

Blighter[®] B202/B303 Portable Radar Systems



Blighter's 'B202/B303 Portable Radar Systems' are fully integrated off-the-shelf GSRs (Ground Surveillance Radars). Their primary mission is the detection of walking or crawling persons and vehicles in cluttered environments. Additionally, they can detect drones deliberately being flown close to the ground in order to avoid detection.

The systems are designed for rapid deployment from Peli-style transit cases and/or backpacks and can be used for:

- Urban battlefield reconnaissance
- Remote border surveillance
- Camp protection
- Other covert operations

Deployment

The systems are ideally suited to vehicle-based operation and deployment. The Portable Radar Systems are supplied with a tall tripod allowing deployment on flat ground or from an elevated position on a hilltop or building. The systems may be powered from batteries or mains power and a wired Ethernet link is used to remotely operate the equipment.

The systems can be mains powered using the supplied 110/230 V mains PSU or can be DC powered using commonly available 12 to 24 V Li-ion

- Complete, fully integrated portable ground surveillance systems
- Covert day & night operation
- Moving target detection up to 8 km in range improves day/night vision
- Provides GPS coordinates of crawling or walking persons, vehicles & low-flying drones
- B202 Mk 2 90° radar for tactical deployment
- B303 180° radar for rapidly deployable remote surveillance
- Low power consumption with mains & battery power options
- User-defined geographic alert zones allow unattended monitoring
- Doppler audio feature to aid target type identification

or Lead-acid batteries. The systems are also supplied with a reel of network cable allowing the laptop to be operated in a more convenient location.

For ease of operation and training, the Windows-based laptop is pre-installed with the BlighterView HMI Command & Control (C2) package. This includes background mapping facility, target 'spotlighting mode' for Doppler audio target identification, and alert zone creation.

Coverage

The B202 Mk 2 radar covers a horizontal azimuth scan sector of 90°. The B303 radar covers a horizontal azimuth scan sector of 180°. For 360° surveillance a pair of B303 radar systems can be operated back-to-back with both radars displayed on a single laptop display. Both radar types provide a wide vertical elevation coverage up to 20° allowing good coverage of low ground when mounted high on buildings or the peaks and valleys in hilly terrain.

Summary

The B202/B303 Portable Radar Systems are complete, off-the-shelf, rapidly deployable ground target and low drone surveillance systems, with both mains and battery power options. Target speeds ranging from a crawl to over 400 km/h are all detected.

B202 Mk 2 Option (90° e-scan)



Bligher B202 Mk 2 Radar

Target Detection Performance

- Maximum detection ranges:
 - Crawling person (RCS 0.1 m²): 1.5 km (0.9 mi.)
 - Walking person (RCS 1 m²): 3.3 km (2.1 mi.)
 - Moving vehicle (RCS 30 m²): 8.0 km (5.0 mi.)
 - Large moving vehicle (RCS 100 m²): 8.0 km (5.0 mi.)

Coverage

- Instrumented maximum range: 5 or 8 km (3.1 or 5.0 mi.)
- Instrumented minimum range: less than 10 m (33 ft.)
- Azimuth scan angle: 90° horizontal e-scan
- Elevation beam: 20° vertical beamwidth

B303 Option (180° e-scan)



Bligher B303 Radar

Target Detection Performance

- Maximum detection ranges:
 - Crawling person (RCS 0.1 m²): 1.5 km (0.9 mi.)
 - Walking person (RCS 1 m²): 3.3 km (2.1 mi.)
 - Moving vehicle (RCS 30 m²): 8.0 km (5.0 mi.)
 - Large moving vehicle (RCS 100 m²): 8.0 km (5.0 mi.)

Coverage

- Instrumented maximum range: 5 or 8 km (3.1 or 5.0 mi.)
- Instrumented minimum range: less than 10 m (33 ft.)
- Azimuth scan angle: 180° horizontal e-scan
- Elevation beam: 20° vertical beamwidth

Off-the-shelf Bundles

Radar Bundle

- Bligher B202 Mk 2 or B303 portable radar unit
- Tall radar tripod
- Peli-style transit cases or backpacks to hold all items

Laptop Bundle

- Ruggedised Windows laptop, mains PSU and vehicle DC power adapter
- BligherView HMI C2 software (pre-installed)
- Peli-style transit cases or backpacks to hold all items

Network & Power Bundle

- Cat 5 network cable
- Cat 5 network cable extension reel
- 24 V DC power cable
- 24 V DC power cable extension reel
- Mains PSU (110/230 V AC to 24 V DC)
- Peli-style transit cases to hold all items

Errors and omissions excepted. Bligher Surveillance Systems Ltd reserves the right to modify specifications without notice. Bligher radars are protected by a number of international patents. The Bligher name is an international registered trademark.

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