



SUN ELECTRIC

Model: MCS-2500
SERIAL B
UNIT SETUP

Page: 1 of 5

Installation Instructions

**INSTALLATION MUST BE PERFORMED
BY
QUALIFIED SUN PERSONNEL ONLY**

INSTALLATION OVERVIEW: _____

The Installation Instructions listed are for the various versions of the MCS-2500 Serial B. The unit is shipped as a fully assembled unit except for the items as listed in the Parts List.

PARTS & ACCESSORIES LIST: _____

PART NUMBER	DESCRIPTION	-0-0 -0-3	-1-0	-1-0 SP	-2-0	-2-3	-3-0 -4-0 -7-0
0002-0133-15	Jumper wire, 15"	-	-	-	1	1	1
0119-0388-01	Literature Kit	1	1	1	1	1	1
0301-0944-01	Filter Element, 75 microns	-	-	1	-	1	1
0301-0945-01	Filter Element, 8 microns	-	-	1	-	1	1
0507-0025-01	Probe Assembly	-	-	1	-	1	1
0552-0043	Adapter	-	1	1	1	1	1
0552-0044	Adapter	-	1	1	1	1	1
0552-0045	Adapter	-	1	1	1	1	1
0552-0103-01	Mouse Pad	1	1	-	1	1	1
0552-0116-01	Mouse, Three Button Black	1	1	1	1	1	1
0552-0117-01	Keyboard, Black	1	1	1	1	1	1
0552-0959-06	Document Booklet	-	-	1	-	1	1
0647-0170	Tee	-	-	1	1	2	2
0669-0220	Hose, Poly, 1/4" diameter	-	-	20"	-	1.67ft	1.67ft
0669-0623	Hose, 1/8 x 5/16 x 6	-	-	1	1	2	2
0669-0733	Hose, 3/16 x 5/16 x 6	-	-	1	1	2	2
0669-0734	Hose, 1/4 x 7/16 x 6	-	-	1	1	2	2
0682-1049-01	Label, Stickers	-	1	1	1	1	1
0682-1109-01	Label, Keyboard	-	1	-	1	1	1
0692-1834-01	SEL 1403C Questionnaire	1	1	-	1	1	1
0692-2293-01	QR Card, Printer	-	-	-	1	1	1
0692-2412-01	Installation Instructions	1	1	1	1	1	1
0718-0103	Cable Clamp	-	-	-	-	-	1
0787-0035	Cap	-	-	1	-	1	1
1091-0303-01	Boom Kit	-	1	1	1	1	1

PART NUMBER	DESCRIPTION	-0-0	-1-0	-1-0	-2-0	-2-3	-3-0
		-0-3		SP			-4-0 -7-0
1747-0101	Pattern Pickup, Chrome	-	1	1	1	1	1
1747-0102	HEI Pickup	-	1	1	1	1	1
3988-0255-01	Exhaust Hose Assembly	-	-	1	-	1	1
6002-0346	Lead Assembly	-	-	-	1	2	2
6002-0349	Jumper	-	-	-	1	1	1
6004-0407	Test Lead, Low Temperature	-	-	-	1	1	1
6004-0462	Volt/Ohm Test Lead, Pink	-	1	-	1	1	1
6004-0544-02	Pattern, Dual Assembly	-	2	-	2	2	2
6004-0606-01	Cable, Telephone	-	-	-	-	-	1
6004-0763-02	Pattern Lead Conventional	-	1	-	1	1	1
6004-0768-01	Cable Assembly, VIP	-	1	-	1	1	1
6004-0775-02	DIL Y Adapter	-	1	-	1	1	1
6004-0819-01	Adapter, Universal Pattern	-	1	1	1	1	1
6005-0171-03	Current Pickup	-	-	-	1	1	1
6005-0182-02	Universal Test Lead Assy.	-	1	-	1	1	1
6006-0003	Vacuum Hose	-	-	-	-	1	1
6006-0003-02	Vacuum Hose	-	-	1	1	1	1
7009-1374-08	Timing Light Assembly	-	-	-	1	1	1
7009-1869-01	Exhaust Probe Assembly	-	-	1	-	1	1
7009-1921-03	Remote Assembly	-	-	-	1	1	1
7009-2325-02	Trigger Lead Assembly	-	1	-	1	1	1
7009-2334-03	Mag Probe, Test Lead	-	-	-	1	1	1
7009-2377-01	VIP 2 Assembly.	-	-	-	1	1	1
7049-0004-01	O ₂ Sensor	-	-	1	-	1	1
7054-0056	Adapter, Ford F1 Mag	-	-	-	1	1	1
7054-0057	Adapter, Early Chrysler C1	-	-	-	1	1	1
7054-0060	Adapter, Ford F2 Mag	-	-	-	1	1	1
7054-0062	Adapter, Chrysler C2 Mag	-	-	-	1	1	1
EAA0084C01A	VIP 1 Assembly	-	1	1	1	1	1

REQUIRED TOOLS: _____

Complete Tool Kit
Anti-Static Kit

INSTALLATION INSTRUCTIONS: _____

	WARNING!
USE STANDARD ANTI-STATIC PROCEDURES WHILE PERFORMING THESE INSTALLATION INSTRUCTIONS	

	WARNING!
BEFORE REMOVING ANY PACKING MATERIAL, REMOVE THE VIP ASSEMBLIES FROM THE FOAM PACKING ADJACENT TO THE MONITOR IN THE TOP OF THE CARTON.	

NOTE: If a step indicates that it is for a particular option and that option is not available for the unit being set up, disregard the step and go to the next step.

1. Cut Straps and remove the top of the carton.
2. After removing the VIP assemblies from the foam packing, remove the carton sides and the top foam packing.
3. If there is no foam collar around the base of the monitor, there will be a two piece cardboard collar in the packing carton. Insert this collar under and around the base of the monitor to support it during the uncrating process.
4. Slide the MCS-2500 Serial B and carton base off the pallet. Split the corners of the base carton.
5. Lean the MCS-2500 Serial B so that one half of the foam base can be removed.
6. Lean the MCS-2500 Serial B so the other half of the foam base can be removed.
7. Remove the two piece cardboard or foam collar from around the base of the monitor.

NOTE: It is recommended that this packing be retained in case the unit has to be transported at a later date.

8. Open the computer door and remove the cardboard inserted behind it.
9. Open the keyboard drawer and remove the bubble wrap taped to the keyboard.
10. Pull the printer drawer out and cut the tie wrap holding the bubble wrap. Remove the bubble wrap.
11. Lift the Printer Cover and cut the tie wrap holding the Print Head.
12. Inventory all items using the Parts and Accessories Lists and inspect for damage. The parts are located in the accessories bag in the bottom drawer of the unit.
13. Clean the keyboard surface to remove dirt and dust. Peel the backing off the Keyboard Label (0682-1109-01) and place the label around the Function keys as shown in Figure 1.

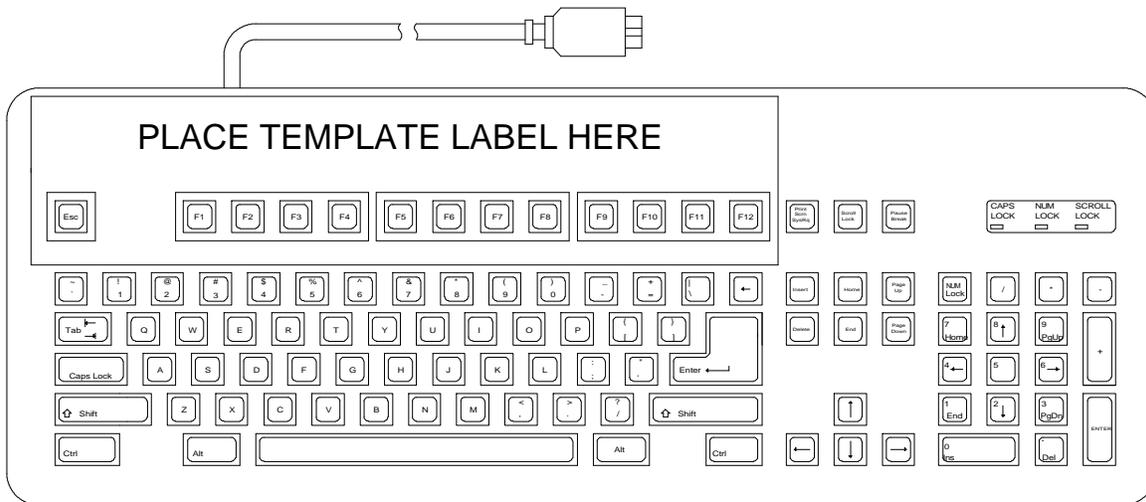


Figure 1 Keyboard Label

14. Install the Mouse (0552-0116-01) and connect the Mouse cable to com 2 connector on the back of the unit. The Connector is located on the I/O PCB above the printer cable connection.
15. Install the Boom Kit (1091-0303-01) following the installation instructions enclosed in the Boom Kit box.
16. Install the VIP modules by hooking them onto the end of the boom in the slot provided.
17. Connect the female end of the VIP Cable Assembly (6004-0768-01) to the MCS Interface connector on the VIP 1 Module.

Installation Instructions continued...

18. Route the Cable through the Boom and connect the male end of the VIP Cable Assembly (6004-0768-01) to the VIP Interface connector on the rear of the MCS-2500 Serial B.
19. Connect the Trigger Pickup and Lead Assembly (7009-2325-02) to the Trigger Connector on the VIP 1 Module.
20. Connect the Conventional, Blue Pattern Lead (6004-0763-02) to the Secondary Connector on the VIP 1 Module.
21. Connect the Volt/Ohm Test Lead (6004-0462) to the Volt/Ohm Connector on the VIP 1 Module.
22. Connect the Timing Light Assembly (7009-1374-08) to the Timing Connector on the VIP 2 Module.
23. Connect the Vacuum Hose (6006-0003-02) to the vacuum port on the VIP 2 Module
24. Connect the Low Temperature Test Lead (6004-0407) to the Temperature Connector on the VIP-2 Module.
25. Connect the Amp Probe Assembly (6005-0171-03) to the Amps Connector of the VIP 2 Module.
26. Connect the Remote Control Assembly (7009-1921-03) to the Remote Connector on the rear of the unit.
27. Connect the Exhaust Probe Assembly (7009-1869-01) to the Exhaust Hose (3988-0255-01).
28. Connect the hose to the Inlet Port on the Primary Filter Assembly making sure the connection is tight.
29. Connect the 1/4" Poly Hose (0669-0220) to the Water Outlet Port on the Primary Filter Assembly.
30. Locate the Oxygen Sensor (7049-0004-01), Remove the Oxygen Sensor Cover from the IR Drawer, install the Oxygen Sensor into the mounting block and connect the wiring harness to the top of the sensor. Reinstall the cover over the sensor and mounting block.
31. Place the remaining accessories in the storage drawer of the MCS-2500.

SETUP: _____

1. Plug unit into outlet and turn on power.
2. From the MCS menu select #1 VIP.
3. Allow unit to warm-up and verify that all items on the calibration page are all green. If not go to Troubleshooting.
4. If VIP 2 is all black, go to Vehicle set-up page and select **Utils**, then **Options**, turn VIP 2 on and then choose **Continue**.
5. Follow the procedure in chapter 15 of the MCS-2500 Service Manual; perform a full hardware and software calibration of the IR Bench.
6. Exit to the Main Menu.
7. Fill out Quality Control Questionnaire (0692-1834-01) and mail to address on questionnaire.

NOTE: Any REGISTRATION CARDS for the installed software such as Microsoft® DOS must be filled out and sent in by the customer to ensure compliance with any software licensing agreements.

INSTALLATION/SETUP COMPLETE

TROUBLESHOOTING SECTION: _____

COMPLAINT	CORRECTIVE ACTION
I. Program disk will not load.	Defective program disk; call Sun Electric Parts Department for replacement diskette at 1-800 CALL SUN and select 2 for Parts.
II. Will Not Accept Validation Code Number.	Defective program disk; call Sun Electric Parts Department for replacement diskette at 1-800 CALL SUN and select 2 for Parts.
III. Write protect error cannot write to drive A. Abort, Retry, Ignore, Fail	<p>Check Diskette write protect tab; it should be in the closed position (write enabled).</p> <ul style="list-style-type: none"> If not, close write protect tab; reinsert disk into Disk Drive A and Press R for Retry. Once write protect error is corrected, if unit returns to the A prompt, type I n s t a l l and ↵
IV. Amps, Vacuum and Oil Temperature are Black	<ol style="list-style-type: none"> Vip 2 may not be installed. Press Š from the Calibration page. Select number 6 (Utils) from the Menu. Select number 7 (Options). Verify that the VIP2 is installed. The button should be White. If it is not then select <VIP2 INSTALLED>. Press Š , choose Status from the menu then Calibration to ensure that Amps, Vacuum and Oil Temperature calibrate.

PLACE THESE INSTALLATION INSTRUCTIONS IN THE SERVICE MANUAL FOR THE MCS-2500