

FIRMWARE ENHANCEMENT VER 1.2

For the following TEKTRONIX® instrument:

DSA 601 All Serial Numbers

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This modification kit contains firmware version 1.2 with installation instructions and updated manuals for a DSA 601 or DSA 602 instrument.

KIT PARTS LIST:

Ckt. Number	Quantity	Part Number	Description
	1 ea	020-1775-01	Component kit:EPROM's, Ver 1.2
	1 ea	070-7252-01	Manual:Command Reference
	1 ea	_____	Label:040-kit

INSTRUCTIONS:

WARNING

Dangerous shock hazards may be exposed when the instrument covers are removed. Before proceeding, ensure the mainframe power switch is in the off position. Then, disconnect the instrument from the power source. Disassembly should only be attempted by qualified service personnel.

WARNING

A lithium battery (BT150) is mounted on the BB Memory circuit board A18, Option 4C. **The battery requires special handling for disposal.** Refer to the instructions on Lithium Battery Disposal and First Aid earlier in this section. Care is required when placing the BB Memory circuit board A18 on metal surfaces. If some IC or battery leads are shorted, the battery may discharged or overheat and vent. (Plastic standoffs are used to prevent shorts.)

CAUTION

Many components within this instrument are extremely susceptible to static-discharge damage. Service the instrument only in a static-free environment. Observe standard handling precautions for static-sensitive devices while installing this kit. **Always wear a grounded wrist and foot strap.**

NOTE

These instructions assume a familiarity with the instrument. If additional assembly or disassembly details are required, refer to the DSA 601/602 Service Reference Manual.

CAUTION

Always wear a grounded wrist and foot strap. Observe standard handling precautions for static-sensitive devices while installing this kit.

- 1. Remove the top and bottom cabinet panel covers by loosening the fasteners one quarter turn counterclockwise
- 2. Remove the six (6) Torx drive screws (three on each side) that secures the platform to the sides of the instrument. Refer to Figure 1, Platform Removal.
- 3. Remove the two (2) Torx drive screws that are located on the top of the platform. Refer to Figure 1, Platform Removal.
- 4. Raise the platform on its hinges, then secure the platform in the up position using the support rod (refer to the instructions printed on the back of the platform). Refer to Figure 2, Field Replaceable Units Locator.
- 5. Remove the two (2) card cage retainer screws located on the left side of the instrument to remove the two (2) plastic card cage retainers from the top of the card cage. Refer to Figure 3, Top View of Card Cage.
- 6. Disconnect connectors J47 and J48 from the Digitizer CPU circuit board A19. Note the position of the multi-pin connector's index triangle to ensure correct reassembly.
- 7. Disconnect connectors J28 and J83 from the Digitizer I/O circuit board A20. Note the position of the multi-pin connector's index triangle to ensure correct reassembly.
- 8. Disconnect connectors J72, J77, J78 and J90 from the I/O circuit board A14. Note the position of the multi-pin connector's index triangle to ensure correct reassembly.
- 9. Disconnect connectors J77 from the Main Processor circuit board A17. Note the position of the multi-pin connector's index triangle to ensure correct reassembly.
- 10. Disconnect connectors J79 and J83 from the MMU circuit board A15. Note the position of the multi-pin connector's index triangle to ensure correct reassembly.
- 11. Disconnect connectors J53, J54 and J79 from the Display Controller circuit board A16. Note the position of the multi-pin connector's index triangle to ensure correct reassembly.

Display Controller circuit board A16

- 12. Lift the hinged tabs (circuit board ejectors) at the front and rear edges of the Display Controller circuit board A16. Pull the tabs upward until the Display Controller circuit board A16 separates from Mother circuit board A13. Then remove the circuit board from the instrument.

- 13. Replace U440 and U540, EPROMs on the Display Controller circuit board with the new microcircuits provided in this kit.
- 14. Replace the Display Controller circuit board A16 to its former location in the card cage.

BB Memory circuit board A18

- 15. Lift the hinged tabs (circuit board ejectors) at the front and rear edges of the BB Memory circuit board A18. Pull the tabs upward until the BB Memory circuit board A18 separates from Mother circuit board A13. Then remove the circuit board from the instrument.
- 16. Replace the following EPROMs on the BB Memory circuit board A18 with the new EPROM's provided in this kit.

U800	U900
U810	U910
U820	U920
U830	U930

- 17. Replace the BB Memory circuit board A18 to its former location in the card cage.

Main Processor circuit board A17

- 18. Lift the hinged tabs (circuit board ejectors) at the front and rear edges of the Main Processor circuit board A17. Pull the tabs upward until the Main Processor circuit board A17 separates from Mother circuit board A13. Then remove the circuit board from the instrument.
- 19. Replace U240 and U250, EPROMs on the Main Processor circuit board with the new microcircuits provided in this kit.
- 20. Replace the Main Processor circuit board A17 to its former location in the card cage.

Digitizer CPU circuit board A19

- 21. Lift the hinged tabs (circuit board ejectors) at the front and rear edges of the Digitizer CPU circuit board A19. Pull the tabs upward until the Digitizer CPU circuit board A19 separates from Mother circuit board A13. Then remove the circuit board from the instrument.

- 22. Replace the following EPROMs on the Digitizer CPU circuit board A19 with the new EPROM's provided in this kit.

U410	U510
U420	U520
U460	U560

Reassembly

- 23. Reconnect J53, J54, and J79 connector that were removed in step, 11
- 24. Reconnect J79 and J83 connector that were removed in step, 10.
- 25. Reconnect J77 connector that were removed in step, 9.
- 26. Reconnect J72, J77, J78 and J90 connector that were removed in step, 8.
- 27. Reconnect J28 and J83 connector that were removed in step 7.
- 28. Reconnect J47 and J48 connector that were removed in step, 6.
- 29. Power-up the DSA and check if it passes the self-test. If the instrument fails the self-test check if the circuit boards are properly seated, cables are properly connected, and the EPROMs are in the correct locations.
- 30. Replace the card cage retainer securing it using the screws removed in step, 5.
- 31. Lower the platform securing it into place using the screws removed in steps, 2 and 3. Return the support rod to its storage position.
- 32. Replace the top and bottom cabinet covers.
- 33. Remove the protective backing from the 040-kit label and place it on the clean, dry area on the rear panel of the instrument. This label indicates that 040-1309-00 kit (Firmware version 1.2) has been installed.
- 34. For future reference, fasten the attached manual inserts to the appropriate DSA 601/602 manuals.

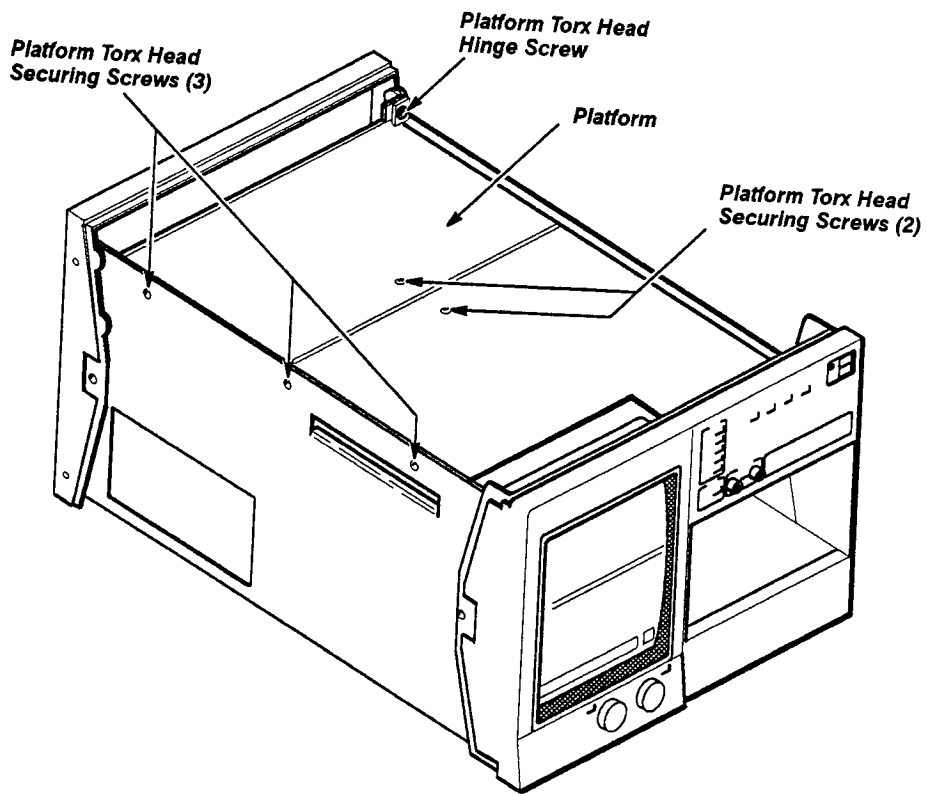


Figure 1, - Platform removal.

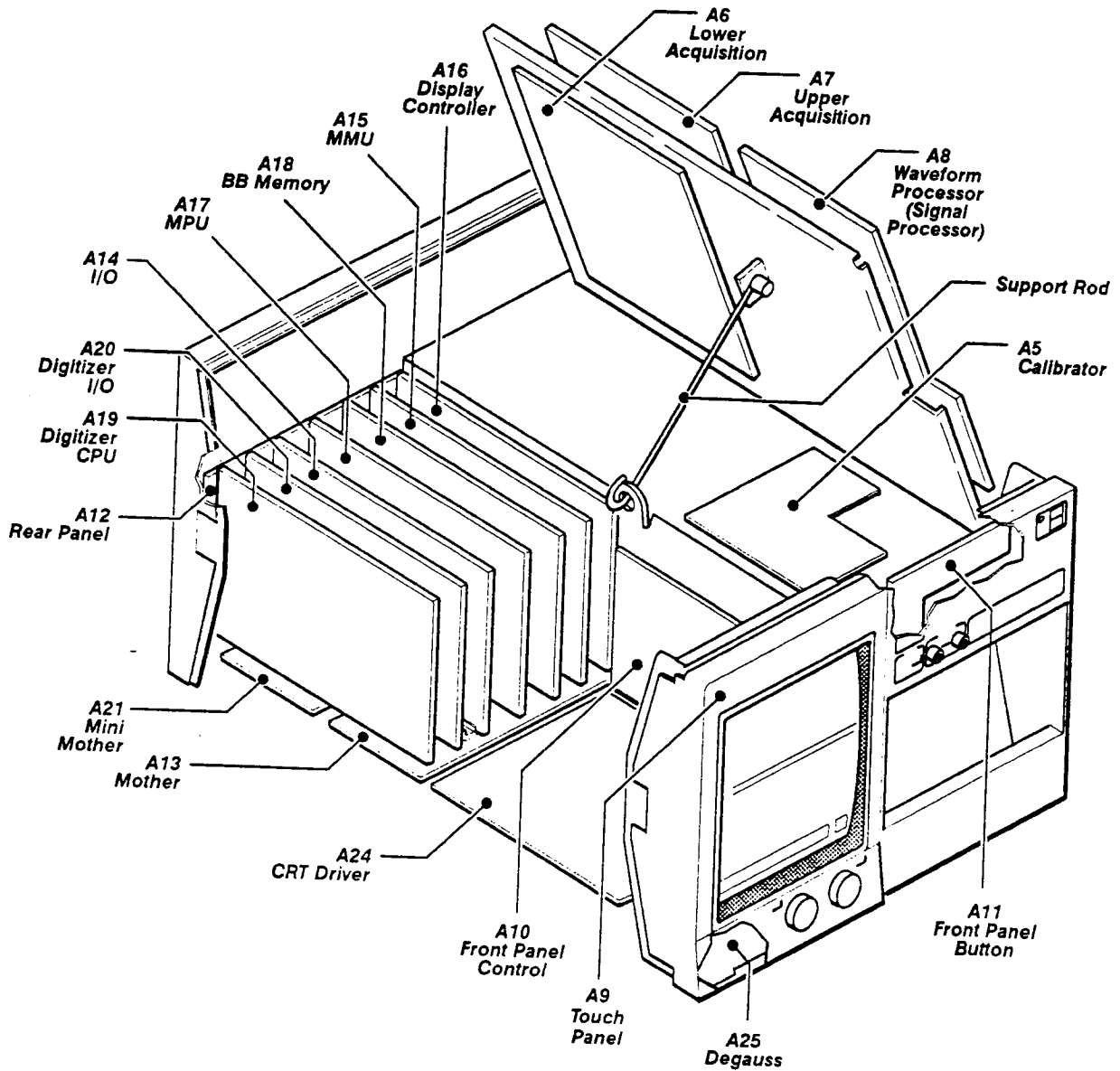


Figure 2, - Field Replaceable Units locator.

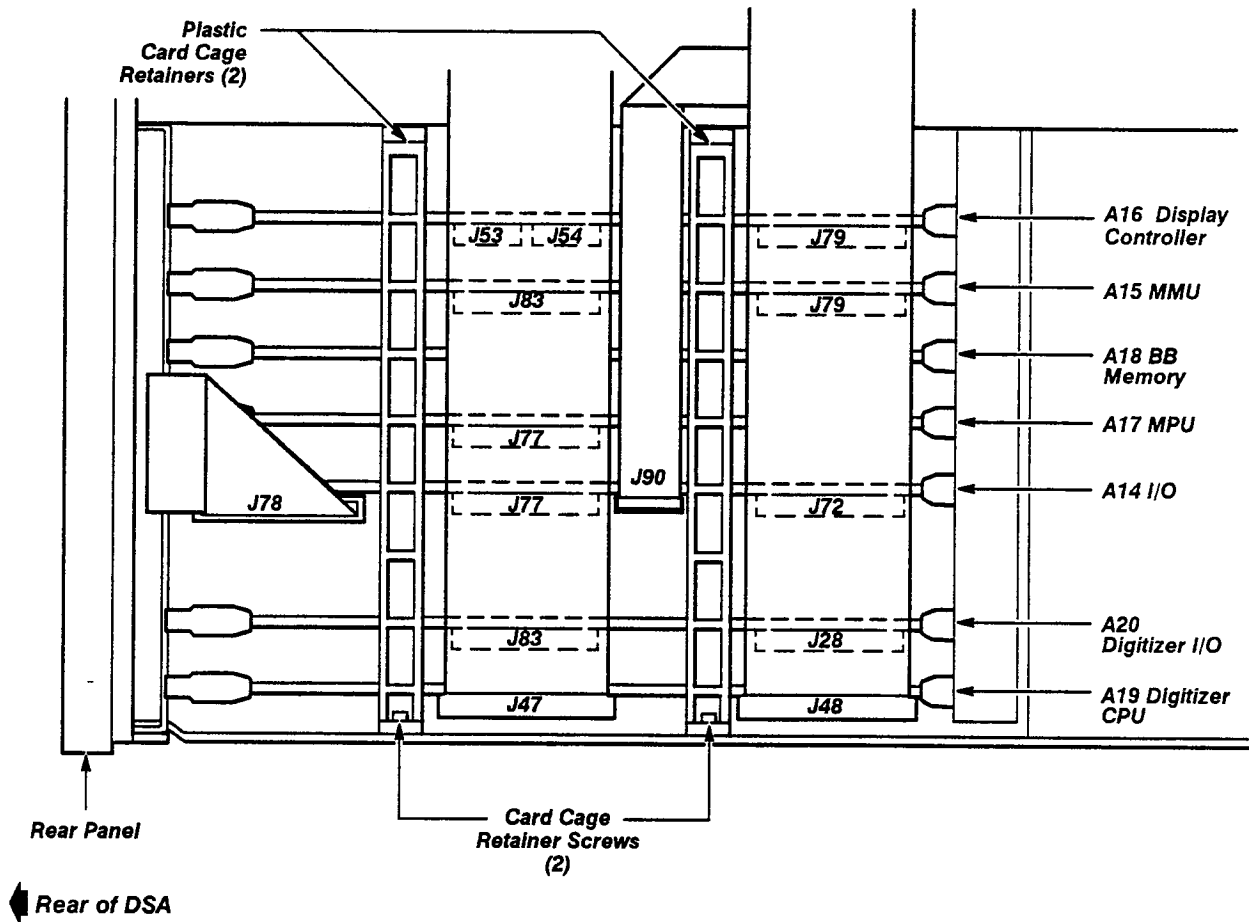


Figure 3, - Top View of the Card Cage.

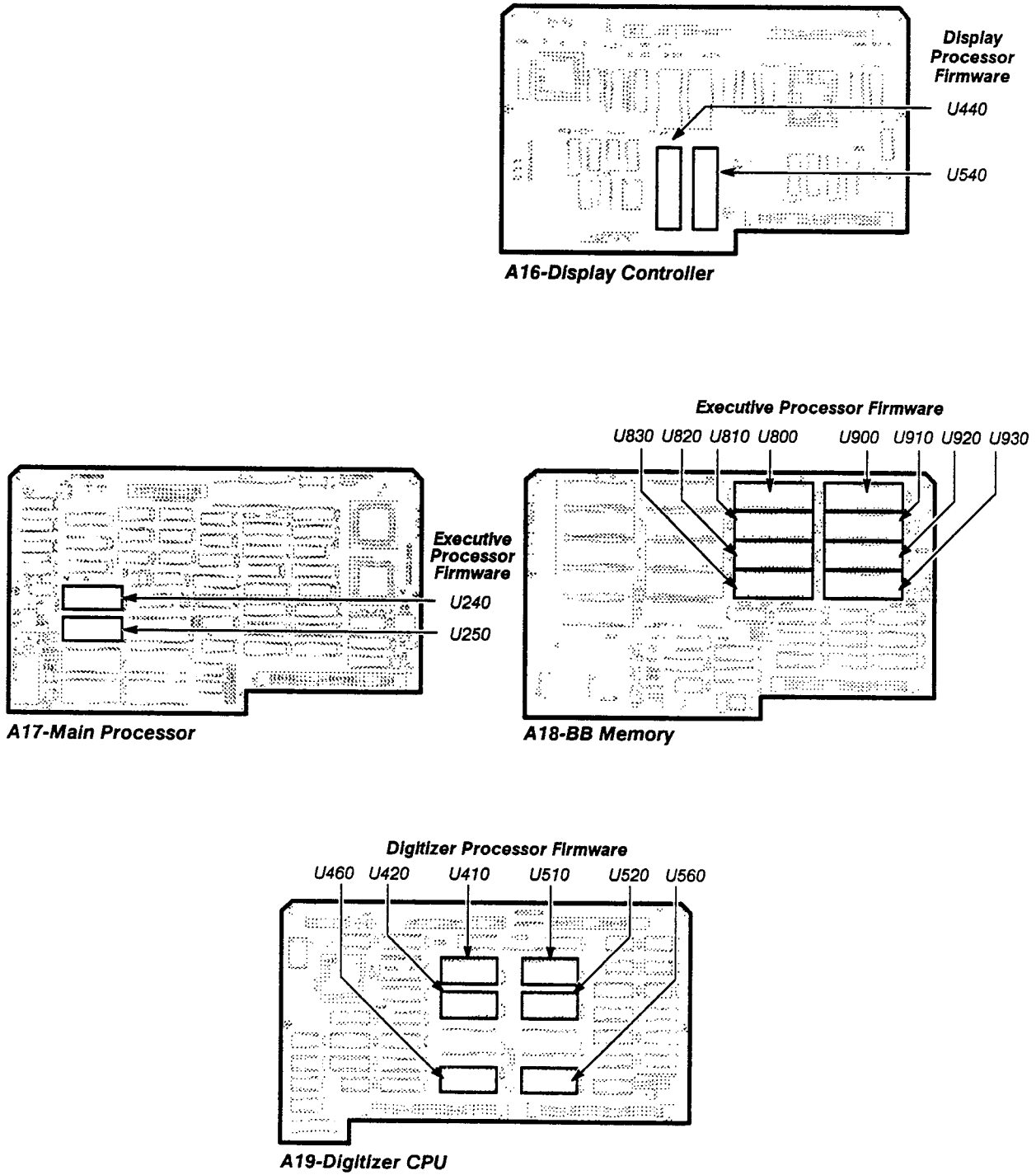


Figure 4, - EPROM locations.

PRODUCT MODIFICATION KIT SUGGESTION/CORRECTION FORM

DATE _____

KIT NUMBER _____ STEP/PAGE _____

FIGURE NUMBER _____ PUBLICATION DATE _____

DISCREPANCY _____

SUGGESTED CORRECTION/COMMENTS _____

SUGGESTED BY: NAME/ORGANIZATION _____

____ REPLY REQUESTED

(PLEASE TYPE OR PRINT LEGIBLY)

RETURN TO LOCAL FIELD OFFICE/SERVICE CENTER

FIELD OFFICE/SERVICE CENTER/DEL. STA. _____

SERVICE CENTER: RETURN TO FIELD MOOS 39-283

REPLY

____ WILL MAKE CHANGE IMMEDIATELY

____ WILL MAKE CHANGE AT NEXT PRINTING

____ OTHER _____

SIGNED _____ DATE _____