LEUPOLD

RX®-1600i TBR/W COMPACT DIGITAL LASER RANGEFINDER

Complete Operating Instructions

DNA™
Digitally eNhanced Accuracy

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INTRODUCTION

Congratulations! You have purchased a Leupold® RX®-1600i TBR/W Series digital laser rangefinder that has been designed by Leupold's engineers and designers to provide you with years of accurate performance in the field. Following are detailed instructions regarding the proper use and employment of your RX-1600i Series rangefinder. To ensure top performance for the life of the product, please read these instructions before operating your RX-1600i TBR/W. This manual was written in order to provide you with all the information needed to properly operate and obtain years of beneficial use from the RX-1600i TBR/W Keep it in a safe place and refer to it as needed.

Your new Leupold RX-1600i TBR/W digital laser rangefinder is a range-finding device that incorporates advanced digital electronics with ballistics algorithms. Digitally eNhanced Accuracy™ (DNA®) engine incorporates additional signal processing techniques to generate better ranging distance with more accurate rangefinding. The RX-1600i TBR/W rangefinder features an incredibly bright OLED display, inclinometer, Last Target Mode and True Ballistic Range/Wind (TBR/W) functionality. TBR/W algorithms were developed by the same engineers who developed Sierra Infinity® Exterior Ballistics Software and who helped develop navigation and guidance systems for ICBMs and other missiles with far more demanding trajectory requirements than a hunting bullet. TBR/W is a marriage of laser ranging, an

inclinometer, and an advanced computerized ballistics program. The result is distance measurements accurate to less than a yard, no matter the angle at which the laser is fired. Bullets and arrows travel in a ballistic arc, yet conventional rangefinders only provide a linear or horizontal distance to your target. TBR/W delivers the ballistic equivalent range to the target, accounting for the effects of inclines or declines on the path of your bullet or arrow. For rifle shooters, the Leupold team has added to the TBR/W functionality by adding wind hold calculations that will provide a fixed 10 MPH full wind value. Other features that are provided for firearms are outputs that display either MOA adjustments, or inches / centimeters / mils of holdover at that specific distance. TBR/W eliminates any potentially significant error, and provides a precise range for your aiming calculations. TBR/W is matched to each of twenty-five firearm ballistics groups, allowing use with most popular firearms.

HOW THE RX-1600i WORKS

The RX-1600i TBR/W is a top-quality 6x22mm monocular that incorporates the additional benefit of a laser rangefinder that is capable of measuring the distance of a deer-sized animal from 5 yards to 900 yards, an inanimate object from 5 yards to 1,200 yards, and a reflective target from 5 yards to 1,600 yards. It emits a series of invisible, infrared energy pulses that are reflected off the selected target back to the optical unit. State-of-the-art circuitry and precision computing circuits are used to calculate the distance by measuring the time it takes for each pulse to travel from the RX-1600i TBR/W to the object and back.

SAFETY AND OPERATION PRECAUTIONS

The Leupold RX-1600i TBR/W 6x22mm rangefinder does employ an eye safe FDA Class 1 laser in its operation. Outside of the United States, the IEC is the governing body over laser products and has classified the RX-1600i TBR/W as Class 3R. Even so, there are a few precautions that are important to remember:

- Do not depress the POWER button while aiming at a human eye or while looking into the optics from the objective side

- Do not leave the RX-1600i TBR/W within the reach of small children

- Do not take the product apart as it has a self-protection device in the electronic control module and may cause an electric shock

- Do not attempt to use any power source other than a CR2 battery (or equivalent) — the RX-1600i TBR/W is designed to prohibit accessing any other external power supply

CLASS 3R LASER PRODUCT INVISIBLE LASER RADIATION
AVOID DIRECT EYE EXPOSURE This product complies with IEC
60825-1: 2014-05 Ed. 3.0 and complies with FDA performance standards
for laser products except for deviations pursuant to Laser Notice
No. 50, dated June 24, 2007.
P$_o$:<5.1mW, λ:895-915nm, t$_{ol}$:20-60ns.
**LEUPOLD & STEVENS, Inc,**
14400 NW Greenbrier Parkway, Beaverton, OR 97006
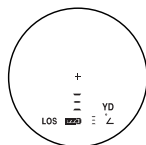
⚠ SAFETY AND OPERATION PRECAUTIONS (cont.)

- Make certain that the laser beam does not strike on highly reflective surfaces

- Read this instruction manual in its entirety before using this rangefinder. If the product is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired

- **Caution:** Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure

- When you see the display through the eyepiece, please be aware that the product is active and emitting an invisible laser and the laser aperture should not be pointed toward anyone
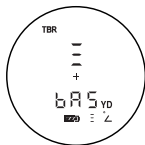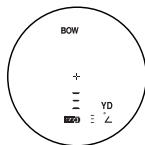
BAS Display   BOW Display   LOS Display

(Display as seen through the eyepiece)

RX-1600i FEATURES AT A GLANCE

- Laser Radiation: FDA Class 1 / IEC Class 3R

- Measurement Range: 5 yds – 1,600 yds

- Measuring Time: Less than 1 second

- Menu setup will power-off after 20 seconds, normal ranging will power-off after 7 seconds

- Power: CR2 battery or equivalent

- Battery Life: At least 3,000 measurements

- The RX-1600i TBR/W is waterproof

MODE

POWER

FOCUS

BATTERY
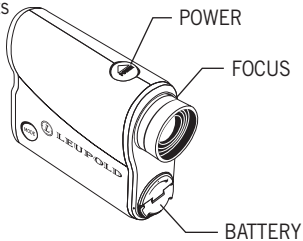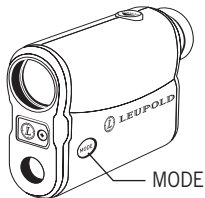
READING THE INTERNAL DISPLAY

The Organic Light Emitting Diode (OLED) display reflected into the optical path can be manually switched between ranging modes, as measured in meters *(M)* or yards *(YD)*, or used to obtain distance while simultaneously viewing the target. (The RX -1600i TBR/W can also simply be used as a 6x monocular without activating the OLED.)

INTERNAL DISPLAY AS SEEN THROUGH THE RX-1600i TBR/W WHEN THE POWER BUTTON IS DEPRESSED

$\boxminus\boxminus\boxminus.\boxminus$ – Indicates the distance to the target in either yards or meters. RX-1600i TBR/W has the additional capability of displaying the True Ballistic Range to the target, or shot placement information.
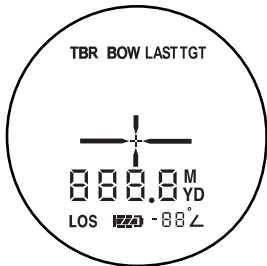
BATTERY POWER STATUS INDICATOR

To determine your battery's power level, look for the following indicators:

- FULL – A full battery bar indicates your battery is at or near peak capacity.
- HALF – A half-full bar indicates your battery has reached half-capacity.
- LOW – The battery is nearing the end of its life and should be replaced.
- NO POWER – If the battery bar is empty, and there is no data displayed above the bar, your battery is dead and you must replace it. The battery status bar will flash and the unit will shut down when no power remains.

MEASURING DISTANCE WITH THE RX-1600i TBR/W

Measurement of distance with the RX-1600i TBR/W is a very simple operation:

1. View the object of interest through the monocular.

2. Depress the POWER button to power up the unit.

3. Align the reticle over the object being viewed.

4. Depress the POWER button again – this will cause the laser to activate.

5. Read the distance as shown in the image field.

CONTINUOUS MEASUREMENT OF A MOVING TARGET / SCAN MODE:
Follow the instructions for "Measuring distance…" as explained previously.

1. Once the target has been measured, continue to hold down the POWER button and follow the object as it moves.

2. The distance will automatically update as long as the POWER button is continuously depressed.

3. This procedure can also be used to obtain the range of multiple animals or objects; simply move the reticle from one target to another while holding down the POWER button.

CLEARING THE LAST DISTANCE OBTAINED:
The last range reading taken does not need to be cleared before reading another object's distance. For that reason, there is no reset button. Simply aim at the new object using the reticle, depress the POWER button and hold until the new range reading is displayed.

The ranging accuracy of the Leupold RX-1600i rangefinder is ± 0.5 yards/meters at distances less than 125 yards/meters, while the accuracy beyond 125 yards/meters is ± 2 yards. The maximum range of the unit depends on the reflectivity of the target and atmospheric conditions.

Following is a reference table listing the ranges of the RX-1600i TBR/W under different conditions:

TYPICAL MAXIMUM RANGE		
CONDITION	Yards	Meters
Reflective Target	1,600	1463
Trees	1,200	1097
Deer	900	823

Surface texture, color, size, and shape of the target all affect reflectivity, which in turn affects the maximum range of the instrument. As a rule of thumb, brightly colored targets are much more reflective than darker targets. Tan game coats are more reflective (and thus provide a more solid reading) than a black roof. A shiny surface is more reflective than a dull surface. Smaller targets are more difficult to range than larger targets. Light conditions, haze, fog, rain, and other environmental conditions can all affect ranging performance. Any factor which degrades air clarity will reduce the maximum effective range. The sun generates infrared energy that can degrade ranging performance in bright conditions or when ranging towards the sun.

SPECIFICATIONS

The RX-1600i digital laser rangefinder provides a variety of useful modes to tailor performance to the conditions you experience in the field. Model features are identified on the following pages.

	RX-1600i TBR/W
Magnification	6×
Inclinometer	Yes
TBR/W (True Ballistic Range/Wind)	Yes
Bright OLED Display	Yes
Last Target Mode	Yes
Line of Sight Distance (LOS)	Yes
Yards / Meters Mode	Yes
Scan Mode	Yes
Battery Life	>3,000 Actuations
Weight	7.8 oz
Dimension (Inches)	3.8 x 2.9 x 1.3
Battery Status Indicator	Yes
Warranty	2 Years
Waterproof	Yes
Wavelength	895-915nm
Beam Divergence	1.31mrad
Pulse Duration	20-60ns
Power	<5.14 mW

OPERATION

QUICK SET MENU™

TBR BOW LAST TGT

M
YD

LOS
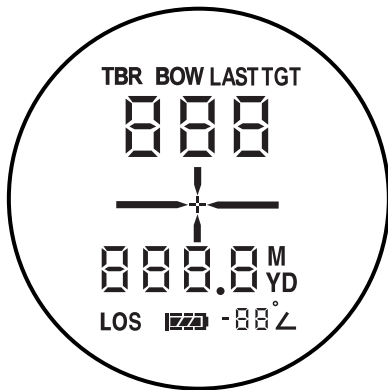
*Display shown with all possible segments visible

To initiate rangefinder setup mode, press the POWER button to activate the unit, then press and hold the MODE button for 2 seconds to enter the Quick Set Menu™.

To manipulate a function, press and release the MODE button until that function is flashing, then use the POWER button to change the setting. If this is the last function to be changed, you can allow the rangefinder to sit idle for 20 seconds which will cause an automatic power-off, saving all selections. If additional functions require manipulation, simply press MODE to continue through the Quick Set Menu. Pressing and holding MODE for 1 second at any time will save all changes, exit the Quick Set Menu, and prepare the rangefinder for immediate use.

To reset your RX-1600i TBR/W to factory settings, Press POWER to activate the rangefinder, press and hold MODE, then press and hold POWER. A 10-second countdown timer will appear; factory reset will occur after 0 has been reached.

Note: *Activating certain modes automatically disables other modes. For example activating the yards mode will automatically deactivate the meters mode.*

FUNCTION 1: TBR, BOW OR LOS

To activate TBR, BOW, or LOS, activate the RX-1600i TBR/W by pressing the POWER button, then press the MODE button for <1 second and release to enter the menu. While "Out Put" is shown in the display, press and release the POWER button to rotate through TBR, BOW, and LOS modes. Once the desired mode is displayed, press the MODE button.
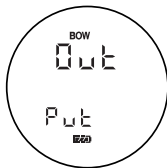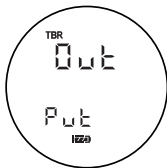
TBR FOR RIFLE USERS (TBR/W MODELS ONLY)

TBR calculates the equivalent horizontal range (level fire range) from which you can determine the correct aim for the conditions. For example, if you are shooting a .270 caliber, 130 grain bullet at 3,050 feet per second up a 30° incline at 400 yards, direct line of sight, the TBR output will be 367 yards. The first step in correctly using TBR is to Practice, Practice, Practice. Anytime you handle a firearm or bow, you are ultimately responsible for your projectile.

For rifle users, scope adjustment or holdover information can also be displayed. The available settings are as follows: BAS outputs the equivalent horizontal range, HOLD displays the inches or centimeters (depending on unit of measure selected) to holdover the intended point of impact, MIL displays the number of milliradians to holdover the intended point of impact and MOA displays the minute of angle correction. TBR for rifle settings is effective to 800 yards for most cartridges. For rifle users, TBR mode is comprised of five functions: BAS, HOLD, MIL, MOA and TRIG. One of these modes must be selected. To select the desired function, rotate through the output until TBR is reached (activate if necessary). While the TBR icon is highlighted and the word "SEt" is shown in the upper display, pressing POWER repeatedly will scroll through BAS, HOLD, MIL, MOA and TRIG respectively; press MODE when the desired function is displayed. For information regarding BOW settings, please see page 17.

BAS displays the equivalent horizontal range, which is based upon the ballistics group and sight-in distance you will choose in a later mode. This is the range you will want to use when shooting, rather than the line of sight distance, which may contain gross errors depending upon the shot angle. Readings will be displayed with equivalent horizontal range in the lower portion of the display.

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HOLD will display the appropriate amount of holdover to use, which is based upon the ballistics group and sight-in distance you will choose in a later mode. The upper display shows the line of sight distance to the target. The lower display shows the appropriate number of inches or centimeters to hold over or under. In the example to the right, the line of sight distance is 484 yards, and the lower display indicates that you should hold 51.4 inches above your intended point of impact. If the RX-1600i TBR/W is set to range in meters, the appropriate holdover would be shown in centimeters.

MIL will display the appropriate amount of holdover in milliradians to use, which is based upon the ballistics group and sight-in distance you will choose in a later mode. The upper display shows the line of sight distance to the target. The lower display shows the appropriate number of mils to hold over or under. In the example to the right, the line of sight distance is 484 yards, and the lower display indicates that you should hold 2.9 mils above your intended point of impact. Holdover values will be displayed in mils for both yards and meters modes.

MOA Mode will show the minute-of-angle adjustment for your target which is based upon the ballistics group and sight-in distance you will choose in a later mode. The upper display shows the line of sight distance to the target. The lower display shows the appropriate number of MOA to adjust over or under your target. In the example to the right, the line of sight distance is 484 yards, and the lower display indicates that you should dial the scope up 10.1 MOA to account for bullet drop. Scope corrections will be displayed in MOA for both yards and meters modes.

TRIG, a function that is included to support tradesmen and sportsmen, displays the true horizontal range and true vertical range, which is based upon trigonometry using angle and line of sight distance. Line of sight distance (LOS) readings will be displayed in the lower portion of the display. The upper display will briefly show the true horizontal distance (cosine) then the absolute value of the true vertical distance (sine). Have you ever wondered if that leaning tree would hit your home or tent if it fell? Measure the height by obtaining the true vertical distance and then measure the distance from your house or tent to the tree.
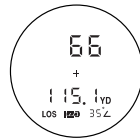
BOW (TBR/W MODELS ONLY)

This mode, when activated, works with TBR to provide the equivalent horizontal range (level fire range) for arrows. The displayed range represents the ballistically equivalent horizontal distance to the target if the target is 175 yards or less. If the target is farther than 175 yards (160 meters), the LOS icon will flash while BOW remains displayed, and resulting distance will be the line of sight distance only.

Most importantly, using BOW effectively means to Practice, Practice, Practice. Anytime you handle a firearm or bow, you are ultimately responsible for your projectile.
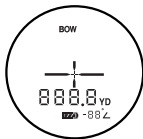
LINE OF SIGHT

This mode, when activated, provides the straight line distance to the target without accounting for shot angle or specific ballistics.
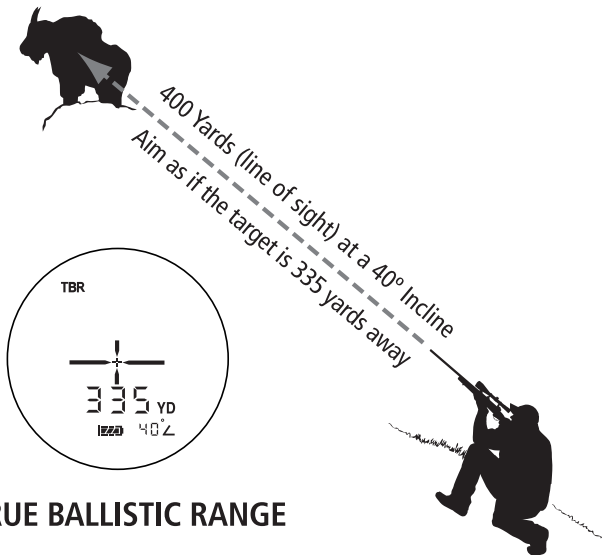
WIND Leupold's new TBR/W solution will provide a fixed 10 mph full wind value, meaning it assumes the wind is at 90 degrees to the muzzle. We chose 10 mph as a way for the user to easily calculate corrections on the fly. If the wind is 5 mph, from the 3 o'clock or 9 o'clock position, the shooter would half the hold value. If the wind is 20 mph, the shooter would double the wind hold value. If the wind isn't blowing at 90 degrees to the muzzle, the shooter needs to adjust the hold value per Diagram shown. For example, if the wind is at 45 degrees to the muzzle, adjust the wind hold value by 75%. Because wind values change so quickly, we have found this method of generating correction values for speed and direction will help you get on target easier and faster.
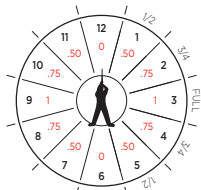
Wind Values

Wind hold values will be displayed in the same output format as elevation; either minute-of-angle (MOA), milliradians (MIL), or inches/cm hold values. TBR/W provides .5 MOA accuracy on elevation and 1.5 MOA accuracy on wind values at 600 yards for cartridges expected to reach that distance. As with TBR, the maximum distance is 800 yards.

TBR (TRUE BALLISTIC RANGE): RIFLE

400 Yards (line of sight) at a 40° Incline

Aim as if the target is 335 yards away

TBR

335 YD

40°

TRUE BALLISTIC RANGE

TBR (TRUE BALLISTIC RANGE): ARCHERY

40 Yards (line of sight) at a 40° decline
Aim as if the target is 34 yards away

BOW

34.2 YD

-40°
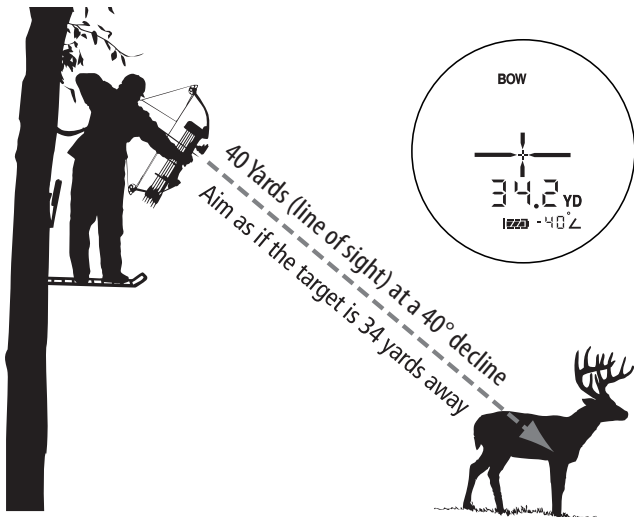
FUNCTION 2: TWENTY-FIVE RIFLE BALLISTICS GROUPS
(TBR MODELS ONLY)

TBR includes ballistics settings for twenty-five cartridge groups which are displayed as 1 through 25, specifically formulated for the four functions of TBR. For example, if your load is in Group 3, the displayed reading will account for the shot angle and provide the proper distance for holdover purposes (see following chart). You must choose one of the twenty-five groups, based on your load and ballistics information. The load table shows a common assortment of factory loads organized in their TBR performance groups. If you are shooting a similar bullet weight and muzzle velocity that falls into the provided selections, you can use that load group with full confidence.

NOTE: For a list of all available loads please go to leupold.com

TBR/W PERFORMANCE GROUPS: LOAD TABLE			
Load Name (Muzzle Velocity-fps)		Load Name (Muzzle Velocity-fps)	
300 Yard Zero	Group	300 Yard Zero	Group
26 Nosler 142 gr. AccuBond (3300)	17	300 Wby. Mag. 180 gr. Nosler Partition (3190)	19
6.5 Creedmoor 129 gr. SST (2950)	20	300 Wby. Mag 180 gr. Trophy Bonded Bear Claw (3040)	23
6.5 Creedmoor 140 gr. A-MAX (2710)	22	300 Win. Mag. 150 gr. Core-Lokt PSP (3290)	21
6.5-284 130 gr. AccuBond (2900)	20	300 Win. Mag. 150 gr. Core-Lokt Ultra Bonded (3290)	21
6.5-284 140 gr. Accubond (2800)	22	300 Win. Mag. 150 gr. Federal Fusion (3200)	19

TBR/W PERFORMANCE GROUPS: LOAD TABLE				
Load Name (Muzzle Velocity-fps)		Load Name (Muzzle Velocity-fps)		
300 Yard Zero	Group	300 Yard Zero		Group
222 Rem. 55 gr. FMJBT American Eagle (3240)	23	300 Win. Mag. 165 gr. Federal Fusion (3200)		19
22-250 Rem. 55 gr. Power-Lokt HP (3100)	21	300 Win. Mag. 165 gr. Nosler Partition (3050)		20
25-06 Rem. 110 gr. Nosler AccuBond (3100)	20	300 Win. Mag. 178 gr. Hornady A-Max (3000)		20
25-06 Rem 117 gr. Sierra SBT GameKing (2990)	23	300 Win. Mag. 180 gr. AccuBond CT (2950)		20
257 Wby. 100 gr. Barnes TSX (3570)	17	300 Win. Mag. 180 gr. Core-Lokt Ultra Bonded (2960)		23
257 Wby. 110 gr. Nosler AccuBond (3460)	18	300 Win. 180 gr. Federal Fusion (2960)		20
260 Rem. 120 gr. Nosler Ballistic Tip (2950)	22	300 Win. Mag. 180 gr. Nosler AccuBond (2960)		20
264 Win. Mag. 120 gr. Core-Lokt PSP (3210)	21	300 Win. Mag. 180 gr. Nosler Partition (2960)		23
270 Wby. 150 gr. Nosler Partition (3245)	19	300 WSM 150 gr. Power Point (3270)		21
270 Win. 130 gr. Core-Lokt sp (3060)	23	300 WSM 165 gr. Nosler Partition (3130)		20
7mm 140 gr. SP AccuBond (3000)	20	30-06 150 gr. Core-Lokt Ultra Bond (2910)		25
7mm Rem. Mag. 140 gr. AccuBond CT (3180)	19	30-06 165 gr. Nosler Partition (2830)		23
7mm Rem. Mag. 150 gr. Power Point (3090)	21	30-06 180 gr. Nosler Accubond (2700)		24
7mm Rem. Mag. 175 gr. Federal Fusion (2760)	22	30-378 Wby. 165 gr. Nosler Ballistic Tip (3500)		17
7mm-08 140 gr. Ballistic Silvertip (2770)	24	30-378 Wby. 180 gr. Nosler AccuBond (3400)		18
7mm Rem. Mag. 175 gr. SP American Eagle (2860)	22	308 Win. 150 gr. Federal Fusion (2820)		25
7mm WSM 150 gr. Power Point (3200)	21	338 Win. Mag. 180 gr. Nosler AccuBond (3120)		21
7mm-08 140 gr. Ballistic Silvertip (2770)	24	338 Win. Mag. 200 gr. Power Point (2960)		25
7-08 Rem. 140 gr. Nosler Partition (2800)	24	338 Win. Mag. 210 gr. Nosler Partition (2830)		25
280 Rem. 150 gr. Nosler Partition (2890)	22	338 Win. Mag. 225 gr. Core-Lokt Ultra Bonded (2780)		22
280 Rem. 160 gr. Nosler AccuBond (2800)	22	338 Win. Mag. 225 gr. Nosler Accubond (2800)		22
300 RSAUM 165 gr. Core-Lokt PSP (3075)	23	50 BMG 750 gr. BoreRider (2700)		20
300 RUM 180 gr. Core-Lokt Ultra Bonded (3250)	19	50 BMG 800 gr. BoreRider (2650)		20
300 Wby. 150 gr. Nosler Partition (3540)	18	50 Cal 750 gr. A-Max (2650)		20
300 Wby. 165 gr. Nosler Ballistic Tip (3350)	18	Lapua Mag. 300 gr. Trophy Gold OTM (2762)		20
300 Win. Mag. 150 gr. Power Point (3290)	21			

TBR/W PERFORMANCE GROUPS: LOAD TABLE			
Load Name (Muzzle Velocity-fps)		Load Name (Muzzle Velocity-fps)	
200 Yard Zero	Group	200 Yard Zero	Group
22-250 Rem. 50 gr. Ballistic Silvertip (3810)	5	270 WSM 130 gr. Core-Lokt (3285)	5
22-250 Rem. 55 gr. Nolser Ballistic Tip (3680)	3	7mm Rem. Mag. 140 gr. Nosler AccuBond (3110)	4
22-250 Rem. 55 gr. Power-Lokt HP (3680)	7	7mm Rem. 150 gr. Core-Lokt PSP (3110)	9
22-250 Rem 55 gr. SP American Eagle (3680)	7	7mm-08 140 gr. Power Point (2800)	13
223 Rem 62 gr. FMJBT American Eagle (3020)	11	7mm Rem. Mag. 150 gr. Federal Fusion (3100)	4
223 Rem 69 gr. Sierra HPBT Match (2950)	13	7mm Rem. Mag. 150 gr. Nosler Ballistic Tip (3025)	6
223 Rem 77 gr. Sierra HPBT Match (2750)	15	7mm Rem. Mag. 150 gr. SP American Eagle (3110)	7
243 Win. 100 gr. Core-Lokt PSP (2960)	11	7mm WSM 160 gr. Nosler Partition (3160)	4
243 Win. 100 gr. Core-Lokt UltraBond (2960)	9	7mm WSM 150 gr. SP American Eagle (3100)	7
25-06 Rem. 100 gr. Core-Lokt PSP (3230)	9	7mm-08 139 gr. SP Interlock (2840)	13
25-06 Rem. 120 gr. Federal Fusion (2980)	9	7mm-08 139 gr. SST Interlock (2800)	10
25-06 Rem. 85 gr. Ballistic Silvertip (3470)	3	7mm-08 140 gr. Power Point (2800)	13
6.5 Creedmoor 129 gr. SST (2950)	6	7mm 175 gr. SP Interlock (2800)	10
6.5 Creedmoor 140 gr. A-MAX (2710)	10	7-08 Rem. 140 gr. Nosler AccuBond (2800)	10
6.5 Creedmoor 140 gr. Custom Competition (2550)	14	7-08 Rem. 140 gr. Nosler Partition (2800)	10
6.5-284 130 gr. AccuBond (2900)	8	28 Nosler 175 gr. AccuBond (3125)	2
6.5-284 140 gr. AccuBond (2800)	8	300 RUM 150 gr. Swift Scirocco Bonded (3450)	1
6.5-284 130 gr. SP AccuBond (2900)	8	300 RUM 180 gr. Core-Lokt Ultra Bonded (3250)	4
6mm Rem. 100 gr. Core-Lokt PSP (3100)	9	300 Wby. 180 gr. Nosler Partition (3240)	2
6mm Rem. 100 gr. SP American Eagle (3100)	9	300 Wby. Mag. 180 gr. Barnes Triple Shock (3110)	4
6mm Rem. 80 gr. SP American Eagle (3470)	2	300 Win Mag 150 gr. Core-Lokt PSP (3290)	7
26 Nolser 142 gr. AccuBond (3300)	1	300 Win Mag 150 gr. Core-Lokt Ultra Bonded (3290)	7
270 Win. 130 gr. Core-Lokt SP (3060)	9	300 Win. Mag. 165 gr. Federal Fusion (3200)	4
270 Win. 130 gr. Nosler Ballistic Tip (3060)	6	300 Win. Mag. 180 gr. Core-Lokt Ultra Bonded (2960)	9
270 Win. 130 gr. SP American Eagle (3060)	9	300 WSM 180 gr. SP American Eagle (2970)	9
270 Win. 140 gr. Core-Lokt Ultra Bonded (2925)	11	300 Win. Mag. 180 gr. Federal Fusion (2960)	6
270 Win. 150 gr. Federal Fusion (2850)	8	300 Win. Mag. 180 gr. Nosler AccuBond (2960)	6
270 Win. 150 gr. Power Point (2850)	13		

TBR PERFORMANCE GROUPS: LOAD TABLE			
Load Name (Muzzle Velocity-fps)		Load Name (Muzzle Velocity-fps)	
200 Yard Zero	Group	200 Yard Zero	Group
300 Win. Mag. 180 gr. Nosler Partition (2960)	11	30-06 180 gr. Federal Fusion (2700)	10
300 Win. Mag. 180 gr. Power Point (2960)	8	30-06 180 gr. Nosler Partition (2700)	12
300 WSM 180 gr. Ballistic Silvertip (3010)	6	30-06 180 gr. Silvertip (2700)	15
300 WSM 180 gr. SP American Eagle (2970)	9	30-06 180 gr. SP American Eagle (2700)	15
30-06 150 gr. Ballistic Silvertip (2900)	8	30-06 180 gr. Trophy Bonded Bear Claw (2650)	16
30-06 150 gr. Core-Lokt PSP (2910)	13	30-06 180 gr. Core-Lokt Ultra Bond (2700)	15
30-06 150 gr. Federal Fusion (2900)	9	308 Win. 150 gr. Nosler Ballistic Tip (2820)	10
30-06 150 gr. Power Point (2920)	15	308 Win. 150 gr. Power Point (2820)	16
30-06 150 gr. Silvertip (2910)	13	308 Win. 165 gr. Barnes Triple Shock (2650)	16
30-06 165 gr. Core-Lokt PSP (2800)	15	308 Win. 165 gr. Nosler AccuBond (2730)	12
30-06 165 gr. Federal Fusion (2790)	10	308 Win. 165 gr. Nosler Ballistic Tip (2650)	12
30-06 165 gr. Nosler Ballistic Tip (2800)	10	308 Win. 165 gr. Sierra SBT GameKing (2700)	15
30-06 165 gr. Nosler Ballistic Tip (2750)	10	308 Win. 168 gr. Hornady Match HP (2650)	15
30-06 165 gr. Pointed Soft Point (2800)	15	308 Win. 180 gr. Core-Lokt Ultra Bonded (2620)	16
30-06 165 gr. Sierra SBT GameKing (2800)	13	308 Win. 180 gr. Nosler AccuBond (2750)	10
30-06 168 gr. Ballistic Silvertip (2790)	10	308 Win. 180 gr. Nolser Partition (2620)	14
30-06 180 gr. Ballistic Silvertip (2750)	10	308 Win. 180 gr. Silvertip (2620)	16
30-06 180 gr. Core-Lokt PSP (2700)	15	338 Lapua 250 gr. Sierra HPBT Match (2950)	6

For hand loads or any other unique loads not shown in the above list, the table on the next page provides a guideline for selecting the appropriate TBR performance group. Check the ballistic performance of your bullet by consulting your reloading manual, ballistics software, or by referring to literature or Web sites provided by your cartridge manufacturer. You may also visit the Leupold Web site at leupold.com for more assistance in selecting your group.

	TBR/W LOAD GROUP SELECTION TABLE: FOR BEST FIT UP TO 600 YARDS		
Load Group	Bullet Path Height @ 600 Yds.	10 MPH Crosswind Deflection @ 600 Yds	Sight-in Range
1	-42 to 48 inches*	10 to 28 inches	200 Yards
2	-48 to -54 inches	10 to 28 inches	200 Yards
3	-48 to -54 inches	28 to 46 inches	200 Yards
4	-54 to -60 inches	10 to 28 inches	200 Yards
5	-54 to -60 inches	28 to 46 inches	200 Yards
6	-60 to -66 inches	10 to 28 inches	200 Yards
7	-60 to -66 inches	28 to 46 inches	200 Yards
8	-66 to -72 inches	10 to 28 inches	200 Yards
9	-66 to -72 inches	28 to 46 inches	200 Yards
10	-72 TO -78 inches	10 to 28 inches	200 Yards
11	-72 to -78 inches	28 to 46 inches	200 Yards
12	-78 to -84 inches	10 to 28 inches	200 Yards
13	-78 to -84 inches	28 to 46 inches	200 Yards
14	-84 to -90 inches	10 to 28 inches	200 Yards
15	-84 to -90 inches	28 to 46 inches	200 Yards
16	-90 to -96 inches**	28 to 46 inches	200 Yards
17	-30 to -36 inches**	10 to 28 inches	300 Yards
18	-36 to -42 inches	10 to 28 inches	300 Yards
19	-42 to -48 inches	10 to 28 inches	300 Yards
20	-48 to -54 inches	10 to 28 inches	300 Yards
21	-48 to -54 inches	28 to 46 inches	300 Yards
22	-54 to -60 inches	10 to 28 inches	300 Yards
23	-54 to -60 inches	28 to 46 inches	300 Yards
24	-60 to -66 inches**	10 to 28 inches	300 Yards
25	-60 to -66 inches**	28 to 46 inches	300 Yards

* If your bullet height path is less than -42 inches at 600 yards with a 200 yard sight-in, consider sighting-in at 300 yards and selecting load group 17 or 18. Alternately, you can use group 1 with a 200 yard sight-in, but the TBR/W will be less accurate.

** If your bullet height at 600 yards is greater than -96 inches with a 200 yard sight-in or less than -30 or greater than -66 inches with a 300 yard sight-in, the TBR/W will be less accurate.

To activate the appropriate ballistics group, TBR must be activated and you must choose between BAS, HOLD, MIL, or MOA. Once this has been done, pressing the MODE button will allow you to select the appropriate ballistics group. GRP (Group) will be shown in the upper display, and the current ballistics group will be shown in the lower display. Press and release POWER repeatedly to scroll through the available ballistics groups. Press MODE to save the selection and move on to activate or deactivate Wind by pressing and releasing POWER.

Pressing mode after your ballistic group has been selected will allow you to activate or deactivate the wind hold feature.

When activated, the rangefinder will first display the distance to the target then show the appropriate wind hold for the selected output. If the selected output is TRIG, LOS, or BOW, wind cannot be activated.

Selected Output (TBR):	Wind Value Shown in:
BAS	MOA
HOLD (YD/m)	IN/cm
MIL	MIL
MOA	MOA
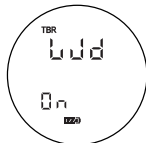
REMEMBER: *Knowing your theoretical bullet path at long ranges does not provide a license to take shots beyond ranges at which you have practiced, particularly at game animals or where stray shots could hit unintended targets. It is your responsibility to have intimate familiarity with the performance of your firearm and take full responsibility for the projectile. The RX-1600i digital laser rangefinder may serve best as a tool for learning performance during practice at a secure range so you are ready for that critical shot.*

FUNCTION 3: DISPLAY INTENSITY

This mode is used to adjust the brightness of the display, allowing you to match the intensity to current conditions. Your RX-1600i has three display intensity settings; low, medium, and high.

Navigate through the Quick Set Menu by pressing and releasing the MODE button until "DISP" is shown in the lower display.

Press and release the POWER button to toggle between high, medium, and low. Press MODE to save the selection.
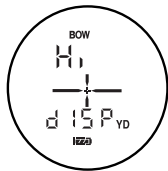
FUNCTION 4: UNIT OUTPUT

This mode is used to choose between yards and meters as the preferred unit of measure. To choose between yards and meters, navigate through the Quick Set Menu by pressing and releasing the MODE button until "Unit" is shown in the lower display. Press and release the POWER button to alternate between yards and meters. Press MODE to save the selection.
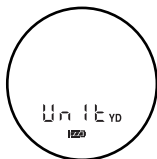
Unit set to Yards (YD)

FUNCTION 5: LAST TARGET MODE

This mode is used to display the distance to the farthest object when more than one object may be read. Multiple objects will often return an average distance. Last Target Mode ensures an accurate reading on the farthest object.
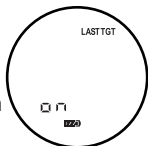
Last Target ON

To activate Last Target mode, navigate through the Quick Set Menu by pressing and releasing the MODE button until the Last Target icon is shown in the upper right portion of the display. Press and release the POWER button to turn Last Target on/off. Press MODE to save the selection.
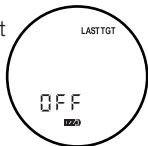
Last Target OFF

FUNCTION 6: 3 SELECTABLE RETICLES

This mode allows you to choose any one of the 3 preloaded reticles as the primary aiming point for the RX-1600i TBR/W digital laser rangefinder. To select a reticle, press and release MODE until the current reticle is blinking. Press and release POWER to scroll through the available reticles, then press MODE when the preferred reticle is shown. The reticle choices are as follows:

Plus Point™
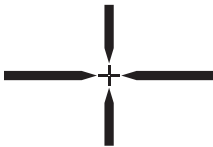
Duplex®
with Plus Point™
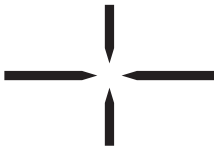
Duplex®
without Plus Point™

Plus Point™: Ideal for varmints and other small targets. Small open center avoids coverage of very small or distant targets.

Duplex®: Familiar reticle to shooters from riflescopes; draws eye to the center, easy to see, does not cover the target in the center where aiming is most critical.

CLEANING/MAINTENANCE

Blow away dust or debris on lenses, or use a soft lens brush (such as the one found on the Leupold LensPen). To remove fingerprints, water spots or tougher dirt, use a soft cotton cloth or the cleaning end of the Leupold LensPen. A lens tissue with lens cleaning fluid may be used for more stubborn dirt. Always apply cleaning fluid to the cleaning cloth, never directly to the lens.

To insert a new battery, remove battery cover *(shown in diagram on page 5)* and remove exhausted battery. Insert new CR-2 battery, negative terminal first, into the battery compartment. Close battery cover.

To focus the digital laser rangefinder, turn the eyepiece left or right (you will feel and hear the clicking of the diopter, indicating a change to the focus has been made) until crisp display focus is achieved.

RX-1600i TBR/W models are waterproof.

RX-1600i TBR/W includes a lanyard and is equipped with a lanyard attachment for added security in the field. An instructional supplement is supplied in the inside pocket of the included case.

HELPFUL HINTS FOR USING THE LEUPOLD RX-1600i DIGITAL LASER RANGEFINDER

HOW DO I ACTIVATE TRUE BALLISTIC RANGE (TBR/W)?

See Function 1 on page 13. Be sure to select the proper group for rifles on pages 21-25.

HOW DO I ACTIVATE SIMPLE LINE OF SIGHT (LOS) RANGE?

Rotate through the output menu and select LOS (see page 13).

WHEN I SHOOT BASED ON THE TRUE BALLISTIC RANGE READOUT PROVIDED BY THE RANGEFINDER, THE PROJECTILE IS NOT HITTING THE TARGET.

The first step in correctly using TBR is to Practice, Practice, Practice. Anytime you handle a firearm or bow, you are ultimately responsible for your projectile. Be certain that if you're shooting a bow that "BOW" is turned on. Be certain that if you're shooting a rifle that "TBR" is turned on. Be certain you selected the correct ballistics group *(see pages 21-25 for rifles)*. It is imperative that a rifle be sighted-in at the recommended range.

For rifles, ballistics performance of firearms and ammunition may vary from manufacturers' published information.

RANGEFINDER DOES NOT PROVIDE RANGE.

- Make sure that the POWER button is being depressed (as opposed to MODE button)

- Make sure that nothing, such as your hand or finger, is blocking the lenses — as this could interfere with the emission and reception of the laser pulses

- Make sure unit is held steadily while depressing the POWER button

- When using BOW mode, it is important to note that TBR readings are limited to 175 yards; readings greater than 175 yards will be displayed as a line of sight measurement; TBR readings are limited to 800 yards for rifles

- Make sure the target is at least 5 yards away

HOW DO I ACTIVATE THE INCLINOMETER READOUT?

TBR or BOW must be activated for the angle of inclination to display (see page 13).

WARRANTY/REPAIR

The Leupold Electronics Warranty covers any defects in materials and workmanship in the electronic components of RX, GX, and PinCaddie Rangefinders, Vendetta Archery Rangefinders, Leupold Thermal Optics, and other Leupold electronic products. This warranty lasts for two-years from the date of purchase. For complete warranty details visit leupold.com/leupold-core/leupold-dna/lifetime-guarantee.

In event of a need for service or repair, please contact Leupold Product Service at: leupold.com

BY PARCEL SERVICE:
Leupold Product Service
14400 NW Greenbrier Parkway
Beaverton, OR 97006-5791 USA

BY POSTAL SERVICE:
Leupold Product Service
P.O. Box 688
Beaverton, OR 97075-0688 USA

Please take a few minutes to register your product at leupold.com/account/login.

For product questions, consult the Leupold Web site at: leupold.com or call (800) LEUPOLD (538-7653).

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