Field Installation Instructions

INSTALLATION MUST BE PERFORMED BY QUALIFIED SUN SERVICE PERSONNEL ONLY

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

PARTS LIST

QUAN.	PART NO.	DESCRIPTION	QUAN.	PART NO.	DESCRIPTION
1	0124-0105-01	Hook, 4"	2	2161-0023	Lead Hanger
2	0131-0024	Regulator	1	3988-0230-01	Exhaust Hose, Long
1	0144-0010-01	Rubber Strap	1	3988-0231-01	Exhaust Hose, Short
4	0301-0944-01	Filter, 75 Micron	1	6004-0262-05	Trigger Lead, Short
4	0301-0945-01	Filter, 8 Micron	1	6004-0462	Volt/Ohm Lead
2	0403-1541-08	Screws, **10-32x1/2"**	1	6004-0566-01	Tach Lead (Blue)
1	0424-0804-01	Velcro loop	1	6005-0181-01	Quad 4 Nissan Adapt
1	0424-0804-02	Velcro Hook	1	6005-0184-01	BMW Adapter
2	0528-0995	Printer Ribbon	1	6005-0184-02	Acura Adapter
1	0552-0072-01	1.44 Floppy	1	7009-1700	Adapter Kit
1	0552-0104-01	**Dos** 6.22 package	2	7009-1869	Exhaust Probe **Assy.**
1	0552-0990-01	Keyboard, 101 key	1	7009-1929	Trigger Pickup, Blk
1	0552-0993-01	Keyboard Protector	1	7009-2035-01	Hose, **Restrictor**
2	0647-0069	Brass Fitting	1	7009-2035-02	Hose, Restrictor
1	0682-0808-01	Label, Service Call	1	7009-2223-01	Nissan 300ZX Adpt.
1	0682-1041-01	Label, Keyboard	8"	8200-0100-01	Tubing (8")
2	0758-0200-01	Hose Protective Cap	1	0718-0103	Clamp **Assy.**
6	1374-0110-01	Black Plastic Plug			
1	6004-0606-01	Cable **assy.**			

REQUIRED TOOLS

Service Box	Nut Drivers	Service Key (215)
High Gas bottle	Low Gas bottle	Flow Gauge

INSTALLATION

1. Cut the Straps, and remove the top of the carton, top packing, and carton sides.

2. Slide the **MGA-9000** and carton base off of the pallet, and split the corners of the base carton.

3. Lean the **MGA-9000** so that one half of the foam base can be removed.

4.   Lean the **MGA-9000** 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 normally 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 before turning the unit on.

9.   Plug the tester into an A/C outlet, press the Circuit Breaker/Switch on the rear of the computer drawer.

10. Place the Operate/Standby switch into the operate position.

11. Load Software using the Service Box. On early boxes this procedure is completely automatic and needs no operator assistance. On **later** versions this will have to be selected from the Menu. It takes 8-10 minutes for this procedure to be completed, so while Software is loading, continue.

12. Verify that the accessories listed on the first page are all present on the bottom shelf of the MGA-9000.

13. Remove the keyboard from its box and plug the connector into the keyboard jack on the front of the tester. Mount the 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.

14. Turn the keyboard over and verify that the Dip Switches are correct.

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 black plastic plugs into the six holes, just above casters, on the base of the tester.

19. Using the two **10-32x1/2"** screws, install the two hangers into the slots on the rear of the computer drawer.

20. Mount 4" round hook 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. Modem Option: Place the clamp around the telephone cable. Mount clamp with hanger screw. Position clamp so **if** disconnected from unit it will not hang closer then 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** down **using** the Circuit Breaker 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.** 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. From **the** State Menu, **select** "Set Time and Date". Follow the prompts on this page to enter the correct time and Date, including Daylight Saving Time or Standard Time.

36. From the "Station Menu", select "Three Day Calibration".

37. Follow the prompts on the screen to perform the Three Day Gas Cal.

38. All other parameter are to be left empty and the unit is to be left in LOCKOUT until the State Representative can come and certify the site.

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* SET UP COMPLETE *
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