

Bushnell[®]

R-SERIES
R5



RIFLESCOPE OWNER'S GUIDE

Model # R5-1624S26

07-24



BUILT FOR THE PURSUIT



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YOU'VE MADE THE RIGHT DECISION BY CHOOSING THE BUSHNELL R5 RIFLESCOPE!

Bushnell® is constantly at the forefront of quality and value, and R5 Series riflescopes are no exception. Bushnell R5 riflescopes are built with premium technology. Fully multi-coated lenses and dry nitrogen purged IPX7 construction offer crisp, bright images in any environment.

The R5-1624S26 riflescope is designed specifically for the short - mid range hunter. The illuminated 1/2 MOA floating dot helps aid those fast shots, but it also has opportunities for longer shots with the aid of the integrated 2 MOA spaced hold points on the reticle. The riflescope has an improved optical design with fully multi-coated surfaces, and our ultra wideband coatings provide enhanced light gathering and clarity.

All exterior lens surfaces have our EXO Barrier™ coating [in addition to multi-coating]. EXO Barrier, quite simply, is the best protective lens coating technology Bushnell has ever developed. Added at the end of the coating process, EXO Barrier molecularly bonds to the lens and fills the microscopic pores in the glass. The result is an ultra-slick coating that repels water, oil, fog, dust and debris - rain, snow, fingerprints and dirt will not stick.

Scan the code to download the free Bushnell Ballistics App. The Bushnell Ballistics App is a full-featured ballistics solver to use with your Bushnell rangefinders and riflescopes to calculate firing solutions. It allows you to use current atmospheric data to calculate the holds and display the ranges at each subtension on your reticle. Many more features to enhance your shooting experience.





Accessories Included:

- › Lens Caps
- › Cleaning Cloth



WARNING: NEVER LOOK AT THE SUN THROUGH THE RIFLESCOPE (OR ANY OTHER OPTICAL INSTRUMENT). IT MAY PERMANENTLY DAMAGE YOUR EYES.

KEY ELEMENTS OF A RIFLESCOPE

1. **Objective Lens:** This lens has three functions. First, it permits light to pass into the scope. Second, it determines resolution. Generally, larger lenses allow more light to enter the scope and resolve details better than smaller ones. Finally, it forms an image for the other lenses to magnify to a usable size. The image formed by this lens is upside down.
2. **Erector System:** The erector system serves several functions. Its primary function is to erect the image (that is, flips the image right-side up) and align it to the reticle. During this process, primary magnification of the image takes place. These two functions are the result of lens action.
3. **Windage & Elevation Controls:** The erector lenses are housed in a tube that is fixed at one end, while the other end of the tube is free to move and respond to adjustments. By moving the erector system, the point-of-aim of the scope is adjusted to match the point-of-impact of the bullet.
4. **Reticle:** In simple terms, the aiming device around which the scope is built. This element replaces the iron sight system of non-scoped rifles.
5. **Ocular or Eye Lens:** This element provides the secondary and final magnification of the image.

MOUNTING YOUR RIFLESCOPE

Your new scope, even with its technologically advanced design and features, will not perform at its best if not properly mounted. One of the most important contributing factors to the precision of your scope and rifle is the selection of the mount and the care with which mounting is done. Dependable mounts that attach your scope securely to the rifle will reward you with precision and repeatability. You should take as much care in selecting a mounting system as you did in selecting your scope.

Remember, not all scopes are compatible with all mounts on all rifles. If there is any doubt in your mind, you should seek the advice of your local retailer or gunsmith.



WARNING: A RIFLESCOPE SHOULD NEVER BE USED AS A SUBSTITUTE FOR EITHER A BINOCULAR OR SPOTTING SCOPE. IT MAY RESULT IN YOU INADVERTENTLY POINTING THE GUN AT ANOTHER PERSON.

PRELIMINARY SCOPE ADJUSTMENTS - SETTING THE DIOPTER



WARNING: DO NOT LOOK TOWARDS THE SUN WHILE SETTING THE DIOPTER!

Before installing the scope, we recommend you set the diopter adjustment to fit your individual eyesight. Refocusing the diopter will result in a sharper reticle focus, an improved optical image, and will help to avoid eye fatigue when using the scope for prolonged periods of time. To refocus, hold the scope about 3 to 4 inches from your eye and point at a flatly lit area such as a light colored painted wall.

Quickly glance into the scope. If the reticle appears blurred at first glance, it is out of focus. Turn the eyepiece clockwise or counter clockwise while looking into the scope until reticle sharpness is improved. Look away from the eyepiece for a couple of seconds and then glance into the scope again to check the sharpness of the reticle. Remember to take quick glances, as the eye will compensate for slightly out of focus conditions with prolonged looks. If the reticle does not appear in focus right away, continue to make fine adjustments. Repeat this procedure until the reticle is sharp and clearly defined right away when looking into the scope.

Unless your eyes undergo a significant change over the years, you will not have to make this adjustment again.

ACTIVATING THE BATTERY

Before powering on your scope's illumination feature for the first time, you must activate the installed CR2032 lithium battery by removing the isolator disc.

1. Unscrew the battery cap counterclockwise, located on the end of the Illumination Control on the left side of the scope. We suggest holding the Illumination Control Ring steady while unscrewing the battery cap.
2. Once the cap is off, tip the battery out of the scope. Locate the plastic disc and remove it.
3. Replace the battery and battery cap.



Note: Remove the plastic disc under the button battery before first use.

Should your reticle grow dim or not light, replace the battery, following the installation procedure described above.

CAUTION: Improper installation of the battery may damage the internal contacts. Ensure that the positive (+) side faces up and the negative (-) side is down.

ATTACHING A MOUNT, RINGS AND SCOPE TO YOUR RIFLE



WARNING: BEFORE BEGINNING THE MOUNTING PROCEDURE, BE SURE THE ACTION IS OPEN, THE CLIP OR MAGAZINE IS REMOVED AND THE CHAMBER IS CLEAR. DO NOT ATTEMPT ANY WORK UNTIL YOUR FIREARM HAS BEEN CLEARED AND DETERMINED TO BE SAFE.



WARNING: IF THE SCOPE IS NOT MOUNTED FAR ENOUGH FORWARD, ITS REARWARD MOTION MAY INJURE THE SHOOTER WHEN THE RIFLE RECOILS.

In mounting your scope, we recommend that you DO NOT take short cuts as it may lead to damage to either the mounting system or to the scope. Each mounting system will have its own instructions to follow, and it is best to read the instructions first to be sure you understand them and have the necessary tools on hand.

We further recommend that you plan to go through the mounting procedure twice. The first time, to be sure everything fits together and functions properly. On the first run through, please keep the following in mind:

- › Before attaching the base, clean the mounting holes in the receiver and the threads of the attaching screws with high concentrate rubbing alcohol or any good solvent to free them of oil or grease.
- › If the mount manufacturer has recommended the use of a thread adhesive, do not use it on the first mounting trial. Once adhesive has set, it is difficult to demount if anything needs correction and will leave residue.
- › Be sure the mounting screws do not protrude into the receiver.
- › When using dovetail, twist-in or twist-and-lock ring mounts, do not use the scope as a lever when installing the scope. The initial resistance to turning may cause damage to the scope and is not covered by the warranty. We recommend using a wooden dowel or metal cylinder to seat the rings.

- › Be sure the position of the scope does not interfere with the operation of the action.
- › Be sure there is at least 2mm of clearance between the edges of the rings and any protruding surfaces such as the turret housing (saddle), power selecting ring, and the flare of the objective bell. Also be sure there is at least 3mm of clearance between the objective bell and the barrel.
- › You should test position the scope for the proper eye relief. The scope rings should be left loose enough so that the scope will slide easily. Variable power scopes should be set at the highest magnification when performing this procedure. Mount scope onto the rifle and look through the scope in your normal shooting position.
- › Test position the rifle for the proper cheek welds several times to ensure that your scope is positioned properly.
- › When you are satisfied that everything is okay, mark relative positions with masking tape or similar, demount and start again. This time, seat all screws firmly.
- › The use of a torque wrench is recommended to ensure adequate fastening without over-tightening. Refer to the base and rings user-instructions for torque values.

SIDE FOCUS AND ILLUMINATION CONTROLS

The outboard illumination control has 6 intensity settings with alternating off positions. If illuminating the reticle is desired, change to an appropriate on setpoint. The brightness will increase with higher numbers. Turn the dial to any 0 position when illumination is not desired, or the scope is not in use to preserve battery life.



ELEVATION AND WINDAGE TURRETS

Bushnell R5-Series scopes feature finger-adjustable audible-click elevation and windage adjustments.

1. Remove the caps from the Elevation and Windage Adjustments.
2. Grasp the turret dial and turn it in the appropriate direction indicated by the arrows. Each "click" or increment on the Adjustment Scale Ring will change bullet impact by 1/2 Minute of Angle. 1/2 MOA corresponds to approximately 1/2 inch at 100 yards, 1 inch at 200 yards, etc.



Elevation Turret



Windage Turret

VARIABLE POWER ADJUSTMENTS - MAGNIFICATION

To change magnification, rotate the Power Change Ring to align the desired number on the power scale with the index dot. When still-hunting or stalking game, a variable scope should be set to the lowest power. You then have the widest field of view for quick shots at close range. Higher powers should be reserved for precise long-range shots.

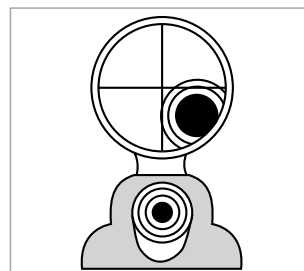
PRELIMINARY SIGHTING-IN

You can save a significant amount of expense and frustration by pre-sighting the scope to the rifle before you take it to the range for zeroing.

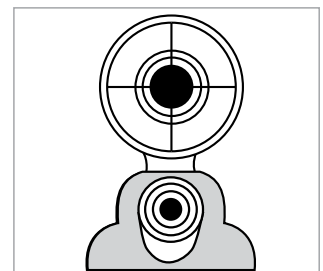
There are two basic methods that can be used for pre-sighting your scope. Method one is to use a Bushnell® Bore Sighter (laser, magnetic or standard). The use of a Bore Sighter saves time and ammunition and is the system most often used by gunsmiths. The second method is traditional bore sighting:

BORE SIGHTING METHOD

1. If a rimfire rifle application, place a target at 25 to 50 yards. If it is a centerfire rifle, place the target at 50 to 100 yards.
2. Remove the bolt from the rifle.
3. Place the rifle on sandbags or a shooting rest.
4. Set the scope to its lowest magnification.
5. Peer through the bore from the receiver and adjust the position of the rifle to center the target bull's eye in the bore (Fig. A).
6. Without moving the rifle, look into the scope and note the position of the reticle on the target. Remove the caps from the windage and elevation adjustments. Adjust the windage and elevation adjustments to center the reticle on the bull's eye (Fig. B).



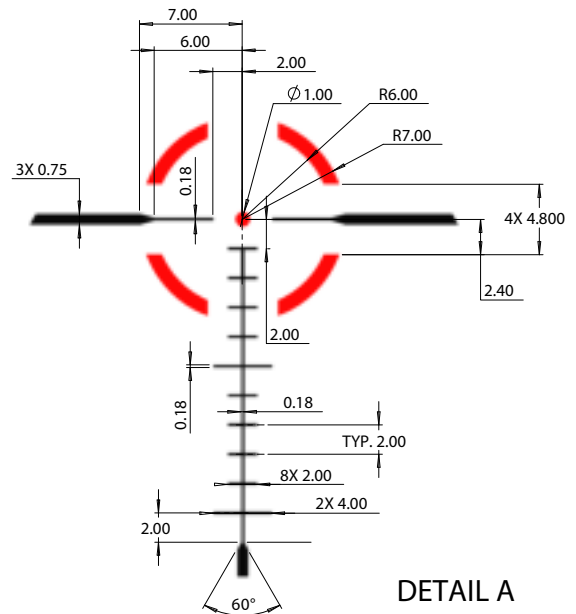
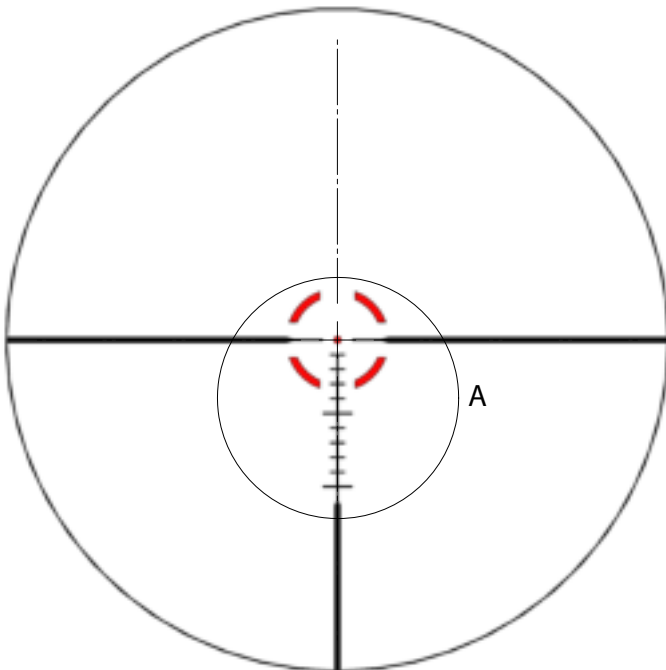
*Fig. A
Reticle not in alignment*



*Fig. B
Reticle in alignment*

1. From a steady rest position, fire two or three rounds at a 25-50 yard target. Note the impact of the bullet on the target and adjust the windage and elevation dials as needed.
2. To move the bullet's point-of-impact relative to the reticle's point-of-aim, turn the windage and/or elevation adjustments in the direction on the dials that corresponds to the direction that you want the point-of-impact to change to on the target (for example, if test shots are hitting low, adjust the elevation direction "up"). The adjustments on your riflescope model are marked in MOA (minutes of arc), and the point of impact at 100 yards will change by 1/4 MOA or approximately 1/4 in. for each click of the windage or elevation adjustment. One full revolution of the adjustment=15 MOA.
3. When the impact on the initial target distance is satisfactory, switch to a target set at the desired distance for final zeroing (50 yards is recommended for rimfire applications and 100 yards for centerfire). Set the magnification to the desired power on variable power models.

1. While holding a turret knob steady with your free hand (to avoid accidental adjustment), use a coin, key or flathead driver to remove the turret cap-screw found on top of the turret knob.
2. Remove the turret knob and return it to the inner turret with the "zero" mark on the knob lining up with the vertical index line on the inner turret body.
3. Return the turret knob screw to the top of the knob and tighten it down, making sure to steady the turret knob with your free hand so the turret knob does not turn while tightening the screw.
4. Repeat for the other turret knob.



STORAGE

Avoid storing the scope in hot places, such as the passenger compartment of a vehicle on a hot day. The high temperature could adversely affect the lubricants and sealants. A vehicle's trunk, a gun cabinet or a closet is preferable. Never leave the scope where direct sunlight can enter either the objective or the eyepiece lens. Damage may result from the concentration (burning glass effect) of the sun's rays.

CARING FOR YOUR RIFLESCOPE

Your scope needs very little maintenance. Exterior metal surfaces should be kept clean. A light dusting with a slightly dampened soft cloth is enough in most cases.

Your new scope features windage and elevation turrets that are completely sealed against water intrusion. However, we recommend that you keep the windage and elevation caps on the turrets, except when adjusting, to prevent dust and dirt from collecting in the turret area.

We also recommend that lens covers, or a scope cover of some type, be kept in place when the scope is not being used. Lenses should be inspected regularly and always kept clean. Dust, dirt, and fingerprints that collect on the lens surfaces will severely degrade image quality, and if left unclean for long periods, the anti-reflection coating could be damaged. Although lens cleaning is not difficult, it does require care and some patience.

- › If there is heavy soiling like from dried mud, low-pressure clean water should be used to flush the debris away.
- › Start with a lens brush or a small, unused soft bristle hobby paintbrush or makeup application brush. Gently whisk away loose dirt particles.
- › Next, use an ear syringe or bulb aspirator (available in most drug stores) to blow remaining dirt or dust from lens surfaces. Do not use pressurized air like from an air duster can or air compressor.
- › If further cleaning is needed, use a dry, soft lint-free cloth. Very gently wipe the lens, starting at the center using a circular motion, then working outward to the edge. If this has not correct the problem, repeat the process using condensation from your breath.



WARNING: UNNECESSARY RUBBING OR USE OF A COARSE CLOTH MAY CAUSE PERMANENT DAMAGE TO THE LENS COATINGS.

MAINTENANCE

Your riflescope, though amazingly tough, is a precision instrument that deserves reasonably cautious care.

- › When cleaning the lenses, first blow away any dry dirt and dust, or use a soft lens brush. Fingerprints and lubricants can be wiped off with lens tissue, or a soft clean cloth, moistened with lens cleaning fluid.
- › All moving parts of the scope are permanently lubricated. Do not try to lubricate them.
- › Little to no maintenance is needed for the scope's outer surface. Black oxide screws are sometimes used to seal purge ports and/or for the power-change-ring to erector connection. If the scope is exposed to water, consider applying a thin film of typical firearm oil to these screws during routine firearm maintenance to mitigate corrosion.
- › Use lens covers, if available and whenever convenient.

ALTITUDE AND TEMPERATURE

Ballistic charts published by ammunition manufacturers are based upon standard sea level conditions. When sighting in, it is well to keep in mind that altitude and temperature affect trajectory. It is best to sight-in under the same conditions in which you will be hunting.

GLOSSARY OF COMMON RIFLESCOPE TERMS

Aberration - Aberrations are imperfections inherent to all optics designs. The best optics limit aberration as much as possible to provide a clear, accurate image. One example of aberration is chromatic aberration, which occurs when lenses in an optic incorrectly refract different colors of light. The result of this aberration is differing focal points and a distorted image.

Bullet Drop Compensation - BDC The principle of interaction between the fired bullet, gravity, and target indicators.

Coatings - Microscopic coatings on the lens surfaces reduce light loss and glare due to reflection. Coated lenses offer a brighter, higher-contrast image with less eyestrain. More coatings allow better light transmission, but it is possible to have a scope with a single coating to outperform a scope with multicoated lenses greatly. It all depends on the quality of the coatings and the glass. Good quality does not come cheap. The following are acceptable terms for coatings:

- Coated: A single layer on at least one lens surface.
- Fully Coated: A single layer on all air to glass surfaces.
- Multicoated: Multiple layers on at least one lens surface.
- Fully Multicoated: Multiple layers on all air to glass surfaces.

Click - A click is one adjustment notch on the windage or elevation turret of a scope. One-click most often changes a scope's point of impact 1/4 inch at 100 yards. Some clicks are 1/8 inch, 1/2 inch, one inch, or even more.

Exit Pupil - An exit pupil is the small circle (column) of light visible in the ocular lens when you hold your scope (or binocular) at arm's length. The larger the exit pupil is, the brighter the image entering your eye. To find the exit pupil for your scope, divide the objective lens diameter in millimeters by the magnification. For example, if your scope is four power (4X), and your objective lens is thirty-six millimeters in diameter (36mm), divide four into 36, and it equals 9. Therefore, nine would be the exit pupil size in diameter in millimeters. Typically measured in millimeters, the larger the size of the exit pupil, the brighter the scope image will be.

Eye Relief - Eye relief is the distance your eye must be from the ocular lens and still get a full field of view. This measurement is usually defined in inches.

First Focal Plane - FFP is an indication of the first (focal) plane to the position of the reticle. FFP scopes retain the amount of stretch, while the size of the crosshair of the sight will correlate with the image's magnification.

Field of View - Field of view (FOV) is the amount of area seen through your scope from right to left at 100 yards. As magnification is increased, FOV is lessened. As magnification is decreased, FOV is increased.

Hold Over/Under - Holdover/under is the amount of point of aim change either above or below your target, without adjusting your scope, to adjust for the trajectory of your projectile.

Illuminated Reticles - Many rifle scopes have battery-operated reticles that light up when activated. In hunting, this color is nearly always red. In tactical conditions, green is often another available color. The entire part, center, or certain feature of a reticle can be illuminated.

Magnification - Also called the power setting or rating, magnification is a power rating that defines how much or far the scope will magnify your sight. Power settings are measured against the naked eye. For example, a 3 power scope would offer the user 3 times the view of what they could see with the naked eye, while a 10 power would mean 10 times the power of the naked eye.

Main tube - The main tube is the scope portion between the objective bell and the eyepiece. Most scopes have either a 1-inch or 30mm main tube. The added tube diameter increases windage and elevation travel range. Long-range target scopes may have tube diameters between 34 and 36mms. Scope rings are built to specific scopes with specific main tube diameters.

MIL/MRAD - Milliradians of Angle - A measurement system is used to determine the correct elevation and windage adjustments to sight in your scope. Typically found on European-based optics.

Minute of Angle - Minute of Angle (MOA) is a unit of measurement within a circle and is 1.0472 inches at 100 yards. For all practical purposes, it is called 1 inch at 100 yards. It is 2 inches at 200 yards, 5 inches at 500 yards, one-half inch at 50 yards, etcetera.

MOA is generally the standard for measuring the accuracy of a rifle. A rifle that will shoot a 3 to 5 shot group that measures under an inch, it's considered an MOA shooter. If it groups at 1/2 an inch, it's a sub-MOA shooter.

MIL vs. MOA: MIL is a common abbreviated form of milliradians, while MOA is an abbreviation of Minute of Angle. Both are measurements of angle (not distance or length, as some shooters believe). As ranges increase, so does 1 MOA or 1 MIL value. At 100 yards, an MOA is 1.047 inches, so a scope with ¼ MOA per click adjustments should move the point of impact about .25-inches every click at 100 yards (and .50-inches at 200 yards). One MIL is 3.6 inches at 100 yards, and since most MIL scopes have 1/10 click adjustments, each click will adjust the point of impact by .36 inches at 100 yards.

Objective Lens - The objective lens is the lens closest to the object being viewed. It is measured in millimeters in diameter. A larger objective lens allows more light to enter the scope.

Original Zero - This is the distance you sighted your scope. Zero reset features are popular for getting you back to your original zero. When dialing up/making scope adjustments, you don't need to remember how many clicks you made and how to get back. Instead, turn the turret back till it stops, and you're back to your 100 yards or "x" yard zero.

Parallax - Parallax is an optical error or illusion typically found in scopes designed for longer ranges. Without getting overly technical, parallax occurs when the optical image that you see through the scope is created in front of behind the reticle. This means that the target you are looking at isn't being correctly portrayed in its actual location. Some scope models feature a parallax compensation feature built-in to correct this issue. The most popular parallax compensation seen today is either through a front objective lens or side focus parallax. With these features, the shooter can adjust the distance (typically in yards) to the target, and the scope is preset to be parallax-free at those predefined distances. Most riflescopes without adjustable objectives are set at 100 or 150 yards. Rimfire scopes are often set at 50 or 60 yards, and shotgun scopes are often set at 60 or 75 yards.

Reticle - Reticle refers to the sighting device used for a specific scope. A reticle is a system of lines, dots, or crosshairs in your scope that appear superimposed on your target. Reticles come in various variations and configurations, designed for very specific uses.

Trajectory - The trajectory is the flight of your projectile after it leaves the barrel. This flight is an arc. The amount of arc depends on the projectile weight and velocity.

Turret - A turret is one of two knobs in the outside center part of the scope tube. They are marked in increments and are used to adjust elevation and windage for points of impact change. These knobs protrude from the turret housing.

Windage - This is the horizontal crosshair of the reticle.

Zero - Zero is the distance you are sighted in and references the flight of the projectile. For example, if you are sighted in at 200 yards, you have a 200 yard zero.



TECHNICAL SPECIFICATIONS

SKU	Mag x Obj. Diam.	Reticle	Turrets	Total Elevation	Total Windage	Travel per Rev	Main Tube Diameter (mm)	Average Eye Relief (in./mm)	Field of View ft @ 100 yds m @ 100 m	Length (in./mm)	Weight (oz/g)
R5-1624S26	1-6x24	Illuminated DD2-QA	Capped	120 MOA	120 MOA	30 MOA	30	4/102	110ft - 17ft/36.7m - 5.7m	9.7/245	17.8/505

DO YOU NEED TO SEND YOUR SCOPE TO US?

Before returning your scope for service, you should check the following points to make sure the problem is with the scope:

- › Check the mounting system and rings for looseness or misalignment.
- › Check to be sure the barrel and action are properly bedded, and all receiver screws are tight.
- › Check to be sure the mounting system allows sufficient clearance between the objective bell and the barrel.
- › Check to be sure you are using the same type and weight ammunition that you used for sighting-in.

For assistance with your Bushnell riflescope, contact the US and Canadian customer service team by calling 1-800-423-3537 during the days and times listed below:

- › Monday-Tuesday, 8:00 am to 6:00 pm CST
- › Wednesday-Thursday 8:00 am to 4:30 pm
- › Friday 8AM to 2PM

If you are calling with a product related issue, please have the product available when you call.

[Click to read Warranty Details](#)



NO MATTER WHAT

Warranty does not cover theft, loss, deliberate damage, or cosmetic damage not affecting product Performance.

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