

BR-3502 Technical data

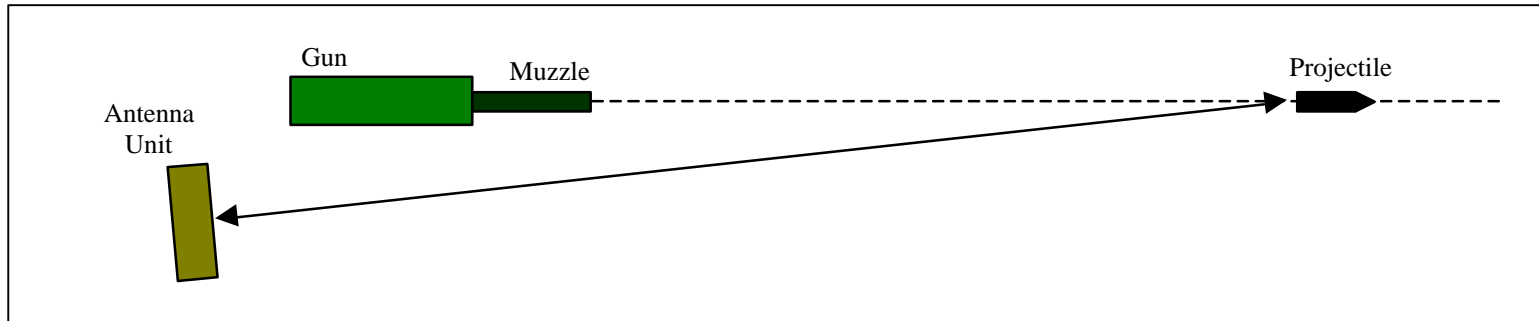
1. Supported supply: 120/240Vac @ 50-60Hz
2. Estimated performance (see table below)

Max. Vel. (m/s)	FFT Size points	Bandwidth (kHz)	Range Figure K_0	Maximum Range (m)		
				4.7 mm proj.	20 mm proj.	25 mm proj.
2000	1024	4.6	8000	38	161	200
1000	1024	2.3	9600	45	192	240
500	1024	1.2	11420	53	228	285

3. Velocity range: ~10 to 3000 m/s
4. Projectile caliber range: down to 1mm BB projectile
5. Typical muzzle V_0 accuracy: < 0.1%
6. Antenna Gain: 20 dBi
7. Transmitter power: 20 dBm
8. Beamwidth: 12 deg x 12 deg
9. Maximum recording time:
 - 80 ms for single channel operation (or 250 ms without digital antialiasing filter)
 - 40 ms for dual channel operation (or 125 ms without digital antialiasing filter)
10. Supports one or two antennas.
11. Digital trigger input (analog trigger conditioner available)

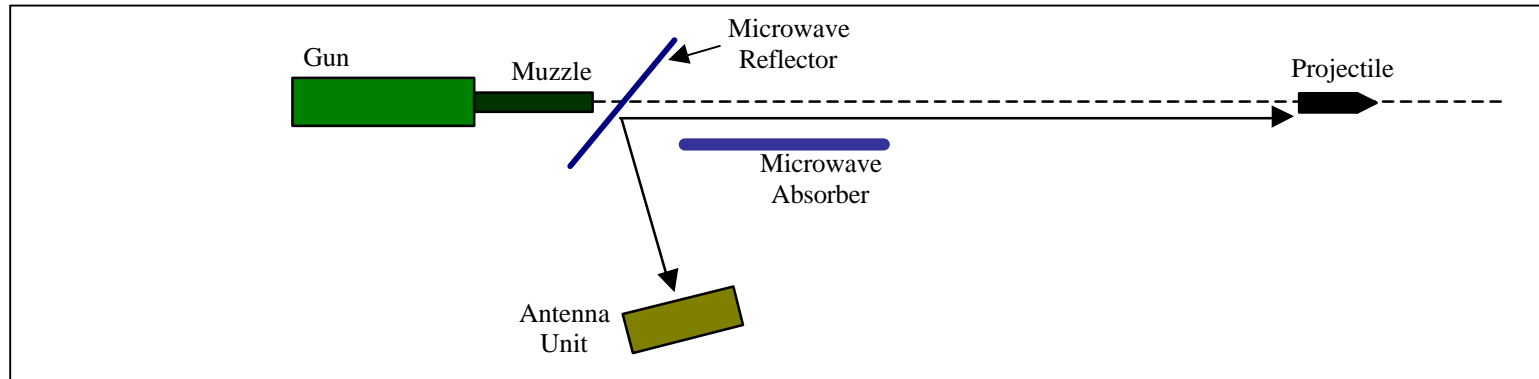
Various ways to setup the radar

Setup #1



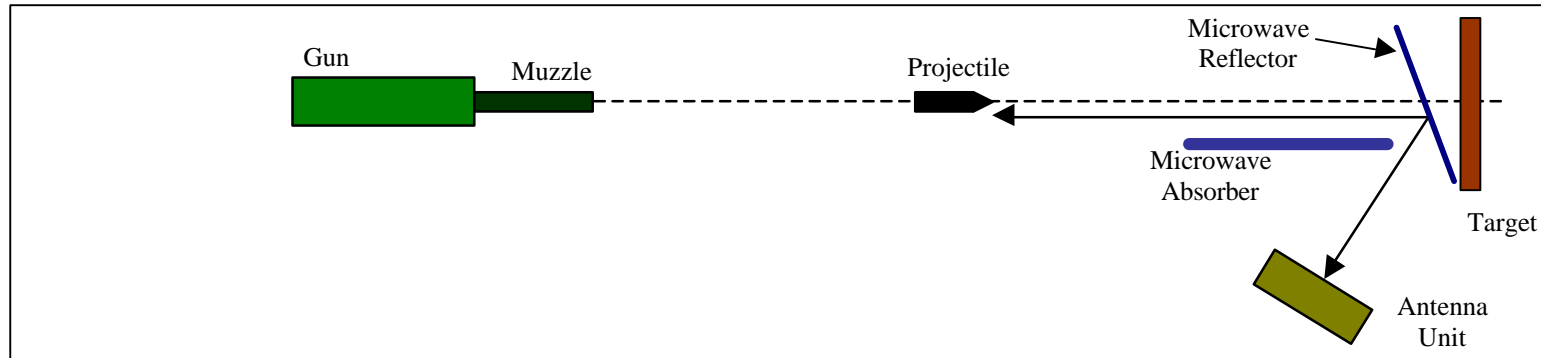
- Parallax error on the measured velocity. Can be compensated for by the processing software;
- Strong influence of muzzle blast (ionized gases) on the measurements;
- Easy to setup.

Setup #2



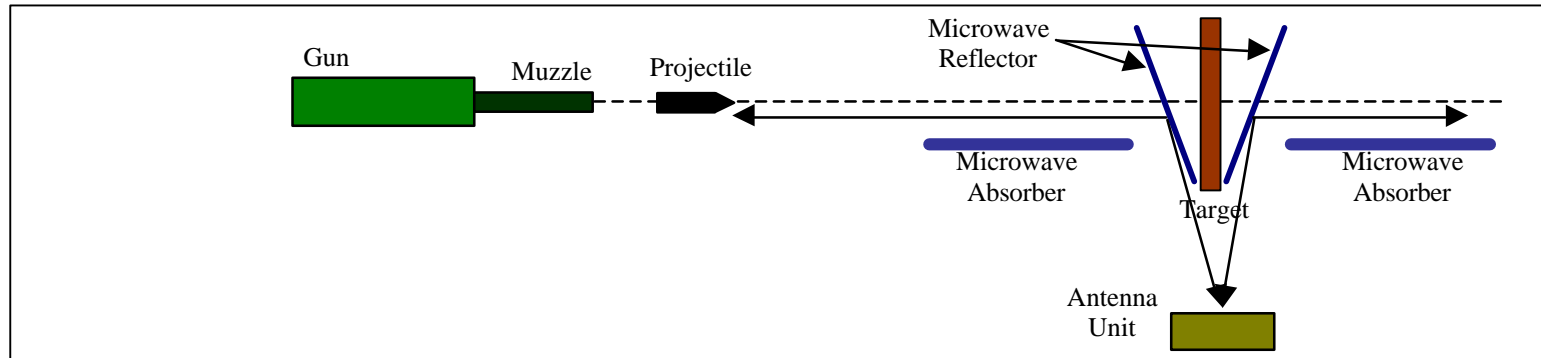
- Parallax error can be neglected;
- Influence of muzzle blast (ionized gases) reduced;
- Requires precise alignment of the antenna and reflector.

Setup #3



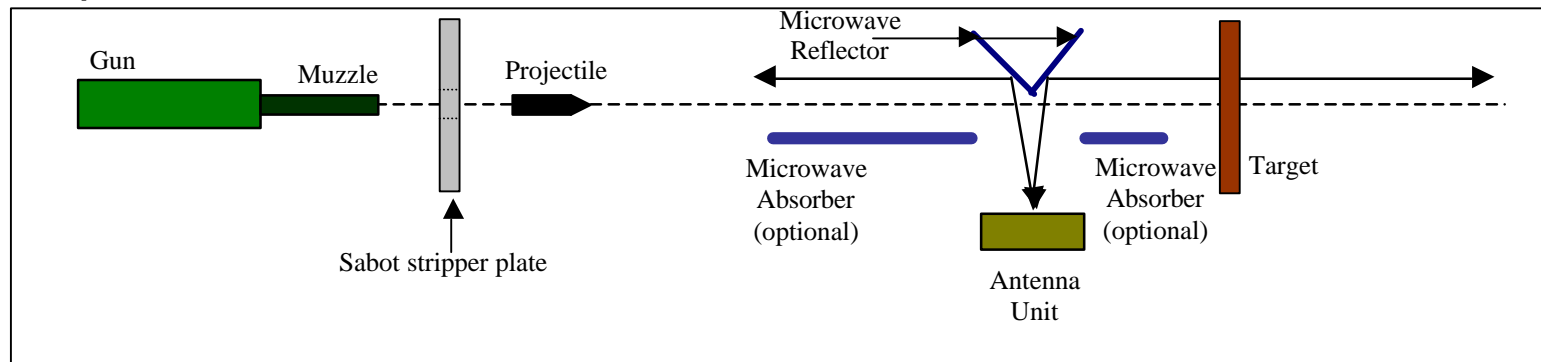
- Parallax error can be neglected;
- Lower RCS on most projectiles;
- Ionized gases around the muzzle may affect the measurement accuracy.

Setup #4



- Parallax error can be neglected;
- Lower RCS on most projectiles (before the target);
- Ionized gases around the muzzle may affect the measurement accuracy;
- Allows the measurement of the velocity before and after the target with single radar.

Setup #5



- Parallax error can be neglected;
- Lower RCS on most projectiles (before the target);
- Ionized gases around the muzzle and sabots may affect the measurement accuracy (these effects are significantly reduced if a sabot stripper plate is used as shown);
- Allows the measurement of the velocity before and after the target with single radar.