

# SUN MEA-1500

## Enhanced Analog Scope Option Operating Instructions

### GENERAL DESCRIPTION

The enhanced analog scope option for the MEA-1500 adds a pinpoint test mode to the MEA's capabilities. Signals from components such as fuel injectors, M/C solenoids and O<sub>2</sub> sensors can be displayed and measured using the MEA's scope and the VEHICLE TEST page. The VOLT-OHM leads must be connected to the desired component to receive a signal and display a waveform.

The pinpoint test mode is entered by twice depressing the SPECIAL key on the MEA remote control. The scope will automatically display a SUPERIMPOSED waveform pattern received from the VOLT-OHM leads. The second line of the VEHICLE TEST page will display the signal's duty cycle and frequency as expressed in percent and Hertz (Hz).

Three vertical voltage scales (5V, 25V, 50V) can be selected sequentially by pressing the

SCALE key on the remote control. Three horizontal time sweep scales (5 MSEC, 25 MSEC and 100 MSEC) can be selected sequentially by pressing the MSEC key. Refer to the control chart for details.





### Test Procedure

1. Perform MEA-1500 warm-up, calibration set-up and vehicle connections as indicated in the MEA-1500 Operator's Manual.
2. Connect the VOLT-OHM leads in parallel across the circuit to be tested.
3. Select the pinpoint test mode by pressing the SPECIAL key twice.
4. Select the vertical/horizontal scales to be used by pressing the SCALE or MSEC keys successively.
5. Select the trigger polarity by pressing the +/- key.

VEHICLE TEST			
RPM		797	RPM
SPECIAL	21.6 %	66.7	HZ
STROBE TIMING		18.3	DEG
DC VOLTAGE		12.89	VOLTS
BATTERY		13.8	VOLTS
CURRENT		0.2	AMPS
VACUUM		0.0	"HG
COIL (+)		(NOT ACTIVE)	
HC		(NOT ACTIVE)	
CO		(NOT ACTIVE)	
O <sub>2</sub>		(NOT ACTIVE)	
CO <sub>2</sub>		(NOT ACTIVE)	
MAG OFFSET	-	0.0	8 CYL
PINPT	-	SUPER	50V 5 MSEC

*Pinpoint test mode settings will appear for a short time in reverse video at the bottom of the VDU, including the mode, trigger, polarity, vertical scale and horizontal scale. The second line of the VDU will show signal duty cycle and frequency readings.*

# PINPOINT TEST MODE CONTROL

FUNCTION	KEY	SELECTIONS	NOTES
Select Pinpoint Test Mode		1) Twice To Enter 2) Once To Exit	In the normal SUPERIMPOSED Mode, if the time between adjacent signals is less than 5 MSEC, multiple patterns will appear on the scope similar to DISPLAY Mode.
Select Vertical Scales		5V 25V 50V	Trigger Voltage Threshold Minimums: 1V 5V 10V
Select Horizontal Sweep Rate		5 MSEC 25 MSEC 100 MSEC	In the MSEC Mode, a full time period will be shown regardless of the number of pulses which may appear during that time.
Select Trigger Polarity		+: Amplitude or signal rising edge -: Decline or signal falling edge	The scope will not trigger on signals below 0 volts unless the polarity switch, on the rear of unit, is put in the Positive position; or the VOLT-OHM leads are reversed.