Operating Instructions
Before operating the unit, please read this manual thoroughly and retain it for future reference.

UWP-X5

©2007 Sony Corporation
# Table of Contents

- Configuration of the Package ................................................ 4
- Features ...................................................................................5
- Precautions ..............................................................................5
- Parts Identification .................................................................6
  - Body-pack transmitter (UTX-B1) .....................................6
  - Diversity tuner module (URX-M1) .................................8
  - Head-set type microphone (supplied) .............................8
- Power Supply ..........................................................................9
  - Inserting the batteries .......................................................9
  - Battery indication ...........................................................10
- Attachment and Installation Procedures ...............................11
  - Attaching the supplied accessories to the body-pack
    transmitter (UTX-B1) .....................................................11
  - Installing a diversity tuner module (URX-M1) ...............13
- Settings ...................................................................................15
  - Setting the transmission channel (UTX-B1 only) .........15
  - Setting the reception channel (URX-M1 only) ...............15
  - Detecting and selecting the available channels
    automatically (URX-M1 only) ........................................17
  - Setting the attenuation level of the audio input (UTX-B1
    only) ..............................................................................17
  - Resetting the accumulated battery use time indication
    (UTX-B1 only) ...............................................................18
  - Setting the RF output power level (UTX-B1 only) .......18
- Operation ...............................................................................19
- System Configuration ........................................................... 20
- Error Messages ...................................................................... 21
- Troubleshooting ..................................................................... 22
- Specifications ..........................................................................24
- Appendix ................................................................................ 26
  - Wireless microphone system frequency list ...............26
The UWP-X5 consists of a body-pack transmitter (UTX-B1), a diversity tuner module (URX-M1) and their accessories. By installing the tuner module into the tuner base unit or the powered mixer, the system construction to meet the desired purpose of use and required system scale becomes possible.

**Supplied accessories**

- Head-set type microphone (1)
- Headband (1)
- Clip (1)
- Belt clip (1)
- Operating Instructions (1)
Features

The UWP-X5 Wireless Microphone Package consists of a transmitter (body-pack transmitter (UTX-B1)), a receiver (diversity tuner module (URX-M1)), and the accessories. The UWP-X5 can be used with the tuner base unit or the powered mixer for AV presentations.

Note

The UWP-X5 is not compatible with conventional WRT series transmitters, WRR series tuners, or WRU series tuner units.

The featured components of the package are described below.

Body-pack transmitter (UTX-B1)

This is a small and lightweight transmitter with a crystal-controlled PLL (phase lock loop) synthesized system and a BMP-type microphone input connector. The RF power output can be set at 10 mW or at 2 mW.

Diversity tuner module (URX-M1)

This tuner module can be incorporated into the MB-X6 Tuner Base Unit or SRP-X500P Powered Mixer.

Head-set type microphone (supplied)

This electret condenser microphone is equipped with the omni-directional capsule to obtain sound with clarity and quality, ear clip to easily wear on either ear, and flexible boom allowing you to finely adjust the position and angle of the microphone.

Precautions

- The UWP-X5 units must be used within a temperature range of 0°C to 40°C (32°F to 104°F).
- Operating the UWP-X5 units near electrical equipment (motors, transformers, or dimmers) may cause it to be affected by electromagnetic induction. Keep the UWP-X5 units as far from such equipment as possible.
- The presence of the lighting equipment may produce electrical interference over the entire frequency range. Position the UWP-X5 units so that interference is minimized.
- To avoid degradation of the signal to-noise ratio, do not use the UWP-X5 units in noisy places or in locations subject to vibration, such as the following:
  - near electrical equipment, such as motors, transformers or dimmers
  - near air conditioning equipment or places subject to direct air flow from an air conditioner
  - near public address loudspeakers
  - where adjacent equipment might knock against the tuner
  Keep the UWP-X5 units as far from such equipment as possible or use buffering material.
- Clean the surface and the connectors of the UWP-X5 units with a dry, soft cloth. Never use thinner, benzene, alcohol or any other chemicals, since these may mar the finish.
Parts Identification

Body-pack transmitter (UTX-B1)

1 Antenna

2 Audio input connector
   Connect the supplied head-set type microphone here.

3 Power indicator
   Lights up red when the transmitter is tuned on.

To prevent electromagnetic interference from portable communication devices
The use of portable telephones and other communication devices near the UWP-X5 products may result in malfunction and interference with audio signals. It is recommended that portable communication devices near the UWP-X5 products be turned off.
Display section

A  **AF (audio frequency) indication**
Appears whenever the input audio signal is stronger than the reference level.

B  **RF (radio frequency) indication**
Appears during signal transmission from the antenna.

C  **RF (radio frequency) level indication**
Shows the RF output level setting.
For details, see “Setting the RF output power level (UTX-B1 only)” on page 18.

D  **BATT (battery) indication**
Shows the battery condition.
For details, see “Battery indication” on page 10.

E  **CH (channel) indication**
Shows the transmission channel. Each time you press the SET button in transmission mode, the channel indication changes as follows.
For details, see “Settings” on page 15.

---

5  **+ (+ selection) / – (– selection/reset) buttons**
Press these buttons to set the transmission channel, frequency, or attenuation level of the input signal.
The “–” button resets the accumulated battery use time to “00:00”.

6  **Battery compartment**
Accommodates two LR6 (size AA) alkaline batteries.
For details on how to insert the batteries, see “Power Supply” on page 9.

7  **SET button**
Press to change and enter display parameters.
For details, see “Settings” on page 15.

8  **POWER switch**
Turns the power of the transmitter ON or OFF.
Diversity tuner module (URX-M1)

1. **SET button**
   Press to change display parameters.
   
   For details, see “Settings” on page 15.

2. **RF (radio frequency) indicator**
   The color indicates the strength of the RF input signal.
   - **On in green:** RF input is 25 dBµ* or more.
   - **Off:** RF input is less than 25 dBµ*.

   * 0 dBµ = 1 μV_{EMF}

3. **Display section**

   - **A RF (radio frequency) indications**
     The number of dots indicates the RF input level.

   - **B AF (audio frequency) indication**
     Appears whenever the output audio signal is stronger than the reference level.

   - **C GP (group)/CH (channel) indication**
     Shows the reception channel group and channel number. Each time you press the

   SET button, the channel indication changes as follows.

   For details, see “Settings” on page 15.

4. **+ (+ selection) / – (– selection/reset) buttons**
   Press these buttons to set the reception channel and frequency.

---

**Head-set type microphone (supplied)**

---

Press the SET button.
Power Supply

This section explains the power supply for each component.

Diversity tuner module (URX-M1)

When incorporated into another component (e.g., MB-X6, SRP-X500P, etc.), the tuner module draws its power from that component.

For details on the power supply to the diversity tuner module, refer to the operating instructions of the component in which the diversity tuner module is installed.

Body-pack transmitter (UTX-B1)

The body-pack transmitter can be powered by two LR6 (size AA) alkaline batteries for about six hours of continuous operation (at 25 °C (77°F)). Details on inserting the batteries and the battery condition indication are given below:

Inserting the batteries

1. Slide the latches on both sides of the transmitter at the same time and open the battery compartment.
2 Align two new LR6 (size AA) alkaline batteries with the polarity markings and insert them into the battery compartment, and then close the cover.

Battery indication

When you turn the power on, the battery condition is shown by the BATT indication in the display section.

When the indication in column 4 starts to flash, replace the batteries with new ones. Be sure to check the expiration date printed on the new batteries before using them.

<table>
<thead>
<tr>
<th>BATT indication</th>
<th>Battery status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Lights</td>
<td>Good</td>
</tr>
<tr>
<td>2 Lights</td>
<td>Less than 50% charged</td>
</tr>
<tr>
<td>3 Lights</td>
<td>Less than 20% charged</td>
</tr>
<tr>
<td>4 Flashes</td>
<td>Almost drained</td>
</tr>
</tbody>
</table>

Note

The indicated battery condition may not be correct if the batteries were not new when installed. If you plan to use the component for a long period, it is recommended that you replace the batteries with brand new ones.

Notes on battery

Batteries may leak or explode if mistreated. Be sure to follow these instructions.

- Be sure to install the batteries with the correct polarity.
- Always replace the two batteries together.
- Do not use different types of batteries or old and new one together.
- The batteries are not rechargeable.
- When not using the component for a long period of time, remove the batteries to avoid leakage. If the batteries do leak, clean all leakage from the battery compartment and the component. Leakage left in the compartment and the component may cause poor battery contact. If there seems to be poor battery contact, consult your Sony dealer.
Attachment and Installation Procedures

This section describes the procedures for attaching the supplied accessories to the body-pack transmitter (UTX-B1) and the installation of the diversity tuner module (URX-M1) into the MB-X6 Tuner Base Unit or SRP-X500P Powered Mixer.

Attaching the supplied accessories to the body-pack transmitter (UTX-B1)

To attach the head-set type microphone

1. **Head-set type microphone (supplied)**
2. **Insert the plug (1), then turn and lock the connector cover (2).**

To wear the head-set type microphone

- The head-set type microphone can be worn on either ear.
- Hook the upper part of the ear clip on an ear, then press the ear clip gently onto the ear to settle it in place.
- To obtain proper sound quality, twist the boom so that the threads on the capsule case face toward the mouth (1), then pull the capsule case on the extensive line from the mouth (2).
To attach the headband and clip

The headband can be attached on either side.

To wear the microphone more securely, attach the supplied headband (①) before wearing the microphone. To prevent the microphone from falling off, attach the supplied clip (②) to the microphone cable, then clip the microphone cable to the clothing.

To attach the belt clip

Insert one end of the belt clip into one of two holes on either side of the transmitter, and then insert the other end into the hole on the other side.

To remove the belt clip

Insert a pointed object such as a ballpoint pen between the belt clip and the transmitter to make some space between them, and then remove the end of the belt clip from the hole on the side of the transmitter.
Installing a diversity tuner module (URX-M1)

**Notes**
- Before installing the diversity tuner module (URX-M1), make sure the unit into which the tuner module will be installed is turned off. Do not install or uninstall the tuner module while the unit into which the tuner module will be installed is turned on, as this may damage the connector or cause noise.
- The buttons and display on the front panel of the tuner module may be damaged if they are gripped too strongly. Always hold the tuner module by the side.
- Do not put your fingers on the connectors on the rear panel of the tuner module or into the slot on the unit into which the tuner module will be installed.
- Keep the tuner module away from static electricity.

To install a diversity tuner module (URX-M1) into an MB-X6 Tuner Base Unit

The MB-X6 Tuner Base Unit can accommodate up to 6 diversity tuner modules (URX-M1).

1. Loosen the screws at both sides of the front cover, then slide the front cover downward.
2. Hold the screws by the head and pull forward to remove the front cover.
3. When installing the tuner unit into the tuner slot other than slot 1, push the corresponding blank panel from the front side of the front cover to remove it.
4. Insert the tuner unit into the slot until you hear a click.
5. Match the six latches with the six holes on the front panel, then replace the front cover.
6. Tighten the screws on the front cover to secure it to the front panel of the MB-X6.
To remove a diversity tuner module
After removing the front cover, hold the tuner unit by the top and bottom, then pull it out of the slot.

To install a diversity tuner module (URX-M1) into an SRP-X500P Powered Mixer
The SRP-X500P Powered Mixer can accommodate up to two diversity tuner modules (URX-M1).

Remove the tuner slot cover from the SRP-X500P and inspect the top and bottom sides of the diversity tuner module. Then, insert it into the slot.

To remove the diversity tuner module
Pull the latch securing the tuner module to the side and pull out the tuner module.
Settings

Setting the transmission channel (UTX-B1 only)

See “Wireless microphone system frequency list” on page 26 for details on the selectable channel groups and channels.

1 Turn on the transmitter while pressing down the SET button.
   Keep pressing the SET button until the display section parameters that were displayed when the unit was last turned off start to flash.

2 Press the SET button repeatedly until the channel number (or frequency) indication appears.

3 Press the + or – button to select the channel number (or frequency).
   Pressing the + button cycles the indication in the order shown in the tables in “Wireless microphone system frequency list” on page 26.
   Pressing the – button cycles the indications in the opposite direction.
   Hold down the + or – button to change the channel number (or frequency) faster.

4 When the desired channel number (or frequency) appears, set the POWER switch to OFF to complete the setting, or press the SET button to set other items.

   The results are stored in memory. The stored channel number (or frequency) will appear in the display section the next time you turn on the transmitter by setting the POWER switch to ON.

Notes

- When you are setting the transmission channel, the transmitter cannot be used to transmit signals.
- Do not remove the batteries while setting the transmission channel. If they are inadvertently removed, re-insert them immediately and redo the procedure “Setting the transmission channel (UTX-B1 only)” from step 1.
- Make sure that the selected channel is the same on the transmitter and tuner being used in the same system.
- If you turn off the transmitter and then immediately turn it on right after setting the transmission channel, the unit may not operate normally. Wait a few seconds before turning it on again.

Setting the reception channel (URX-M1 only)

See “Wireless microphone system frequency list” on page 26 for details on the selectable channel groups and channels.

1 Press down the SET button for more than one second.
   Keep pressing the SET button until the display section parameters start to flash.

2 Press the SET button repeatedly until the channel group and the channel number indications appear.
   The channel group indication starts to flash.

3 Press the + or – button to select the channel group.
Pressing the + button cycles the indication in the order shown in the tables in “Wireless microphone system frequency list” on page 26. Pressing the – button cycles the indications in the opposite direction. Hold down the + or – button to change the channel group faster.

4 When the desired channel group number appears, press the SET button. The selected group is entered. The right four digits start to flash to allow the selection of the channel number.

5 Press the + or – button to select the channel number.

The channel indication changes in the order shown in the tables in “Wireless microphone system frequency list” on page 26.

Example: When the channel group 00 is selected

\[
\begin{array}{c}
6801 \\
\downarrow \\
6947 \\
\downarrow \\
6902 \\
\end{array}
\begin{array}{c}
6802 \\
\uparrow \\
6847 \\
\uparrow \\
6901 \\
\end{array}
\]

6 When the desired channel number appears, leave the tuner for about 10 seconds until the selected channel number stops flashing and the selection is stored in memory.

To select the channel by frequency indication

1 Press the SET button for more than one second. Keep pressing the SET button until the display section parameters start to flash.

2 Press the SET button repeatedly until the frequency indication appears and starts flashing.

3 Press the + or – button to select the frequency.

4 When the desired frequency appears, leave the tuner for about 10 seconds until the selected channel frequency stops flashing and the selection is stored in memory.

Notes

- When you are setting the reception channel, the tuner can be used to receive signals.
- Do not remove the batteries while setting the reception channel. If they are inadvertently removed, re-insert them immediately and redo the procedure “Setting the reception channel (URX-M1 only)” from step 1.
- Make sure that the selected channel is the same on the transmitter and tuner being used in the same system.
- If you turn off the tuner and then immediately turn it on right after setting
the reception channel, the unit may not operate normally. Wait a few seconds before turning it on again.

Detecting and selecting the available channels automatically (URX-M1 only)

When multiple diversity tuner modules (URX-M1) are installed into the MB-X6 to perform simultaneous multiple-channel operation, select the channel group on the tuner module installed into the slot 1 of the MB-X6, then all the tuner modules installed into the MB-X6 can be set to different channels within the selected channel group.

1 Turn off all the microphones and transmitters.
2 Select the channel group on the tuner module installed into the slot 1 of the MB-X6.
3 After confirming that the channel group indication has stopped flashing (about 10 seconds after you have selected the channel group), keep pressing the + button on the tuner module installed into the slot 1 of the MB-X6.

All the tuner modules installed into the MB-X6 are set to the available channels within the selected channel group.

After the automatic detection and selection of available channels finish, you can change the group and channel on each tuner module manually.

Notes

- Do the automatic detection and selection of available channels with the channel group other than channel group 00.
- When there are unavailable channels due to extraneous radio wave and the channel could not be selected on some tuner modules, “NO CH” appears on the display of those tuner modules. If this happens, select the channel group with no interference from extraneous radio wave, and repeat the procedure above.

Setting the attenuation level of the audio input (UTX-B1 only)

The attenuation level can be set during signal transmission.

1 Do the following while there is no signal transmission.

Turn on the transmitter while pressing down the SET button, and press the SET button repeatedly until the attenuation level indication appears in the display section.

2 Press the + or – button to select the attenuation level.

The selectable range is from 0 dB to 21 dB in steps of 3 dB (the factory setting is 0 dB).
3 Do the following while there is no signal transmission.

Set the POWER switch to OFF to complete the setting, or press the SET button to set other items.

The results are stored in memory. The change becomes effective the next time you turn on the transmitter by setting the POWER switch to ON.

4 Set the POWER switch to OFF to complete the setting, or press the SET button to set other items.

The results are stored in memory. The change becomes effective the next time you turn on the unit by setting the POWER switch to ON.

---

Resetting the accumulated battery use time indication (UTX-B1 only)

The accumulated battery use time is the total time (in hours and minutes) that the batteries have been used. It is recorded whenever the transmitter is on. Reset the indication to “00:00” whenever you replace the batteries.

1 Turn on the unit while pressing down the SET button.

Keep pressing the SET button until the display section parameters start to flash.

2 Press the SET button repeatedly until the accumulated time indication appears in the display section.

3 Press the – button.

The time indication resets to “00:00.” While “00:00” is still displayed, you can return to previous value by pressing the + button.

---

Setting the RF output power level (UTX-B1 only)

You can select the RF output power level from “H” (10 mW) or “L” (2 mW) in setting mode. Set the RF output level to L (2 mW) for simultaneous operation of multiple channels, and set it to H (10 mW) for long-distance operation.

1 Turn on the transmitter while pressing down the SET button.

2 Press the SET button repeatedly until the RF output level indication appears in the display section.

3 Press the + button to select “H” (10 mW), or press the – button to select “L” (2 mW).

4 Set the POWER switch to OFF to complete the setting, or press the SET button to set other items.

The results are stored in memory. The change becomes effective the next time you turn on the transmitter by setting the POWER switch to ON.
The procedure below is the same for the UTX-B1 and URX-M1.

1. Make all necessary connections on the tuner.
   
   *For examples of UWP-X5 component connections, see “System Configuration” on page 20.*

2. Set the transmission channel on the transmitter, and then turn off the unit.
   
   *For details on setting the transmission channel, see “Setting the transmission channel (UTX-B1 only)” on page 15.*

3. Turn on the tuner.
   
   The parameters that were in the display section when the tuner was last turned off appear again.

   *Note*
   
   Before turning on the tuner, turn down the volume of the equipment connected to the tuner. Otherwise, noise will be produced when the tuner is turned on.

4. Set the reception channel on the tuner.
   
   *For details on setting the reception channel, see “Setting the reception channel (URX-M1 only)” on page 15.*

5. Turn on the transmitter.

If noise is heard

Depending on the environment where the UWP-X5 components are installed, external noise or radio waves may disrupt transmission on certain channels.

When selecting a channel under these circumstances, turn off the transmitter. Then, on the tuner, select a channel for which the RF indications do not appear in the display section or for which the RF indicator does not light up (i.e., a channel free from noise or radio wave interference). Set the same channel on the transmitter.

*Note*

To prevent interference or noise, please take the following precautions.

- Do not use two or more transmitters with the same wireless channels.
- When operating two or more UWP-X5’s simultaneously, set each package to a different channel within the same channel group.
- Keep the reception antenna and the transmitter separated more than 3 meters (9 feet 11 inches).
- When operating two or more UWP-X5’s simultaneously with the same channel group, make sure that they are at least 100 meters (330 feet) apart, but within clear sight of each other. (The actual distance may differ depending on the circumstances.)
System Configuration

**Note**

Production of the peripheral and relating devices may have been discontinued. Upon selecting the devices to be used with this product, consult your nearest Sony representative or the dealer from whom you purchased the product.

**Sample configurations for AV presentations**

To DVD player, PC, or VTR, etc.

SRP-X500P Powered Mixer

AN-820 UHF antenna

Body-pack transmitter (UTX-B1)

BNC cable

XLR cable or pin cable
Error Messages

When a problem occurs, one of the following error messages may appear on the display.

<table>
<thead>
<tr>
<th>Messages</th>
<th>Meanings</th>
<th>Remedy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Err 01</td>
<td>An error has occurred in the backup memory data.</td>
<td>Contact your Sony dealer.</td>
</tr>
<tr>
<td>Err 02</td>
<td>The PLL synthesized circuit is abnormal.</td>
<td>Restart the unit. If the message appears again, contact your Sony dealer.</td>
</tr>
<tr>
<td>Err 03*</td>
<td>The battery voltage exceeds the allowable limit.</td>
<td>Use the specified battery.</td>
</tr>
</tbody>
</table>

* Body-pack transmitter (UTX-B1) only
## Troubleshooting

If you have any problem using the UWP-X5, use the following checklist. Should any problem persist, consult your Sony dealer.

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Meanings</th>
<th>Remedy</th>
</tr>
</thead>
<tbody>
<tr>
<td>The unit does not turn on.*</td>
<td>The polarity orientation of the batteries in the battery compartment is incorrect.</td>
<td>Insert the batteries with the correct polarity orientation.</td>
</tr>
<tr>
<td></td>
<td>The batteries are exhausted.</td>
<td>Replace the batteries with new ones.</td>
</tr>
<tr>
<td></td>
<td>The battery terminals in the transmitter are dirty.</td>
<td>Clean the + and – terminals with a cotton swab.</td>
</tr>
<tr>
<td>The batteries become drained quickly*</td>
<td>The batteries are exhausted.</td>
<td>Replace the batteries with new ones.</td>
</tr>
<tr>
<td></td>
<td>Manganese batteries are being used.</td>
<td>Use alkaline batteries. The battery life of a manganese battery is less than half that of an alkaline battery.</td>
</tr>
<tr>
<td></td>
<td>The UWP-X5 is being used under cold conditions.</td>
<td>The batteries drain quickly under cold conditions.</td>
</tr>
<tr>
<td>The channel cannot be changed.</td>
<td>An attempt was made to change the channel by pressing the SET button only.</td>
<td>Restart the unit while holding down the SET button. Then change the channel with the + and – buttons.</td>
</tr>
<tr>
<td>There is no sound.</td>
<td>The channel setting on the transmitter is different from that on the tuner.</td>
<td>Use the same channel setting on both the transmitter and tuner.</td>
</tr>
<tr>
<td></td>
<td>The RF indications (RF indicator) on the tuner do not appear at all (or does not turn on).</td>
<td>Confirm that the transmitter is turned on.</td>
</tr>
<tr>
<td>The sound is weak.</td>
<td>The attenuation level on the transmitter is too high.</td>
<td>The output level of the transmitter is low. Press the + button on the transmitter in attenuation level setting mode to decrease the attenuation level.</td>
</tr>
<tr>
<td></td>
<td>The volume on the amplifier or mixer is low.</td>
<td>Adjust the volume.</td>
</tr>
<tr>
<td>Symptom</td>
<td>Meanings</td>
<td>Remedy</td>
</tr>
<tr>
<td>---------------------------------------------</td>
<td>--------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------</td>
</tr>
<tr>
<td>There is distortion in the sound.</td>
<td>The attenuation level of the transmitter is too low.</td>
<td>The input level of the tuner is extremely high. Press the – button on the transmitter in attenuation level setting mode to raise the attenuation level.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The transmitter and the tuner are set to different channels.</td>
</tr>
<tr>
<td>There is sound interruption or noise.</td>
<td>The RF indications on the tuner appear (the RF indicator lights up) even when the transmitter is off.</td>
<td>Jamming radio waves are being received. Determine which channels are usable (i.e., channels for which the RF indications on the tuner do not appear (or for which the RF indicator on the tuner does not light up)) and set the tuner and transmitter to the same usable channel. When two or more transmitters are used simultaneously, use another channel group that is unaffected by jamming radio waves.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The transmitter and the tuner are set to different channels.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Two or more transmitters are set to the same channel.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The transmitters are not set to the channels within the same channel group.</td>
</tr>
</tbody>
</table>

* Body-pack transmitter (UTX-B1) only
Specifications

**Transmitter (UTX-B1)**

Oscillator type
- Crystal-controlled PLL synthesizer

Carrier frequencies
- 794 to 806 MHz

Operating frequency band
- 12 MHz BW

Pre-emphasis
- 50 µs

Frequency characteristics
- 50 Hz to 18 kHz

Signal-to-noise ratio
- 60 dB or more

Tone signal
- 32 kHz

Attenuation
- 0 to 21 dB, in 3-dB steps

Display
- Channel, frequency, audio level, RF level, accumulated battery use time

Power requirements
- 3.0 V DC (two LR6/AA size alkaline batteries)

Battery life
- Approx. 6 hours (measured with two Sony LR6/AA size alkaline batteries at 25°C (77°F), with output power of 10 mW)

Antenna
- 1/4λ wave length wire

Audio input connector
- 3.5-mm dia. mini jack

Audio input level
- –60 dBV to –39 dBV

RF output level
- 10 mW/2 mW selectable

Reference deviation
- ±5 kHz

Distortion
- 1.0% or less

**Tuner (URX-M1)**

Type of reception
- Space diversity

Oscillator type
- Crystal-controlled PLL synthesizer

Reception frequencies
- 794 to 806 MHz

Operating frequency band
- 12 MHz BW

Signal-to-noise ratio
- 60 dB or more

De-emphasis
- 50 µs

Reference deviation

**Dimensions**

63 x 100 x 27 mm (2 1/2 x 4 x 1 1/8 inches) (w/h/d) (excluding the antennas)

Mass
- Approx. 140 g (5 oz) including batteries
Specifications

±5 kHz
Frequency characteristics
50 Hz to 18 kHz
Distortion
1.0% or less at 1 kHz modulation
Tone signal
32 kHz
Indicator
RF input level
Squelch level
25 dBµ
Display
Channel, frequency
Dimensions
57 × 26 × 121 mm (2 1/4 × 1 7/8 × 4 7/8 inches) (w/h/d)
Mass Approx. 150 g (5 oz)

Note
Always verify that the unit is operating properly before use. SONY WILL NOT BE LIABLE FOR DAMAGES OF ANY KIND INCLUDING, BUT NOT LIMITED TO, COMPENSATION OR REIMBURSEMENT ON ACCOUNT OF THE LOSS OF PRESENT OR PROSPECTIVE PROFITS DUE TO FAILURE OF THIS UNIT, EITHER DURING THE WARRANTY PERIOD OR AFTER EXPIRATION OF THE WARRANTY, OR FOR ANY OTHER REASON WHATSOEVER.

Design and specifications are subject to change without notice.
Appendix

Wireless microphone system frequency list

The following tables show the channels and frequencies selectable on your wireless microphone, transmitter and tuner.
The group 00 permits the unit to operate on any of 47 carrier frequencies in 125 kHz steps of TV channels 68 and 69.
For the setting procedures of the transmitting channels/frequencies on your unit, refer to the Instruction Manual of your unit. Be sure to save this list together with the Instruction Manual of your unit.

Guidance on the use of a multi-channel system

When building up a multi-channel system, Sony recommends that one of the groups listed under "Groups for the tuner" is selected to avoid mutual interference from other Sony wireless microphones/transmitters.

Group for transmitter and tuner

Group 00

TV-68

<table>
<thead>
<tr>
<th>CH</th>
<th>MHz</th>
<th>CH</th>
<th>MHz</th>
<th>CH</th>
<th>MHz</th>
<th>CH</th>
<th>MHz</th>
</tr>
</thead>
<tbody>
<tr>
<td>68-01</td>
<td>794.125</td>
<td>68-13</td>
<td>795.625</td>
<td>68-25</td>
<td>797.125</td>
<td>68-37</td>
<td>798.625</td>
</tr>
<tr>
<td>68-02</td>
<td>794.250</td>
<td>68-14</td>
<td>795.750</td>
<td>68-26</td>
<td>797.250</td>
<td>68-38</td>
<td>798.750</td>
</tr>
<tr>
<td>68-03</td>
<td>794.375</td>
<td>68-15</td>
<td>795.875</td>
<td>68-27</td>
<td>797.375</td>
<td>68-39</td>
<td>798.875</td>
</tr>
<tr>
<td>68-04</td>
<td>794.500</td>
<td>68-16</td>
<td>796.000</td>
<td>68-28</td>
<td>797.500</td>
<td>68-40</td>
<td>799.000</td>
</tr>
<tr>
<td>68-05</td>
<td>794.625</td>
<td>68-17</td>
<td>796.125</td>
<td>68-29</td>
<td>797.625</td>
<td>68-41</td>
<td>799.125</td>
</tr>
<tr>
<td>68-06</td>
<td>794.750</td>
<td>68-18</td>
<td>796.250</td>
<td>68-30</td>
<td>797.750</td>
<td>68-42</td>
<td>799.250</td>
</tr>
<tr>
<td>68-07</td>
<td>794.875</td>
<td>68-19</td>
<td>796.375</td>
<td>68-31</td>
<td>797.875</td>
<td>68-43</td>
<td>799.375</td>
</tr>
<tr>
<td>68-08</td>
<td>795.000</td>
<td>68-20</td>
<td>796.500</td>
<td>68-32</td>
<td>798.000</td>
<td>68-44</td>
<td>799.500</td>
</tr>
<tr>
<td>68-09</td>
<td>795.125</td>
<td>68-21</td>
<td>796.625</td>
<td>68-33</td>
<td>798.125</td>
<td>68-45</td>
<td>799.625</td>
</tr>
<tr>
<td>68-10</td>
<td>795.250</td>
<td>68-22</td>
<td>796.750</td>
<td>68-34</td>
<td>798.250</td>
<td>68-46</td>
<td>799.750</td>
</tr>
<tr>
<td>68-11</td>
<td>795.375</td>
<td>68-23</td>
<td>796.875</td>
<td>68-35</td>
<td>798.375</td>
<td>68-47</td>
<td>799.875</td>
</tr>
<tr>
<td>68-12</td>
<td>795.500</td>
<td>68-24</td>
<td>797.000</td>
<td>68-36</td>
<td>798.500</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Groups for tuner

#### Group 11
Grouping 11 channels.

<table>
<thead>
<tr>
<th>CH</th>
<th>MHz</th>
<th>CH</th>
<th>MHz</th>
<th>CH</th>
<th>MHz</th>
<th>CH</th>
<th>MHz</th>
</tr>
</thead>
<tbody>
<tr>
<td>69-01</td>
<td>800.125</td>
<td>69-13</td>
<td>801.625</td>
<td>69-25</td>
<td>803.125</td>
<td>69-37</td>
<td>804.625</td>
</tr>
<tr>
<td>69-02</td>
<td>800.250</td>
<td>69-14</td>
<td>801.750</td>
<td>69-26</td>
<td>803.250</td>
<td>69-38</td>
<td>804.750</td>
</tr>
<tr>
<td>69-03</td>
<td>800.375</td>
<td>69-15</td>
<td>801.875</td>
<td>69-27</td>
<td>803.375</td>
<td>69-39</td>
<td>804.875</td>
</tr>
<tr>
<td>69-04</td>
<td>800.500</td>
<td>69-16</td>
<td>802.000</td>
<td>69-28</td>
<td>803.500</td>
<td>69-40</td>
<td>805.000</td>
</tr>
<tr>
<td>69-05</td>
<td>800.625</td>
<td>69-17</td>
<td>802.125</td>
<td>69-29</td>
<td>803.625</td>
<td>69-41</td>
<td>805.125</td>
</tr>
<tr>
<td>69-06</td>
<td>800.750</td>
<td>69-18</td>
<td>802.250</td>
<td>69-30</td>
<td>803.750</td>
<td>69-42</td>
<td>805.250</td>
</tr>
<tr>
<td>69-07</td>
<td>800.875</td>
<td>69-19</td>
<td>802.375</td>
<td>69-31</td>
<td>803.875</td>
<td>69-43</td>
<td>805.375</td>
</tr>
<tr>
<td>69-08</td>
<td>801.000</td>
<td>69-20</td>
<td>802.500</td>
<td>69-32</td>
<td>804.000</td>
<td>69-44</td>
<td>805.500</td>
</tr>
<tr>
<td>69-09</td>
<td>801.125</td>
<td>69-21</td>
<td>802.625</td>
<td>69-33</td>
<td>804.125</td>
<td>69-45</td>
<td>805.625</td>
</tr>
<tr>
<td>69-10</td>
<td>801.250</td>
<td>69-22</td>
<td>802.750</td>
<td>69-34</td>
<td>804.250</td>
<td>69-46</td>
<td>805.750</td>
</tr>
<tr>
<td>69-11</td>
<td>801.375</td>
<td>69-23</td>
<td>802.875</td>
<td>69-35</td>
<td>804.375</td>
<td>69-47</td>
<td>805.875</td>
</tr>
<tr>
<td>69-12</td>
<td>801.500</td>
<td>69-24</td>
<td>803.000</td>
<td>69-36</td>
<td>804.500</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Group 12
Grouping 8 channels.

<table>
<thead>
<tr>
<th>CH</th>
<th>MHz</th>
</tr>
</thead>
<tbody>
<tr>
<td>69-01</td>
<td>800.125</td>
</tr>
<tr>
<td>69-05</td>
<td>800.625</td>
</tr>
<tr>
<td>69-11</td>
<td>801.375</td>
</tr>
<tr>
<td>69-25</td>
<td>802.375</td>
</tr>
<tr>
<td>69-28</td>
<td>804.000</td>
</tr>
<tr>
<td>69-32</td>
<td>804.125</td>
</tr>
<tr>
<td>69-36</td>
<td>804.250</td>
</tr>
<tr>
<td>69-40</td>
<td>804.375</td>
</tr>
<tr>
<td>69-43</td>
<td>804.500</td>
</tr>
</tbody>
</table>

#### Group 13
Grouping 8 channels.

<table>
<thead>
<tr>
<th>CH</th>
<th>MHz</th>
</tr>
</thead>
<tbody>
<tr>
<td>68-03</td>
<td>794.375</td>
</tr>
<tr>
<td>68-13</td>
<td>795.625</td>
</tr>
<tr>
<td>68-18</td>
<td>796.250</td>
</tr>
<tr>
<td>68-26</td>
<td>797.250</td>
</tr>
<tr>
<td>68-37</td>
<td>798.625</td>
</tr>
<tr>
<td>68-40</td>
<td>799.000</td>
</tr>
<tr>
<td>68-44</td>
<td>799.500</td>
</tr>
<tr>
<td>68-46</td>
<td>799.750</td>
</tr>
</tbody>
</table>

#### Group A1
Grouping 8 channels.

<table>
<thead>
<tr>
<th>CH</th>
<th>MHz</th>
</tr>
</thead>
<tbody>
<tr>
<td>68-06</td>
<td>794.750</td>
</tr>
<tr>
<td>68-20</td>
<td>796.500</td>
</tr>
<tr>
<td>68-24</td>
<td>797.000</td>
</tr>
<tr>
<td>68-40</td>
<td>799.000</td>
</tr>
<tr>
<td>69-04</td>
<td>800.500</td>
</tr>
<tr>
<td>69-17</td>
<td>802.125</td>
</tr>
<tr>
<td>69-23</td>
<td>802.875</td>
</tr>
<tr>
<td>69-47</td>
<td>805.875</td>
</tr>
<tr>
<td>Group A2</td>
<td>Grouping 7 channels.</td>
</tr>
<tr>
<td>---------------</td>
<td>----------------------</td>
</tr>
<tr>
<td><strong>CH</strong></td>
<td><strong>MHz</strong></td>
</tr>
<tr>
<td>69-11</td>
<td>801.375</td>
</tr>
<tr>
<td>69-22</td>
<td>802.750</td>
</tr>
<tr>
<td>69-30</td>
<td>803.750</td>
</tr>
<tr>
<td>69-36</td>
<td>804.500</td>
</tr>
<tr>
<td>69-40</td>
<td>805.000</td>
</tr>
<tr>
<td>69-43</td>
<td>805.375</td>
</tr>
<tr>
<td>69-45</td>
<td>805.625</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Group L1</th>
<th>Grouping 7 channels.</th>
<th>Group L2</th>
<th>Grouping 7 channels.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CH</strong></td>
<td><strong>MHz</strong></td>
<td><strong>CH</strong></td>
<td><strong>MHz</strong></td>
</tr>
<tr>
<td>68-09</td>
<td>795.125</td>
<td>68-10</td>
<td>795.250</td>
</tr>
<tr>
<td>68-11</td>
<td>795.375</td>
<td>68-13</td>
<td>795.625</td>
</tr>
<tr>
<td>68-19</td>
<td>796.375</td>
<td>68-17</td>
<td>796.125</td>
</tr>
<tr>
<td>68-25</td>
<td>797.125</td>
<td>68-22</td>
<td>796.750</td>
</tr>
<tr>
<td>68-30</td>
<td>797.750</td>
<td>68-28</td>
<td>797.500</td>
</tr>
<tr>
<td>68-34</td>
<td>798.250</td>
<td>68-36</td>
<td>798.500</td>
</tr>
<tr>
<td>68-37</td>
<td>798.625</td>
<td>68-38</td>
<td>798.750</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Group H1</th>
<th>Grouping 7 channels.</th>
<th>Group H2</th>
<th>Grouping 7 channels.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CH</strong></td>
<td><strong>MHz</strong></td>
<td><strong>CH</strong></td>
<td><strong>MHz</strong></td>
</tr>
<tr>
<td>69-09</td>
<td>801.125</td>
<td>69-10</td>
<td>801.250</td>
</tr>
<tr>
<td>69-11</td>
<td>801.375</td>
<td>69-13</td>
<td>801.625</td>
</tr>
<tr>
<td>69-19</td>
<td>802.375</td>
<td>69-17</td>
<td>802.125</td>
</tr>
<tr>
<td>69-25</td>
<td>803.125</td>
<td>69-22</td>
<td>802.750</td>
</tr>
<tr>
<td>69-30</td>
<td>803.750</td>
<td>69-28</td>
<td>803.500</td>
</tr>
<tr>
<td>69-34</td>
<td>804.250</td>
<td>69-36</td>
<td>804.500</td>
</tr>
<tr>
<td>69-37</td>
<td>804.625</td>
<td>69-38</td>
<td>804.750</td>
</tr>
</tbody>
</table>

http://www.sony.net/

Sony Corporation
Printed in Korea