

EQUIPMENT MANUAL: MODELS DA118 and DA120 PPM 360 METER

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Product Overview

The following equipment is discussed in this equipment manual;

- Model DA118 Nielsen Audio PPM 360 Meter

Also referred to as the PPM G2 (Personal People Meter Generation 2)

- Model DA120 Nielsen Audio PPM 360 Meter

Also referred to as the PPM G2 (Personal People Meter Generation 2)

- Meter Accessory item: Model DA114 Nielsen Audio PPM 360 In-Home Beacon

Also referred to as the In Home Transmitter

- Meter Accessory item: Model DA116 Nielsen Audio PPM 360 Recharger Cradle

Also referred to as the Cradle

- Meter Accessory item: Class 2 Power Supply Unit

This power supply can be directly connected to the Meter, or connected to the Cradle.

When the power supply is connected to the Cradle, the meter is placed into the Cradle in order to recharge the Meter.

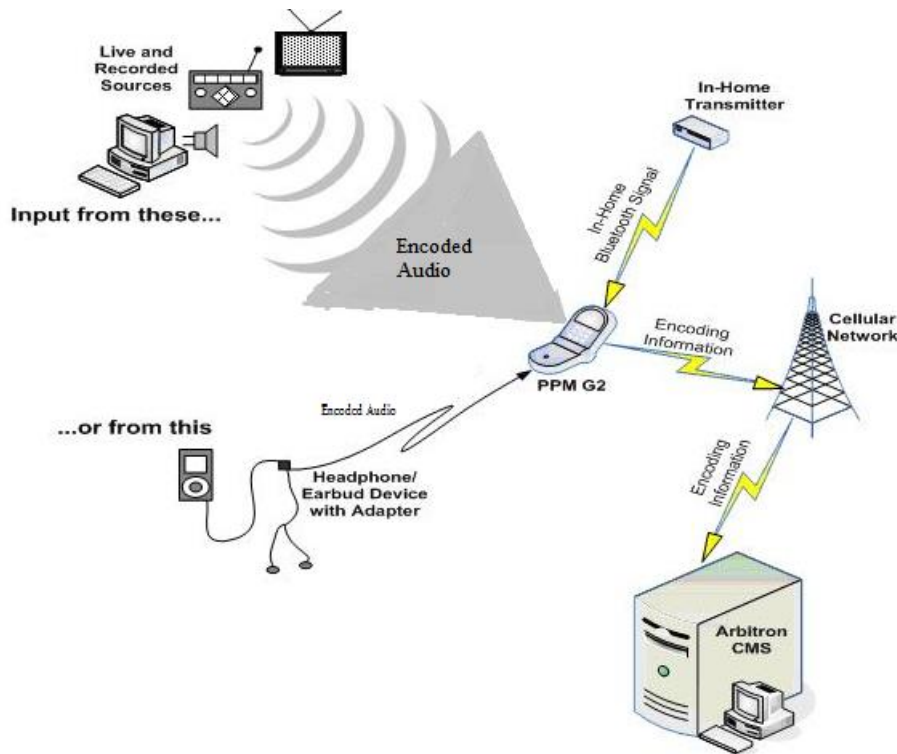
- Meter Accessory item: Headphone Adapter

- Alternate equipment item: Model HP110 Nielsen Audio PPM 360 Collector

The Models DA118 and DA120 PPM 360 Meter is a device that is worn or carried on a person, usually by means of a belt clip. The PPM 360 Meter collects audio that is watermarked (also known as “encoding”) with data information using Nielsen Audio’s patented Critical Band Encoding Technology, and using cellular technology, forwards this information back to Nielsen Audio data collection servers. The DA118 and DA120 also determines if the person wearing the PPM 360 Meter, known as a “panelist”, is in his/her home or out of the home using an In-Home Beacon. The Models DA118 and DA120 use a Headphone adapter accessory when the panelist is wearing headphones to collect this data from MP3 or other audio devices that use headphones.

Charging of the Nielsen Audio Models DA118 and DA120 PPM 360 Meter is performed by a Class 2 power unit with USB type connector, or alternatively by use of a cradle system which interconnects between this same power unit and the meter. The cradle system uses the same Class 2 power unit with USB type connector; however, the cradle is a nest where the power from the class 2 power unit USB type connector is transferred to a set of spring pins which contact with two charge contacts on the side of the Models DA118 and DA120 meter when the meter is placed in the cradle nest, thereby charging the meter. The cradle charging system is also an accessory of the Models DA118 and DA120.

Figure 1 below illustrates the interactions of the Models DA118 and DA120 device with the outside world as well as with other components of the system overall.



**Figure 1: Interaction of PPM 360 Meter System
(PPM 360 Collector is not shown)**

DA118 and DA120 Main Functions

1. Audio data Acquisition Functions: Data collection through the DSP, and then transmitted to specified Server through the meter's Machine-to-Machine Data Transfer
2. Machine-to-Machine Data Transfer Function: Use only on a mobile phone SIM card, Machine-to-Machine Data Transfer function will collect the data set to the specified server. It does not utilize a SIM card for various number of services, such as ADN, SDN, FDN.
3. Bluetooth function with In-Home Beacon: The In-Home Beacon function has only a search feature. It can only search for the In-Home Beacon Device ID and Bluetooth address. The In-Home Beacon function does not support Bluetooth connectivity, data transmission or other functions. In addition, meter Bluetooth cannot be searched.
4. The purpose of the alternate equipment PPM 360 Collector is to replace the meter Machine-to-Machine Data Transfer cellular technology with an alternate data transfer method, in areas where cellular technology is not available. The PPM 360 Collector is not normally provided to a panelist. As of the time when this User Manual is written, the only country where the PPM 360 Collector is provided is Canada. However, if the PPM 360 Collector is provided to a panelist, the specific PPM 360 Meter provided to the panelist is specially configured by software to enable communication with the specific PPM 360 Collector provided to the panelist. In this case, Bluetooth connectivity, Bluetooth data transmission and other Bluetooth functions are enabled between the PPM 360 Meter and the specific PPM 360 Collector, and only between these two devices.

DA114 Main Functions

DA114 In-Home Beacon (In Home Transmitter) is an accessory of Models DA118 and DA120. The purpose of the In-Home Beacon is to allow Nielsen Audio to determine when the panelist wearing the PPM 360 Meter is within transmission range of the In-Home Beacon, and so determine the panelist is within the home. Conversely if the panelist wearing the PPM 360 Meter is beyond transmission range of the In-Home Beacon, it is determined that the panelist is not within the home.

The DA114 In-Home Beacon is comprised of a simple DC power supply and Bluetooth integrated circuit device.

The working process of the DA114 In-Home Beacon is:

Power-on reset directly by DC power supply, and then the Bluetooth module sends a specific Device ID and Bluetooth address automatically. The work cycle is 60 minutes. After one cycle is complete, it automatically goes into next same cycle. DA114 will not allow any Bluetooth device to match, so it will not have any data transmission, it is only specifically identifiable through the Bluetooth wireless device.

FCC Compliance Statement

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.

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.
- Contact Nielsen Audio, Inc. for help.

Changes or modifications not expressly approved by Nielsen Audio, Inc. could void the user's authority to operate the equipment.

Radio Frequency Exposure Information (SAR)

This equipment meets the U.S. government's requirements for exposure to radio waves. The exposure standard for wireless devices employs a unit of measurement known as the specific absorption rate, or SAR. The SAR limit set by the FCC is 1.6 watts per kilogram (W/kg). Tests for SAR are conducted using standard operating positions accepted by the FCC with the device transmitting at its highest certified power level in all tested frequency bands.

Although the SAR is determined at the highest certified power level, the actual SAR level of the device while operating can be well below the maximum value. This is because the device is designed to operate at multiple power levels so as to use only the power required to reach the network. In general, the closer you are to a wireless base-station antenna, the lower the power output.

The highest measured SAR value for this device when worn on the body as described in this user guide is 1.54 W/kg. Additional SAR information for this device can be retrieved by accessing the FCC Equipment Authorization search page at <http://www.fcc.gov/oet/ea/fccid/> and entering the following: FCC ID: IGK-DA118A or FCC ID: IGK-DA120A depending on the specific device model. The FCC ID for each device model is shown on the device equipment label.

For body worn operation, this device has been tested and meets the FCC RF exposure guidelines when used with the belt-clip accessory provided by Nielsen Audio. Use of other accessories may not ensure compliance with FCC RF exposure guidelines.

IC (Canadian Industry) Notice

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

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.

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, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Consolidated Technical Specifications

Equipment Name: PPM™ 360 Meter

Models: DA118 and DA120

Dimensions: Approximately 8.0 cm L x 5.2 cm W x 2.5 cm H

Weight: Approximately 70 g

Maximum operating ambient temperature: 40 degree C

Normal Operation: Body Worn Device

Limited Charge Voltage: 4.2V

Rechargeable Battery: Li-Ion 4.2V, 960mAh

Class III device supplied by Certified Power Supply

Equipment Name: PPM 360 Recharger (Cradle) System

Model: DA119

Dimensions: Approximately 10.8 cm Dia. x 5.1 cm H

Weight: Approximately 65 g

Normal Operation: Alternate Recharging System for PPM 360 Meter Models DA118 and DA120

Class II device supplied by Certified Power Supply

Cradle Input/Output: 5.0V ~ 0.5A

Equipment Name: PPM 360 Beacon

Model: DA114

Dimensions: Approximately 6.7 cm L x 3.8 cm W x 2.3 cm H

Equipment mobility : direct plug-in

Class II (double insulated)

Rating: Input: 100-240V, 50/60Hz, 0.2A.