



Osprey and Remote Control

User Manual

Introduction

Product manuals are intended to help customers understand the workings of the hardware devices. This product manual is posted online at **att.com** and at **directv.com/manuals** for customer access.

The purpose of this document is to communicate information associated with the [C71KW, C71KW-400, C71KWBP-400] and to provide an overview addressing specific functions of the device.

Safety information can be found in the Appendix

Before using the equipment, read the important Safety Instructions. This manual outlines safeguards information. The safety information contained in this manual was developed and provided solely by the manufacturer.

TERMINOLOGY

Term	Description
High Value Content	E.g. in theater PPV movies.
OTT	Over-the-Top, the delivery of video via the internet directly into user connected devices, allowing access to services anywhere, anytime and on any device.
PiP	Picture in picture.
RF4CE	Radio frequency for consumer electronics.
RUI	Remote User Interface, the UI which is accessed and manipulated directly thru the client.
STB	Set-top box or receiver.

I. OVERVIEW

The C71KW is the new AT&T/DIRECTV Wireless 4K OTT Client. This C71KW client cannot be used with the existing Genie Servers (HR34-54 and HS17).

The VRC81 is the new Voice controlled AT&T/DIRECTV Remote. This remote can be used with the C71KW and the future HS27.

There are several model numbers in C71KW series, like C71KW, C71KW-400 and C71KWBP-400. C71KW will be used to represent C71KW-400, C71KWBP-400 in this document.

II. HARDWARE INFORMATION

1. Specifications

Size and Weight (Not Including Feet)

Height: 19 mm

Width: 158.6 mm

Depth: 158.6 mm

Feet: 1 mm

Packaging

Carton

Height: 231mm

Width: 506mm

Depth: 405mm

Weight: 7.8lbs

Environmental Requirements

Operating temperature: -40° to 122° F (0° to 50° C)

Storage temperature (No Damage): -40° to 150° F (-40° to 66° C)

Relative humidity: 5-85% non-condensing

Remote Control Support (Built-In Capability)

IR Remote Control Interface

Dual Mode Bluetooth Interface (Bluetooth 4.1 Legacy & Bluetooth Low Energy)

XMP2 Ports and Interfaces

802.11ac 5GHz Wi-Fi (WVB)

802.11ac 2.4 GHz (Home gateway)

DC Power Input

HDMI 2.0b / HDCP 2.2 and 1.4

1x USB2.0 Port

Optical S/PDIF Output Connector

10/100 Ethernet port

Power

EPS10 External PSU

AC external PSU -120v~60HZ, 18W

Input: 12V DC 1.5A

Active Power Consumption below 15W

Processor

BRCM7271

Memory

2 GB DDR memory

64 bit DDR3/DDR4 interface

8 GB eMMC

Video and Audio Formats

MPEG2

Dolby Audio

MPEG-4 AVC single, dual or quad display up-to

1080i60/1080p30 or UHD/4K

HEVC / VP9 display

HDR10 SMPTE ST 2084, ST

2086 “Blu Ray” standard and HLG support

TV Compatibility

Compatible with HD and 4K TVs with HDMI 2.0 & 1.4, HDCP 2.2, 60 Hz and capable of 4K, 1080p and 3D

2. C71KW Client Hardware

i. Front Panel

1. Blue Power Status Indicator LED
2. Green / Yellow / Red Network Status Indicator LED



FIGURE 1: C71KW FRONT PANEL

ii. Side Panel

1. Red Reset Button



FIGURE 2: C71KW SIDE PANEL

iii. Rear Panel

1. 10/100 Ethernet Connector with Indicator LED
2. S/PDIF Optical Audio Connector
3. HDMI Connector (Type A)
4. USB 2.0 Port (Type “A” connector)
5. DC Power Inlet Connector (for EPS10 External Power Supply) with Power Indicator LED



FIGURE 3: C71KW REAR PANEL

3. Other Associated Hardware

i. Mounting Specifications

C71KW will support table top and wall mounting configurations.

C71KW will not have vent holes in the top of the cover. The C71KW bottom cover will have a recess for attaching a cable tie for hanging the unit in a wall mount scenario.

Cable tie's specifications:

- a. Width: 4.5mm
- b. High: 1.25mm



FIGURE 4: C71KW WALL MOUNTING

4. Power Supply

C71KW uses the DIRECTV EPS10 Power Supply

5. Remote Control

C71KW needs the VRC81 remote (The C71KW will not function with the RC6x or RC7x remotes, and the VRC81 will not function with any older DIRECTV receivers and clients). Like the other DIRECTV remotes, the VRC81 can be programmed to operate some features on TV's or Audio/Video equipment. The key features of the VRC81 Remote are:

The VRC81 Remote works in IR, RF and Bluetooth interface.

The remote uses Bluetooth for 2-way communication to the C71KW.

Like RF mode, Bluetooth eliminates the need for the remote and the paired devices to be in line of sight to each other.

The VRC81 Remote has a Touch Pad. Basic operations and functions can be made by sliding and pressing the touchpad.

If the Remote is not paired to a C71KW, touch pad can be used for functions like Up, Down, Left, Right and Select

Once the Remote is paired to a C71KW, it can send absolute touch data to the C71KW.

Voice Recognition is available in the VRC81 Remote. Voice search will only work when the remote is paired to the C71KW.



FIGURE 5: VRC81 REMOTE

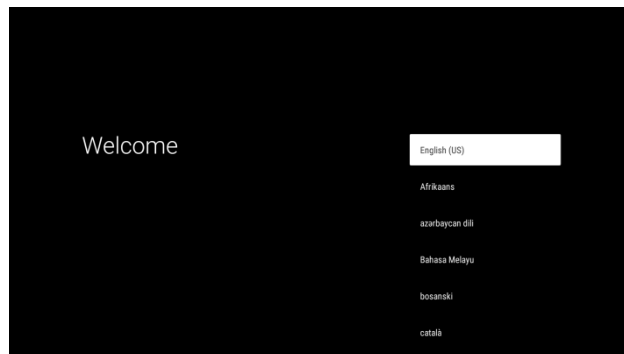
III. QUICK START GUIDE

Step 1: Set up the C71KW at its location.

1. Connect the power cord to C71KW and plug it in to an electrical outlet.
2. Connect the HDMI cable between C71KW and your TV.
3. Power on the C71KW and the TV.

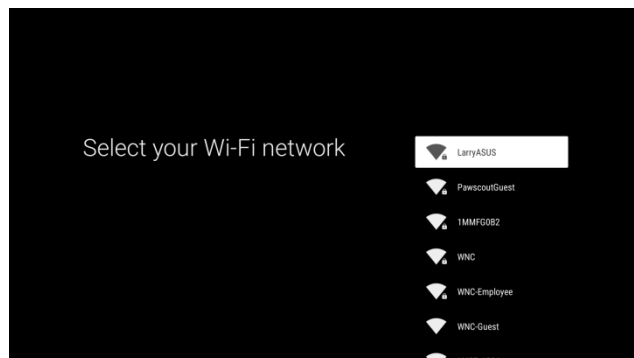
Step 2: Select setup language

1. Select language for following setup.



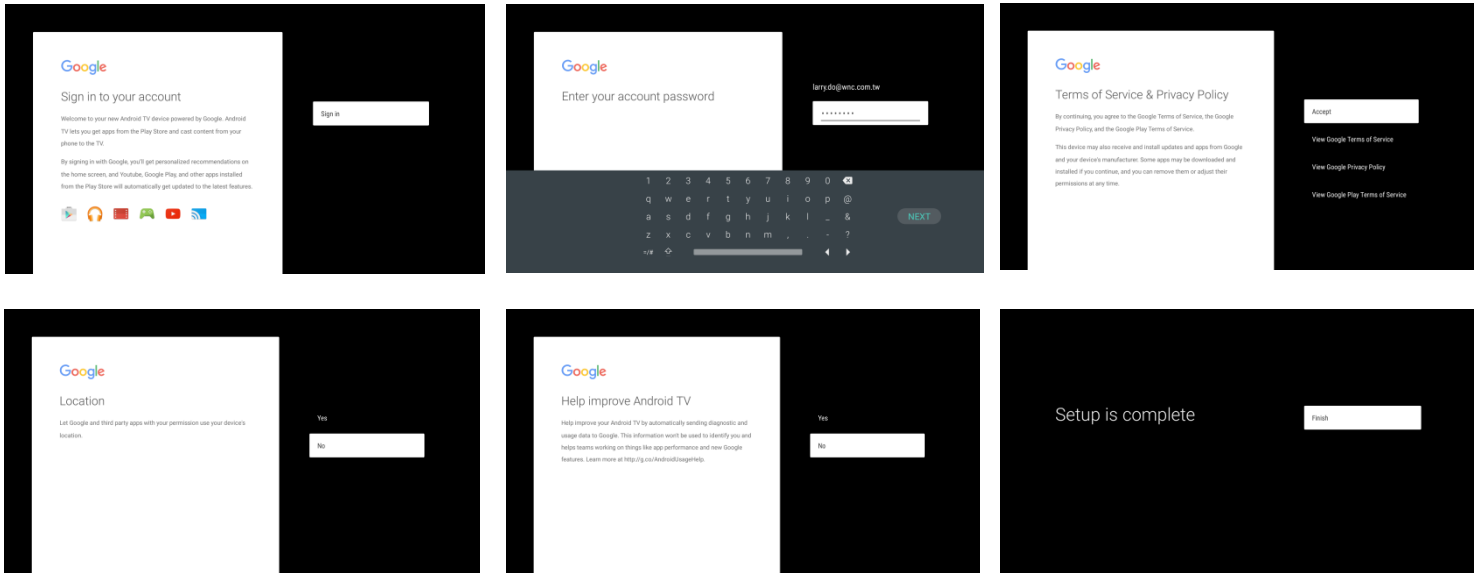
Step 3: Setup your WiFi network

1. Select your WiFi network
2. Connect to your WiFi network

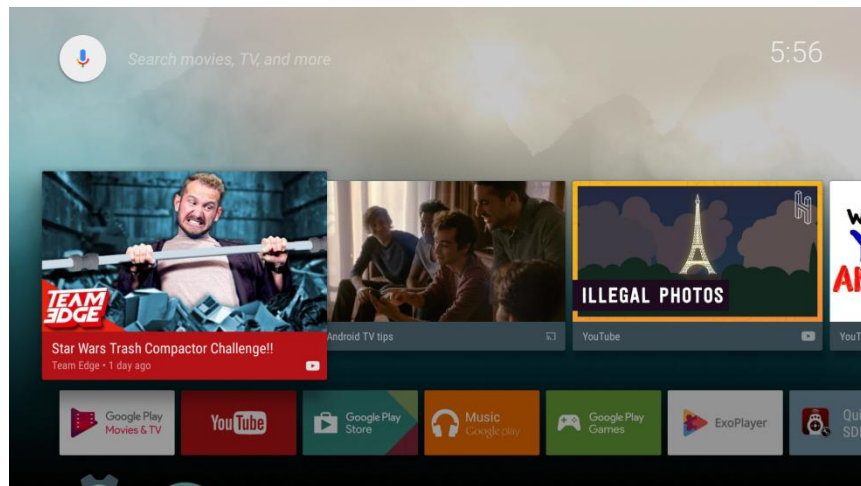


Step 4: Sign-in your Google account

1. Sign in to your Google account
2. Enter your account password
3. Google terms of service & privacy policy
4. Location
5. Help improve Android TV
6. Setup complete



Step 5: Start Android TV



V. APPENDIX

A. FEDERAL COMMUNICATIONS COMMISSION INTERFERENCE 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.

Responsible Party:

AT&T/DIRECTV
2230 E. Imperial Hwy
El Segundo, CA 90245
1-800-DIRECTV

- Trade Name: AT&T/DIRECTV
- Model Number: C71KW-400, C71KWBP-400

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 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.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

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 device is restricted for indoor use.

IMPORTANT NOTE:

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20 cm between the radiator & your body.

B. SAFETY & CARE

As part of our ongoing commitment to help conserve energy and reduce waste, we have made user manuals available online where you can conveniently access them at any time. Please go to att.com or directv.com/manuals

Your DIRECTV® Receiver has been designed and manufactured to stringent quality and safety standards.

You should, however, be aware of the following important precautions for safe and optimal use of the equipment. Meaning of symbols printed on the rear panel of the product:



This symbol indicates that there are important operating and maintenance instructions in the literature accompanying this unit.



This symbol indicates that dangerous voltage constituting a risk of electric shock is present within this unit.

Important Safety Instructions

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where they exit the apparatus.
11. Use only attachments/accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
15. Use only the power supply (power cord) that came with your DIRECTV® Receiver. Failure to use the authorized power supply (power cord) may cause electric shock, fire, bodily injury, and/or property damage. If the power supply (power cord) becomes damaged or needs to be replaced, please contact DIRECTV Customer Service to obtain an authorized replacement.



WARNING: To reduce the risk of fire or electronic shock, do not expose this product to rain or moisture. The apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the receiver.

 **CAUTION**
RISK OF ELECTRIC SHOCK
DO NOT OPEN! 

CAUTION: To reduce the risk of electric shock, do not remove cover (or back).
No user serviceable parts inside.
Refer servicing to qualified service personnel.

IMPORTANT: Be sure not to place your DIRECTV® Receiver near anything WET or HOT.
If this product is rated at 240VAC, a suitable attachment plug should be used.

CAUTION: Avoid moisture to reduce the risk of fire or electric shock. The DIRECTV® Receiver should not be used near water (for example, kitchen sink, bathtub, pool, damp basement). Also, never spill liquid on the receiver, and do not place vases or other vessels containing liquid on top of it.

TIP: We highly recommend plugging the DIRECTV® Receiver into a surge protector to prevent damage from fluctuations in your power supply.

Note to Satellite Dish Installer: This reminder is provided to call your attention to articles 810 and 820 of the 2011 National Electrical Code. Refer to article 810, in particular 810-1 and 810-15, for required grounding of the metal structure of the dish antenna. Refer also to the 810-2 which, by reference to article 820, requires that the satellite dish coaxial cable shield be connected to the grounding system of the building as close to the point of cable entry as practical.

- Ensure proper ventilation—the vent slots on the DIRECTV® Receiver must be left uncovered to allow proper airflow to the unit. Blocking the airflow to the unit could impair performance or damage your receiver and other components.

- Do not stack electronic components or other objects on top of the DIRECTV® Receiver. Also, do not stack the receiver on top of a hot component such as an audio power amplifier.

- Protect your components from power surges by connecting all the components before plugging any power cords into the wall outlet. Use of a surge protector is also recommended.

- Don't overload power outlets or extension cords, which can result in the risk of fire or shock. It's also important to use only the type of power source indicated on the marking label or in this manual.

- Avoid audio hum or interference by inserting all cable plugs firmly into their jacks. Also, place Audio/Video (A/V) cables to the sides of the TV back panel rather than down the middle once connected. Try not to coil any twin-lead cables, and keep them away from A/V cables as much as possible.

- Never insert objects of any kind into any openings in the DIRECTV® Receiver (other than the DIRECTV® Access Card as detailed in this manual).

- Place it on a flat, hard surface—do not operate the DIRECTV® Receiver on a carpet or other padded surface.

- Always unplug your DIRECTV® Receiver before moving it.

- Always unplug the DIRECTV® Receiver, TV and other equipment before you connect or disconnect any cables.

- The only way to disconnect the DIRECTV® Receiver from the power supply is to remove the power cord. The DIRECTV® Receiver unit must

therefore be installed next to the power point, which must be easily accessible.

- **CAUTION: Electric Shock**—never attempt to disassemble the DIRECTV® Receiver yourself; always take it to a qualified service person when repair is required. Opening or removing covers may expose dangerous voltage or other risks, and incorrect reassembly can cause shock when receiver is subsequently used. Attempted self-repair may also void your warranty. Changes or modifications not expressly approved by the party responsible for compliance (by the warranty or by the manufacturer) could void the user's authority to operate the equipment.

- Do not drop your DIRECTV® Receiver, and always move it with care.

- Have your DIRECTV® Receiver professionally serviced (do not attempt to service it yourself).

- Any changes or modifications in the construction of this device which are not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

- If you move your DIRECTV® Receiver between locations at different temperatures, allow it to reach room temperature before you apply power to it.

- Do not pick up or otherwise move your DIRECTV® Receiver while it is connected to the AC power supply. If you want to move your DIRECTV® Receiver, first disconnect it, then wait at least 30 seconds before continuing.

- **CAUTION:** To reduce the risk of fire, use only No. 26 AWG or better telecommunications line cord.

- **CAUTION:** Replace remote control batteries with same or equivalent type. There is danger of explosion if batteries are incorrectly replaced.

- For your information: The identification sticker can be located behind the small door on the front panel of your receiver.

- The telecommunication network voltage used is the category number 3.

- See product bottom for important safety information.

C. CAUTION—ADDITIONAL SAFETY INSTRUCTIONS

The WVBG2 requires the UL Listed EPS10-15 or EPS10-36 External Power Supply having the following rating: Input rating 120Vac, 60Hz, 1.8A, output rating 25.2Vdc, 2.86A, 72W.

D. LIMITED 90-DAY WARRANTY

DIRECTV warrants your DIRECTV® Receiver and any included accessories against defects in material or workmanship for a period of ninety (90) days after the date of acquisition.

Who Is Covered?

You must have proof of acquisition to receive warranty service. A receipt or other document showing that you acquired the product is considered proof of acquisition. THIS LIMITED WARRANTY EXTENDS ONLY TO THE ORIGINAL CONSUMER ACQUIRER OR ANY PERSON RECEIVING THE DIRECTV® RECEIVER AS A GIFT FROM THE ORIGINAL CONSUMER ACQUIRER AND TO NO OTHER ACQUIRER OR TRANSFEREE. THIS WARRANTY DOES NOT EXTEND TO COMMERCIAL USERS. THIS PRODUCT IS NOT AUTHORIZED FOR USE OUTSIDE THE UNITED STATES AND ANY SUCH USE VOIDS THIS WARRANTY.

What Is Covered?

Warranty coverage begins the day you acquire the product. For ninety (90) days from the acquisition date, at the option of DIRECTV, the DIRECTV® Receiver will be repaired or replaced with a new, repaired, refurbished or comparable product (whichever is deemed necessary) if it becomes defective or inoperative. This exchange is done without charge to you for parts and labor. You will be responsible for the cost of shipping to and from the location designated by DIRECTV. If DIRECTV cannot reasonably repair or replace the Receiver then DIRECTV may, at its sole discretion, refund the price you paid for the product or the current retail price of the product.

All products, including replacement products, are covered only for the original warranty period. When the warranty on the original product expires, the warranty on the replacement product also expires. After ninety (90) days from the date of acquisition, you pay for the replacement of all parts, and for all labor charges.

SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU.

What Is Excluded?

Your warranty does NOT cover:

Labor charges for installation or setup of the product.

Installation, performance of, or repair of: audio/video cabling, telephone line, or accessory attachments used with the product.

Product replacement because of misuse, accident, lightning damage, unauthorized repair, or other cause not within the control of DIRECTV. Incidental or consequential damages resulting from the product.

SOME STATES DO NOT ALLOW THE EXCLUSION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE EXCLUSION MAY NOT APPLY TO YOU. Any modifications or

other changes to the product, including but not limited to software or hardware modification in any way other than as expressly authorized by DIRECTV, will void this limited warranty. Except in the case of hardware or software provided by DIRECTV, installing software modifications, “hacks” or utilizing service access or “back doors” will void this limited warranty. Reception transmission problems caused by signal conditions, telephone line, or cable or antenna systems outside the unit. A product that has been modified or adapted to enable it to operate in any country other than the country for which it was designed, manufactured, approved and/or authorized, or repair of products damaged by these modifications. A product used for commercial or institutional purposes.

DIRECTV makes no warranty that the access connection will be a local (not long distance) phone call.

The continued provisioning of any of the programming and other services delivered through the Receiver including but not limited to television programming, show information, program guide data, and scheduling information.

Make Sure You Keep...

Please keep your receipt or other document showing proof of acquisition. Attach it to this User Guide and keep both nearby. Also keep the original box and packing material in case you need to return your product.

Before Requesting Repair Service...

Please check the Troubleshooting section of this guide. This may save you a call to DIRECTV Customer Care.

To Get Warranty Service

Warranty service will be provided by DIRECTV. If you believe you need service for your Receiver, contact DIRECTV at 1-800-DIRECTV. A representative will go through a diagnostic checklist with you.

If it is determined that the product needs to be returned for service or exchanged, you will receive a return authorization number. The representative will give you complete shipping details.

To Get Out-of-Warranty Service

To obtain out-of-warranty service, contact DIRECTV at 1-800-DIRECTV for information on the possibility of and any costs for repair or replacement of out-of-warranty products.

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WITH THE EXCEPTION OF ANY WARRANTIES IMPLIED BY THE LAW OF ANY STATE OF THE U.S.A., THIS EXPRESS LIMITED WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, GUARANTEES, AGREEMENTS AND SIMILAR OBLIGATIONS OF DIRECTV. REPAIR OR REPLACEMENT AS PROVIDED IN THIS LIMITED WARRANTY IS THE EXCLUSIVE REMEDY UNDER THIS LIMITED WARRANTY. IN NO EVENT WILL DIRECTV BE LIABLE FOR ANY AMOUNT GREATER THAN THE RETAIL PRICE OF THE DIRECTV® Receiver. DIRECTV SHALL NOT BE LIABLE FOR ANY INCIDENTAL OR

CONSEQUENTIAL DAMAGES FOR BREACH OF ANY EXPRESS OR IMPLIED WARRANTY ON THE DIRECTV® Receiver.

SOME STATES DO NOT ALLOW LIMITATIONS ON WARRANTIES, SO THE ABOVE LIMITATIONS MAY NOT APPLY TO YOU. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS. YOU MAY HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

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