DIGITAL CLOCK DISTRIBUTOR

500 SERIES

TROUBLESHOOTING

RELEASE 5.05.02

1. GENERAL

1.01 This section provides troubleshooting information for Symmetricom's Digital Clock Distributor (DCD) 500 System when equipped with MIS card 090-45018-05 or 090-45018-25F. The language used in this section is Transaction Language 1 (TL1).

1.02 Whenever this section is reissued, the reason for reissue will be given in this paragraph.

1.03 All product names, service marks, trademarks, and registered trademarks used in this document are the property of their respective owners.

2. TROUBLESHOOTING

2.01 Troubleshooting consists of using lamps on the front of the equipment, shelf backplane contact closures, and TL1 messages. To troubleshoot using lamps on the front of the equipment or shelf backplane contact closure, refer to the Maintenance section of the manual that came with the shelf. This section contains TL1 message information only.

3. ALARM MESSAGES

3.01 Table A lists the alarm and status messages which may occur. Included in Table A is an explanation of the message and a suggested action to take. When replacing equipment, use the replacement procedures in the Maintenance section of the manual that came with the shelf.

3.02 If a command generates an error code, refer to Table B for a suggested action to take.

Note: Depending on the quality of the input signal, performance monitoring alarms may persist for long periods (days). The INIT-REG command can be used to clear the performance monitoring registers and the alarm.

Note: Because there is no hysteresis on BPV and CRC performance monitoring parameters, it is possible for a signal to cause a performance monitoring alarm for these parameters to activate, clear, and reactivate in a short period of time.

Table A. Messages

MESSAGE (conddescr)	EXPLANATION	ACTION
ACQUIRED AT LEAST ONE SATELLITE	At least 1 satellite has been found.	None required.
ALARM INDICATION SIGNAL RECEIVED	An alarm indication signal has been received on the specified input.	Check specified input signal.
BPV THRESHOLD EXCEEDED	The bipolar-violation threshold has been exceeded on the specified input.	
CARD FAIL:OSCILLATOR PLL OUT OF LOCK	The specified card has failed.	Replace the specified card.
CARD FAIL:A/D FAILURE		
CARD FAIL:CLOCK SYNTHESIZER FAILURE	For an MRC card: the two 4 kHz signals (from the clock cards) have been lost. For a PSM card: the four 4 kHz signals (from the input cards and the clock cards) have been lost, or the PSM card has failed.	Message generated by MRC card: Check the frequency of 5 MHz outputs at shelf backplane. If out of tolerance, check the STA and STB lamps on the MRC card. Replace the clock card corresponding to the red STA or STB lamp. If the 5 MHz outputs are OK, check the MRC reference signals. Troubleshoot bad reference signals. If there are no bad reference signals, replace the specified MRC card. Message generated by PSM card: Check the ST and INP lamps on the PSM card. If either is lit green, replace the PSM card. If both are off, wait for the MRC or clock card to become active.
CARD FAIL:FRAMER FAILURE	The specified card has failed.	Replace the specified card.
CARD FAIL:INTERNAL FAILURE		
CARD FAIL:PLL OUT OF LOCK	The specified card has failed.	If a single reference is being used, verify that the signal is within tolerance. If bad, troubleshoot the signal. Otherwise, replace the specified card.
CARD FAIL:PRIMARY REFERENCE PLL OUT OF LOCK		
CARD FAIL: REFERENCE VOLTAGE FAILURE	The specified card has failed.	Replace the specified card.
CARD FAILED		

Table A. Messages (Contd)

MESSAGE (conddescr)	EXPLANATION	ACTION
CARD FAILED: COMMON RELAY REGISTER FAULT	The MCA-5M card has failed.	Replace the MCA-5M card.
CARD FAILED: INTERNAL PROCESSOR FAILURE		
CARD FAILED: OUTPUT RELAY DRIVER FAULT		
CARD FAILED: WRITE RELAY REGISTER FAULT		
CARD FAULT:REFERENCE PLL OUT OF LOCK	The specified card has failed.	If a single reference is being used, verify that the signal is within tolerance. If bad, troubleshoot the signal. Otherwise, replace the specified card.
CARD INFORMATION DOES NOT MATCH DATABASE	Configuration and/or inventory information in the card does not match the system database.	Confirm that the correct card is in the specified slot. If the card is correct, use the CPY-MEM command to copy the card information from the card to the system database, or from the system database to the card (which ever is appropriate). ***Caution: Ensure that the card information in the database is correct before copying from the MIS to other cards. This could cause service interruption if the existing card information is not correct.***
CARD IS NOT SUPPLYING A SIGNAL TO THE CLOCK(S)	The input card is not supplying a signal to the clock card(s). (This may be a normal condition: if ST3 or ST3E cards are being used, only a single MRC card is active.)	Verify that the card provisioning is correct. If the backplane switch is in the ST3 position, do nothing. If backplane switch is not in the ST3 position, use the RTRV-ALM command to check for a failed card. This could be a transitory condition during warm-up. If the condition persists after warm-up, replace the specified card.
CARD IS SUPPLYING A SIGNAL TO THE CLOCK(S)	The input card is supplying a signal to the clock card(s).	None required.
CARD NOW USING SPECIFIED INPUT SIGNAL	The MRC card has switched to the specified input based on the select signal priority.	Determine why the switch occurred (a reference signal may have failed), and repair the faulty input.
CLOCK CONVERGED ON REFERENCE INPUT	The clock card has converged on the signal from the clock input card.	None required.

Table A. Messages (Contd)

MESSAGE (conddescr)	EXPLANATION	ACTION
CLOCK DISQUALIFIED:FREQ THRESHOLD EXCEEDED	The input card has detected that the signal from the specified clock card has exceeded the fractional frequency threshold.	1. Check MRC provisioning for correct OSC1 and OSC2 types. 2. Check MRC input signals for frequency tolerance. 3. Wait a minimum of 24 h for oscillators to stabilize. 4. Check the input signal frequency tolerance. 5. If all the above have been done and are OK, and the alarm persists, replace the specified clock card.
CLOCK FREERUNNING	The clock card is freerunning.	No action required (power-up state). If the condition persists, check the input card to determine why no 4 kHz signal is being provided.
CLOCK IN HOLDOVER	The clock card is in holdover.	Check the status of the input cards.
CLOCK IS NOT SUPPLYING SIGNAL	The clock card is not supplying a timing signal to the timing output cards (the specified clock is inactive).	None required.
CLOCK IS SUPPLYING SIGNAL	The clock card is supplying a timing signal to the timing output cards (the specified clock is active).	
CLOCK NOT CONVERGED ON REFERENCE INPUT	The clock card has not converged on the signal from the clock input card.	
CRC THRESHOLD EXCEEDED	The cyclic-redundancy-check error threshold has been exceeded on the specified input.	Check the specified input.
CURRENT TO ANTENNA IS OUT OF TOLERANCE	The current to the antenna is out of tolerance.	Troubleshoot using the DCD-LPR manual.
DOWNLOAD COMPLETED	The MIS card downloading has been completed.	None required.
DOWNLOAD IN PROGRESS	The MIS card downloading is in progress (may take up to 5 min).	

Table A. Messages (Contd)

MESSAGE (conddescr)	EXPLANATION	ACTION
Ex EXPANSION SHELF NOT PRESENT (x = 1, 2, or 3)	There is no communication between the MIS card in the master shelf and the MIS card in the specified expansion shelf.	If not equipped with an expansion shelf, no action is required (this is a standing condition). If equipped with an expansion shelf: 1. Ensure that section 7 of SW1 on the MIS card in the expansion shelf is set to the ON (up) position. 2. Check for MIS card port failures in the MIS card in the master and expansion shelves. 3. Check all cabling between the master and expansion shelves.
Ex EXPANSION SHELF PRESENT (x = 1, 2, or 3)	Communication between the MIS card in the master shelf and the MIS card in the specified expansion shelf is OK.	None required.
EXTERNAL OSCILLATOR OUT OF TOLERANCE	The specified OSC input signal to the GTI card is out of tolerance. (Threshold is 1×10^{-9} for rubidium; 5×10^{-5} for quartz.)	Check the specified OSC input signal.
EXTERNAL TIMING OUTPUT SHORT DETECTED	An external short has been detected on the specified output port.	Troubleshoot the wiring of the specified output port external of the DCD shelf.
FAIL:PRIMARY REFERENCE PLL OUT OF LOCK	The card has failed.	Replace the specified card.
FAIL:PROCESSOR FAIL		
FAIL:SYNTHESIZER PLL OUT OF LOCK		
FAIL:TRANSFER OSC PLL OUT OF LOCK		
FAILURE TO SWITCH TO CLOCK CARD	The selected clock card reference signal cannot be used by the timing output card.	Use the RTRV-COND and RTRV-ALM commands on the specified clock card. Also, use the RTRV-COND and RTRV-ALM commands on any Version 5 input or timing output card to verify the failure. If more than one TO card reports the condition, replace the specified clock card; if only one TO card reports the condition, replace the reporting TO card.

Table A. Messages (Contd)

MESSAGE (conddescr)	EXPLANATION	ACTION
FAILURE TO SWITCH TO INPUT CARD	The selected input card reference signal cannot be used by the timing output card.	Use the RTRV-COND and RTRV-ALM commands on the specified input card. Also, use the RTRV-COND and RTRV-ALM commands on any Version 5 timing output card to verify the failure. If more than one TO card reports the condition, replace the specified input card; if only one TO card reports the condition, replace the reporting TO card.
FORMAT SET BY USER	This signal format has been set by the user.	None required.
FORMAT SET BY USER OVERRIDE	This signal has been set by command as having been set by the user.	
FUSE BLOWN OR POWER FAIL	A fuse has blown on the specified shelf or the input power to the shelf has failed.	Check the shelf fuse or power into the shelf.
GPS FREQUENCY OUT OF TOLERANCE	The GTR has determined that the frequency of the oscillator in the GTR is out of tolerance compared to the frequency of the signal from the satellites.	None required. If the condition persists, replace the GTR.
GPS INVALID	There is a GTR location problem, a sky problem, a noise problem because of grounding, or a noisy oscillator.	If temporary, no action required. If the problem continues: 1. Check the location of the GTR for sky obstructions. 2. Check the shelf grounding. 3. Check the OSC1 and OSC2 signals for frequency stability. 4. Troubleshoot using the DCD-LPR Manual.
GTI IS LOCKED	At least 4 satellites have been found. The GTR is supplying a stable timing signal, the system has locked to UTC time, and the output is stable.	None required. (Refer to the DCD-LPR manual for additional information.)
GTI TRACKING	At least 2 satellites have been found.	None required. (Refer to the DCD-LPR manual for additional information.)
GTR COMMUNICATIONS FAIL	Communications between the GTI card and the GTR have failed.	Refer to the DCD-LPR Manual. The problem could be the GTR, the GTI card, the fiber-optic cable, or the I/O module.

Table A. Messages (Contd)

MESSAGE (conddescr)	EXPLANATION	ACTION
GTR FAIL:ANTENNA CURRENT OUT OF TOLERANCE	The GTR has failed.	Replace the GTR. (Refer to the DCD-LPR manual for additional troubleshooting information and replacement procedures.)
GTR FAIL:FLASH MEMORY FAIL		
GTR FAIL:GTR PLL OUT OF LOCK		
GTR FAIL:RAM MEMORY FAIL		
GTR FAULT:NOT LOCKED TO UTC TIME - GTR OR SKY PROBLEM	The GTR has failed or there is a satellite visibility problem.	Replace the GTR or check for sky obstructions. (Refer to the DCD-LPR manual for additional troubleshooting information and replacement procedures.)
GTR IS LOCKED	The GTR is supplying a stable timing signal.	None required. (Refer to the DCD-LPR manual for additional information.)
GTR IS NOT LOCKED TO GPS SIGNAL	The GTR does not have a position and/or timing solution.	If temporary, no action required. If the problem continues, check the location of the GTR for sky obstructions. (Refer to the DCD-LPR manual for additional troubleshooting information.)
GTR POWER FAULT	Current to the GTR is out of tolerance.	Troubleshoot using the DCD-LPR Manual.
HOT PROTECTION SWITCH PERFORMED TOx WITH HSy	A timing output card has failed (followed by an automatic or manual switch to a protection card).	Replace the failed timing output card.
(x = 1–10, y = 1–2)	A manual switch to a protection card was used.	None required.
IMPROPER CARD REMOVAL	The card has been improperly removed from the shelf, or has failed to communicate with the MIS card.	Reinsert the specified card, reprovision the specified slot, or replace the specified card.
IMPROPER CARD REMOVAL OR COMM FAILURE	The card has been improperly removed from the shelf, or has failed to communicate with the MIS card.	Check the communications cable between the DCD shelf and the LPR shelf. If OK, reinsert the specified card, reprovision the specified slot, or replace the specified card.

Table A. Messages (Contd)

MESSAGE (conddescr)	EXPLANATION	ACTION
IN-SERVICE NORMAL	The nonredundant card or port is in service and operating normally.	None required.
IN-SERVICE NORMAL-ACTIVE	The redundant card or port is in service, operating normally, and active.	
IN-SERVICE NORMAL-ACTIVE LOCKED	The redundant card or port is in service, operating normally, and has been locked as the active card.	
IN-SERVICE NORMAL-STANDBY	The redundant card or port is in service, operating normally, and not active.	None required.
INPUT IS DRIFTING	The clock card has detected drift in the specified signal.	Check the specified input reference signal.
INPUT SWITCHED	The specified TO card has switched to a different timing source. This happened as a result of a command (OPR-SYNCNSW), references becoming active, or a card fault.	If this happened as a result of a command, no action is required. If this did not happen as a result of a command (card fault), use the RTRV-COND and RTRV-ALM commands to determine the faulty card, then replace the faulty card.
INSUFFICIENT SATELLITES IN VIEW < 3	There are less than 3 satellites in view, which is an insufficient number.	None required. (Refer to the DCD-LPR manual for additional information.)
LOSS OF ALL EXTERNAL INPUT REFERENCES	All external input references to the input card have been lost.	Check all inputs.
LOSS OF ALL INPUT AND CLOCK SIGNALS	All 4 kHz buses from the input and clock cards are not active, or the input and clock cards are not installed.	Do one of the following: 1. Wait for at least one input or clock card to become active. 2. Install input or clock cards and wait for at least one to become active.
LOSS OF BOTH LOCAL OSCILLATOR SIGNALS	The OSC1 and OSC2 signals from the DCD shelf have been lost.	Check the OSC1 and OSC2 signals into the LPR shelf. (Refer to the DCD-LPR manual for additional troubleshooting information.)
LOSS OF CLOCK SIGNAL	The input or monitor card has lost the signal from the specified clock card.	Use the RTRV-ALM command to determine which clock card has failed, then replace the faulty clock card.

Table A. Messages (Contd)

MESSAGE (conddescr)	EXPLANATION	ACTION
LOSS OF COMMUNICATIONS WITH ALL OUTPUT CARDS	The MCA-5M card has lost communications with the timing output cards because there are no timing output cards in the shelf.	Install, and put into service, the timing output cards.
	The MCA-5M card has lost communications with the timing output cards because a timing output card has failed and disabled the communication bus.	Replace the timing output cards, one at a time, until the condition clears.
LOSS OF EXTERNAL OSCILLATOR	The specified OSC signal from the DCD shelf has been lost.	Check the specified signal (OSC1 or OSC2) into the LPR shelf. (Refer to the DCD-LPR manual for additional troubleshooting information.)
LOSS OF EXTERNAL REFERENCE	The specified input has been lost.	Check the specified input.
LOSS OF GPS SIGNAL FROM GTR	The GTI card has detected a loss of signal from the GTR.	Check the LED on the I/O Module on the rear of the LPR shelf: If not lit, the fiber or the GTR is faulty: determine which has failed and replace the faulty item. If lit green, the fiber is OK (the GTR or GTI card is faulty): replace the GTI card, then the GTR, one at a time, to determine which is faulty. (Refer to the DCD-LPR manual for additional troubleshooting information and replacement procedures.)
LOSS OF OSCILLATORS AND INPUT FROM ANTENNA	The OSC A input, the OSC B input, and the antenna input have been lost.	Check the OSC A input, the OSC B input, and the input from the antenna. (Refer to the DCD-LPR manual for additional troubleshooting information and replacement procedures.)
LOSS OF TIMING OUTPUT SIGNAL	A failure of the output signal from the specified card has been detected.	Check for external shorts: If shorts, repair the shorts. If no shorts, replace the specified card.
LPR SHELF FUSE BLOWN OR POWER FAIL	A fuse has blown on the specified shelf or the input power to the shelf has failed.	Check the shelf fuse or power into the shelf. (Refer to the DCD-LPR manual for additional troubleshooting information.)
LTI IN HOLDOVER	An external reference has been disqualified or is missing.	Check the OSC1 and OSC2 signals into the LPR shelf. (Refer to the DCD-LPR manual for additional troubleshooting information.)
MAJOR GENERAL PURPOSE ALARM ON SHELF	This alarm was activated by a blown fuse or a card in the shelf. This alarm is activated when any other alarm is present in the shelf.	For Version 5 cards, use the accompanying TL1 message for troubleshooting. For non Version 5 cards, use the shelf lamps for troubleshooting.

Table A. Messages (Contd)

MESSAGE (conddescr)	EXPLANATION	ACTION
MINOR GENERAL PURPOSE ALARM ON SHELF	This alarm was activated by a blown fuse or a card in the shelf. This alarm is activated when any other alarm is present in the shelf.	For Version 5 cards, use the accompanying TL1 message for troubleshooting. For non Version 5 cards, use the shelf lamps for troubleshooting.
MIS HAS RESET	The specified card has been power cycled, the card diagnostics have reset the processor on the card, or an INIT-SYS command has been executed.	None required if there are no other indications of trouble. However, if there is no response to subsequent commands, replace the MIS card.
NOT TO BE USED FOR SYNCHRONIZATION	This signal is not suitable for synchronization.	None required.
NOT TO BE USED FOR SYNCHRONIZATION OVERRIDE	This signal has been set by command as not suitable for synchronization.	
OOF DETECTED	An out-of-frame condition has been detected on the specified input.	Check specified input.
OUT-OF-SERVICE MAINTENANCE	The card or port has been removed by command and is out of service.	None required.
OUT-OF-SERVICE MAINTENANCE-FAILED	The card or port has failed and is out of service.	Replace card.
OUT-OF-SERVICE MAINTENANCE-FAILED LOCKED	The card has been put in a user-initiated locked condition, and either the input signal or input card has failed.	Check the facilities and/or remove the lock. If the facilities are OK, replace the card.
OUTPUT TRANSMITTING AIS	The clocks are in holdover and this output port is sending AIS.	None required.
OUTPUT TRANSMITTING AIS OVERRIDE	The clocks are in holdover and this output port is sending an AIS signal as set by command.	
OUTPUT CARD PROTECTION SWITCH	The protection card, instead of the specified card, is now providing timing output signals.	If switched by command, none required. If not switched by command, replace the mate timing output card.
OUTPUT CARD IS USING SPECIFIED CLOCK CARD	The timing output card is using the timing signal from the specified clock card.	None required.
OUTPUT CARD IS USING SPECIFIED INPUT CARD	The timing output card is using the timing signal from the specified clock input card.	

Table A. Messages (Contd)

MESSAGE (conddescr)	EXPLANATION	ACTION
OUTPUT PORT HAS FAILED	The specified output port has failed.	Check for external shorts on the specified output port. If OK, replace the specified timing output card.
OUTPUT SQUELCHED	The clocks are in holdover and this output port has been squelched.	None required.
OUTPUT SQUELCHED OVERRIDE	The clocks are in holdover and this output port has been squelched as set by command.	
REF INPUT FRACTIONAL FREQ THRESHOLD EXCEEDED	The specified input frequency is changing at a rate (relative to the local reference) beyond the set threshold.	Check the specified input.
RUBIDIUM OSCILLATOR HAS REACHED END OF LIFE	The rubidium oscillator is nearing the end of its life.	Replace the specified clock card.
SEARCHING FOR FIRST SATELLITE	The first satellite has not been found.	None required. (Refer to the DCD-LPR manual for additional information.)
SHELF INPUT ALARM	A shelf minor alarm has been generated by an input card or a clock card.	Troubleshoot the shelf lamps per the DCD shelf manual.
SYSTEM INPUT TO CLOCK OUT OF TOLERANCE	The clock card has detected that the signal from the clock input card is out of tolerance.	Check the reference signals into shelf.
TIMING OUTPUT SOURCE SELECTED BY COMMAND	The timing source being used by the timing output cards has been forced by command.	None required. If desired, the forced timing source can be released by using the RLS-SYNCNSW command.
TIMING SIGNAL FROM CLOCK CARD DISQUALIFIED	The timing signal from the clock card has been disqualified by a timing output card.	If one timing output card reports this condition, replace the timing output card. If all timing output cards persist in reporting this condition, replace the specified clock card. (This is a normal transitory state when clock signals are being qualified.)
TIMING SIGNAL FROM INPUT CARD DISQUALIFIED	The timing signal from the input card has been disqualified by a timing output card.	If one timing output card reports this condition, replace the timing output card. If all timing output cards persist in reporting this condition, replace the specified input card. (This is a normal transitory state when input signals are being qualified.)

Table A. Messages (Contd)

MESSAGE (conddescr)	EXPLANATION	ACTION
TIMING SIGNAL NOT YET STABLE	The timing signal from the specified GTI card is not stable.	If temporary (less than 24 h), no action is required. If condition persists: 1. Use the RTRV-GPS-STAT command to check the minimum of each: the number of satellites in view (4) and the S/N (34 dB Hz). 2. Check OSC 1 and OSC 2 for excessive noise. 3. Check the location of the GTR for sky obstructions. (Refer to the DCD-LPR manual for additional troubleshooting information.)
TOD FAIL	The TOD INVALID condition has existed for a sufficient time to escalate to an alarm condition.	Replace the GTR. If the problem persists, replace the GTI card. (Refer to the DCD-LPR manual for additional troubleshooting information and replacement procedures.)
TOD INVALID	The 1 p/s output pulse is not aligned with the 1 p/s from the GTR.	None required. (Refer to the DCD-LPR manual for additional information.)
x SECOND THRESHOLD EXCEEDED	The xx second threshold has been exceeded.	Check the specified input.

Table B. Error Codes

CODE	MEANING	ACTION
ENEQ	The specified card or port has not been entered into the system database or is missing.	Re-enter the command with the proper aid. Or, enter the specified card or port into the database. Or, install the missing card.
ENPS	The mate card is incompatible or faulty.	Verify the system's protection type using RTRV-ATTR-CONT. If the system is not configured for protection, the system configuration will need to be reprovisioned to allow protection switching (use SET-ATTR-CONT). Use the RTRV-COND-EQPT to determine which card(s) is the working card and which is the protection card(s). Then, re-enter the appropriate command. Use the RTRV-ALM-EQPT and RTRV-ALM-PORT commands to determine the status of the mate card.
ICNV	The command verb or modifier is not valid.	Use a valid command.
IDNV	A parameter value is not valid or is inconsistent: • Used invalid range (may involve & or &&) • Mismatched \<montype> and \<montm> • Used unsupported or invalid \<montype>	Re-enter the command with valid parameters per the User's Guide.
	A parameter value is inconsistent with the card type: • Used inappropriate framing or signal type	Re-enter the command ensuring that the framing or signaling type match the card type.
IEAE	The specified card, port, or user already exists. (An attempt was made to enter equipment or ports already entered in the database.)	To change a parameter, use the ED command. To change card types (change \<aid>), use the DLT command to delete the present card, then use the ENT command to enter the new card.
IIAC	The aid is not valid.	Re-enter the command with a valid aid.
IICT	The ctag is not valid.	Re-enter the command with a valid ctag (six characters or less).
IISP	A character or punctuation mark violated syntax rules.	Re-enter the command with valid syntax and punctuation.
IITA	The tid is not valid.	Re-enter the command with a valid tid.
IPMS	A required parameter is missing.	Re-enter the command with all required parameters.
PIUC	The user's access level is incorrect for the command entered.	Contact system administrator.
PIUI	An illegal user name or password was used during log on.	Verify that user name and password are correct and re-enter the command, or contact the system administrator.
PLNA	An attempt was made to enter a command without being logged on.	Log on and repeat the command.

Table B. Error Codes (Contd)

CODE	MEANING	ACTION
SARB	The system is busy and cannot complete the command.	Try again later.
SCSN	An invalid sequence was used.	Re-enter the command using the proper sequence (e.g., enter, restore, remove, delete).
SDNA	An attempt was made to switch (OPR-SYNCNSW or RLS-SYNCNSW) to a timing source card (input or clock) which is not restored or has failed.	Ensure that the card is in service and has not failed.
SPFA	A switch request was made to a card that was designated as a protection output card, however, the card has failed and the switch request has been denied.	Check the provisioning of the working and protection card. Use the RTRV-ALM-EQPT and RTRV-ALM-PORT commands to determine the status of the protection card.
SROF	An attempt was made to communicate with a non Version 5 card (see note), a failed Version 5 card, or a card not entered into the database. Note: Refer to the Input/Output Reference Guide section of this manual for a list of Version 5 cards (all other cards are non Version 5).	Use RTRV-EQPT to verify that the card type is correct for the entered command. 1. If the response shows the slot is equipped with a Version 5 card (see note), skip to Step 2. If the response shows that the card is unequipped, the card either is not equipped or is non Version 5. • If the slot is not equipped, re-address the command to an equipped slot, or equip the addressed slot. • If the card is non Version 5, the denied command cannot be addressed to that card type. 2. Use the RTRV-ALM-EQPT and RTRV-ALM-PORT commands to check the alarm status of the card. • If the Version 5 card is restored: – If the card status shows it has failed, replace the card. – If the card status shows it has not failed, repeat the command or contact the system administrator. 3. Use the RTRV-COND command to check the status of the card. • If the Version 5 card is not restored, the status will show nothing. Therefore, the card has failed and must be replaced.
	An attempt was made to make configuration changes through an MIS card in an expansion or remote shelf.	Re-enter the command through the master shelf.

Table B. Error Codes (Contd)

CODE	MEANING	ACTION
SROF (contd)	An attempt was made to execute a command that could not be executed.	Examine the configuration of the system using all of the applicable RTRV commands to determine if a configuration mismatch exists. If it does, correct it by issuing the appropriate command (refer to the tasks chart in the operations section of the manual). If the response persists, a system incompatibility may exist; call CTAC to troubleshoot the problem.
SWFA	A switch request was made back to a card that was designated as a working output card, however, the card has failed and the switch request is denied.	Check the provisioning of the working and protection card. Use the RTRV-ALM-EQPT and RTRV-ALM-PORT commands to determine the status of the protection card.