_ FCO VT320-I001, Distinguishing btwn certain chars in 132 mode

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	+---+	

FIELD CHANGE ORDER NUMBER: VT320-I001

Applicability: Replace font ROM in VT320-A3/B3/C3 on terminals where the complaint is the readability of the characters in 132 column mode.

This FCO is a result of ECO# 5417277-ML009

PROBLEM/SYMPTOM: Difficulty distinguishing between certain characters in 132 column mode.

QUICK CHECK: When in setup the VT320-A3/B3/C3 displays V1.2 firmware

Compatibility/prerequisite FCO: NONE

Est. Time to Install: .3 hour

Special Tools or Test Equipment: NONE

FCO PARTS INFORMATION

ORDER BY FCO KIT#:	QUANTITY:	PART NUMBER:	DESCRIPTION:
EQ-01531-01	1	23-104E7-00	Font ROM
FA-04833-01	1		FCO Document

EQ Kit Variation System/Option Application: VT320-A3, VT320-B3, or VT320-C3

APPROVALS

CSSE Engineer	F.S. Product Safety	F.S. Logistics
James Riess	Cheryl Buis	Eric Lawrence
CSSE Manager	F.S. Microfiche Libraries	Affected Population:
Ron Francoeur		5000
	EP-FSNVX-LB VAX	
ESD&P Micropub.	EP-FSP11-LB PDP11	Initial Kitting:
Ray LeBlanc	EP-FSPD8-LB PDP8	300

Revision: A	EP-FSLCG-LB LCG VAXnotes STARS	Hardcopy Publication: 5000
FCO Release date 21 DEC 88		Parts Availability: JAN 89

SECTION I DESCRIPTION OF FCO

This FCO Replaces the character font in the International version of VT320, VT320-A3/B3/C3. The new font ROM improves the readability of the characters when in 132 column mode.

This FCO will change the firmware revision from V1.1 to V1.2 on the International version logic board, FS FRU part number 70-24577-02. The changes made to the 132 column character font are the only changes made between V1.1 and V1.2.

SECTION II GETTING STARTED

Refer to the VT320 Pocket Service Guide (PSG) EK-VT320-PS-001 for detailed instructions and illustrations on disassembly/assembly.

2.1 Before starting the disassembly of the Customer’s VT320 do the following:

a. Ensure the VT320 has V1.1 Firmware. This can be verified while in setup.

b. Ensure the VT320 is operating correctly. Power on selftest passes and terminal communicates with the host.

Note the Set Up features selected by the Customer. This information will be needed after the reassemble.

2.2 Switch power off to the Terminal, remove the power cord, all communication cables, and keyboard from the VT320.

CAUTION
Always use a static protection kit (P/N 29-26246-00) when handling any internal components.

SECTION III VT320 DISASSEMBLY

3.1 ACCESS COVER

3.1.1 Turn off the terminal and unplug the power cord from the wall outlet.

3.1.2 Place the terminal face down on a clean piece of paper, to avoid scratching the bezel.

(Section 3.1 continued)

3.1.3 Loosen the captive screws at the base of the CRT bezel.

3.1.4 Grasp the rear of the access cover firmly with one hand. Place your other hand securely on the rear connector panel.

3.1.5 With your hands in position, push the bottom assembly towards the cover and pull the access cover away from the base. Place the cover aside.

3.2 POWER SUPPLY ASSEMBLY

3.2.1 Turn off the terminal and unplug the power cord from the wall outlet.

3.2.2 Place the terminal right side up on its base.

3.2.3 Remove the power supply wiring harness from the power supply assembly.

3.2.4 Remove the power switch from its holder by applying pressure inside the terminal and rocking the switch forward, Then pass the switch wires up through the slot.

3.2.5 Disconnect the TWO ground connectors from the shield of the power supply assembly.

3.2.6 Use a flat-bladed screwdriver to release the tab at the base of the power supply assembly. Lift the assembly up.

3.2.7 Slide the power supply assembly up and away from its bracket.

3.2.8 International model: Unplug the power cord from the rear of the terminal.

Slide the input power connector up and away from its bracket.

3.3 CRT/BEZEL/YOKE ASSEMBLY

3.3.1 Turn off the terminal and unplug the power cord from the wall outlet. Place the CRT face down on a protective paper so as not to scratch the bezel.

WARNING

The following steps may expose you to high voltages. To protect yourself, discharge the anode with the anode discharge tool (P/N 29-24717-00).

3.3.2 Discharge the anode as follows.

a. Attach the alligator clip of the anode discharge tool to the grounding braid on the rear of the CRT.

b. Insert the tool under the rubber anode cap until you make contact with the anode connector. Discharge the anode for at LEAST three seconds.

c. Remove the anode discharge tool.

3.3.3 Remove the CRT anode connector from the CRT.

3.3.4 Remove the arc protection board or white CRT socket (whichever applies) from the neck of the CRT.

3.3.5 Remove the yoke wiring harness from the monitor and logic with arc protection assembly.

3.3.6 Release the connector tabs at the base of the CRT and lift the base away from the CRT/bezel/yoke assembly.

3.4 MONITOR AND LOGIC MODULE

3.4.1 Remove the monitor and logic with arc protection assembly by pressing the plastic tabs located around the edge of the circuit board.

3.4.2 Slide the monitor and logic with arc protection assembly out of the base assembly.

SECTION IV FONT ROM REPLACEMENT

4.1 EMI/RFI Shield Removal

4.1.1 Remove ONLY the top EMI/RFI shield from the logic assembly by LOOSENING the seven (7) screws on the top (component side) shield. With the keyboard connector to your right, and the 7 screws loose, slide the shield to the left so the head of the screws line up with the enlarged holes in the shield. Remove the shield.

4.2 ROM Removal

** NOTE **

Note the position pin 1 or the notch at one end of the old ROM/EPROM chip so the new ROM chip is positioned the same.

4.2.1 Remove the old ROM/EPROM from location E9 on the logic board (70-17277-02). This part is the only socketed 28 pin component on the board. The V1.1 ROM is marked with part number 23-48E7-00. The V1.1 EPROM is marked with part number 23-54E7-00. To remove the old ROM/EPROM use the IC chip puller (P/N 74-30612-01) or a flat blade screw driver to GENTLY pry the chip from the socket.

4.2.2 Line up the pins of the new ROM (P/N 23-104E7-00) from the FCO EQ kit in the same position as the part just removed. GENTLY apply pressure to the top of the new ROM to insert the pins into the socket.

** NOTE **

Ensure all IC pins have been inserted correctly and none have bent under the ROM or the side of the socket.

4.3 Re-install the RFI shield.

4.3.1 Line up the enlarged holes in the RFI shield and place into position over the LOOSEN screws.

4.3.2 With the keyboard connector to your right, slide the shield to the right so the head of the screws slide into the narrow part of the hole in the shield.

4.3.3 Tighten the seven (7) screws.

SECTION V REASSEMBLE THE VT320

5.1 Re-install the Monitor/Logic board (70-24577-02) into the base assembly (70-24245-01). .

5.2 With the CRT face down, install the CRT/bezel/yoke assembly (70-24240-xx) into the Monitor/Logic assembled in step 1. The xx designated the phosphor color, -01 = White, -02 = Green, and -03 = Amber)

** NOTE **

A white CRT socket has replaced the arc protection circuit board that was on earlier models. The arc protection circuitry has been incorporated into the socket.

5.3 Install the power supply assembly (70-24244-02).

The ON and OFF symbols are molded into the base of the VT320. When you reinstall the power switch, match the symbols on the switch to the symbols on the base for the correct position.

** NOTE **

Insure the voltage jumper is in the correct position for the voltage being used. Refer to the PSG paragraph 2.3, page 24 for a figure.

The line filter symbol is also molded into the base of the VT320. Install the line filter accordingly.

5.4 To install the access cover, slide the cover down over the base. Then align and tighten the 2 captive screws.

5.5 Re-install the keyboard, power, and communication cables.

SECTION VI TESTING

6.1 Testing of the assembled VT320 will ensure proper operation of the VT320. After the power cord is installed, turn power onto the VT320. Enter setup and check that V1.2 is displayed.

6.1.1 Set the setup features to match the previous settings the customer used and save these features.

6.2 Other than ensuring the VT320 operates as before, communicates with the KB, Host and printer, complete functional tests should not be necessary.

If desired, test procedures can be found in the VT320 PSG chapter 1 paragraph 1.3. The following tests are recommended:

Paragraph	Test
1.3.2	Power-Up Self-Tests
1.3.3	DEC-423 Port Loopback Test
1.3.4	RS232 Port Data Line Loopback Test
1.3.5	RS232 Port Control Lines Loopback Test
1.3.6	Printer Port Loopback Test
1.3.7	Screen Alignment Test

SECTION VII INSTALLATION REPORTING

Labor Activity Reporting (LARS)

Area EUROPE
Activity:

Contract ----------F
Non-Contract/Non-Warranty ----F
DEC OPTION ----------VT320
Type of Call ----------M
Action Taken ----------I
Fail Area-Module-FCO-Comments --VT320-I001
Material Used ----------EQ-01531-01

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\\DEC
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