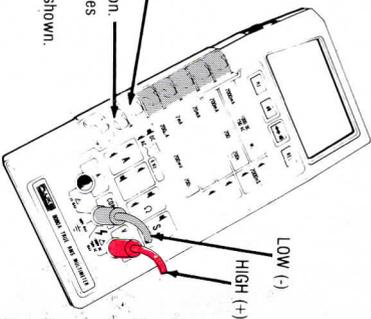


**REMOVE INPUT SIGNAL AND TEST LEADS FROM 8060A INPUT TERMINALS BEFORE OPENING THE BATTERY COMPARTMENT OR OTHERWISE ACCESSING OR TOUCHING THE FUSE AND/OR BATTERY. DO NOT OPERATE THE INSTRUMENT UNLESS BATTERY COVER IS IN PLACE AND FULLY CLOSED.**

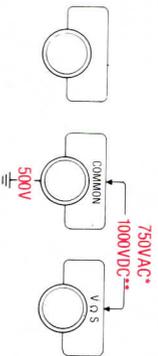
## VOLTAGE (V)



1. Select range.
2. Set AC/DC switch out for DC, in for AC.
3. Push switch in to select VOLTAGE function.
4. Ensure all other switches are out.
5. Connect test leads as shown.

### WARNING

**TO AVOID ELECTRICAL SHOCK AND/OR INSTRUMENT DAMAGE, OBSERVE THE FOLLOWING MAXIMUM LIMITS WHEN MEASURING VOLTAGE:**



*Protection on 200 mV range allows 20 sec max for overload, above 300V.*

*\*\*Protection on 200 mV and 2V ranges allow 20 sec max for overload above 300V.*

6. Connect the test probes to the circuit being measured and read the measured value on the display.

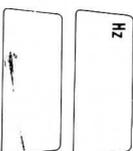
### HIGH IMPEDANCE DC VOLTAGE (Z in > 1000 MΩ)

1. Select the 200 mV or 2V range.
2. Set the AC/DC switch out for DC.
3. Ensure all other switches are out (including both function switches).
4. Follow steps 5 and 6 as listed above.

## FREQUENCY (Hz)

1. Push the AC/DC switch in to select AC.
2. Refer to the VOLTAGE function information and comply with the instructions (frequency measurement information are made in the AC VOLTAGE function). Select a voltage range so there is adequate input voltage for a stable reading (<10% of range).
3. Press **Hz** to enable the frequency. Hz or kHz indicates the unit.

- To cancel frequency press **Hz** (Hz or kHz disappears).

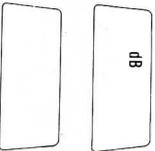


## DECIBEL (dB)

1. Refer to the VOLTAGE function information and comply with the instructions (dB measurements may be made with AC or DC VOLTAGE).

2. Press **dB**. The dB indicator appears and subsequent measurements are displayed in dbm referenced to a 600Ω impedance.

- To cancel dB, press **dB**.



*The reference impedance may be changed by applying the equivalent 0 dbm voltage for another reference impedance and pressing REL. Refer to the instruction manual for more information.*

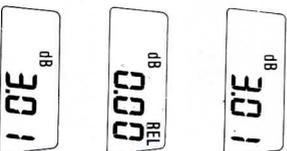
## RELATIVE (REL)

(May be used with V, A, Ω, S, dB, or Hz functions)

1. Take desired measurement (example shows a 3.01 dB measurement has been taken and displayed).

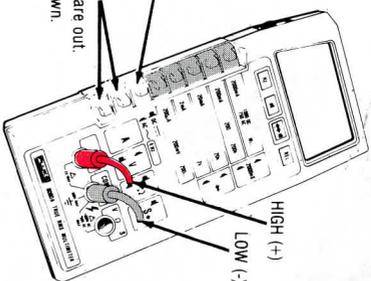
2. Press **REL** to store the next measured value as relative reference (display becomes zero and the REL indicator is displayed). The stored reference is subtracted from subsequent measurements.

- To cancel the relative reference, again press **REL**. The REL indicator disappears and the original measurement value is reestablished.
- Only one relative reference may be stored at a time. Storage of a reference removes any references previously stored.



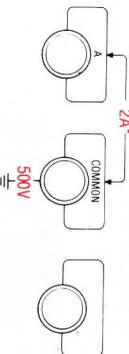
## CURRENT (A)

1. Select range.
2. Set AC/DC switch out for DC, in for AC.
3. Push both switches AT THE SAME TIME to select CURRENT function.
4. Ensure all other switches are out.
5. Connect test leads as shown.



### WARNING

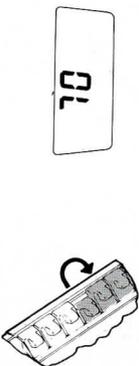
**TO AVOID ELECTRICAL SHOCK AND/OR INSTRUMENT DAMAGE, OBSERVE THE FOLLOWING MAXIMUM LIMITS WHEN MEASURING CURRENT:**



*\*Protected by 2A/250V fuse and 3A/600V backup fuse.*

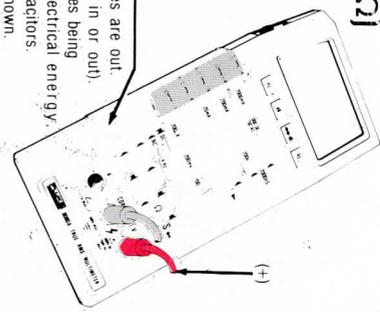
6. Connect the test probes to the circuit being measured and read the measured value on the display.

### OVERRANGE DISPLAY



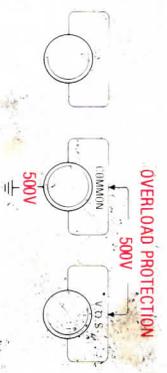
If the value of the parameter being measured exceeds the range selected, OL appears as an overrange indicator. Select the next higher range until an in-range reading is displayed.

## RESISTANCE (Ω)



1. Select range.
2. Push switch in for **RESISTANCE** function
3. Ensure all other switches are out. (AC/DC switch can be in or out).
4. Ensure that the devices being measured contain no electrical energy including charged capacitors
5. Connect test leads as shown.

**WARNING**  
**TO AVOID ELECTRICAL SHOCK AND/OR INSTRUMENT DAMAGE, OBSERVE THE FOLLOWING MAXIMUM LIMITS WHEN MEASURING RESISTANCE:**

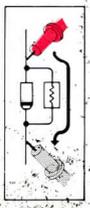


6. Connect the test leads to the circuit being measured and read the measured value on the display.  
**\*To select autoranging KΩ, push in both the MΩ and 200Ω switches AT THE SAME TIME.**

## IN-CIRCUIT RESISTANCE MEASUREMENTS

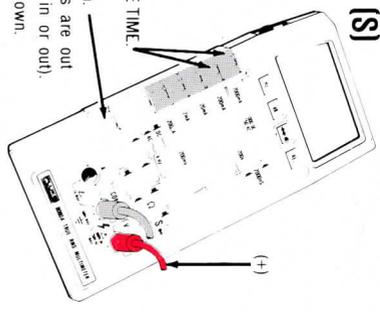
The 20MΩ, 2KΩ and 200 KΩ ranges are low power ohms ranges that can be used to measure resistance values connected in parallel with silicon junctions (autoranging MΩ and autoranging KΩ will turn on silicon junctions).

On these ranges the test voltage is less than the voltage required to turn on a normal silicon junction.



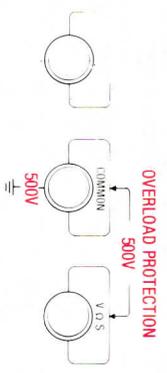
## CONDUCTANCE (S)

(Use for measuring resistance above 300 MΩ)



1. Push in the top two range switches marked **2000 nS AT THE SAME TIME**.
2. Push switch in for **CONDUCTANCE** function.
3. Ensure all other switches are out (AC/DC switch can be in or out).
4. Connect test leads as shown.

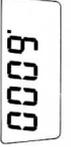
**WARNING**  
**TO AVOID ELECTRICAL SHOCK AND/OR INSTRUMENT DAMAGE, OBSERVE THE FOLLOWING MAXIMUM LIMITS WHEN MEASURING CONDUCTANCE:**



5. Connect the test leads to the circuit being measured and read the measured value on the display. Value s displayed in nanosiemens (nanosiemen= $nS$ ,  $1 nS=10^{-9}S$ ,  $S=1/\Omega$ ). Reciprocate displayed value to obtain equivalent resistance.

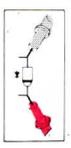
## DIODE TEST (→)

1. Push switch in for **DIODE TEST** (same switch as for **RESISTANCE** function).
2. Push in the two range switches marked with the diode symbol **→ AT THE SAME TIME**.
3. Connect the test probes as shown above for the **RESISTANCE** function.
4. Connect the test probes to forward bias the diode as shown below.



Typical reading for forward biased silicon diode.

Reverse the test probes to back bias the diode as shown below:

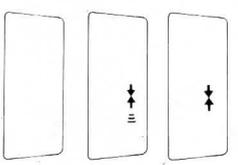


Overrange will be displayed provided parallel resistors are  $>2K\Omega$ .

- Displayed value is the forward voltage (2V range).

## CONTINUITY (→←)

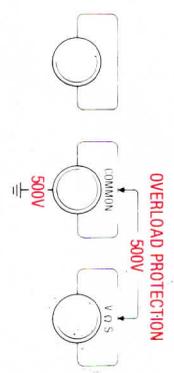
1. Select the **RESISTANCE** function and desired range (detection threshold is  $<10\%$  of range for fixed ranges,  $<20 K\Omega$  for MΩ range,  $<20\Omega$  for autoranging KΩ).
2. If visual continuity indication is desired, press **→←**.



If audible continuity indication is desired, press **→←** again:  
 (Press **→←** again to disable both).

3. Connect the test leads as shown for the **RESISTANCE** function.
4. Ensure that the device being measured contains no electrical energy, including charged capacitors.

**WARNING**  
**TO AVOID ELECTRICAL SHOCK AND/OR INSTRUMENT DAMAGE, OBSERVE THE FOLLOWING MAXIMUM LIMITS WHEN MEASURING CONTINUITY:**



5. Connect the test probes to the circuit being measured. Continuity between the test leads will cause the bar to appear on the display and the audible tone to sound (if enabled).



## FUSE CHECK (The A Input combines two fuses.)

1. Select the **RESISTANCE** function and the 2 KΩ range.
2. Touch the red test probe to the A input jack so that the VCS input and the A input are shorted together.
  - If the display reads  $1000 \pm 0100 K\Omega$ , both fuses are good. If the display reads 0L, one or both need replacement.

### BATTERY/FUSE TYPES

**MAIN FUSE:** 2A/250V Type AGX2 (inside battery compartment)  
**BACKUP FUSE:** 5A/600V Type BBS-3 (inside instrument case).

### Caution

Replacement of backup fuse by qualified personnel only. See instruction manual.

**BATTERY:** 9V carbon-zinc or alkaline NEDA Type #1604.

- BT appears on display when approximately 20% of battery life remains.