AMARS
#1A AUTOMATIC MESSAGE ACCOUNTING RECORDING CENTER
(#1A AMARC)
AMARC FUNCTIONAL TESTS UNDER LIVE TRAFFIC

CONTENTS

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1. GENERAL DESCRIPTION

1.1 Section 213 provides a procedure for verifying some important operations of No. 1A AMARC under live traffic condition. It is the purpose to verify the TOB comparison and recording call data on tape. To facilitate the procedure, live traffic must be received by the No. 1A AMARC. The remote location assigned to channel 1 will provide the live traffic. The tests in this section are intended to be performed by Western Electric only if requested by the TELCo and on an extra item basis. The tests in this section require equipment and NPD parameter data which is the responsibility of the TELCo.

1.2 Incoming messages will be monitored by using th "MON LIN" command. This command will provide a written (TTY) record of connect and disconnect messages. The record will be used by the installer in determining the number of processed calls present and it can also be compared to an AMA tape dump if necessary. (For example, once an AMA tape has recorded a significant amount of calls - approximately 30 or more - the tape can be dismounted and sent to a computer installation where it is possible to printout - or "dump" - the contents of the magnetic tape. This new printout can be compared to the original TTY record to verify accurate call processing. However, there will be different formats in the two printoiuts so that a translation program or a decoding manual will be required. In either case it will not be in the installer's responsibility to verify the contents of the AMA tape although he may be requested to obtain a TTY record and a written AMA tape if a failure occurs.)

1.3 The ability of the disks to record call data will be tested in this section.

1.4 Tests will require coordination and communication between installers located at the No. 1A AMARC installation site and the remote central office. Review test procedure before attempting this section.

1.5 This section should not be performed if the system is receiving vital data from the remote location(s).

1.6 System Console 0 is always associated with the ACTIVE CPU. System Console 1 is always associated with the NON-ACTIVE CPU (STANDBY or OSS).

2. RECORDS AND REQUIREMENTS

2.1 The test trouble record forms (SD-97-1313 and SD-97-1315) should be used to record all troubles which may be encountered when running the tests in this handbook section.

3. EQUIPMENT REQUIRED

3.1 Input/Output manuals, IM/OM for the associated generic program issue.

3.2 Load map for the associated generic program issue.

3.3 Magnetic tapes, 1600 BPI, blank, for the purpose of recording AMA data (obtained from the TELCo).

4. REMOTE OFFICE AND NO. 1A AMARC PRETEST STATUS

4.1 The remote office must be in good working condition. For example, if the remote office is a Call Data Accumulator, all appropriate testing procedures outlined in Handbook 95 pertaining to the CDA alone must have been successfully completed.

4.2 The No. 1A AMARC must be in normal operating condition. All cabinets and both system consoles should be powered with no apparent failures. The No. 1A AMARC Generic program must be loaded and running in both processors. Both Tape Unit 0 and Tape Unit 1 must be ON-LINE (ON-LINE lamps on the drive modules being lit) and each drive is to be equipped with an AMA magnetic tape.

NOTE: If the written magnetic tapes are to be verified by dumping, be certain to rewind tape to starting point. If tapes have been previously written, and unconditional AMA tape restoral input, "RST TAPE AMA UCL!" will be required. For ease of explanation the following tests assume CU-0 is ON-LINE (or ACTIVE and CU-1 is in STANDBY. The non-Generic parameter data associated with channel 1 must be loaded. All channels are removed from service since no "RST CHL" messages have been typed at this time.

4.3 Both disk drive should be powered up and ON-LINE. Verify that the START/STOP switch is in the START position and the WRITE PROTECT switch is in the NON-WRITE PROTECT mode.

4.4 Output messages referencing the disk can normally be discarded unless specifically referenced in this section.

4.5 Call data will not be sent to disk until a later portion of this Handbook section. Input the following using both system consoles:

INPUT: RMV DISK!
Response: M tt yz REPT DISK RMV OK

5. INITIAL SETUP

5.1 The dedicated line from the remote location to channel 1 must be connected at this time. It is the responsibility of the TELCo data services people to make the connection.

5.2 Using the symbol tables in the LOAD MAP find the virtual address of mnemonic TCFLGS. Address TCFLGS will be periodically dumped in Paragraph 6 to verify the operation of the TOB comparison.

5.3 The active processor's tape unit should already be ON-LINE. If not, use the "RST TAPE UCL!" message on system console 0.

5.4 Remove the standby processor's tape unit (Tape Unit 1) by typing the following input on system console 1:

Input: RMV TAPE!
Response: M tt yz RMV TAPE AMA ---

Rewind the tape by depressing the REWIND key. Rethread the tape on the lower mount take up reel following the printed diagram on the tape drive unit. After winding the tape around take up reel only twice, depress the LOAD key. When the tape reaches the load point and stops. the LOAD POINT lamp will come on. Depress the ON-LINE Key.

5.5 Restore the out-of-service system by typing the following message using system console 1:

Input: RST TAPE AMA!
Response: (system console 1):
tt yz UPD MEM TRN COMPLETE
tt yz RST SYS 1 STANDBY
tt yz REPT SYS STA 0 ACTIVE,
1 STANDBY ...
M tt yz RST TAPE AMA ---
Response: (system console 0):
tt yz UPD MEM TRN COMPLETE
tt yz RST SYS 1 STANDBY
tt yz REPT SYS STA 0 ACTIVE,
1 STANDBY ...

5.6 Set the System Clock

5.61 Using system console 0, set the system clock to 093035:

Input: SET CLK TIME 093035!

A response will indicate the current and requested time and date. Additional instructions to finalize the time will also be printed.

5.62 To finalize the time change, type the following on system console 0:

Input: SET CLK OK!

5.63 The system clock will be set with the above input message. Both system consoles will respond with:

Response: M tt yz OP CLK mm/dd/yy
09:30:XX.X
Where: mm/dd/yy = month/day/year
XXX.X = 35.0 + the amount of time between the response in Para. 5.61 and the typing of the input message in Para. 5.62.

5.7 With CU-0 active and CU-1 in STANDBY, check the status of the TOB comparison by typing on both system consoles the following input:

Input: DUMP MEM BLK D 0 bbbbbb 1!
Where bbbbbb = virtual octal address of mnemonic TCFLGS
Response:
M tt yz DUMP MEM D 000000 xxxxxx 000001
M tt yz bbbbbb:cccccc
Where: bbbbbb = virtual address of mnemonic TCFLGS
cccccc = If bit 0 is set then active is processing. If bit 1 is set then standby is processing. If bit 2 is set then there is no PTP transmisssion.

NOTE: Bits 0 and 1 may be set. However, with no channel sending data at this time, there will be no TOB comparison.

6. FUNCTIONAL TESTS

6.1 Call Record AMA Data Block

6.11 Inhibit operation of the working mode and automatic dialup facilities on all channels by typing the following messages on system console 0:

Input: INH WM ALL CHL!
Response: OK

6.12 Restore Channel 1 by typing the following input using system console 0:

Input: RST CHL 001!
Response: M tt yz RST CHL 001

6.13 With no AMARS failure messages being printed on either system console, No. 1A AMARC is successfully polling the remote office. Test calls can now be made at the remote location. Type in the following message on both system consoles to monitor the selected test numbers:

Input: MON LIN cccaaabbbb!
Where: ccc = calling NPA
aaa = office code of calling test number
bbbb = line number of calling number
Response: OK

6.14 Messages "MON LIN CONN" and "MON LIN DISC" will occur when calls associated with the line numbers are received. When any call data is completely received, the TOB compare program will be functioning.

6.15 Wait until at least thirty calls have been processed and a block of call entries have been entered onto tape. Verification on thirty calls will be 30 pairs of connect and disconnect messages via the MON LIN printout. While waiting for the thirty processed calls, periodically check address TCFLGS via the "DUMP MEM" instruction per Paragraph 5.7 to verify bit 2 is clear and bits 0 and 1 are at least periodically set.

6.2 Noon Label

6.21 Using system console 0, set the system clock as follows:

6.211 INPUT: SET CLK TIME 115900!

A response will indicate the current and requested time and date. Additional instructions to finalize the time will also be printed.

6.212 To finalize the time change, type the following on system console 0:

INPUT: SET CLK OK!

6.213 The system clock will be set with the above input message. Both system consoles will respond with:

Response: M tt yz OP CLK mm/dd/yy
11:59:XX.X
Where: XX.X = the amount of time between the response in Para. 6.211 and the typing of the input message in Para. 6.212.

6.22 After approximately one minute, a noon label will be written onto the active processor's tape unit (Tape Unit 0). The writing and movement of tape will occur when the following response is printed on both system consoles:

Response:
M tt yz OP CLK mm/dd/yy 12:00:00.0

6.23 After allowing a few more calls to be processed, verify that the TOB program is processing by examining address TCFLGS. Type the following input on both system consoles:

Input: DUMP MEM BLK D 0 bbbbbb 1!
Where: bbbbbb = virtual, octal address of TCFLGS
Response:
M tt yz DUMP MEM D 000000 xxxxxx 000001
M tt yz bbbbbb:cccccc
Where: bbbbbb = virtual address of TCFLGS
cccccc = If bit 0 is set, then the active is processing
If bit 1 is set, then the standby is processing
If bit 2 is set, then there is no PTP transmission

NOTE: Bits 0 and 1 should be set. Bit 2 should be clear. Then calls are being processed and a TOB comparison is being made over the PTP channel.

6.3 Dial-Up Call Processing

6.31 Each equipped dial-up will be tested for its call processing ability. Dial-up 000 will be tested first.

6.32 Remove all equipped dial-ups except the one under test by typing the following on system console 0 for each:

Input: RMV DLP XXX!
Response: t t yz RMV DLP XXX ZZZZ
Where: XXX = dial-up channel number
ZZZZ = 202S or 212A

6.33 Manually request dial-up by typing the following message on system console 0:

Input: SW CHL 1 DLP!
Response:
M tt yz SW CHL 1 DLP XXX ZZZZ OK TYPE 000
Where: XXX = dial-up channel number under test.
ZZZZ = 202S or 212A

6.34 Verify that connect, disconnect and/or error messages are received while the channel is on dial-up. Allow several calls (approx. 10 calls) to be processed.

6.35 Remove the channel from dial-up by typing the following on system console 0:

Input: RST CHL 1!
Response: tt yz RST CHL 001

6.36 If more dial-up channels are to be tested, remove the dial-up just tested and restore the next dial-up to be tested.

Input: RMV DLP XXX!
Response: tt yz RMV DLP XXX ZZZZ
Input: RST DLP YYY!
Response: M tt yz RST DLP YYY ZZZZ
Where: XXX = dial-up channel just tested
YYY = next dial-up channel to be tested
ZZZZ = 202S or 212A

6.37 If more dial-up channels are to be tested, repeat Paragraphs 6.33 through 6.37.

6.38 Restore all equipped dial-up that are presently out-of-service by typing the following on system console 0 for each:

Input: RST DLP XXX!
Response: M tt yz RST DLP XXX ZZZZ
Where: XXX = dial-up channel number
ZZZZ = 202S or 212A

6.4 CU Output Mismatch

6.41 If channel is associated with a single entry entity, proceed to Paragraph 6.5.

6.42 Read address AMRSTM, the system timing word, of the STANDBY processor by typing the following input using system console 1. Repeat the following input until the data in address AMRSTM is greater than 5:

Input: DUMP MEM BLK D 0 aaaaaa 1!
Where: aaaaaa = virtual, octal address of mnemonic AMRSTM
Response:
M tt yz DUMP MEM D 000000 xxxxxx 000001
M tt yz bbbbbb:cccccc
Where: bbbbbb = address of AMRSTM
cccccc = data contained in AMRSTM

6.43 When address AMRSTM in greater than 5, cause a mismatch by zeroing the STANDBY processor's AMRSTM word by typing the following input on system console 1:

Input: IN MEM D 0 aaaaaa 0!
Where: aaaaaa = virtual, octal address of mnemonic AMRSTM

A response will be printed indicating the old and new data.

6.44 The mismatches will be reported on system console 1 by the following responses:

Response: tt yz REPT MISMCH BOTH ...
yz cccc ...
yz dddd ...
yz eeee ...
Followed by: tt yz REPT DET COMPLETE
or tt yz REPT DET CLK PASSED
Where: cccc = active call record
dddd = standby call record
eeee = active parity, standby parity

System console 0 will print out the following response:
Response: tt yz REPT DET COMPLETE
NOTE 1: If the "REPT MISMCH BOTH" printouts do not occur, refer to Paragraph 8.

NOTE 2: If the standby CPU goes to an out-of-service state, restore it to standby by inputting the following on system console 1 and waiting for the system to restore to standby:

Input: INIT SYS!
RST SYS!

6.45 To stop the mismatch printouts, type the following message on system console 0. (In order to enter this message, it may be necessary to use the DELETE key first.)

6.451 Input: SET CLK TIME 143000!

A response will indicate the current and requested time and date. Additional instructions to finalize the time change will also be printed.

6.452 To finalize the time change, type the following on system console 0:

Input: SET CLK OK!

6.453 The system clock will be set with the above input message. Both system consoles will respond with:

Response:
M tt yz OP CLK mm/dd/yy 14:30:XX.X
Where: XX.X - amount of time between the response in Para. 6.451 and the typing of the input message in Para. 6.452.

6.5 Record Data on CPUO Disk

6.51 A test will now be made to ensure that billing data can be stored on the CPUO disk. Verify that the CPUO disk drive is ON-LINE and has its WRITE PROTECT switch in the NON-WRITE PROTECT mode. Enable the disk feature on CPUO by inputting the following on system console 0:

Input: RST DISK!
Response: M tt yz REPT DISK RST OK

6.52 Remove the tape on the active system by inputting the following on system console 0:

Input: RMV TAPE!
Response: M tt yz RMV TAPE AMA ...
tt yz REPT TAPBKU DISK BEING USED TO RECOVER BILLING DATA

NOTE: Additional responses are unimportant. What is important, is that CPUO remains active and billing data is being recorded on the CPUO disk.

6.53 Rewind the tape from the active tape unit by depressing REWIND key. If this tape is to be sent to a computer installation for verification, replace and label appropriately the tape on the drive with a new, clean AMA magnetic tape. If no further tape verification is required rethread the old tape. Follow the procedure in previous sections or in the Input Manual for loading tapes. If the old tape is to be remounted, an unconditional restoral will be required in paragraph 6.55 (i.e., RST TAPE UCL!).

6.54 Wait until at least thirty calls have been processed onto disk. Verification of thirty calls will be 30 pairs of connect and disconnect messages via the MON LIN printout. While waiting for the thirty processed calls, periodically check address TCFLGS (via the "DUMP MEM" instruction per Paragraph 5.7) to verify bit 2 is clear and bits 0 and 1 are at least periodically set.

Whether bits 0, 1, and 2 are in this specified state will depend upon the amount of calls being processed.

6.55 Using system console 0, restore the tape unit by typing the following input:

Input: RST TAPE!
Response: tt yz RST TAPE AMA ...
tt yz REPT BILLING DATA RECOVERY FROM DISK IP
tt yz REPT BILLING DATA RECOVERY FROM DISK CPL

NOTE: Additional responses are unimportant. What is important, is that all billing data has been recovered from disk and placed on the newly mounted tape.

6.56 Wait until an additional thirty calls have been processed to tape. Periodicaly check address TCFLGS. Refer to paragraph 6.54, if necessary.

6.6 Transfer Label

6.61 Using system console 0, switch processors by typing the following input:

Input: SW SYS!
Response: M tt yz SW SYS 0 STANDBY, 1 ACTIVE 000001
tt yz REPT SYS STA 0 STANDBY 1 ACTIVE ...

6.62 Verify the movement of the tapes as a transfer label has been written on both tapes.

6.63 Verify the TOB comparison program is operating by typing the following input on both system consoles:

Input: DUMP MEM BLK D 0 bbbbbb 1!
Where: bbbbbb = virtual, octal address of mnemonic TCFLGS
Response:
M tt yz DUMP MEM D 000000 xxxxxx 000001
M tt yz bbbbbb:cccccc
Where: bbbbbb = address of TCFLGS
cccccc = contents of TCFLGS

NOTE: Bits 0 and 1 should be set and bit 2 should be clear. (Repeat input if bits not in correct state, will depend upon the amount of calls processed.)

6.7 CU Output Mismatch (Second Part)

6.71 If channel 1 is associated with a single entry entity, proceed to Paragraph 6.8.

6.72 Wait until at least thirty calls have been processed and a block of call entries has been entered onto tape. Verification is thirty pairs of connect and disconnect messages and the movement of the active tape (Tape 1).

6.73 Using system console 0, set the system clock to 201530 in the same manner as Paragraph 6.451.

6.74 Read address AMRSTM in the STANDBY processor (CU-0) by typing following input using system console 1. Repeat input until the response's data field is greater than 5:

Input: DUMP MEM BLK D 0 aaaaaa 1!
Where: aaaaaa = virtual octal address of mnemonic AMRSTM
Response:
M tt yz DUMP MEM D 000000 xxxxxx 000001
M tt yz bbbbbb:cccccc
Where: bbbbbb = address of AMRSTM
cccccc = contents (data) of AMRSTM

6.75 When address AMRSTM is greater than 5, cause a mismatch by zeroing the STANDBY processor's AMRSTM address by typing the following input on system console 1:

Input: IN MEM D 0 aaaaaa 0!
Where: aaaaaa = virtual, octal address of mnemonic AMRSTM

A response will be printed indicating the old and new data.

NOTE 1: Mismatches will be reported as described in Paragraph 6.44. Verify the mismatch printouts.

NOTE 2: If the 'REPT MISMCH BOTH' printouts do not occur, refer to Paragraph 8.

NOTE 3: If the standby CPU goes to an out-of-service state, restore it to standby by inputting the following on system console 1 and waiting for the system to restore to standby:

Input: INIT SYS!
RST SYS!

6.76 Stop the mismatch printouts by setting the system clock to 221030 in the same manner as Paragraph 6.451 using system console 0.

NOTE: The DELETE key may have to be used first in order to enter the input messages.

6.77 Allow a few calls (approx. 10) to be processed before continuing to the next paragraph.

6.8 Record Data on CPU1 Disk

6.81 A test will now be made to ensure that billing data can be stored on the CPU1 disk. Verify that the CPU1 disk drive is ON-LINE and has its WRITE PROTECT switch in the NON-WRITE PROTECT mode. Enable the disk feature on CPU1 by inputting the following on system console 0:

Input: RST DISK!
Response: M tt yz REPT DISK RST OK

6.82 Remove the tape on the active system by inputting the following on system console 0:

Input: RMV TAPE!
Response: M tt yz RMV TAPE AMA ...
tt yz REPT TAPBKU DISK
BEING USED TO RECOVER
BILLING DATA

NOTE: Additional responses are unimportant. What is important, is that CPU1 remains active and billing data is being recorded on the CPU1 disk.

6.83 Rewind the tape from the active tape unit by depressing REWIND key. If this tape is to be sent to a computer installation for verification, replace and label appropriately the tape on the drive with a new, clean, AMA magnetic tape. If no further tape verification is required rethread the old tape. Follow the procedure in previous sections or in the Input Manual for loading tapes. If the old tape is to be remounted, an unconditional restoral will be required in Paragraph 6.85 (i.e., RST TAPE UCL!).

6.84 Wait until at least thirty calls have been processed onto disk. Verification of thirty calls will be 30 pairs of connect and disconnect messages via the MON LIN printout. While waiting for the thirty processed calls, periodically check address TCFLGS (via the "DUMP MEN" instruction per Paragraph 5.7) to verify bit 2 is clear and bits 0 and 1 are at least periodically set.

Whether bits 0, 1, and 2 are in this specified state will depend upon the amount of calls being processed.

6.85 Using system console 0, restore the tape unit by typing the following input:

Input: RST TAPE!
Response: tt yz RST TAPE AMA ...
tt yz REPT BILLING DATA
RECOVERY FROM DISK IP
tt yz REPT BILLING DATA
RECOVERY FROM DISK CPL

NOTE: Additional responses are unimportant. What is important, is that all billing data has been recovered from disk and placed on the newly mounted tape.

6.86 Wait until an additional thirty calls have been processed to tape. Periodically check address TCFLGS. Refer to paragraph 6.54, if necessary.

6.9 Midnight Trailer Label

6.91 Cause the midnight sequence to be executed by setting the system clock using system console 0:

6.911 Input: SET CLK TIME 235900!

A response will be printed indicating the current and requested time and date. Additional instructions to finalize the time change will also be printed.

6.912 To finalize the time change, type the following using system console 0:

Input: SET CLK OK!

6.913 The system clock will be set with the above input message. Both system consoles will respond with:

Response:
M tt yz OP CLK mm/dd/yy 23:59:XX.X

6.914 In approximately one minute, the midnight sequence will be activated. Verify tape movement on the active tape drive when the midnight sequence is activated. The midnight sequence is activated when the following message is printed on both system consoles:

Response:
M tt yz OP CLK mm/dd/yy 00:00:00.0

NOTE: The specified day obtained from the response in Paragraph 6.914 will be increment by one from the response in Paragraph 6.913.

6.92 Allow a few calls (approx. 10) to be processed after the midnight sequence has been activated.

6.93 Stop all monitoring by typing the following input messages for each line monitored on both system consoles:

Input: STOP MON LIN aaabbbcccc!
Response: OK

6.94 Restore working modes by typing the following message on system console 0:

Input: ALW WM ALL CHL!
Response: OK

7. CONCLUSION

7.1 Tape Removal

7.11 Remove the STANDBY tape unit by typing the following input using system console 1:

Input: RMV TAPE!
Response: M tt yz RMV TAPE AMA ---

7.12 Rewind the tape from the tape unit by depressing the REWIND key. If this tape is to be sent to a computer installation for verification, replace and label appropriately the tape on the drive with a new, clean AMA magnetic tape. If no further tape verification is required rethread the old tape. Follow the procedure in previous sections or in the Input Manual for loading tapes. If the old tape is to be remounted, an unconditional restoral will be required in the next paragraph (i.e., RST TAPE UCL!).

7.13 Using system console 1, restore the tape unit by typing the following input:

Input: RST TAPE!
Response: M tt yz RST TAPE AMA ...

7.14 Using system console 0, switch processors by typing the following input:

Input: SW SYS!
Response:
M tt yz SW SYS 0 ACTIVE, 1 STANDBY
000001
tt yz REPT SYS STA 0 ACTIVE, 1
STANDBY ...

7.15 Remove the STANDBY tape unit by typing the following input, using system console 1:

Input: RMV TAPE!
Response: tt yz RMV TAPE AMA ...

7.16 Rewind the tape from the tape unit. Either rethread this tape or replace with new AMA tape - see Paragraph 7.12.

7.17 Using system console 1, restore the tape unit by typing the following input:

Input: RST TAPE!
Response: M tt yz RST TAPE AMA ...

7.2 Call Data and Tape Sequence

7.21 Several tapes were used to record call data in this handbook section. If the tapes are to be sent to a computer installation for verification, the following is the order in which call data was sequentially stored on tape.

A) Tape removed in para. 6.52.
B) Tape removed in para. 7.11.
C) Tape removed in para. 6.82.
D) Tape removed in para. 7.15.

7.3 Equipping Remainder of Normal Channels

7.31 As the remainder of remote offices reporting to the No. 1A AMARC complete installation tests, they can be connnected to the No. 1A AMARC.

7.32 The Non-Generic parameters need to be entered. The addition of a new channel will involve entity and/or channel parameters as described in Paragraph 4 of Section 209.

7.33 It is neccessary to unequip Channels 2 through 6 if they were equipped with dummy data to prevent undesirable working modes. This must be done on an OOS processor. A system switch and an update of the NPD data should be performed after the channels have been unequipped. The following message is used to unequip a channel:

Input: RC CHL OOX!
Where: X = channel number to be unequipped

7.34 This paragraph markes the end of testing in this handbook section.

8. Failure to obtain Mismatch printouts
Note: Test in this paragraph are only executed if "REPT MISMCH BOTH" printouts cannot be obtained in Paragraph 6.4 and/or 6.7.

8.1 Input the following on system console 0:
Input: SET CLK UCL TIME 143000!

8.2 Input the following on both system consoles:

Input: REPT SYS!

8.3 If either response to the "REPT SYS" indicates that the PTP is removed or that the TOB is OFF, input the following on system console 1:

Input: RMV SYS!
INIT SYS!
RST SYS!

Note: If the above input messages were typed, wait until the OOS processor restores to standby.

8.4 Input the following on both system consoles:

Input: DUMP MEM BLK D 0 aaaaaa 1!
Response: M tt yz DUMP MEM D ...
M tt yz aaaaaa:xxxxxx
Where: aaaaa = virtual address of WMFAIL, xxxxxx = contents of address WMFAIL

8.5 The contents of address WMFAIL must be equal to zero in both processors. Use the following input to zero the contents of WMFAIL if it is not equal to zero in either processor.

Input: IN MEM D 0 aaaaaa 0!
Where: aaaaaa = virtual address of WMFAIL

8.6 Input the following on both system consoles:

Input: DUMP MEM BLK D 0 bbbbbb 1!
Response: M tt yz DUMP MEM D ...
M tt yz bbbbbb:yyyyyy
Where: bbbbbb = virtual address of MCHCNTL, yyyyyy = contents of address MCHCNTL.

8.7 The contents of address MCHCNTL must be equal to zero in both processors. Use the following input to zero the contents of MCHCNTL if it is not equal to zero in either processor:

Input: IN MEM D 0 bbbbbb 0!
Where: bbbbbb = virtual address of MCHCNTL.

8.8 If this paragraph was executed because of problems encountered in Paragraph 6.44, return to Paragraph 6.42. If this paragraph was executed because of problems in Paragraph 6.75 return to Paragraph 6.74.

No changes are indicated due to extensive revision.

Manager, Product Engineering
Control Center

Reason for Reissue
Update for Generic 3