



INCLUDED WIRELESS WORKBENCH® SOFTWARE

# SCAN. PLAN. COMMAND.



Wireless Workbench® 5 from Shure is your wireless command center for frequency coordination of any Shure Wireless product and networked control of Shure UHF and UHF-R® series wireless systems.

Now compatible with both Mac OSX and Windows Vista™, WWB5 takes the guesswork out of frequency coordination and provides a graphic display of your RF environment. Scan, plan, and command your wireless systems anywhere with the ultimate system control software from Shure.

#### Ethernet and USB Compatibility

No additional equipment required to connect to network hub.

#### Frequency Compatibility Calculator Wizard

Scans the RF environment to assess all networked hardware and recommends frequencies for all specified wireless systems.

#### Frequency Selection Wizard

Automatically scans and selects open frequencies for all networked UHF-R receivers.

#### Comprehensive Infrared Sync

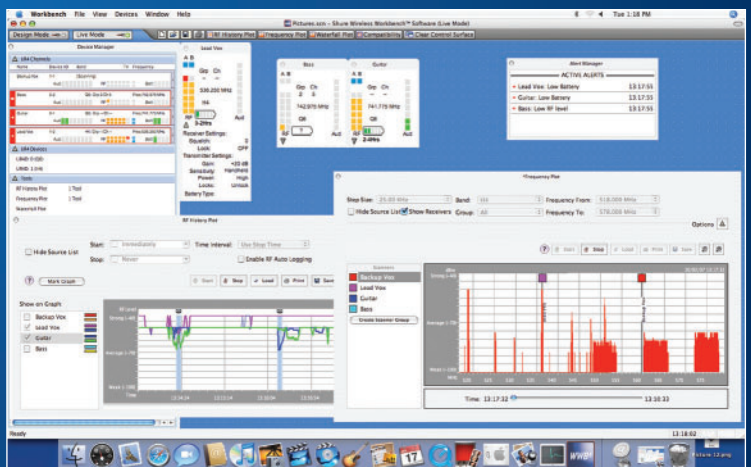
Automatically syncs frequencies, custom groups, lockouts and power settings between transmitters and receivers; provides PC control of transmitter / receiver sync parameters.

#### Band Limiting Feature

Allows the user to view custom frequency band parameters to align with any country or regional RF guidelines that might conflict with the available bandwidth.

#### Custom Frequency Group Creation

Lets you customize and save frequency groups for specific locations.

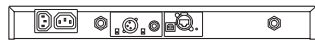


Mac OSX screenshot

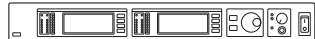
# UHF-R® Wireless Systems

|               |   |   |
|---------------|---|---|
| <b>System</b> | <b>RF Carrier Frequency Range</b>                                     | 470-952 MHz (available frequencies depend upon applicable country regulations)  |
|               | <b>Working Range</b>  | 150 m (500 ft.) under typical conditions; 500 m (1640 ft) line of sight<br>(NOTE: Operating range depends on many variables, including RF signal absorption, reflection and interference)   |
|               | <b>Audio Frequency Response</b>                                       | 40-18,000 Hz, +1/-3 dB (NOTE: Overall system frequency response depends on the microphone element)  |
|               | <b>System Distortion (ref. +/-38 kHz deviation, 1 kHz modulation)</b> | 0.3% THD typical  |
|               | <b>Dynamic Range</b>  | >102 dB or >110 dB A-weighted, region-dependent   |
|               | <b>Ultimate Quieting (ref. 45kHz deviation)</b>                       | >105 dB A-weighted  |
|               | <b>Operating Temperature Range</b>                                    | -18° to 57° C (0° to 135° F) (NOTE: Battery characteristics may limit this range)   |
|               | <b>Audio Polarity</b>   | 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" output |

## UR4S+ | UR4D+ Diversity Receiver



UR4S+ Single Channel Receiver



UR4D+ Dual Channel Receiver

|                           |  |
|---------------------------|--|
| <b>Overall Dimensions</b> | 43.5 mm H x 482.6 mm W x 365.38 mm D (1.718 x 19.000 x 14.385 in.)   |
| <b>Net Weight</b>         | UR4S+ 5.0 kg (10.9 lbs) UR4D+ 5.1 kg (11.2 lbs)  |
| <b>Housing</b>            | Galvanized Steel   |
| <b>Audio Output Level</b> | +24 dBu (-6 dBu mic)   |
| <b>Output Impedance</b>   | 200 Ω (150 Ω mic)  |
| <b>RF Sensitivity</b>     | UR4S+: -110 dBm typical for 12 dB SINAD; -105 dBm typical for 30 dB SINAD<br>UR4D+: -107 dBm typical for 12 dB SINAD; -102 dBm typical for 30 dB SINAD |
| <b>Image Rejection</b>    | 110 dB typical   |
| <b>Spurious Rejection</b> | 90 dB typical  |
| <b>Power Requirements</b> | 90 to 230 Vac, 50/60 Hz  |
| <b>Power Consumption</b>  | UR4S: 9.6 – 13.2 W; UR4D: 12 – 16 W; UA845: 15 -16 W   |

## UR1M Micro-Bodypack Transmitter



|                              |  |
|------------------------------|--|
| <b>Gain Adjustment Range</b> | -20 dB to +35 dB   |
| <b>Maximum Input Level</b>   | +5 dBu (sensitivity 0 dB), +15 dBu (sensitivity -10 dB)  |
| <b>Input Impedance</b>       | 200 kΩ TQG, 8.2 kΩ LEMO3   |
| <b>Output Impedance</b>      | 50Ω  |
| <b>RF Power Output</b>       | 10 mW or 10/50 mW (region dependent)   |
| <b>Housing</b>               | Cast magnesium   |
| <b>Connector Types</b>       | LEMO3, TQG   |
| <b>Power Requirements</b>    | 2 AAA batteries (alkaline, lithium primary, or NiMH types)   |
| <b>Battery Life</b>          | Alkaline: 6 hours (normal RF power), 4 hours (high RF power)<br>Lithium primary: 9 hours (normal RF power), 7 hours (high RF power)<br>NiMH 1000 mAh: 6 hours (normal RF power), 4 hours (high RF power) |
| <b>Overall Dimensions</b>    | 49 mm L x 60 mm W x 17 mm D (1.92 x 2.38 x 0.66 in.)   |
| <b>Net Weight</b>            | 62g (22 oz) without batteries  |

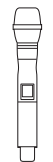
## UR1 Bodypack Transmitter

### UR1H High-Power Bodypack Transmitter



|                              |  |
|------------------------------|--|
| <b>Gain Adjustment Range</b> | -20dB to +35 dB  |
| <b>Maximum Input Level</b>   | +10 dBu (sensitivity 0 dB), +20 dBu (sensitivity -10 dB) |
| <b>Input Impedance</b>       | >1 MΩ  |
| <b>Output Impedance</b>      | 50Ω  |
| <b>RF Power Output</b>       | 10 mW, 10/50 mW, or 10/100 mW (region dependent)         |
| <b>Housing</b>               | Cast magnesium   |
| <b>Power Requirements</b>    | 2 AA alkaline or rechargeable batteries                  |
| <b>Battery Life</b>          | Up to 8 hours continuous use                             |
| <b>Overall Dimensions</b>    | 97.5 mm L x 60 mm W x 17 mm D (3.84 x 2.38 x 0.66 in.)   |
| <b>Net Weight</b>            | 97g (3.4 oz) without batteries                           |

## UR2 Handheld Transmitter



|                              |  |
|------------------------------|--|
| <b>Gain Adjustment Range</b> | -10 dB to +20 dB   |
| <b>Maximum Input Level</b>   | +4.8 dBu   |
| <b>Input Impedance</b>       | 1 MΩ   |
| <b>Output Impedance</b>      | 50Ω  |
| <b>RF Power Output</b>       | 10 mW or 10/50 mW (region dependent)                       |
| <b>Housing</b>               | Aluminum die-cast handle and aluminum machined battery cup |
| <b>Power Requirements</b>    | 2 AA alkaline or rechargeable batteries                    |
| <b>Battery Life</b>          | Up to 8 hours continuous use                               |
| <b>Overall Dimensions</b>    | 254 mm L x 51 mm dia. (10 x 2 in.)                         |
| <b>Net Weight</b>            | Varies by capsule type                                     |



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**SHURE**<sup>®</sup>  
LEGENDARY  
PERFORMANCE™

UHF-R<sup>®</sup> Wireless Microphone Systems

# PREMIER WIRELESS TECHNOLOGY



# WIRELESS ON A NEW SCALE

Offering you more productivity, more reliability and more control, UHF-R is premier wireless technology that helps you master the complexities of large-scale wireless installations. UHF-R takes wireless to a completely new level.

## Incomparable RF cascade feature for up to 10 receivers.

RF distribution ports in the rear panel of the receiver allow up to 10 receivers to share a single pair of antennas. This enhancement facilitates a simpler architecture, translating into benefits including easier setup and significant cost saving on wireless accessories investment.

## Unparalleled control for complex installations.

UHF-R automates setup and control operations to save you time and effort on even the most complex networked installations. UHF-R's usability innovations include networked Automatic Frequency Selection with group scan, infrared automatic transmitter sync and smart menu-driven system operation for fast setup and intuitive operation.

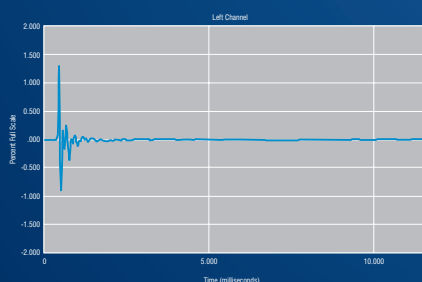
## Superior RF performance and reliability for every installation.

With 2400 selectable frequencies across 60 MHz of bandwidth, UHF-R provides up to 40 simultaneous compatible systems per band. Advanced Track Tuning Filtering Technology, by shifting the RF filter along with the selected frequency, allows you to deploy this added bandwidth without audio degradation or interference. All UHF-R components – including the compact, sweat-resistant bodypack – are engineered to withstand the abuses of the road. You can rely on UHF-R for consistently reliable performance, always.

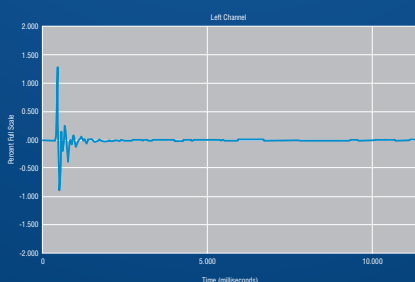
## Crystal-clear audio that sounds more like wired – by Audio Reference Companding

Shure's patented Audio Reference Companding (ARC) delivers crystal-clear audio transmission, far superior to conventional wireless. Unlike other wireless systems, Shure uses a variable companding ratio that responds to the audio level – eliminating wireless artifacts and substantially increasing dynamic range.

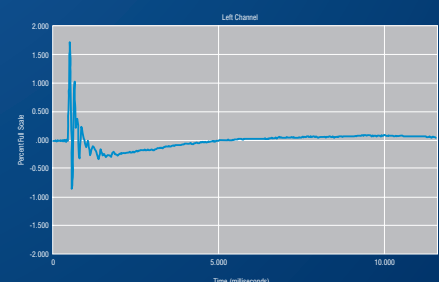
The impulse response graphs below show how a transient signal is reproduced through a Shure Beta 87A™ capsule in three ways: through a wired mic, through a wireless system with Audio Reference Companding, and through a conventional wireless system. The Audio Reference Companding graph is virtually identical to the wired graph, while the conventional wireless system shows far less accurate audio reproduction.



Wired Beta 87A  
Reference mic



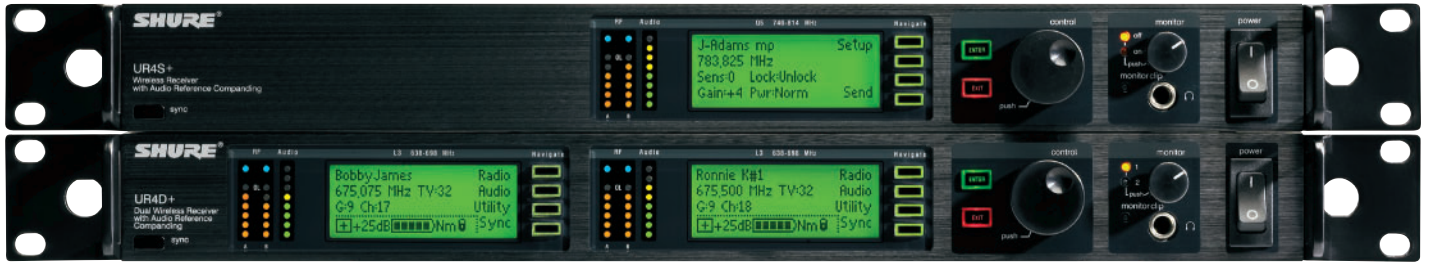
Wireless Beta 87A with variable-ratio  
**Audio Reference Companding.**  
*Virtually indistinguishable from wired mic (left panel).*



Wireless Beta 87A with **fixed-ratio companding.**  
*Appreciably different from wired mic (left panel).*

# UHF-R® Features and Performance

Shure UHF-R® Wireless Systems master the intense pressure and extreme conditions of any touring or installation environment, while delivering unmatched Shure sound.



## UR4S+ | UR4D+ Wireless Diversity Receiver

Available in Single Channel and Dual Channel versions.

2400 selectable frequencies across 60 MHz bandwidth

Track Tuning Filtering Technology

Up to 40 preset compatible systems per band

Up to 160 systems with multiple bands

Networked Automatic Frequency Selection

Infrared automatic transmitter sync (including custom group upload)

Flash memory to store six 60-channel custom frequency groups

Shure's patented Audio Reference Companding

Multi-function bit-mapped backlit LCD

USB and Ethernet network control and monitoring

Remoteable antennas



RF distribution ports allow up to 10 receivers to share a single pair of antennas.



KSM9/SL

## UR2 Handheld Transmitter

Switchable RF Power (10/50mW, regionally dependent)

Frequency and Power lockout

Bit-mapped Backlit LCD

2 AA Batteries –

Up to 8 hours continuous use

Infrared automatic transmitter sync

All-metal die-cast construction

## KSM9

Dual diaphragm design

Switchable polar patterns (supercardioid and cardioid)

Advanced two-stage shock mount suspension

Proprietary shock mount technology reduces handling noise

KSM9 is available in black (UR2/KSM9/BK) and champagne (UR2/KSM9/SL) finishes



## Handheld

SM58® Dynamic Cardioid

SM86 Condenser Cardioid

SM87 Condenser SuperCardioid

Beta 58® Dynamic SuperCardioid

Beta 87A™ Condenser

SuperCardioid

Beta 87C™ Condenser Cardioid

KSM9 Condenser Switchable

## Multi-function Displays

UHF-R's bitmapped LCD displays provide clear access and control for all integral system functions.



## UAMS Modular Mute Switch





Front view  
(97.5 x 60 x 17mm)

Side view

### UR1 Bodypack Transmitter

#### UR1H High-Power Bodypack Transmitter

- Switchable RF Power (UR1)  
(10/50mW or 10/100mW, regionally dependent)
- 250mW RF Power (UR1H)
- Magnesium construction (3.4 oz/97g)
- Frequency and Power lockout
- Bit-mapped backlit LCD
- 2 AA batteries (8 hours UR1 / 4 hours UR1H)
- Infrared automatic transmitter sync
- Integrated DC power input (UR1H)



Front view  
(49 x 60 x 17mm)

Side view

### UR1M Micro-Bodypack Transmitter

- Switchable RF Power (10mW or 50mW)
- Less than half the size of standard bodypacks
- Lightweight magnesium construction (2.2 oz/62g)
- Conformal coated circuitry for enhanced sweat resistance
- Bit-mapped backlit LCD
- 2 AAA batteries – Up to 9 hours continuous use
- Audio level metering
- TQG or LEMO3 connector options
- Selectable battery metering by battery type

### Accessories

A range of durable, tour-tested accessories are available to customize UHF-R systems for every application.

Power supply for UR1H – **PS22**

Passive Antenna Splitter Kit – **UA221**

Recommended for 2 receivers.

In-line Antenna Amplifier – **UA830**

Antenna/Power Distribution System – **UA845**

Recommended for 3 or more receivers.

½-Wave Omnidirectional Antenna – **UA860**

Modular Mute Switch – **UAMS**

Active Directional Antenna – **UA870**

SMA to BNC cable for external antenna for UR1H – **UA910**

3 Pin Mini LEMO3 Conversion Kit for UR1M – **WA335**

3 Pin Mini LEMO3 Jack for Lavaliers – **WA336**

Locking Bodypack Adapter for  
TQG connector (Included) – **WA340**

Cloth Bodypack Pouch – **WA580**

Neoprene pouch for UR1M and UR1M-LEMO3 – **WA581**

Weather resistant pouch for UR1H – **WA582**

