



PRIMOS
H U N T I N G

**BULLET
PROOF
2**



Instruction Manual

Model #: 63163WM

03-17







CLEANING CAMERA: Do not use window or any chemical cleaner to clean any part of the camera. Only use a water dampened cloth and wipe gently.

DO NOT COVER UP LIGHT SENSOR ON THE FRONT OF THE CAMERA HOUSING (see pg. 8). This light detects light conditions for camera exposure.

The PIR/Battery Indicator LED (pg. 8) lights to verify triggers (PIR sensor activity) during first 10 seconds after power/mode switch is move to PIC or MOV, and lights when capturing a photo or video during first 3 minutes of operation. At 3 minutes after power on, the camera will no longer illuminate this LED for ultimate stealth during operation. The PIR/Battery Indicator LED will blink if battery power drops to a low level.

IMPORTANT

For your protection, please carefully read these warnings, precautions and safety/operating instructions completely before operating this product. Follow these instructions closely and keep this manual for future reference.

⚠ WARNING

WARNING

To reduce the risk of fire, electrical shock or product damage/failure:

- Do not expose unit with the battery door open to rain, moisture, dripping or splashing. Do not open or close the battery door with wet hand. Completely wipe off water on unit and door before opening.
- Do not lay product on moist ground or submerge in water (this unit is designed for upright outdoor use). - DO NOT OPEN CASE HOUSING. UNINSULATED, 'DANGEROUS VOLTAGE' WITHIN PRODUCTS ENCLOSURE. DO NOT REMOVE HOUSING COVER. THERE ARE NO USER - SERVICEABLE PARTS INSIDE, REFER SERVICING TO PRIMOS® CUSTOMER SERVICE.
- Only use batteries as specified in this user manual and install according to correct polarization. Failure to follow may result in leaking or exploding batteries, damage to product, fire or personal injury. Do not handle damaged or leaking batteries.
- Do not expose to extreme heat. Do not leave product and/or batteries exposed in direct sunlight inside a vehicle, or other contained environment for a long period of time.
- Only use accessories as recommended in this manual





CAUTION

CARE & CAUTION

- Transport and handle with care. Do not strongly shake, bump, hit, drop or otherwise cause impact to the product – can result in product malfunction or damage to key components. Additionally, damage to the case could result in imperfections to water-resistant properties.
- Take extra care when handling or using product in places with sand and dust. Sand, dust and foreign substances exposed to product, especially in extreme proportions, may result in poor speaker quality, damage to the external jacks or internal components and could cause malfunction of the product. If exposed to any of these elements, please carefully wipe off completely before continued use.

WARNING

MODIFICATION WARNING

You are cautioned that any changes or modifications not expressly approved in this manual could void your warranty of this equipment.

OPERATING TEMPERATURE

- Recommended storage temperature range -10°F to 140°F (-20°C to +60°C)
- Recommended operating temperature range -5°F to 140°F (-25°C to +60°C)

WARNING

WARNING

To avoid possible product damage and/or injury, NEVER INSTALL DIFFERENT TYPES OF BATTERIES in the product at the same time. Failure to follow may result in leaking or exploding batteries, damage to product, fire or personal injury. Do not handle damaged or leaking batteries.

QUESTIONS??

Feel free to contact Primos® Customer Service Team
via phone: (601) 879-9323
or email: service@primos.com
with any comments, questions, problems or return requests.



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IMPORTANT NOTE

Congratulations on your purchase of one of the best Game Cameras on the market! Primos is very proud of this camera and we are sure you will be pleased with yours as well. We appreciate your business and want to earn your trust. Please refer to the notes below and the instructions in this manual to ensure that you are completely satisfied with this product.

If your Primos BULLET PROOF 2 Game Camera does not seem to be functioning properly or if you are having photo/video quality issues, please check the Troubleshooting/FAQ section on pages 18-20. Problems are often due to something simple that was overlooked, or require only changing one setting to solve.



If your problem continues after trying the solutions in the Troubleshooting/FAQ section, please contact Primos Customer Service in the US via phone: (601) 879-9323 or email: service@primos.com



Primos recommends using 4 Energizer® Lithium AA batteries in this BULLET PROOF 2 Game Camera to obtain maximum battery life.

*Do Not Mix Old and New Batteries
Do not mix battery types-use ALL lithium or ALL alkaline.
Rechargeable batteries are not recommended.*



Primos recommends using SanDisk® SD and SDHC Cards (up to 32GB capacity) in this BULLET PROOF 2 Game Camera.



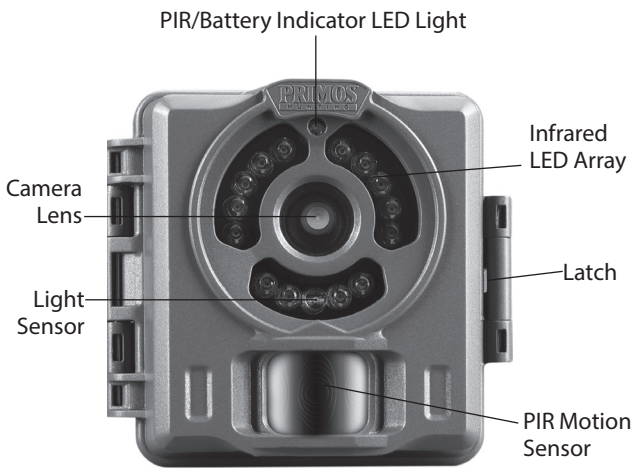
INTRODUCTION

Congratulations on your purchase of a Primos BULLET PROOF 2 Game Camera. This camera, with its weatherproof, rugged construction, is designed to record animal activity in the outdoors. Your BULLET PROOF 2 Game Camera features a compact, portable size and an extra long battery life.

Main Features:

- 14MP image resolution
 - 720p HD Video (10 sec per clip)
 - Compact Size
 - Trigger Time=1.0 second or less
 - Automatic IR Filter
 - 14 Night Vision LEDs
 - Supports up to 32 GB SD Card
 - Date, Time & Moon Phase Imprint
 - Auto Exposure
 - Auto White Balance
 - Power Supply: 4 AA batteries (lithium or alkaline)
 - Mounting Strap Supplied
 - Weatherproof
- 
- 

Parts and Controls Guide

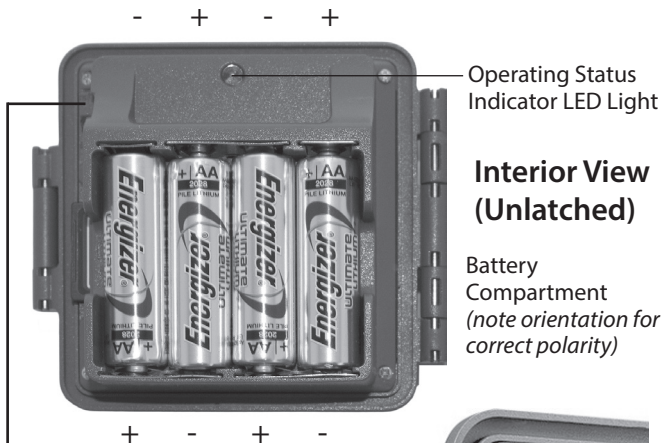


Front of Camera

PIR/Battery Indicator LED:

- Lights when PIR sensor is triggered during first 10 sec after power on.
- Lights when capturing photo or video during first 3 minutes after power on.
- Blinks to indicate low battery level.

Parts and Controls Guide



Power/Mode Switch

SD Card Slot

Operating Status Indicator LED:

- Lights when Timetool software has finished saving to SD card (*see pg. 11*).
- Lights while capturing photo or video (**do not switch power off when lit**).
- Blinks to indicate SD card is locked or full (unable to save photos/videos).



BATTERY INSTALLATION

To maximize battery life, you should install a set of 4 AA lithium (for longest life) or alkaline batteries.

NOTE: Always set the power switch to the OFF position when installing or removing batteries.

Please make sure the batteries are inserted correctly, as indicated inside the battery compartment. Incorrect voltage or polarity (+/-) will damage the camera.

Do not mix old and new batteries.

Do not mix battery types-use ALL lithium or ALL alkaline.

Rechargeable batteries are not recommended.

SD CARD INSTALLATION

Memory

Your BULLET PROOF 2 Game Camera has a memory card slot, to accept SD cards up to 32 GB max. capacity (*not included*). When the SD card is full, the camera will stop capturing images and the Operating Status Indicator LED will blink.

Inserting an SD card

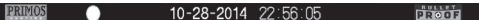
- Make sure the power switch is in the **OFF** position whenever adding or removing memory.
- Insert an SD card into the card slot completely and oriented correctly as shown by the icon above the slot (label up, contacts facing down and notched corner on the right).
- To remove the SD memory card, depress the SD card and pull out the card gently.

Using a new, blank SD card is recommended. If the SD card has been used in another device, please be sure to do a “full” format (FAT 32) using your computer before you set the camera to capture photos. If you experience problems with a new SD card, do a full format from a computer and try again.



DATE AND TIME IMPRINT FEATURE

Your Digital BULLET PROOF 2 Game Camera will automatically imprint the date, time and moon phase on each photo it captures, based on the initial date and time data in a text file you can generate and save on the SD card, as described below. If no text file with date/time is found on the card when the camera is turned on, only "Primos" will be imprinted on the photos.

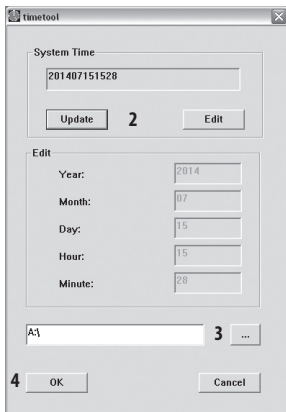


Requirements:

- A PC computer with an internal SD card slot, or an external USB card reader.
- The "Timetool" application (*Windows only-Mac users see next page*), which is provided by the camera-see details below.

Steps:

1. Insert a new SD card in the camera's card slot. Switch the BULLET PROOF 2 Game Camera to "PIC". The "Timetool.exe" software will be automatically saved to the card. The Operating Status indicator LED (*pg. 9*) will go out when this is done. Do not remove the card while the LED is on.
2. Turn off the camera and remove the SD card. Insert the card in your computer's SD card slot or a compatible USB connected card reader. View the SD card contents-double click to open the file "timetool.exe". *Note: if the Timetool window doesn't pop up after inserting the card, go to Start>Computer, and double click "Removable Storage" to view the SD card contents.*
3. Click "Update" in the Timetool window to automatically fill in the date and time from your





computer's clock. If this is not the correct date and time, click "Edit" and make changes as needed.

4. Click the "..." button above Cancel and select the SD card location (drive letter). Or, if you know the drive letter for the SD card (e.g. "D:\"), change the "A" in the white box to the correct letter.
5. Once the date/time data is correct and you've selected your SD card location, click OK to save the text file.
6. Remove the SD card (eject it first if necessary) and insert it into your BULLET PROOF 2 Game Camera (label side up as previously described). The date and time data will be automatically loaded into the camera, and the text file (txt) will be deleted. **It is important to get the card from computer to camera as soon as possible to ensure the initial time is still accurate.**

Note: it is not necessary to reinstall Timetool before inserting another (new) SD card, as long as battery power is maintained.

Setting Up The Date & Time Imprint Feature For Mac Users

Since the Timetool software built into the camera is Windows only, you will need to create a compatible text file using your Mac, save it on an SD card and load it into the camera. This only needs to be done once, unless the camera's batteries are not replaced before they are completely dead.

1. Insert a new, unused SD card (up to 32GB) into a compatible USB card reader connected to your Mac (most Mac laptops have an SD card slot built-in, please consult your computer manual if necessary).
2. Open the TextEdit application on your Mac. This is the default simple text editing program included with the Mac operating system. A quick way to locate and open it is to click the "magnifying glass" icon at the top right of your screen (Spotlight) and type "text edit"-you will see it listed under "Application"-click the "TextEdit" line to open it.
3. In the blank TextEdit window, type (only) the current date and time using this format: "TIME"YYYYMMDDHHMM (include the word "TIME" with quote marks. Do not add spaces, hyphens or slashes. Do not use bold type). For example, if the current date is





October 6, 2015 and the time is 10:38 AM, you would enter this: "TIME"201510061038. Note that the time format is 24 hour, not 12, so enter the hour of 1:00 PM as "13", etc.

4. Under the File menu in TextEdit, select "Save As", and select the SD card slot or reader as the save location. If you don't see it in the "Where" list, click the down arrow to the right of "Save As" to see a complete list of Devices-the SD card should be on there. Make sure the File Format is "Rich Text Format" (.rtf). Name the TextEdit file "TIMESYNC" and click Save to save it to the SD card.
5. Eject the SD card (right click, select "Eject (name of card)_" and wait for the card icon to disappear from your Mac desktop).
6. Make sure the Primos cam's power switch is off. Insert the SD card into the camera's card slot, then switch on the camera. Test the date imprint by waving a hand in front of the camera a few times during a minute or two.
7. Switch off the camera and remove the card. Insert the card in your Mac's card slot or USB card reader. Double click to view the card contents. The .jpg photos or .avi videos are in the DCIM folder. Open a few to verify that the correct date and time are being imprinted at the bottom of each photo.
8. If the correct date and time are not imprinted on the photos, repeat these steps exactly as written. The SD card can be reformatted (erasing all previous contents) on your Mac by using the default Disc Utility app. Select the name of the card, select "Erase" and select the Format "MS-DOS (FAT)", then click "Erase..."

POWER ON / MODE SELECT

After inserting batteries and an SD card (*w/date & time file at your option*), slide the power switch to the **PIC** (Picture) position if you wish to capture still photos, or all the way up to the **MOV** (Movie) position if you prefer to capture videos. The PIR/Battery and Operating Status indicator lights(LED below Primos logo) will warn of problems with the SD card or battery.

- If the Operating Status indicator LED (*pg. 9*) blinks, there is a problem with the SD card. Check the card (make sure it's inserted correctly and protect switch is not locked) or switch to a new card if it is full.
- If the PIR/Battery indicator LED (*pg. 8*) blinks, battery power levels





are low. The batteries should be changed to ensure continued operation.

- During a video recording, the Operating Status indicator LED will glow a steady green. DO NOT switch off the camera while this is on, or the video file may become damaged and unplayable.

To capture photos/videos of activity in the area you choose to locate your Primos BULLET PROOF 2 Game Camera, follow the steps listed next in “SET UP”:

SET UP

1. Mount the Camera

It is recommended that you mount the camera about 3 or 4 feet (0.9~1.2 meters) off the ground. It's best to avoid mounting the camera facing east or west as the rising and setting of the sun could produce false triggers and overexposed images. Clear branches and other debris away from the front of the camera so as not to block the camera lens or PIR sensor.

To mount the camera in place, insert the strap through the strap slots on the rear housing. Wrap the strap around the mounting surface. Secure the strap and tighten the buckle in order to secure the camera.

Make sure that the camera's latch is securely locked in place, to ensure proper weather resistance.

2. Power On the Camera

If both SD card and batteries are good, the camera will begin taking photos or videos 10 seconds after you move the switch to PIC or MOV, whenever it is triggered by the PIR sensor's heat/motion detection. Each time the PIR sensor is triggered, the camera will take a new photo or video following a 10 second delay. For the first three minutes of operation, the PIR indicator LED will light for about 3 seconds when it senses animal or human activity within the PIR coverage area. See “Test the Coverage Area” below.

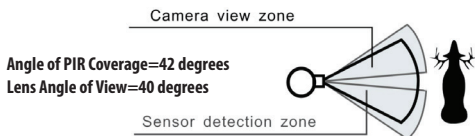




3. Test the Coverage Area

One of the BULLET PROOF 2 Game Camera's most useful features is the ability to test the coverage area.

- After mounting the camera, open the front housing and slide the Power switch to the "PIC" position.
- The red Indicator LED above the lens will glow for 3 seconds when you trigger the PIR by entering the coverage area.
- Adjust the camera position as needed and repeat the test until the desired coverage area is achieved.
- After three minutes, the PIR indicator will not glow when you are in the coverage area (to avoid being seen by animals or potential thieves. The camera is now "sleeping" and waiting for the PIR sensor to trigger the an image capture.
- Maximum PIR sensor range is approx. 13 meters (42 ft).



4. Secure the Camera

A standard padlock may be used in the camera's lock hole to secure it and prevent theft.

VIEWING THE PHOTOS/VIDEOS

After your camera has been operating for awhile, you will of course want to review the photos it has been capturing. This can be done by either of two methods, according to your preference or the availability of accessory equipment:

Using an SD Card Reader

1. Push the SD card in slightly to release it, then pull it out of the camera gently.
2. Put the SD card into a USB connected SD card reader (either a dedicated SD card reader or "multi-card reader" that features slots for different types of memory cards, including SD) or the SD card slot on your computer if it has one.





3. The SD card or card reader should appear on your desktop or list of connected “drives”. Double click it to view or download the photo files (.jpg) and/or video files (.avi) on the SD card.

Note: while it may be possible to view the files on many digital cameras, it is not recommended. If you do insert the SD card in a digital camera, we recommend you perform a full format of the card using a computer before re-inserting the card into the Game Camera.

GLOSSARY

PIR (Passive Infrared Sensor): Senses motion like a typical security motion detector. Requires infrared energy (heat) in addition to motion to trigger the sensor to help limit detection to live subjects (rather than leaves, etc).

Moon Phase: The BULLET PROOF 2 Game Camera has a feature which imprints a moon phase stamp on each photo for reference. The moon phase is based on the date/time settings.

IR Flash: Also called IR LED Array. This is a “night vision” feature, which emits a burst of infrared light, invisible to the human eye. Especially useful for night photos when a visible flash may be undesirable.

Battery Life: Time that camera will function in the field. Dependent on ambient temperature, number of images taken and number of times the IR flash fires. When the battery voltage drops below 4.5v, the IR flash stops firing. When battery voltage is below 3.5v, the camera stops working.



TECHNICAL SPECIFICATIONS

Model Number	63163WM
Image Sensor Type	1/2.7 Inch CMOS
Sensor Resolution	2 million pixels
Effective Focal Length	8 mm
Lens Aperture	f/2.5
IR Filter	Automatic IR Filter
PIR Sensor	Yes
Trigger Speed	<1.0 second
Number of IR LED	14 LEDs
Max Night Vision Lighting Distance	45 feet / 14m
Storage	SD Card, up to 32 GB Capacity
PIR Indicator	Yes, red LED above lens
Image Resolution (photos)	14.0 MP*
Video Resolution	1280x720 (720p HD), 30 fps
Video Clip Time	10 seconds ea.
File Format	JPEG (photos) /AVI (videos)
Date/Time Imprint	Yes (data input via text file on SD card)
Moon Phase Imprint	Yes (data input via text file on SD card)
Exposure	Auto
White Balance	Auto
Power Supply	4 AA cell batteries (alkaline or lithium)
Power Consumption	<200ma (<600ma w/LED flash)
Average Continuous Running Time	approx 2 mo. (+/- 1 mo. depending on # of photos using LED flash)
Water Resistant	Yes

* 14 MP resolution via software interpolation





Troubleshooting / FAQ

Battery life is shorter than expected

1. Battery life will vary with operating temperature and the number of images taken over time.
2. Check to make sure you have used new alkaline or lithium batteries. **Primos recommends using 4 Energizer® Lithium AA batteries in this BULLET PROOF 2 Game Camera to obtain maximum battery life.**
3. Make sure that you are using a good quality name brand SD card in your camera. **Primos recommends SanDisk® brand SD Cards up to 32GB.** Our experience indicates that poor quality SD cards can sometimes reduce your BULLET PROOF 2 Game Camera's battery life.

Camera stops taking images or won't take images

- 
- 
1. Please make sure that the SD card is not full. If the card is full, the camera will stop taking images.
 2. Check the batteries to make sure that they are new alkaline or lithium AA batteries. ***See note above about short battery life.***
 3. Make sure that the camera power/mode switch is in the "PIC" or "MOV" position and not in the "OFF" position.
 4. Make sure that you are using a good quality SD card in your camera. **Primos recommends SanDisk® SD Cards up to 32GB.**
 5. If the SD card has its write protect switch in the lock position, the camera will not take images.
 6. In some cases, other devices may change the formatting of the SD card so that it will not work properly with the BULLET PROOF 2 Game Camera. If you have used an SD card in another device before inserting it in your BULLET PROOF 2 Game Camera, you might want to try formatting the card on your computer (make sure you have backed up any important files first, as formatting will erase all previous files). Be sure to use a "full" or standard formatting procedure—do not use partial or "quick format" options (*make sure "Quick Format" is unchecked*). **Use the "FAT32" format, not "NTFS" format, to ensure the camera will recognize the card.**





Troubleshooting / FAQ

Camera won't power up

1. Make sure that the batteries are installed correctly, observing proper polarity. Always place the negative (flat) end of each battery in contact with the spring tab side of its slot inside the camera.

Do not mix old and new batteries.
Do not mix battery types-use ALL lithium or ALL alkaline.
Rechargeable batteries are not recommended.

Still Photo and/or Video Quality Problems

1. *Night photos appear too dark*

- a. Try using a set of new batteries. The flash will stop operating near the end of the battery life.
- b. You will get the best results when the subject is within the ideal flash range, no farther than 45' / 14m from the camera. Subjects may appear too dark at greater distances.

2. *Daytime photos appear too dark*

- a. Make sure that the camera is not aimed at the sun or other light sources during the day, as this may cause the auto exposure to produce darker results.

3. *Night photos appear too bright*

- a. You will get the best results when the subject is within the ideal flash range, no closer than 10' / 3m from the camera. Subjects may appear too light at closer distances.

4. *Daytime photos appear too bright*

- a. Make sure that the camera is not aimed at the sun or other light sources during the day.

5. *Red, green or blue color cast*

- a. Under certain lighting conditions, the sensor can become confused resulting in poor color images.
- b. If this is seen on a consistent basis, then the sensor may need servicing. Please contact Primos customer service.

6. *Video file won't play*

- a. If the camera was powered off during a video recording (green LED on), the file may have been corrupted.





Troubleshooting / FAQ

Photos Do Not Capture Subject of Interest

1. Try to set your camera up in an area where there is not a heat source in the camera's line of sight.
2. In some cases, setting the camera near water will make the camera take images with no subject in them. Try aiming the camera over ground.
3. Try to avoid setting the camera up on small trees that are prone to being moved by strong winds.
4. Remove any limbs, grass, brush, etc. which are right in front of the camera lens.

PIR Sensor LED Flashes/Doesn't Flash

1. For the first three minutes after the camera is switched on, the PIR Indicator LED on the front of the camera will light for 3 seconds whenever it senses motion. This is for setup purposes only and will help the user aim the camera.
2. During use, the PIR Indicator LED will not flash when the camera takes an image. This is to help keep the camera hidden from game.

Time/Date Imprint is Not Accurate

1. If you let any significant amount of time elapse between setting and saving the current time on the SD card using your computer (*following the Timetool directions on pg. 11*) and inserting it back into the camera, the time will be off by that amount. If you don't put the card back into the camera until two days after you saved the text file on it with the time & date, the camera will "think" the current date is still the same as it was two days ago, and the imprint on your photos will be off by that much.



ONE YEAR LIMITED WARRANTY

Your Primos electronic product is warranted to be free of defects in materials and workmanship for one year after the date of purchase. In the event of a defect under this warranty, we will, at our option, repair or replace the product, provided that you return the product postage prepaid. This warranty does not cover damages caused by misuse, improper handling, installation, or maintenance provided by someone other than a Primos or Bushnell Authorized Service Department.

Any return made under this warranty must be accompanied by the items listed below:

1. A check/money order in the amount of \$10.00 to cover the cost of postage and handling.
2. Name, address and daytime phone # for product return.
3. An explanation of the defect.
4. Copy of your dated proof of purchase.

Do not send in accessories (batteries, SD cards, cables), only the product for repair.

Product should be well packed in a sturdy outside shipping carton to prevent damage in transit, and shipped to the address listed below:



IN U.S.A. Send To:

Bushnell Outdoor Products
Attn.: Repairs
9200 Cody
Overland Park, Kansas 66214

IN CANADA Send To:



Bushnell Outdoor Products
Attn.: Repairs
140 Great Gulf Drive, Unit # B
Vaughan, Ontario L4K 5W5

For products purchased outside the United States or Canada please contact your local dealer for applicable warranty information.

This warranty gives you specific legal rights.
You may have other rights which vary from country to country.

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*Specifications and designs are subject to change without
any notice or obligation on the part of the manufacturer.*



FCC Compliance Statement:

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.


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 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.

The device does not contain any user-serviceable parts. Repairs should only be made by an Authorized Primos repair center. Unauthorized repairs or modifications could result in permanent damage to the equipment, and will void your warranty and your authority to operate this device under Part 15 regulations.

The shielded interface cable which is provided must be used with the equipment in order to comply with the limits for a digital device pursuant to Subpart B of Part 15 of FCC Rules.







For further questions or additional information please contact:

**Primos Customer Service
(601) 879-9323
service@primos.com**

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