

Gradiometer Preparation

1 Set up (select 'quiet spot')

- Assemble gradiometer with arrows on sensors aligned in direction operator will walk. *Check left and right side*
- Position in low magnetic gradient environment
- Switch on and select appropriate settings from '*set parameters*' menu
- Allow warm up period of 10 to 15 minutes
- *Check operator is magnet metal free*
- Select '*start scan*'; hold instrument vertically facing in a constant direction.
- Scan area for site where meter reading does not vary by more than 1 or 2 nT for 1 metre in any direction.
- When convenient spot detected, raise sensors vertically from 30 to 60 cm above the ground.
- The reading from either sensor should not change by more than approximately 2 nT

Graadiometer Preparation

2 Adjust gradiometer

- Keep gradiometer centred over a fixed point
- Determine N, S, E and W and remove compass from area
- From '*main menu*' select '*adjust gradiometer*'
- Prompt; *point arrows north*- press green button - instrument beeps on completion

(Repeat for south, east and west)

- Prompt (facing west); *invert sensors* - press green button
- Prompt (still facing west); *restore sensors to normal position*
- Prompts (to face again); east, south and north . Display; *setup finished*
- Prompt; *press enter/ green button*

3 Check setup

- Select *Scan mode*

- Rotate gradiometer so that arrows point north, south, east and west over the setup area and note readings. (Results should be zero within the range +/- 1nT)
- Gradiometer now ready for survey.

Normal Survey operation

- *Check walk direction correct*
- Select **start survey**
- check grid number **AND RECORD IN BOOK**
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- Take up position behind the start line; as start line is crossed press green button
- At end of traverse **double bleep** indicates end.
- As next traverse is crossed press green button
- Continue till grid completed
- *Record min. max, mean and battery level.*

Surveying an 'abnormal shaped' grid

- Press **escape** at end of traverse (e.g. if traverse cannot be completed because of obstacle)
- Displays **Menu choice**
- Select **Finish and mirror**; press green button twice
- As next traverse is crossed press green button

Problems with survey

- Press **escape** at any time; data collection stops.
- Displays **Menu choice**

If an operator error occurs on a traverse select **back one trav.** This causes the display position number to return to 1 ready to start traverse again. Pressing enter further will cause Traverse number to be decremented. Having selected **new traverse** then press **escape**. Unit is returned to **survey mode** Continue from selected traverse.

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