PROCESSOR TAPE
HANDLING PROCEDURES
NO. 2B ELECTRONIC SWITCHING SYSTEM

CONTENTS PAGE

1. GENERAL

1.01 This section describes the handling procedures for maintaining current office tapes used in the No. 2B Electronic Switching System (ESS).

1.02 This section is reissued to include major changes in patch file procedures and to upgrade the rating to AT&TCo Standard as a result of field evaluation. Since this is a general revision, revision arrows normally used have been omitted.

1.03 Proper tape handling, minirecorder cleaning, and maintenance as well as critical BSPs will be outlined for easy reference.

1.04 Off-line bootstrap verification and copying of patch file procedures are included in this section.

1.05 ***Lettered Steps:*** A letter a, b, c, etc, added to a step number in this section, indicates an action which may or may not be required depending on local conditions. The condition under which a lettered step or a series of lettered steps should be made is given in the ACTION column, and all steps governed by the same condition are designated by the same letter within a test. Where a condition does not apply, all steps designated by that letter should be omitted.

2. CRITICAL BSP'S

2.01 Refer to Section 232-304-303 (232-304-304 for 2B-EF-2), Procedures For Changing Program Store Words, for detailed overwrite procedures on inserting program or translation patches to correct errors affecting service in a No. 2B ESS. This section states when and how often to duplicate tapes for backup.

2.02 Refer to Section 232-309-305, 2B Processor Tape Data Facility Operating Procedures, for detailed procedures on making backup tapes.

2.03 Refer to Section 232-324-301 (232-324-302 for 2B-EF-2), Office Update Procedures Using Regional Office Data Administration Program and/or

New Generic Program, for detailed procedures on ODA updates and/or generic restarts for the No. 2B ESS.

2.04 Refer to Section 232-309-705, 2B Processor Tape Data Facility Maintenance Procedures, for detailed minirecorder cleaning procedures.

2.05 Refer to Section 232-304-301, Updating Program Store Translation Information, for detailed procedures on updating program store translation information in the No. 2B ESS.

3. TAPE MAINTENANCE

3.01 Under normal conditions a tape cartridge should last at least 90 days. The exact duration is dependent upon the number of tape operations. The tape in both TDCs should remain in place until it wears out (fails) or until tape backup procedures require the removal of a tape cartridge.

3.02 Before another tape is inserted in a TDC unit, the read/write head and drive capstan should be cleaned (per BSP Section 232-309-705).

3.03 All No. 2B ESS offices should maintain a minimum of three pairs (six tape cartridges) of good tape cartridges in the office at all times.

These will consist of two office tapes with the most current information and two to four backup cartridges that are several Recent Change (RC) updates behind. It is important to perform the off-line boot ***every time*** after making backup tapes to ensure the tapes are bootable.

3.04 Make only one backup tape at any one time. Update once per month. If master tape A or B fails, replace with a backup tape. Replace the backup tape with a replacement tape and order a replacement.

3.05 Initially all six tapes should be updated once to bring them up to List 1 (complete tape with translations and generic) status; thereafter, one tape should be designated as a master cartridge and placed in TDC 0. All tape audit corrects should be performed from TDC 0 to TDC 1 unless circumstances make it impossible to do so (hardware problem with TDC 0 or BSP that specifically states a tape copy from TDC 1 to TDC 0). This tape should remain in TDC 0 and never be removed until the tape experiences:

- Read errors (FATLREAD)
- Write errors (FATLWRIT), and attempts at copying the tape fail.

3.06 At this time, the cartridge in TDC 0 should be discarded (Part 8) and the tape cartridge in TDC 1 put in its place as master. If any tape experiences read or write problems, clean the TDC heads and do a COPY:TAPE. If the tape still experiences read or write problems, it should be replaced and a new tape written as per Section 232-309-305. This assumes the master tape is in TDC 0 and will write tracks 2 through 4 and audit track 1. After all audit corrects have been performed, the original tape that was in TDC 1 should be replaced.

3.07 For offices with a 2B-EF-1 generic, if a tape goes bad, an AUDIT:TAPE can be made from either tape data controller. By using the Input Manual and the proper input message, either TDC can be designated the master when copying tapes.

3.08 The oldest of the six tapes should be updated and put back in the file cabinet. Never let the tape stock deplete to zero (due to a hardware problem) and then call for assistance. Obtain assistance when at least one master tape is left and the others are destroyed. Do not wait until there are no good office tapes.

3.09 All tapes should be marked with the current office generic and point issue information. They should also be labeled with the date when they are updated and also labeled in such a way to distinguish them as master tapes or backup (several RC updates behind) tapes.

3.10 SCCs should maintain at least two tapes, over and above the normal six, with generic and translations for each office it serves. These tapes are emergency backup tapes to be used if a major outage occurs in an office where all of the office tapes are destroyed. These tapes can be shipped to the respective offices every 6 months to be updated, verified, and then returned to the SCC.

3.11 Prior to the incorporation of any major data change to the master tapes, a backup tape must be created from the master tapes using the tape copy procedure in Section 232-309-305, and the two oldest backup tape cartridges. Any one of the following constitutes a major change:

- Any ODA update
- After two recent change updates
- Any overwrite to translation data.

Do not perform the tape duplication procedure unless a high degree of confidence has already been established in the remaining backup tapes (no read or write errors). Normally, the tape duplication procedure does not need to be performed more than once a week. This procedure should be performed at least once per month.

A. Tape Rotation

3.12 Tapes must be rotated when the master tape in TDC 0 experiences:

- Read errors (FATLREAD)
- Write errors (FATLWRIT), and attempts at copying tape fail. The rotation is performed as follows:

(1) The master tape in TDC 0 will be removed and disposed of per local procedures.

(2) The master tape in TDC 1 will be moved to TDC 0. This tape becomes the master tape.

(3) Insert a replacement tape in TDC 1 and bring it up to date using the audit and correct procedure (see Input Manual).

(4) Remove the replacement tape from TDC 1. Insert a backup tape and bring up to date using the audit and correct procedure.

(5) The backup tape in TDC 1 is now a master tape and should be labeled. The replacement tape is now a backup tape and should be labeled.

(6) After the rotation, the office should have three tapes updated and correctly labeled.

3.13 Additional replacement tapes should be ordered as needed. The generic type and issue must be specified when ordering tapes.

B. Replacement Tapes

3.14 As tapes become worn and replacement tapes are required, No. 2B ESS offices must order them through their WECO Regional Centers. These tapes can be ordered on a furnish only basis. The replacement tapes must specify the proper J-specification drawing number and the correct list number(s). The ordering information for replacement tapes is as follows:

- 2B-EF-1...Generic.....J2H101A-1, L-2
- 2B-EF-2...Generic.....J2H101B-1, L-4 E/W L-M2T

In all cases, the specific issue and point issue desired must be specified.

3.15 The WECO Regional Service Centers indicate the overall interval for cartridge delivery is anywhere from 3 to 6 weeks. Therefore office personnel should keep this in mind as office tapes become worn and in order to prevent emergency situations in an office.

3.16 If the recommended procedures are followed by ordering a replacement cartridge as soon as one becomes defective, emergency situations can be kept to a minimum.

C. Tape Storage

Caution: Spare tape cartridges should not be stored on or in the maintenance frame or any of its units.

3.17 The regular office tapes should be stored in individually sealed packages in a file cabinet readily accessible to the craftsperson who has a need to use them.

3.18 If stand-alone tapes are to be stored at the Central Office, they ***MUST NOT*** be stored with the regular tapes. They should be locked up in a location where they are not readily accessible.

4. OFF-LINE BOOTSTRAP VERIFICATION

4.01 It is recommended that the off-line bootstrap be performed a ***minimum*** of once per month, unless already done by RC update or by making backup tape. The off-line bootstrap should also be performed after a major data change is applied to the system tapes (ODA update, generic update, or several small recent change updates) or after producing backup tapes. This will ensure that the tapes are bootable and the generic is reasonably current and error free.

A. Off-Line Bootstrap and Hashsum Validation (2B-EF-1)

4.02 This part is applicable for 2B-EF-1 generic Issues 3.5 and later.

STEP	ACTION	VERIFICATION
1	At maintenance TTY— Type in: ALW:OW;UCL! VFY:OW:ADR 77777! VFY:OW:ADR 177777! VFY:OW:ADR 277777! VFY:OW:ADR 377777! VFY:OW:ADR 477777! VFY:OW:ADR 577777! VFY:OW:ADR 637777! ***Note:*** Use the VFY:OW:ADR input message to calculate hashsums for each equipped MOD of translations. Start with address 677777 and save the printout.	At TTY— System response: ALW OW COMPL VFY OW 0077777 XXXXX VFY OW 0177777 XXXXX VFY OW 0277777 XXXXX VFY OW 0377777 XXXXX VFY OW 0477777 XXXXX VFY OW 0577777 XXXXX VFY OW 0637777 XXXXX ***Note:*** XXXXX = number generated by hashsum calculation.
2	At 3A CC Panels— Depress both MANUAL keys.	At 3A CC Panels— Both MANUAL lamps lighted. System response: REPT CU STAT MAN REPT ERR KEY
3	At maintenance TTY— Type in: STOP:OW! RMV:CU!	At TTY— System response: ALW OW STOPPED OK
4	At System Status Panel— Depress LOCK key.	At SYSTEM STATUS AND CONTROL section of SSP— LOCK lamp lighted. UNAVAILABLE LED of CU being tested lighted. MANUAL FORCED LED lighted. At FORCE CU ACTIVE section— FORCE and SELECT( ) lamps lighted. ( ) = 0 or 1—active CU. At TTY—

STEP	ACTION	VERIFICATION
		System response: REPT CU STAT UAV x x = CU (0 or 1)
5	At off-line 3A CC Panel— Depress POWER key. ***Note:*** Delay approximately 20 seconds to ensure destruction of data in off-line store.	
6	At off-line 3A CC Panel— Depress POWER key.	
7	At maintenance TTY— Type in: ALW:TAPEUTIL!	AT TTY— System response: ALW TAPEUTIL COMPL
8	At maintenance TTY— Type in: LOD:OMAS;BOOT:FULL! ***Note:*** The LOD:OMAS;BOOT:FULL! message will cause both tapes to read into the off-line store. The display buffer in the off-line processor will indicate that the boot is in progress by the "bouncing balls." If this does ***not*** occur and the LOD OMAS COMPL and TAPEUTIL STOPPED is received within 20 seconds, repeat Steps 7 and 8.	At TTY— System Response: LOD OMAS COMPL TAPEUTIL STOPPED
9	***The LOD OMAS COMPL message must be received. If it is not, possible tape errors may be preventing recovery.*** Repeat Step 1 and compare results with the printouts saved; they should be the same. ***Note: Resolve all mismatches before proceeding.*** See Output Message Manual OM-2H200-01 for description of error format. Mismatches at this point in the procedure indicate possible tape troubles or differences between the system tapes and the main store content. All differences must be resolved. Contact WE IH PECC for assistance.	
10	At 3A CC Panels— Depress both MANUAL keys.	At 3A CC Panels— MANUAL lamps extinguished.

STEP	ACTION	VERIFICATION
11	At System Status Panel— Depress LOCK key.	At SYSTEM STATUS AND CONTROL section of SSP— UNAVAILABLE LED extinguished. OUT OF SERVICE LED lighted. LOCK lamp extinguished. MANUAL FORCED LED extinguished. At FORCE CU ACTIVE section— FORCE, SELECT 0, and SELECT 1 lamps extinguished. At TTY— System response: REPT CU STAT AVL
12	At maintenance TTY— Type in: RST:CU!	At TTY— System Response: DGN CU X COMPL ATP UPD OMAS COMPL RST CU COMPL

B. Off-Line Bootstrap and Compare Main Store Procedure (2B-EF-2)

4.03 This part is applicable for 2B-EF-2 generic, Issue 1C and later.

STEP	ACTION	VERIFICATION
1	At maintenance TTY— Type in: RMV:CU!	At TTY— System response: OK
2	At System Status Panel— Depress LOCK key.	At SYSTEM STATUS AND CONTROL section of SSP— LOCK lamp lighted. UNAVAILABLE LED of CU being tested lighted. MANUAL FORCED LED lighted. At FORCE CU ACTIVE section— FORCE and SELECT( ) lamps lighted. ( ) = 0 or 1—active CU. At TTY— System response: REPT CU STAT UAV X X = CU (0 or 1)
3	At 3A CC Panels— Depress both MANUAL keys.	At 3A CC Panels— Both MANUAL lamps lighted. System response: REPT CU STAT MAN REPT ERR KEY

STEP	ACTION	VERIFICATION
4b	If the office is equipped with Issue 2 or later generics, skip Steps 5 and 6.	
5	At off-line 3A CC Panel— Depress POWER key. ***Note:*** Delay approximately 20 seconds to ensure destruction of data in off-line store.	
6	At off-line 3A CC Panel— Depress POWER key.	
7	At maintenance TTY— Type in: ALW:TAPEUTIL!	At TTY— System response: ALW TAPEUTIL COMPL
8b	If the office is Issue 2 or later generics. At maintenance TTY— Type in: LOD:OMAS;BOOT:ERASE! Skip Step 9.	At TTY— System Response: LOD OMAS COMPL TAPEUTIL STOPPED
9	At maintenance TTY— Type in: LOD:OMAS;BOOT:FULL! ***Note:*** The LOD:OMAS;BOOT:FULL! and LOD:OMAS;BOOT:ERASE! messages will cause both tapes to read into the off-line store. The display buffer in the off-line processor will indicate that the boot is in progress by the "bouncing balls." If this does ***not*** occur and the LOD OMAS COMPL and TAPEUTIL STOPPED is received within 20 seconds, repeat Steps 7 through 9. The LOD:OMAS;BOOT:ERASE may take up to 60 seconds before starting the "bouncing balls." ***The LOD OMAS COMPL message must be received. If it is not, possible tape errors may be preventing recovery.***	At TTY— System Response: LOD OMAS COMPL TAPEUTIL STOPPED
10	At maintenance TTY— Type in:— CMPR:MAS:0 737777! CMPR:MAS:740000 0 57777777! ***Note: Resolve all mismatches before proceeding.*** See Output Message Manual OM-2H200-05 for description of error format. Mismatches at this point in the procedure indicate possible tape troubles or differences	At TTY— System Response: CMPR MAS COMPL CMPR MAS COMPL

STEP	ACTION	VERIFICATION
	between the system tapes and the main store content. All differences must be resolved.	
11	At 3A CC Panels— Depress both MANUAL keys.	At 3A CC Panels— MANUAL lamps extinguished. System response: UPD OMAS COMPL
12	At System Status Panel— Depress LOCK key.	At SYSTEM STATUS AND CONTROL section of SSP— UNAVAILABLE LED extinguished. OUT OF SERVICE LED lighted. LOCK lamp extinguished. MANUAL FORCED LED extinguished. At FORCE CU ACTIVE section— FORCE, SELECT 0, and SELECT 1 lamps extinguished. At TTY— System response: REPT CU STAT AVL
13	At maintenance TTY— Type in: RST:CU!	At TTY— System response: DGN CU X COMPL UPD OMAS COMPL RST CU COMPL

5. COPYING OF PATCH FILES

5.01 These instructions will allow every 2B-EF-2, Issue 2 or later office to apply current BWMs by copying patch files from cartridge tapes in addition to manual or paper tape application. This procedure will also apply to subsequent issues of 2B-EF-2, Issue 2 (2A, 2B, etc). This procedure will ***not*** apply to 2B-EF-1.

Caution: When copying the patch file, make sure both the master tape (tape to be copied from) and the slave tape (tape to be copied to) are the same generic and point issue. Failure to do so could result in a service outage of indefinite length.

5.02 Two patch file copy procedures are presented here.

5.03 **PROCEDURE 1** assumes the master tape came from the Warrenville Data Center or from an office with the same generic and point issue. This first procedure will also load the newly copied patches into the off-line CU via the off-line bootstrap. This will enable the office to run on the patches by switching CUs to the newly loaded data.

5.04 **PROCEDURE 2** assumes two slave tapes are brought to a remote office to copy their patch file. The hashsum procedure for the newly copied patch file will be accomplished by proceeding to Step 16 in PROCEDURE 1.

Caution: This procedure is for copying patch files only. It is not intended to be substituted for Section 232-324-302, Office Update Procedures Using Regional Office! If a generic or translation restart is involved, Section 232-324-302 must be followed.

5.05 If active translation patches exist for the office wanting to copy the patch file, a recent change update must be performed using Section 232-302-301. Then the active translation patches must be brought into the overwrite buffer and cancelled. If temporary Bell Laboratories or PECC generic patches are applied, contact PECC

before performing this procedure. Before this patch file copy procedure is attempted, it is imperative that at least four office tapes contain the most recent information in the ESS. If four current tapes do not exist, follow Section 232-309-305 to make them. Then do as follows:

Note: No action should be taken which would abort the multiscan functions used within this procedure. If repaging is done, it is possible that the wrong version of the program could get loaded.

A. Procedure 1

5.06 PROCEDURE 1—Copying a patch file from a Warrenville Data Center prepatched tape or another office's tape. The two slave tapes (tape to be copied to) must match exactly (AUDIT TAPE MATCH 0) before beginning this procedure.

STEP	ACTION	VERIFICATION
1	At maintenance TTY— Type in: ALW:OW! OP:OWFILE, TRNSLN!	At TTY— System response: ALW OW COMPL OP OWFILE SELCT
2	Make sure no active translation patches exist.	
3a	If active translation patches are present, bring them into the overwrite buffer and cancel them. At maintenance TTY— Type in: IN:OW XXXXX; TAPE! CNL:OW! STOP:OW! Perform a Recent Change Update according to Section 232-304-301. Skip Step 4.	At TTY— System response IN OW COMPL CNL OW COMPL ALW OW STOPPED
4	At maintenance TTY— Type in: STOP:OW!	At TTY— System response: ALW OW STOPPED
5b	If CU0 is not on-line— Type in: SW:CU!	At TTY— System response: OK
6	At maintenance TTY— Type in: DGN:TAPE 0! DGN:TAPE 1! DGN:CU!	At TTY— System response: INIT TAPE COMPL DGN TAPE 0 ATP INIT TAPE COMPL DGN TAPE 1 ATP DGN CU1 COMPL ATP UPD OMAS COMPL

STEP	ACTION	VERIFICATION
	RMV:TAPE 0!	OK
	Rewind and unload—Remove the tape in TDC 0. Place the master tape (tape to be copied from) in TDC 0.	
	At maintenance TTY— Type in: DGN:TAPE 0!	At TTY— System response: INIT TAPE COMPL DGN TAPE 0 ATP
7	At maintenance TTY— Type in: ALW:TAPEUTIL RMV:TAPE 1!	At TTY— System response ALW TAPEUTIL COMPL OK
	Rewind and unload—Remove the tape in TDC 1. Place the slave tape (tape to be copied to) in TDC 1.	
	Caution: If a bootstrap occurs between this step of the procedure, replace the tapes in the TDCs with a current office tape (ones which have not had the PATCH and PAGEMON files copied).	
8	At maintenance TTY— Type in: RST:TAPE 0;UCL! RST:TAPE 1;UCL! COPY:FILE PATCH!	At TTY— System response OK OK COPY FILE COMPL TAPE UTIL STOPPED
	ALW:TAPEUTIL! COPY:FILE PAGEMON!	ALW TAPEUTIL COMPL COPY FILE COMPL TAPEUTIL STOPPED
9	Repeat Steps 7 and 8 for another slave tape. Tapes should match exactly.	

STEP	ACTION	VERIFICATION
10	At maintenance TTY— Type in: RMV:TAPE 0!	At TTY— System response: OK
11	Put a current office tape into TDC 0 which has not had the PATCH or PAGEMON files copied.	
12	At maintenance TTY— Type in: RST:TAPE 0;UCL!	At TTY— System response: OK
13b	Make sure that CU 0 is on-line.	
14	At maintenance TTY— Type in: ALW:OW! RMV:TAPE 0! Rewind and unload—Remove the tape in TDC 0. Place the slave tape into TDC 0 which has had the PATCH and PAGEMON files newly written.	At TTY— System response: ALW OW COMPL OK
15	At maintenance TTY— Type in: RST:TAPE 0;UCL!	At TTY— System response: OK
16	At maintenance TTY— Type in: OP:OWFILE	At TTY— System response: OP OWFILE GENID ISSID OP OWFILE COMPL
17	At maintenance TTY— Type in: OP:HASHNR:SEG!	At TTY— System response: OP HASHNR SEG XXXXX OP HASH COMPL The value for XXXXX must agree with the latest BWM from the newly copied PATCH file.
	OP:HASH;TRNSLN! ***Note:*** Save the values of the translation hashsums as they will be used during the off-line bootstrap procedure.	OP HASH TRNSLN XXXXX OP HASH COMPL
	STOP:OW!	ALW OW STOPPED
	RMV:TAPE 0!	OK

STEP	ACTION	VERIFICATION
18	Put a current office tape into TDC 0 which has not had the PATCH or PAGEMON files copied.	
19	At maintenance TTY— Type in: RST:TAPE 0;UCL!	At TTY— System response: OK
20b	Make sure that CU 0 is on-line. At this point, CU 1 should be in standby.	
21	At SYSTEM STATUS AND CONTROL section of SSP— Depress LOCK key.	At SYSTEM STATUS AND CONTROL section of SSP— LOCK lamp lighted. Unavailable LED of CU 0 lighted. MANUAL FORCED LED lighted. At FORCE CU ACTIVE section— FORCE and SELECT 0 lamps lighted. At TTY— System response: REPT CU STAT UAV
22	At maintenance TTY— Type in: ALW:TAPEUTIL!	At TTY— System response: ALW TAPEUTIL COMPL
	RMV:TAPE 0!	OK
23	Place the current office tape into TDC 0 which has the PATCH and PAGEMON files newly written.	
24	At maintenance TTY— Type in: RST:TAPE 0;UCL!	At TTY— System response: OK
	LOD:OMAS;BOOT:ERASE!	UPD OTS COMPL LOD OMAS COMPL TAPEUTIL STOPPED
	RMV:TAPE 0!	OK
25	Put a current office tape into TDC 0 which has not had the PATCH or PAGEMON files copied.	
26	At maintenance TTY— Type in: RST:TAPE 0;UCL!	At TTY— System response: OK
	ALW:OW;UCL!	ALW OW COMPL

STEP	ACTION	VERIFICATION
	RMV:TAPE 0!	OK
27	Place a current office tape into TDC 0 which has the PATCH and PAGEMON files newly written.	
28	At maintenance TTY— Type in: RST:TAPE 0;UCL!	At TTY— System response: OK
	OP:HASH:GENERIC!	OP HASH GENERIC XXXXX OP HASH COMPL
	Note: All generic hashsums must agree with the latest BWM which was copied on these office tapes.	
	OP:HASH:TRNSLN!	OP HASH TRNSLN XXXXX OP HASH COMPL
	Note: The translation hashsums must agree with the values obtained earlier.	
29	At SYSTEM STATUS AND CONTROL section of SSP— Depress LOCK key.	At SYSTEM STATUS AND CONTROL section of SSP— UNAVAILABLE LED extinguished. LOCK lamp extinguished. MANUAL FORCE LED extinguished. At FORCE CU ACTIVE section— FORCE and SELECT 0 lamp extinguished.
		At TTY— System response: REPT CU STAT AVL
30	At maintenance TTY— Type in: SW:CU!	
31	Allow the system to operate on the changed MAS for 15 to 30 minutes before proceeding to Step 32.	At TTY— System response: REPT SW CU 1 0001101 DC (DC = Don't care)
	Note: Since the system is not locked during this "soak" period, care must be taken to ensure that an automatic CU switch does not take place unnoticed. If it is necessary to stop the overwrite procedure at this point, switch to the original CU (if not done automatically) and type in: STOP:OW! and UPD:OMAS!	

STEP	ACTION	VERIFICATION
32	At maintenance TTY— Type in: STOP:OW!	 UPD OMAS COMPL ALW OW STOPPED
33	At maintenance TTY— Type in: A AU:RC!	

B. PROCEDURE 2

5.07 PROCEDURE 2—Copying two slave tapes from another office. The two slave tapes must match exactly (AUDIT TAPE MATCH 0) before beginning this procedure.

STEP	ACTION	VERIFICATION
1	At maintenance TTY— Type in: ALW:OW! OP:OWFILE, TRNSLN!	At TTY— System response: ALW OW COMPL OP OWFILE SELCT
2	Make sure no active translation patches exist.	
3a	If active translation patches are present, bring them into the overwrite buffer and cancel them. At maintenance TTY— Type in: IN:OW XXXXX; TAPE! CNL:OW! STOP:OW! Perform a Recent Change Update according to Section 232-304-301. Skip Step 4.	 At TTY— System response IN OW COMPL CNL OW COMPL ALW OW STOPPED
4	At maintenance TTY— Type in: STOP:OW!	At TTY— System response: ALW OW STOPPED
5b	If CU 0 is not on-line— Type in: SW:CU!	At TTY— System response: OK
6	At maintenance TTY— Type in: DGN:TAPE 0!	At TTY— System response: INIT TAPE COMPL

STEP	ACTION	VERIFICATION
	DGN:TAPE 1!	DGN TAPE 0 ATD INIT TAPE COMPL DGN TAPE 1 ATP
7	RMV:TAPE 1!	OK
	Rewind and unload—Remove the tape in TDC 1. Place the slave tape from another office into TDC 1.	
	At maintenance TTY— Type in: RST:TAPE 1; UCL DGN:TAPE 1!	At TTY— System response OK INIT TAPE COMPL DGN TAPE 1 ATP
	ALW:TAPEUTIL! COPY:FILE PATCH!	ALW TAPEUTIL COMPL COPY FILE COMPL TAPEUTIL STOPPED
	ALW:TAPEUTIL! COPY:FILE PAGEMON!	ALW TAPEUTIL COMPL COPY FILE COMPL TAPEUTIL STOPPED
8	Repeat Step 7 for the second slave tape.	
9	At maintenance TTY— Type in: ALW:OW! RMV:TAPE 0!	At TTY— System response: ALW OW COMPL
	OP:OWFILE!	OP OWFILE GENID ISSID
	OP:HASHNR; SEG!	OP OWFILE COMPL OP HASHNR SEG XXXXX The value for XXXXX must agree with the latest BWM from the newly copied PATCH file
	RST:TAPE 0;UCL! STOP:OW!	OK ALW OW STOPPED

STEP	ACTION	VERIFICATION
	Save the printouts to check slave tape when they are restored in home office.	
10	At maintenance TTY— Type in: RMV:TAPE 1! Rewind and unload—Remove the slave tape in TDC 1. Replace it with the current office tape which was originally in TDC 1.	At TTY— System response: OK
11	At maintenance TTY— Type in: RST:TAPE 1;UCL! ***Caution: Do not load slave tapes in this remote office. The remainder of this procedure is to be done in the slave tape home office. This cannot be done if an ODA update or a generic restart is involved. If a generic restart or ODA update is involved, follow Section 232-324-302.***	At TTY— System response: OK
12b	Make sure that CU 0 is on-line.	
13	At maintenance TTY— Type in: ALW:OW! RMV:TAPE 0! Rewind and unload—Remove the tape in TDC 0. Place a slave tape into TDC 0 which has had the PATCH and PAGEMON files newly written.	At TTY— System response: ALW OW COMPL OK
14	At maintenance TTY— Type in: RST:TAPE 0; UCL! RMV:TAPE 1! Rewind and unload—Remove the tape in TDC 1. Place other slave tape into TDC 1 which has had the PATCH and PAGEMON files newly written.	At TTY— System response: OK OK
15	At maintenance TTY— Type in: RST:TAPE 1;UCL!	At TTY— System resonse: OK
16	Proceed to Step 16 of Procedure 1.	

6. STAND-ALONE TAPES

6.01 Each Technical Assistance Center (TAC), Electronic Systems Assistance Center (ESAC), Switching Control Center (SCC), or WE Region should maintain at least two stand-alone tapes per generic issue.

6.02 These tapes should be verified in an installing office upon receipt.

6.03 Stand-alone tapes should be available 24 hours a day in case of an emergency. Appropriate people to contact in the event the stand-alone tapes are needed should be posted in each office and the SCC.

6.04 The stand-alone tapes are ***not*** to be used on an in-service office without the direct assistance of ***WECO PECC*** or ***BTL.*** Stand-alone tapes ***must*** be stored separately from the regular office tapes. The ordering information for stand-alone tapes for the No. 2B ESS is as follows:

- 2B-EF-1...Generic.....J2H101A-1 List-4
- 2B-EF-2...Generic.....J2H101B-1 List 4 E/W L-M4

7. EMERGENCY TAPES

7.01 The appropriate WE Regional Customer Service Organization should be contacted for emergency tapes. The generic and issue should be specified on a do not substitute basis.

7.02 List 2 cartridges will be received and have to be corrected by the backup tape procedure to become List 1 status (Section 232-309-305).

8. DISPOSITION OF USED TAPES

8.01 Over a period of time, tape cartridges will become unusable due to wear or become damaged and unsuitable for use. The information may also become obsolete due to generic restarts or retrofits. Although used tapes are perfectly acceptable for furnishing office data dumps to Western Electric, the system will not utilize used tapes to record new generic and office data tapes.

8.02 Therefore, surplus tapes and damaged tapes are not to be returned to Western Electric. However, these tapes contain proprietary information and must be disposed of properly.

8.03 Dispose of tape cartridges per local procedures or proceed as follows:

(1) Remove tape from cartridge

(2) Cut up tape

(3) Dispose of tape and cartridge.