TECHNICAL MANUAL



Lifetime Warranty

This AXCEL® Sight is guaranteed to the original owner with a valid sales receipt against defects in materials and workmanship not caused by normal wear for the lifetime of the product. T.R.U., Inc., the manufacturer of AXCEL® Sights, reserves the right to repair or replace defective parts at its earliest convenience if the sight has been used according to the enclosed instructions. T.R.U., Inc. alone will judge whether a defect has been caused by normal wear and which parts will be repaired or replaced. Defects caused by normal wear may be repaired for an additional charge.

LIMITATIONS TO GUARANTEE

Parts that are modified, abused, or not used according to the instructions are not covered by this guarantee. T.R.U., Inc. shall not be liable for injuries or property damage of any kind. This guarantee is only valid to the original owner and is void if the original owner does not have the sales receipt. IT IS CRITICAL THAT YOU KEEP YOUR SALES RECEIPT IN A SAFE PLACE, AS REPAIRS WILL NOT BE PERFORMED WITHOUT THE ORIGINAL SALES RECEIPT! All packages sent to T.R.U., Inc. must have a return authorization (RA) number.

If you believe that a return to our factory is needed, call 434-929-2800 for a return authorization (RA) number, then UPS ship INSURED to T.R.U., Inc., 131 Crennel Drive, Madison Heights, VA 24572. T.R.U., Inc. is not liable for products that are lost in shipping, so it is very important to INSURE all shipments and make sure that your package has a tracking number. All returns must have a return authorization number, a short explanation of the problem, and be accompanied by a copy of the original sales receipt. The RA# must be written on the outside of the package or the package will not be accepted.

ITEMS IN THIS MANUAL MAY BE PATENT PENDING OR COVERED BY US PATENTS & REGISTERED TRADEMARKS. VISIT WWW.AXCELSIGHTS.COM/LEGAL.HTML FOR A FULL LIST OF PATENTS & TRADEMARKS.

> Tomorrow's Resources Unlimited, Inc. **Axcel® Archery** 131 Crennel Dr. , PO Box 1180 Madison Heights, VA 24572

434-929-2800 WWW.AXCELARCHERY.COM

ACHIEVEXP



A WARNING: This product can expose you to chemicals including Nickel Acetate, which is known to the State of California to cause cancer or birth defects or other reproductive harm. For more information, visit www.P65Warnings.ca.gov.

EXTERNAL SPACER AVX-31 AND AVX-41 ACHIEVE SIGHTS PARTS BREAKDOWN: SIGHT LIGHTS AVX3-EXSP-BK ZERO BACKLASH AXAT-SL & AXAT-SL-BL WHITE & BLUE SIGHT LIGHT LENS SPACER AVX3-LS BREAKDOWN RHEOSTAT COVER LEVEL BLANK AVX3-LB-BK AVX3-RHEO-BK ELEVATION KNOB STEPPED SHADE WITH LOCK AVX3-STSH-WINDAGE KNOB WITH LOCK RECURVE SIGH LOCK TAB FOR ELEVATION KNOB QUICK CHANGE EXTENSION BAR LOCKDOWN KNOB SCOPE KNOB LENS AVX31-CTDC-_X SPECIFY POWER: 2X. 4X, 5X, 6X, OR 8X WITH WEDGE LOCK 8MM LEVEL TORQUE INDICATOR T-CONNECTION THREADED FOR 3/8" x 32 SIGHT LIGHT * TORQUE INDICATOR & EXTENSION BAR SCOPE HOUSING RHEOSTAT COVER COMBO OR INTERCHANGEABLE RING PIN AVX3-RHTQ-RK #10-32" SST ROD ĭĂ AXCEL RING PINS ITED RING PIN: MOUNTED ON EXTERIOR OF SCOPE HOUSING FOR MAXIMUM PIN FIBER BI AVX3-RP10 AVX-31 SCOPE FIBER OPTIC RING PIN - .010" SIGHT PIN (SPECIFY PIN COLOR) ZERO BACKLASH AVX3-RP19 AVX-31 SCOPE FIBER OPTIC RING PIN - .019" SIGHT PIN (SPECIFY PIN COLOR) RHEOSTAT AVX4-RP10 AVX-41 SCOPE FIBER OPTIC RING PIN - .010" SIGHT PIN (SPECIFY PIN COLOR) COVER AVX4-RP19 AVX-41 SCOPE FIBER OPTIC RING PIN - .019" SIGHT PIN (SPECIFY PIN COLOR) BOW MOUNTING BRACKET RING PINS WITH RHEOSTAT COVER LOCK TAB FOR AT COVER TO DIAL IN YOUR BRIGHTNESS HANGEABLE PATENTED RING PIN' MOUNTI KNOB AVX3-RPRH10 AVX-31 SCOPE FIBER OPTIC RING PIN & RHEOSTAT COVER - .010" SIGHT PIN (SPECIFY PIN COLOR) AVX3-RPRH19 AVX-31 SCOPE FIBER OPTIC RING PIN & RHEOSTAT COVER - .019" SIGHT PIN (SPECIFY PIN COLOR) AVX4-RPRH10 AVX-41 SCOPE FIBER OPTIC RING PIN & RHEOSTAT COVER - .010" SIGHT PIN (SPECIFY PIN COLOR) AVX4-RPRH19 AVX-41 SCOPE FIBER OPTIC RING PIN & RHEOSTAT COVER - .019" SIGHT PIN (SPECIFY PIN COLOR) 2ND/3RD AXIS FIRE RING PIN ADJUSTMENT BLOCK REPLACEMENT APERTURE DISC SET (AUX AC14-FRP COMPOUND SIGHT FIBER SIZE - FIBER COLOR SHOWN WITH 19" DRILLED LENS INCLUDED ON PRO MODE SLEEVE-LOCK BLOCK BLACK ONLY CURVE SPACER SLEEVE AC14-SPCB-BK AC14-CTXZ19-DXFD ACXP-RSB AC14-RXORNG SOLD SEPARATELY 19" DRILLED LENS AC14-CTXZ19-OX APERTURE DISC #1 ROUND (1/2") AC14-RXAD1 29" DRILLED LENS APERTURE DISC #2 ROUND (7/16") AC14-RXAD2 AC14-CTXZ29-OXFD APERIURE DISC #3 ROUND (3/8" AC14-RXAD3 29" DRILLED LENS AC14-CTXZ29-OX FIRE RING PIN MAY NOT BE USED AT THE SAME TIME AS A DRILLED LENS OR DOT DECAL VARIARIE TENSION SYST AC14-RXAD4 FIBER SIZE .010", .019" OR .029 WARNING: LENS, THIS WILL RESULT IN A VIOLATION OF FITA RULE 11.1.5.1 BY PROVIDING DO NOT USE A LENS WITH AXCEL BER COLOR YELLOW, GREEN, RED, BLU MAGNIFICATION IN A AC14-LR RHEOSTAT COVER RECURVE SCOPE! SELECT SCOPE PIN OPTIONS SJEF VAN DEN BERG SIGNATURE SCOPE BLACK ONLY "VTS" (VARIABLE TENSION SYSTEM). ACCESSORY PROVIDES A NEW ADJUSTMENT WHERE THE ARCHER PERSONALLY CHOOSES A DESIRED ELEVATION TRAVEL TENSION SETTING. PEAK PERFORMANCE IN EVERY LIGHT SIT BER SIZE DOVETAIL GUIDE SYSTEM SUPERIOR "WINDAGE DOVETAIL GUIDE SYSTEM", REPLACES INFERIOR TWIN-DOWEL GUIDE SQUARE RECURVE SCOPE ALIGNS WITH SQUARE TARGET FACE FOR BETTER VERTICAL BOW ALIGNMENT, SYSTEMS.

IF THERE IS MOVEMENT OR PLAY IN THE WINDAGE SYSTEM, TIGHTEN THE TWO 4-40

SET SCREWS IN 1/16 TURN INCREMENTS UNTIL DESIRED PRESSURE IS REACHED AND

MOVEMENT/PLAY IS GONE. IF TIGHTENED TOO MUCH. THE WINDAGE WILL LOCK UP.

SHOT-AFTER-SHOT. THE .019" OR .029" DIAMETER FIBERS IN GREEN, RED, OR YELLOW ARE WRAPPED AROUND THE SCOPE FOR A BRIGHTER PIN.

- SQUARE EDGES LINE UP WITH THE TARGET EDGES
- FIBER WRAPS AROUND THE SCOPE TO PROVIDE A BRIGHTER PIN THAN OTHER SQUARE SCOPES
- .019" OR .029" FIBER SIZE
- 8mm inside scope diameter



OPTIONAL EXTRA ACCESSORIES

LENS RETAINER

LONG SHADE AVX3-LGSH-BK

RING PIN RETAINER

RING PIN

WHITE RING PIN RETAINER

AC14-RP

BLACK RING PIN RETAINER AC14-RPR-BK

WARNING:

TWO AIMING POINTS

AVX3-RPR-BK

AVX3-LR

AXCEL TOURNAMENT SCOPES



ACHIEVE XP Accessories:

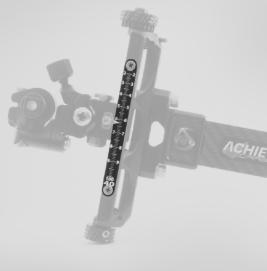


INCLUDED WITH SIGHT:		
sight tape #		
5-6	21-22	
9-10	25-26	
13-14	29-30	
17-18	33-34	

AVAILABLE SEPARATELY:

HOOSE FIBER SIZE: 19" or .029" DIA.

IGHT	TAPE #	
	1-2	23-24
	3-4	27-28
	7-8	31-31
	11-12	35-36
	15-16	37-38
	19-20	39-40



MOUNTING SIGHT



NOTE THE LOCATION OF THIS SETTING SO THAT YOU CAN REMOVE THE SIGHT AND RE-ATTACH IT TO THE SAME SETTING EVERY TIME THAT YOU SHOOT FOR REPEATABLE ACCURACY.

Mount sight bracket to bow with screws provided (1a.). Tighten mounting screws securely, then slide the sight extension into the bow mounting bracket and choose your desired sight length setting.

(MANY ARCHERS ATTEMPT TO SET THEIR SIGHT PIN OR APERTURE **APPROXIMATELY 30 INCHES** FROM THEIR EYE)

AXCEL

SETTING 1ST AXIS

Level the elevation bar (frame) with bow string (or) level at full draw with natural bow tilt or cant based on the archer's preference.

NOTE: ARCHER'S NORMAL BOW TILT OR CANT MAY BE PREFERABLE AS IT REDUCES TORQUE THROUGHOUT THE BOW SHOT SEQUENCE. XCE NOTE: NEVER DRY FIRE YOUR BOW AS IT MAY RESULT IN INJURY Leveling Device (NOT INCLUDED) 1ST Axis Adjustment Screws

LANDSLYDE



ALIGNING SCOPE TO EYE

Align the scope square with your eye to ensure scope lens clarity.



NON-THREADED BARREL

Always insure square or hex alignment aids on end of barrel mate with scope to eliminate scope rotation, when securing scope to barrel. Rotate your scope by spinning barrel in C-clamp to align scope to be square with your eye and tighten C-clamp securely. To make minute rotation adjustments, loosen the C-Clamp locking screw and rotate the barrel

using alignment marks for visual movement. When your scope is square with your eye, tighten the C-Clamp Lockscrew securely. Always ensure that the C-Clamp Lockscrew and the scope rod and nut are securely tightened.

THREADED BARREL

Always insure square or hex alignment aids on end of barrel mate with scope to eliminate scope rotation. Tighten scope to barrel and ensure that it is tightened securely. Align scope to eye by rotating the scope barrel in the C-Clamp. For fine rotation adjustments, use alignment marks. After you are sure that the scope is aligned with your eye, tighten the C-Clamp Lockscrew securely. Always ensure that the C-Clamp Lockscrew and the scope attachment bolt are securely tightened.

(STANDARD)

• Non-Threaded Barrel-Hex/Square end fits Classic, Extreme, Sure-Loc, Bullseye, Specialty, Viper, Beiter, CR Apex, G&B Specialties, True-Spot, Cartel and Impact Scopes

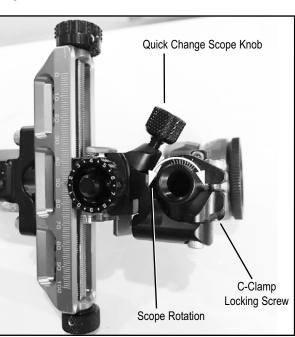
(OPTIONAL)

• Threaded Barrel-Hex/Square end fits many scopes

The above Scope Brands may be covered by Trademarks & are the property of their respective owners.

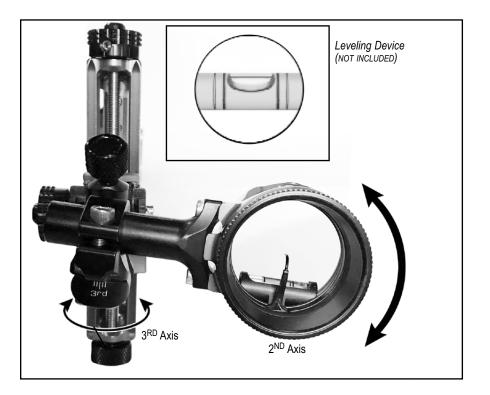


Rotate Scope by spinning barrel in c-clamp to align scope square to your eye.



SETTING THE 2ND AXIS

Make 2nd Axis adjustments by attaching a level device to the side of the elevation bar (frame) and adjusting the 2nd Axis to bring the scope level. Make sure that both the leveling device and the scope level are level at the same time. Insure that the 2nd Axis screw is securely tightened.



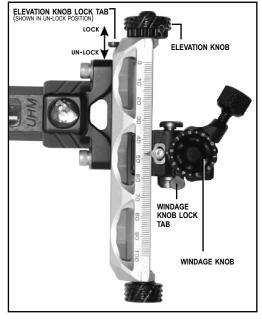
SETTING THE 3RD AXIS

With level device still attached to the side of the elevation bar (frame), bring bow to full draw and point your bow down at a 45 degree angle. Adjust the 3rd Axis to insure that the scope level and elevation bar (frame) level are level at the same time.

Insure that the 3rd Axis screw is securely tightened. (NOTE: NEVER DRY-FIRE BOW AS INJURY MAY RESULT.)

ELEVATION KNOB

Elevation knob is engraved with 20 divisions numbering 1-10 with dot indicators between numbers. There are 20 clicks on the elevation knob for one full revolution or turn on a 32 pitch lead screw. There are engraved yardage marks on the side of the elevation bar (frame). One engraved mark equals 1 turn (or 20 clicks from "0" to "0"). When turning the elevation knob one full turn, the sight will move in elevation the distance of one engraved yardage mark. This allows for the finest movement per click (.00156) in the tournament sight market place. To lock, lift Elevation Knob Lock Tab. Push down to unlock.



Note: When using software to make your own sight tape, always use (32 pitch x 20 clicks)

WINDAGE KNOB

Windage knob is engraved with 20 divisions numbering 1-10 with dot indicators between numbers. There are 20 clicks on the windage knob for one full revolution or turn on a 32 pitch lead screw. There are engraved marks on the side of the windage block. One engraved mark equals 1 turn (20 clicks from "0" to "0"). When turning the windage knob one full turn, the sight will move in windage the distance of one engraved mark. This allows for the finest movement per click

(.00156) in the tournament sight market place. To lock, lift Windage Knob Lock Tab. Push down to unlock.

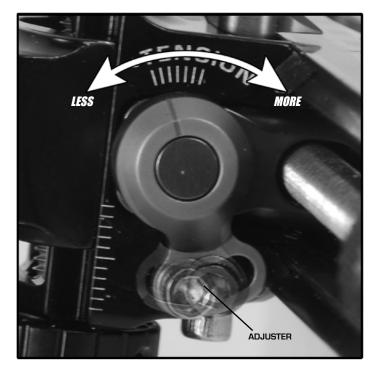
Note: One click of windage adjustment equals approximately 1/32 inch of target point of impact at 20 yards. 8-clicks of windage adjustment will change the point of impact approximately 1/4 inch at 20 yards.

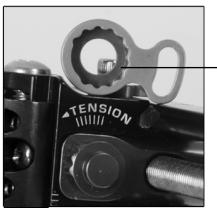
Maintenance

Your AXCEL® Sight has been designed to operate in any weather condition. All parts are aluminum or stainless steel and are free from rust. Simply blow away debris to keep sight clean. Threads and way gibs should be kept clean of debris. Do not lube sight threads or ways as this will attract dirt and debris. Lube only the underside (click-side) of the elevation and windage knobs as needed. Use only a synthetic, non-water soluble grease such as SuperLube®.



TO ADJUST TENSION: USE 5/64" ALLEN WRENCH TO TURN SCREW COUNTER-CLOCKWISE, THEN ROTATE ADJUSTER TO DESIRED TENSION. TIGHTEN SCREW CLOCKWISE. DO NOT OVERTIGHTEN!





TENSION RANGE ADJUSTMENT:

FOR ARCHERS WHO DESIRE SIGNIFICANTLY MORE OR LESS TENSION: USE 5/64" ALLEN WRENCH TO REMOVE SCREW . LIFT OFF ADJUSTER, THEN REPOSITION ON GEAR TEETH TO A NEW POSITION. REINSTALL SCREW (TIGHTEN CLOCKWISE) DO NOT OVERTIGHTEN!

GEAR TEETH ON UNDERSIDE OF ADJUSTER SHOWN FOR REFERENCE.