

AMA ACCURACY  
EQUIPMENT TEST REQUIREMENTS  
CROSSBAR TANDEM CAMA OFFICES

1. GENERAL

1.01 This section covers extra test requirements not found in other Bell System Practices (BSPs). These test requirements are designed to assure AMA accuracy and proper customer billing.

1.02 It is reissued to update the list of equipment and to transfer information on code openings to Section 220-500-901PT.

*Note:* Marginal arrows used to indicate changes are omitted.

1.03 The Test and Analysis (T&A) Committee is responsible for outlining tests to be done by the telephone company (TELCo) and to review the results of these tests, as well as the Western Electric (WE) tests. This Committee will then recommend acceptance of equipment or return equipment to WE for correction.

*Note:* If a T&A Committee is not formed, then the District Manager — Maintenance, Switching Engineering will assume the responsibilities.

1.04 No equipment will be turned up for service until the T&A Committee has approved these test results.

1.05 A record shall be kept on all troubles found during the acceptance tests and for a four week period following the turn-up of equipment for service. Use the "Test and Inspection Summaries" (Forms E-5453, E-5454, or E-5455) for acceptance tests records. Use the "Crossbar Tandem Trouble Tickets" (Form E-5482) for recording trouble after acceptance. This information is required to prepare Forms CE-1140 and CE-1140-1. Refer to Section 800-614-902PT for information on these forms.

1.06 Whenever telephone numbers are required, they should be obtained via a service order.

1.07 Complete all tests as outlined by the T&A Committee and correct all errors found prior to performing the tests listed in this practice.

1.08 As soon as firm completion dates are set, the T&A Committee shall:

(a) Contact the Equipment Billing Accuracy Control (EBAC) Group to schedule tests for AMA tape entries. (These tests shall be started no more than fourteen days, nor less than seven days before cutover.)

*Note:* This interval can be changed ONLY with T&A Committee approval.

(b) Given written notice to the Revenue Accountant at least two weeks prior to the start of the tests.

2. MARKERS — NEW MARKER GROUP

2.01 Verify that all markers are cross-connected alike by comparing trouble recorder cards dropped from marker tests.

2.02 Make one observed call using one marker to each dialable code. Repeat this for each originating rate treatment. Include all local codes, NPA codes, 6-digit translation codes, and operator class calls.

2.03 The T&A Committee will arrange for the Electronic Data Processing (EDP) Center to convert the AMA tapes (produced in 2.02) to separate magnetic tapes. A verbatim printout will be produced after conversion.

2.04 The T&A Committee analyzes the printout and ensures that all errors are corrected. The equipment is then retested at the direction of the T&A Committee.

## SECTION 220-500-900PT

### 3. MARKERS – ADDITIONS TO EXISTING OFFICES

3.01 Compare new marker(s) cross-connects with an existing marker. Do this by taking trouble records for each code (local, NPA, and 6-digit translation) using each rate class.

3.02 The T&A Committee is responsible for seeing that the marker(s) are correctly cross-connected and for having errors corrected.

### 4. BILLING INDEXERS

4.01 Complete all billing indexer cross-connects and establish the special billing number (SBN) and credit card codes before starting AMA accuracy tests.

4.02 Using the AMA sender test frame as outlined in Section 220-507-501, verify accuracy of billing indexer cross-connects.

4.03 Test each code using the AMA trunk test frame. Repeat this test using each billing indexer. Direct the test to a noncharge verification number.

4.04 Calling telephone numbers shall be structured as follows:

XXX-aabb = telephone number

XXX = prefix

aa = billing indexer

bb = office index

*Caution: The call MUST be to a noncharge number to avoid billing a customer.*

4.05 Place calls using only one AMA recorder in each recorder group. This will assist the EDP Center as only one verbatim printout will have to be produced per recorder group.

4.06 CO forces will cut the AMA test tapes and forward them to the EDP Center. Be sure a Form E-4104PT listing the following is included with the AMA tapes.

1. Date and time tests were placed on the tape.

2. Recorder group and recorder number used.

3. Calling and called numbers used to place test calls.

4.07 The EDP Center will convert AMA tapes to separate magnetic tapes. A verbatim printout will be produced after the conversion and forwarded to EBAC.

4.08 The EBAC Group analyzes the verbatim printout and notifies CO forces of the results.

*Note: If errors are encountered, they are corrected and the test is rescheduled.*

### 5. TRANSVERTERS

5.01 Each transverter must be tested to each recorder to assure they will work together. (Refer to Section 220-501-501.)

5.02 All information leads must be checked to ensure there are no reversals.

5.03 Using digits 0123, 1230, 2301, and 3012 in turn as the last four digits of the calling number and 4567, 5674, 6745, and 7456 in turn as the last four digits of the called number, verify each transverter to each recorder. These digits will test all 2/5 combinations and should locate reversals between digits (ie, "C" and "D" digits, etc).

5.04 Use each working office index as part of 5.03.

5.05 Keep a clear written record of these tests showing each piece of equipment used, time of testing, as well as the calling and called number.

5.06 Include all compressed area codes in these tests.

5.07 The T&A Committee will decide whether an AMA tape and verbatim printout or trouble recorder cards will be used for verification and will evaluate the results.

**6. AMA RECORDERS AND PERFORATORS**

**6.01** Areas using the Red Ball Plan — CO forces in the crossbar tandem CAMA office will arrange for all new AMA perforators to be sent to the Supply Department Coordinator for dynamic checks. These checks are made before WE performance tests. Each perforator should be tagged with a Form P-2161SR (Red Ball tag). Under service instructions, write "Preinstallation — Please test". Show the estimate or order number installing the new perforators and the appropriate work code.

**6.02** Areas that have not adopted the Red Ball Plan for AMA perforators will continue to use their local instructions.

*Note:* A dynamic check of AMA perforators results in:

- A complete lubrication of all required points.
- Readjustment of all perforator magnets.
- Readjustment of the paper advance magnet.
- Readjustment of the stepper.

**6.03** Make required tests to determine that each transverter can work with each new recorder. For transverter tests, refer to Part 5.

**6.04** Test the new recorder and its associated call identity indexer as outlined in Sections:

220-505-501— Recorder and Recorder Connector Circuits

220-506-501— Call Identity Indexer Circuit

**6.05** WE will prepare test tapes for each new AMA recorder (as outlined in HB 65) with the following entries included:

1. All regular hours for a 24-hour period plus the 3 am pattern.
2. Make busy, plug-in — synchronous.
3. Make busy, plug removed — synchronous.

4. Make busy, plug-in — nonsynchronous.

5. Make busy, plug removed — nonsynchronous.

6. Make busy, plug-in — nonsynchronous.

7. Make busy, plug removed — synchronous.

8. Transfer to emergency recorder — synchronous.

9. Transfer from emergency recorder — synchronous.

10. Transfer to emergency recorder — nonsynchronous.

11. Transfer from emergency recorder — nonsynchronous.

12. Transfer to emergency recorder — nonsynchronous.

13. Transfer from emergency recorder — synchronous.

14. Make busy, plug-in — synchronous.

15. Place recorder test pattern three times.

16. Make busy, plug removed — synchronous.

17. Window splice.

18. Irregular hour, 281899 (missing hour).

19. Routine end of tape test.

20. Transfer to emergency recorder and place all regular hour entries for 24 hour period.

*Note:* The T&A Committee will request WE to complete item 1 on a separate day's tape from items 2 through 20. No other entries should appear on these tapes.

**6.06** CO forces shall order mailing tags and arrange for the transportation of AMA tapes to the EDP Center. (Use local instructions.)

**6.07** CO forces will cut and mark the test tapes (produced in 6.05). They will also prepare and forward a Form E-4104PT with the tapes to the EDP Center for processing. CO forces will list

on the form the exact sequence in which each test entry was applied, as well as any trouble conditions encountered during the test period.

6.08 The EDP Center will process test tapes for each new recorder and forward results on verbatim lists to the EBAC Group.

6.09 The EBAC Group evaluates the results from verbatim lists and notifies CO forces of "OK" or error information.

6.10 CO forces will inform the T&A Committee of any trouble condition. Under the direction of the Contact Engineer, WE will make corrections to produce an accurate and complete test tape for each new AMA recorder.

6.11 The T&A Committee will evaluate all corrections made by TELCo or WE and recommend additional tests, if needed.

#### 7. CALL IDENTITY INDEXER

7.01 CO forces will verify each "DJ" lead for each trunk associated with a new recorder. Use the AMA trunk test frame. Start with the lowest number CII (00) of the lowest number recorder (00). Test each trunk sequentially by CII number.

##### Notes:

1. It is suggested that the first 2-digits of the calling number be the same as the recorder number and the last two digits be the same as the CII number.
2. Repeat this test for each recorder.

*Caution: Use a noncharge number to avoid billing to a customer.*

7.02 CO forces will cut and mark test tapes and forward them to the EDP Center. A Form E-4104PT (with attachments) reflecting all tests, calling numbers, and recorder numbers used will also be sent along with the tapes. The sequence in which the calls were placed on the tapes and the time should also be listed.

7.03 The EDP Center will process the test tapes and forward the results on verbatim printouts to the EBAC Group.

7.04 The EBAC Group verifies the verbatim printout and notifies the CO forces of the results.

7.05 CO forces will pass any errors to the T&A Committee. The Committee, in turn, will have TELCo or WE (as appropriate) make any needed corrections and will schedule additional tests.

#### 8. SENDERS

8.01 The senders will be tested as specified in standard BSPs.

8.02 Special or additional tests may be applied when necessary as directed by the T&A Committee.

#### 9. CONNECTORS

9.01 Connectors will be tested as specified in standard BSPs.

9.02 Special or additional tests may be applied when necessary as directed by the T&A Committee.

#### 10. INSTALLING INCOMING CAMA TRUNKS TO NEW/EXISTING RECORDER GROUPS

10.01 Complete trunk cross-connects and perform the tests outlined in sections:

220-136-501— Incoming Trunks using Trunk Automatic Test Circuits (AMATT)

220-532-301— Verification of CAMA Trunk Decade Cross-Connects

10.02 Verify "DJ" lead integrity on each incoming CAMA trunk installed. Use the procedures outlined in Part 7.

*Caution: To avoid billing a customer, the telephone number used must not be assigned to a customer (1.09) or calls must be placed to a noncharge verification code.*