EQUIPMENT SERVICE ON SITE



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## **Installation Instructions**

## INSTALLATION MUST BE PERFORMED BY QUALIFIED EQUISERV PERSONNEL ONLY

## INSTALLATION OVERVIEW: \_\_\_\_\_

The SIS-904 Texas Analyzer is shipped as a fully assembled analyzer, with the exception of the Keyboard, Monitor, Printer and accessories. The following instructions will provide you with the steps necessary to completely setup the analyzer.

## PARTS & ACCESSORIES LIST: \_\_\_\_\_

PART NUMBER	DESCRIPTION	QTY
0131-0031-01	Gas Bottle Regulator	2
0271-0062-01	Low Scale, Calibration Gas	Local
0271-0066-01	Mid Scale, Calibration Gas	Local
0301-0944-01	Filter Element, 75 Micron	4
0301-0945-01	Filter Element, 8 Micron	4
0507-0025-01	Anti-Dilution Exhaust Probe	1
0528-0032-01	Printer, Okidata 390 Turbo	1
0528-1011-02	Printer Paper	1
0528-1094-01	Ribbon, Printer	2
0552-0104-01	DOS 6.22 Package	1
0552-1086-01	Keyboard Cover Protector	1
0610-1511-04	Screw, Sheet Metal #8 X ¼	4
0692-1834-01	Quality Control Questionnaire, SEL 1043C	1
0692-2291-01	Product and Warranty Registration Form	1
0692-2425-01	Installation Instruction	1
0692-2442-01	Operators Manual (Generic)	1
0693-2453-01	Smog Banner	1
0787-0035	Сар	2
1-4281	Filter, In-Line	2
1-7726	Screw, 10-32 x ½ HWHTT	6
2161-0023	Lead Hanger	6
3-12926	1.44 Meg Floppy formatted	1
3-608	Monitor, 15" SVGA Color	1
3988-0230-01	Hose Assy, Exhaust 3/16	1
3988-0231-01	Hose Assy, Exhaust Dual 3/16	1

PART NUMBER	DESCRIPTION	QTY
5878-0016	Cable Tie, 14.5"	1
6004-0262-05	Cable Assy, Trigger Pickup	1
6004-0462	Test Lead, Volt / Ohm	1
6004-0566-01	Cable Assy, Tach Lead	1
6004-0614-01	Antenna Cable	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
7009-1869	Probe Exhaust Assy.	2
7009-1929	Trigger Pickup Assy.	1
7009-2037-01	Antenna, RPM (Figure 8)	1
7009-2223-01	Adapter, RPM, Nissan 300ZX Turbo	1
EAA0136C01A	Hose, Cal Gas 1	1
EAA0136C02A	Hose, Cal Gas 2	1
EAA0145C00A	Gas Cap Tester	1
EAA0190L10A	Hanger, Lead	4
EAL0264C00A	Label, Service Call	1
EASC071C82A	Bar Code Scanner Storage Bracket	1
EASC071C83A	Bar Code Scanner Mounting Bracket	1
EAW0096C00A	Monitor AC Power Cable	1
ZEEEA110A	Operator's Manual (Specifically For Texas)	1

## **REQUIRED TOOLS:**

• MID GAS BOTTLE (0271-0066-01)

LOW GAS BOTTLE (0271-0062-01)

COMPLETE TOOL KIT

- PRESSURE METER
- ANTI-STATIC KIT

SERVICE KEYS (from Technical Support)

## **INSTALLATION INSTRUCTIONS:**



### NOTE: If the SIS was soft shipped (shipped without a carton) skip steps 1 through 4.

- 1. Cut the Straps, and remove the top of the carton, top packing, and carton sides.
- 2. Slide the SIS and carton base off of the pallet, and split the corners of the base carton.
- 3. Lean the SIS so that one half of the foam base can be removed.
- 4. Lean the SIS so the other half of the foam base can be removed.
- 5. Remove all shipping tape from the SIS Cabinet.
- 6. Check for proper AC and GROUND connections at the outlet. This can be accomplished by using an AC outlet polarity checker that can be obtained at a local hardware store.
- 7. Place the Operate/Standby switch into the operate position.
- 8. Verify that the parts and accessories listed are all present with the machine.
- 9. Remove the swivel base from the current monitor and discard.

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# NOTE: If you are mounting a 17" Sampo monitor to the analyzer, the back mounting bracket, on the monitor mounting bracket base plate, must be turned around to accommodate the larger monitor.

- 10. Place the monitor into the monitor base plate with the back of the monitor, push snug against the back bracket. Slide the front bracket snug up to the front of the monitor and tighten the nuts of the brackets.
- 11. Fasten the Velcro straps over the top of the monitor and snug down.
- 12. Remove and discard the Monitor AC Power Cable that was shipped with the monitor.
- 13. Connect the Monitor AC Power Cable (EAW0096C00A) to the back of the monitor, and to the AC port on the rear panel of the analyzer labeled "**Video Power**".
- 14. Connect the Data cable coming from the rear of the monitor to the port on the rear of the analyzer, below the monitor, labeled "**Video**".

### NOTE: The Blue and Red connectors, for the Speakers in the monitor, do not get connected. They can be tie wrapped to the Video Data Cable.

15. Remove the bubble wrap from the keyboard, and ensure that it is plugged into the keyboard extension under the monitor.

### NOTE: The following step may be completed at the factory.

- 16. Attach the Keyboard Label (EAL0234C00A) to the top of the keyboard (0552-0117-01).
- 17. Attach the Keyboard Cover (0552-1086-01) to the top of the keyboard.
- In order to mount Velcro turn the keyboard upside down. Peel the backing off the hook side Velcro (0424-0804-02) and attach to keyboard. Attach soft side (Loop) Velcro (0424-0804-01) to Velcro Hook. Remove backing, exposing adhesive and place keyboard in its proper position and press firmly.
- 19. Place a package of printer paper (0528-1011-02), in the rectangular spot, under the slide out printer shelf.
- 20. Remove the Printer (0528-0032-01) from its carton. Remove all tape from the lower printer and remove the carriage cover to gain access to the print head. Referring to Figure 1, ensure that the printer ribbon cartridge is installed properly and remove the plastic stop that secures the print head.



Figure 1, Shipping Retainer Removal

21. Load the printer paper, installed in step 19 into the Printer.

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22. Referring to Figure 2, remove the Ribbon Cartridge Inspection Cover, by gently pulling up on the middle of this cover until it pops off.



### Figure 2, Ribbon Cartridge Inspection Cover Removal

- 23. Place the printer on the printer shelf, in the opening below the keyboard. Attach the power cable and data cable, already located in the analyzer, to their respective ports on the back of the printer.
- 24. Attach a wire tie to the rear of the printer, just behind the power connector of the printer to secure both the Printer Power and Data Cables. This will stop the cables from getting in the way of the paper.
- 25. Using the six 10-32 x ½" screws (1-7726), install the six hangers (2161-0023) into the slots on the rear corners of the Analyzer. Three slots are located on each corner of the tester's stand.
- 26. Attach the four (4) Lead Hangers (EAA0190L00A) to the Unit Handles.

### NOTE: The Bar Code Reader Bracket can be mounted on either side of the Analyzer.

- 27. Mount the Bar Code Scanner Mounting Bracket (EASC071C83A) to the underside of the Computer Cabinet Sheet Metal Assembly, using two of the #8 X ¼ Sheet Metal Screws (0610-1511-04).
- 28. Mount the Bar Code Scanner Storage Bracket (EASC071C82A) to the Mounting Bracket just installed, using two of the #8 X ¼ Sheet Metal Screws (0610-1511-04).
- 29. Place the following items in the storage drawer below the computer and printer section:
  - (4) 75 Micron Filter Elements (0301-0944-01)
  - (4) 8 Micron Filter Elements (0301-0945-01)
  - (1) Printer Ribbon (0528-1094-01)
  - (1) DOS 6.22 Package (0552-0104-01)
  - (2) Exhaust Probe Leak Check Caps (0787-0035)
  - (1) Anti-Dilution Exhaust Probe Cap (0507-0025-01)
  - (1) BMW RPM Adapter (6005-0184-01)
  - (1) Acura RPM Adapter (6005-0184-02)
  - (1) Nissan 300ZX RPM Adapter (7009-2223-01)
  - (1) Quad 4 / Nissan RPM Adapter (6005-0181-01)
  - (2) In-Line Filter (1-4281)
- Connect the Antenna RPM Cable Assembly (6004-0614-01) to the Antenna Figure 8 Loop (7009-2037-01). Attach the other end of the Antenna RPM Cable Assembly to the "ANT." connector on the rear of the analyzer.
- 31. Referring to Figure 3, measure back 4" from the connector that attaches to the Figure 8 Loop. Place that point on the cable next to the Figure 8 Loop and place a Cable Tie (5878-0016) on it. This will stop the cable from being pulled out of the Antenna Cable Connector.

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Figure 3, Antenna Tie Wrap Modification

- 32. Connect the Trigger Pickup (7009-1929) to the Trigger Pickup Adapter Lead (6004-0262-05).
- 33. Connect the 30 foot Blue Trigger Pickup Cable (6004-0566-01) to the Assembled pieces in step 32. Attach the other end of the 30 foot Blue Trigger Pickup Cable to the "TACH." connector on the rear of the analyzer.
- 34. Connect the Volt/Ohm Lead (6004-0462) to the "V / W" connector on the rear of the analyzer.
- 35. Connect the Exhaust Hose Assembly (3988-0230-01) to the filter bowls on the rear on the analyzer.
- 36. Connect the Dual Exhaust Hose (3988-0231-01) to the female quick disconnect fitting on the Exhaust Hose Assembly, installed previously.
- 37. Connect an Exhaust Probe (7009-1869) to both fittings on the end of the exhaust hoses.
- 38. Attach the regulators (0131-0031-01) to the gas bottles (supplied locally).
- 39. Attach the hoses (EAA0136C0\*A), with label, to the proper calibration tank brass fitting.
- 40. Attach the aspirator hose to the Aspirator (located below the primary filter bowl). Route the other end of the aspirator hose through the base of the analyzer. Ensure that the hose goes through the top and bottom holes of the base.
- 41. Unpack the Gas Cap Pressure Tester Assembly (EAA0145C00A), and place all the accessories to that unit in the storage drawer.
- 42. Connect the Gas Cap Pressure Tester Cable to the Gas Cap Pressure Tester and the other end to the port on the rear of the SIS label "**COM F**".
- 43. Give the Product and Warranty Registration documentation to the Analyzer Owner and ensure that it is filled out and mailed.
- 44. Place the Service Call Label (EAL0264C00A) on the rear of the machine, in a place that is easily readable by the customer.
- 45. Present the SIS Banner (0692-2453-01) to the customer and offer to hang it in a central location.
- 46. Provide the Owner with the Operators' Manuals.
- 47. Completely fill out the Quality Control Questionnaire (0692-1834-01) and mail it according to the instructions printed on the form.
- 48. Power up the analyzer and wait until the analyzer boots.
- 49. Ensure the printer is on and press and hold **<SHIFT>**, and press **<SEL>**. This puts you in the Menu Mode.
- 50. Press <GROUP> until "Rear Feed" is displayed.
- 51. Press <ITEM> until "Rear Feed, Form Tear-Off, Off" is printed.
- 52. Press **<SET>** twice and it will print "**Rear Feed, Form Tear-Off, 1 sec**". This advances the paper to the tear bar automatically after printing a page.
- 53. Press **<PRINT>**, and ensure the printout matches Table 1, on the next page. Press and hold **<SHIFT>**, and press **<SEL>**, to return back to the Print Mode.
- 54. Reference the Texas Auditors Manual for installation and Setup of System Software.

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Printer Control	Emulation Mode	IBM PPR
Font	Print Mode	10 Courier
Font	Pitch	10 CPI
Font	Proportional Spacing	No
Font	Style	Normal
Font	Size	Single
Tone	0120	0.1.1.9.10
Symbol Sets	Character Set	Set I
Symbol Sets	Language Set	American
Symbol Sets	Zero Character	Slashed
Symbol Sets	Code Page	USA
Rear Feed	Line Spacing	6 LPI
Rear Feed	Form Tear-Off	1 sec
Rear Feed	Skip Over Perforation	No
Rear Feed	Page Length	11 "
Bottom reed	Line Spacing	
Bottom Feed	Form lear-UTT	UTT
Bottom Feed	Skip Uver Perforation	NO
Bottom Feed	Page Length	11 "
Top Feed	Line Spacing	6 LPI
Top Feed	Bottom Margin	Valid
Top Feed	Page Length	11 "
Top Feed	Wait Time	1 sec
Top Feed	Page Length Control	by MENU Setting
Set-Up	Graphics	Uni-directional
Set-Up	Receive Buffer Size	8K
Set-Up	Paper Out Override	No
Set-Up	Print Registration	0
	SET	SHIFT+SET
Sot Up	Operator Panel Eurotion	Full Operation
	Peret Tabibit	
Set-Up	Print Supproce Effortive	Yos
Set-Up	Auto 15	No
Set-Up		No
Set-Up	ST Select Pitch (10CPT)	17 1 CPT
Set-Up	SI Select Pitch (120PI)	12 CPT
Set-Up	Time Out Print	Valid
Set-Up	Auto Select	No
Setuln	Graphice Speed	
Set-Un	Centering Position	
Set-Up	Decollator	No
Danallol T/F	I_Drimo	Ruffor Drint
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### Table 1, Printer Menu Selections

SETUP COMPLETE