

# Digital Wireless Microphone

Before Using this Unit

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

## DWM-02N

### CAUTION

Danger of explosion if battery is incorrectly replaced.  
Replace only with the same or equivalent type recommended by the manufacturer.  
When you dispose of the battery, you must obey the law in the relative area or country.

### IMPORTANT

The name plate is located on the battery holder inside of the grip.

### WARNING

Batteries shall not be exposed to excessive heat such as sunshine, fire or the like.

If the transmitter develops an abnormally high temperature, a burning odor or smoke during use, remove the battery holder and stop using the transmitter immediately.

Take care not to burn your fingers when removing the battery holder as the batteries may be very hot at this time.

### ATTENTION

The electromagnetic fields at the specific frequencies may influence the sound of this unit.

### For the customers in the U.S.A.

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 frequency 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.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

All interface cables used to connect peripherals must be shielded in order to comply with the limits for a digital device pursuant to Subpart B of part 15 of FCC Rules.

If you have any questions about this product, you may call:  
Sony Customer Information Service Center 1-800-222-7669 or <http://www.sony.com/>

| Declaration of Conformity                                                                                                                                                                                                                                                           |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Trade Name: SONY<br>Model: DWM-02N<br>Responsible party: Sony Electronics Inc.<br>Address: 16535 Via Esprillo, San Diego, CA 92127 U.S.A.<br>Telephone Number: 858-942-2230                                                                                                         |
| This device complies 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. |

Use of Sony wireless devices is regulated by the Federal Communications Commission as described in Part 74 subpart H of the FCC regulations and users authorized thereby are required to obtain an appropriate license.

In order to comply with FCC radio-frequency radiation exposure guidelines for an uncontrolled exposure, this device and its antenna must not be co-located or operating in conjunction with any other antenna or transmitter.

### FCC Radiation Exposure Statement

The available scientific evidence does not show that any health problems are associated with using low power wireless devices. There is no proof, however, that these low power wireless devices are absolutely safe. Low power Wireless devices emit low levels of radio frequency energy (RF) in the microwave range while being used. Whereas high levels of RF can produce health effects (by heating tissue), exposure of low-level RF that does not produce heating effects causes no known adverse health effects. Many studies of low-level RF exposures have not found any biological effects. Some studies have suggested that some biological effects might occur, but such findings have not been confirmed by additional research. **DWM-02N** has been tested and found to comply with FCC radiation exposure limits set forth for an uncontrolled environment and meets the FCC radio frequency (RF) Exposure Guidelines.

### For the customers in Canada

CAN ICES-3 (B)/NMB-3(B)

This device complies with Industry Canada's licence-exempt RSSs. Operation 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.

To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (EIRP) is not more than that required for successful communication.

This radio transmitter (409B-**DWM02N**) has been approved by Industry Canada to operate with the antenna types listed below with the maximum permissible gain indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.  
Antenna type: helical , Gain: 2.14 dBi

### IC Exposure of Humans to RF Fields

The installer of this radio equipment must ensure that the antenna is located or pointed such that it does not emit RF field in excess of Health Canada limits for the general population; consult Safety Code 6, obtainable from Health Canada's website [www.hc-sc.gc.ca/index-eng.php](http://www.hc-sc.gc.ca/index-eng.php)

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The term "IC:" before the radio certification number only signifies that Industry Canada technical specifications were met.

This device operates on a no-protection, no-interference basis. Should the user seek to obtain protection from other radio services operating in the same TV bands, a radio licence is required. For further details, consult Innovation, Science and Economic Development Canada's document Client Procedures Circular CPC-2-1-28, Voluntary Licensing of Licence-Exempt Low-Power Radio Apparatus in the TV Bands.

### For the customers in the U.S.A.

**SONY LIMITED WARRANTY** - Please visit <http://www.sony.com/psa/warranty> for important information and complete terms and conditions of Sony's limited warranty applicable to this product.

### For the customers in Canada

**SONY LIMITED WARRANTY** - Please visit <http://www.sonybiz.ca/pro/lang/en/ca/article/resources-warranty> for important information and complete terms and conditions of Sony's limited warranty applicable to this product.

## Features

The DWM-02N is a digital wireless microphone that features an interchangeable microphone capsule unit design, and is intended for use in UHF synthesized wireless microphone systems. The DWM-02N can be used in vocal performances, interviews, speeches, and a variety of other applications.

## Using the CD-ROM manuals

The manuals can be viewed on a computer with Adobe Reader installed. You can download Adobe Reader for free from the Adobe website.

- 1 Open the "index.html" file on the CD-ROM.
- 2 Select the language of the manual you want to view.

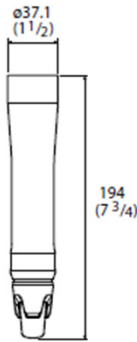
### Note

If you damage or lose the CD-ROM, you can purchase a new one from your dealer or Sony service representative.

## Specifications

|                                               |                                                                                                                                                                                                                                                                            |
|-----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Transmitting section</b>                   |                                                                                                                                                                                                                                                                            |
| Oscillator type                               | Crystal-controlled PLL synthesizer                                                                                                                                                                                                                                         |
| RF power output                               | 1 mW/10 mW/50 mW (e.r.p) selectable                                                                                                                                                                                                                                        |
| Antenna type                                  | Helical antenna                                                                                                                                                                                                                                                            |
| Occupied RF bandwidth                         | 192 kHz or less                                                                                                                                                                                                                                                            |
| Audio delay                                   | MODE1: 1.5 ms<br>MODE2: 1.0 ms<br>MODE3: 2.1 ms                                                                                                                                                                                                                            |
| Allowable deviation of transmission frequency | ±6.5 ppm                                                                                                                                                                                                                                                                   |
| Type of emission                              | G1E or G1D                                                                                                                                                                                                                                                                 |
| Modulation method                             | π/4 Shift QPSK                                                                                                                                                                                                                                                             |
| <b>Audio section</b>                          |                                                                                                                                                                                                                                                                            |
| Maximum input level                           | −16 dBu (with 0 dB attenuator)                                                                                                                                                                                                                                             |
| Audio attenuator adjustment range (pad)       | 0 dB to 48 dB (3 dB steps)                                                                                                                                                                                                                                                 |
| Input impedance                               | 4.7 kΩ or more                                                                                                                                                                                                                                                             |
| <b>General</b>                                |                                                                                                                                                                                                                                                                            |
| Operating voltage                             | 3V DC, with two LR6 (AA) alkaline batteries                                                                                                                                                                                                                                |
| Battery life                                  | Continuous operating time<br>5 hours (at 25 °C (77 °F), 10-mW output using Sony LR6 (AA)-size alkaline batteries with CODEC MODE set to MODE1 and the wireless remote control function off and DIMMER MODE set to AUTO OFF, and with the CU-C31 Sony capsule unit mounted) |
| Operating temperature                         | 0 °C to 50 °C (32 °F to 122 °F)                                                                                                                                                                                                                                            |
| Storage temperature                           | −20 °C to +60 °C (−4 °F to +140 °F)                                                                                                                                                                                                                                        |
| Wireless remote control                       | 2.4-GHz IEEE802.15.4 compliant                                                                                                                                                                                                                                             |

Dimensions (unit: mm (inches))



|                      |                                                                                                                                                                                                                                                                                                                                                                                                |
|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Mass                 | Approx. 235 g (8.3 oz) including batteries                                                                                                                                                                                                                                                                                                                                                     |
| Supplied accessories | Identification ring (1 set)<br>Microphone holder (1)<br>USB adapter cable (1)<br>Carrying case (1)<br>Stand adaptor (1)<br>For the model available in the U.S.A.: PF <sup>1</sup> / <sub>2</sub> to W <sup>1</sup> / <sub>8</sub> type<br>For the model available in Europe.: PF <sup>1</sup> / <sub>2</sub> to W <sup>3</sup> / <sub>8</sub> type<br>Before Using this Unit (3)<br>CD-ROM (1) |

Design and specifications are subject to change without notice.

## Français

### Pour les clients au Canada

CAN ICES-3 (B)/NMB-3(B)

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

- 1) l'appareil ne doit pas produire de brouillage;
- 2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Pour réduire les interférences radio potentielles pour les autres utilisateurs, le type d'antenne et son gain doivent être choisis de sorte que la puissance isotrope rayonnée équivalente (PIRE) ne soit pas supérieure à la puissance requise pour assurer la communication.

Le présent émetteur radio (409B-**DWM02N**) a été approuvé par Industrie Canada pour fonctionner avec les types d'antenne énumérés ci-dessous et ayant un gain admissible maximal. Les types d'antenne non inclus dans cette liste, et dont le gain est supérieur au gain maximal indiqué, sont strictement interdits pour l'exploitation de l'émetteur.  
Type d'antenne : hélicoïdal , Gain : 2,14 dBi

### Exposition humaine aux champs de radiofréquences (Industrie Canada)

L'installateur de ce matériel radio doit s'assurer que l'antenne est située ou orientée de telle manière à ne pas émettre un champ de radiofréquence dépassant les limites spécifiées par Santé Canada pour la population générale ; consultez le Code de sécurité 6, disponible sur le site Web de Santé Canada : <http://www.hc-sc.gc.ca/index-eng.php>

Les connaissances scientifiques dont nous disposons n'ont mis en évidence aucun problème de santé associé à l'usage des appareils sans fil à faible puissance. Nous ne sommes cependant pas en mesure de prouver que ces appareils sans fil à faible puissance sont entièrement sans danger. Les appareils sans fil à faible puissance émettent une énergie fréquence radioélectrique (RF) très faible dans le spectre des micro-ondes lorsqu'ils sont utilisés. Alors qu'une dose élevée de RF peut avoir des effets sur la santé (en chauffant les tissus), l'exposition à de faibles RF qui ne produisent pas de chaleur n'a pas de mauvais effets connus sur la santé. De nombreuses études ont été menées sur les expositions aux RF faibles et n'ont découvert aucun effet biologique. Certaines études ont suggéré qu'il pouvait y avoir certains effets biologiques, mais ces résultats n'ont pas été confirmés par des recherches supplémentaires. DWM-02N a été testé et jugé conforme aux limites d'exposition aux rayonnements IC énoncées pour un environnement non contrôlé et respecte les règles d'exposition aux fréquences radioélectriques (RF) CNR-102 de l'IC.

La mention « IC: » devant le numéro de certification/ homologation signifie uniquement que les spécifications techniques d'Industrie Canada sont remplies.

Ce dispositif fonctionne selon un régime de non-brouillage et de non-protection.

Si l'utilisateur devait chercher à obtenir une certaine protection contre d'autres services radio fonctionnant dans les mêmes bandes de télévision, une licence radio serait requise. Pour en savoir plus, veuillez consulter le document CPC-2-1-28 d'Industrie Canada intitulé, Délivrance de licences sur une base volontaire pour les appareils radio de faible puissance exempts de licence et exploités dans les bandes de télévision.

### Pour les clients au Canada

**GARANTIE LIMITEE DE SONY** - Rendez-vous sur <http://www.sonybiz.ca/pro/lang/en/ca/article/resources-warranty-product-registration> pour obtenir les informations importantes et l'ensemble des termes et conditions de la garantie limitée de Sony applicable à ce produit.

## Caractéristiques

Le DWM-02N est un microphone numérique sans fil qui est équipé d'une unité de capsule de microphone interchangeable et il est destiné à être utilisé dans les systèmes de microphones sans fil synthétisés UHF. Le DWM-02N peut être utilisé pour des performances vocales, des interviews, des discours et de nombreuses autres applications.

## Utilisation du manuel sur CD-ROM

Vous devez installer Adobe Reader sur votre ordinateur pour pouvoir lire ce manuel.

Vous pouvez télécharger Adobe Reader gratuitement depuis le site Web d'Adobe.

- 1 Ouvrez le fichier index.html situé sur le CD-ROM.

- 2 Sélectionnez le manuel que vous souhaitez lire, puis cliquez sur ce dernier.

### Remarque

Si vous avez perdu ou endommagé le CD-ROM, vous pouvez acheter un CD-ROM de remplacement auprès de votre représentant Sony ou du service clientèle Sony.