By continuously depressing $\boxed{\text{ENTER}}$ or $\boxed{\text{RECALL}}$ key when recalling readings, the readings will be automatically reviewed at an increasing rate; for example, the read out rate will start at one reading every half second, then increase within 10 seconds to 5-6 readings every second.

$\boxed{DATA}$ FIELD / TIME. Should data in memory become corrupted

Err STATION / DAY will be displayed whenever a key is depressed. However, even though this message is displayed, most keystroke sequences are valid. If the stored data are not totally corrupted, the stored information may still be reviewed or output to an RS-232 device to recover the remaining uncorrupted data. Once the data have been recovered the $\boxed{\text{ERASE}}$ key can be depressed twice to reset the instrument and completely clear the memory. See note on page 17

One way that memory may be corrupted is by removing power (either by disconnecting an external power device or by removing the internal batteries) while the G-856 is in an operating mode; e.g., auto cycle. In most cases only the last reading will be affected, so the remaining stored data should be transferred to a storage device (a computer or recorder). This transfer must be done before the ERASE ERASE sequence is followed or all of the data in memory will be lost. Until the error is cleared, you will not be able to reactivate the auto cycle mode.

Tuning

Tuning is accomplished automatically. When the automatic tuning function is activated, the tuning value is automatically updated after each field reading--unless a high gradient is being read. To activate the automatic tuning function press:

$\boxed{\text{AUTO}}$ $\boxed{\text{TUNE}}$ $\boxed{\text{ENTER}}$

This key sequence will activate the following displays:

Auto FIELD/TIME *A tunE* FIELD/TIME

x x STATION/DAY *oFF* STATION/DAY

While the automatic tuning function is enabled, the instrument cannot be manually tuned. The tuning value and signal level may be displayed but they cannot be changed. Attempts to manually tune the instrument will produce this display:

A tunE FIELD/TIME

Err STATION/DAY

Note: For best performance, manual tune the G-856 before taking the first reading of a survey area, then activate the automatic tuning function.

To deactivate the automatic tuning function

AUTO   TUNE   CLEAR

The display will be:

Auto   FIELD/TIME   *A tunE*   FIELD/TIME

x x   STATION/DAY   *on*   STATION/DAY

To determine whether the instrument is in the automatic running mode, press
AUTO   TUNE   The display will indicate whether the
automatic tuning is on

A tunE   FIELD/TIME

on   STATION/DAY

Or off *A tunE*   FIELD/TIME

off   STATION/DAY

To ensure the optimum performance of the automatic tuning function, the magnetometer tuning value should be matched to the capacitance of the sensor cable. Most Geometrics cables for portable sensors have a capacitance of .03 nano-farads per foot; thus, the standard portable sensor cable supplied with the G-856 has a total capacitance of 0.2 nano-farads. To match the instrument's automatic tuning function to this standard cable, press

AUTO   TUNE   SHIFT

The display will read

Auto FIELD/TIME *A tunE* FIELD/TIME

X X STATION/DAY *on* (or off) STATION/DAY

CAP FIELD/TIME *CAP* .FIELD/TIME

X X X STATION/DAY —— —— - —— STATION/DAY

Key in the capacitance of the sensor cable

SHIFT 0 SHIFT 0 AUTO

and press ENTER

Addendum to Memory Operation'

In the field mode, a reading can be taken and automatically stored each time

READ is depressed. To enter the auto store mode, depress the following keys:

AUTO STORE ENTER

To clear the auto store mode press:

AUTO STORE CLEAR

In the base station mode the G-856X can be configured to take readings even if the memory is full. In this auto erase mode, the earliest sixteen stored readings will be deleted and the instrument will continue to take readings. To enter the auto erase mode, depress the following keys:

AUTO ERASE ENTER

To clear the auto erase mode, depress:

AUTO ERASE CLEAR

To determine if either the Auto Store or the Auto Erase feature is ON or OFF, press

AUTO Then press either STORE or ERASE

The display will indicate whether the feature is ON or OFF.