CONVEX

Field Support Tech Tip

Product: C-1
Tech Tip Number: PM-001
Date: March 28, 1986 (Rev. 05/15/87)
Subject: C-1 Monthly System PM
Submitted By: Bill Georgia

C-1 MONTHLY SYSTEM PM

• *CPU*	☐ Examine SPU file /mnt/errlog for any errors and take corrective action if necessary
	☐ Check SPU softlog for memory errors; replace bad RAMs prior to deleting the contents of softlog
	☐ Check fans in CPU Power Supplies
	☐ Check and adjust all CPU D.C. voltages with a DVM
	☐ Check +5 VDC Power Supply cables (Ref. CPU-004)
	☐ Check CPU fans
	☐ Clean and check CPU airflow sensors (Ref. CPU-001)
	☐ Check CPU Multibus fan
	☐ Check CPU Multibus airflow sensor
	☐ Check CPU indicators
	☐ Install any applicable FMI's
	☐ Run CPU diagnostics
	☐ Vacuum and clean interior and exterior of CPU and Peripheral Cabinet(s)
• *Exp. MBUS*	☐ Check Expansion Multibus Power Supply voltages
	☐ Check Expansion Multibus Power Supply fan
• *Discs*	☐ Vacuum all Disc Drive air filters
	☐ Check all Disc Drive power supply outputs
	☐ Run "verify_format" on all Disc Drives; slip sectors that have ECC errors (Ref. Disc-005)
• *Cipher*	☐ Clean Cipher Cartridge Tape R/W Head
• *2920 Tape*	☐ Clean tape path in the 2920 Tape Drive
	☐ Check 2920 Tape Drive voltages
	☐ Check 2920 Tape Drive fans and indicators
	☐ Check 2920 Tape Drive supply hub for free operation
	☐ Clean 2920 Tape Drive tape cleaner block
	☐ Check 2920 Tape Drive R/W Head Skew
	☐ Check 2920 Tape Drive R/W Head Gains
	☐ Run 2920 Tape drive internal diagnostics
• *P-600 Printer*	☐ Perform Printer PM procedures (Ref. PM-003)
• *1960 Tape*	☐ Perform 1960 Tape Drive PM procedures (Ref. PM-002)

Not all items will be applicable to each site. For example, some sites will have tape drives that do not have internal diagnostics, not all sites will have line printers supplied by Convex, etc.

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Field Support Tech Tip

Product: C-1
Tech Tip Number: PM-002
Date: August 4, 1986
Subject: STC 1960 Page 1
Submitted By: Brad Jones

Monthly Procedures - 1960 Tape Drive:

1) Replace defective lamps in Operator Control Panel.

2) Clean:
   a) Tape Path and front of Deck Assembly.
   b) Upper and Lower Tape Guides (retractable and Double Hump, respectively). Disassembly and reassembly required.
   c) Inside of Front Door Assembly.

3) Clean and vacuum interior of drive.

4) Check all four (4) belts for wear.

5) Verify operation of the Muffin Fan located beneath the Capstan and Reel Motors Power Amp Cards.

6) Adjustable Voltages (Check and Adjust):
   a) Plus (+) 5 Volt D.C. Power Supply.
   b) Minus (-) 5 Volt D.C. Power Supply.
   c) Plus (+) 15 Volt D.C. Power Supply.
   d) Minus (-) 15 Volt D.C. Power Supply.

7) Non-adjustable Voltages (verify only).
   a) +/- 45 Volts D.C.
   b) +/- 35 Volts D.C.
   c) +/- 26 Volts D.C.
   d) +/- 5 Volts D.C. (from JS card).

8) Check and adjust the EOT/BOT Sensor.

9) Pneumatics checks and adjustment.

10) Verify and adjust Servo Nulls and Gains.

11) Verify and adjust Tape Tracking and Read Head Skew.

12) Adjust Read Head gains.

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Field Support Tech Tip

Product: C-1
Tech Tip Number: PM-002.a
Date: August 4, 1986 (Revised 3/1/87)
Subject: STC 1960 - Page 2
Submitted By: Brad Jones

Monthly Procedures - 1960 Formatter

1) Adjustable Voltages (check and adjust):
   a) Plus (+) 5 Volt D.C.
   b) Plus (+) 15 Volt D.C.
   c) Minus (-) 15 Volt D.C.

2) Vacuum Air Filter element.

3) Verify operation of all three (3) Muffin Fans.

Annual Procedures - 1960 Tape Drive:

1) Replace:
   a) Pressure pump drive belt.
   b) Vacuum impeller drive belt.
   c) Cartridge opener belt.
   d) Pressure/Vacuum transfer belt.

2) Perform steps 1 thru 3 and 5 thru 10 of the Monthly Procedures. 1960 Tape Drive:

3) Capstan Motor:
   a) Remove from drive.
   b) Remove front shroud.
   c) Carefully clean the encoder disk (use distilled water only - avoid solvents such as alcohol).
   d) Replace front shroud.
   e) Reinstall in drive.
   f) Perform Capstan alignment (tape tracking and read head skew adjustments).

4) Adjust read head gains.

Annual Procedures - 1960 Formatter

NONE

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Field Support Tech Tip

Product: C-1
Tech Tip Number: PM-003
Date: August 7, 1986
Subject: Printronix P600 Printer
Submitted By: Brad Jones

1) Remove the Ribbon Drive Assembly, Cam Cover, Cam Cover Plate, and the Printer Cover Assembly.
2) Thoroughly clean and vacuum the printer interior, giving special attention to the following areas:
   a) The muffin fan area at the underside of the Ribbon Drive Assembly.
   b) The filter element in the front, center Base Pan.
   c) Rotate the Hammerbank Assembly to the service position and remove the Hammerbank Cover Assembly. This will allow cleaning of the Hammer Springs and Coils.
3) Lubrication (use SAE 20W oil):
   a) Remove the two (2) Oil Port Plugs at the top of the Counterweight Assembly and apply one (1) drop of oil in each of the ports.
   b) Saturate the Cam Wick Assembly located beneath the Flywheel cam.
   c) Saturate the Felt located at the left end (front view) of the Shuttle Assembly.
   d) Apply a light film of oil to the Shuttle Spring, Shims, and Yoke Bearing.
   e) Apply a light film of oil to the Counterweight shafts, spacer, and shims.
4) Inspect and replace if necessary:
   a) Shuttle (flywheel) Drive Belt.
   b) Paper Feed Belt.
   c) Left and Right Ribbon Guide Assemblies.
   d) Left and Right Tractor Assemblies.
5) Reinstall the Hammerbank Assembly, Cam Cover, Cam Cover Plate, and Ribbon Drive Assembly.
6) Verify proper operation of:
   a) Ribbon Drive Assembly Muffin Fan.
   b) Muffin Fan at left, rear of cabinet.
   c) Control Panel Lamps.
   d) The non-adjustable outputs of the power supply PCBA (measure the +5 and -12 Volts at Test Points on the Logic B PCBA. The +9.5 and +/-36 Volts are measured at teh Power Supply PCBA).
7) Reinstall Printer Cover Assembly and invoke the Self-Test routine (print all E's). Verify print quality and, if necessary, adjust Hammer Springs, Platen, Magnetic Pickup Phasing, etc.
8) Print a file to verify proper operation with the system before returning the printer to the customer.