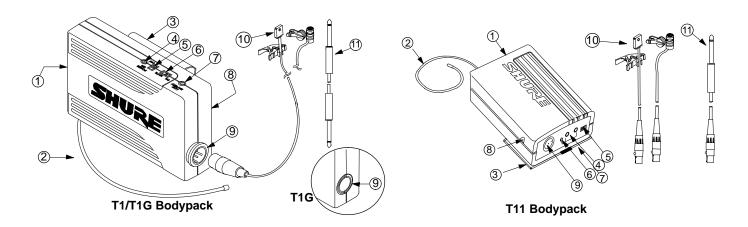


FIGURE 2. T1, T1G, AND T11 BODYPACK TRANSMITTER FEATURES

- 1. Battery Compartment. Holds one 9V alkaline battery.
- Antenna. For best operation, the antenna must hang vertically, and should not be coiled or bundled.
- Belt Clip. Secures the transmitter to a belt, waistband or guitar strap.
- Power On Indicator. Glows green when transmitter is powered on.
- 5. Power Switch. Recessed to prevent accidental turn-off.
- Mute Switch. Slide to ON for normal operation. Slide to MUTE to prevent sounds from being transmitted to the receiver. Muting the transmitter does not turn off transmitter power.
- Low Battery Indicator. Glows red when one hour or less of operating time remains and transmitter battery should be changed.
- Audio Gain Control. Provides audio level adjustment to accommodate different sound sources (e.g., speaking or play-

ing an instrument). Affects Transmitter Audio Peak indicator on receiver. A small screwdriver is supplied to make adjustments.

#### 9. Input Connector. T1, T11:

- 10. Mini Connector provides connection to a variety of lavalier and headset microphone cables and to the Shure WA302 instrument adapter cable. T1G: Accepts a standard 1/4 inch or guitar cable plug.
- Lavalier Microphone (Presenter System only). WL93
   omnidirectional condenser microphone, WL185 cardioid
   condenser microphone, or WL184 super cardioid condenser
   er supplied with a mount that clips onto a tie, lapel, or acoustic instrument.
- Cables. T1G: Guitar cable for electric guitar or other electric instruments. T11: WA302 Instrument adapter cable for connecting electric instruments to the T11's Mini connector.

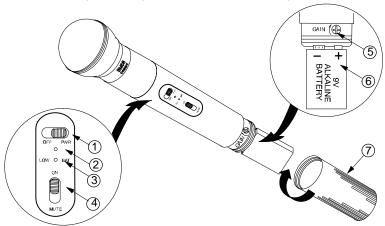


FIGURE 3. T2 HANDHELD TRANSMITTER FEATURES

- 1. **Power Switch.** Recessed to prevent accidental turn-off.
- 2. Power On Indicator. Glows green when power is on.
- Low Battery Indicator. Glows red when one hour or less of operating time remains. Replace battery when illuminated.
- Mute Switch. Slide to ON for normal operation. Slide to MUTE to prevent sounds from being transmitted to the receiver. Muting the transmitter does not turn off power.
- Audio Gain Control. Allows you to adjust the transmitter level with the supplied screwdriver. (See "Wireless System Adjustments".)
- 9V Alkaline Battery (shown installed). Provides power to the microphone-transmitter.
- Battery Cover. Unscrews for access to the 9V alkaline battery and gain control.

### **SYSTEM SETUP**

### **BATTERY INSTALLATION**

- 1. Slide the transmitter POWER switch to the OFF position.
- T1, T1G, T11: Press down on the OPEN side of the battery compartment cover, slide it back and flip it open, as shown in Figure 4.
  - **T2**: Unscrew the transmitter battery cover to expose the battery terminals, as shown in Figure 3.

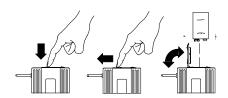


FIGURE 4. BATTERY INSTALLATION

Insert a fresh 9V alkaline battery into the battery compartment (A Duracell MN1604 is recommended and included with the system). A fresh 9V alkaline battery will typically provide 18 hours of performance time. A fully charged 8.4V NiCad battery will provide about 2 hours of performance time.

**IMPORTANT:** Carbon-zinc and zinc-chloride batteries will not provide adequate power and are not recommended.

Replace the battery cover.

### **HEADSET ASSEMBLY**

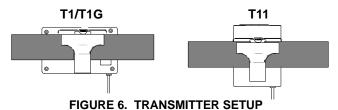
- Refer to the tag attached to the headset for assembly instructions. After assembling the WH20, adjust the headband and place it on your head.
- Position the microphone over the corner of your mouth, about 1/2 inch away. See Figure 5.
- 3. To reduce pops and breath noise, place the supplied foam windscreen over the microphone.



FIGURE 5. HEADSET MICROPHONE POSITION

## BODYPACK TRANSMITTER SETUP (T1, T1G, T11)

 Attach the transmitter to your belt, guitar strap, or waistband as shown in Figure 6. Depress the tab marked PRESS and slip the belt or strap between the transmitter body and the belt clip. For added stability, draw the strap or belt toward the clip's top wire, especially when using thin guitar straps.



Plug your guitar, headset microphone, or lavalier microphone into the transmitter.

### **RECEIVER SETUP**

 Connect the receiver to the power supply. Plug one end of the AC power adapter into the DC INPUT connector on the back of the receiver. Plug the other end into an AC power source. The green POWER light on the receiver will glow.

**T4N**: Loop the power cable around the cable retainer on the bottom of the receiver. See Figure 7.

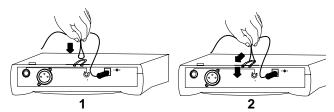


FIGURE 7. T4N POWER CABLE RETAINER

- Connect the receiver output. The Guitarist: plug a standard guitar cable into the receiver's output connector. Plug the other end into a guitar amplifier, as shown in Figure 8. The Headset, Vocalist, Presenter, or Bodypack: Use a cable with a 1/4 inch phone plug (T3, T4N) or a female XLR connector (T4N). Connect the receiver to a mic level input of a mixer or PA system (Figure 8).
- Extend antenna(s). T3: The antenna should be fully extended and vertical, as shown in Figure 8. T4N: The antennas should be fully extended and angled away from each other, at an angle of 45 degrees from vertical, as shown in Figure 8.

## WIRELESS SYSTEM OPERATION:

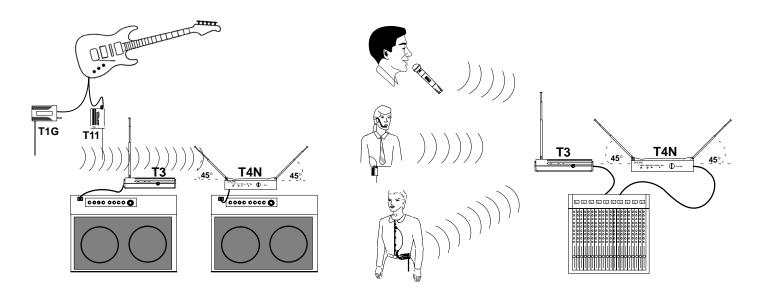


FIGURE 8. WIRELESS SYSTEM OPERATION

### **ESTABLISHING A WIRELESS LINK**

When powered on, your transmitter broadcasts an RF carrier signal. When picked up by your receiver, this signal links your wireless system and allows wireless transfer of audio signals from your microphone or instrument. The RF signal is broadcast steadily, even when your transmitter is muted. The yellow RF light (*T3*) and ANTENNA A/B lights (*T4N*) indicate when this link is established.

To test your wireless link, setup your transmitter and receiver as described in "System Setup". Turn on your transmitter while watching the yellow RF or ANTENNA lights. The RF light (*T3*) or one of the ANTENNA lights (*T4N*) should illuminate.

 If the RF or ANTENNA lights do not illuminate, see the Troubleshooting section in this guide.

Turn your transmitter off. The RF or ANTENNA light should go out.

• If the RF or ANTENNA lights do not go out after you turn off your transmitter, your receiver is picking up an RF signal from some other source. If you cannot identify and remove this source (usually other digital or wireless electronic equipment nearby), place your receiver in another location. If external RF sources cannot be avoided, you may need a wireless system that operates on a different carrier frequency. Contact your Shure dealer.

### **OPERATING YOUR WIRELESS SYSTEM**

- Once you have established a wireless link, slide the transmitter MUTE switch to the ON position.
- Sing, speak, or play your instrument at typical volume levels. (*The Guitarist*: turn the volume control on your guitar or bass all the way up.) Normal operation is indicated by:
  - Steady glow of yellow RF light (T3) or ANTENNA light A or B (T4N).
  - Flickering of the red PEAK light (T3) or TRANSMITTER AUDIO PEAK light (T4N) when loud sounds are transmitted.

**NOTE:** If the red TRANSMITTER AUDIO PEAK light on the receiver does not flicker occasionally, refer to the *Wireless System Adjustments* Section below.

When finished, slide the MUTE switch to MUTE. Then slide the transmitter POWER switch to OFF. (Muting the transmitter first will help prevent audio thumps that may occur when powering off the transmitter.)

### :WIRELESS SYSTEM ADJUSTMENTS:

#### TRANSMITTER AUDIO GAIN ADJUSTMENT

**The Guitarist:** The audio gain control on the transmitter in The Guitarist system is factory-preset at the minimum setting (full counterclockwise) to reduce the risk of overload and distortion. If the red TRANSMITTER AUDIO PEAK light on the receiver does not flicker when the guitar is played loudly and its volume controls are turned all the way up, increase the transmitter gain level. This will ensure the best signal-to-noise ratio for performance. See Figure 9.

The Headset: The audio gain control on the transmitter in The Headset system is factory preset at the maximum setting (full clockwise). This is because the microphone in the WH20 is a low output, dynamic microphone. It may be necessary to reduce the transmitter gain until the red TRANSMITTER AUDIO PEAK light flickers only when you speak or sing loudly. This will ensure the best signal to noise ratio for performance. See Figure 9.

The Vocal Artist, Presenter and Bodypack: The audio gain controls on the transmitters in The Vocal Artist, Presenter, and Bodypack systems have been factory preset at the mid-range position. This will provide the best results in most applications. However, for singers or presenters with quiet voices, the audio gain may need to be increased for better signal-to-noise ratio. Increase the gain until the receiver's TRANSMITTER AUDIO PEAK light flickers when you speak in a loud voice. For those with loud voices, the preset gain level may be too high, causing unwanted distortion. In this case, the PEAK indicator will glow continuously when you sing or speak in a loud voice and the gain level should be reduced. See Figure 9.

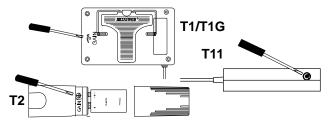


FIGURE 9. GAIN ADJUSTMENT

- To Increase Gain: Rotate the transmitter gain control clockwise with the supplied screwdriver until the red TRANS-MITTER AUDIO PEAK light on the receiver flickers when the guitar is played loudly, or when you sing or speak in a loud voice.
- To Reduce Gain: Rotate the transmitter gain control counterclockwise until the red TRANSMITTER AUDIO PEAK light on the receiver flickers only when the guitar is played loudly, or when you speak or sing in a loud voice.
- To Return Audio Gain to the Factory Setting: Rotate the transmitter audio gain control counterclockwise as far as it will go (The Guitarist), clockwise as far as it will go (The Headset), or to mid position (The Vocal Artist, Presenter, and Bodypack systems).

### RECEIVER VOLUME ADJUSTMENT

The volume control on the front panel of the T3 and T4N receivers can be adjusted to make the wireless system output level identical to that of a cabled guitar or bass or wired microphone. After making any necessary transmitter gain adjustments, ad-

just the receiver volume control until the output reaches the desired level. Rotate the volume control clockwise to *increase* output. Rotate it counterclockwise to *decrease* output.

#### RECEIVER SQUELCH ADJUSTMENT

The squelch control on the T3 and T4N receivers is factory preset for optimum performance. No further adjustment is normally required. It is possible to adjust the squelch control setting to emphasize either signal quality or system range:

- Turning the squelch control clockwise causes the receiver to demand a higher quality signal (less noise before muting), but decreases operating range.
- Turning the squelch control counterclockwise allows a lower quality signal through (more noise before muting), but increases operating range.

To return the receiver squelch control to the factory setting, rotate it to the mid-range position (so the slot is vertical).

#### ABOUT THE SHURE NOISE SQUELCH SYSTEM

Conventional squelch circuits analyze RF signal strength. Consequently, they cannot discriminate between noise and desired signals. When a wireless system is used in a noisy RF environment, conventional circuits may "open" unexpectedly, sending loud bursts of noise through the receiver when the transmitter's signal is weak or turned off. Unlike conventional wireless systems, Shure T-Series systems use a noise squelch circuit that analyzes signal quality instead of signal strength. A special detector monitors the level of high frequency noise. When the transmitter signal is strong, the system's noise level is low and the receiver sends audio through. When the transmitter signal is weak or absent, the system's noise level is high and the squelch circuit will mute the receiver. This virtually eliminates the possibility of annoying bursts of noise coming through your receiver.

### TIPS FOR ACHIEVING MAXIMUM PERFORMANCE

- Make sure you can always see a receiver antenna from the transmitter position.
- Keep the distance between the transmitter and the receiver antennas short.
- Avoid placing the receiver antennas near metal surfaces and obstructions. They will reduce system performance.
- To mount the receiver on a flat surface, attach the four adhesive rubber feet or secure the receiver to the surface with the supplied cloth fastening strips.

# TROUBLESHOOTING

INDICATOR STATUS			
PROBLEM	= flickers on loud pea		SOLUTIONS
	T4N RECEIVER T3 RECEIVER	TRANS- MITTER	
	TRANSMITTER POWER ANTENNA AUDIO	POWER	Slide transmitter POWER switch to ON.
	- <del>-</del>	O	Make sure battery is inserted properly (+/– battery terminals must)
	ON A B PEAK POWER RF PEAK	LOW BATT	match transmitter terminals).
	<b>☆</b> ○ ○	0	Insert fresh battery.
	POWER ANTENNA AUDIO	POWER	Make sure AC adapter is securely plugged into electrical outlet
	ON A B PEAK	÷;-	<ul> <li>and into DC input connector on rear panel of receiver.</li> <li>Make sure AC electrical outlet works and supplies proper volt-</li> </ul>
	POWER RF PEAK	LOW BATT	age.
No sound.	TRANSMITTER POWER ANTENNA AUDIO	POWER	
	-00-4>-0- 0 ON A B PEAK	-×-	Slide transmitter MUTE switch to ON.
	POWER RF PEAK	LOW BATT	- Olide transmitter World Switch to Ott.
	<u>'</u>	0	2 February (1) TAN assistance about a sixty and a sixt
	POWER ANTENNA AUDIO	POWER	<ul> <li>Extend antenna(s). T4N receiver antennas should point away from each other at a 45° angle from vertical; T3 receiver antenna</li> </ul>
	-\(\overline{\phi}\)- \(\overline{\phi}\) \(\o	- <del>\</del> \\-	should remain vertical. See Figure 8.
	POWER RF PEAK	LOW BATT	<ul> <li>Move receiver away from nearby metal objects.</li> <li>Remove obstructions and maintain line of sight between transmit-</li> </ul>
			ter and receiver.
	TRANSMITTER	1	Move transmitter closer to receiver.
	POWER ANTENNA AUDIO	POWER	Increase transmitter gain until Transmitter Audio Peak light flashes     Increase transmitter gain until Transmitter Audio Peak light flashes
	ON A B PEAK POWER RF PEAK	LOW BATT	on loud peaks.  Turn up receiver volume control as necessary.
No sound or faint	<del>-</del> ×->-×-	0	
sound.	TRANSMITTER POWER ANTENNA AUDIO	POWER	• Turn un receiver velume e control
	ON A B PEAK	LOW BATT	<ul> <li>Turn up receiver volume control.</li> <li>Check cable connection between receiver and amplifier or mixer.</li> </ul>
	POWER RF PEAK	O	
Sound level from the receiver is different			Adjust transmitter gain as necessary.
from that of a cabled			Adjust transmitter gain as necessary.     Adjust receiver volume as necessary.
guitar or microphone.  Sound level is different			
when you change			Adjust transmitter gain to compensate for differences between guitor output levels.
guitars.		T	tar output levels.
Distortion increases		POWER	
gradually.		LOW BATT	Replace transmitter battery.
		-\\(\o'\-\)-	
Bursts of noise,	ANTENNA	POWER	If noise occurs when transmitter is turned off, remove or turn off
distortion, or other radio signals interrupt	-Ò- ↔>-Ò- A B	0	nearby sources of RF (such as other wireless systems, CB radios, etc.).
performance.	RF -O-	LOW BATT	Use a wireless system that operates on a different frequency.
Momentary loss of	ANTENNA	POWER	
sound as transmitter is moved around	O O A B	-×-	<ul> <li>Reposition receiver and perform walk-through test. If audio drop- outs persist, mark "dead" spots and avoid them during perfor-</li> </ul>
performing area	RF	LOW BATT	mance.
(dropouts).	0	0	

## SYSTEM AND COMPONENT SPECIFICATIONS:

#### **RF Carrier Frequency Range**

169.445 to 240.000 MHz (Available frequencies depend on applicable regulations in country where system is used).

**Operating Range**:100 m (328 ft.) under typical conditions **Audio Frequency Response**: 50 to 15,000 Hz, ± 3 dB

Image Rejection: 60 dB typical Spurious Rejection: > 60 dB typical

System Distortion (ref. ± 15 kHz deviation, 1 kHz modula-

tion): 0.1% THD typical Signal/Noise Ratio: 101 dB

Sensitivity: -109 dBm for 12 dB SINAD typical

**Operating Temperature Range:** 

−18° to 57° C (0° to 135° F) NOTE: Battery characteristics

may limit this range.

Battery Life: 18 hours with 9 V alkaline battery (Duracell

MN1604 recommended).

# T1, T1G AND T11 BODYPACK TRANSMITTER SPECIFICATIONS

RF Output	50 mW typical (T1, T1G); 20 mW typical (T11)		
Input Configuration	Unbalanced		
Connector Type	1/4 Inch (T1G); 4-pin Miniature Connector (male) (T1)		
Actual Impedance	1 ΜΩ		
Maximum Recommended Input Level*	+3 dBV		
Minimum Recommended Input Level**	-80 dBV		
Connector Pin Assignments (T1, T11)	Pin 1:Tied to Ground Pin 2:Tied to +5 V Pin 3:Tied to Audio Pin 4:Tied to 20kΩ Resistor and Audio Ground		
Connector Pin Assignments (T1G)	Sleeve: Tied to Ground Tip: Tied to Audio		
Dimensions (T1, T1G)	64 mm H x 106 mm W x 24 mm D (2.52" H x 4.17" W x 0.95" D)		
Dimensions (T11)	83 mm H x 64 mm W x 26 mm D (3.27" H x 2.50" W x 1.03" D)		
Net Weight (T1,T1G)	96.4g (3.4 oz.)		
Net Weight (T11)	79.4g (2.8 oz.)		
Power Requirements	9 V alkaline battery (Duracell MN1604 recommended); 8.4 V NiCd battery optional.		
Nominal Current Drain * Gain Control at minimum	30 mA		

<sup>\*</sup> Gain Control at minimum

### T2 HAND-HELD TRANSMITTER SPECIFICATIONS

	<b>T2/58</b> (SM58 <sup>®</sup> )	<b>T2/</b> (PG58 <sup>™</sup> )
RF Output	50 mW Typical (FCC); 2	20 mW Typical (ETSI)
Dimensions	236 mm H x 51 mm D (9.29" H x 2.01" D)	222 mm H x 51 mm D (8.74" H x 2.01" D)
Net Weight	295 g (10.4 oz.)	266 g (9.4 oz.)
Power Requirement	9 V alkaline battery (Duracell MN1604 recommended); 8.4 V NiCd battery optional.	
Nominal Current Drain	30 mA	30 mA

### **T3 AND T4N RECEIVER SPECIFICATIONS**

	T4N	T3	
Connector	3-Pin XLR (Male) and 1/4" Phone Jack	1/4" Phone Jack	
Maximum Output Levels	1/4": +5 dBV XLR: -10 dBV	-6.8 dBV	
Nominal Output Levels	1/4": -8 dBV XLR: -30 dBV	-32 dBV	
Output Configuration	Active Balanced	Unbalanced	
Actual Impedance	3.3 ΚΩ	1 ΚΩ	
Connector Pin Assignments	XLR: Pin 1: ground; Pin 2: hot; Pin 3: cold 1/4": Tip: hot; Sleeve: ground.	Tip: hot; Sleeve: ground	
Dimensions (T4N)	41 mm H x 197 mm W x 138 mm D (1.625" H x 7.77" W x 5.42" D)		
Dimensions (T3)	35mm H x 152 mm W x 98 mm D (1.38"H x 5.98" W x 3.85" D)		
Net Weight (T4N)	435 g (15.4 oz.)		
Net Weight (T3)	192 g (6.8 oz.)		
Power Requirements	12–18 VDC nominal, 200mA		
Power Supply	120 V or 230V AC adaptor with 2.1 mm female plug		
Voltage/Current/ Phantom Power Protection	Yes	Yes	

#### Certification

- T1G, T1:Accepted under FCC Parts 74 and 90. Certified by IC in Canada under TRC-78.
- T11: Conforms to European Union directives, eligible to bear CE marking; meets European Union Requirements. Type Approval: pr I–ETS 300 422, BZT 17 TR 2019, and BAPT 122 R 1. Meets Requirements of EMC Standard 301-489-1 and –9
- T2/PG58, T2/58: Type Accepted under FCC Parts 74 and 90. Certified by IC in Canada under TRC-78. Conforms to European Union directives, eligible to bear CE marking; meets European Union Requirements. Type Approval: pr I–ETS 300 422, BZT 17 TR 2019, and BAPT 122 R 1. Meets Requirements of EMC Standard 301-489-1 and –9
- T3: Approved under the Notification provision of FCC Part 15. Certified by IC in Canada under TRC-78.
- T4N: Approved under the Declaration of Conformity (DoC) provision of FCC part 15. Certified by IC in Canada under RSS-210. Conforms to European Union directives, elegible to bear the CE marking. Meets Requirements of EMC Standard 301-489-1 and –9
- T11 and T2 Transmitters meet the essential requirements of the European R&TTE Directive 99/5/EC and are eligible to carry the CE marking. < € 0682 Ф
- T3 and T4 Receivers meet the essential requirements of the European R&TTE Directive 99/5/EC and are eligible to carry the CE marking. <€

Power supply meets the following safety standard:

PS20 Power Supply: UL 1310, CAN/CSA 22.2 No. 223.

PS20E Power Supply: EN 60065/09.93.

PS20UK Power Supply: EN 60065 5th, 1985.

THIS RADIO EQUIPMENT IS INTENDED FOR USE IN MUSICAL PROFESSIONAL ENTERTAINMENT AND SIMILAR APPLICATIONS.

NOTE: THIS RADIO APPARATUS MAY BE CAPABLE OF OPERATING ON SOME FREQUENCIES NOT AUTHORIZED IN YOUR REGION. PLEASE CONTACT YOUR NATIONAL AUTHORITY TO OBTAIN INFORMATION ON AUTHORIZED FREQUENCIES FOR WIRELESS MICROPHONE PRODUCTS IN YOUR REGION

Frequency Range of Apparatus: 169 MHz-250 MHz

**Licensing:** A ministerial license to operate this equipment may be required in certain areas. Consult your national authority for possible requirements.

Shure Transmitters Models T11 and T2 may be used in the countries and frequency ranges listed in Table 1.

## ACCESSORIES, LICENSING AND WARRANTY:

#### **FURNISHED ACCESSORIES**

Gain Adjustment Screwdriver 65A1659
Sew-in Mounting Block
(WL93; Presenter Systems Only) 65B1733*
Receiver AC Adapter
PS20 (120V), PS20E (220V), PS20UK
Guitar Cables (Guitarist systems only)
1/4" to 1/4"
1/4" to Mini Connector
Swivel Adapter (Vocal Artist Systems Only) WA371
Plastic Carrying Case (Diversity Systems) WA605
Plastic Carrying Case (Non-diversity Systems) WA600
Replacements furnished in multiples of 4.

# OPTIONAL ACCESSORIES AND REPLACEMENT PARTS

Anti-Roll Device for Handheld Transmitters	A1K
Neoprene Bodypack Belt Pouch	WA570
Line Matching Output Transformer (T3 Receiver)	A95U
1.8 Meter (6 ft.) Receiver-Mixer Cable	
Rack-Mount Kit (T4N Diversity Systems Only)	URT
Amp/Powered Mixer stand for Receivers	

#### **Presenter Systems Only**

Presenter Systems Only
Tan version of WL93 WL93T Single-Mount Tip Clip (2)
Single-Mount Tie Clip (2) (WL93)
Dual-Mount Tie Clip (WL93) RK307DB
Black Windscreen (4)
(WL93)
(WL93)
Replacement Cartridges (compatible with WL184, WL185)
Tie Clip Single Microphone Holder (2) (WL184, WL185) RK183T1
Tie Clip Dual Microphone Holder (1) (WL184, WL185) RK183T2 Black Snap–fit Windscreens (4)
(WL184, WL185) RK183WS
Black Foam Windscreen (4) (WL 184, WL185) RK261BWS

#### **Headset Systems Only**

For additional microphone service or parts information, please contact Shure's Service department at 1–800–516–2525 or Shure's website at www.shure.com. Outside the United States, please contact your Authorized Shure Service Center.

### WARRANTY INFORMATION

Shure Incorporated ("Shure") hereby warrants that these products will be free from defects in material and workmanship for a period of two years from the date of purchase for all microphone cartridge and housing assembly parts and, for a period of one year from the date of purchase, all transmitter and receiver parts. At its option, Shure will repair or replace the defective product and promptly return it to you. You should retain proof of purchase to validate the purchase date and return it with any warranty claim. If you believe this product is defective within the warranty period, carefully repack the unit, insure it, and return it postpaid to:

Shure Incorporated Attention: Service Department 222 Hartrey Avenue Evanston, IL 60202-5730 U.S.A.

Customers outside the U.S.A. should ship the product to the authorized Shure Distribution Center in their region.

### **DECLARATION OF CONFORMITY**

We of

Shure Incorporated 222 Hartrey Ave. Evanston IL 60202–3696 U.S.A. 847–866–2200

declare under our sole responsibility that the following products,

Model: T3 Name: T3 Receiver

Model: T4N Name: T4N Diversity Receiver

were tested and found to comply with Part 15 of the FCC rules.

Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Testing was completed by the following NVLAP or A2LA accredited laboratory:

BZT privat CETECOM GmbH 66117 Sarbruken Unterturkheimer StrBe 6–10 Deutschland telephone +49 681 598 – 9000

telephone +49 681 598 - 9000 fax +49 681 598 - 9075

Shure Inc., Manufacturer.

Signed:

Date: June 15, 1999

Name, Title: Craig Kozokar, Senior Quality Engineer

#### ADDITIONAL INFORMATION FOR THIS SHURE WIRELESS SYSTEM

This Shure wireless transmitter is accepted under FCC Part 74 and/or Part 90. IMPORTANT: Licensing of Shure wireless microphone equipment is the user's responsibility, and licensability depends on the user's classification and application, and on the selected frequency. Shure urges the user to consult the appropriate telecommunications authority before choosing and ordering frequencies.

Changes or modifications not expressly approved by Shure Inc. could void your authority to operate this equipment.

TABLE 1 TABLEAU 1 TABELLE 1 TABLA 1 TABELLA 1

Country Code Code de Pays Lander-Kurzel Codigo de Pais Codice del Paese	T11, T2 (169 – 250 MHZ)
A	230 – 250 MHZ *
В	174 – 223 MHZ *
СН	174 – 223 MHZ *
D	174 – 223 MHZ *
E	174 – 223 MHZ *
F	174 – 223 MHZ *
GB	174 – 223 MHZ *
GR	*
I	174 – 223 MHZ *
IRL	*
L	*
NL	174 – 223 MHZ *
Р	174 – 223 MHZ *
DK	*
FIN	174 – 223 MHZ *
N	174 – 223 MHZ *
S	174 – 223 MHZ *
All Other Countries Tous les autres pays Alle anderen Länder Demás países Tutti gli altri Paesi	*

<sup>\*</sup>Please contact your national authority for information on available legal frequencies for your area and legal use of the equipment.

<sup>\*</sup>Se mettre en rapport avec les autorités compétentes pour obtenir les informations sur les fréquences autorisées disponibles localement et sur l'utilisation autorisée du matériel.

<sup>\*</sup>Für Informationen bezüglich der für Ihr Gebiet verfügbaren gesetzlich zugelassenen Frequenzen und der gesetzlichen Bestimmungen für den Einsatz der Geräte setzen Sie sich bitte mit der zuständigen örtlichen Behörde in Verbindung.

<sup>\*</sup> Comuníquese con la autoridad nacional para obtener información en cuanto a las frecuencias legales disponibles y usos legales del equipo en su área.

<sup>\*</sup>Rivolgersi alle autorità competenti per ottenere informazioni relative alle frequenze autorizzate nella propria regione e alle norme che regolano l'uso di questo apparecchio.

### **EU DECLARATION OF CONFORMITY**

We, of Shure Incorporated 222 Hartrey Avenue Evanston, IL 60202-3696, U.S.A

### Declare under our sole responsibility that the following products

Model:	T11	Description:	Transmitter, Body-Pack
Model:	T2	Description:	Transmitter, Hand-Held
Model:	T3	Description:	Receiver, Non-Diversity
Model:	T4	Description:	Receiver, MARCAD Diversity
Model:	PS20E, PS20UK	Description:	AC/DC Power Adapter

### to which this Declaration relates

are in conformity to European EMC Directive 89/336/EEC are in conformity to European Low Voltage Directive 73/23/EEC are in conformity to European R&TTE Directive 1999/5/EC are in conformity to European CE Marking Directive 93/68/EEC

The products comply with the following product family, harmonized or national standards:

T11:	ETS 300 445:1996	ETS 300 422:1995
T2:	ETS 300 445:1996	ETS 300 422:1995
T3:	ETS 300 445:1996	

Γ4: ETS 300 445:1996

PS20E, PS20UK: EN60065 EN 61000-3-2:1996 EN 61000-3-3:1994

Manufacturer: Shure Incorporated

Signed \_\_\_\_\_\_ Date MARCH 19, 2001

Name, Title Craig Kozokar

Project Engineer, Corporate Quality, Shure Incorporated

European Contact: Shure Europe GmbH

Wannenäcker Str. 28, 74078 Heilbronn, Germany Phone: 49-7131-7214-0, Fax: 49-7131-7214-14

