SEPARATOR SET PN 83464

THIS SEPARATOR SET CONTAINS 19 TABS TOTAL IN THE FOLLOWING ORDER:

MAINTENANCE MANUAL
1. INTRODUCTION
2. OPERATION
3. INSTALLATION
4. STORAGETEK INTERFACE
5. INDUSTRY INTERFACE
6. SCSI INTERFACE
7. VS INTERFACE
8. FUNCTIONAL DESCRIPTION
9. MAINTENANCE
10. REMOVAL/REPLACEMENT
11. DIAGNOSTICS

APPENDICES
IPC
PN COMPATIBILITY
MMLL
21/22/25 STD & 25 IND STD FCD
21/22 IND STD FCD
2925 SCSI FCD

FAULT CODE DICTIONARY

2921 & 2922 WITH STORAGE TECHNOLOGY STANDARD INTERFACE

AND

2925 WITH STORAGE TECHNOLOGY OR INDUSTRY STANDARD INTERFACE

This dictionary corresponds to given release levels of subsystem microcode. To ascertain the microcode release level, use the following front panel sequence:

<ENTER ADDR>,1FFA,<ENTER>: displays msb of the release level
<ENTER>: displays lsb of the release level

It is important that the user of this dictionary ensures the matching of dictionary text to microcode level. The following table associates microcode EC and release level to dictionary page changes. The table shows the Fault Code Dictionary EC levels, and the microcode levels which are valid for each EC level.

EC	Microcode Level	Page(s) Changed
49576	A115	Initial Release
49582	A116	A-66 to A-69
49649	A117	All pages
49709	A118	All pages
49755	A119-A221	A-10,36-39,46-47
49790	A119-A221/B103	All pages
49908	A119-A221/B104-B107	All pages
22603	A119-A221/B104-B107/CA01	All pages
22690	A119-A221/B104-B107/CA02	All pages
22865	A119-A221/B104-B107/CA03-CA05	All pages
23173	A119-A221/B104-B107/CA03-CA05	Cover page only
23266	A119-A221/B104-B107/CA03-CA05	Cover page only
23275	A119-A221/B104-B107/CA03-CA05	Cover page only
23827	A119-A221/B104-B108/CA03-CA10	Cover page,109-111
23828	A119-A221/B104-B108/CA03-CA10	Cover page only
26240	A119-A221/B104-B108/CA03-CA10	Cover page only
26559	A119-A221/B104-B108/CA03-CA10	Cover page only
26727	A119-A221/B104-B108/CA03-CA10	Cover page only

As an example, if the drive has microcode level A221, any of the following EC levels are valid for the Fault Code Dictionary: 49755,49790,49908,22603,22690,22865,23173,23266,23275,23827, 23828,26240,26559,26727.

(Intentionally left blank.)

Code	Detected by	Fault Description--FRU'S
001	TEST00	Drive not loaded before forward motion request.
002	TEST00	EOT status detected before forward motion set. Card: WR IF Slot: A4 A3
003	TEST00	EOT detected via sensors during forward motion. Card: WR IF Slot: A4 A3
011	TEST01	Drive not loaded before backward motion request.
012	TEST01	BOT status detected before backward motion set. Card: WR IF Slot: A4 A3
013	TEST01	BOT detected via sensors during backward motion. Card: WR IF Slot: A4 A3
021	TEST02	Drive not loaded before motion request.
022	TEST02	EOT status detected before motion set. Card: WR IF Slot: A4 A3
023	TEST02	EOT detected via sensors during forward motion. Card: WR IF Slot: A4 A3
031	TEST03	Drive not loaded before motion request.

Code	Detected by	Fault Description--FRU'S
032	TEST03	EOT status detected before motion set. Card: WR IF Slot: A4 A3
033	TEST03	BOT or EOT detected during motion via sensors. Card: WR IF Slot: A4 A3
041	TEST01	Reject or Machine check during mode switch. See description of reject codes preceeding code E01.
091	TEST09	Can not execute maintenance reel/capstan driver while drive is loaded.
092	TEST09	Tape presence was detected in thread path via sensors. Can not execute maintenance reel/capstan driver. Card: WR IF Slot: A4 A3
0DD	TEST0D	Cache card did not send over the data requested in the required amount of time. Run TEST16. Card: CB IF Slot: A2 A3
0E1	TEST0E	Maintenance write requires drive loaded.
0E2	TEST0E	Maintenance write will not run on file protected tape.
0E3	TEST0E	EOT status detected before motion.

Code	Detected by	Fault Description--FRU'S
0E4	TESTOE	EOT detected via sensors during forward motion.
0F1	TESTOF	Maintenance write requires drive loaded.
0F2	TESTOF	Maintenance write will not run on file protected tape.
0F3	TESTOF	EOT status detected before motion.
0F4	TESTOF	EOT detected via sensors during forward motion.
121	TEST12	Initial write of memory compared incorrectly while testing functional RAM (A000-A7FF). Card: IF Slot: A3
122	TEST12	Read,write complement,read sequence failed while testing functional RAM (A000-A7FF). Card: IF Slot: A3
123	TEST12	Initial write of memory compared incorrectly while testing diagnostic RAM (8000-87FF). Card: IF Slot: A3
124	TEST12	Read,write complement,read sequence failed while testing diagnostic RAM (8000-87FF). Card: IF Slot: A3

Code	Detected by	Fault Description--FRU'S

125 TEST12 Checksum incorrect in PROM 1 (0000-1FFF).

Card: IF
Slot: A3

126 TEST12 Checksum incorrect in PROM 2 (2000-3FFF).

Card: IF
Slot: A3

127 TEST12 Checksum incorrect in PROM 3 (4000-5FFF).

Card: IF
Slot: A3

128 TEST12 Checksum incorrect in PROM 4 (C000-DFFF).

Card: IF
Slot: A3

129 TEST12 Checksum incorrect in PROM 5 (E000-FFFF).

Card: IF
Slot: A3

12A TEST12 Release level mis-match between proms.
Locations: PROM1 = (1FFA,B)
PROM2 = (3FFA,B)
PROM3 = (5FFA,B)
PROM4 = (DFFA,B)
PROM5 = (FFFA,B)
Card: IF
Slot: A3

Code	Detected by	Fault Description--FRU'S

131 TEST13 Counters were loaded with large timeout values and interrupt controller was initialized. When read before complete count-down of counters the IRR register of the controller was expected to be zero.

Status A-0 = active counter inputs to 8259 (should be 0)

Card: IF KK DP WR SV
Slot: A3 A5 A4 A1

132 TEST13 Counters were loaded with counts such that timeouts would be expected in the order 0,1,2. The counter 0 output was the one and only expected at the IRR register of the interrupt controller (8259) at this time.

Status A-0 = active counter inputs to 8259 (should be 01 hex)

Card: IF KK DP WR SV
Slot: A3 A5 A4 A1

133 TEST13 Counters were loaded with counts such that timeouts would be expected in the order 0,1,2. Outputs from counters 0 and 1 were the only expected at the IRR register of the interrupt controller (8259) at this time.

Status A-0 = active counter inputs to 8259 (should be 21 hex)

Card: IF
Slot: A3

Code	Detected by	Fault Description--FRU'S

134 TEST13 Counters were loaded with counts such that timeouts would be expected in the order 0,1,2. Outputs from all 3 counters were expected at the IRR register of the interrupt controller (8259) at this time.

Status A-0 = active counter inputs to 8259
(should be 61 hex)
Card: IF
Slot: A3

142 TEST14 Spurious interrupts received by controller.

Status A-0 = interrupts recv'd
(should be 0)
Card: IF
Slot: A3

144 TEST14 Interrupts from counters not received correctly.

Status A-0 = interrupts received
(should be 01H; counter 0 only)
Card: IF
Slot: A3

146 TEST14 Interrupts from counters not received correctly.

Status A-0 = interrupts received
(should be 21H; counters 0 & 1)
Card: IF
Slot: A3

148 TEST14 Interrupts from counters not received correctly.

Status A-0 = interrupts received
(should be 61H; counters 0,1 & 2)
Card: IF
Slot: A3

Code	Detected by	Fault Description--FRU'S

151 TEST15 Multiple keyboard columns active in sense register (6010) for a given row selection (601A). Check for proper panel cable connection.

Card: IF KK
Slot: A3

153 TEST15 More than one front panel key detected (6010) for different row selections (601A). Check for proper panel cable connection.

Card: IF KK
Slot: A3

161 TEST16 CB/IF status line test returned an error.

Card: IF CB
Slot: A3 A2

162 TEST16 CB/IF command wrap test returned an error.

Card: IF CB
Slot: A3 A2

163 TEST16 Data bus test returned an error during the write portion of the test.

Card: IF CB DP
Slot: A3 A2 A5

164 TEST16 Data bus test returned an error during the read portion of the test.

Card: IF CB DP
Slot: A3 A2 A5

16D TEST16 Cache Buffer card began interface test, but the IF card never saw the return code.

Card: CB IF
Slot: A2 A3

Code	Detected by	Fault Description--FRU'S
16E	TEST16	Test ID returned from CB card not as expected. Status B-2: Returned value (should be 16 hex) Card: CB IF DP Slot: A2 A3 A5
16F	TEST16	No response from CB card in allocated time. Card: CB IF Slot: A2 A3
171	TEST17	After writing to all of cache memory, a miscompare was found on the readback of that memory. Card: CB Slot: A2
172	TEST17	A miscompare was detected while attempting to read the cache buffer card's scratch memory. Card: CB Slot: A2
173	TEST17	An error was detected while attempting the checksum of the cache buffer card's PROMs. Card: CB Slot: A2
174	TEST17	The cache buffer card's PROMs do not contain the same level code. Card: CB Slot: A2

Code	Detected by	Fault Description--FRU'S
175	TEST17	After resetting the early EOT counters, the value read was non-zero. Card: CB Slot: A2
176	TEST17	While writing or reading cache memory, the Empty or Full bits were not as expected. Card: CB Slot: A2
177	TEST17	The Early EOT counter test failed. Card: CB Slot: A2
178	TEST17	The CRC byte written to cache was incorrect, or bad CRC status was received when good CRC status was expected. Card: CB Slot: A2
179	TEST17	A record was read from the cache buffer, with bad CRC expected. The cache buffer returned a good CRC return code. Card: CB Slot: A2
17A	TEST17	The cache card's timer did not timeout in the required time. Card: CB Slot: A2
17B	TEST17	A TREQ timeout error occurred. Card: CB Slot: A2

Code	Detected by	Fault Description--FRU'S

17C TEST17 PHCSTAT (EF90 on cache card) does not contain the value expected.
Industry Standard Interface only.
Status B-4: Expected value
Status B-5: Actual value

Card: CB
Slot: A2

17E TEST17 Test ID returned from CB card not as expected.
Status B-2: Returned value (should be 17 hex)

Card: CB IF
Slot: A2 A3

181 TEST18 Position counter (SV card, XCS chip) could not be looped correctly (wrt: 6023; rd: 6025).

Status A-0: expected pattern
Status A-1: actual pattern

Card: IF SV DP WR
Slot: A3 A1 A5 A4

183 TEST18 Velocity register (SV card, XCS chip) could not be looped correctly (wrt: 6026,28,29; rd: 6027).

Status A-0: pattern
Status A-2: should be pattern shifted left once

Card: IF SV DP WR
Slot: A3 A1 A5 A4

185 TEST18 Machine swing arm position (SV card, XRS chip) could not be looped correctly (wrt: 6030,32; rd: 6034).

Status A-0: pattern
Status A-3: should be pattern shifted left twice

Card: IF SV DP WR
Slot: A3 A1 A5 A4

Code	Detected by	Fault Description--FRU'S

187 TEST18 File swing arm position (SV card, XRS chip) could not be looped correctly (wrt: 6031,33; rd: 6035).

Status A-0: pattern
Status A-4: should be pattern shifted left 3 bits

Card: IF SV DP WR
Slot: A3 A1 A5 A4

1B1 TEST1B Data path status B (6042) not 0 with resets active.

Card: DP IF WR SV
Slot: A5 A3 A4 A1

1B3 TEST1B Data path status B (6042) not indicating CRC + CRCA (06h) after resets cleared and GCR mode set.

Card: DP IF WR SV
Slot: A5 A3 A4 A1

1B4 TEST1B Dead track register (6040) not inactive (FFh) following data path reset.

Card: DP IF
Slot: A5 A3

1B5 TEST1B Data path status A (6041) not 0 following data path reset.

Card: DP IF
Slot: A5 A3

1B6 TEST1B Data path status C (6043) not inactive (04h) following data path reset.

Card: DP IF
Slot: A5 A3

Code	Detected by	Fault Description--FRU'S

1B7 TEST1B Phase pointer register (6044) not 0 following data path reset.

Card: DP IF
Slot: A5 A3

1B8 TEST1B Amp sensor register (6045) not 0 following data path reset.

Card: DP IF
Slot: A5 A3

1D1 TEST1D Following the disabling of all sensors (6068), only file protect status (6060) should have been active.

Status A-0: sensor bit(s) in error

Card: WR IF
Slot: A4 A3

Sensor: EOT/BOT, File Protect, Leader

1D2 TEST1D After enabling EOT sensor only (6068), sensor status (6060) was incorrect.

Status A-0: sensor bit(s) in error

Card: WR IF
Slot: A4 A3

Sensor: EOT/BOT, File Protect, Leader

1D3 TEST1D After enabling BOT sensor only (6068), sensor status (6060) was incorrect.

Status A-0: sensor bit(s) in error

Card: WR IF
Slot: A4 A3

Sensor: EOT/BOT, File Protect, Leader

Code	Detected by	Fault Description--FRU'S

1D4 TEST1D After enabling tape present sensor only (6068), status (6060) was incorrect.

Status A-0: sensor bit(s) in error

Card: WR IF
Slot: A4 A3

Sensor: EOT/BOT, File Protect, Leader

1D5 TEST1D After enabling leader sensor only (6068), status (6060) was incorrect.

Status A-0: sensor bit(s) in error

Card: WR IF
Slot: A4 A3

Sensor: EOT/BOT, File Protect, Leader

1D6 TEST1D After enabling file protect sensor only (6068), status (6060) was incorrect.

Status A-0: sensor bit(s) in error

Card: WR IF
Slot: A4 A3

Sensor: EOT/BOT, File Protect, Leader

1D7 TEST1D After disabling the write/erase currents (6068), current status (6061) should indicate off and stable.

Status A-0: sensor bit(s) in error

Card: WR IF Rd/Wrt head,cable
Slot: A4 A3

Code	Detected by	Fault Description--FRU'S

1F1 TEST1F Functional code detected machine check condition during swing arm extend/retract cycle.

Status A-6: Machine check code
See listing for code Fxx, where
xx= contents of this status location

1F2 TEST1F INDEX's from both arm position sensors (6061) were detected when retracting from 'EXTENDED'. However, the FILE arm's upper EPO area ('INDEX' off) was not detected before the MACHINE arm reached 'Retracted'.

Check FILE arm sensor for 'INDEX' off capability.
Check MACH arm sensor for false 'INDEX'.

Card: SV WR IF
Slot: A1 A4 A3

1F3 TEST1F INDEX's from both arm position sensors (6061) were detected when retracting from 'EXTENDED'. However, the MACHINE arm's upper EPO area ('INDEX' off) was not detected before the FILE arm reached 'Retracted'.

Check MACH arm sensor for 'INDEX' off capability.
Check FILE arm sensor for false 'INDEX'.

Card: SV WR IF
Slot: A1 A4 A3

1F8 TEST1F Software count of MACHINE arm tachs (6036) was extremely low through the 'INDEX' area. This may indicate inoperable phase A and/or B tach lines.

Status B-2,B-3: MACH index dist (low, high byte)
Allowed range: 00F0h -> 0108h

Check MACH arm tach assembly for tach signals.

Card: SV WR IF
Slot: A1 A4 A3

Code	Detected by	Fault Description--FRU'S

1F9 TEST1F Software count of FILE arm tachs (6036) was extremely low through the 'INDEX' area. This may indicate inoperable phase A and/or B tach lines.

Status B-4,B-5: FILE index dist (low, high byte)
Allowed range: 00F0h -> 0108h

Check FILE arm tach assembly for tach signals.

Card: SV WR IF
Slot: A1 A4 A3

1FA TEST1F Software count of MACHINE arm tachs (6036) thru 'INDEX' area was not as expected.

Status B-2,B-3: MACH index dist (low, high byte)
Allowed range: 00F0h -> 0108h

Card: SV WR IF
Slot: A1 A4 A3

1FB TEST1F Software count of FILE arm tachs (6036) through 'INDEX' area was not as expected.

Status B-4,B-5: FILE index dist (low, high byte)
Allowed range: 00F0h -> 0108h

Card: SV WR IF
Slot: A1 A4 A3

1FC TEST1F Insufficient EPO margin ('EXTENDED' to 'INDEX') was indicated by the MACH arm tach (6036).

Status B-0: MACH epo distance (quarter tachs)
minimum: 03 hex

Check MACH arm tach assembly.

Card: SV WR IF
Slot: A1 A4 A3

Code	Detected by	Fault Description--FRU'S

1FD TEST1F Insufficient EPO margin ('EXTENDED' to 'INDEX') was indicated by the FILE arm tach (6036).

Status B-1: FILE epo distance (quarter tachs)
minimum: 03 hex

Check FILE arm tach assembly.

Card: SV WR IF
Slot: A1 A4 A3

1FE TEST1F Software counts of MACHINE arm position tachs were within allowable limits. However, hardware counter (read from 6034 and placed in Status B-6) was not within 10 (decimal) counts of the software count. (Note: only the low byte of software count is used in the compare).

Status B-2,B-3: mach index dist (low, high byte)
Status B-6: mach index dist (from hardware)

Card: SV WR IF
Slot: A1 A4 A3

1FF TEST1F Software counts of FILE arm position tachs were within allowable limits. However, hardware counter (read from 6035 and placed in Status B-7) was not within 10 (decimal) counts of the software count. (Note: only the low byte of software count is used in the compare).

Status B-4,B-5: file index dist (low, high byte)
Status B-7: file index dist (from hardware)

Card: SV WR IF
Slot: A1 A4 A3

Code	Detected by	Fault Description--FRU'S

221 TEST22 Write and/or Read complete (6014) failed to initialize following a reset (601E).

STATUS B-0: patterns in order of execution--
0- FF's to data path
1- 00's to data path
2- AA55 pattern
3- 55AA pattern
4- walking 0 bit
5- walking 1 bit
6- pseudo random (long records)
STATUS B-1: byte count (range: 5 -> 8)
STATUS B-2: byte pointer (walking bit patterns)
STATUS B-3: bit pointer (" " ")

Card: DP IF
Slot: A5 A3

222 TEST22 Attempt to clear data-path-complete interrupt from interrupt controller (8259: IRR reg) failed--see code 221 for status locations.

Card: DP IF
Slot: A5 A3

223 TEST22 After setting byte count (IF card) and allowing write transfer, write complete did not occur--see code 221 for status locations.

Card: DP IF
Slot: A5 A3

224 TEST22 Data path complete was returned early; before the expected termination of postamble writing--see code 221 for status locations.

Card: DP IF
Slot: A5 A3

Code	Detected by	Fault Description--FRU'S

225 TEST22 After issuing read command, setting short reset to data path front end (601D), and allowing data transfer, timeout occurred waiting for read complete--see code 221 for status locations.

Card: DP IF WR
Slot: A5 A3 A4

226 TEST22 After readback of given byte count, data-path-complete interrupt (indicating completion of postamble write) did not occur--see code 221 for status locations.

Card: DP RD IF WR
Slot: A5 A6 A3 A4

227 TEST22 Parity was incorrect (6014) following completion of readback--see code 221 for status locations.

Card: DP IF
Slot: A5 A3

229 TEST22 Reject occurred during speed switch operation. See description of reject codes preceeding code E01.

22A TEST22 Following completion of write and read portions of the loop-write-read, DPSTATA (6041) was not as expected (00h or 01h)--see code 221 for status locations.

Card: DP RD WR IF
Slot: A5 A6 A4 A3

22B TEST22 Following completion of write and read portions of the loop-write-read, DPSTATB (6042) was not as expected (00h or 02h)--see code 221 for status locations.

Card: DP RD WR IF
Slot: A5 A6 A4 A3

Code	Detected by	Fault Description--FRU'S
22C	TEST22	Following completion of write and read portions of the loop-write-read, DPSTATC (6043) was not as expected (00h -> 07h)--see code 221 for status locations. Card: DP RD WR IF Slot: A5 A6 A4 A3
22F	TEST22	Following completion of write and read portions of the loop-write-read without detectable errors, write and read buffer data miscompared--see code 221 for status locations. Card: DP IF Slot: A5 A3
231	TEST23	Data path "Status A" (6041) not indicating velocity error only (02 hex) following a "loop-write-to-read" record written at 12.5% high velocity. STATUS A-0: failing status bits Card: DP IF Slot: A5 A3
232	TEST23	Data path "Status A" (6041) not zero following a "loop-write-to-read" record written at 5.6% high velocity. Card: DP IF Slot: A5 A3
233	TEST23	Data path "Status A" (6041) not zero following a "loop-write-to-read" record written at 8.2% low velocity. Card: DP IF Slot: A5 A3

Code	Detected by	Fault Description--FRU'S

234 TEST23 Data path "Status A" (6041) not indicating velocity error only (02 hex) following a "loop-write-to-read" record written at 15.1% low velocity.

STATUS A-0: failing status bits

Card: DP IF
Slot: A5 A3

239 TEST23 Reject occurred during speed switch operation. See description of reject codes preceeding code E01.

241 TEST24 Write and/or Read complete (6014) failed to initialize following a reset (601E).

STATUS B-0: patterns in order of execution--
0- FF's to data path
1- 00's to data path
2- AA55 pattern
3- 55AA pattern
4- walking 0 bit
5- walking 1 bit
6- pseudo random (long records)
STATUS B-1: byte count (range: 1 -> 6)
STATUS B-2: byte pointer (walking bit patterns)
STATUS B-3: bit pointer (" " ")

Card: DP IF
Slot: A5 A3

242 TEST24 Attempt to clear data-path-complete interrupt from interrupt controller (8259: IRR reg) failed-- see code 241 for status locations.

Card: DP IF
Slot: A5 A3

243 TEST24 After setting byte count (IF card) and allowing write transfer, write complete did not occur-- see code 241 for status locations.

Card: DP IF
Slot: A5 A3

Code	Detected by	Fault Description--FRU'S

244 TEST24 Data path complete was returned early; before the expected termination of postamble writing--see code 241 for status locations.

Card: DP IF
Slot: A5 A3

245 TEST24 After issuing read command, setting short reset to data path front end (601D), and allowing data transfer, timeout occurred waiting for read complete--see code 241 for status locations.

Card: DP IF
Slot: A5 A3

246 TEST24 After readback of given byte count, data-path-complete interrupt (indicating completion of postamble write) did not occur--see code 241 for status locations.

Card: DP RD IF WR
Slot: A5 A6 A3 A4

247 TEST24 Parity was incorrect (6014) following completion of readback--see code 241 for status locations.

Card: DP IF
Slot: A5 A3

249 TEST24 Reject occurred during speed switch operation. See description of reject codes preceeding code E01.

24A TEST24 Following completion of write and read portions of the loop-write-read, DPSTATA (6041) was not as expected (00h or 01h)--see code 241 for status locations.

Card: DP RD WR IF
Slot: A5 A6 A4 A3

Code	Detected by	Fault Description--FRU'S

24B TEST24 Following completion of write and read portions of the loop-write-read, DPSTATB (6042) was not as expected (00h or 08h)--see code 241 for status locations.

Card: DP RD WR IF
Slot: A5 A6 A4 A3

24C TEST24 Following completion of write and read portions of the loop-write-read, DPSTATC (6043) was not as expected (00h -> 07h)--see code 241 for status locations.

Card: DP RD WR IF
Slot: A5 A6 A4 A3

24F TEST24 Following completion of write and read portions of the loop-write-read without detectable errors, write and read buffer data miscompared--see code 241 for status locations.

Card: DP IF
Slot: A5 A3

251 TEST25 Data path "Status A" (6041) not indicating velocity error only (02 hex) following a "loop-write-to-read" record written at 12.5% high velocity.

STATUS A-0: failing status bits

Card: DP IF
Slot: A5 A3

252 TEST25 Data path "Status A" (6041) not zero following a "loop-write-to-read" record written at 5.6% high velocity.

Card: DP IF
Slot: A5 A3

Code	Detected by	Fault Description--FRU'S

253 TEST25 Data path "Status A" (6041) not zero following a "loop-write-to-read" record written at 8.2% low velocity.

Card: DP IF
Slot: A5 A3

254 TEST25 Data path "Status A" (6041) not indicating velocity error only (02 hex) following a "loop-write-to-read" record written at 15.1% low velocity.

STATUS A-0: failing status bits

Card: DP IF
Slot: A5 A3

259 TEST25 Reject occurred during speed switch operation. See description of reject codes preceeding code E01.

261 TEST26 Write and/or Read complete (6014) failed to initialize following a reset (601E).

STATUS C-0: dead tracks (tracks 0-7, initially 01)
STATUS C-1: dead tracks (track P, initially 00)

STATUS B-0: patterns in order of execution--
4- walking 0 bit
6- pseudo random (long records)
STATUS B-1: byte count (8 bytes for pattern 4)
STATUS B-2: byte pointer (walking bit patterns)
STATUS B-3: bit pointer (" " ")

Card: DP IF
Slot: A5 A3

262 TEST26 Attempt to clear data-path-complete interrupt from interrupt controller (8259: IRR reg) failed-- see code 261 for status locations.

Card: DP IF
Slot: A5 A3

Code	Detected by	Fault Description--FRU'S

263 TEST26 After setting byte count (IF card) and allowing write transfer, write complete did not occur--see code 261 for status locations.

Card: DP IF
Slot: A5 A3

264 TEST26 Data path complete was returned early; before the expected termination of postamble writing--see code 261 for status locations.

Card: DP IF
Slot: A5 A3

265 TEST26 After issuing read command, setting short reset to data path front end (601D), and allowing data transfer, timeout occurred waiting for read complete--see code 261 for status locations.

Card: DP IF
Slot: A5 A3

266 TEST26 After readback of given byte count, data-path-complete interrupt (indicating completion of postamble write) did not occur--see code 261 for status locations.

Card: DP RD IF WR
Slot: A5 A6 A3 A4

267 TEST26 Parity was incorrect (6014) following completion of readback--see code 261 for status locations.

Card: DP IF
Slot: A5 A3

269 TEST26 Reject occurred during speed switch operation. See description of reject codes preceeding code E01.

Code	Detected by	Fault Description--FRU'S

26A TEST26 Following completion of write and read portions of the loop-write-read, DPSTATA (6041) was not as expected (08h or 09h)--see code 261 for status locations.

Card: DP RD WR IF
Slot: A5 A6 A4 A3

26B TEST26 Following completion of write and read portions of the loop-write-read, DPSTATB (6042) was not as expected (00h or 02h)--see code 261 for status locations.

Card: DP RD WR IF
Slot: A5 A6 A4 A3

26C TEST26 Following completion of write and read portions of the loop-write-read, DPSTATC (6043) was not as expected (00h -> 07h)--see code 261 for status locations.

Card: DP RD WR IF
Slot: A5 A6 A4 A3

26F TEST26 Following completion of write and read portions of the loop-write-read without detectable errors, write and read buffer data miscompared--see code 261 for status locations.

Card: DP IF
Slot: A5 A3

Code	Detected by	Fault Description--FRU'S

271 TEST27 Write and/or Read complete (6014) failed to initialize following a reset (601E).

STATUS C-0: dead tracks (tracks 0-7, initially 01)
STATUS C-1: dead tracks (track P, initially 00)

STATUS B-0: patterns in order of execution--
4- walking 0 bit
6- pseudo random (long records)
STATUS B-1: byte count (6 bytes for pattern 4)
STATUS B-2: byte pointer (walking bit patterns)
STATUS B-3: bit pointer (" " ")

Card: DP IF
Slot: A5 A3

272 TEST27 Attempt to clear data-path-complete interrupt from interrupt controller (8259: IRR reg) failed--see code 271 for status locations.

Card: DP IF
Slot: A5 A3

273 TEST27 After setting byte count (IF card) and allowing write transfer, write complete did not occur--see code 271 for status locations.

Card: DP IF
Slot: A5 A3

274 TEST27 Data path complete was returned early; before the expected termination of postamble writing--see code 271 for status locations.

Card: DP IF
Slot: A5 A3

Code	Detected by	Fault Description--FRU'S
275	TEST27	After issuing read command, setting short reset to data path front end (601D), and allowing data transfer, timeout occurred waiting for read complete--see code 271 for status locations. Card: DP IF Slot: A5 A3
276	TEST27	After readback of given byte count, data-path-complete interrupt (indicating completion of postamble write) did not occur--see code 271 for status locations. Card: DP RD IF WR Slot: A5 A6 A3 A4
277	TEST27	Parity was incorrect (6014) following completion of readback--see code 271 for status locations. Card: DP IF Slot: A5 A3
279	TEST27	Reject occurred during speed switch operation. See description of reject codes preceeding code E01.
27A	TEST27	Following completion of write and read portions of the loop-write-read, DPSTATA (6041) was not as expected (08h or 09h)--see code 271 for status locations. Card: DP RD WR IF Slot: A5 A6 A4 A3
27B	TEST27	Following completion of write and read portions of the loop-write-read, DPSTATB (6042) was not as expected (00h or 08h)--see code 271 for status locations. Card: DP RD WR IF Slot: A5 A6 A4 A3

Code	Detected by	Fault Description--FRU'S

27C TEST27 Following completion of write and read portions of the loop-write-read, DPSTATC (6043) was not as expected (00h -> 07h)--see code 271 for status locations.

Card: DP RD WR IF
Slot: A5 A6 A4 A3

27F TEST27 Following completion of write and read portions of the loop-write-read without detectable errors, write and read buffer data miscompared--see code 271 for status locations.

Card: DP IF
Slot: A5 A3

281 TEST28 Write and/or Read complete (6014) failed to initialize following a reset (601E).

STATUS C-0: dead tracks (tracks 0-7, initially 03)
STATUS C-1: dead tracks (track P, initially 00)

STATUS B-0: patterns in order of execution--
4- walking 0 bit
6- pseudo random (long records)
STATUS B-1: byte count (8 bytes for pattern 4)
STATUS B-2: byte pointer (walking bit patterns)
STATUS B-3: bit pointer (" " ")

Card: DP IF
Slot: A5 A3

282 TEST28 Attempt to clear data-path-complete interrupt from interrupt controller (8259: IRR reg) failed--see code 281 for status locations.

Card: DP IF
Slot: A5 A3

Code	Detected by	Fault Description--FRU'S
283	TEST28	After setting byte count (IF card) and allowing write transfer, write complete did not occur--see code 281 for status locations. Card: DP IF Slot: A5 A3
284	TEST28	Data path complete was returned early; before the expected termination of postamble writing--see code 281 for status locations. Card: DP IF Slot: A5 A3
285	TEST28	After issuing read command, setting short reset to data path front end (601D), and allowing data transfer, timeout occurred waiting for read complete--see code 281 for status locations. Card: DP IF Slot: A5 A3
286	TEST28	After readback of given byte count, data-path-complete interrupt (indicating completion of postamble write) did not occur--see code 281 for status locations. Card: DP RD IF WR Slot: A5 A6 A3 A4
289	TEST28	Reject occurred during speed switch operation. See description of reject codes preceeding code E01.
28A	TEST28	Following completion of write and read portions of the loop-write-read, DPSTATA (6041) was not as expected (74h; 09h bits don't care)--see code 281 for status locations. Card: DP RD WR IF Slot: A5 A6 A4 A3

Code	Detected by	Fault Description--FRU'S

28B TEST28 Following completion of write and read portions of the loop-write-read, DPSTATB (6042) was not as expected (00h; 0Bh bits don't care)--see code 281 for status locations.

Card: DP RD WR IF
Slot: A5 A6 A4 A3

28C TEST28 Following completion of write and read portions of the loop-write-read, DPSTATC (6043) was not as expected (00h -> 07h)--see code 281 for status locations.

Card: DP RD WR IF
Slot: A5 A6 A4 A3

28D TEST28 CRC-C and BUPER did not both set in DPSTATB (6042) at some time during multi-track error PE loop-write to read testing.

Card: DP IF
Slot: A5 A3

291 TEST29 Write and/or Read complete (6014) failed to initialize following a reset (601E).

STATUS C-0: dead tracks (tracks 0-7, initially 03)
STATUS C-1: dead tracks (track P, initially 00)

STATUS B-0: patterns in order of execution--
4- walking 0 bit
6- pseudo random (long records)
STATUS B-1: byte count (6 bytes for pattern 4)
STATUS B-2: byte pointer (walking bit patterns)
STATUS B-3: bit pointer (" " ")

Card: DP IF
Slot: A5 A3

Code	Detected by	Fault Description--FRU'S

292 TEST29 Attempt to clear data-path-complete interrupt from interrupt controller (8259: IRR reg) failed--see code 291 for status locations.

Card: DP IF
Slot: A5 A3

293 TEST29 After setting byte count (IF card) and allowing write transfer, write complete did not occur--see code 291 for status locations.

Card: DP IF
Slot: A5 A3

294 TEST29 Data path complete was returned early; before the expected termination of postamble writing--see code 291 for status locations.

Card: DP IF
Slot: A5 A3

295 TEST29 After issuing read command, setting short reset to data path front end (601D), and allowing data transfer, timeout occurred waiting for read complete--see code 291 for status locations.

Card: DP IF
Slot: A5 A3

296 TEST29 After readback of given byte count, data-path-complete interrupt (indicating completion of postamble write) did not occur--see code 291 for status locations.

Card: DP RD IF WR
Slot: A5 A6 A3 A4

297 TEST29 Parity was incorrect (6014) following completion of readback--see code 291 for status locations.

Card: DP IF
Slot: A5 A3

Code	Detected by	Fault Description--FRU'S
299	TEST29	Reject occurred during speed switch operation. See description of reject codes preceeding code E01.
29A	TEST29	Following completion of write and read portions of the loop-write-read, DPSTATA (6041) was not as expected (10h,11h,18h, or 19h)--see code 291 for status locations. Card: DP RD WR IF Slot: A5 A6 A4 A3
29B	TEST29	Following completion of write and read portions of the loop-write-read, DPSTATB (6042) was not as expected (00h or 08h)--see code 291 for status locations. Card: DP RD WR IF Slot: A5 A6 A4 A3
29C	TEST29	Following completion of write and read portions of the loop-write-read, DPSTATC (6043) was not as expected (00h -> 07h)--see code 291 for status locations. Card: DP RD WR IF Slot: A5 A6 A4 A3
29F	TEST29	Following completion of write and read portions of the loop-write-read without detectable errors, write and read buffer data miscompared--see code 291 for status locations. Card: DP IF Slot: A5 A3

Code	Detected by	Fault Description--FRU'S

2C1 TEST2C Write and/or read complete (6014) failed to initialize following a reset (601E).

STATUS B-0: patterns in order of execution--
- 0- FF's to data path
- 1- 00's to data path
- 2- AA55 pattern
- 3- 55AA pattern
- 4- walking 0 bit
- 5- walking 1 bit
- 6- pseudo random (long records)

STATUS B-1: byte count (range: 5 -> 8)
STATUS B-2: byte pointer (walking bit patterns)
STATUS B-3: bit pointer (" " ")

Card: DP IF
Slot: A5 A3

2C2 TEST2C Attempt to clear data-path-complete interrupt from interrupt controller (8259: IRR reg) failed--
See code 2C1 for status locations.

Card: DP IF
Slot: A5 A3

2C3 TEST2C After setting byte count (IF card) and allowing write transfer, write complete did not occur--
See code 2C1 for status locations.

Card: DP IF
Slot: A5 A3

2C4 TEST2C Data path complete was returned early; before the expected termination of postamble writing--
See code 2C1 for status locations.

Card: DP IF
Slot: A5 A3

Code	Detected by	Fault Description--FRU'S

2C5 TEST2C After issuing read command, setting short reset to data path front end (601D), and allowing data transfer, timeout occurred waiting for read complete--see code 2C1 for status locations.

Card: DP IF WR
Slot: A5 A3 A4

2C6 TEST2C After readback of given byte count, data-path-complete interrupt (indicating completion of postamble write) did not occur--see code 2C1 for status locations.

Card: DP RD IF WR
Slot: A5 A6 A3 A4

2C7 TEST2C Parity was incorrect (6014) following completion of readback--see code 2C1 for status locations.

Card: DP IF
Slot: A5 A3

2C9 TEST2C Reject occurred during speed switch operation. See description of reject codes preceeding code E01.

2CA TEST2C Following completion of write and read portions of the loop-write-read, DPSTATA (6041) was not as expected (00h or 01h)--see code 2C1 for status locations.

Card: DP RD WR IF
Slot: A5 A6 A4 A3

2CB TEST2C Following completion of write and read portions of the loop-write-read, DPSTATB (6042) was not as expected (00h or 02h)--see code 2C1 for status locations.

Card: DP RD WR IF
Slot: A5 A6 A4 A3

Code	Detected by	Fault Description--FRU'S

2CC TEST2C Following completion of write and read portions of the loop-write-read, DPSTATC (6043) was not as expected (00h -> 07h)--see code 2C1 for status locations.

Card: DP RD WR IF
Slot: A5 A6 A4 A3

2CF TEST2C Following completion of write and read portions of the loop-write-read without detectable errors, write and read buffer data miscompared--see code 2C1 for status locations.

Card: DP IF
Slot: A5 A3

2E1 TEST2E Write and/or Read complete (6014) failed to initialize following a reset (601E).

STATUS B-0: patterns in order of execution--
0- FF's to data path
1- 00's to data path
2- AA55 pattern
3- 55AA pattern
4- walking 0 bit
5- walking 1 bit
6- pseudo random (long records)
STATUS B-1: byte count (range: 1 -> 6)
STATUS B-2: byte pointer (walking bit patterns)
STATUS B-3: bit pointer (" " ")

Card: DP IF
Slot: A5 A3

2E2 TEST2E Attempt to clear data-path-complete interrupt from interrupt controller (8259: IRR reg) failed--see code 2E1 for status locations.

Card: DP IF
Slot: A5 A3

Code	Detected by	Fault Description--FRU'S

2E3 TEST2E After setting byte count (IF card) and allowing write transfer, write complete did not occur--see code 2E1 for status locations.

Card: DP IF
Slot: A5 A3

2E4 TEST2E Data path complete was returned early; before the expected termination of postamble writing--see code 2E1 for status locations.

Card: DP IF
Slot: A5 A3

2E5 TEST2E After issuing read command, setting short reset to data path front end (601D), and allowing data transfer, timeout occurred waiting for read complete--see code 2E1 for status locations.

Card: DP IF
Slot: A5 A3

2E6 TEST2E After readback of given byte count, data-path-complete interrupt (indicating completion of postamble write) did not occur--see code 2E1 for status locations.

Card: DP RD IF WR
Slot: A5 A6 A3 A4

2E7 TEST2E Parity was incorrect (6014) following completion of readback--see code 2E1 for status locations.

Card: DP IF
Slot: A5 A3

2E9 TEST2E Reject occurred during speed switch operation. See description of reject codes preceeding code E01.

Code	Detected by	Fault Description--FRU'S

2EA TEST2E Following completion of write and read portions of the loop-write-read, DPSTATA (6041) was not as expected (00h or 01h)--see code 2E1 for status locations.

Card: DP RD WR IF
Slot: A5 A6 A4 A3

2EB TEST2E Following completion of write and read portions of the loop-write-read, DPSTATB (6042) was not as expected (00h or 08h)--see code 2E1 for status locations.

Card: DP RD WR IF
Slot: A5 A6 A4 A3

2EC TEST2E Following completion of write and read portions of the loop-write-read, DPSTATC (6043) was not as expected (00h -> 07h)--see code 2E1 for status locations.

Card: DP RD WR IF
Slot: A5 A6 A4 A3

2EF TEST2E Following completion of write and read portions of the loop-write-read without detectable errors, write and read buffer data miscompared--see code 2E1 for status locations.

Card: DP IF
Slot: A5 A3

321 TEST32 While in EPO'd state and driving both machine and file DAC's (SV) through drive range (7Fh to 80h), current mode feedback indicated multiple null points.

Status A-0: first negative drive feedback (mach)
Status A-1: first negative drive feedback (file)

Card: SV IF EPO Relay
Slot: A1 A3 MBD

Code	Detected by	Fault Description--FRU'S

322 TEST32 Machine/File reel current mode feedback (6050) indicated null points outside range: F0h <-> 0Fh.

Status A-0: machine reel null
Status A-1: file reel null

Card: SV IF -
Slot: A1 A3

323 TEST32 With EPO reset (current driven thru reels) and DAC drive applied, initial current mode feedback (-pump up/down) was incorrect. This is represented by a FF byte in any of the following status...

Status B-0: MACH reel current time, DAC = 7F
Status B-1: MACH reel current time, DAC = 40
Status B-2: MACH reel current time, DAC = 20
Status B-3: MACH reel current time, DAC = 10
Status B-4: MACH reel current time, DAC = EF
Status B-5: MACH reel current time, DAC = DF
Status B-6: MACH reel current time, DAC = BF
Status B-7: MACH reel current time, DAC = 80

Status B-8: FILE reel current time, DAC = 7F
Status B-9: FILE reel current time, DAC = 40
Status B-A: FILE reel current time, DAC = 20
Status B-B: FILE reel current time, DAC = 10
Status B-C: FILE reel current time, DAC = EF
Status B-D: FILE reel current time, DAC = DF
Status B-E: FILE reel current time, DAC = BF
Status B-F: FILE reel current time, DAC = 80

Card: SV IF
Slot: A1 A3

Code	Detected by	Fault Description--FRU'S

324 TEST32 With EPO reset (current driven thru MACHINE reel), current feedback was not detected. The timeout for this feedback is indicated by a FE in any of..

Status B-0: MACH reel current time, DAC = 7F
Status B-1: MACH reel current time, DAC = 40
Status B-2: MACH reel current time, DAC = 20
Status B-3: MACH reel current time, DAC = 10
Status B-4: MACH reel current time, DAC = EF
Status B-5: MACH reel current time, DAC = DF
Status B-6: MACH reel current time, DAC = BF
Status B-7: MACH reel current time, DAC = 80

Check MACHINE reel motor cabling.

Card:	SV	IF	Machine Reel	EPO Relay
Slot:	A1	A3	Motor	MBD

325 TEST32 With EPO reset (current driven thru FILE reel), current feedback was not detected. The timeout for this feedback is indicated by a FE in any of..

Status B-8: FILE reel current time, DAC = 7F
Status B-9: FILE reel current time, DAC = 40
Status B-A: FILE reel current time, DAC = 20
Status B-B: FILE reel current time, DAC = 10
Status B-C: FILE reel current time, DAC = EF
Status B-D: FILE reel current time, DAC = DF
Status B-E: FILE reel current time, DAC = BF
Status B-F: FILE reel current time, DAC = 80

Check FILE reel motor cabling.

Card:	SV	File Reel	EPO Relay
Slot:	A1	Motor	MBD

326 TEST32 In current mode, the two reel DAC's were each driven through 8 levels: most positive to most negative. The resulting current feedback times did not follow the relative level of drive.

Card:	SV
Slot:	A1

Code	Detected by	Fault Description--FRU'S

327 TEST32 The feedback time of MACHINE or FILE reel current was not reduced by a power supply switch to the higher rewind voltage. The expected ratio:

Normal/Rewind > 1.125

Status B-0: Normal-V feedback (Machine)
Status C-0: Rewind-V feedback (Machine)

Status B-8: Normal-V feedback (File)
Status C-8: Rewind-V feedback (File)

Card: SV AK
Slot: A1 Pwr Supply

328 TEST32 In threading mode (voltage feedback), each reel DAC was driven to a forward (08h) and a backward (F7h) level. The "-Pump Up (Down)" signals were not as expected. (In the following status, FF indicates both Up & Down signals were active; FE indicates Up or Down was active longer than 1.5 ms).

Status A-8: Machine reel accel time (Fwd)
Status A-9: Machine reel accel time (Bkwd)
Status A-A: File reel accel time (Fwd)
Status A-B: File reel accel time (Bkwd)

Card: SV
Slot: A1

329 TEST32 In threading mode (voltage feedback), each reel DAC was driven to a forward (08h) and a backward (F7h) level. Motion of the MACHINE reel was not detected (this is indicated by a FD in the status below).

Status A-8: Machine reel accel time (Fwd)
Status A-9: Machine reel accel time (Bkwd)

Card: SV Machine reel
Slot: A1 Motor

Code	Detected by	Fault Description--FRU'S

32A TEST32 In threading mode (voltage feedback), each reel DAC was driven to a forward (08h) and a backward (F7h) level. Motion of the FILE reel was not detected (this is indicated by a FD in the status below).

Status A-A: File reel accel time (Fwd)
Status A-B: File reel accel time (Bkwd)

Card:	SV	File reel
Slot:	A1	Motor

32B TEST32 No detectable capstan motion after 4 ms drive pulse applied (maximum positive drive).

Card:	SV	Capstan/Tach	EPO Relay
Slot:	A1	Motor	MBD

32C TEST32 In processor controlled mode, the capstan DAC was loaded to generate 4 ms pulses of varying magnitude. The resulting capstan positions did not indicate displacement relative to the drive magnitude.

Status B-0: Capstan distance, DAC = 7F (max pos)
Status B-1: Capstan distance, DAC = 40
Status B-2: Capstan distance, DAC = 20
Status B-3: Capstan distance, DAC = 10
Status B-4: Capstan distance, DAC = EF
Status B-5: Capstan distance, DAC = DF
Status B-6: Capstan distance, DAC = BF
Status B-7: Capstan distance, DAC = 80 (max neg)

Card:	SV	Capstan/Tach
Slot:	A1	Motor

32D TEST32 Capstan position count (6024,25) not indicating 50 ips change rate within 100 milli-seconds.

Card:	SV	Capstan/Tach
Slot:	A1	Motor

Code	Detected by	Fault Description--FRU'S

32E TEST32 After successfully ramping capstan to 50 ips (verified by position counter: 6025) velocity control mode was enabled. Tach-A at diagnostic sense register (6050) was inactive or period was more than 50% over nominal sometime during the check of 1000 tach lines (one revolution).

Card: SV Capstan/Tach
Slot: A1 Motor

32F TEST32 After successfully ramping capstan to 50 ips (verified by position counter: 6025) velocity control mode was enabled. Velocity error (6027) was monitored for a complete revolution of the capstan. Low and high velocities did not meet test requirements:

		Allowed range
Status C-0:	Low velocity	FAh -> 0Eh
Status C-1:	High velocity	FEh -> 12h

Card: SV Capstan/Tach
Slot: A1 Motor

331 TEST32 Machine check occurred during the initial unload operation.

Status A-6: Machine check code
See description for code Fxx, where
xx= contents of this status location

332 TEST32 Following successful reel and capstan servo testing, a load operation resulted in a machine check.

Status A-6: Machine check code
See description for code Fxx, where
xx= contents of this status location

333 TEST32 Load task did not complete due to non-machine check interrupt (door open, undefined NMI, etc.).

Card: SV IF WR EOT/BOT
Slot: A1 A3 A4 Sensor

Code	Detected by	Fault Description--FRU'S

334 TEST32 Door open detected during test.

Card: SV IF
Slot: A1 A3

341 TEST34 STATUS A-5 = 0: Drive not loaded

STATUS A-5 not 0: Speed switch reject code
(see description for code Exx, where
xx = contents of this status location)

342 TEST34 EOT status detected.

343 TEST34 Machine check occurred during wait for stable turn around conditions.

Status A-1: motion number (01h -> 20h: fwd)
(21h -> 3Fh: bkwd)
Status A-6: Machine check code
See description for code Fxx, where
xx= contents of this status location

344 TEST34 Reject resulted from switch to 50 ips motion.

Status A-5: Reject code
See description for code Exx, where
xx= contents of this status location

345 TEST34 Machine check occurred during acceleration phase of test.
See status and FRU information for code 343.

346 TEST34 Machine check occurred during sustained velocity phase of test.
See status and FRU information for code 343.

347 TEST34 Machine check occurred during deceleration phase of test.
See status and FRU information for code 343.

Code	Detected by	Fault Description--FRU'S

348 TEST34 Machine check occurred during stop-lock phase of test.
See status and FRU information for code 343.

34A TEST34 Acceleration characteristics were not within spec.
Check for excessive tape path drag.

Status A-1: motion number (01h -> 20h: fwd)
(21h -> 3Fh: bkwd)

	parameter:	should be:
Status B-0:	Cumulative ramp error	DDh -> 23h
Status B-1:	Feed-forward term	08h -> 28h

Card: SV Capstan/Tach
Slot: A1 Motor

34B TEST34 Arm position did not reach zero-error (+/- 5) within required time on long forward or bkwd motion. The thresholds for this test are valid only when using a full 10.5-inch reel. Tape slip may be indicated by this failure (examine & clean capstan).

Status A-1: motion number (01h= 1st fwd)
(21h= 1st bkwd)

	parameter:	should be:
Status B-2:	Mach arm recovery time	00h -> C8h
Status B-3:	File arm recovery time	00h -> C8h

Card: SV Capstan/Tach
Slot: A1 Motor

Code	Detected by	Fault Description--FRU'S

34C TEST34 Sustained velocity characteristics not within spec.

Status A-1: motion number (01h -> 20h: fwd)
(21h -> 3Fh: bkwd)

	parameter:	should be:
Status B-4:	Maximum Velocity	EDh -> 13h
Status B-5:	Minimum Velocity	EDh -> 13h
Status B-6:	Feed-forward term	F4h -> 14h

Card: SV Capstan/Tach
Slot: A1 Motor

34D TEST34 Deceleration characteristics not within spec.

Status A-1: motion number (01h -> 20h: fwd)
(21h -> 3Fh: bkwd)

	parameter:	should be:
Status B-7:	Cumulative ramp error	DDh -> 23h
Status B-8:	Feed-forward term	D8h -> F8h

Card: SV Capstan/Tach
Slot: A1 Motor

34E TEST34 Stop-lock positioning outside limits.

Status A-1: motion number (01h -> 20h: fwd)
(21h -> 3Fh: bkwd)

	parameter:	should be:
Status B-9:	Low position	F6h -> 0Ah
Status B-A:	High position	F6h -> 0Ah

Card: SV Capstan/Tach
Slot: A1 Motor

Code	Detected by	Fault Description--FRU'S

351 TEST35 STATUS A-5 = 0: Drive not loaded

STATUS A-5 not 0: Speed switch reject code
(see description for code Exx, where
xx = contents of this status location)

352 TEST35 ECT status detected.

353 TEST35 Machine check occurred during wait for stable turn around conditions.

Status A-1: motion number (01h -> 20h: fwd)
(21h -> 3Fh: bkwd)
Status A-6: Machine check code
See description for code Fxx, where
xx= contents of this status location

355 TEST35 Machine check occurred during acceleration phase of test.
See status and FRU information for code 353.

356 TEST35 Machine check occurred during sustained velocity phase of test.
See status and FRU information for code 353.

357 TEST35 Machine check occurred during deceleration phase of test.
See status and FRU information for code 353.

358 TEST35 Machine check occurred during stop-lock phase of test.
See status and FRU information for code 353.

Code	Detected by	Fault Description--FRU'S

35A TEST35 Acceleration characteristics were not within spec. Check for excessive tape path drag.

Status A-1: motion number (01h -> 20h: fwd)
(21h -> 3Fh: bkwd)

	parameter:	should be:
Status B-0:	Cumulative ramp error	DDh -> 23h
Status B-1:	Feed-forward term	08h -> 28h

Card: SV Capstan/Tach
Slot: A1 Motor

35B TEST35 Arm position did not reach zero-error (+/- 5) within required time on long forward or bkwd motion. The thresholds for this test are valid only when using a full 10.5-inch reel. Tape slip may be indicated by this failure (examine & clean capstan).

Status A-1: motion number (01h= 1st fwd)
(21h= 1st bkwd)

	parameter:	should be:
Status B-2:	Mach arm recovery time	00h -> C8h
Status B-3:	File arm recovery time	00h -> C8h

Card: SV Capstan/Tach
Slot: A1 Motor

35C TEST35 Sustained velocity characteristics not within spec.

Status A-1: motion number (01h -> 20h: fwd)
(21h -> 3Fh: bkwd)

	parameter:	should be:
Status B-4:	Maximum Velocity	EDh -> 13h
Status B-5:	Minimum Velocity	EDh -> 13h
Status B-6:	Feed-forward term	F4h -> 14h

Card: SV Capstan/Tach
Slot: A1 Motor

Code	Detected by	Fault Description--FRU'S

35D TEST35 Deceleration characteristics not within spec.

Status A-1: motion number (01h -> 20h: fwd)
(21h -> 3Fh: bkwd)

	parameter:	should be:
Status B-7:	Cumulative ramp error	DDh -> 23h
Status B-8:	Feed-forward term	D8h -> F8h

Card: SV Capstan/Tach
Slot: A1 Motor

35E TEST35 Stop-lock positioning outside limits.

Status A-1: motion number (01h -> 20h: fwd)
(21h -> 3Fh: bkwd).

	parameter:	should be:
Status B-9:	Low position	F6h -> 0Ah
Status B-A:	High position	F6h -> 0Ah

Card: SV Capstan/Tach
Slot: A1 Motor

361 TEST36 STATUS A-5 = 0: Drive not loaded

STATUS A-5 not 0: Speed switch reject code
(see description for code Exx, where
xx = contents of this status location)

362 TEST36 Machine check occurred during fwd motion (50 ips).

Status A-6: Machine check code
See description for code Fxx, where
xx= contents of this status location

Check power supply voltages (AK card).

363 TEST36 Machine check occurred during velocity ramp up from 50 to 170 ips.
See status and FRU information for code 362.

Code	Detected by	Fault Description--FRU'S
364	TEST36	Machine check occurred during attempted velocity ramp up from 170 to 220 ips. See status and FRU information for code 362.
365	TEST36	Following BOT detection during rewind, a machine check occurred during the ramp down from approx 220 ips to 50 ips. See status and FRU information for code 362.
366	TEST36	Immediately after rewind ramp down at BOT, a machine check occurred during the settling time. See status and FRU information for code 362.
367	TEST36	Machine check occurred during turn around operation. See status and FRU information for code 362.
368	TEST36	Maximum velocity attained during 125 foot rewind was less than 165 ips (0C7h). Status B-0: maximum velocity (VL-VR) Check for early EOT sticker on tape or spurious EOT detections. Card: SV AK Slot: A1 Pwr Supply
421	TEST42	STATUS A-5 = 0: Drive not loaded STATUS A-5 not 0: Speed switch reject code (see description for code Exx, where xx = contents of this status location)
422	TEST42	Tape must be write enabled
423	TEST42	Reject or Machine check from initial rewind. See description of reject codes preceeding code E01.

Code	Detected by	Fault Description--FRU'S

424 TEST42 Current on or unstable (6061) afer rewind.

Card: WR IF RD
Slot: A4 A3 A6

425 TEST42 Immediately after setting erase, status was in error (6061).

Card: WR IF RD
Slot: A4 A3 A6

426 TEST42 Interrupt from erase transition was not seen.

Card: WR IF
Slot: A4 A3

427 TEST42 Stable erase-only status was not seen in sense register (6061).

Card: WR IF Rd/Wrt
Slot: A4 A3 Head

428 TEST42 Stable write mode status was not seen in sense register (6061).

Card: WR IF Rd/Wrt
Slot: A4 A3 Head

429 TEST42 Interrupt from write transition was not seen.

Card: WR IF
Slot: A4 A3

42A TEST42 Amplitude sensor active without motion (6045 or 6043).

Card: WR IF DP
Slot: A4 A3 A5

Code	Detected by	Fault Description--FRU'S

42B TEST42 Machine check occurred during forward write motion.

Status A-6: Machine check code
See description for code Fxx, where
xx= contents of this status location

42C TEST42 Amplitude sensor not as expected during 30 foot all track write.

Check tape quality.

Status B-0,7: error count for tracks 0,7
Status B-8: error count for tracks P

Card:	WR	RD	DP	Rd/Wrt
Slot:	A4	A6	A5	Head

42D TEST42 Amplitude sensor not as expected during 1 foot write of one track only.

Check tape quality.

Status B-0,7: error count for tracks 0,7
Status B-8: error count for tracks P

Card:	WR	RD	DP	Rd/Wrt
Slot:	A4	A6	A5	Head

42E TEST42 Amplitude sensor not as expected during 1 foot write of all but one track.

Check tape quality.

Status B-0,7: error count for tracks 0,7
Status B-8: error count for tracks P

Card:	WR	RD	DP	Rd/Wrt
Slot:	A4	A6	A5	Head

Code	Detected by	Fault Description--FRU'S

42F TEST42 Amplitude sensor detected during feed-through check (all tracks writing; no motion).

Status B-0,7: error count for tracks 0,7
Status B-8: error count for tracks P

Card:	WR	RD	DP	Rd/Wrt
Slot:	A4	A6	A5	Head

431 TEST43 STATUS A-5 = 0: Drive not loaded

STATUS A-5 not 0: Speed switch reject code (see description for code Exx, where xx = contents of this status location)

432 TEST43 Tape must be write enabled

433 TEST43 Reject or Machine check from initial rewind. See description of reject codes preceeding code E01.

434 TEST43 Current on or unstable (6061) afer rewind.

Card:	WR	IF	RD
Slot:	A4	A3	A6

435 TEST43 Immediately after setting erase, status was in error (6061).

Card:	WR	IF	RD
Slot:	A4	A3	A6

436 TEST43 Interrupt from erase transition was not seen.

Card:	WR	IF
Slot:	A4	A3

Code	Detected by	Fault Description--FRU'S

437 TEST43 Stable erase-only status was not seen in sense register (6061).

Card: WR IF Rd/Wrt
Slot: A4 A3 Head

438 TEST43 Stable write mode status was not seen in sense register (6061).

Card: WR IF Rd/Wrt
Slot: A4 A3 Head

43A TEST43 Amplitude sensor active without motion (6045 or 6043).

Card: WR IF DP
Slot: A4 A3 A5

43B TEST43 Machine check occurred during forward write motion.

Status A-6: Machine check code
See description for code Fxx, where
xx= contents of this status location

43C TEST43 Amplitude sensor not as expected during 30 foot all track write.

Check tape quality.

Status B-0,7: error count for tracks 0,7
Status B-8: error count for tracks P

Card: WR RD DP Rd/Wrt
Slot: A4 A6 A5 Head

Code	Detected by	Fault Description--FRU'S

43D TEST43 Amplitude sensor not as expected during 1 foot write of one track only.

Check tape quality.

Status B-0,7: error count for tracks 0,7
Status B-8: error count for tracks P

Card: WR RD DP Rd/Wrt
Slot: A4 A6 A5 Head

43E TEST43 Amplitude sensor not as expected during 1 foot write of all but one track.

Check tape quality.

Status B-0,7: error count for tracks 0,7
Status B-8: error count for tracks P

Card: WR RD DP Rd/Wrt
Slot: A4 A6 A5 Head

43F TEST43 Amplitude sensor detected during feed-through check (all tracks writing; no motion).

Status B-0,7: error count for tracks 0,7
Status B-8: error count for tracks P

Card: WR RD DP Rd/Wrt
Slot: A4 A6 A5 Head

481 TEST48 STATUS A-5 = 0: Drive not loaded

STATUS A-5 not 0: Speed switch reject code
(see description for code Exx, where
xx = contents of this status location)

482 TEST48 Tape must be write enabled

483 TEST48 Reject or Machine check from initial rewind.
See description of reject codes preceeding code E01.

Code	Detected by	Fault Description--FRU'S

484 TEST48 Reject or Machine check from internal write command.

Status A-0,A-1: Low, high byte of record number.
Range: 000-100 hex.
See description of reject codes preceeding code E01.

485 TEST48 Write overrun status (6042) during internal write (data supplied to DP from IF card only).

Status A-0,A-1: Low, high byte of record number.
Range: 000-100 hex.

Card: IF DP
Slot: A3 A5

486 TEST48 Bus parity error status (6042) during internal write (data supplied to DP from IF card only).

Status A-0,A-1: Low, high byte of record number.
(Range: 000-100 hex)

Card: IF DP
Slot: A3 A5

488 TEST48 Reject or Machine check from back-space-block or erase-gap command during write error recovery.
See description of reject codes preceeding code E01.

489 TEST48 During write error recovery, all 5 retries failed.

Status A-0,A-1: Low, high byte of record number.
(Range: 000-100 hex)

Check tape quality.

Card: DP WR RD IF
Slot: A5 A4 A6 A3

Code	Detected by	Fault Description--FRU'S

48A TEST48 Reject or Machine check from write-tape-mark command.

Status A-0,A-1: Low, high byte of record number (first WTM occurs at 10 hex)
See description of reject codes preceeding code E01.

48B TEST48 During the writing of 256 PE records, more than one temporary write error occurred.

Status A-2: Total failing writes
Status A-3: Temporary write errors (1 data check in 6 attempts)
Status A-4: Media defects (>1 data check in 6 attempts)

** Read/Write Error Tallies **

Status A-8: Data checks Status A-C: Multi-trks
Status A-9: Velocity Status A-D: Part. recd's
Status A-A: End Data Chks Status A-E: Un-corr.
Status A-B: Corrections Status A-F: CRC errors

Status B-0 -> B-8: Dead Track counters 0-7,P
Status C-0 -> C-8: Phase error counters 0-7,P

Card: DP WR RD IF
Slot: A5 A4 A6 A3

491 TEST49 STATUS A-5 = 0: Drive not loaded

STATUS A-5 not 0: Speed switch reject code (see description for code Exx, where xx = contents of this status location)

492 TEST49 Reject or machine check from initial rewind.
See description of reject codes preceeding code E01.

493 TEST49 Reject or Machine check from internal read forward.
See description of reject codes preceeding code E01.

Code	Detected by	Fault Description--FRU'S

496 TEST49 Unexpected tape mark (did not follow a 16 record group). Tape must have been written by TEST48.

Status A-0,A-1: Low, high byte of record number (Range: 000-100 hex)

Card: DP
Slot: A5

497 TEST49 Unexpected tape mark (more than 256 records read correctly, but tape mark did not follow 16 record group). Tape must have been written by TEST48.

Status A-0,A-1: Low, high byte of record number (Range: 000-100 hex)

Card: DP
Slot: A5

499 TEST49 Data miscompare following read without data check (tape must have been written by TEST48). Comparison involved 32 bytes of write buffer (8000-801F) and 32 bytes of read buffer (8020-803F). Data should match record number below:

Status A-0,A-1: Low, high byte of record number (Range: 000-100 hex)

Card: DP RD IF
Slot: A5 A6 A3

49B TEST49 Reject or Machine check from internal read forward over expected tape mark.

Status A-0,A-1: Low, high byte of record number (Range: 000-100 hex)

See description of reject codes preceeding code E01.

Code	Detected by	Fault Description--FRU'S

49C TEST49 Tape mark status not detected when expected (but 16 record group read OK).

Status A-0,A-1: Low, high byte of record number (Range: 000-100 hex, first TMK @ 10)

Card: DP
Slot: A5

49E TEST49 Failed internal record read with 5 retries.

Status A-0,A-1: Low, high byte of record number (Range: 000-100 hex)

** Read/Write Error Tallies **

Status A-8: Data checks Status A-C: Multi-trks
Status A-9: Velocity Status A-D: Part. recd's
Status A-A: End Data Chks Status A-E: Un-corr.
Status A-B: Corrections Status A-F: CRC errors

Status B-0 -> B-8: Dead track counters 0-7, P
Status C-0 -> C-8: Phase error counters 0-7, P

Card: DP
Slot: A5

49F TEST49 Reject or Machine check from internal Back-Space-Block command during read error recovery.
See description of reject codes preceeding code E01.

4A1 TEST4A STATUS A-5 = 0: Drive not loaded

STATUS A-5 not 0: Speed switch reject code (see description for code Exx, where xx = contents of this status location)

4A2 TEST4A Reject or Machine check from internal read backward operation (searching for EOF tape marks).
See description of reject codes preceeding code E01.

Code	Detected by	Fault Description--FRU'S

4A3 TEST4A Reject or Machine check from internal read forward operations (searching for EOF tape marks) or read backward operations (if positioning around TMK's). See description of reject codes preceeding code E01.

4A4 TEST4A After finding 2 tape marks reading forward, read backward operation did not produce tape mark status.

Card: DP
Slot: A5

4A5 TEST4A Reject or Machine check from internal read backward. See description of reject codes preceeding code E01.

4A6 TEST4A ID-burst status (6043) detected before reading 256 records. Tape must have been written by TEST48.

Status A-0: record number (range: FF-00)

Card: DP
Slot: A5

4A7 TEST4A Data miscompare following read without data check (tape must have been written by TEST48). Comparison involved 32 bytes of write buffer (8000-801F) and 32 bytes of read buffer (8020-803F). Data should match record number below:

Status A-0: record number expected (range: FF-00)

Card: DP RD IF
Slot: A5 A6 A3

4A8 TEST4A Unexpected tape mark (did not follow a 16 record group). Tape must have been written by TEST48.

Status A-0: record number (range: FF-00)

Card: DP
Slot: A5

Code	Detected by	Fault Description--FRU'S

4AE TEST4A Failed internal record read with 5 retries.

Status A-0,A-1: Low, high byte of record number
(Range: 000-100 hex)

** Read/Write Error Tallies **

Status A-8: Data checks Status A-C: Multi-trks
Status A-9: Velocity Status A-D: Part. recd's
Status A-A: End Data Chks Status A-E: Un-corr.
Status A-B: Corrections Status A-F: CRC errors

Status B-0 -> B-8: Dead track counters 0-7, P
Status C-0 -> C-8: Phase error counters 0-7, P

Card: DP IF
Slot: A5 A3

4AF TEST4A Reject or Machine check from internal Forward-Space-Block command during read error recovery.
See description of reject codes preceeding code E01.

4B1 TEST4B STATUS A-5 = 0: Drive not loaded

STATUS A-5 not 0: Speed switch reject code
(see description for code Exx, where
xx = contents of this status location)

4B2 TEST4B Reject or Machine check from initial rewind.
See description of reject codes preceeding code E01.

4B3 TEST4B Reject or Machine check from read backward.
See description of reject codes preceeding code E01.

Code	Detected by	Fault Description--FRU'S

4B4 TEST4B Data checks occurred on 5 retries of read backward operation. Check tape quality.

** Read/Write Error Tallies **

Status A-8: Data checks Status A-C: Multi-trks
Status A-9: Velocity Status A-D: Part. recd's
Status A-A: End Data Chks Status A-E: Un-corr.
Status A-B: Corrections Status A-F: CRC errors

Status B-0 -> B-8: Dead track counters 0-7, P
Status C-0 -> C-8: Phase error counters 0-7, P

Card: DP RD
Slot: A5 A6

4B5 TEST4B Reject or Machine check from forward-space-block command during read backward error recovery. See description of reject codes preceeding code E01.

4B6 TEST4B Reject or Machine check from read forward. See description of reject codes preceeding code E01.

4B7 TEST4B Data checks occurred on 5 retries of read forward operation. Check tape quality.

** Read/Write Error Tallies **

Status A-8: Data checks Status A-C: Multi-trks
Status A-9: Velocity Status A-D: Part. recd's
Status A-A: End Data Chks Status A-E: Un-corr.
Status A-B: Corrections Status A-F: CRC errors

Status B-0 -> B-8: Dead track counters 0-7, P
Status C-0 -> C-8: Phase error counters 0-7, P

Card: DP RD
Slot: A5 A6

4B8 TEST4B Reject or Machine check from backward-space-block command during read forward error recovery. See description of reject codes preceeding code E01.

Code	Detected by	Fault Description--FRU'S
4B9	TEST4B	Reject or Machine check from forward-space-file. See description of reject codes preceeding code E01.
4BA	TEST4B	Reject or Machine check from backward-space-file. See description of reject codes preceeding code E01.
4BB	TEST4B	Reject or Machine check from forward-space-block. See description of reject codes preceeding code E01.
4BC	TEST4B	Reject or Machine check from backward-space-block. See description of reject codes preceeding code E01.
4BD	TEST4B	Tape Mark status set when not expected indicating possible positioning problem. (Tape must have been written by TEST48) Card: DP Slot: A5
4BE	TEST4B	Data miscompare indicating possible positioning problem. (Tape must have been written by TEST48). Card: DP Slot: A5
4BF	TEST4B	Tape Mark status not set when not expected indicating possible positioning problem. (Tape must have been written by TEST48) Card: DP Slot: A5
4C1	TEST4C	STATUS A-5 = 0: Drive not loaded STATUS A-5 not 0: Speed switch reject code (see description for code Exx, where xx = contents of this status location)
4C2	TEST4C	Tape must be write enabled

Code	Detected by	Fault Description--FRU'S

4C3 TEST4C Reject or Machine check from initial rewind.
See description of reject codes preceeding code E01.

4C4 TEST4C Reject or Machine check from internal write command.

Status A-0,A-1: Low, high byte of record number.
(Range: 000-100 hex)
See description of reject codes preceeding code E01.

4C5 TEST4C Write overrun status (6042) during internal write (data supplied to DP from IF card only).

Status A-0,A-1: Low, high byte of record number.
Range: 000-100 hex.

Card: IF DP
Slot: A3 A5

4C6 TEST4C Bus parity error status (6042) during internal write (data supplied to DP from IF card only).

Status A-0,A-1: Low, high byte of record number.
(Range: 000-100 hex)

Card: IF DP
Slot: A3 A5

4C8 TEST4C Reject or Machine check from back-space-block or erase-gap command during write error recovery.
See description of reject codes preceeding code E01.

4C9 TEST4C During write error recovery, all 5 retries failed.

Status A-0,A-1: Low, high byte of record number.
(Range: 000-100 hex)

Check tape quality.

Card: DP WR RD IF
Slot: A5 A4 A6 A3

Code	Detected by	Fault Description--FRU'S

4CA TEST4C Reject or Machine check from write-tape-mark command.

Status A-0,A-1: Low, high byte of record number (first WTM occurs at 10 hex)
See description of reject codes preceeding code E01.

4CB TEST4C During the writing of 256 GCR records, more than one temporary write error occurred.

Status A-2: Total failing writes
Status A-3: Temporary write errors (1 data check in 6 attempts)
Status A-4: Media defects (>1 data check in 6 attempts)

** Read/Write Error Tallies **

Status A-8: Data checks Status A-C: Multi-trks
Status A-9: Velocity Status A-D: Part. recd's
Status A-A: End Data Chks Status A-E: Un-corr.
Status A-B: Corrections Status A-F: CRC errors

Status B-0 -> B-8: Dead Track counters 0-7,P
Status C-0 -> C-8: Phase error counters 0-7,P

Card: DP WR RD IF
Slot: A5 A4 A6 A3

4D1 TEST4D STATUS A-5 = 0: Drive not loaded

STATUS A-5 not 0: Speed switch reject code (see description for code Exx, where xx = contents of this status location)

4D2 TEST4D Reject or Machine check from initial rewind.
See description of reject codes preceeding code E01.

4D3 TEST4D Reject or Machine check from internal read forward.

Status A-0,A-1: Low, high byte of record number (Range: 000-100 hex)
See description of reject codes preceeding code E01.

Code	Detected by	Fault Description--FRU'S

4D6 TEST4D Unexpected tape mark (did not follow a 16 record group). Tape must have been written by TEST4C.

Status A-0,A-1: Low, high byte of record number (Range: 000-100 hex)

Card: DP
Slot: A5

4D7 TEST4D Unexpected tape mark (more than 256 records read correctly, but tape mark did not follow 16 record group). Tape must have been written by TEST4C.

Status A-0,A-1: Low, high byte of record number (Range: 000-100 hex)

Card: DP
Slot: A5

4D9 TEST4D Data miscompare following read without data check (tape must have been written by TEST4C). Comparison involved 32 bytes of write buffer (8000-801F) and 32 bytes of read buffer (8020-803F). Data should match record number below:

Status A-0,A-1: Low, high byte of record number (Range: 000-100 hex)

Card: DP RD IF
Slot: A5 A6 A3

4DB TEST4D Reject or Machine check from internal read forward over expected tape mark.

Status A-0,A-1: Low, high byte of record number (Range: 000-100 hex)
See description of reject codes preceeding code E01.

Code	Detected by	Fault Description--FRU'S

4DC TEST4D Tape mark status not detected when expected (but 16 record group read OK).

Status A-0,A-1: Low, high byte of record number (Range: 000-100 hex, first TMK @ 10)

Card: DP
Slot: A5

4DE TEST4D Failed internal record read with 5 retries.

Status A-0,A-1: Low, high byte of record number (Range: 000-100 hex)

** Read/Write Error Tallies **

Status A-8: Data checks Status A-C: Multi-trks
Status A-9: Velocity Status A-D: Part. recd's
Status A-A: End Data Chks Status A-E: Un-corr.
Status A-B: Corrections Status A-F: CRC errors

Status B-0 -> B-8: Dead track counters 0-7, P
Status C-0 -> C-8: Phase error counters 0-7, P

Card: DP
Slot: A5

4DF TEST4D Reject or Machine check from internal Back-Space Block command during read error recovery.
See description of reject codes preceeding code E01.

4E1 TEST4E STATUS A-5 = 0: Drive not loaded

STATUS A-5 not 0: Speed switch reject code (see description for code Exx, where xx = contents of this status location)

4E2 TEST4E Reject or Machine check from internal read backward operation (searching for EOF tape marks).
See description of reject codes preceeding code E01.

Code	Detected by	Fault Description--FRU'S

4E3 TEST4E Reject or Machine check from internal read forward operations (searching for EOF tape marks) or read backward operations (if positioning around TMK's). See description of reject codes preceeding code E01.

4E4 TEST4E After finding 2 tape marks reading forward, read backward operation did not produce tape mark status.

Card: DP
Slot: A5

4E5 TEST4E Reject or Machine check from internal read backward. See description of reject codes preceeding code E01.

4E6 TEST4E ID-burst status (6043) detected before reading 256 records. Tape must have been written by TEST4C.

Status A-0: record number (range: FF-00)

Card: DP
Slot: A5

4E7 TEST4E Data miscompare following read without data check. (tape must have been written by TEST4C). Comparison involved 32 bytes of write buffer (8000-801F) and 32 bytes of read buffer (8020-803F). Data should match record number below:

Status A-0: record number expected (range: FF-00)

Card: DP RD IF
Slot: A5 A6 A3

4E8 TEST4E Unexpected tape mark (did not follow a 16 record group). Tape must have been written by TEST4C.

Status A-0: record number (range: FF-00)

Card: DP
Slot: A5

Code	Detected by	Fault Description--FRU'S

4EE TEST4E Failed internal record read with 5 retries.

Status A-0,A-1: Low, high byte of record number
(Range: 000-100 hex)

** Read/Write Error Tallies **

Status A-8: Data checks Status A-C: Multi-trks
Status A-9: Velocity Status A-D: Part. recd's
Status A-A: End Data Chks Status A-E: Un-corr.
Status A-B: Corrections Status A-F: CRC errors

Status B-0 -> B-8: Dead track counters 0-7, P
Status C-0 -> C-8: Phase error counters 0-7, P

Card: DP IF
Slot: A5 A3

4EF TEST4E Reject or Machine check from internal Forward-Space Block command during read error recovery.
See description of reject codes preceeding code E01.

4F1 TEST4F STATUS A-5 = 0: Drive not loaded

STATUS A-5 not 0: Speed switch reject code
(see description for code Exx, where
xx = contents of this status location)

4F2 TEST4F Reject or Machine check from initial rewind.
See description of reject codes preceeding code E01.

4F3 TEST4F Reject or Machine check from read backward.
See description of reject codes preceeding code E01.

Code	Detected by	Fault Description--FRU'S

4F4 TEST4F Data checks occurred on 5 retries of read backward operation. Check tape quality.

** Read/Write Error Tallies **

Status A-8: Data checks Status A-C: Multi-trks
Status A-9: Velocity Status A-D: Part. recd's
Status A-A: End Data Chks Status A-E: Un-corr.
Status A-B: Corrections Status A-F: CRC errors

Status B-0 -> B-8: Dead track counters 0-7, P
Status C-0 -> C-8: Phase error counters 0-7, P

Card: DP RD
Slot: A5 A6

4F5 TEST4F Reject or Machine check from forward-space-block command during read backward error recovery. See description of reject codes preceeding code E01.

4F6 TEST4F Reject or Machine check from read forward. See description of reject codes preceeding code E01.

4F7 TEST4F Data checks occurred on 5 retries of read forward operation. Check tape quality.

** Read/Write Error Tallies **

Status A-8: Data checks Status A-C: Multi-trks
Status A-9: Velocity Status A-D: Part. recd's
Status A-A: End Data Chks Status A-E: Un-corr.
Status A-B: Corrections Status A-F: CRC errors

Status B-0 -> B-8: Dead track counters 0-7, P
Status C-0 -> C-8: Phase error counters 0-7, P

Card: DP RD
Slot: A5 A6

4F8 TEST4F Reject or Machine check from backward-space-block command during read forward error recovery. See description of reject codes preceeding code E01.

Code	Detected by	Fault Description--FRU'S
4F9	TEST4F	Reject or Machine check from forward-space-file. See description of reject codes preceeding code E01.
4FA	TEST4F	Reject or Machine check from backward-space-file. See description of reject codes preceeding code E01.
4FB	TEST4F	Reject or Machine check from forward-space-block. See description of reject codes preceeding code E01.
4FC	TEST4F	Reject or Machine check from backward-space-block. See description of reject codes preceeding code E01.
4FD	TEST4F	Tape Mark status set when not expected indicating possible positioning problem. (Tape must have been written by TEST4C) Card: DP Slot: A5
4FE	TEST4F	Data miscompare indicating possible positioning problem. (Tape must have been written by TEST4C). Card: DP Slot: A5
4FF	TEST4F	Tape Mark status not set when not expected indicating possible positioning problem. (Tape must have been written by TEST4C) Card: DP Slot: A5
521	TEST52	STATUS A-5 = 0: Drive not loaded STATUS A-5 not 0: Speed switch reject code (see description for code Exx, where xx = contents of this status location)
522	TEST52	Tape must be write enabled

Code	Detected by	Fault Description--FRU'S

523 TEST52 Reject or Machine check from initial rewind.
See description of reject codes preceeding code E01.

524 TEST52 Current on or unstable (6061) afer rewind.

Card: WR IF RD
Slot: A4 A3 A6

525 TEST52 Immediately after setting erase, status was in error (6061).

Card: WR IF RD
Slot: A4 A3 A6

526 TEST52 Interrupt from erase transition was not seen.

Card: WR IF
Slot: A4 A3

527 TEST52 Stable erase-only status was not seen in sense register (6061).

Card: WR IF Write/Erase head
Slot: A4 A3

528 TEST52 Stable write mode status was not seen in sense register (6061).

Card: WR IF Write/Erase head
Slot: A4 A3

529 TEST52 Interrupt from write transition was not seen.

Card: WR IF
Slot: A4 A3

Code	Detected by	Fault Description--FRU'S

52A TEST52 Amplitude sensor active without motion (6045 or 6043).

Card: WR IF DP
Slot: A4 A3 A5

52B TEST52 Machine check occurred during forward write motion.

Status A-6: Machine check code
See description for code Fxx, where
xx= contents of this status location

52C TEST52 Amplitude sensor not as expected during 30 foot all track write.

Check tape quality.

Status B-0,7: error count for tracks 0,7
Status B-8: error count for tracks P

Card: WR RD DP Rd/Wrt
Slot: A4 A6 A5 Head

52D TEST52 Amplitude sensor not as expected during 1 foot write of one track only.

Check tape quality.

Status B-0,7: error count for tracks 0,7
Status B-8: error count for tracks P

Card: WR RD DP Rd/Wrt
Slot: A4 A6 A5 Head

Code	Detected by	Fault Description--FRU'S

52E TEST52 Amplitude sensor not as expected during 1 foot write of all but one track.

Check tape quality.

Status B-0,7: error count for tracks 0,7
Status B-8: error count for tracks P

Card:	WR	RD	DP	Rd/Wrt
Slot:	A4	A6	A5	Head

52F TEST52 Amplitude sensor detected during feed-through check (all tracks writing; no motion).

Status B-0,7: error count for tracks 0,7
Status B-8: error count for tracks P

Card:	WR	RD	DP	Rd/Wrt
Slot:	A4	A6	A5	Head

531 TEST53 STATUS A-5 = 0: Drive not loaded

STATUS A-5 not 0: Speed switch reject code
(see description for code Exx, where
xx = contents of this status location)

532 TEST53 Tape must be write enabled

533 TEST53 Reject or Machine check from initial rewind.
See description of reject codes preceeding code E01.

534 TEST53 Current on or unstable (6061) afer rewind.

Card:	WR	IF	RD
Slot:	A4	A3	A6

535 TEST53 Immediately after setting erase, status was in error (6061).

Card:	WR	IF	RD
Slot:	A4	A3	A6

Code	Detected by	Fault Description--FRU'S

536 TEST53 Interrupt from erase transition was not seen.

Card: WR IF
Slot: A4 A3

537 TEST53 Stable erase-only status was not seen in sense register (6061).

Card: WR IF Rd/Wrt
Slot: A4 A3 Head

538 TEST53 Stable write mode status was not seen in sense register (6061).

Card: WR IF Rd/Wrt
Slot: A4 A3 Head

539 TEST53 Interrupt from write transition was not seen.

Card: WR IF
Slot: A4 A3

53A TEST53 Amplitude sensor active without motion (6045 or 6053).

Card: WR IF DP
Slot: A4 A3 A5

53B TEST53 Machine check occurred during forward write motion.

Status A-6: Machine check code
See description for code Fxx, where
xx= contents of this status location

Code	Detected by	Fault Description--FRU'S

53C TEST53 Amplitude sensor not as expected during 30 foot all track write.

Check tape quality.

Status B-0,7: error count for tracks 0,7
Status B-8: error count for tracks P

Card: WR RD DP Rd/Wrt
Slot: A4 A6 A5 Head

53D TEST53 Amplitude sensor not as expected during 1 foot write of one track only.

Check tape quality.

Status B-0,7: error count for tracks 0,7
Status B-8: error count for tracks P

Card: WR RD DP Rd/Wrt
Slot: A4 A6 A5 Head

53E TEST53 Amplitude sensor not as expected during 1 foot write of all but one track.

Check tape quality.

Status B-0,7: error count for tracks 0,7
Status B-8: error count for tracks P

Card: WR RD DP Rd/Wrt
Slot: A4 A6 A5 Head

53F TEST53 Amplitude sensor detected during feed-through check (all tracks writing; no motion).

Status B-0,7: error count for tracks 0,7
Status B-8: error count for tracks P

Card: WR RD DP Rd/Wrt
Slot: A4 A6 A5 Head

Code	Detected by	Fault Description--FRU'S

581 TEST58 STATUS A-5 = 0: Drive not loaded

STATUS A-5 not 0: Speed switch reject code
(see description for code Exx, where
xx = contents of this status location)

582 TEST58 Tape must be write enabled

583 TEST58 Reject or Machine check from initial rewind.
See description of reject codes preceeding code E01.

584 TEST58 Reject or Machine check from internal write command.

Status A-0,A-1: Low, high byte of record number.
Range: 000-100 hex.
See description of reject codes preceeding code E01.

585 TEST58 Write overrun status (6052) during internal
write (data supplied to DP from IF card only).

Status A-0,A-1: Low, high byte of record number.
Range: 000-100 hex.

Card: IF DP
Slot: A3 A5

586 TEST58 Bus parity error status (6052) during internal
write (data supplied to DP from IF card only).

Status A-0,A-1: Low, high byte of record number.
(Range: 000-100 hex)

Card: IF DP
Slot: A3 A5

588 TEST58 Reject or Machine check from back-space-block
or erase-gap command during write error recovery.
See description of reject codes preceeding code E01.

Code	Detected by	Fault Description--FRU'S

589 TEST58 During write error recovery, all 5 retries failed.

Status A-0,A-1: Low, high byte of record number.
(Range: 000-100 hex)

Check tape quality.

Card: DP WR RD IF
Slot: A5 A4 A6 A3

58A TEST58 Reject or Machine check from write-tape-mark command.

Status A-0,A-1: Low, high byte of record number
(first WTM occurs at 10 hex)
See description of reject codes preceeding code E01.

58B TEST58 During the writing of 256 PE records, more than one temporary write error occurred.

Status A-2: Total failing writes
Status A-3: Temporary write errors
(1 data check in 6 attempts)
Status A-4: Media defects
(>1 data check in 6 attempts)

** Read/Write Error Tallies **

Status A-8: Data checks Status A-C: Multi-trks
Status A-9: Velocity Status A-D: Part. recd's
Status A-A: End Data Chks Status A-E: Un-corr.
Status A-B: Corrections Status A-F: CRC errors

Status B-0 -> B-8: Dead Track counters 0-7,P
Status C-0 -> C-8: Phase error counters 0-7,P

Card: DP WR RD IF
Slot: A5 A4 A6 A3

591 TEST59 STATUS A-5 = 0: Drive not loaded

STATUS A-5 not 0: Speed switch reject code
(see description for code Exx, where
xx = contents of this status location)

Code	Detected by	Fault Description--FRU'S

592 TEST59 Reject or machine check from initial rewind.
See description of reject codes preceeding code E01.

593 TEST59 Reject or Machine check from internal read forward.
See description of reject codes preceeding code E01.

596 TEST59 Unexpected tape mark (did not follow a 16 record group). Tape must have been written by TEST58.

Status A-0,A-1: Low, high byte of record number (Range: 000-100 hex)

Card: DP
Slot: A5

597 TEST59 Unexpected tape mark (more than 256 records read correctly, but tape mark did not follow 16 record group). Tape must have been written by TEST58.

Status A-0,A-1: Low, high byte of record number (Range: 000-100 hex)

Card: DP
Slot: A5

599 TEST59 Data miscompare following read without data check (tape must have been written by TEST58). Comparison involved 32 bytes of write buffer (8000-801F) and 32 bytes of read buffer (8020-803F). Data should match record number below:

Status A-0,A-1: Low, high byte of record number (Range: 000-100 hex)

Card: DP RD IF
Slot: A5 A6 A3

Code	Detected by	Fault Description--FRU'S

59B TEST59 Reject or Machine check from internal read forward over expected tape mark.

Status A-0,A-1: Low, high byte of record number (Range: 000-100 hex)

See description of reject codes preceeding code E01.

59C TEST59 Tape mark status not detected when expected (but 16 record group read OK).

Status A-0,A-1: Low, high byte of record number (Range: 000-100 hex, first TMK @ 10)

Card: DP
Slot: A5

59E TEST59 Failed internal record read with 5 retries.

Status A-0,A-1: Low, high byte of record number (Range: 000-100 hex)

** Read/Write Error Tallies **

Status A-8: Data checks Status A-C: Multi-trks
Status A-9: Velocity Status A-D: Part. recd's
Status A-A: End Data Chks Status A-E: Un-corr.
Status A-B: Corrections Status A-F: CRC errors

Status B-0 -> B-8: Dead track counters 0-7, P
Status C-0 -> C-8: Phase error counters 0-7, P

Card: DP
Slot: A5

59F TEST59 Reject or Machine check from internal Back-Space-Block command during read error recovery.
See description of reject codes preceeding code E01.

Code	Detected by	Fault Description--FRU'S
5A1	TEST5A	STATUS A-5 = 0: Drive not loaded STATUS A-5 not 0: Speed switch reject code (see description for code Exx, where xx = contents of this status location)
5A2	TEST5A	Reject or Machine check from internal read backward operation (searching for EOF tape marks). See description of reject codes preceeding code E01.
5A3	TEST5A	Reject or Machine check from internal read forward operations (searching for EOF tape marks) or read backward operations (if positioning around TMK's). See description of reject codes preceeding code E01.
5A4	TEST5A	After finding 2 tape marks reading forward, read backward operation did not produce tape mark status. Card: DP Slot: A5
5A5	TEST5A	Reject or Machine check from internal read backward. See description of reject codes preceeding code E01.
5A6	TEST5A	ID-burst status (6053) detected before reading 256 records. Tape must have been written by TEST58. Status A-0: record number (range: FF-00) Card: DP Slot: A5

Code	Detected by	Fault Description--FRU'S

5A7 TEST5A Data miscompare following read without data check (tape must have been written by TEST58). Comparison involved 32 bytes of write buffer (8000-801F) and 32 bytes of read buffer (8020-803F). Data should match record number below:

Status A-0: record number expected (range: FF-00)

Card: DP RD IF
Slot: A5 A6 A3

5A8 TEST5A Unexpected tape mark (did not follow a 16 record group). Tape must have been written by TEST58.

Status A-0: record number (range: FF-00)

Card: DP
Slot: A5

5AE TEST5A Failed internal record read with 5 retries.

Status A-0,A-1: Low, high byte of record number (Range: 000-100 hex)

** Read/Write Error Tallies **

Status A-8: Data checks Status A-C: Multi-trks
Status A-9: Velocity Status A-D: Part. recd's
Status A-A: End Data Chks Status A-E: Un-corr.
Status A-B: Corrections Status A-F: CRC errors

Status B-0 -> B-8: Dead track counters 0-7, P
Status C-0 -> C-8: Phase error counters 0-7, P

Card: DP IF
Slot: A5 A3

5AF TEST5A Reject or Machine check from internal Forward-Space-Block command during read error recovery.
See description of reject codes preceeding code E01.

Code	Detected by	Fault Description--FRU'S

5B1 TEST5B STATUS A-5 = 0: Drive not loaded

STATUS A-5 not 0: Speed switch reject code
(see description for code Exx, where
xx = contents of this status location)

5B2 TEST5B Reject or Machine check from initial rewind.
See description of reject codes preceeding code E01.

5B3 TEST5B Reject or Machine check from read backward.
See description of reject codes preceeding code E01.

5B4 TEST5B Data checks occurred on 5 retries of read backward operation. Check tape quality.

** Read/Write Error Tallies **

Status A-8: Data checks Status A-C: Multi-trks
Status A-9: Velocity Status A-D: Part. recd's
Status A-A: End Data Chks Status A-E: Un-corr.
Status A-B: Corrections Status A-F: CRC errors

Status B-0 -> B-8: Dead track counters 0-7, P
Status C-0 -> C-8: Phase error counters 0-7, P

Card: DP RD
Slot: A5 A6

5B5 TEST5B Reject or Machine check from forward-space-block command during read backward error recovery.
See description of reject codes preceeding code E01.

5B6 TEST5B Reject or Machine check from read forward.
See description of reject codes preceeding code E01.

Code	Detected by	Fault Description--FRU'S

5B7 TEST5B Data checks occurred on 5 retries of read forward operation. Check tape quality.

** Read/Write Error Tallies **

Status A-8: Data checks Status A-C: Multi-trks
Status A-9: Velocity Status A-D: Part. recd's
Status A-A: End Data Chks Status A-E: Un-corr.
Status A-B: Corrections Status A-F: CRC errors

Status B-0 -> B-8: Dead track counters 0-7, P
Status C-0 -> C-8: Phase error counters 0-7, P

Card: DP RD
Slot: A5 A6

5B8 TEST5B Reject or Machine check from backward-space-block command during read forward error recovery. See description of reject codes preceeding code E01.

5B9 TEST5B Reject or Machine check from forward-space-file. See description of reject codes preceeding code E01.

5BA TEST5B Reject or Machine check from backward-space-file. See description of reject codes preceeding code E01.

5BB TEST5B Reject or Machine check from forward-space-block. See description of reject codes preceeding code E01.

5BC TEST5B Reject or Machine check from backward-space-block. See description of reject codes preceeding code E01.

5BD TEST5B Tape Mark status set when not expected indicating possible positioning problem. (Tape must have been written by TEST58)

Card: DP
Slot: A5

Code	Detected by	Fault Description--FRU'S

5BE TEST5B Data miscompare indicating possible positioning problem. (Tape must have been written by TEST58).

Card: DP
Slot: A5

5BF TEST5B Tape Mark status not set when not expected indicating possible positioning problem. (Tape must have been written by TEST58)

Card: DP
Slot: A5

5C1 TEST5C STATUS A-5 = 0: Drive not loaded

STATUS A-5 not 0: Speed switch reject code (see description for code Exx, where xx = contents of this status location)

5C2 TEST5C Tape must be write enabled

5C3 TEST5C Reject or Machine check from initial rewind. See description of reject codes preceeding code E01.

5C4 TEST5C Reject or Machine check from internal write command.

Status A-0,A-1: Low, high byte of record number. (Range: 000-100 hex)
See description of reject codes preceeding code E01.

5C5 TEST5C Write overrun status (6052) during internal write (data supplied to DP from IF card only).

Status A-0,A-1: Low, high byte of record number. Range: 000-100 hex.

Card: IF DP
Slot: A3 A5

Code	Detected by	Fault Description--FRU'S

5C6 TEST5C Bus parity error status (6052) during internal write (data supplied to DP from IF card only).

Status A-0,A-1: Low, high byte of record number. (Range: 000-100 hex)

Card: IF DP
Slot: A3 A5

5C8 TEST5C Reject or Machine check from back-space-block or erase-gap command during write error recovery. See description of reject codes preceeding code E01.

5C9 TEST5C During write error recovery, all 5 retries failed.

Status A-0,A-1: Low, high byte of record number. (Range: 000-100 hex)

Check tape quality.

Card: DP WR RD IF
Slot: A5 A4 A6 A3

5CA TEST5C Reject or Machine check from write-tape-mark command.

Status A-0,A-1: Low, high byte of record number (first WTM occurs at 10 hex)
See description of reject codes preceeding code E01.

Code	Detected by	Fault Description--FRU'S

5CB TEST5C During the writing of 256 GCR records, more than one temporary write error occurred.

Status A-2: Total failing writes
Status A-3: Temporary write errors
(1 data check in 6 attempts)
Status A-4: Media defects
(>1 data check in 6 attempts)

** Read/Write Error Tallies **

Status A-8: Data checks Status A-C: Multi-trks
Status A-9: Velocity Status A-D: Part. recd's
Status A-A: End Data Chks Status A-E: Un-corr.
Status A-B: Corrections Status A-F: CRC errors

Status B-0 -> B-8: Dead Track counters 0-7,P
Status C-0 -> C-8: Phase error counters 0-7,P

Card: DP WR RD IF
Slot: A5 A4 A6 A3

5D1 TEST5D STATUS A-5 = 0: Drive not loaded

STATUS A-5 not 0: Speed switch reject code
(see description for code Exx, where
xx = contents of this status location)

5D2 TEST5D Reject or Machine check from initial rewind.
See description of reject codes preceeding code E01.

5D3 TEST5D Reject or Machine check from internal read forward.

Status A-0,A-1: Low, high byte of record number
(Range: 000-100 hex)
See description of reject codes preceeding code E01.

Code	Detected by	Fault Description--FRU'S

5D6 TEST5D Unexpected tape mark (did not follow a 16 record group). Tape must have been written by TEST5C.

Status A-0,A-1: Low, high byte of record number (Range: 000-100 hex)

Card: DP
Slot: A5

5D7 TEST5D Unexpected tape mark (more than 256 records read correctly, but tape mark did not follow 16 record group). Tape must have been written by TEST5C.

Status A-0,A-1: Low, high byte of record number (Range: 000-100 hex)

Card: DP
Slot: A5

5D9 TEST5D Data miscompare following read without data check (tape must have been written by TEST5C). Comparison involved 32 bytes of write buffer (8000-801F) and 32 bytes of read buffer (8020-803F). Data should match record number below:

Status A-0,A-1: Low, high byte of record number (Range: 000-100 hex)

Card: DP RD IF
Slot: A5 A6 A3

5DB TEST5D Reject or Machine check from internal read forward over expected tape mark.

Status A-0,A-1: Low, high byte of record number (Range: 000-100 hex)
See description of reject codes preceeding code E01.

Code	Detected by	Fault Description--FRU'S

5DC TEST5D Tape mark status not detected when expected (but 16 record group read OK).

Status A-0,A-1: Low, high byte of record number (Range: 000-100 hex, first TMK @ 10)

Card: DP
Slot: A5

5DE TEST5D Failed internal record read with 5 retries.

Status A-0,A-1: Low, high byte of record number (Range: 000-100 hex)

** Read/Write Error Tallies **

Status A-8: Data checks Status A-C: Multi-trks
Status A-9: Velocity Status A-D: Part. recd's
Status A-A: End Data Chks Status A-E: Un-corr.
Status A-B: Corrections Status A-F: CRC errors

Status B-0 -> B-8: Dead track counters 0-7, P
Status C-0 -> C-8: Phase error counters 0-7, P

Card: DP
Slot: A5

5DF TEST5D Reject or Machine check from internal Back-Space Block command during read error recovery.
See description of reject codes preceeding code E01.

5E1 TEST5E STATUS A-5 = 0: Drive not loaded

STATUS A-5 not 0: Speed switch reject code (see description for code Exx, where xx = contents of this status location)

5E2 TEST5E Reject or Machine check from internal read backward operation (searching for EOF tape marks).
See description of reject codes preceeding code E01.

Code	Detected by	Fault Description--FRU'S

5E3 TEST5E Reject or Machine check from internal read forward operations (searching for EOF tape marks) or read backward operations (if positioning around TMK's). See description of reject codes preceeding code E01.

5E4 TEST5E After finding 2 tape marks reading forward, read backward operation did not produce tape mark status.

Card: DP
Slot: A5

5E5 TEST5E Reject or Machine check from internal read backward. See description of reject codes preceeding code E01.

5E6 TEST5E ID-burst status (6053) detected before reading 256 records. Tape must have been written by TEST5C.

Status A-0: record number (range: FF-00)

Card: DP
Slot: A5

5E7 TEST5E Data miscompare following read without data check (tape must have been written by TEST5C). Comparison involved 32 bytes of write buffer (8000-801F) and 32 bytes of read buffer (8020-803F). Data should match record number below:

Status A-0: record number expected (range: FF-00)

Card: DP RD IF
Slot: A5 A6 A3

5E8 TEST5E Unexpected tape mark (did not follow a 16 record group). Tape must have been written by TEST5C.

Status A-0: record number (range: FF-00)

Card: DP
Slot: A5

Code	Detected by	Fault Description--FRU'S

5EE TEST5E Failed internal record read with 5 retries.

Status A-0,A-1: Low, high byte of record number
(Range: 000-100 hex)

** Read/Write Error Tallies **

Status A-8: Data checks Status A-C: Multi-trks
Status A-9: Velocity Status A-D: Part. recd's
Status A-A: End Data Chks Status A-E: Un-corr.
Status A-B: Corrections . Status A-F: CRC errors

Status B-0 -> B-8: Dead track counters 0-7, P
Status C-0 -> C-8: Phase error counters 0-7, P

Card: DP IF
Slot: A5 A3

5EF TEST5E Reject or Machine check from internal Forward-Space Block command during read error recovery.
See description of reject codes preceeding code E01.

5F1 TEST5F STATUS A-5 = 0: Drive not loaded

STATUS A-5 not 0: Speed switch reject code
(see description for code Exx, where
xx = contents of this status location)

5F2 TEST5F Reject or Machine check from initial rewind.
See description of reject codes preceeding code E01.

5F3 TEST5F Reject or Machine check from read backward.
See description of reject codes preceeding code E01.

Code	Detected by	Fault Description--FRU'S

5F4 TEST5F Data checks occurred on 5 retries of read backward operation. Check tape quality.

** Read/Write Error Tallies **

Status A-8: Data checks Status A-C: Multi-trks
Status A-9: Velocity Status A-D: Part. recd's
Status A-A: End Data Chks Status A-E: Un-corr.
Status A-B: Corrections Status A-F: CRC errors

Status B-0 -> B-8: Dead track counters 0-7, P
Status C-0 -> C-8: Phase error counters 0-7, P

Card: DP RD
Slot: A5 A6

5F5 TEST5F Reject or Machine check from forward-space-block command during read backward error recovery. See description of reject codes preceeding code E01.

5F6 TEST5F Reject or Machine check from read forward. See description of reject codes preceeding code E01.

5F7 TEST5F Data checks occurred on 5 retries of read forward operation. Check tape quality.

** Read/Write Error Tallies **

Status A-8: Data checks Status A-C: Multi-trks
Status A-9: Velocity Status A-D: Part. recd's
Status A-A: End Data Chks Status A-E: Un-corr.
Status A-B: Corrections Status A-F: CRC errors

Status B-0 -> B-8: Dead track counters 0-7, P
Status C-0 -> C-8: Phase error counters 0-7, P

Card: DP RD
Slot: A5 A6

5F8 TEST5F Reject or Machine check from backward-space-block command during read forward error recovery. See description of reject codes preceeding code E01.

Code	Detected by	Fault Description--FRU'S

5F9 TEST5F Reject or Machine check from forward-space-file.
See description of reject codes preceeding code E01.

5FA TEST5F Reject or Machine check from backward-space-file.
See description of reject codes preceeding code E01.

5FB TEST5F Reject or Machine check from forward-space-block.
See description of reject codes preceeding code E01.

5FC TEST5F Reject or Machine check from backward-space-block.
See description of reject codes preceeding code E01.

5FD TEST5F Tape Mark status set when not expected indicating possible positioning problem.
(Tape must have been written by TEST5C)

Card: DP
Slot: A5

5FE TEST5F Data miscompare indicating possible positioning problem. (Tape must have been written by TEST5C).

Card: DP
Slot: A5

5FF TEST5F Tape Mark status not set when not expected indicating possible positioning problem.
(Tape must have been written by TEST5C)

Card: DP
Slot: A5

621 TEST62 Error writing or reading cache memory during unique address portion of memory test.

Card: CB
Slot: A2

Code	Detected by	Fault Description--FRU'S

622 TEST62 Attempt to write and read walking 1's pattern through cache memory failed.

Card: CB
Slot: A2

623 TEST62 After writing FF or 00 to all of cache memory, then waiting .5 usec, the data read back was not as expected.

Card: CB
Slot: A2

62E TEST62 The ID returned by the CB card was not as expected.
See STATUSB-2 for actual value (20 expected).

Card: DP IF CB
Slot: A5 A3 A2

641 TEST64 STATUS A-5 = 0: Drive not loaded

STATUS A-5 not 0: Speed switch reject code
(see description for code Exx, where
xx = contents of this status location)

642 TEST64 After resetting the Early EOT counters, an error condition was found.

Card: CB
Slot: A2

643 TEST64 The Early EOT circuitry did not return "done" within the required time.

Card: CB SV WR
Slot: A2 A1 A4

Code	Detected by	Fault Description--FRU'S
644	TEST64	The Early EOT circuitry returned a negative capstan count while tape was moving forward. Card: CB SV Slot: A2 A1
645	TEST64	The Early EOT circuitry returned a positive capstan count while tape was moving backward. Card: CB SV Slot: A2 A1
646	TEST64	The Early EOT circuitry never got two consecutive numbers within an appropriate range in four tries. Card: CB SV Slot: A2 A1
647	TEST64	After six revolutions forward and four revolutions backward, the swing arm counter did not show both forward and backward counts as expected. Card: CB SV WR Slot: A2 A1 A4
648	TEST64	The capstan count on one of the revolutions forward or backward was zero. Card: CB SV WR Slot: A2 A1 A4
64F	TEST64	EOT detected during TEST64. If the tape is not at EOT, run the motion tests (34-36)

Code	Detected by	Fault Description--FRU'S

65E TEST64 The ID returned by the CB card was not as expected.
See STATUSB-2 for actual value
(32 for forward, 65 for backward).

Card: DP IF CB
Slot: A5 A3 A2

65F TEST64 BOT detected during TEST64.

Run motion tests (34-36)

C01 FEIDLE Test requested for execution does not exist in internal routine library.

CC0 Cache Buffer After setting start to the drive, the drive did not respond with BUSY.

Card: IF CB
Slot: A3 A2

CC2 Cache Buffer Sequence error - Bits set or reset in Tape Control Block are out of order.

Card: CB
Slot: A2

CC3 Cache Buffer Reposition count is zero when not expected.

Card: CB
Slot: A2

CC4 Cache Buffer Number of write records in buffer not as expected.

Card: CB IF
Slot: A2 A3

Code	Detected by	Fault Description--FRU'S
CC5	Cache Buffer	A second event attempted to use the CB cards timer before the previous event was completed with the timer. Card: CB Slot: A2
CC6	Cache Buffer	Tried to initiate a command to the IF card, but the IF card was already busy. Card: CB IF Slot: A2 A3
CC7	Cache Buffer	Cache memory status not as expected. Card: CB Slot: A2
CC8	Cache Buffer	Busy did not go inactive from the IF card in the required time. Card: IF CB Slot: A3 A2
CC9	Cache Buffer	While doing a retry procedure, a BSB or an ERG took longer than expected. Card: CB IF DP Slot: A2 A3 A5
CCA	Cache Buffer	While doing a retry procedure, a write, a read forward, or a RDB took longer than expected. Card: CB IF DP Slot: A2 A3 A5
CCB	Cache Buffer	IF card went offline or is not ready before write completed. Card: IF CB Slot: A3 A2

Code	Detected by	Fault Description--FRU'S

CCC Cache Buffer

Sense command module exited with other than a reset or CLR command active and the drive was online.

Card: CB
Slot: A2

CCD Cache Buffer

Number of records in buffer not as expected.

Card: CB
Slot: A2

CCE Cache Buffer

Cache memory TRAK timeout error occurred. Industry Standard machine only.

Card: CB
Slot: A2

CCF Cache Buffer

When writing in buffered mode, an unrecoverable error occurred after "good" status had been presented to the host for the record. Check SNS information for the return code from the IF card.

Check tape quality.

Card: DP WR IF
Slot: A5 A4 A3

Run loaded diagnostics (32-5F)

CD1 Cache Buffer

Tape Drive Transfer complete interrupt did not come from the IF card in a specified amount of time.

Card: IF DP CB
Slot: A3 A5 A2

CD2 Cache Buffer

Tape Drive Transfer Complete on when not expected.

Card: CB IF DP
Slot: A2 A3 A5

Code	Detected by	Fault Description--FRU'S
CD3	Cache Buffer	Host Transfer complete timeout. The host transfer did not complete within 5 seconds. Card: CB Slot: A2
CD4	Cache Buffer	Illegal speed/gap selection received by the CB card from the IF card. Industry Standard interface only. Run Test 16 (CB/IF interface test). Card: CB IF DP Slot: A2 A3 A5
CD5	Cache Buffer	When checking errors for a buffered write or write tape mark command, Tape Mark status was not as expected and the IF card did not indicate a REJECT or a DATA CHECK. Run internal diagnostics.
CD6	Cache Buffer	A Tape Drive Transfer complete interrupt was received by the CB card when none was expected. Card: CB Slot: A2
CD7	Cache Buffer	The data sent from the CB card to the IF card via a Write Internal contained an illegal format byte. Status B-2: format byte (should be 20H, 40H or 80H) Run Test 16 (CB/IF interface test). Card: CB IF Slot: A2 A3

Code	Detected by	Fault Description--FRU'S
CD8	Cache Buffer	The data sent from the IF card to the CB card via a Read Internal contained an illegal format byte. Run Test 16 (CB/IF interface test). Card: CB IF Slot: A2 A3
CD9	Cache Buffer	The CB card saw BOT & EOT both on but EMUX3 did not contain a valid cache command. Run Test 16 (CB/IF interface test). Card: CB IF Slot: A2 A3
CE0	Cache Buffer	A SCSI chip command was issued to the SCSI chip, and an interrupt was not received before a time-out occurred. Run Test 17 (CS card test). Run Host Interface tests.
CE1	Cache Buffer	The data register in the SCSI chip did not go full before a timeout period. Run Test 17 (CS card test). Run Host Interface tests.
CE2	Cache Buffer	The data register in the SCSI chip did not go empty before a timeout period. Run Test 17 (CS card test). Run Host Interface tests.
CE3	Cache Buffer	SCSI interface is differential but no differential sense is detected.

Code	Detected by	Fault Description--FRU'S

The following codes are not displayed on the panel as such, but referred to by other code descriptions in this dictionary. The Exx codes indicate rejects, where xx is the hex equivalent of reject codes normally returned to the host system. In this case they were actually returned to the internal diagnostics which has left them in a fixed status location:

Status A-5 = xx, see code Exx

E01 The subsystem is not in ready status.

E03 During a write operation, TRAK was not returned within 75 milliseconds of TREQ.

Card: IF DP
Slot: A3 A5

E05 File protect status was detected on a write request.

E06 Erase status was not detected.

Card: WR IF
Slot: A4 A3

E08 Read status was not detected.

Card: WR IF
Slot: A4 A3

E09 If read operation:
No density status (DP card) within 5 inches.
If write operation:
DP interrupt during writing of ID track, or
DP reject status during writing of ID track.

Check tape quality.

Card: DP WR
Slot: A5 A4

Code	Detected by	Fault Description--FRU'S

EOC — Write status was not detected.

Card: WR IF
Slot: A4 A3

EOF — Noise detected during an erase gap or during a read/write command sequence.

Check tape quality.

Card: DP RD IF
Slot: A5 A6 A3

E11 — Machine Check condition detected.

Status A-6 = Code of machine check: xx
See description of code Fxx.

E13 — Backward operation requested at BOT.

E14 — During the writing of ARA burst portion of tape ID, data path (DP) returned reject status.

Check tape quality.

Card: DP RD IF
Slot: A5 A6 A3

E15 — Blank tape: PE--25 foot limit; GCR--15 foot limit.

E18 — Following write of ID track at BOT, proper density status was not returned from data path (DP).

Card: WR DP SV IF
Slot: A4 A5 A1 A3

E19 — LWR attemped with tape loaded and away from bot.

E1A — Subsystem failed to initiate tape motion.

Code	Detected by	Fault Description--FRU'S

E1B — During a read back check of a write operation, data was detected in the ibg area either before or after the record written.

Check tape quality.

Card: RD Read/Write head (feedthru)
Slot: A6

E1D — Record not found during a backspace operation over an incorrectly written record.

Check tape quality.

Card: DP RD IF
Slot: A5 A6 A3

E1E — During a write from BOT, data path (DP) rejected ARA ID after successfully writing ID track and ARA burst.

Check tape quality.

Card: DP RD IF
Slot: A5 A6 A3

E1F — No data detected during the read back check of a write or write tape mark command.

Check tape quality.

Card: DP RD IF
Slot: A5 A6 A3

Code	Detected by	Fault Description--FRU'S

F01 'TAPE PRESENT' not seen during thread operation.

If blower inactive during load procedure, check:
1) Power supply high voltage (AK card).
2) J18/P18 connector
3) Solid state relay (motherboard).
4) Blower Motor

If not detecting tape in path (FILE reel never accelerated):

Card:	WR	EOT/BOT	IF
Slot:	A4	Sensor	A3

F02 Failed to load tape in three retries.
Check that leader is free.

If blower inactive during load procedure, check:
1) Power supply high voltage (AK card).
2) J18/P18 connector
3) Solid state relay (motherboard).
4) Blower Motor

If no FILE reel rotation:

Card:	SV	AK
Slot:	A1	Pwr Supply

If leader not detected (forward FILE reel motion):

Card:	WR	Leader	IF
Slot:	A4	Sensor	A3

F03 Failed to sense leader during load.
Check that leader is free.

If leader not detected (forward FILE reel motion):

Card:	WR	Leader	IF
Slot:	A4	Sensor	A3

F04 Leader status always asserted during load attempt.

Card:	WR	Leader	IF
Slot:	A4	Sensor	A3

Code	Detected by	Fault Description--FRU'S

F05 BOT not found during forward search.
Check for reflective sticker on tape.
Check EOT/BOT SENSOR connections.

Card: WR IF
Slot: A4 A3

F06 BOT failed to drop in expected time.
Check EOT/BOT SENSOR connections.

Card: WR IF
Slot: A4 A3

F08 File protect status check was inconclusive.
Check FILE PROTECT SENSOR connections.

Card: WR IF
Slot: A4 A3

F09 SENSOR ERROR (6060) status indicated.
Check all sensor connections.

Card: WR IF
Slot: A4 A3

F10 Swing arms not both retracted on load initiation.
Check swing arm retraction tolerances.

F11 Swing arms still retracted after extend command.

Check swing arm motor and mechanism for jams.
Check motor drive cable connections.

Card: SV WR IF
Slot: A1 A4 A3

F12 'INDEX' not detected during servoing of swing arms.

Card: WR IF SV
Slot: A4 A3 A1

Code	Detected by	Fault Description--FRU'S

F13 LOAD Swing arms failed to reach 'EXTENDED' status in 2 seconds.

If arms not in 'EXTENDED' position and no motion:
Check retractor motor and mechanism for jams.
Check retractor motor fuse (inline).
Check power supply (+/- 24/36 volts).
Card: SV IF
Slot: A1 A3

If arms at 'EXTENDED' position:
Check 'EXTENDED' switch and connections.
Card: WR IF
Slot: A4 A3

F14 LOAD From 'EXTENDED', failed to sense both swing arms in 'INDEX' area in 900 ms.

Check 'EXTENDED' switch function (probe 6061).
If display (04 bit) does not change when EXTENDED switch is manually toggled:

Card: Extended WR IF
Slot: Switch A4 A3

Check 'INDEX' from both sensors (probe 6061) by manually moving arms from 'EXTENDED' position.
01 bit represents MACH arm (upper) 'INDEX'.
02 bit represents FILE arm (lower) 'INDEX'.

If neither bit toggles:
Card: WR IF
Slot: A4 A3

If only 01 bit toggles:
Card: WR FILE ARM/TACH
Slot: A4 SENSOR

If only 02 bit toggles:
Card: WR MACH ARM/TACH
Slot: A4 SENSOR

If NO swing arm motion in retract direction:
Check power supply (+/- 24/36 volts).
Card: SV IF
Slot: A1 A3

Code	Detected by	Fault Description--FRU'S

F16 LOAD

After sensing 'EXTENDED' (switch) and 'INDEX' active (rotary sensors) for both arms, failed to detect arms retracted (INDEX's reset then set again).

Check 'EXTENDED' switch function (probe 6061).
If display (04 bit) does not change when EXTENDED switch is manually toggled:

Card:	Extended	WR	IF
Slot:	Switch	A4	A3

Otherwise (display does change):

Card:	SV	WR	IF	File/Mach
Slot:	A1	A4	A3	Tach Asmbly

F19 LOAD

After initiating a manually controlled load (horizontally configured machine or double depression of "LOAD" push-button), 30 seconds expired without an operator indication to continue (moving tape leader into thread channel or an additional "LOAD" depression). Door must also be closed to continue.

If blower inactive during load procedure, check:
1) Power supply high voltage (AK card).
2) J18/P18 connector
3) Solid state relay (motherboard).
4) Blower Motor

If not detecting tape in path:

Card:	WR	EOT/BOT	IF
Slot:	A4	Sensor	A3

F20

Data path issued reject for unknown reasons.

Card:	DP	IF
Slot:	A5	A3

F30

Following the servoing of the swing arms, an unstable capstan was detected. Check for proper tape threading.

Card:	SV	IF	AK
Slot:	A1	A3	(Power Sply)

Code	Detected by	Fault Description--FRU'S

F40 Drive unable to return to BOT; EPO forced.
Operator RESET or turn-around failure.

Card: SV IF
Slot: A1 A3

F50 Door interlock switch is indicating open door.

Card: SV IF
Slot: A1 A3

F51 Tape ID Burst reject.

Check tape quality.

F52 Multiple speed changes made with no tape motion.

Move tape before requesting another speed change.

F60 Cache Buffer card did not respond after a reset from the front panel.

Card: CB IF
Slot: A2 A3

F70 Data path interrupt failed to occur in expected time.

Card: DP IF
Slot: A5 A3

F71 Position count interrupt failed to occur in expected time.

Card: SV IF
Slot: A1 A3

F80 Drive did not reach velocity in 10 ms.

Card: SV IF
Slot: A1 A3

Code	Detected by	Fault Description--FRU'S

F81 Turn around conditions not met within 1 second.

Card: SV IF
Slot: A1 A3

F82 Failed to reach 'stop' condition in 10 ms.

Card: SV IF
Slot: A1 A3

F85 Acceleration or deceleration ramp out of spec.

Card: SV IF
Slot: A1 A3

F90 Write or erase current on after read mode request.

Card: WR IF
Slot: A4 A3

F91 Write or erase current failed during write.

Card: WR IF
Slot: A4 A3

F92 Write current on while in erase-only mode.

Card: WR IF
Slot: A4 A3

F93 Erase current failure while in erase-only mode

Card: WR IF
Slot: A4 A3

F96 Nonmaskable interrupt (NMI): Unknown or multiple.

Card: SV IF
Slot: A1 A3

Code	Detected by	Fault Description--FRU'S

F97 Nonmaskable interrupt (NMI): Power failure.

Card: SV IF
Slot: A1 A3

F98 Nonmaskable interrupt (NMI): Swing arms looped out.

Card: SV IF
Slot: A1 A3

F99 Nonmaskable interrupt (NMI): Watch-dog timer expired

Card: SV IF
Slot: A1 A3