

MIS CARD (090-45018-05)
SOFTWARE RELEASE DOCUMENT
RELEASE 5.05.04

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1. GENERAL

1.01 This document provides information about Release 5.05.04 of the software for Symmetricom's MIS card (part number 090-45018-05).

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

1.03 Symmetricom is a registered trademark and DCD is a trademark of Symmetricom, Inc. All other product names, service marks, trademarks, and registered trademarks used in this document are the property of their respective owners.

2. NEW FEATURES

2.01 None.

3. CORRECTED ISSUES

3.01 This release of the MIS card software includes the following corrected issues:

- *Issue 9-25:* The MIS card will program HS1 and HS2 with QL from TO card in override state. It does this initially, except when switching from previous override state it does not return to default (PRS) state first. For example, system QL is PRS, TO-7 has override of ST2. Transfer to HS1, output changes from PRS to override ST2. Release protection switch and change override state of TO-7 to ST-3. Initiate again and output state changes from PRS to ST2 then ST3. It should have been PRS then ST3.

Correction: Override states work properly with MIS firmware version 5.05.04.

- *Issue 9-46:* An "override" message set on a TO card will not clear automatically after a 1:N protection switch occurs and is then released. Example: An override message on TO-x is set to QL-ST3. The TO-x card is physically unplugged from the shelf. TO-x properly transfers to HS-1 (TO-11) and a QL-ST3 message is transmitted. The 1:N transfer is released by re-inserting TO-x into the shelf and releasing the 1:N protection switch. A second 1:N transfer is initiated with a TO-x card that is transmitting a QL-PRS message. This time the QL-ST3 message is transmitted by HS-1 (TO-11) card rather than the QL-PRS. This condition only occurs if the TO-x card originally contains an "override" QL message.

Correction: Works properly in MIS version 5.05.02 and higher.

- *Issue 10-43:* The GTI card does not refresh the serial number in the MIS if the MIS switch 1-5 is down using the CPY-MEM From -ALL to MIS command to place the GTI card in service.

Correction: MIS is refreshed properly in MIS firmware version 5.05.04.

- *Issue 10-47:* The EA-20 card does not support ports 11 through 20 so that an ENT-EQPT command will work for individual ports in the 11-20 port range.

Correction: MIS firmware version 5.05.04 supports ranges.

- *Issue 10-48:* The MCA-5M stops communicating occasionally. Sometimes it appears to restart and cause random HS switches when used with TO-EAN cards.

Correction: MCA-5M firmware version 5.05.05 corrects random switching. MCA-5M communications loss is corrected.

- *Issue 10-49:* Random problems occur when executing the RTRV-COM command. This is caused by MIS because the DN= is sent with null instead of characters. RTRV-COM message fields have invalid or scrambled information in fields when using TimeScan. The reason is that the */ field is missing to indicate end of block.

Correction: The */ field is no longer missing in MIS firmware version 5.05.04.

- *Issue 10-50:* Removal of an expansion shelf MIS or expansion shelf cable results in the message as follows:
TELECOM 2000-04-24 17:39:20
A 114 REPT EVT EQPT
"SHELF:INACTIVE,SC,2000-04-24,17-39-20:/
* E1 EXPANSION SHELF NOT PRESENT */"

Correction: Message now reads:

```
TELECOM 2002-10-29 12:36:57
** 37 REPT ALM EQPT
"SHELF:MJ, INACTIVE, SA, 2002-10-29,
12-36-57:/
E1 EXPANSION SHELF NOT
PRESENT */"
```

- *Issue 10-51:* The TO-EAN does not switch if

ports 9 or 10 are removed and framing is set for CRC-4 or CAS-4. The card does not switch only if a manual switch has occurred first.

Correction: Switching occurs normally with new firmware version 5.05.02 for TO-EAN card.

- *Issue 10-54:* Note the following test configuration:

TO-EAN cards are in slots 1 through 5, HS1 and HS2 cards are running 5.05.01, MCA-5M card is running 5.05.04, and the MIS-05 card is running 5.05.02, and the following TL1 commands are in effect:

```
ED-PORT TO-1-10,,,analog,; = DENY SRCI
ED-PORT TO-1-10,,,digital,; = DENY SRCI
```

Works ok in ranges. So when changing port 10 to analog or digital, you must use the range command all or change port 10 as part of a range.

Example: ED-PORT::TO-1-ALL:CTAG::,,,ANALOG,; OR ED-PORT::TO-1-5&&-10:CTAG::,,,DIGITAL,; Port 10 can be made anything by using 2 commands (worst case).
Example: ED-PORT::TO-1-9&&-10:CTAG::,,,DIGITAL,; and then ED-PORT::TO-1-9:CTAG::,,,ANALOG,;

One command would work if port 10 is digital. Two commands would be necessary if port 9 is to be different than port 10.

Correction: Port ID now can be provisioned properly with MIS firmware version 5.05.04.

- *Issue 10-55:* Note the following test configuration:

TO-EAN cards are in slots 1 through 5, HS1 and HS2 cards are running 5.05.01, MCA-5M card is running 5.05.04, MIS-05 card is running 5.05.02, TO-2 card has ED-EQPT CAS,INH,MN, MCA-5M cards has ED-EQPT MJ,ALW, manually switch the TO-2 card to HS using the OP-PROTSNSW command, NO alarm on the MIS card (should be MJ).

Running the same test configuration with FAS framing results in a major alarm on the MIS card (everything works okay).

Correction: Alarms now work properly in MCA-5M firmware version 5.05.05.

- *Issue 10-56:* The TO-EAN card releases and then re-switches in 2 to 5 seconds. The TL1 message showing release of protection switch is never received.

Correction: False switching no longer occurs in MCA-5M firmware version 5.05.05.

- *Issue 10-58:* The MCA locks up when testing the operate and release protection switch repeatedly.

Correction: MCA-5M does not lock up with firmware 5.05.05 release.

4. KNOWN ISSUES

4.01 This release of the MIS card software includes the following known issues:

- *Issue 8-90:* The MIS to X.25 operation is supported only in applications where an X.25 permanent virtual circuit (PVC) is used. A switched virtual circuit (SVC) operation, where a session is established upon alarm reporting from the DCD shelf to the network manager, is not supported. Likewise, an SVC operation is not supported when establishing a session from the network manager to the PAD connected to the DCD shelf.

Work-around: Use the X.25 in PVC mode only. This is done by establishing an X.25 session from the network management system to the PAD connected to the DCD shelf. The session should remain open at all times to support management functions.

- *Issue 9-69:* The TO-1 and TO-2 cards operate in 1:1 protection mode. When the active TO card is removed and replaced, outputs become disabled for 10 seconds and then the TO-2 card becomes active.

Work-around: Never remove the active card. Switch the active card status using the TL1 message command.

- *Issue 9-75:* Rare card mismatch message does not clear after switching protection mode from 1-1 to NO operation. Once set for 1-1 operation, the TO-EA5 will not allow setting to NO operation without standing alarm.

Work-around: To clear GPMN or mismatch, go to 1+1 or NO mode then back to 1-1.

- *Issue 9-83:* With the OPR-PROTNSW command active and the HS2 (TO-12) TO-EAN card protected, the HS2 card is removed from the shelf. After receiving the “unequipped” message, the HS2 card is re-inserted. The output ports are squelched for several minutes before the MCA-5M re-provisions all HS2 ports.

Work-around: Do not remove the HS2 card during a protection switch.

- *Issue 9-92:* The MIS automatically places a TOTA-5 or TOTA-M card in service if the cards are inserted in the HS1 or HS2 slot. The MIS allows the MCA-5/MCA-5M cards to perform provisioning. The TOTA-5/TOTA-M cards can only be used as HS cards in HS1 or HS2 slots.

Work-around: None.

- *Issue 9-95:* Mixing TOTA-5/M cards with EA 10/M or EA 20M or TO-EA5/N cards causes TOTA-5/M to generate BPV and CRC errors.

Work-around: Do not use Version 5 E1 and T1 output cards in the shelf together. Separate into master and expansion shelves.

- *Issue 10-20:* On the MRC-xx card, CRC errors are ignored unless the threshold is set significantly low, for example, one tenth of the expected value.

Work-around: None.

- *Issue 10-21:* On the MRC-xx card, BPV errors are ignored unless the threshold is set significantly low, for example, one tenth of the expected value.

Work-around: None.

- *Issue 10-44:* The analog output of the GTI-18 card causes the output light to display red and generates a shelf minor alarm.

Work-around: The GTI-18 card should not be used in analog mode. Only the E1 mode is supported.

- *Issue 10-46:* The Port Alarm Severity attribute is not transferred to the hot spare after a hot switch.

Work-around: None.

- *Issue 10-59:* The MIS gives a SROF when testing the operate and release protection switch repeatedly. The system continues normally if the command is repeated.

Work-around: None.

- *Issue 10-61:* In running a system with an expansion shelf equipped with a version 5.05.04 MIS card and version 5.04.01 EA-10M cards, in using the CPY-MEM command from cards to MIS, some ports become out of service maintenance from MIS. Outputs are actually normal.

Work-around: Expansion shelves require the use of ENT-EQPT, then ENT-PORT, RST-EQPT, and RST-PORT commands rather than using CPY-MEM for EA-10 cards with MIS switch 1-5 down (default position is switch 1-5 up). With MIS switch 1-5 up, operation is normal.

- *Issue 10-62:* The 4 kHz reference switches from input B to input A when the DCD-523 shelf is set to non-revertive mode, both CLK A and CLK B cards are removed, and is tested with the following cards: 2 version 5.04.04 MRC-EA cards, 1 ST2E card, 1 ST3E card, 12 version 5.05.02 TO-EAN cards, 1 version 5.05.05 MCA-5M card, and 1 version 5.05.04 MIS card.

Work-around: None.

5. ESTIMATED DOWN TIME

- 5.01** Not applicable.

6. ESTIMATED INSTALLATION TIME

- 6.01** Approximately 30 minutes is required to install this software release.

7. REQUIREMENTS

- 7.01** The hardware, software, and documentation required to operate this software release is listed as follows.

A. Hardware

- 7.02** An MIS card (part number 090-45018-05) must be installed in the shelf to receive this software release.

- 7.03** Table A lists the cards supported by MIS version 5.05.04; Version 5 cards are marked with a ^{V5}.

- 7.04** Some non-Version 5 cards are incompatible with Version 5 cards. Refer to the manual that came with the equipment.

B. Software

- 7.05** No additional software is required for this software release.

C. Documentation

- 7.06** Use either of the manuals / revisions listed below. Higher revision manuals can also be used.

<u>Manual</u>	<u>Part Number</u>	<u>Revision</u>
TL1 User's Guide	997-45018-08	D

8. INSTALLATION

- 8.01** To install this software release from a CD-ROM, follow the procedure in Chart 1. Repeat the procedure in Chart 1 for *each* shelf where this software is to be installed.

Table A. Cards Supported by MIS Version 5.05.04

CARD	PART NUMBER
INPUT CARDS	
DCIM-T	090-45010-50
DCIM-EA ^{V5}	090-45010-59
MRC-EA ^{V5}	090-45010-56 090-45010-57
MRC-EA/C ^{V5}	090-44010-56 090-44010-57
MRC-T ^{V5}	090-45010-53 090-45010-58
MONITOR CARDS	
PSM-EA ^{V5}	090-45025-54
PSM-T ^{V5}	090-45025-51
PSM-T5S ^{V5}	090-45025-53
TIMING OUTPUT CARDS	
TO-EA5 ^{V5}	090-45029-51
TO-EA5/C ^{V5}	090-44029-51
TO-EAN ^{V5}	090-45029-56
TOTA-5 ^{V5}	090-45012-52
TOTA-M ^{V5}	090-45012-53
PROTECTION CARDS	
MCA-5M ^{V5}	090-45015-55
LPR SHELF CARDS	
GTI ^{V5}	090-42140-13, software revision E or higher 090-42140-14, software revision E or higher 090-42140-15, software revision B or higher 090-45140-15, software revision B or higher 090-42140-17, software revision B or higher 090-42140-18, software revision B or higher
GTI/C ^{V5}	090-44140-14, software revision E or higher 090-44140-16, software revision B or higher 090-44140-18, software revision B or higher

Chart 1. Software Installation Procedure

STEP	PROCEDURE
	<p>This chart provides the steps for copying an MIS card program from an external source to the MIS card.</p> <p>Prerequisites:</p> <ol style="list-style-type: none"> 1. The MIS card to which the software will be downloaded has a part number of 090-45018-05. 2. The PC from which this software will be installed is running in a VT100 terminal mode. 3. The PC from which this software will be installed is running a commercial software communication package (such as PROCOMM PLUS) that supports the KERMIT protocol. 4. The PC from which this software will be installed must be connected to any available communications port on the shelf where the MIS card resides.
1	<p>Create a directory on the hard drive of the PC, and copy the files from both CD-ROMs (092-45118-52 and 092-45218-52) to the newly created directory.</p>
2	<p>Access level 1 is required to use the command in this step. Determine the setting for echo on the communication port to be used by entering the following:</p> <pre>RTRV-COM: [<tid>]:<aid>:<ctag>;</pre> <p>aid = communication port to be used to copy the program:</p> <ul style="list-style-type: none"> COM-1 = communication port 1 (backplane D connector) COM-2 = communication port 2 (backplane D connector or front panel RJ connector) COM-3 = communication port 3 (backplane D connector) <p>Response:</p> <pre><sid> <date> <time> M <ctag> COMPLD "<aid>" /*BAUD=<value>,MONMSG=<value>,KEEPALIVE=<value>, COMTYPE=<value>,ENDOFTEXT=<value>,ECHO=<value>, COMPRI=<value>,HWCONTROL=<value>, SWCONTROL=<value>,DUR=<value> ...*/</pre> <p>where the value for the echo parameter is ALW or INH.</p>

Chart 1. Software Installation Procedure (Cont'd)

STEP	PROCEDURE
3	<p>Access level 3 is required to use the command in this step. If the echo parameter is set to INH (inhibited), skip to the next step. If the echo parameter is set to ALW (allowed), set the echo to INH by entering:</p> <pre>ED-COM:[<tid>]:<aid>:<ctag>::,,,,,INH,,,,;</pre> <p>aid = communication port to be used to copy the program: COM-1 = communication port 1 (backplane D connector) COM-2 = communication port 2 (backplane D connector or front panel RJ connector) COM-3 = communication port 3 (backplane D connector)</p> <p>Response:</p> <pre><sid> <date> <time> M <ctag> COMPLD</pre>
4	<p>Access level 2 is required to use the command in this step. Determine which program location (HI BANK or LOW BANK) is active (ACTIVE) in the MIS card by entering:</p> <pre>RTRV-INVENTORY:[<tid>]:<aid>:<ctag>;</pre> <p>aid = ADMIN</p> <p>Response:</p> <pre><sid> <date> <time> M <ctag> COMPLD "<aid>" /* CARD=<value>, TYPE=<value>, PART=<value>, CLEI=<value>, SERIAL=<value>, HARDREV=<value>, LOW_BANK_SW=<value>: SOFTREV=<value>, SOFTVER=<value>, HI_BANK_SW=<value>: SOFTREV=<value>, SOFTVER=<value> */</pre> <p>where the value for either the LOW_BANK_SW or the HI_BANK_SW is ACTIVE (the active status will be used later in this procedure).</p>

Chart 1. Software Installation Procedure (Cont'd)

STEP	PROCEDURE																		
5	Set the KERMIT protocol parameters as follows: <table style="margin-left: 40px;"> <tr><td>Control quote:</td><td>35</td></tr> <tr><td>Pad:</td><td>0</td></tr> <tr><td>End of line:</td><td>13</td></tr> <tr><td>8th bit quote:</td><td>38</td></tr> <tr><td>Block start:</td><td>1</td></tr> <tr><td>Maximum packet size:</td><td>512</td></tr> <tr><td>Number of pad characters:</td><td>0</td></tr> <tr><td>File type:</td><td>Binary</td></tr> <tr><td>Block check type:</td><td>3-byte CRC</td></tr> </table>	Control quote:	35	Pad:	0	End of line:	13	8th bit quote:	38	Block start:	1	Maximum packet size:	512	Number of pad characters:	0	File type:	Binary	Block check type:	3-byte CRC
Control quote:	35																		
Pad:	0																		
End of line:	13																		
8th bit quote:	38																		
Block start:	1																		
Maximum packet size:	512																		
Number of pad characters:	0																		
File type:	Binary																		
Block check type:	3-byte CRC																		
6	Access level 4 is required to use the command in this step. Enter: <pre style="margin-left: 40px;">CPY-MEM:[<tid>]::<ctag>::,FROM-EXT,,TO-MIS:PGM;</pre> Response: <pre style="margin-left: 40px;"><sid> <date> <time> M <ctag> COMPLD</pre>																		
7	<p>Caution: If the program download is interrupted before completion, the inactive bank will be empty. Any program residing in the inactive bank will be lost. Do not interrupt the download.</p> <p>Transmit one of the following files from the directory created in Step 5 to the inactive memory bank in the MIS card:</p> <p>If the LOW BANK is active (as determined in Step 4), transmit the HI file (which has a file-name in the format of <xxxxxx.HI).</p> <p>If the HI BANK is active (as determined in Step 4), transmit the LOW file (which has a file-name in the format of <xxxxxx.LOW).</p>																		
8	Wait until the communication software indicates that the copying has been completed (may take up to 8 minutes).																		
9	Access level 5 is required to use the command in this step. To cause the MIS card to use the program just copied to the MIS card, the active program must be switched by entering the following command: <pre style="margin-left: 40px;">INIT-SYS:[<tid>]:<aid>:<ctag>::5;</pre> <pre style="margin-left: 40px;">aid = MIS</pre> Response: <pre style="margin-left: 40px;"><sid> <date> <time> M <ctag> COMPLD</pre>																		
10	This procedure is completed.																		