

F) Check for magnetic objects near sensor. Examples would be buildings, surface metal, objects on the operator, etc.

G) Check for proximity of power lines. (Move away from lines and repeat step 2.)

H) Check for low battery voltage.

DATA ERR ON DISPLAY: (data error)

A) Power interrupted while taking a sample. (Push any key twice to make magnetometer continue to operate in Data Err mode.)

B) Lithium battery dead. (Contact Factory.)

CLEAR DATA ERROR:

A) First save any data that is stored by outputting data to computer (Push the [**OUTPUT**] button twice, then press [**ENTER**] to start output).

B) Next press [**ERASE**] button twice, while displaying DATA ERR, to clear data error.

Note: This will also erase all data.

NO DISPLAY:

A) Check battery cable connection.

LO BATT SIGNAL ON DISPLAY:

A) Replace battery.

DISPLAY READS FULL:

A) Memory is full. (Operator needs to output data to computer and then erase memory.)

DISPLAY READS GPS ERR

A) GPS is not connected or not receiving fix. (Connect GPS or change GPS Mode to Off)

UNIT FAILS TO OPERATE WITH GOOD BATTERIES:

A) Remove batteries, press Reset Switch (SW2) inside case. (Contact Factory.)

If troubleshooting with manual fails to solve problem, call *Geometrics Inc., Customer Service Department at: (408) 428-4254 or (408) 428-4236.*

PN 16606-02 Rev. X1

GEOMETRICS INC.

G857 Magnetometer

Pocket Reference Guide

NOTE: TUNE BEFORE SURVEYING

TUNING

1. Tune Magnetometer to highest signal value by taking a reading and then holding [**TUNE**] button down to read signal strength. Signal strength should be higher than 3.0 at best tuning value.
2. Check repeatability by cycling magnetometer a few times quickly in one spot. Repeatability should be better than 1.0 gamma.
3. Set Time, Julian Date and Line Number. Line Number should not be set to zero.
4. Begin survey.

TROUBLESHOOTING

LAST DIGIT TRUNCATES (*blanks out*) or *poor repeatability:*

- A) Check Tuning and Signal Strength.
- B) Check cables and connectors for broken contact.
- C) Check Auto Cap Tuning Value by pushing [**AUTO**], [**TUNE**], [**SHIFT**]. Value should read 00.2 for standard cable. Push [**CLEAR**] to escape without changing values.
- D) Check to make sure sensor and cables are not moving while cycling the unit.
- E) Check sensor for broken/loose coils inside. Check sensor for level of fluid. (Some sloshing is normal.)

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OPERATION SHORT REFERENCE GUIDE

1. Clearing a key sequence
[**CLEAR**]
2. Taking and storing a reading.
[**READ**], [**STORE**]
3. Recalling from Memory (last reading taken)
[**RECALL**]
4. Recalling from Memory (specific station number)
[**RECALL**], [**SHIFT**], [(station) #], [(station) #],
[(station) #], [**ENTER**]
5. Tuning the magnetometer
[**READ**], [**TUNE**], [**SHIFT**], [#], [#], [#],
[**ENTER**]
6. Erasing data (last reading)
[**READ**], [**RECALL**], [**ERASE**], [**ERASE**]

Erasing data (last group of readings)
[**RECALL**], [**SHIFT**], [(station) #], [(station) #],
[(station) #], [**ENTER**], [**ERASE**], [**ERASE**]

Erasing data (entire memory)
[**RECALL**], [**SHIFT**], [**0**], [**ENTER**],
[**ERASE**], [**ERASE**]
7. Reading Time and Line Number
[**TIME**] for current Time and Line Number.
(If Time is pressed while in Recall mode, see #3
above, Time/Line # will reflect when reading is
taken.)
8. Setting Line Number
[**TIME**], [**SHIFT**], [(line) #], [(line) #],
[(line) #], [**ENTER**]
9. Setting Julian Day and Time
[**AUTO**], [**TIME**], [**SHIFT**], [(day) #],
[(day) #], [(day) #], [(hour) #], [(hour) #],
[(min) #], [(min) #], [**ENTER**]
10. Starting Output
[**OUTPUT**], [**ENTER**]
11. Stopping Output
[**CLEAR**]
12. Setting Auto Cycle Mode
[**AUTO**], [**SHIFT**], [(seconds) #], [(seconds) #],
[(seconds) #], [**ENTER**]
13. Clearing Auto Cycle Mode
[**AUTO**], [**CLEAR**]
14. Setting GPS Mode On
[**AUTO**], [**FIELD**], [**ENTER**]
15. Setting GPS Mode Off
[**AUTO**], [**FIELD**], [**CLEAR**]
16. Setting Legacy Mode On
[**AUTO**], [**OUTPUT**], [**ENTER**]
17. Setting Legacy Mode Off
[**AUTO**], [**OUTPUT**], [**CLEAR**]