

# SHURE®

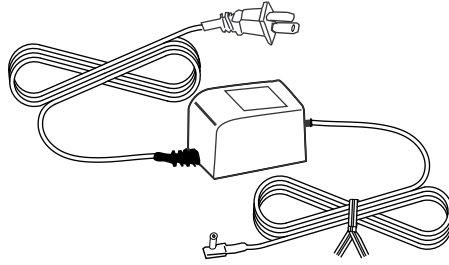


## PERFORMANCE GEAR

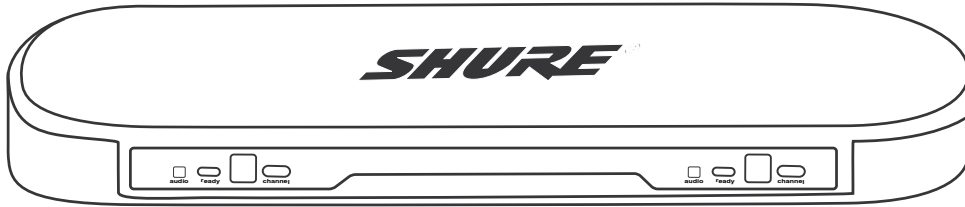
**C**ongratulations on purchasing your Shure Performance Gear Wireless system. Shure professional audio products deliver legendary sound quality, stage-proven durability and

hassle-free setup for worry-free performance.

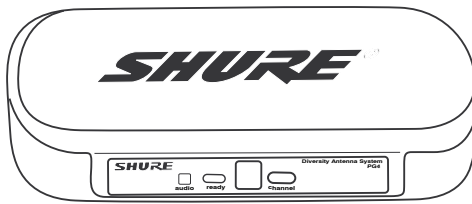
Performance Gear Wireless systems are available in a variety of configurations for handheld, guitar, headset, and presentation applications



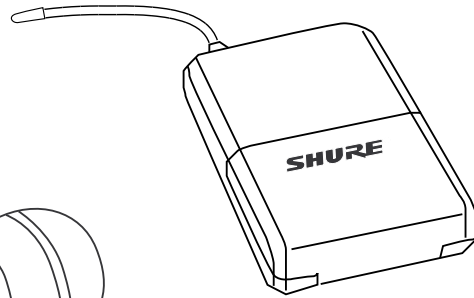
PS20  
Power Supply



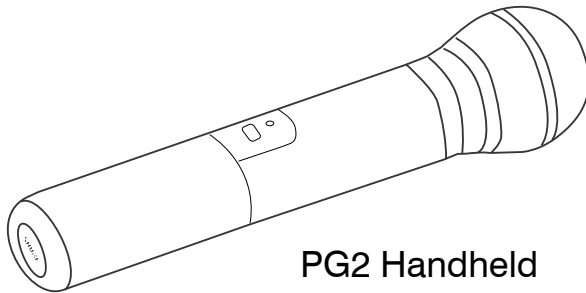
PG88 Dual Wireless Receiver



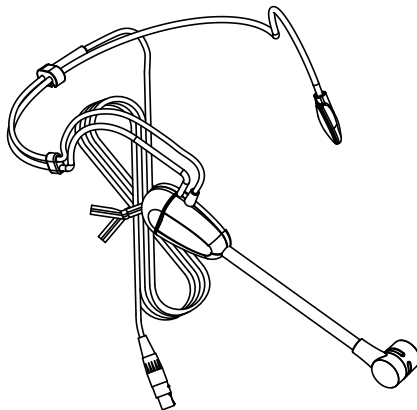
PG4 Wireless  
Receiver



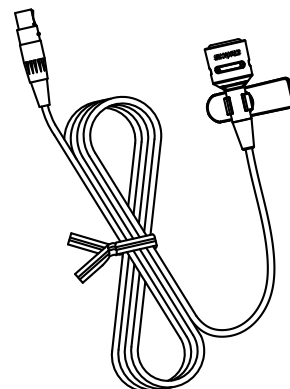
PG1  
Bodypack  
Transmitter



PG2 Handheld  
Transmitter



PG30  
Headworn Mic



PG185  
Lavalier Mic

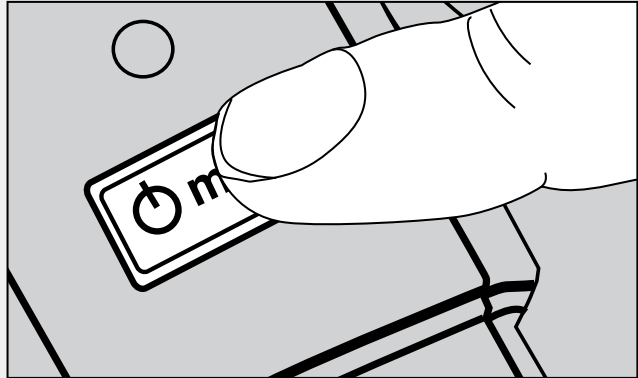
## Startup

Follow these simple steps to check for interference and to set your receiver and transmitter to the same channel.

- 1 Turn **OFF** the microphone or bodypack.



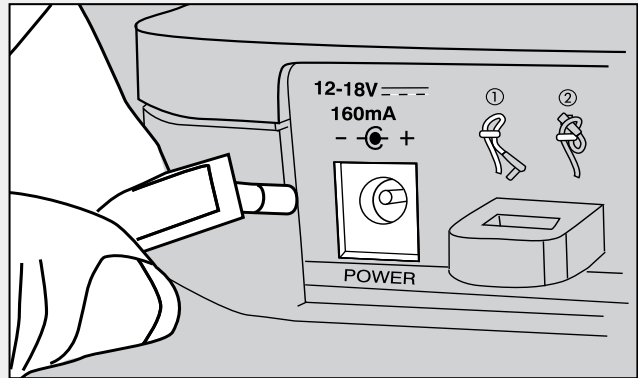
If left on, it will create a false busy indicator.



- 2 Plug in the power supply.

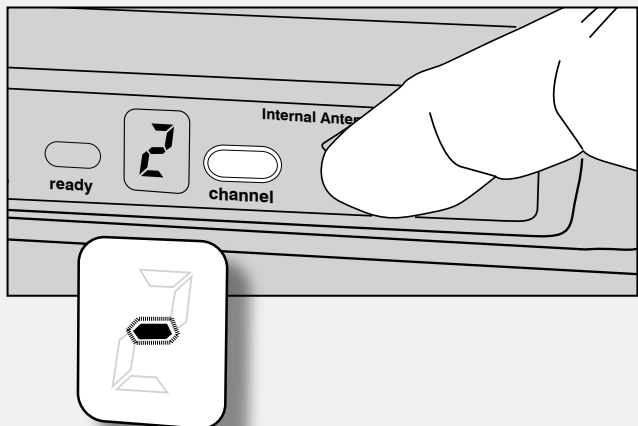
The channel display should illuminate.

There is no power switch.

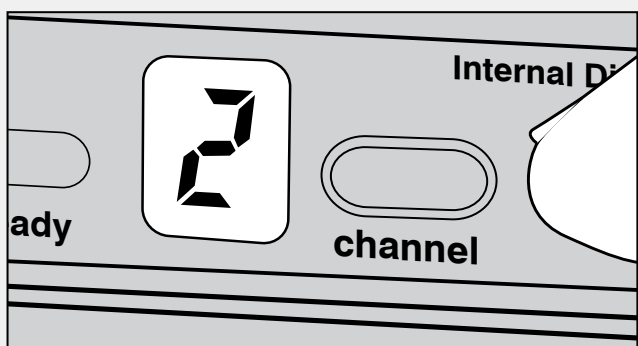


- 3 Press and hold down the channel button until the display begins flashing.

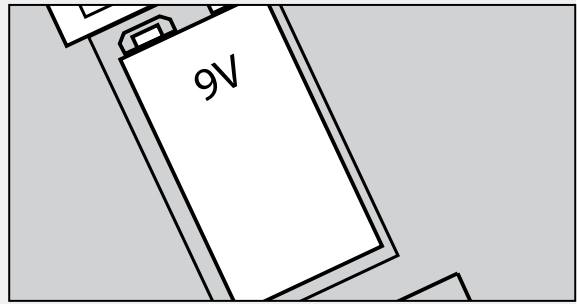
If you see the **Busy Indicator** (a flashing dash) change the channel.



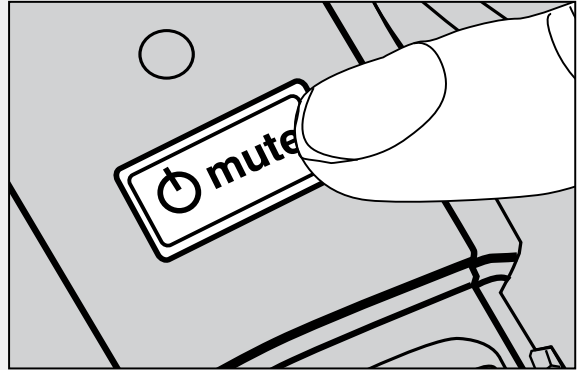
- 4 Wait for the channel display to stop flashing.



- 5 If you haven't installed the battery, do it now and leave the cover off.

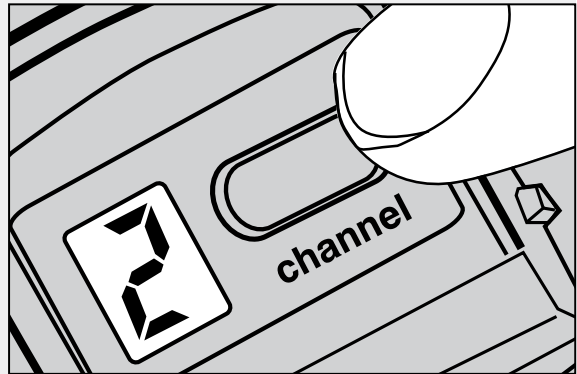


- 6 Turn **ON** the handheld or bodypack transmitter by pressing the power button.

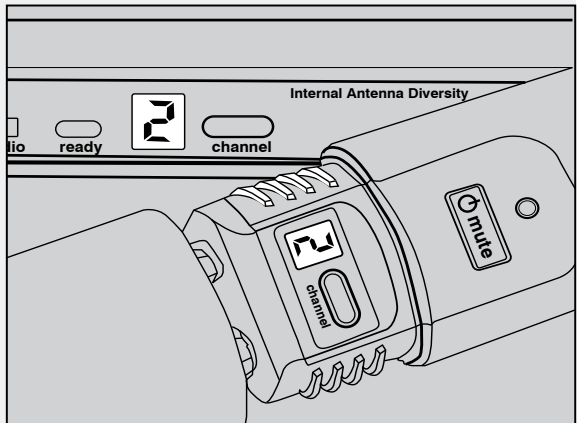


The channel display should illuminate.

It turns off after ten seconds to conserve battery.



- 7 Check to see that the transmitter and the receiver display the same channel.



The ready LED on the receiver should be illuminated.



- 8 Replace battery cover.

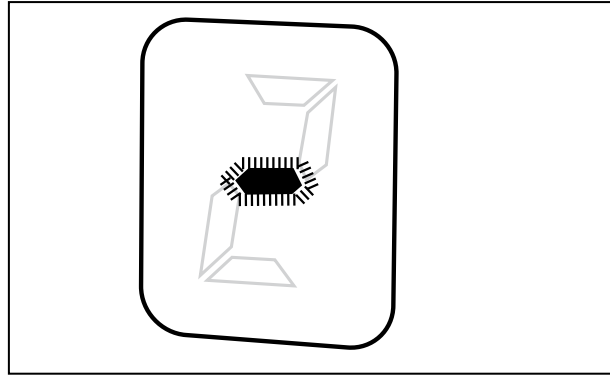


# Features

## Busy Indicator

When selecting channels, a flashing dash indicates interference from television broadcasts, electronic devices or other wireless systems.

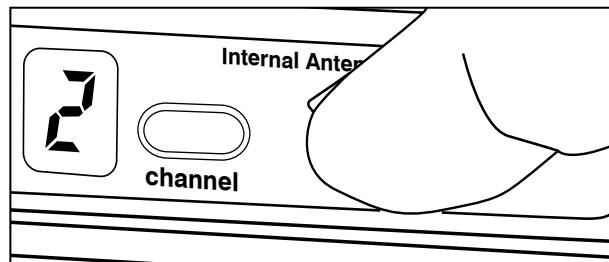
If this occurs, change the channel.



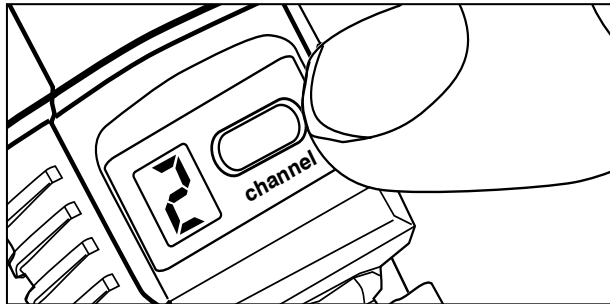
## Changing Channels

Press and hold the channel button until the display starts flashing.

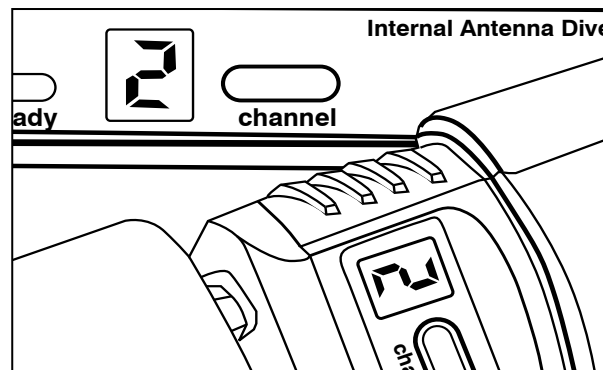
While the display is flashing, press the channel button.



The channel is active once the display stops flashing.



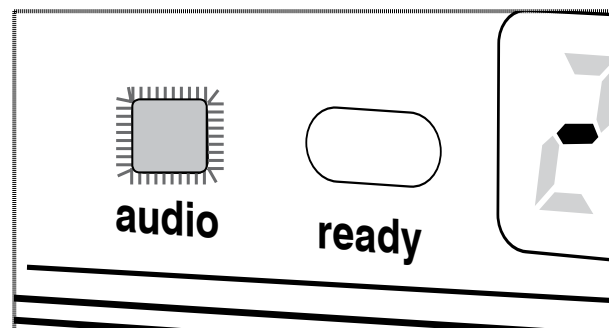
Receiver and transmitter channels should match.



## Testing Audio

Talk or sing into the microphone or play instrument.

The audio LED on the receiver should flicker green or amber, if red, adjust the **Gain Switch**.



## Locking and Unlocking Transmitter Controls

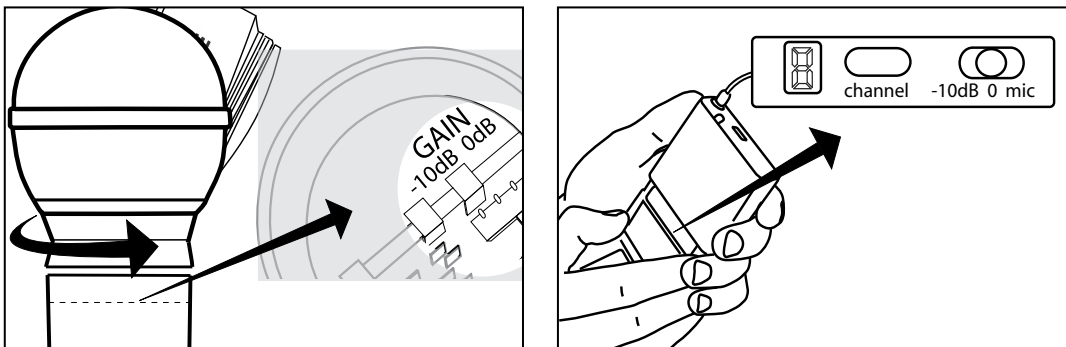
Lock system controls to prevent accidental muting.

**To lock controls:** Turn transmitter off. Remove Battery Cover. Press and hold Channel Button. Press and release Power/Mute button. Power/Mute LED will flash red and green.

**To unlock controls:** Press and hold Power/Mute button down until Power/Mute LED flashes red and green.

## Accessing Gain Switch

Multiple gain settings are available on the PG1 and PG2 transmitters. To change gain settings, see below.

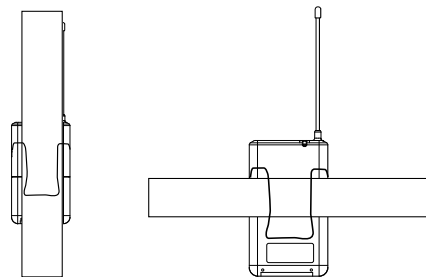


- 0dB** For instrument or quiet to normal vocal performance (default).
- 10dB** Use if audio is distorted due to high vocal or instrument levels.
- mic** Use for headworn or lavalier microphones (PG1 only).

## Wearing the Bodypack Transmitter

Clip the transmitter to belt or guitar strap as shown.

Make sure the antenna is unobstructed.



## Changing Battery

Expected life for a 9 volt alkaline battery is approximately 8 hours. When the Power/Mute LED glows red, the battery should be replaced immediately.

## Multiple System Setup

To set up multiple systems, repeat the previous steps for each transmitter and receiver pair. Once transmitters have been set, leave them on. Be sure to set each transmitter and receiver pair to a different channel. For information about frequencies and compatibility, refer to channel guide.

### LED Status

<b>TRANSMITTER</b>	
<b>LED COLOR</b>	<b>STATUS</b>
Green	Ready
Amber	Mute on
Red	Battery low
Flashing Red on startup	Battery is dead
Flashing Green and Red	Controls locked
Flashing Amber and Red	Mute on, battery low
<b>RECEIVER</b>	
<b>AUDIO LED COLOR</b>	<b>INDICATES</b>
Green	Normal signal strength
Amber	Strong signal
Red	Peak signal
<b>READY DISPLAY COLOR</b>	<b>INDICATES</b>
Green	System is ready

# Troubleshooting

Issue	LED Status	Solution
No sound or faint sound	Transmitter Power/Mute LED on, receiver LEDs on	<ul style="list-style-type: none"> <li>• Perform transmitter setup.</li> <li>• Verify all sound system connections.</li> <li>• Adjust transmitter gain.</li> </ul>
	Receiver Channel Display off	<ul style="list-style-type: none"> <li>• Make sure AC adapter is securely plugged into electrical outlet and into POWER connector on rear panel of receiver.</li> <li>• Make sure AC electrical outlet works and is supplying proper voltage.</li> </ul>
	Transmitter LED glowing or flashing red	<ul style="list-style-type: none"> <li>• Replace transmitter battery.</li> </ul>
	Transmitter LED off	<ul style="list-style-type: none"> <li>• Turn transmitter on.</li> <li>• Make sure the +/- indicators on battery match transmitter terminals.</li> <li>• Insert fresh battery.</li> </ul>
Distortion or unwanted noise bursts		<ul style="list-style-type: none"> <li>• Remove nearby sources of RF interference (CD players, computers, cell phones, digital effects, in-ear monitor systems, etc.)</li> <li>• Select a new channel for both receiver and transmitter.</li> <li>• Reduce transmitter gain.</li> <li>• Replace transmitter battery.</li> <li>• If using multiple systems, change the channel of one of the active systems.</li> </ul>
Sound level different from cabled guitar or microphone, or when using different guitars		<ul style="list-style-type: none"> <li>• Adjust transmitter gain as necessary.</li> </ul>
Cannot turn transmitter on	Transmitter LED flashing red	<ul style="list-style-type: none"> <li>• Replace transmitter battery.</li> </ul>



# System Components

<b>All Systems</b>		
<b>PG4 or PG88 Receiver Internal Diversity Antenna System</b>		
One 9 volt battery	AC Power supply	User guide
<b>Vocalist System</b>		
Microphone Head	PG2 handheld transmitter	Microphone clip
<b>Instrument System</b>		
PG1 bodypack transmitter	4-pin mini connector (TA4F) to 1/4" connector cable	
<b>Lavalier and Headworn System</b>		
PG1 bodypack transmitter	Microphone (choice of PG185, PG30)	

# Replacement Parts

<b>All Systems</b>	Microphone Stand Adapter (PGX2)	WA371
<b>System-Specific</b>	AC Adapter (120 VAC, 60 Hz)	PS20
	AC Adapter 220 VAC, 50 Hz), Argentina	PS20AR
	AC Adapter (230 VAC, 50/60 Hz, Europlug)	PS20E
	AC Adapter (230 VAC, 50/60 Hz, UK)	PS20UK
	AC Adapter (100 VAC, 50/60 Hz)	PS20J
	AC Adapter (220 VAC, 50 Hz, China)	PS20CHN
	AC Adapter (230 VAC, 50 Hz,, Australia)	PS20AZ
	AC Adapter (220 VAC, 60 Hz, Korea	PS20K
	PG58 Head with Grille	RPW108
	Belt Clip	44A8035
<b>Optional</b>	Universal Rack Tray	URT
	4-pin mini connector (TA4F) to 1/4" connector cable	WA302

# Technical Specifications

## System

Working Range	75m (250 ft.) Note: actual range depends on RF signal absorption, reflection, and interference.
Audio Channel Response	Minimum: 45 Hz. Maximum: 15 kHz (overall system channel depends on microphone element).
Total Harmonic Distortion	0.5%, typical Ref. +/- 33 kHz deviation, 1 kHz tone
Dynamic Range	> 100 dB A-weighted, typical
Operating Temperature Range	-18°C (0°F) to +57°C (+135°F) Note: battery characteristics may limit this range
Transmitter Audio Polarity	Positive pressure on microphone diaphragm (or positive voltage to tip of WA302 phone plug) produces positive voltage on pin 2 (with respect to pin 3 of low impedance output) and the tip of the high impedance 1/4-inch output.

## PG1 Bodypack Transmitter

Audio Input Level	-10 dBV maximum at "mic" gain position +10 dBV maximum at 0dB gain position +20 dBV maximum at -10dB gain position
Gain Adjustment Range	30 dB
Input Impedance	1mΩ
RF Transmitter Output	10 mW typical (dependent on applicable country regulations)
Dimensions	110 mm H x 64 mm W x 21 mm D (4.3 x 2.5 x 0.8 in.)
Weight	75 grams (2.6 oz.) without battery
Housing	Molded ABS
Power Requirements	One 9V alkaline or rechargeable battery
Battery Life	>8 hours (alkaline)

## PG2 Handheld Transmitter

Audio Input Level	+2 dBV maximum at -10dB position -8 dBV maximum at 0dB position
Gain Adjustment Range	10dB
RF Transmitter Output	10 mW typical (dependent on applicable country regulations)
Dimensions	223.52 L x 53.34 Dia. (8.8 in. x 2.10 in.)
Weight	218 grams (7.7 oz.) without battery
Housing	Molded ABS handle and battery cup
Power Requirements	One 9V alkaline or rechargeable battery
Battery Life	>8 hours (alkaline)

# Technical Specifications cont'd

## PG4 and PG88 Receiver

Output Impedance	XLR connector: 200 $\Omega$ 1/4 inch connector: 1k $\Omega$
Audio Output Level Ref. +/- 33 kHz deviation with 1 kHz tone	XLR connector (into 100K $\Omega$ load): -19 dBV, typical 1/4 inch connector (into 100K $\Omega$ load): -5 dBV, typical
Sensitivity	-105 dBm for 12 dB SINAD, typical
Image Rejection	>50 dB, typical
Dimensions	188 mm L x 103 mm W x 40 mm D (7.4 in. x 4.0 in. x 1.5 in.)
Dimensions - PG88	388 mm L x 116 mm W x 40 mm D (15.3 in. x 4 in. x 1.5 in.)
Weight	241 grams (8.5 oz)
Weight - PG88	429 grams (15.1 oz)
Housing	Molded ABS
Power Requirements	12-18 Vdc at 160 mA (PG4), 320mA (PG88), supplied by external power supply

## Regulatory Information

Regulatory Information for North America, Europe, and Australia

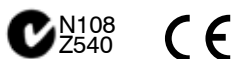
PG1 & PG2 Transmitters: Certified to FCC Part 74 (FCC ID: "DD4PG1" and "DD4PG2"). Certified by IC in Canada under RSS-123 and RSS-102 ("IC: 616A-PG1" and "IC: 616A-PG2"). Meets the essential requirements of the European R&TTE Directive 99/5/EC (ETSI EN 300-422 Parts 1 & 2, EN 301 489 Parts 1 & 9) and are eligible to carry the CE marking.

PG4 and PG88 Receiver: Authorized under Declaration of Conformity (DoC) provision of

 **0978** 

FCC Part 15. Certified under Industry Canada to RSS-123 ("IC: 616A-PG4"). This class B digital apparatus complies with Canadian ICES-003. Meets the essential requirements of the European R&TTE Directive 99/5/ EC (EN 301 489 Parts 1 & 9, EN 300 422 Parts 1 & 2) and is eligible to carry the CE marking. Conforms to Australian EMC requirements and is eligible for C-Tick marking.

**NOTE:** This equipment has been tested and found to comply with the limits for a Class



B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio channel energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

**PS20 Series Power Supplies:** Conform to Safety Standard IEC 60065.

PS20E and PS20UK are eligible to bear CE marking.

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

This radio equipment is intended for use in musical professional entertainment and similar applications.

## **Caution**

Changes or modifications not expressly approved by Shure Incorporated for compliance could void the user's authority to operate the equipment. Operation of this device is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

## **Patents**

*Patent numbers 6,597,301 and 6,296,565*

The SHURE logo is rendered in a bold, three-dimensional, metallic-style font. The letters are thick and have a slight shadow, giving them a 3D appearance. A registered trademark symbol (®) is located at the top right of the letter 'E'.

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