

Operation

The target must always be used with its longest side vertical.
Switch the unit off when not in use to preserve the battery.

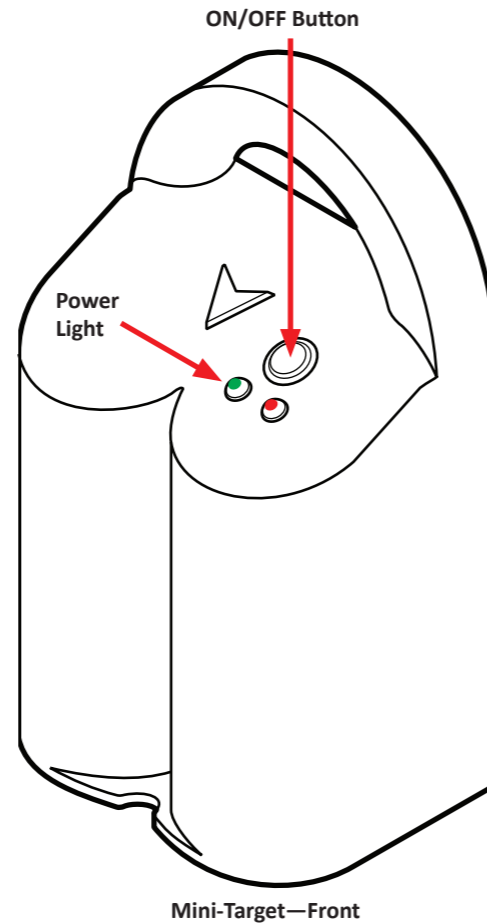
The target is water resistant to IP66.
However, do not submerge the unit in water.

To Switch the Target ON:

1. Press the **ON/OFF** button on the top of the unit.
2. The **green** light should be permanently lit when unit is in operation.

Under normal conditions with a fully charged battery, the rechargeable target will operate continuously for up to 640 hours before it needs recharging.

When the unit is switched on and no green light is shown, then the battery requires charging.



Charging

The rechargeable target should be fully charged before use.
A full charge takes approximately 24 hours.

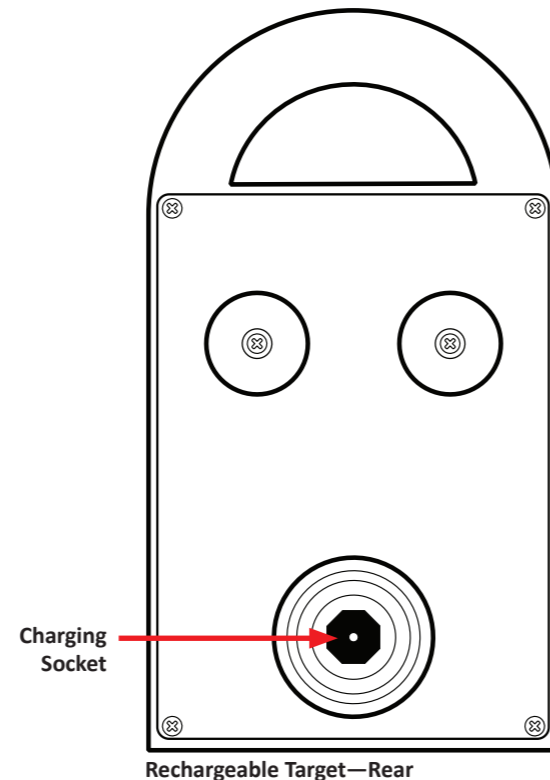
DO NOT charge targets in an explosive atmosphere or other hazardous environment.

The target should be switched off while charging. (Both lights off).

To Charge the Target:

Note: Only use the supplied charger.

1. Switch the target off and unscrew the charging socket cap on the rear of the unit.
2. Connect the supplied mains charger (Part No 39-0033-2). (Input: **100–240VAC, 50–60Hz, 1.5A** Output: **24VDC, 2.5A, 60W**).
3. When charging is complete, disconnect the power from the unit and replace the charging socket cap.



GUIDANCE NAVIGATION RadaScan Mini-Target Guide (Series 2)

Mini-Targets can be used with RadaScan and Mini-RadaScan systems.
One or more targets should be mounted on the target platform or vessel.

There are two models of Mini-Target:

- ▶ Rechargeable (Part No 20-0108-1-S2-*)
- ▶ Non-rechargeable (Part No 20-0110-1-S2-*)

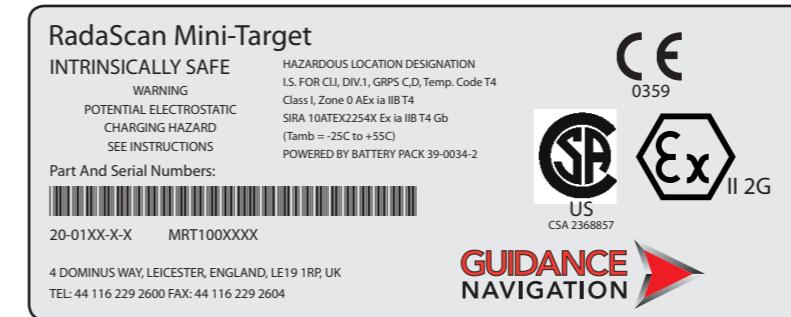
(The non-rechargeable variant requires battery pack replacement as routine maintenance. This should be undertaken by Guidance Navigation Limited, or a suitably qualified service technician).

Do not open the target. It should only be serviced by Guidance Navigation Limited, or a suitably qualified service technician.

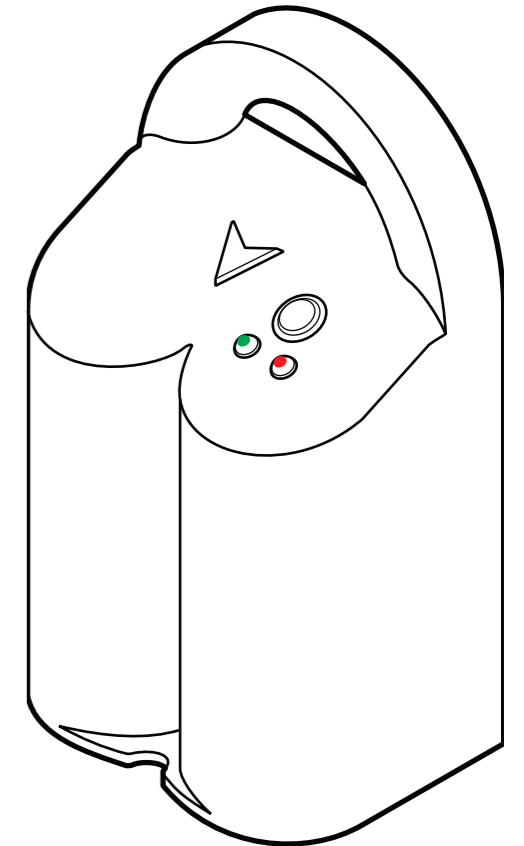
If you experience any problems with the unit, please contact:

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ATEX Certification Label



Instructions for Safe Selection, Installation, Use, Maintenance, Repair and Transport

User instructions (in compliance with ATEX 94/9/EC Directive, Annex II, 1.0.6)

Mini Target Part Numbers: **20-0108-1** and **20-0110-1**

ATEX Certificate Number: **SIRA 10ATEX2254X**

Use in Hazardous Environments

- ▶ Targets may be used in zones **0, 1, or 2** with flammable gases.
- ▶ Targets may be used in the presence of flammable gases and vapours with apparatus groups **IIB** or **IIA** and with temperature classes **T1** or **T2** or **T3** or **T4**.
- ▶ The equipment is certified for use in ambient temperatures in the range of **-25°C** to **+55°C** and should not be used outside this range.

Installation and Maintenance

- ▶ Targets must be installed by suitably trained personnel in accordance with the applicable code of practice (typically IEC EN 60079-14).
- ▶ Targets must be inspected regularly by suitably trained personnel in accordance with the applicable code of practice to ensure they are maintained in a satisfactory condition.
- ▶ Targets are not intended to be repaired by the user. They must only be repaired or serviced by Guidance Navigation Ltd, or by an approved service representative of Guidance Navigation Ltd, in accordance with the applicable code of practice.
- ▶ Targets do not require assembly or dismantling.
They do not contain any customer-replaceable parts, and no user adjustment is required.

Electrostatic Hazard

- ▶ Targets must not be installed where external conditions could cause an electrostatic build-up on their outer casing.
- ▶ The target's outer casing presents a **static hazard** and must only be cleaned using a **damp cloth**.

Corrosive Substances

- ▶ Targets should be protected from solvents, or acidic gases or liquids that may affect the integrity of its outer case.

Transport

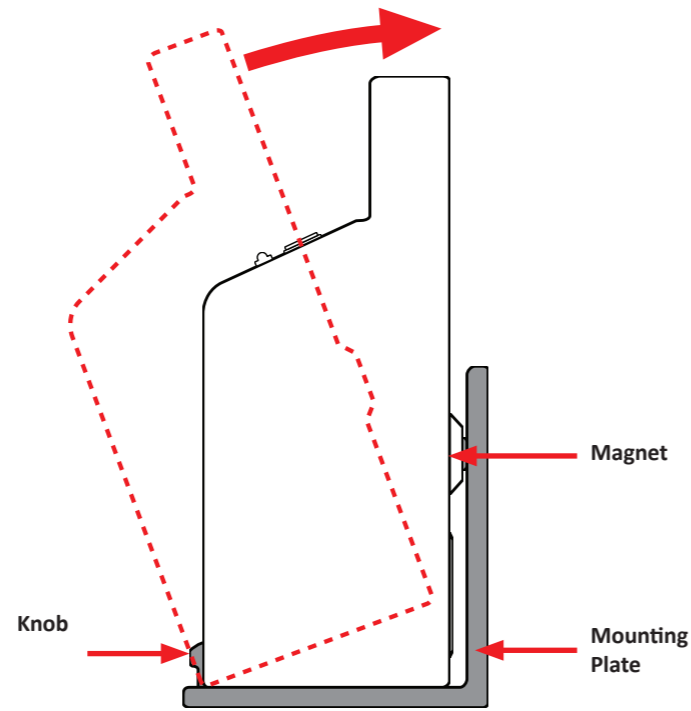
- ▶ Targets must be transported in a suitable transit case.

Mounting

The mini-target can be used with or without a swivel bracket, as long as it is mounted with its longest side vertical, and its carrying-handle at the top.

To Mount the Target:

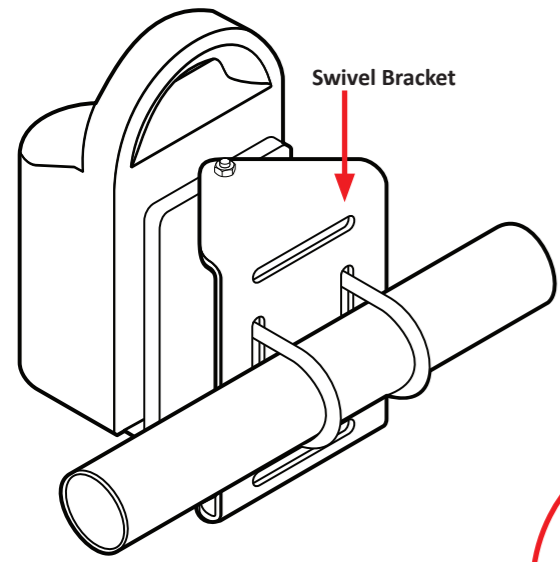
1. Hook the foot of the target underneath the knob on the bottom of the mounting plate. (See right).
2. Rotate the target backwards until it is held in place by its magnets against the mounting plate.



Swivel Bracket

The swivel bracket (Part № 21-0275-1) should be used to point the target towards the RadaScan vessels' working area. It can be mounted on either a horizontal or vertical bar:

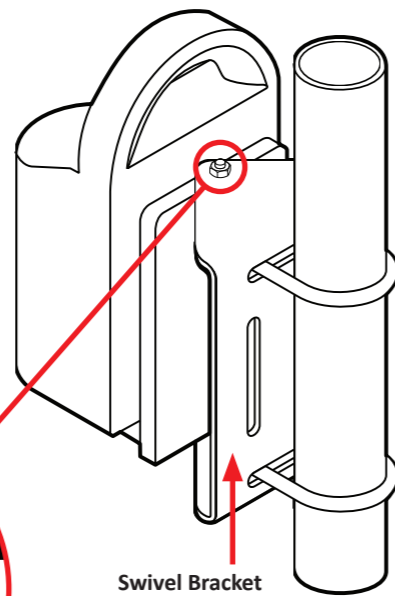
Mounting on Horizontal Bar



Loosen the nut to swivel the bracket in the required direction.

! Tighten the nut with a spanner to fix the bracket's position.

Mounting on Vertical Bar



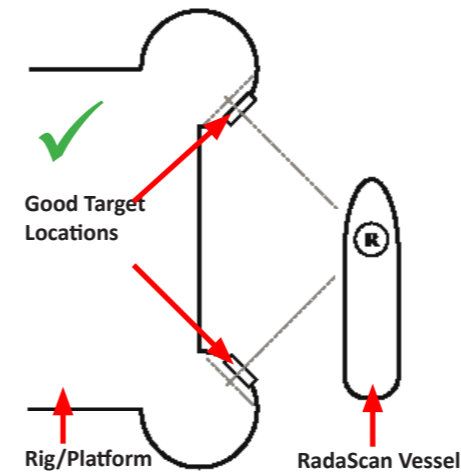
Positioning

The location, range and orientation of the targets in relation to the sensor have a significant effect on the tracking performance of the RadaScan / Mini-RadaScan systems, and hence on the quality of the position data sent to the DP system.

RadaScan is a radar-based system. Metallic structures reflect the microwave beam transmitted by the sensor, and can cause multipath interference, where ghost images are reported by the system. However, this unwanted phenomenon can be prevented by carefully positioning the targets according to the following guidelines:

Targets Should be Mounted:

- ✓ With a clear, unobstructed view towards the RadaScan-equipped vessel.
- ✓ At a height **no lower than two metres below** the vessel-mounted Sensor.
- ✓ At a height **no higher than five metres above** the vessel-mounted Sensor.
- ✓ On **outside corners** of the rig or platform to minimise the amount of metallic structure around them.

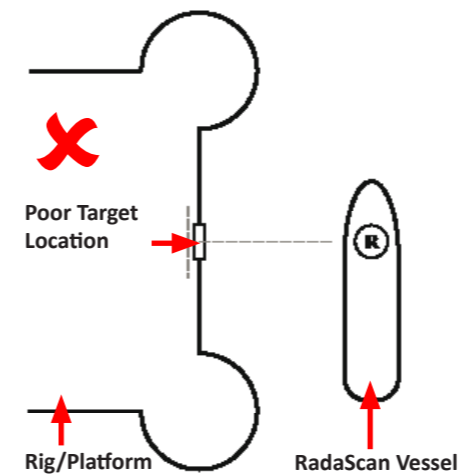


Good Location

✓	Good angle of incidence.
✓	Lower angle of elevation allows vessel to pick up target on approach.
✓	Longer range aids performance in high sea states.
✓	Usually clear of obstructions and away from enclosed corners.
✓	Provides adequate cover during vessel manoeuvres.

Targets Should NOT be Mounted:

- ✗ On inside corners.
- ✗ Below an overhang.
- ✗ On lower service decks below a main-deck overhang.



Poor Location

✓	Good angle of incidence.
✗	Steep angle of elevation prevents vessel from picking up target on approach.
✗	Shorter range inhibits performance in high sea states.
✗	Often surrounded by obstructions and radar-reflecting metalwork.
✗	Does not provide adequate cover during all vessel manoeuvres.