



BRONDI

FX-300 TWIN

PMR 446



INSTRUCTION MANUAL

BRONDI



Content

1. Features and Suggestion of usage.....	2
2. Pack content (product + accessories).....	2
3. Description of PMR.....	3
4. LCD Screen.....	4
5. Installation.....	5
6. Stop watch Function.....	7
7. Operation.....	8
8. Auxiliary Features.....	12
9. Specifications.....	12
10. Safety & Declaration of conformity.....	13

1. Features and Suggestion of usage

1.1 Features

SPECIAL PERFORMANCE

- VOX control: voice activated transmission
- Monitoring 2 channels at once.
- Built-in stopwatch
- Lighted LCD

RANGE & COMMUNICATION

- Up to 10 Km range in open field
- 8 channels + 38 CTCSS (sub-channels) Code
- No time tariff
- Communicates with all the PMR446
- Communication guaranteed in any place also works where mobile phones don't
- Suitable for use in UE countries
- SCAN function, automatic scanning of all channels
- Call function (5 tones): button to call all handsets synchronised on the same channel.

OTHER FEATURES

- Channel monitoring: listen to all communications on selected channel (even when very weak)
- Also operates with 3 alkaline AA batteries
- Channel lock
- Tone activation and deactivation
- Volume control

TECHNICAL DATA

- Standard: PMR 446 - Private two way radio
- Operating range: 446,00625 - 446,09375 MHz
- Operating channels: 8
- CTCSS codes: 38 for channel
- Channel pitch: 12. KHz
- Type of modulation: FM
- Delivery power: 500 mW erp
- Range of action: up to 8 Km in a wide open space
- Duration time: 20 hours (5% transmitting; 5% receiving; 90% in standby)
- Batteries: 4x AAA rechargeable AA batteries or 4xAAA alkaline batteries
- Weight (with batteries): 162 g

The range depends on the environment.

The Communication is guaranteed within the range limits

Please verify if the requirements of the Country of final use claim for special using declaration.

1.2 Suggestion of usage

- Sport: - bicycle - running - trekking - sailing - fishing - golf
- Walking/trips outdoors: - mountains - lake - city
- Outdoor team games
- Holidays with the family or friends: - camping - holiday resort - on the beach - on a boat - in theme parks
- Travelling with friends: - between cars - in mobile home
- Work: - in warehouses - in shopping centres - on sites - in discos - at trade fairs - sporting events

2. Pack content (product + accessories)

- 2 PMRs
- 1 adaptor with double plug
- 4+4 AAA rechargeable batteries

3. Description of PMR

Antenna

LCD Screen

- Displays the current channel selection and other radio symbols.

PTT (PUSH toTALK) button

Press and hold to transmit.

CALL button

-Press to send Ringing one to other PMR units.

MENU Button

-Press to change To switch between Modes.

Speaker

Receiver LED-

Lights up when You Are receiving signals.

Ear/Mic/Charge jack

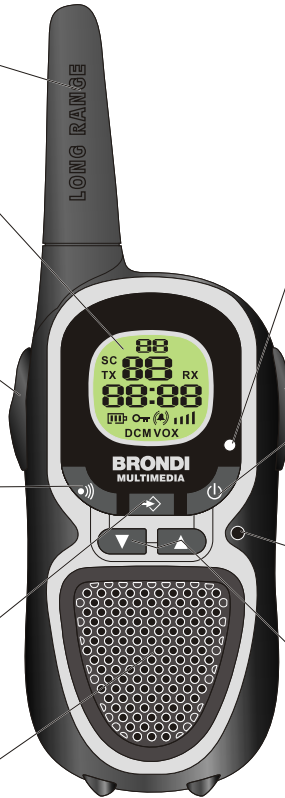
PWR(POWER)

Button Press and hold to turn the unit ON or OFF.

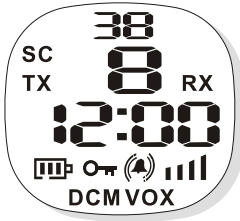
MIC (Microphone)

UP/DOWN Buttons

Press to change channels, volume, and to select settings during



4. LCD Screen



	Channel Number. Changes from 1 to 8 as selected by the user.
	CTCSS Code. Changes from 1 to 38 as selected by the user.
	Displays the Battery change level. When the bars are reduced, the battery needs recharging.
	Display the time.
	Displayed when the stop watch function is activated.
	TX Displayed when transmitting a signal.
	RX Displayed when receiving a signal.
	Displayed when the Dual Watch function is turned ON.
	Displayed when the VOX feature is enabled.
	Displays when the PMR is scanning all channels.
	Displayed when the Key Lock feature is activated.
	Displays the current Speaker volume level.
	Displays when the call signal is ON.

5. Installation

5.1 Removing the Belt Clip

- Pull the Belt Clip latch forward (away from the PMR)
- While pulling the Belt Clip latch, push up the Belt Clip as shown in Figure 1.



Figure1

Figure2

5.2 Installing the Belt Clip

- Slide the Belt Clip into the slot as shown in Figure 2.
- A "click" indicates the Belt Clip is locked into position.

5.3 Installing the Batteries



Figure3



Figure4

Caution: Observe the proper battery polarity orientation when installing batteries. Incorrect positioning can damage both the batteries and the unit.

- Slide down the Battery Compartment Cover.
- Install the rechargeable battery pack by following the orientation as shown in Figure 3 (the arrow is showing and pointing upward.)
- Replace the Battery Compartment Cover. See Figure 4.

Important

Read these Safety Warnings before you charge the batteries.

When placing the PMR in the charger, **use only the rechargeable batteries supplied with the PMR.**

Don't try to recharge non-rechargeable batteries.

Make sure the battery compartment cover is securely locked in place when you are charging the batteries.

Dispose of used batteries safely and in a way that will not harm the environment- never try to burn them or put them anywhere, they could get burnt or punctured.

Don't leave dead batteries in your PMR units.

They might leak if you do.

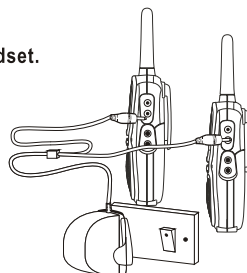
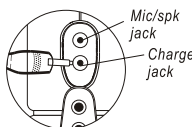
5.4 Charging the batteries

Lift the charge socket cover located on the right side of the handset.

Insert the round connector of the 9.0V DC/200mA adaptor into the charge jack.

Plug the mains adaptor into a 230V AC, 50Hz main socket with the switch on the socket set to OFF.

Then switch ON the main socket.





Battery meter

The battery meter is located in the left corner of the LCD Screen. It appears like a battery with three bars inside. These indicate the amount of power available. When the battery level reaches its minimum level in PPR on mode, unit will emit two beep tones and automatically turn off the power and proceeds to watch mode.



The PMR can detect the battery charge in 4 levels;

Battery charge at high level.

Battery charge at medium level.

Battery charge at low level. At this level, the PMR will emit a "beep" sound for every 10 seconds in normal mode.

Important: Charge the unit for 10-14 hours.

Battery charge at very low level. When the battery level reaches its minimum level in PMR on mode, unit will emit two beep tones and automatically turn off the power and proceeds to watch mode.

Important: Charge the unit for 10-14 hours.

Battery life

The PMR has a built-in power saver feature to make the batteries last longer. But when you are not using the units, turn them OFF to conserve battery power.



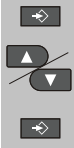




6. Stop watch Function

Off mode (Clock mode)

After installing the batteries, the PMR will automatically operate in clock mode.

6.1 To set the time





The PMR has a 24 hour clock.

-  a. In Clock Mode, press and hold the MENU button for 3 seconds. The HOUR segment in the LCD Screen starts flashing.
-  b. Press the UP or DOWN button to adjust the hour time.
-  c. Press and release the MENU button to set the minutes. The MINUTES segment in the LCD Screen starts flashing.
-  d. Press the UP or DOWN button to adjust the minute time.
-  e. Press and hold the MENU button for 3 seconds to confirm the time setting and exit the time setting mode.

Note:

Once you remove the battery from the unit, the clock will reset to the default time 12:00.

6.2 Using the Stop watch

-  a. In Clock Mode, press and hold the CALL button for 3seconds. The Stop watch icon appears in the LCD Screen.
-  b. Press the UP button once to start the Stop watch. To stop, press the UP button again.
-  c. Press the DOWN button once to reset the timer.
-  d. Press and hold the CALL button for 3seconds to exit from the stopwatch mode.



7. Operation

7.1 Transmitting range

The talk range depends on the environmental and terrain. It will be greatest (up to about 8km) in wide open spaces, without obstructions such as hills or buildings. Don't try to use two PMR units which are less than 1.5m (5feet) apart. If you do, you may experience interference.

Important safety warning

- To reduce radio frequency exposure when you are using your PMR, hold the unit at least 5cm (2 inches) away from your face.
- Never use your PMR outdoors during a thunderstorm.
- Don't use the PMR in the rain.
- If your PMR ever gets wet, turn it off and remove the battery. Dry the battery compartment and leave the cover off for a few hours. Don't use the unit until it is completely dry.
- Keep the PMR out of the reach of babies and young children.

7.2 Turning the Unit ON/OFF



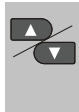
To Turn ON;

- Press and hold the POWER button until the LCD Screen turns ON and displays the current channel.

To switch OFF;

- Press and hold the POWER button until the LCD screen turns blank. You can hear a musical tone each time to confirm.

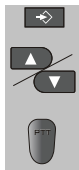
7.3 Adjusting the Speaker volume



The volume level is shown by vertical bars the LCD screen. You can change the volume while using your PMR, or while the unit is idle (switched on but not in use). press the UP button to increase, or press the DOWN button to decrease the speaker volume.

7.4 Changing Channels

The PMR has 8 available channels, to communicate with other PMR users within range, you must all have your PMR tuned to the same channel.



- Press the MENU button once, the current channel number flashes on the LCD Screen.
- Press the UP or DOWN button to select the desired channel. The channel changes from 1 to 8, or vice versa.
- Press the PTT button to confirm the channel setting.

Note: Refer to the "Channel Table" section of this Owner's Manual for detailed frequency listing.

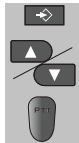




7.4.1 Setting the CTCSS sub-channel

Each channel also has 38 sub-channels to let you set up group of users within the same channel for more private communication. If you have set the sub-channel, you can only communicate with other PMR users turned to the same channel and sub-channel.

To turn the sub-channel function off, simply set the sub-channel to 0 (zero). You can communicate with any PMR user set to the same channel who also turns off the sub-channel operation (or whose PMR unit does not have the feature).



- a. Press the MENU button twice, the current CTCSS sub-channel number flashes on the LCD Screen.
- b. Press the UP or DOWN button to select one of the 38 CTCSS sub-channels.
- c. Press the PTT button to confirm the sub-channel setting.

Transmitting and Receiving



The PMR transmission is "one way-at-a-time." While you are speaking, you can not receive a transmission.



The PMR is an open-license band. Always identify yourself when transmitting on the same channel.

7.4.2 Receiving (receiving a speech)

The unit is continuously in the Receive mode when the unit is turned ON and not transmitting. When a signal is received on the current channel, "RX" will be displayed on the LCD Screen and receiver LED lights up.

7.4.3 Transmitting (sending a speech)



- a. Press and hold the PTT (push to talk) button to transmit your voice. 'TX' will be displayed on the LCD Screen.
- b. Hold the unit in a vertical position with the MIC (Microphone) 5 cm away from the mouth. While holding the PTT button, speak into the MIC (microphone) in a normal tone of voice.
- c. Release the PTT button when you have finished transmitting.

7.4.4 Monitor

You can use the Monitor feature to check for weak signals on the current channel.



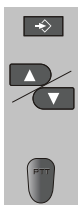
- a. Press and hold the MENU and DOWN buttons at the same time. "RX" will be displayed on the LCD Screen. Your PMR will pick up signals on the current channel, including background noise.
- b. Press the PTT button to stop the channel monitoring.

7.5 Setting the VOX (Voice Activated) Sensitivity

In VOX mode, the PMR will transmit a signal only when it is activated by your voice or other sounds around you. The unit will transmit further for 2 seconds even if you stop talking.

The level of VOX sensitivity is shown by a number on the LCD Screen. At the highest level, the units will pickup softer noise (including background noise); at the lowest level, it will pick up only quite loud noise.





- a. Press the MENU button 3 times, "VOX" will be displayed and [OFF] flashes on the LCD Screen.
- b. Press the UP button to set the VOX sensitivity level (the maximum level is "3"). To deactivate the VOX function, press the DOWN button until "OF" appears on the LCD Screen.
- c. Press the PTT button to confirm your setting. "VOX" will steadily appear on the LCD Screen as long as the VOX feature is activated.

VOX operation is not recommended if the PMR will be used in a noisy or windy environment.

7.6 Call-Ring tone

You can send a Call-ring tone to other PMR users to give an alert that you want to communicate with them.

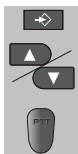


Press the CALL button

You will hear a ring tone for about two seconds; [TX] appears on the LCD Screen. Any other units within the transmitting range and turned to the same channel and sub-channel (if applicable) will hear the Call-ring tone.

7.6.1 Selecting a Call-Ring tone

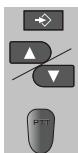
The PMR is equipped with 5 different types of Call-Ring tones.



- a. Press the MENU button 4 times, the LCD Screen will display while is blinking.
- b. Press the UP or DOWN button to select the desired Call-ring tone. A respective Call-Ring tone sound will be played when changing from one tone to another.
- c. Press the PTT button to confirm your setting.

7.6.2 Setting the Call-Ring tone OFF

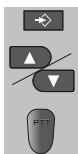
When you send a Call-Ring, you will also hear it from your unit. If you do not like to hear it from your unit. If you do not like to hear the tone, you can turn it OFF.



- a. Press the MENU button 4 times; the unit will enter the Call-ring setting mode.
- b. Press the UP or DOWN button until "OF" appears on the LCD Screen.
- c. Press the PTT button to confirm your setting.

7.7 Setting the Roger Beep

The Roger Beep is a tone which is automatically transmitted whenever the PTT button is released. This alerts the receiving party to inform that you have intentionally ended the transmission, and you are now in receive mode.



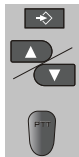
- a. Press the MENU button 6 times, [ON] flashes on the LCD Screen.
- b. Press the UP or DOWN button to activate ([ON] will be displayed on the LCD screen) or deactivate ([OFF] will be displayed on the LCD screen) the key Tone feature.
- c. Press the PTT button to confirm your setting.





7.8 Setting the Key Tone ON or OFF

This feature allows the PMR to emit a confirmation tone after pressing each button.



- Press the MENU button 7 times, "ON" flashes on the LCD Screen.
- Press the UP or DOWN button to activate ("ON" will be displayed on the LCD screen) or deactivate ("OFF" will be displayed on the LCD screen) the key Tone feature.
- Press the PTT button to confirm your setting.

7.9 Setting the Dual Watch Mode

Your PMR is capable of monitoring two channels, the current and another (dual watch) channel. If the unit detects a signal on either channel, it will stop and receive the signal.



- Press the MENU button 8 times, "DCM" will be displayed while "OF " flashes on the LCD Screen.
- Press the UP or DOWN button to select the Dual Watch channel (1-8, except the current channel).
- Press the MENU button to change the CTCSS code.
- Press the UP or DOWN button to select the desired CTCSS code (1-38)
- Press the PTT button to confirm your setting.



- Press the MENU button 8 times, the channel number flashes on the LCD Screen.
- Press the UP or DOWN button until "OF" is displayed on the LCD Screen.
- Press the PTT button to exit.

7.10 Activating the Channel Scan

Channel scan perform searches for active signals in an endless loop for all 8 channels, and all 38 CTCSS codes.



- Press the MENU and UP buttons at the same time The LCD screen will display "SC" and the channel number changes rapidly. When an active signal is detected, channel scan pauses on the active channel
- Press the UP button to continue scanning channels 1-8.
- Press the DOWN button to scan the CTCSS sub-channels 1-38.
- Press the PTT button to communicate through the active signal channel, or press the DOWN button to continue with the channel scanning.



8. Auxiliary Features

8.1 Key Lock

The Key Lock feature allows user to disable the UP, DOWN and MENU buttons so that the PMR settings could not be changed accidentally.



a. To activate the Key Lock feature, press and hold the MENU button until "o" disappears on the LCD Screen.



b. To deactivate the key Lock feature, press and hold the MENU button until "o" disappears on the LCD Screen.

The PTT, CALL and POWER buttons will remain functional even if the Key Lock feature is activated.

8.2 LCD Screen Back Light

Every time a button is pressed (except PTT and CALL button), the LCD Screen back light will illuminate for 4 seconds.

8.3 Microphones/Earphone/Charge Jack

The PMR is equipped with an auxiliary microphone, earphone, and charge jack located at the opposite side of the PTT button.

9. Specifications

Channels Available	8 Channels
CTCSS Sub-channel	38 for each Channel
Output Power (TX)	0.5 W
Range	Up to 8 Kms.

Channel Frequency Table

Channe	Frequency (MHz)	Channel	Frequency (MHz)
1	446.00625	5	446.05625
2	446.01875	6	446.06875
3	446.03125	7	446.08125
4	446.04375	8	446.09375



10. Safety & Declaration of conformity



CAUTION

Damaged Antenna

Do not use any PMR that has a damaged antenna. If a damaged antenna comes in contact with the skin, a minor burn may result.

Batteries

All batteries can cause property damage and/or bodily injury such as burns if conductive material such as jewelry, keys, or beaded chains touches exposed terminals. The material may complete an electrical circuit (short circuit) and become quite hot. Exercise care in handling any charged battery, particularly when placing it inside a pocket, purse, or other container with metal objects.



WARNING

For Vehicles with an Air Bag

Do not place your PMR in the area over an air bag or in the air bag deployment area. Air bags inflate with great force. If a PMR is placed in the air bag deployment area and the air bag inflates, the PMR may be propelled with great force and cause serious injury to the occupants of the vehicle.

Potentially Explosive Atmospheres

Turn your PMR OFF when in any area with a potentially explosive atmosphere, unless it is a type especially qualified for such use (for example, Factory Mutual Approved). Sparks in such areas could cause an explosion or fire resulting in injury or even death.

Batteries

Do not replace or charge batteries in a potentially explosive atmosphere. Contact sparking may occur while installing or removing batteries and cause an explosion.

Blasting Caps and Areas

To avoid possible interference with blasting operations, turn your PMR OFF near electrical blasting caps or in a blasting area or in areas posted: "Turn off the two way radio." Obey all signs and instructions.

NOTE: Areas with potentially explosive atmospheres are often, but not always clearly marked. They include fueling areas such as below deck on boats; fuel or chemical transfer or storage facilities; areas where the air contains chemicals or particles, such as grain, dust, or metal powders; and any other area where you would normally be advised to turn off your vehicle engine.

Cleaning and Care

To clean your PMR, use a soft cloth dampened with water. Do not use cleaners or solvent, which may cause damage that may not be covered by guarantee.

Standards Compliance

This product complies with the regulations for PMR446 service and has been independently approved to meet the requirements of standard ETS 300 296 and other European standards.

Brondi declares that the FX-300 handset conforms to the following standards: EN300296-2 v.1.1.1 (2001-03), EN301489-5 v1.3.1 (2002-08), EN60065 :2002.

It satisfies the requirements of European Directive 1999/5/CE regarding radio and telecommunications terminal equipment.

The conformity to said requirements is expressed with the



Product conforming to Directive 89/336/CEE regarding electromagnetic compatibility and also conforming to Directive 73/23/CEE (low voltage) regarding safety standards.





The complete Declaration of Conformity can be requested by e-mail to info@brondi.it or by fax (0039) 0116474433.

Using the Handset

In Italy, on the basis of the current "Code of Electronic Communications" (Legislative decree 259/03) all PMR 446 handsets are subject to a declaration of use and an annual contribution: contact the Area Inspector of reference (Ministry of Communications) to request the forms and information on how to gain general authorisation to use the PMR 446 handsets. The handsets may be used after the necessary forms have been sent off, taking care to keep a copy. The use of PMR 446 2-way radios is allowed in Italy and in the following European countries: Austria, Belgium, Cyprus, Czech Republic, Germany, Denmark, Estonia, Greece, Spain, Finland, France, Great Britain, Hungary, Ireland, Lithuania, Luxemburg, Latvia, Malta, Netherlands, Norway, Poland, Portugal, Sweden, Slovak Republic, Slovenia, Switzerland.

For use in the above-mentioned countries, seek information on the regulations in the various States.

Range

The range declared is for the usage in wide open spaces. The atmospheric and environmental conditions may limit the range. The range may also be reduced if the batteries are not fully charged. Other factors which might restrict range are: buildings, thick vegetation (trees, etc.), hills or mountains. The greatest range is obtained in wide open spaces which are flat and free from obstructions. Lastly, the range also depends on the battery charge and receiving and transmitting features of the handsets used by those with whom you are communicating.

Care and safety with radio transmitters

In order to provide optimal radio performance and make sure human exposure to radio frequency electromagnetic energy is within the recommended parameters set forth in the regulations, always adhere to the following procedures:

When operating a portable transmitter, hold the device in a vertical position with the microphone 4 to 6 inches (10-15cm) away from your mouth. Keep the antenna at least 1 inch (2.5cm) away from your head and body. If wearing the device near your body, ensure the antenna is at least 1 inch (2.5 cm) away from your body when transmitting.

Electromagnetic interference/compatibility

Nearly every electronic device is susceptible to electromagnetic interference (EMI) if inadequately shielded, designed, or otherwise configured for electromagnetic compatibility.

In order to avoid electromagnetic interference and/or compatibility problems, turn off your radio in any location where posted notices instruct you to do so. Hospitals or health care facilities may be using equipment that is sensitive to external radio frequency energy.

When instructed to do so, turn off your radio when on board an aircraft. Any use of a radio must be in accordance with applicable regulations per airline crew instructions.

CARE AND MAINTENANCE



OPERATING PRECAUTION

Damaged antenna

Do not use a radio with a damaged antenna. If a damaged antenna comes into contact with your skin, it could cause a minor burn. Send your equipment to technical service for repair before using it again.

Batteries

Do not replace or charge batteries in environments where there is a risk of explosion.

Install only batteries of the same type (all rechargeable or all alkaline).

Ensure that the batteries are properly fitted, observing the polarity indicated inside the compartment.





All batteries can cause property damage and/or personal injury such as burns if a conductive material such as jewelry, keys, or beaded chains touch exposed terminals. The conductive material may complete an electrical circuit (short circuit) and heat up significantly. Exercise care in handling any charged battery, particularly when placing it inside a pocket, purse, or other container with metal objects.



OPERATING WARNING

Replacement parts

Use of replacement parts other than those recommended by the official product distributor may violate the device certification. Use only the recommended replacement parts.

For vehicles with an air bag

Do not place a portable radio in the area over an air bag or in the field of air bag deployment. Air bags inflate with high levels of pressure and force. If a portable phone is placed in the air bag deployment area and the air bag inflates, the phone may be propelled with great force and cause serious injury to the vehicle occupants.

Potentially explosive environments

This product DOES NOT meet intrinsic safety regulations. Turn off your radio when in any area with a potentially explosive environment. Sparks in such areas could cause an explosion or fire resulting in bodily injury or even death.

Batteries

Do not replace or charge the batteries in an area with a potentially explosive environment. Contact sparking may occur while installing or removing the batteries and cause an explosion.

Blasting caps and areas

To avoid possible interference with blasting operations, turn off your radio when you are near electrical blasting caps, in a "blasting area", or in areas posted: □Turn off two-way radio. □Obey all signs and instructions.

Note: Areas with potentially explosive environments are often, but not always, clearly marked. They include fueling areas; below decks on boats; fuel or chemical transfer or storage facilities; areas where the air contains chemicals or particles, such as grain, dust or metal powders; and any other area where you would normally be advised to turn off your vehicle engine.



Waste electrical products should not be disposed of with household waste.
This equipment should be taken to your local recycling center for safe treatment.

IMPORTANT SAFETY INSTRUCTIONS



KEEP THESE INSTRUCTIONS

Before using the battery charger, read the instructions and precautions for the charger and battery as well as the radio equipment.




PRECAUTION

To reduce the risk of sustaining injuries when using the charger, only charge the original rechargeable batteries. Other types of batteries could explode, causing injury and harm.

- 1.- Do not expose the charger to rain or snow.
- 2.- Do not use the charger if it has received a sharp blow, or has been dropped or damaged in any way.



- 
- 3.- Do not disassemble the charger. If it is put back together incorrectly, it could result in a risk of electric shock or fire.
 - 4.- Never alter the power cable provided with the charger. If the plug does not fit in the outlet, use an approved adaptor, or install the proper outlet. When unplugging the supply from the outlet, always pull the plug rather than the cable to reduce the risk of damage to the cable or plug.
 - 5.- To reduce the risk of electric shock, unplug the charger from the outlet before attempting any maintenance or cleaning. The use of any non-recommended accessory may result in a risk of fire, electric shock, or personal injury.

Brondi reserves the right to change the product specifications and performance without prior notice.



BRONDI

www.brondi.it



BRONDI

Tel. Servizio : +39 011.647.44.07
info@brondi.it

Version 1 - 17th Jan 07