

SHURE[®]

UHF PREMIUM WIRELESS SYSTEMS



UHF

WIRELESS SYSTEMS



UHF

WIRELESS MICROPHONE SYSTEMS

A STANDARD IS SET. AND RAISED.

Since its introduction, the Shure UHF series has set the standard for audio quality, wireless performance, reliability and flexibility.

The systems have excelled in a wide range of high-end applications — from touring and installed sound to theater to broadcast and video production.

Today, Shure UHF offers more than ever, including the optional UA888 networking interface system. It lets you monitor and control multiple receivers simultaneously from a remote PC. Or for quick setup and monitoring of an individual U4S or U4D, use the new UA111 computer interface adapter.

What does Shure UHF offer you?



Unparalleled Performance

However you measure performance, you come out ahead with Shure UHF.

- >Choose from an assortment of Shure's legendary handheld microphones, including the Beta 87A™, Beta 87C and Beta 58A®, known worldwide as the mics of choice for live concert sound. Lavalier and headworn designs are also available for a variety of applications.
- >Shure's exclusive MARCAD® diversity circuitry improves reception and helps eliminate dropouts.
- >Tone Key Squelch keeps unwanted signals and noise from entering the system.
- >Shure's patented Power Defeat protection allows you to "lock" transmitter power on. System controls prevent accidental transmitter and receiver program changes.
- >Batteries last a full 12 hours.
- >Reliable and easy to use.

Unprecedented Compatibility

The real world is a crowded, busy place that can make using multiple wireless systems a daunting task. But not with Shure's UHF Series.

- >Four operating bands available, offering the capability to tune across 108 MHz of bandwidth.
- >Over 1200 selectable frequencies in 25 kHz increments (M4 and J4 versions) allow users to "squeeze out" additional compatible channels.
- >Pre-programmed compatible frequency groups assure an optimal number of simultaneous channels in any location. Up to 24 channels per frequency band can be achieved. With all four operating bands in use, up to 78 compatible channels can be achieved.

Unbelievably Informative

No other UHF wireless system gives you more ways to monitor vital system functions.

- >Digitally-controlled, programmable transmitter and receiver LCDs indicate group/channel setting.
- >Receiver display shows frequency, user name, squelch setting and menu "lock out" function.
- >Receiver LED indicators provide RF and audio level monitoring.
- >Five-segment battery display on the transmitter and three-segment remote battery indicator on the receiver (patent pending) show how much transmitter battery life remains.

Unsurpassed Durability

Shure has built a reputation designing rugged, highly durable sound reinforcement products with useful, unique features. And our UHF system is no exception.

- >All metal transmitter housings withstand real-world rigors.
- >Receiver's rugged frontplate resists abuse encountered in transport.

HANDHELD TRANSMITTERS/MICROPHONES



LAVALIERS AND GUITAR CABLE: *MULTIPLE COLORS AVAILABLE



Unrivaled Features and Performance



MULTI-FUNCTION RECEIVER LCD



UA830 IN-LINE ANTENNA AMPLIFIER



UA870 ACTIVE DIRECTIONAL ANTENNA



FIVE RACK-MOUNTED DUAL RECEIVERS WITH UA845 ANTENNA DISTRIBUTION SYSTEM

Receivers

- Two single-rack-space versions:
 - >U4S Single channel diversity.
 - >U4D Dual channel diversity.
- Easy-to-read, programmable, multi-function LCD to set and view:
 - >Actual frequency in megahertz.
 - >Group/Channel.
 - >Performer's name.
 - >Squelch setting.
 - >Menu lock-out status.
 - >Battery fuel gauge.
 - >UHF TV channel (in U.S. and some international versions).
- RF, audio and diversity metering.
- Independent headphone monitor: lets user adjust headphone volume without changing receiver output levels.
- Network expansion capability: allows computer control and monitoring.
- Switching internal power supply: switches automatically to meet local AC power conditions.
- Two half-wave, flexible rubber antennas.

Transmitters

- LCD display for group/channel setting, lock and battery fuel gauge.
- Durable all-metal housing.
- Two AA battery operation.
- U1 Bodypack:
 - >Supports the full range of Shure lavalier, headworn and instrument mics as well as guitar cables.
 - >Power-on LED.
 - >Standard 4-pin mini-connector (TA4M) or optional 4-pin LEMO connector.
 - >¼-wave, efficient whip antenna.
 - >3 position attenuator switch for adjusting input level.
- U2 Handheld:
 - >Five available microphone choices: Beta 87A™, Beta 87C, Beta 58A®, SM87, SM58.™
 - >¼-wave, efficient helical antenna.

Furnished System Accessories

- Detachable AC power cord with standard IEC connector.
- Two half-wave, flexible rubber antennas.
- Cables and hardware for front-mounting antennas.
- Connecting power cord for linking multiple receivers.
- Two AA batteries per transmitter.
- Transmitter carrying case.

Optional Accessories

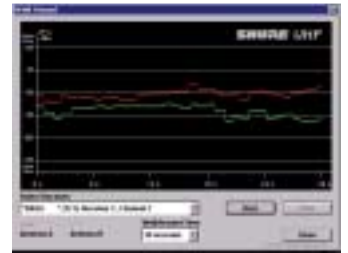
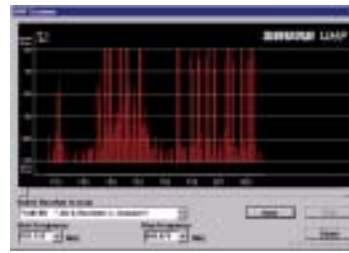
- UA845 Antenna Distribution System: Can support up to five single or dual receivers.
- Active Directional Antenna: Enhances reception of specific coverage area and rejects unwanted RF signals outside of desired area.
- In-line Antenna Amplifier: Facilitates remote placement of receiver antennas. Improves reception and amplifies signal to compensate for cable loss.
- UA888 Networking Interface System: Monitors and controls multiple Shure UHF receivers from a remote site.
- UA111 Computer Interface Adapter: Monitors and controls a U4D or U4S receiver.
- 25-, 50-, or 100-foot antenna-extension cables.

UNMATCHED CONTROL.

UA111 COMPUTER
INTERFACE ADAPTER



UA888 NETWORKING INTERFACE SYSTEM



Shure's UA888 networking interface system is available as an option to supplement your Shure UHF Wireless System.

- Allows user to monitor and control multiple Shure UHF receivers from a remote site using an IBM-compatible PC.
- Provides complete, real-time information and control over your Shure UHF systems, displaying all functions on a single computer screen.
- Ideal for venues requiring multiple systems, such as theaters, auditoriums, houses of worship, etc.
- Sophisticated troubleshooting capabilities – such as a walk-around RF plotter that measures RF signal strength to identify “dead” spots and a highly accurate frequency scanner – help keep systems running at peak efficiency.
- Software features scene storage and recall functions.
- Exclusive Shure Link™ assures that the UA888 will interface with other Shure DSP devices.

Using the same software as the UA888, the UA111 is a computer interface accessory that allows Shure UHF wireless microphone users to monitor and control one (1) U4D or U4S receiver. The UA111 is a quick setup tool for use in touring sound, installed sound, and audio/video rental applications.

- Includes hardware adapter (shown) for Shure Wireless U4D or U4S receivers, and Microsoft Windows-based software.
- Monitors and controls up to two (2) UHF wireless microphones when used with a Shure U4D dual receiver.
- Includes all of the software features of the UA888 Networking Interface System:
 - >UHF Frequency scanner
 - >Walk-around
 - >Password protection
 - >Scene setup
 - >Indicators for transmitter battery level, frequency in MHz, Shure Group/Channel, audio level, A/B antenna diversity, RF levels
 - >Squelch control

SPECIFICATIONS

SHURE UHF WIRELESS: AVAILABLE FREQUENCY BANDS (U.S. *)

FREQUENCY BAND NAME	J4	M4	UB	UA
Tunable Bandwidth (MHz)	30	30	24	24
Tunable Frequency Range (MHz)	554 - 584	662 - 692	692 - 716	782 - 806
Tunable Frequency Range (U.S. UHF T.V. Channel)	28 - 32	46 - 50	51 - 54	66 - 69
Frequency Spacing	25 KHz	25 KHz	125 KHz	125 KHz
Number of Channels	1200	1200	192	192
Dynamic Range (A-weighted)	>110 dB	>110 dB	>102 dB	>102 dB
Maximum Number of Compatible Channels per Band**	24	24	20	20
Maximum Number of Compatible Channels (M4+J4)**	48			
Maximum Number of Compatible Channels (UA+UB)**			40	
Maximum Number of Compatible Channels (UA+UB+J4+M4)**	78			

*Additional Frequency Bands are available by country. Contact your local Shure representatives.

**Actual results may vary, based on RF conditions in the external operating environment.

WORKING RANGE	150 m (500 ft.), minimum, under typical conditions, 480 m (1600 ft.) line of sight NOTE: Actual working range depends on RF signal absorption, reflection and interference
GAIN ADJUSTMENT RANGE	U1: 0 to 40 dB U2: 0 to 26 dB
MODULATION	±45 kHz deviation compressor-expander system with pre- and de-emphasis (International versions may vary)
RF POWER OUTPUT	U1, U2: 30 mW maximum (International versions may vary)
RF SENSITIVITY	0.45 µV for 12 dB SINAD (typical)
SPURIOUS REJECTION	75 dB typical
AUDIO POLARITY	Positive pressure on microphone diaphragm (or positive voltage applied 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
SYSTEM DISTORTION (ref. ±45 kHz deviation, 1 kHz modulation)	0.3% Total Harmonic Distortion typical
POWER REQUIREMENTS	U1, U2: Two 1.5V AA alkaline batteries (Duracell® MN1500 recommended); Nicad optional U4: 120 to 230 Vac, 50/60 Hz
BATTERY LIFE (U1, U2 TYPICAL)	12 hours (with two Duracell MN1500 1.5V AA alkaline batteries)
OPERATING TEMPERATURE RANGE	-6° to 49° C (21° to 120° F) NOTE: Battery characteristics may limit this range
OVERALL DIMENSIONS	U1: 92.2 mm L x 64.7 mm W x 24.2 mm D (3 29/32 in. x 2 35/54 in. x 61/64 in.) U2/58: 254 mm L x 50.8 mm D (10 in. x 2 in.) U2/BETA 58: 254 mm L x 53.2 mm D (10 in. x 2 3/32 in.) U2/87: 228.6 mm L x 49.2 mm D (9 in. x 1 15/16 in.) U2/BETA 87 A or C: 216 mm L x 50.8 mm D (8 1/2 in. x 2 in.) U4S/U4D: 44.5 mm H x 482.6 mm W x 295.3 mm D (1 3/4 in. x 19 in. x 11 5/8 in.)
NET WEIGHT	U1: 175.2 g (6.18 oz.) without battery U2/58, U2/BETA 58: 375.6 g (13.25 oz.) without battery U2/87, U2/BETA 87 A or C: 303.1 g (10.69 oz.) without battery U4S: 3.30 kg (7 lbs, 4.3 oz.) U4D: 3.85 kg (8 lbs, 0.5 oz.)
CERTIFICATION	Approved for sale and use by regulatory agencies throughout the world. Approvals include FCC, IC, CE, BZT, RA and others. For further information, contact your local Shure dealer.

PRE-PACKAGED, READY-TO-USE SHURE WIRELESS SYSTEMS FEATURING MARCAD® DIVERSITY Systems come in both Dual Channel and Single Channel Versions:

GUITAR/INSTRUMENT SYSTEMS	U14(S or D) U14(S or D)98H	Guitar System (U4 Receiver, U1 Transmitter, WA302 instrument cable) Bodypack/Instrument (U4 Receiver, U1 Transmitter, WB98H/C microphone)
HEADWORN SYSTEMS	U14(S or D)20 U14(S or D)30 U14(S or D)16	Bodypack/Headworn (U4 Receiver, U1 Transmitter, WH20TQG microphone) Bodypack/Headworn (U4 Receiver, U1 Transmitter, WH30TQG microphone) Bodypack/Headworn (U4 Receiver, U1 Transmitter, WCM16 microphone)
LAVALIER SYSTEMS	U14(S or D)83 U14(S or D)84 U14(S or D)85 U14(S or D)93 U14(S or D)50 U14(S or D)51	Bodypack/Lavalier (U4 Receiver, U1 Transmitter, WL183 microphone) Bodypack/Lavalier (U4 Receiver, U1 Transmitter, WL184 microphone) Bodypack/Lavalier (U4 Receiver, U1 Transmitter, WL185 microphone) Bodypack/Lavalier (U4 Receiver, U1 Transmitter, WL93 microphone) Bodypack/Lavalier (U4 Receiver, U1 Transmitter, WL50 microphone) Bodypack/Lavalier (U4 Receiver, U1 Transmitter, WL51 microphone)
HANDHELD SYSTEMS	U24(S or D)58 U24(S or D)87 U24(S or D)BETA 58 U24(S or D)BETA 87(A or C)	Handheld (U4 Receiver, U2/58 Transmitter) Handheld (U4 Receiver, U2/87 Transmitter) Handheld (U4 Receiver, U2/BETA 58 Transmitter) Handheld (U4 Receiver, U2/BETA 87(A or C) Transmitter)
COMBO SYSTEMS		Single Channel Receiver, 1 bodypack, 1 handheld. Dual Channel Receiver, 2 bodypacks, 2 handhelds.
MIXED SYSTEMS		Dual Channel Receiver, 1 bodypack, 1 handheld.



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