



SUN ELECTRIC CORPORATION

Model: MGA-9000 Nevada (NV)
Unit Setup

Page: Page 1 of 4

Field Installation Instructions

INSTALLATION MUST BE PERFORMED BY QUALIFIED SUN SERVICE PERSONNEL ONLY

INSTALLATION OVERVIEW:

The MGA-9000 NV is shipped as a fully assembled unit, with the exception of the Keyboard and accessories.

PARTS AND ACCESSORIES LIST:

PART NUMBER	DESCRIPTION	QTY
0124-0105-01	Hook	1
0131-0024	Gas Bottle Regulator	2
0144-0010-01	Rubber Tie Down Strap	1
0301-0944-01	Filter Element, 75 Micron	4
0301-0945-01	Filter Element, 8 Micron	4
0403-1451-08	#8-32x1/2 Screw	2
0424-0804-01	Velcro Loop	1
0424-0804-02	Velcro Hook	1
0528-0995	Ribbon, Printer	2
0552-0072-01	1.44 Meg Floppy Unformatted	1
0552-0104-01	DOS Software Version 6.22	1
0552-0990-01	Keyboard, 101 Style AT/XT	1
0552-0993-01	Protector, Keyboard	1
0647-0069	Brass Fitting	2
0682-0808-01	Label, Service Call	1
0682-1041-01	Label, Keyboard	1
0718-0103	Modem Cable Clamp	1
0758-0200-01	Plug, Metal Protector	2
1374-0110-01	Hole Plug	6
2161-0023	Lead Hanger	2
3988-0230-01	Hose Assy, Exhaust 3/16	1
3988-0231-01	Hose Assy , Exhaust Dual 3/16	1
6004-0262-05	Cable Assy , Trigger Pickup	1

PARTS AND ACCESSORIES LIST Continued:

PART NUMBER	DESCRIPTION	QTY
6004-0462	Test Lead	1
6004-0566-01	Cable Assy, Tach Lead	1
6004-0606-01	Cable, External Modem	1
6005-0181-01	Adapter Assy , Nissan Pulsar/Quad 4	1
6005-0184-01	Adapter, Rpm, BMW	1
6005-0184-02	Adapter, Rpm, Acura	1
7009-1700	Adapter Kit (Leak Check Adapter)	1
7009-1869	Probe Exhaust Assy.	2
7009-1929	Trigger Pickup Assy .	1
7009-2035-01	Hose, Low Scale Gas ID Tag	1
7009-2035-02	Hose, Mid Scale Gas ID Tag	1
7009-2223-01	Adapter, Rpm, Nissan 300ZX Turbo	1

REQUIRED TOOLS:

SERVICE BOX (0001 -0062-09)	MID GAS BOTTLE (0271 -0066-01)
LOW GAS BOTTLE (0271 -0062-01)	FLOW METER (7009-1 731)
ANTI-STATIC KIT	SERVICE KEYS
COMPLETE SUN ISSUED TOOL KIT	

INSTALLATION INSTRUCTIONS:

NOTE: USE STANDARD ANTI-STATIC PROCEDURES WHILE PERFORMING THIS PROCEDURE

1. Cut the Straps, and remove the top of the carton, top packing, and carton sides.
2. Slide the MGA-9000 NV and carton base off of the pallet, and split the corners of the base carton.
3. Lean the MGA-9000 NV so that one half of the foam base can be removed.
4. Lean the **MGA-9000** NV so the other half of the foam base can be removed.
5. Open the Computer Drawer and ensure the boards are seated properly in each backplane. **Visually** inspect all connectors, making sure they are all properly connected.

NOTE: Connector P720 *is* norms//y *not* connected *and is used for the PC Floppy option*.

6. Using the Service Box, plug into J424 on the System Interface Board.
7. Remove P412 from the Systems Storage Board and plug the Service Box in its place. Then reconnect P412 from hard drive into the T-Connector on the Service Box. Hang the Service Box on the side of the Computer Drawer.
8. Check for proper AC and GROUND connections at the outlet before turning the unit on.

9. Place the Operate/Standby switch into the operate position.
10. Remove the Keyboard from its box and plug the connector into the Keyboard jack on the front of the tester. Mount one strip of Velcro on the bottom of the Keyboard. Now, attach the mating Velcro, remove the backing, and place the Keyboard in its proper position.
11. Turn the Keyboard over and verify that the Dip Switches are correct. SW1 should be "OFF", SW2 can be in either position.
12. Plug the tester into an A/C outlet. Press the Circuit Breaker/Switch on the rear of the Computer Drawer.
13. Load Software using the Service Box by selecting #4 from the Menu (on some service boxes this will be automatic). It takes 8-10 minutes for this procedure to be completed, so while Software is loading, continue.
14. Verify that the parts and accessories listed are all present on the bottom shelf of the MGA-9000 NV.
15. Remove all tape from the Lower Printer and remove the carriage cover to gain access to the print head. Ensure that the printer ribbon cartridge is installed properly and remove the plastic stop that secures the print head.
16. Perform the same procedure to the Upper Printer.
17. Load a package of printer paper into the lower Printer.
18. Insert the 6 Hole Plugs (1374-0110-01) into the six holes, just above the casters, on the base of the tester.
19. Using the two **8-32x1/2"** screws (0403-1451-08), install the two hangers (2161-0023) into the slots on the rear of the Computer Drawer.
20. Using the two 1/4"-20 Keps Nuts (supplied with the tester), mount the 4" round hook (0124-01 05-01) to the bottom shelf in the rear of the tester. This is used to attach the rubber cord and secure the gas bottles to the shelf.
21. Place the Modem Cable Clamp (071 8-01 03) around the Modem Cable. Mount Clamp with hanger screw. Position Clamp so if the Modem Cable disconnected from unit it will not hang closer than 18" from the floor. (See bulletin #663)
22. Connect the Tach Lead, Volt/Ohm Lead, Leak Check Adapter, Drain hose for Aspirator, and Exhaust Hose to their perspective connections.
23. Cut the Drain Hose just enough so it does not reach the Exhaust Port Outlet.
24. Attach the Exhaust Probes to the two Exhaust Hoses, and place the short hose in the storage shelf in the rear, along with all the Tach Pickups, Anti-Dilution Probe, Filters, Printer Ribbon, and the DOS 6.22 Package.
25. Attach the regulators to the two gas bottles, and attach the two brass fittings to the regulators.
26. Attach the hose, with label, to the proper tanks.
27. At this time, the software should be loaded as indicated on the Screen. Power the MGA-9000 NV down using the Circuit Breaker/Switch on the back panel and remove the Service Box.

28. After reconnecting all cables, press the Circuit Breaker/Switch to power up the MGA-9000 NV. The MGA will perform systems test and prompt you for the Service access code. Enter it.
29. From the Service Menu, select "Manual Calibration". Select "Cal Port 1" and press **<Enter>**.
30. With the IR Pump "ON", connect the Flow Gauge to the Exhaust **Port**, and record the flow rate.
31. Press **<Enter>**, select "Cal Port 2", and press **<Enter>**. Record the Flow rate again.
32. Disconnect the Flow Gauge from the Exhaust **Port** and connect it to the Mid Gas Tank. Turn the tank on and adjust the Regulator to match the flow of Cal Port 1.
33. Disconnect the Flow Gauge from the Mid Gas Tank and connect it to the Low Gas Tank. Turn the tank on and adjust the Regulator to match the flow of Cal Port 2.
34. Place the Tanks in the bottom of the cabinet, strapping them down with the Tie-Down Strap. Connect the Mid Gas Hose to Cal Port 1, and the Low Gas Hose to Cal Port 2.
35. Press **cENTER>**, then **<MENU>** to return back to the Service Menu.
36. Select "Audit Functions", then select "Reset Date and Time". Follow the prompts on this page to enter the correct time and Date, including Daylight Saving Time or Standard Time.
37. Press **<MENU>** twice to return back to the Service Menu.
38. Select "Device Setup" from the Service Menu. Follow the prompts to enable the proper options for this MGA-9000.
39. Press **<MENU>** to return back to the Service Menu. Select "Service Mode Exit".
40. From the Main Menu Select "Analyzer Maintenance".
41. From the "Analyzer Maintenance Menu", select "Three Day Gas Calibration and Leak Check".
42. Follow the prompts on the screen to perform the Three Day Gas Calibration and Leak Check.
43. All other parameters are to be left empty and the unit is to be left in LOCKOUT until the State Representative can come and certify the site.
44. Fill out the Quality Control Questionnaire and send it back to the address listed on it.
45. Present operators manual to the customer,

* **SETUP COMPLETE***
