

BUIS / RDS CLICK VALUES

AIMPOINT COMP-SERIES: 1 CLICK = .60" x100 YARDS

AIMPOINT T2: 1 CLICK = 0.5" @ 100 YARDS

BURRIS FASTFIRE SERIES: 1 CLICK = 1 MOA

EOTECH (E)XPS-2/3: 1 CLICK = 1/2 MOA

LEUPOLD DELTAPOINT PRO: 1 CLICK = 1 MOA

MAGPUL MBUS GEN 1 FRONT: 1 CLICK = ~1.6 MOA (14.5" SIGHT RADIUS)
~1.2 MOA (20" SIGHT RADIUS)

MAGPUL MBUS GEN 1 REAR: 1 CLICK = ~.7MOA (14.5" SIGHT RADIUS)
~.5 MOA (20" SIGHT RADIUS)

MAGPUL PRO AND MBUS GEN 3 FRONT: 1 CLICK = ~1 MOA (14.5" SIGHT RADIUS)
~.7 MOA (20" SIGHT RADIUS)

MAGPUL PRO AND MBUS GEN 3 REAR: 1 CLICK = ~.5 MOA (14.5" SIGHT RADIUS)
~.4 MOA (20" SIGHT RADIUS)

MI OFFSET IRON SIGHTS FRONT: 1 CLICK = 1.5 MOA

MI OFFSET IRON SIGHT REAR: 1 CLICK = .5 MOA

M4A1 FRONT SIGHT: 1 CLICK = 1 3/8" @ 100 YARDS

M16A4 FRONT SIGHT: 1 CLICK = 1 1/4" @100 YARDS

M4A1/M16A4 REAR DRUM: 1 CLICK = 1/2" @ 100 YARDS

M4A1/M16A4 REAR SIGHT: 1 CLICK = 1/2" @ 100 YARDS

SIG ROMEO 5: 1 CLICK = 1/2 MOA

TRIJICON RMR: 1 CLICK = 1 MOA

VORTEX MINI-RDS: 1 MOA GRADUATION:

COWITNESS MOUNT HEIGHT HEIGHT OVER BORE

Absolute	~1.4"	~2.61"
Lower 1/3	~1.6"	~2.81"
NV Height	~1.93"	~3.14"

M4 HEIGHT TO PIC RAIL = 1.21"

OPTIC	BATTERY
MICRO RDS / MINI RDS	CR2032
COMP M, M2/3	1/3N, 3V
COMP M4	AA
COMP M5	AAA



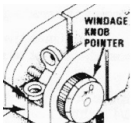
A1-Style Front Sight Post



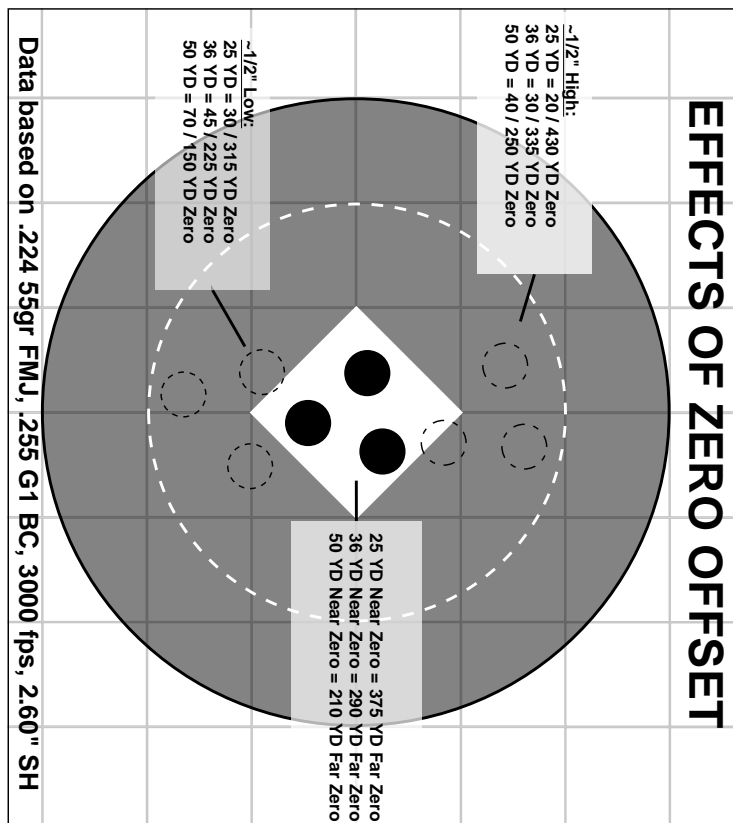
A2-Style Front Sight Post



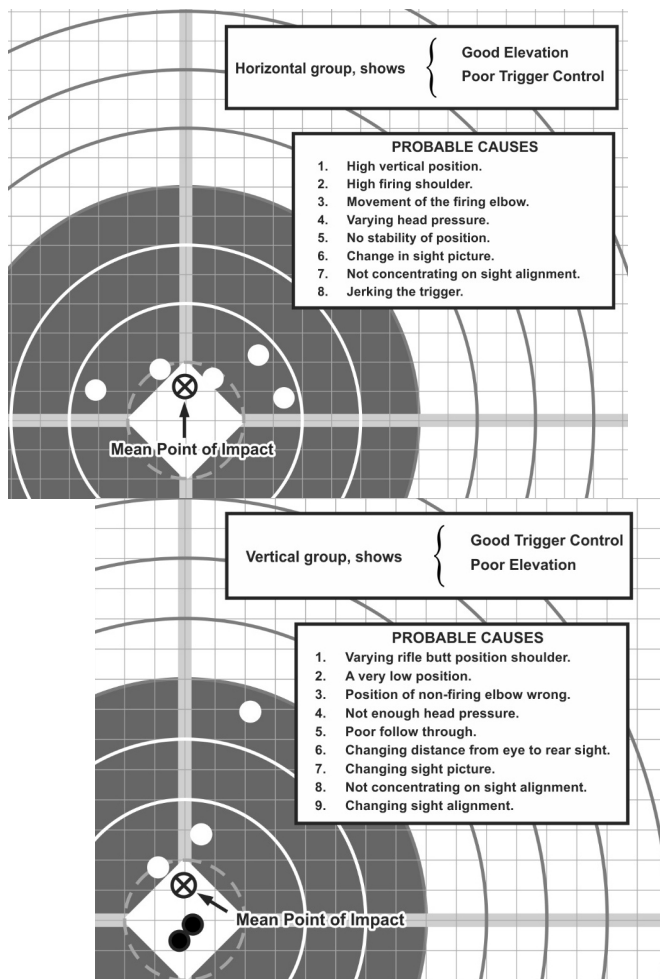
A1-Style Windage Adjustment. (1/2 MOA per click)



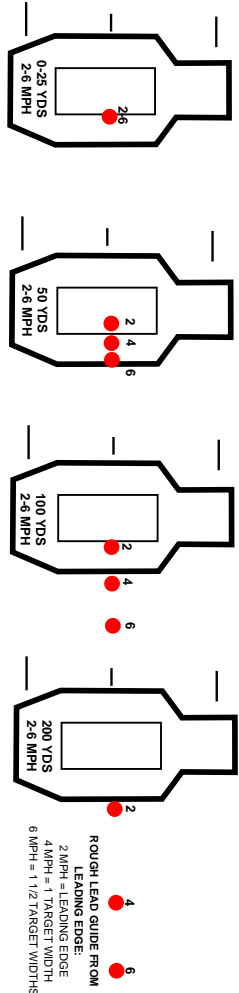
A2-Style Windage Adjustment.



	VELOCITY (FPS)	COMPANY	BULLET	INVENTORY NO.	TYPE	BARREL LENGTH							
						20"	19"	18"	17"	16"	15"	14"	
Homady	35-gr. NTX	83266	.223	3,677	3,609	3,510	3,445	3,364	3,311	3,269			
Winchester	35-gr. SilverTip	S223RLF	.223	3,606	3,571	3,519	3,471	3,422	3,376	3,337			
Black Hills	40-gr. V-MAX		.223	3,279	3,275	3,259	3,243	3,239	3,174	3,100			
Federal	55-gr. Nos. B-Tip	P223F	.223	2,955	2,919	2,889	2,862	2,836	2,788	2,731			
Wolf	55-gr. FMJ		.223	3,016	2,984	2,958	2,928	2,901	2,853	2,808			
Winchester	55-gr. FMJ	USA223RI	.223	3,089	3,072	3,061	3,046	3,029	2,974	2,916			
Winchester	55-gr. FMJ	X556TG	5.56	3,110	3,077	3,040	3,001	2,966	2,957	2,932			
Federal	55-gr. FMJ	XM-193	5.56	3,243	3,211	3,187	3,156	3,129	3,067	3,016			
Corbon	55-gr. BlitzKing	22355BK	.223	2,998	3,005	2,999	3,010	3,000	2,976	2,949			
Winchester	62-gr. FMJ	M855	5.56	3,108	3,071	3,019	2,971	2,930	2,896	2,862			
Winchester	60-gr. HP	PDX1	.223	2,871	2,865	2,851	2,845	2,832	2,781	2,742			
Black Hills	62-gr. Barnes TSX		5.56	3,082	3,058	3,027	2,989	2,960	2,928	2,895			
HPR	62-gr. OTF	2230620TF-BK	.223	2,930	2,892	2,861	2,818	2,784	2,766	2,742			
Winchester	69-gr. HPBT	S223M2	.223	2,669	2,629	2,615	2,585	2,554	2,509	2,468			
HPR	75-gr. BTHP	223075BTHP	.223	2,608	2,573	2,523	2,474	2,429	2,475	2,468			
Asym	77-gr. OTM	223N-1	.223	2,700	2,689	2,667	2,641	2,618	2,610	2,599			
Black Hills	77-gr. OTM		5.56	2,836	2,798	2,750	2,713	2,669	2,651	2,627			
Federal	77-gr. BTHP	GM223M3	.223	2,591	2,562	2,527	2,489	2,458	2,445	2,427			
Gorilla	77-gr. SMK		.223	2,633	2,615	2,601	2,583	2,567	2,531	2,495			



Carbine Mover Leads



SLOW WALK = ~2 MPH

FAST WALK = ~4 MPH

JOGGING = ~6 MPH

RUNNING = ~10 MPH

Lead holds are based on 5.56 M193, 3,000 fps, 2.60" sight height, 50 yard zero. Target is a 12" X 24" BC target.

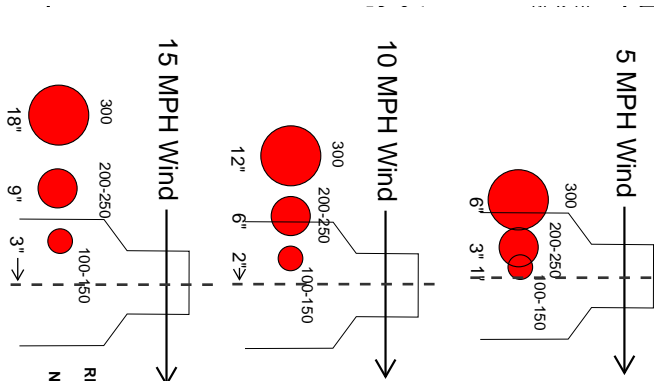
Compensate for elevation as necessary depending on the rifle's zero.

Common Torque Specifications			
AR-15 Rifle	Torque	Optics & Sights	Torque
A2 Muzzle Device	15-20 ft/lbs	BUS Mounting Screw	25 in/lbs
MLOK Accessories, Nylon	15 in/lbs	Aimpoint T1/Clone Mounting Screws	10 in/lbs
MLOK Accessories, Aluminum	35 in/lbs	Aimpoint T1/Clone Rail Mount Screws	18 in/lbs
Keymod Accessories, Nylon	20 in/lbs	Aimpoint ACRO	26 in/lbs
Keymod Accessories, Aluminum	30 in/lbs	Trijicon RMR Mounting Screws	15 in/lbs
Miscellaneous Accessories	20 in/lbs	Trijicon MRO Mounting Screws	12 in/lbs
Barrel Nut	30-80 ft/lbs	EO Tech XPS2 Mounting Screw	17 in/lbs
AR-15 FF Rail Cross Bolts	35-45 in/lbs	45° Offset Mount Cross Bolt Screws	20 in/lbs
Knight's Armament RAS Locking Screw	20 in/lbs	Scope Ring Cap Screws	15-20 in/lbs
Rifle Receiver Extension	35-39 ft/lbs	Scope Ring 1/2" Cross Bolt	45-65 in/lbs
Fixed Stock Screws	25-30 in/lbs	Scope Ring Cross Bolt T25, T27, 5/32"	35-50 in/lbs
Castle Nut	40 ft/lbs	Scope Ring Cross Bolt T15-T20	15-25 in/lbs
Gas Key Screws	50-58 in/lbs (Red)	Lights and Lasers	Torque
Low Pro Gas Block Screws	25 in/lbs (Red)	Scout Light Body Screws	20 in/lbs

Bold values indicate medium strength threadlocker unless noted otherwise. Most values are based on manufacturer recommendations, however always check the specific manufacturer for recommended values.

BUS / RDS Wind Holds

Data is based on 5.56 M193, ~3,000 fps, 2.60" height over bore



Wind Observed Effects on Natural Object	Estimating Wind
>1 Smoke rises straight up. No grass movement	NO WIND
1-3 Smoke moves with wind. Slight motion of leaves	11 o'clock 0-3 mph
4-7 Wind just felt on face. Tree leaves in motion	10 o'clock 3-5 mph
8-12 Leaves turn. Twigs and tree tops in motion.	45 deg 5-8 mph
13-18 Small branches move. Loose dust blows around.	55 deg 8-12 mph
19-24 Large branches in motion. Hard to walk	
25-31 Whole trees in motion. Hard to walk	

REMEMBER TO HOLD FOR ELEVATION AS NECESSARY DEPENDING ON ZERO DISTANCE.

RANGE ESTIMATION

FACTORS AFFECTING RANGE ESTIMATION

1. TARGETS WITH A REGULAR OUTLINE WILL APPEAR CLOSER
2. HIGH CONTRAST TARGETS WILL APPEAR CLOSER.
3. PARTIALLY EXPOSED TARGETS WILL APPEAR FARTHER.
4. FLAT TERRAIN CAN LEAD TO UNDERESTIMATING THE RANGE.
5. DOWNHILL TARGETS WILL APPEAR FARTHER AWAY.
6. DOWNHILL TARGETS WILL APPEAR CLOSER.
7. A CLEARLY VISIBLE TARGET WILL APPEAR CLOSER.
8. IF THE SUN IS BEHIND THE OBSERVER THE TARGET APPEARS CLOSER. BEHIND THE TARGET IT APPEARS FARTHER AWAY.

FOOTBALL FIELD METHOD

VISUALIZE HOW MANY FOOTBALL FIELDS CAN FIT BETWEEN YOU AND THE TARGET.

NOTE: NEVER USE JUST ONE METHOD OF RANGING. ALWAYS USE MULTIPLE METHODS AND AVERAGE THE DISTANCES FOR THE MOST ACCURATE ESTIMATE.

VISUAL RANGE ESTIMATION METHOD

- 100 YARDS - RECOGNIZE A FACE AND SEE WHAT THEY LOOK LIKE
- 200 YARDS - CANNOT DISTINGUISH FACIAL FEATURES
- 300 YARDS - CANNOT DISTINGUISH INDIVIDUAL FINGERS OR HANDS
- 400 YARDS - THE HEAD CANNOT BE DISTINGUISHED
- 500 YARDS - CANNOT SEE INDIVIDUAL LEG MOVEMENT.
- 600 YARDS - THE HUMAN BODY APPEARS AS A TRIANGULAR SHAPE

BRACKETING METHOD

THIS METHOD USES A COMBINATION OF METHODS TO ESTABLISH AND MAXIMUM AND MINIMUM DISTANCE. AVERAGING THE TWO THE COME UP WITH AN ESTIMATED RANGE.

