REPLACING PAGE ADDENDUM
Filing Instructions:
1. REMOVE FROM THE SECTION THE PAGES NUMBERED THE SAME AS THOSE ATTACHED TO THIS PINK SHEET.
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86B2 DATA SELECTIVE CALLING SERVICE

FULL-DUPLEX—150-WORD PER MINUTE DATA STATION

TEST PROCEDURE

1. GENERAL

1.001 This addendum supplements Section 581-136-503, Issue 2. The attached pages must be inserted in the section in accordance with the filing instructions above.

1.002 This addendum is issued to correct and clarify the test procedure and trouble locating table (TABLE A).

3. METHOD

B. Attended STC Test

The following changes apply to Part 3B of this section:

(a) Step 4—Revised

(b) Step 27—Note added

(c) Step 36—Revised

(d) Table A—Titled and revised.

Attached:

Page 5 dated August 1973, Revised
Page 6 dated August 1973, Reissued
Page 7 and 8 dated August 1973, Revised
Page 11 dated August 1973, Reissued
Page 12 and 13 dated August 1973, Revised
Page 14 dated August 1973, Reissued
Page 19 to 23, inclusive, dated August 1973, Revised
Page 24 dated August 1973, Reissued

86B2 DATA SELECTIVE CALLING SERVICE
FULL-DUPLEX—150-WORD PER MINUTE DATA STATION
TEST PROCEDURES

CONTENTS PAGE

1. GENERAL

1.01 This section describes the installation and maintenance test procedures for a full-duplex (FDX), 150-word per minute (wpm) data station which incorporates a model 37-type teletypewriter (TTY) and is used in the 86B2 Data Selective Calling Service.

1.02 This section is reissued to:

(a) Include the split ASR operation originate/terminate station.

(b) Add information pertaining to the data set 109E-type.

(c) Replace the Remote Test of the data auxiliary set with an Attended Test that utilizes the capabilities of the STC equipment. This test is performed by the STC with the assistance of the craft employee at the station. The STC test is contained in the BSP entitled 86B-Type Data Selective Calling Service Serving Test Center (STC) Test Procedures (666-702-502).

Since this is a general revision, arrows ordinarily used to indicate changes have been omitted.

1.03 The tests covered are:

A. Local Test: This test verifies that the data station TTY is operative and functioning properly.

B. Attendend STC Test: This test is performed to isolate and clear a trouble condition at the station. The test is used in conjunction with the STC. It provides the necessary testing assistance and aids in coordinating the STC Attended Test given in the section referenced in 1.02(c).

C. Continuity Test of DAS 804R3 (TERM ONLY or Standard ORIG/TERM Station Receive Attendant Set): This test checks the continuity of the keys, lamps, and cabling associated with the receive attendant set of a TERM ONLY or standard ORIG/TERM station.

D. Continuity Test of DAS 804R2 (ORIG ONLY or Standard ORIG/TERM Station Transmit Attendant Set): This test checks the continuity of the keys, lamps, and cabling associated with the transmit attendant set of an ORIG ONLY or standard ORIG/TERM station.

E. Continuity Test of DAS 804R4 (Split Operation ORIG/TERM Station Attendant Set): This test checks the continuity of the keys, lamps, and cabling associated with the split operation ORIG/TERM station.

1.04 The testing of the 86B2 data station depends on a specific message format. Any deviation from this format may condition the station for false indications or operations. If such a condition occurs, momentarily disconnecting the power cord to the data station will return the station to the idle condition. The station can also be conditioned by the STC sending a major initialization sequence.

1.05 The tests given in this BSP are used for both installation and maintenance testing. Since the same tests are used for both purposes, each test is presented only once. For best results, final range finder adjustments should be made with the STC.

Installation Testing

1.06 The installation tests are designed to verify that the data station has been properly assembled and is operative with the 86B2 Data Selective Calling Service. The Local Test (Test A) or Attended Test (Test B) should be performed for this purpose. After completion of the tests, and Customer Verification procedure described in Part 5 should be performed.

Maintenance Testing

1.07 The maintenance test procedure should be in accordance with the maintenance philosophy given in the section entitled 86B2 Data Selective Calling Service—Full-Duplex—150-Word Per Minute Data Station—Maintenance (581-136-303).

1.08 The maintenance test sequence will be determined by the nature of the trouble being investigated. In general, the station will have been remotely tested by the STC to determine the nature of the trouble. Any or all of the tests in this section may be used in investigating trouble reports. For information on the test required for troubleshooting and trouble clearing procedures, refer to the section referenced in 1.07.

TTY Maintenance

1.09 Maintenance procedures for the TTYs should be in accordance with the appropriate 574-3 layer of the BSPs.

1.10 ***Lettered Steps:*** A letter a, b, c, etc, added to a step number in Parts 3 and 4 of this section indicates an action which may or may not be required, depending on local conditions. The condition under which a lettered step or 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. APPARATUS

Tests A and B

2.01 STC assistance will be required for Test B. No apparatus required at the station.

Test C

2.02 KS-14510-L1 volt-ohm-milliammeter

KS-16786-L3 connector

Test D

2.03 KS-14510-L1 volt-ohm-milliammeter

KS-16786-L2 connector

Test E

2.04 KS-14510-L1 volt-ohm-milliammeter

KS-16786-L3 connector

3. METHOD

STEP	ACTION	VERIFICATION
A. Local Test		
1	Disconnect all of the data station TTY power cords.	

STEP	ACTION	VERIFICATION
2	Reconnect the receive terminal power cord and then reconnect the transmit terminal power cord.	Controller circuits will initialize [UNATT lamp lighted, PUNCH ON lamp extinguished, READER ON lamp extinguished, AUX RCVR (option) lamp extinguished, end-of-line (EOL) lamp extinguished, two-color ribbon (option) on black, motor off, no print suppression on primary receiver (if used) and no alarms].
3a	If AUD OFF lamp is lighted at either ASR or RO TTY— Momentarily operate AUD OFF key.	AUD OFF lamp extinguished.
4	Perform a visual inspection of the station to check for obvious mechanical problems or physical damage.	
ASR TTY (Originate Only, Standard Originate/Terminate, and Split Operation Originate/Terminate Stations)		
5	Operate ON LINE key.	ON LINE and PUNCH ON lamps lighted.
6	Momentarily operate OUT OF SVC key.	OUT OF SVC lamp lighted. Motor runs.
7	Momentarily operate OUT OF SVC key.	OUT OF SVC lamp extinguished. Motor stops.
8	Operate OFF LINE key.	OUT OF SVC and OFF LINE lamps lighted.
9	Check the general operation of the TTY [typing, end-of-line (EOL) counter and lamp, tabulation, etc].	PUNCH ON/OFF control effective. Motor runs except when OUT OF SVC key is operated. If new line option is used— EOL lamp is reset by NEW LINE key.
Primary RO TTY (Standard Originate/Terminate and Teminate Only Stations)		
10	Remove paper supply.	PAPER LOW lamp lighted. Audible alarm sounded. PAPER alarm lamp lighted (on TTY).
11	Momentarily operate AUD OFF key.	AUD OFF lamp lighted. Audible alarm silenced.
12	Replace paper supply.	PAPER LOW and AUD OFF lamp remains lighted. PAPER alarm lamp extinguished (on TTY).
13	Momentarily operate PAPER LOW and AUD OFF keys.	PAPER LOW and AUD OFF lamps extinguished.

STEP	ACTION	VERIFICATION
14	Repeat Steps 6 and 7 for RO TTY.	
	Primary 37 ROTR (Terminate Only and Standard Originate/Terminate Stations)	
15	Remove tape supply.	TAPE LOW lamp lighted and audible alarm sounded.
16	Repeat Steps 11 through 13, substituting the TAPE LOW lamp and key for the PAPER LOW lamp and key.	
17	Repeat Steps 6 and 7.	
18	Operate TAPE FEED key on attendant set.	From 2 to 20 inches of tape fed out to ROTR.
19b	If no further tests are to be performed— Perform the Customer Verification procedure described in Part 5.	

B. Attended STC Test

Before starting this test, request the station leg be connected to a test hub and establish voice communication with the STC to aid in coordinating the test. Table A provides information on clearing trouble that may be observed at the station or STC during the test. Malfunctions that are observed at the STC are also shown in Table A under the appropriate step. This allows corrective action to be taken by the station when required. The step numbers in the following test procedure match the step numbers in the STC BSP. In order to make these steps match and to coordinate the test procedures, steps that do not require action by the station attendant are included so that the progress of the STC test procedure can be followed.

Receiver Call-In

1	Check the paper, form, or tape supply in the TTYs; clear all alarms, and check that OUT OF SVC, HOLD, and AUD OFF keys of all attendant sets are released; check that no tape is in the reader, and verify that station is in the on-line mode.	At all attendant sets— All lamps extinguished. Audible alarm silenced. All keys released. At ORIG ONLY, standard ORIG/TERM, and split ASR operation ORIG/TERM stations— ASR TTY motor running.

STEP	ACTION	VERIFICATION
		At standard ORIG/TERM stations— RO TTY motor off.
2	Gain access to the controller and operate the R switch on the controller to the MTCE position.	All OUT OF SVC lamps lighted. At this time the STC can check for tones or loop current as required.
3	None	STC will now perform looparound test of station data set by sending characters and checking the distortion.
4	Operate R switch on the controller to NORM.	All OUT OF SVC lamps extinguished.
5	None	The STC will now do a major initialization of the station during which the OUT OF SVC lamp(s) will light when + is received and then extinguish when EOT is received.
6	Operate OUT OF SVC key in attendant set of RD TTY (TERM ONLY and standard ORIG/TERM stations) or ASR TTY (split operation ORIG/TERM stations).	OUT OF SVC lamp under the key operated lights.
7	None	The STC will now attempt to select the station as a receiver and the CALL lamp will light.
8	Release the OUT OF SVC key.	OUT OF SVC and CALL lamps extinguished.
9	Create a paper alarm by real or simulated removal of paper, form, or tape from the RO TTY (TERM ONLY and standard ORIG/TERM stations) or ASR TTY (split operation ORIG/TERM stations).	At TTY in which the alarm is created— PAPER LOW lamp lighted. Audible alarm sounds.
10	None	The STC will attempt to select the station as a receiver and the CALL lamp will light.
11	Replace the paper, form, or tape and momentarily operate the PAPER LOW key associated with the PAPER LOW lamp.	PAPER LOW and CALL lamps extinguished. Audible alarm silenced.
12	None	The STC will call the station in as a receiver, the CALL lamp will flash, the REC lamp on the attendant set of the RO TTY (TERM ONLY standard ORIG/TERM stations) or ASR TTY (split operation ORIG/TERM stations) will light, and the motor of the TTY associated with the lighted REC lamp will be running. After the REC lamp is lighted, actions taken at the STC will cause the following sequence of events (Steps 12 through 20) to occur at

STEP	ACTION	VERIFICATION
		the station. These steps check the message receiving capabilities of the station.
13	None	The TTY with the lighted REC lamp will print (or punch) HEADING.
14	None	No action should be observed at station when STC performs this step.
15	None	The TTY with the lighted REC lamp prints (or punches) TDM STX TEXT 1 TEXT 2. (If auxiliary receiver is provided, it will print or punch TEXT 2.)
16	None	If primary receiver is an ROTR, the tape will feed out.
17	None	The REC lamp extinguished and motor turns off.
18	None	The CALL lamp will flash and the REC lamp(s) lights. The TTY with the lighted REC lamp will print (or punch) TEXT 1.
19	None	The ERROR lamp will light, the audible alarm will sound, and underline will print for each parity error received.
20	None	The TTY with the lighted REC lamp will print (or punch) TEXT 2, the MSG REC lamp will light, if equipped with parity error alarm, the REC lamp will extinguish, and the motor will stop.
21	Momentarily operate MSG REC and ERROR keys.	MSG REC and ERROR lamps are extinguished. Audible alarm silenced.
22	None	The STC will call the station in as a receiver, send TEXT, and perform a delivery abort. The REC lamp on the RO TTY (TERM ONLY and standard ORIG/TERM stations) or ASR TTY (split operation ORIG/TERM stations) lights the TTY associated with the lighted REC lamp, prints or punches TEXT, the MSG REC lamp lights and the audible alarm sounds.
23	Momentarily operate the MSG REC key.	MSG REC lamp extinguished. Audible alarm silenced.

STEP	ACTION	VERIFICATION
24	None	The STC will call the station in as a receiver, causing the CALL lamp to flash and the REC lamp to light.
25	None	The station loop will be momentarily opened. This will cause the MSG REC lamp to light, the audible alarm to sound, and the REC lamp to extinguish. In addition, the ERROR lamp may also light.
26	Momentarily operate the MSG REC key and, if lighted, the ERROR key.	MSG REC and ERROR (if lighted) lamp(s) extinguished. Audible alarm silenced.

Sender Selection Test

Note: When stopping of the tape is indicated in the following test, the tape will stop one or two characters (depending on TTY used) after the control character.

27	Verify that the station is in the on-line mode (MODE switch in the ON LINE position) and ensure that there is no tape in the reader. Operate the OUT OF SVC key on the attendant set of the RO TTY (standard ORIG/TERM stations) or ASR TTY (split operation ORIG/TERM station).	OUT OF SVC lamp associated with the operated key lighted. When the STC has been informed that the OUT OF SVC key has been operated, the STC will poll the station.
28	Release the OUT OF SVC key.	OUT OF SVC lamp extinguished.
29	None	The STC will again poll the station. No action will be observed at the station.
30	Operate the ASR TTY MODE switch to the OFF LINE position. Operate the PUNCH ON or LOCAL PUNCH key and prepare the following tape: DEL...DEL-SOH-A-B-C-D-CR-LF STX-TEXT 1-ETX-DEL...DEL-CR-LF SOH-A-B-C-CR-LF STX-TEXT 2-FF-ETX-EOT-EOT-DEL...DEL ***Note:*** TEXT 1 and TEXT 2 represent any group of test characters that are sent to check the transmission. It is suggested that at least two lines of "FOX..." be used as the TEXT 1 and TEXT 2 checks.	
31	Operate the MODE switch to ON LINE. Insert the tape into the gate at the initial DELs, operate the bat handle to RUN (if M33 or M35 ASR) or operate the READER ON key (if M37 ASR lighting the READER ON lamp) Operate the EOT key twice.	BID lamp lighted. Reader runs and stops on first SOH on tape.
32	None	The STC will now poll the station.

STEP	ACTION	VERIFICATION
33	None	TRANS lamp in attendant set of ASR TTY lighted (ORIG ONLY and standard ORIG/TERM stations only).
34	None	HEADING 1 printed on ASR TTY (ORIG and standard ORIG/TERM stations only).
35	None	Reader runs, machine prints A B C D TEXT 1, tape stops on second SOH (ORIG and standard ORIG/TERM stations only).
36	None	Tape runs, machine prints ABC TEXT 2, tape stops for form feed (if ASR TTY is a sprocket-feed machine ORIG and ORIG/TERM only), then runs and stops on the second EOT without the tape running out. The TRANS and BID lamps extinguish.
37	Reinsert tape in gate at initial DELs, operate the bat handle to RUN (if M33 or M35 ASR), or operate READER ON key (if M37 ASR lighting the READER ON lamp). Operate the BID key and the HOLD key.	BID lamp lighted. Reader runs and stops on first SOH on test tape.
38	None	The STC will poll the station. TRANS lamp in attendant set of ASR TTY lighted (ORIG ONLY and standard ORIG/TERM stations only). Reader runs to the and stops on first ETX on the tape, HOLD lamp lights, and audible alarm sounds.
39	Open and then reclose the reader gate or remove and replace tape at same point in the gate. Operate the AUD OFF key.	BID lamp extinguishes, and audible alarm is silenced.
40	Release the HOLD key and momentarily operate the BID key.	HOLD lamp extinguished. BID lamp lighted. Reader runs to and stops on second SOH on the test tape.
41	None	The STC will restart the reader which will run print ABC TEXT 2, stop while form feeds (if ASR TTY is a sprocket-feed machine), then run until the tape runs out. When the first EOT is sent, the TRANS lamp (ORIG ONLY and standard ORIG/TERM stations) extinguishes. When the tape runs out the BID lamp is extinguished.
42	Insert tape in gate at initial DELs, operate the bat handle to RUN (if M33 or M35 ASR),	BID lamp lighted. Reader runs to and stops on first SOH on

STEP	ACTION	VERIFICATION
	or operate READER ON key (if M37 ASR, lighting the READER ON lamp). Operate the BID and HOLD keys.	the test tape.
43	None	The STC will select the station as a sender and the following sequence of events will occur. The TRANS lamp in the attendant set of the ASR TTY lights (ORIG ONLY and standard ORIG/TERM stations only). Tape runs, machine prints A B C D TEXT 1 and stops on the second SOH.
44	Open then reclose the reader gate. Silence alarm by operating and releasing AUD OFF key.	BID lamp extinguished. TAPE lamp lighted. Audible alarm sounded.
45	None	The STC will perform an emergency stop, causing the following sequence of events to occur at the station: The EMG STOP lamp lights and the aubible alarm sounds. EMG MSG printed on the ASR TTY. The TRANS lamp extinguishes (ORIG ONLY and standard ORIG/TERM stations only).
46	Momentarily operate the EMG STOP key on the ASR TTY attendant set.	EMG STOP lamp extinguished. Audible alarm silenced.
47	Momentarily depress TAPE key.	Tape Lamp extinguishes.
48	Insert the tape in the gate past the first SOH. Operate the bat handle to RUN (M33 or M35 ASR) or the READER ON key (M37). Operate the BID key.	BID lamp lighted. Reader runs. When the first ETX is detected— EMG STOP lamp lighted. Audible alarm sounded. Reader stopped.
49	Depress EMG STOP key.	EMG STOP lamp extinguishes and audible alarm is silenced.
	Note: Steps 51 through 69 require a high degree of coordination between the test center and the station personnel. It may be advantageous to have a tape with the TEXT 1 section that is at least two lines of "FOX..." long for this test. Step 50 initializes the system before starting the test procedure.	

STEP	ACTION	VERIFICATION
	Lamp and alarm indications observed at the stations during step 50 should be ignored.	
50	None	None
51	Insert the tape in the gate at initial DELs, and operate the bat handle to RUN (if M33 or M35 ASR), or operate the READER ON key (if M37 ASR, lighting the READER ON lamp). Operate the BID key.	BID lamp lighted. Reader runs to and stops on the first SOH.
52	None	The STC will select the station as a sender and then select it as a receiver. The TRANS lamp on the ASR TTY will light (ORIG ONLY and standard ORIG/TERM stations only).
	Note: The STC will send the entire sequence of control codes for Step 53 without interruption. The DLE-DC1-DC2 starts the selected station transmitting. The transmission should be stopped by the last DLE before the complete TEXT 1 is transmitted. After the transmission is stopped, the station is selected as a receiver (Step 54), and the transmission is resumed while the STC is sending to the station (Step 55).	
53	None	A B C D TE (See preceding note).
54	None	The REC lamp on the RO TTY attendant set (standard ORIG/TERM station) or ASR TTY (split operation ORIG/TERM station) lights.
55	None	(Balance of TEXT 1) Stops on the second SOH. See preceding note.
56	None	Receiver verification text is received on machine.
57	Disconnect power from all station TTYs, and then restore power to all station TTYs.	All lamps extinguished. Station initializes to the idle state.
58	Check that the station is in the ON LINE mode. Insert the tape in the gate at initial DELs, and operate the bat handle to RUN (M33 or M35 ASR), or operate the READER ON key (M37 ASR, lighting the READER ON lamp). Operate the BID key.	BID lamp lights. Reader runs and stops at first SOH.

STEP	ACTION	VERIFICATION
	Note: After starting the tape in Step 59, the STC will open the line (Step 60) while TEXT 1 is being transmitted.	
59	None	Tape runs and machine prints ABCD TEXT ..... until line is opened in next step. TRANS lamp lights.
60	None	Transmission interrupted. The TRANS and BID lamps extinguish, the EMG STOP lamp lights and the audible alarm sounds.
61	Momentarily operate the EMG STOP key in the ASR TTY attendant set.	EMG STOP lamp extinguished. Audible alarm silenced.
62	None	None
63	Insert the tape in the gate at the initial DELs and operate the bat handle to RUN (M33 or M35 ASR) or operate the READER ON key (M37 ASR, lighting the READER ON lamp). Operate the BID key.	BID lamp lighted. Reader runs to first SOH on tape and stops.
64	None	
65	Create a paper alarm by real or simulated removal of the paper, form, or tape from the primary RO TTY (standard ORIG/TERM station) or ASR TTY (split ASR operation ORIG/TERM station). Operate AUD OFF key.	PAPER LOW lamp lighted. Audible alarm sounded.
66	Restore paper, form, or tape supply to normal. ***DO NOT operate PAPER LOW key to cancel paper low alarm.***	PAPER LOW lamp extinguished. The STC will perform a loopback of the station controller. PAPER LOW lamp is off. OUT OF SVC lamp is on. Station with 820A1 or A2 controller motor is on. Station with 820A5 or A6 controller motor is off.
67	None	The STC will check distortion during this step. If required the STC will give instruction on setting the incoming clocks.
68	None	The STC will remove the station from loopback. The OUT OF SVC lamp is off and the receiving machine motor is off.

STEP	ACTION	VERIFICATION
69	Test complete: If no further tests are to be made, perform the Customer Verification procedure outlined in Part 5 and return the station to service.	

TABLE A

TROUBLE LOCATING CHART

STEP FAILURE	TYPE OF TROUBLE		EQUIPMENT TO BE CHECKED				
	STATION	TEST CENTER	TTY	820A5 CONTROLLER	DAS 804	LINE OR HUB FACILITY	OTHER
1	OUT-OF-SVC lamp not extinguished.		ESU	AR65			R switch operated to MTCE position; check that M, N connectors are secure. Check local nest wiring.
	Receiving machine runs continuously.		Contacts				
	ASR TTY motor does not run.		Motor	AR65			
	PAPER-OUT lamp not extinguished.		Contacts, ESU	AR69	Receiver		
	TAPE lamp not extinguished.		Contacts, ESU, tape reader	AR68	Receiver		Check RT unit 37 TTY tauttape switch.
2		No tones		D/S		Loop, D/S	Check power supply transmission leads for T, R short; nest wiring.
		Low level		D/S		Loop	
		High level		D/S			
		Off frequency		D/S			
		Continuous space		AR477, 478, 480, and D/S			Check for grounds and nest wiring.
3		High distortion		D/S		Loop, D/S, 811C	
		No response		D/S		Loop, D/S, 811C	Carrier squelch circuit.
	ASR attn set OUT OF SVC lamp does not light.			AR68	Send, Receive		Check lamp.
	RO attn set OUT OF SVC lamp does not light.			AR69	Receiver		Check lamp.

ESU = Electrical Service Unit D/S = Data Set NST = Nest Wiring

Action A = Station is initialized by STC sending initializing sequence.

Action B = R switch on controller is operated to MTCE position to allow the STC to check the data set and line facilities.

TABLE A (Cont)

STEP FAIL-URE	TYPE OF TROUBLE		EQUIPMENT TO BE CHECKED				
	STATION	TEST CENTER	TTY	820A5 CONTROLLER	DAS 804	LINE OR HUB FACILITY	OTHER
4	OUT OF SVC lamps are not extinguished.		ESU	AR68, 69			Check M connector; initialize system.
5	OUT OF SVC lamps do not light then extinguish.			AR68, 69, 18, 477, 480, and D/S	Send, Receive	Loop, D/S, 811C	Check N and P connectors; check lamp.
6	OUT OF SVC lamp in receiving ATT set does not light.			AR65 NST	Receive		Check lamp in DAS 804; check N connector.
7	CALL lamp does not light.			AR65	Receiver		Check lamp.
	REC lamp lights and motor starts.			AR65	Receiver		Station ***not*** out-of-service; check nest wiring.
	REC lamp lights and motor does not start.						Station in loopback mode; initialize and repeat step.
		No response		AR18, 25, 477, and D/S		Loop, D/S, 811C	Action B.
		2-character response other than SIC-NAK		AR25			Station ready to receive.
		Single-character response		AR18, 25			Nest wiring; initialize station and repeat.
8	CALL lamp does not extinguish.		Contacts, ESU	AR65	Receiver		Check ATT set keys; check M and N connectors; station is still out of service.
	OUT OF SVC lamp does not extinguish in receive machine attended set.		Contacts		Receiver		Nest wiring; station in loopback mode; initialize.

TABLE A (Cont)

STEP FAILURE	TYPE OF TROUBLE		EQUIPMENT TO BE CHECKED				
	STATION	TEST CENTER	TTY	820A5 CONTROLLER	DAS 804	LINE OR HUB FACILITY	OTHER
9	PAPER LOW lamp does not light.		Contacts, ESU	AR65	Receiver		Check lamp; N and V cable connectors; nest wiring.
	Audible alarm in RO set does not sound.		Contacts	AR69	Receiver		Speaker, AUD OFF key operated.
10	CALL lamp does not light.			AR65, 475	Receiver		Check CALL lamp; Check V, W, and N connectors.
	REC lamp lights.		Contacts, ESU	AR69, NST	Receiver		Terminal is ready to receive.
		No response		AR18, 25, 477 and D/S		Loop, D/S, 811C	Check that terminal is not ready to receive; perform Actions A and B.
		Response other than SIC-NAK	Contacts, ESU	AR69 and NST	Receiver		
		Single-character response		AR69 and NST			
11	PAPER LOW lamp does not extinguish.		Contacts, ESU	AR69	Receiver		Check DAS paper low or tape low break contacts for proper operation; check PAPER OUT switch; check for grounds; check pins 10 of W, V, and N connectors; check X connector pins 23 and 31 for continuity through TTY PAPER OUT switch to connector C.
	CALL lamp does not extinguish.		Contacts, ESU	AR69			
	Audible alarm continues to sound.		Contacts, ESU	AR69	Receiver		

TABLE A (Cont)

STEP FAIL-URE	TYPE OF TROUBLE		EQUIPMENT TO BE CHECKED				
	STATION	TEST CENTER	TTY	820A5 CONTROLLER	DAS 804	LINE OR HUB FACILITY	OTHER
12	CALL lamp lights.			AR25, 65, NST	Receiver		Station not ready to receive.
	CALL lamp does not flash.			AR25, 65			Check lamp.
	REC lamp does not light.						Check REC lamp.
	Motor does not start.		Motor, ESU	AR69, NST			Check lead pin 24 through X, V, and N connectors to connector C; check fuse or circuit breaker.
		No response		AR18, 25, 477, D/S, NST		Loop, D/S, 811C	Actions A and B.
		Response other than SIC-ACK	Contacts, ESU	AR25, 69, NST	Receiver		Station not ready to receive.
		Single-character response		AR25, 71, 487			Action A.
13	TTY does not copy heading.		ESU, tape punch, typing unit	AR65, 475			Station terminal is blinded; send ENQ-DC2 and repeat test.
	Motor not running.		Motor, ESU	AR69, NST			Check SMD lead pins 32 through X, V, and N connectors to connector D.
	TTY prints underline characters.		Noise network	D/S		D/S, 811C	Action A.
	Garbled copy		ESU, typing unit	AR477, 480 D/S		D/S, 811C	
		Receives heading		AR479, NST		811C	Station may be in loop-back mode; check R switch.

TABLE A (Cont)

STEP FAILURE	TYPE OF TROUBLE		EQUIPMENT TO BE CHECKED				
	STATION	TEST CENTER	TTY	820A5 CONTROLLER	DAS 804	LINE OR HUB FACILITY	OTHER
14	Station copies heading.			AR18, 25, 71, NST			Station failed to blind on detection of ENQ; resend ENQ and repeat step.
	Station unselects, ERROR lamp lights, audible alarm sounds, and MSG ERROR lamp lights.			AR478, D/S		D/S, 811C	Carrier fail condition; actions A and B.
		Hit characters		AR477, 480, NST, D/S		D/S, 811C	Actions A and B.
15	TTY does not print TDM or text.		Motor, ESU, tape punch, typing unit	AR18, 65, 71, 475, and D/S		Loop, D/S, 811C	Station terminal did not unblind; resend unblind sequence ENQ-DC2.
	TTY prints underline characters, ERROR lamp lights.		Noise network	AR477, 479, D/S, NST		Loop, D/S, 811C	Actions A and B; check grounding system.
	No form feed if sprocket TTY.		Contacts, ESU, typing unit				Send line feed then form feed.
	No copy on ROTR if provided.		Motor, contacts, ESU, typing unit				ASR stunt box failed to detect DC2 in text.
		Prints copy				811C	Adjust test position for FDX operation.
16	No tape feedout.		Contacts, ESU, tape punch	AR65, NST			Check TFO lead pin 25 through X, V, and N connecnectors to connector D.

TABLE A (Cont)

STEP FAILURE	TYPE OF TROUBLE		EQUIPMENT TO BE CHECKED				
	STATION	TEST CENTER	TTY	820A5 CONTROLLER	DAS 804	LINE OR HUB FACILITY	OTHER
16 Cont	ERROR lamp lights and audible alarm sounds.		Contacts				Failed to go into roll call mode; detected parity, lost character, or format error.
		SIC-NAK response	Noise network contacts			Loop, D/S	Detected error.
		Response other than SIC-CAN or SIC-NAK					Failed to go into roll call mode.
		No response		AR25, 477, and D/S		Loop, D/S, 811C	Repeat ENQ-CEC; actions A and B.
17	REC lamp does not extinguish.			AR18, 71, 475, D/S, and NST		Loop, D/S, 811C	Station failed to detect or unselect on EOT; resend DC2-EOT; also check grounding system.
	Motor remains running.		Contacts, ESU				
	Lamps light on attn set.		Noise network, ESU	NST			
	False alarms on attn set audible, visual, or both.		Noise network				
		Hit received from station					
18	CALL lamp lights, CALL lamp does not flash.			AR25, 65, NST			Check station for ready-to-receive indication.
	REC lamp does not light, motor does not start, OUT OF SVC lamp lights.		Motor, ESU	AR69, NST			Check that station is not in the loop-back mode.
	MSG ERROR lamp lights, no copy, garbled copy, underline characters.		ESU, typing unit			Loop, D/S, 811C	Check transmission using automatic loop-back or actions A and B.

TABLE A (Cont)

STEP FAILURE	TYPE OF TROUBLE		EQUIPMENT TO BE CHECKED				
	STATION	TEST CENTER	TTY	820A5 CONTROLLER	DAS 804	LINE OR HUB FACILITY	OTHER
18 Cont		No response		AR18, 25, 71, 479, 477, 480, D/S, NST		Loop, D/S, 811C	Initialize.
		2-character response other than SIC-ACK	Contacts, ESU	AR25	Receiver		Check station for ready-to-receive indications.
		Single-character response	Contacts, ESU	AR69	Receiver		
		Wrong SIC character		AR25			Actions A and B.
19	ERROR lamp does not light, MSG REC lamp does not light, audible alarm does not sound.			AR69, NST	Receiver		Check that negative roll call on parity error option is provided by AR69 card.
20	Text 2 not received.		Motor, ESU	AR65, 475, NST			
	Garbled copy		ESU, typing unit				
		No response		AR18, 25, 477, D/S, NST		Loop, D/S, 811C	Initialize; actions A and B.
		SIC-CAN response		AR18, 478, NST			Check negative roll call on parity.
		Single-character response		AR18, 71, 478, and NST			
		Response other than SIC-CAN or SIC-NAK	Noise network	AR25, 478		Loop, D/S, 811C	
21	Alarms not canceled		Contacts, ESU	AR68, 69, NST	Receiver		Check for ground; 37-type TTY, power supply.

TABLE A (Cont)

STEP FAILURE	TYPE OF TROUBLE		EQUIPMENT TO BE CHECKED				
	STATION	TEST CENTER	TTY	820A5 CONTROLLER	DAS 804	LINE OR HUB FACILITY	OTHER
22	Does not copy text.		ESU, typing unit				Station not selected as a receiver or station is unblinded; send ENQ-DC2 or reselect station.
	MSG REC lamp does not light, audible alarm does not sound.			AR18, 69, 71	Receiver		Check lamp; check speaker.
		No response		AR25, 65, 477, and D/S			Initialize; repeat step.
		Response other than SIC-ACK		NST			Action B.
23	Alarms not canceled, motor running.		Contacts, ESU	AR68, 69			Check grounds.
	False alarms.		Noise network, contacts, ESU	AR68, 69	Receiver		Check grounds.
	REC lamps not extinguished.		Contacts, ESU	AR68	Receiver		Terminal is still not ready to receive or out-of-service.
		Hit character	Noise network	NST	Receiver	Loop, D/S, 811C	Check grounds; 37-type TTY, check power supply.
24	Printer runs open.		Noise network		Receiver		Actions A and B.
	REC and CALL lamps lighted.			AR69	Receiver		

TABLE A (Cont)

STEP FAILURE	TYPE OF TROUBLE		EQUIPMENT TO BE CHECKED				
	STATION	TEST CENTER	TTY	820A5 CONTROLLER	DAS 804	LINE OR HUB FACILITY	OTHER
24 Cont	No response		ESU, typing unit		Receiver		
		No response		AR25, 65, 71, 479, 478, 477, 480, D/S, NST		Loop, D/S, 811C	Actions A and B.
		Single-character response	Contacts, ESU	AR69	Receiver		
		Wrong SIC character		AR25			
25	MSG REC lamp does not light.			AR69, 478, D/S, NST	Receiver		Check MSG REC lamp; check terminal 2 through W, V, and N connectors to C connector.
	Audible alarm does not sound.			AR69	Receiver		
	Station remains selected as a receiver.			AR478, D/S, NST		Loop	Check grounding; check carrier fail detector.
	REC lamp does not extinguish.			D/S, NST	Receiver		
26	All lamps are not extinguished.						Actions A and B.
27	OUT OF SVC lamp does not light.			AR65	Receiver		Check OUT OF SVC lamp; action A.
		No response		AR18, 25, 71, 479, 478, 477, 480, D/S		Loop, D/S, 811C	Actions A and B.
		Response other than NAK	Contacts, ESU, tape reader	AR25	Receiver		

TABLE A (Cont)

STEP FAILURE	TYPE OF TROUBLE		EQUIPMENT TO BE CHECKED				
	STATION	TEST CENTER	TTY	820A5 CONTROLLER	DAS 804	LINE OR HUB FACILITY	OTHER
28	OUT OF SVC lamp does not extinguish.		Contacts, ESU	AR65	Receiver		Action B.
		No response		AR18, 25, 71, 479, 478, 477, 480, D/S, NST		Loop, D/S, 811C	
		Response other than CAN	Contacts, ESU	AR25, 65, NST	Receiver		
29		Hits		NST		Loop,	DC2 did not remove polling state; resend DC2-SPC.
		CAN		AR18, 475, NST		D/S, 811C	
30 and 31	BID lamp does not light.		Contacts, ESU, tape reader	AR65, 70	Send		Check contacts: tape available, bat handle, etc. Check BID lamp; check pins, 9, 10 on P connector; check transistor Q24 AR68; send DC2-EOT to unlock tape reader.
	Tape does not run.		Motor	AR65, 68, 70, NST			
	Tape does not stop on SOH.		Contacts, ESU, tape reader	AR18, 68, 480, and NST			
		Hits		AR479		Loop, D/S, 811C	Station may be cocked; send DC2-EOT and repeat.
32	False alarm lamps.						Check grounding system for noise.
		Hit character		D/S, NST		Loop, D/S, 811C	
		No response		AR18, 25, 71, 479, 478, 477, 480, D/S		Loop, D/S	Action B.
		2-character response other than R-ACK					

TABLE A (Cont)

STEP FAILURE	TYPE OF TROUBLE		EQUIPMENT TO BE CHECKED				
	STATION	TEST CENTER	TTY	820A5 CONTROLLER	DAS 804	LINE OR HUB FACILITY	OTHER
32 Cont		Single-character response	Contacts, ESU		Send		
33	False alarms		Noise network				
	TRANS lamp in attn set in ASR does not light.		Contacts, ESU, tape reader	AR65, 68	Send		Actions A and B.
		No response		AR18, 25, 71, 475, 478, 477, 480, D/S, and NST		Loop, D/S, 811C	
		NAK	Contacts, tape reader	AR65, 68			Check TRAFFIC AVAIL state.
34	Heading 1 not received.		Keyboard, tape reader, typing unit	AR18, 475	AR18, 475	Loop, 811C	Station failed to detect DC1.
	Underline characters, garbled copy		Typing unit				Check grounding system and TTY protection network.
	EMG STOP alarm.		Noise network	AR65, 475		Loop, 811C	
		Heading received				811C	Test TTY position set for HDX operation; station in the loopback mode.
35	Tape fails to run.			AR18, 68, 71			
	Tape fails to stop on second SOH.		ESU, tape reader	AR25			
		No response	Motor, ESU, tape reader	AR18, 68, 71, 475, D/S, NST		Loop, D/S	Actions A and B.

TABLE A (Cont)

STEP FAILURE	TYPE OF TROUBLE		EQUIPMENT TO BE CHECKED				
	STATION	TEST CENTER	TTY	820A5 CONTROLLER	DAS 804	LINE OR HUB FACILITY	OTHER
		Garbled copy	ESU, tape reader	AR68			Actions A and B.
36	Tape fails to run.		Motor, ESU				
	Tape fails to stop on F/F.		Contacts, ESU				
	Tape fails to stop on second EOT.		Contacts, ESU	AR70			EOT counter.
	TRANS lamp stays on.		Contacts, ESU, tape reader	NST			Failed to detect EOT from tape.
	BID lamp stays on.			AR70, NST	Send		
		No response	Tape reader	AR18, 71, 475, D/S, NST		Loop, D/S	Actions A and B.
		Garbled copy	ESU, tape reader	AR68			
		Parity errors detected on 911 DTS	Noise network, ESU, tape reader	D/S		Loop, D/S	
		EOT with wrong parity	ESU, tape reader	AR71, NST			
37	Tape does not run.						Check BID lamp and key contacts, check P connector.
	Tape does not stop on SOH.		Tape reader				
	BID lamp does not light.			AR70	Send		
		Hits received	Noise network, contacts, ESU	AR25			

TABLE A (Cont)

STEP FAILURE	TYPE OF TROUBLE		EQUIPMENT TO BE CHECKED				
	STATION	TEST CENTER	TTY	820A5 CONTROLLER	DAS 804	LINE OR HUB FACILITY	OTHER
38 and	TRANS lamp off.			AR71, 478	Send		Actions A and B.
39	Tape does not run.		ESU, tape reader	AR71, 478			
	Tape does not stop on ETX.			AR70			
	Hold lamp does not light.			AR68, 71, 478	Send		Check lamp
	Audible alarm does not sound.			AR68	Send		Check speaker
		No response		AR18, 25, 71, 475, 479, 478, 477, 480, D/S and NST		Loop, D/S	Actions A and B.
		Garbled copy	Noise network, ESU, tape reader	D/S		Loop, D/S	
		Parity errors on 911 TMS	Noise network, ESU, tape reader	D/S		Loop, D/S	
40	BID lamp does not light.		Contacts, ESU	AR68	Send		Actions A and B.
	Tape does not run.		Motor	AR68			
	Tape does not stop on SOH.		ESU, tape reader	AR68, 71			
		No response	Motor, ESU	AR18, 479	Send	Loop, D/S	
		Hit other than SOH	Tape reader				
41	Tape does not stop while form is feeding.		Contacts, ESU, keyboard, tape reader				Check RT unit, TAPE AVAIL switch and contacts.

TABLE A (Cont)

STEP FAILURE	TYPE OF TROUBLE		EQUIPMENT TO BE CHECKED				
	STATION	TEST CENTER	TTY	820A5 CONTROLLER	DAS 804	LINE OR HUB FACILITY	OTHER
41 Cont	TRANS lamp does not extinguish, BID lamp does not extinguish.		Contacts, ESU, tape reader		Send		
		No response	Motor, ESU	AR18, 25, 71, 475, 478, 477, 480, D/S and NST		Loop, D/S	Action A.
		Garbled text, parity errors on 911 TMS	ESU, tape reader	D/S		Loop, D/S	
		Parity error on EOT	Noise network, ESU, tape reader	AR18, 478, NST		Loop, D/S	
42	Tape does not run.		Motor, contacts, ESU	AR68			Check M connector and terminal 40,49.
	Tape does not stop on SOH.		Tape punch	AR25, 68, 71			
		Hit characters	Noise network	D/S, NST		Loop, D/S	
43	TRANS lamp does not light.				Send		Check TRANS lamp.
	Tape does not run.		Typing unit, contacts, ESU	AR68	Send		
	Tape does not stop on SOH.		ESU, tape reader	AR25, 68, 71			
		No response	Motor, ESU	AR18, 25, 71, 475, 478, 477, 480, D/S, NST		Loop, D/S	Action A.
		Garbled copy	Noise network, motor, ESU, tape reader	D/S		Loop, D/S	

TABLE A (Cont)

STEP FAILURE	TYPE OF TROUBLE		EQUIPMENT TO BE CHECKED				
	STATION	TEST CENTER	TTY	820A5 CONTROLLER	DAS 804	LINE OR HUB FACILITY	OTHER
44	TAPE lamp does not light.		Contacts, ESU	AR68, NST	Send	Loop, D/S	Check lamp; check N connector terminals 36 and 37.
	Audible alarm does not sound.			AR68	Send		
	BID lamp does not extinguish.		Contacts	AR68, 70	Send		
		Hit characters	Noise network, contacts, ESU, tape reader	D/S, NST			
45 thru 47	Audible alarm does not sound.			AR18, 68, 480	Send		Station failed to detect DLE-X-DC1; check lamp.
	EMG STOP lamp does not light.			AR68	Send		
		Hit characters		D/S		Loop, D/S, 811C	Station may be in loop-back mode; action A.
	EMG MSG not received on ASR.		ESU, typing unit	AR18, 480, NST		D/S, 811C	Station failed to detect DC3; resend DLE-DC3-DC2.
	TRANS lamp not extinguished.			AR18, 480, NST			
	EMG STOP lamp not extinguished.						
	Audible alarm not silenced.			AR68, NST	Send		
48 and 49	BID lamp does not light.		Contacts, ESU	NST	Send		Check BID lamp.
	Tape does not run.		Motor, tape reader				Send DC2

TABLE A (Cont)

STEP FAILURE	TYPE OF TROUBLE		EQUIPMENT TO BE CHECKED				
	STATION	TEST CENTER	TTY	820A5 CONTROLLER	DAS 804	LINE OR HUB FACILITY	OTHER
48 and 49 Cont	EMG STOP lamp does not light, alarm does not sound.		Tape reader		Send		Check controller used.
	Tape does not stop on ETX.		Contacts, ESU, tape reader	AR68			
		Hit characters	Contacts, ESU	D/S, NST		Loop, D/S, 811C	
		SIC character		AR479			Station may be cocked; action A.
50	Station not initialized.					Loop	Actions A and B.
51	Tape does not run. BID lamp does not light.		Motor, Contacts	AR68, NST, D/S	Send	Loop	Actions A and B.
52		No response				Loop, D/S	Action A.
53	Tape does not start.		Motor	AR68			Station failed to detect DLE-DC1-DC2; resend sequence.
		No response	Motor	AR18, 68, 71, 475, D/S, NST	Send	Loop, D/S	
		Garbled copy, parity errors	Noise network, tape reader	AR68		Loop, D/S	
54	Tape does not stop.		Contacts, ESU	AR18, 68, 71, 475			Station failed to detect DLE; resend DLE.
		No response		AR18, 25, 65, 71, 475, 479, 478, 477, 480, D/S NST		Loop, D/S	Station failed to detect ENQ-CEC; resend ENQ-CEC.
		Single-character response	Contacts, ESU		Receiver		Actions A and B; station not ready.
		Garbled characters		AR71		Loop, D/S	

TABLE A (Cont)

STEP FAILURE	TYPE OF TROUBLE		EQUIPMENT TO BE CHECKED				
	STATION	TEST CENTER	TTY	820A5 CONTROLLER	DAS 804	LINE OR HUB FACILITY	OTHER
55	Tape does not start.		Contacts, tape reader	AR68		811C	
	Tape does not stop on SOH.		Contacts, ESU	AR25, 480, NST			
		No response	Motor, contacts, ESU, tape reader		Receiver	Loop, D/S	Station failed to detect ENQ-DC2; resend sequence.
		Garbled characters	Contacts, tape reader	AR68, NST		Loop, D/S, 811C	
56	No text received or text garbled.		ESU, typing unit	D/S		D/S	
	Parity error alarm.			AR480, D/S			
		Hit characters	Noise network contacts, typing unit	AR25, D/S		Loop, D/S	
		Text	ESU, typing unit				
57	All lamps not extinguished, CKT not restored to initialized condition.		Noise network contacts, ESU	AR479, D/S	Send Receive		
		Hit characters		D/S		Loop, D/S, 811C	
58	Tape does not run.		Motor, contacts, ESU				
	Tape does not stop on SOH.		Tape punch, tape reader	AR68			Check tape for correct SOH punched in tape.
		Hit characters	Noise network	D/S, NST		Loop, D/S, 811C	

TABLE A (Cont)

STEP FAILURE	TYPE OF TROUBLE		EQUIPMENT TO BE CHECKED				
	STATION	TEST CENTER	TTY	820A5 CONTROLLER	DAS 804	LINE OR HUB FACILITY	OTHER
59	Tape does not run.		Motor, contacts	AR70			Resend DC2; actions A and B.
		No response	ESU	AR18, 71, 475, 478, D/S		Loop, D/S, 811C	
60	Tape does not stop.			D/S			
	BID lamp does not extinguish.		Motor, contacts	AR478			
	EMG STOP lamp does not light, audible alarm does not sound.			AR68, D/S			
61	All alarms are not canceled.			AR68, 478			Check for nest wiring shorts.
		Hits		AR480, D/S	Send		
62		Hit character		AR479		Loop, D/S	
		SIC character					Check station for no traffic available.
63	Tape does not run.		Motor, contacts, ESU	AR68			Send DC2.
		No response		AR479, D/S		Loop, D/S	Actions A and B.
		Hit character	Noise network, contacts, ESU, tape reader				
		Improper SIC character		AR25, 479			
		Parity error on 911 TMS		D/S		Loop, D/S	

TABLE A (Cont)

STEP FAILURE	TYPE OF TROUBLE		EQUIPMENT TO BE CHECKED				
	STATION	TEST CENTER	TTY	820A5 CONTROLLER	DAS 804	LINE OR HUB FACILITY	OTHER
64		Hit character		AR479, D/S		Loop, D/S	
65	PAPER LOW lamp does not light.		Contacts, ESU	AR69, NST	Receiver		Check lamp, check N connector.
		Hit character	Noise network				
66	PAPER LOW lamp does not go out, OUT OF SVC lamp does not light.			AR71, 479, NST	Receiver		
	Motor running in 820A5 and 820A6.		Contacts, ESU				Test machine must be in FDX mode.
	REC lamp does not light.						Check REC lamp.
		Hit characters				811C	
67		No response				Loop, D/S, 811C	Station not in loop-back mode.
		High distortion		AR480, D/S		Loop, D/S	
		Garbled copy		AR71, 479		Loop, D/S, 811C	
		Underline characters					Parity errors sent by test position.

TABLE A (Cont)

STEP FAILURE	TYPE OF TROUBLE		EQUIPMENT TO BE CHECKED				
	STATION	TEST CENTER	TTY	820A5 CONTROLLER	DAS 804	LINE OR HUB FACILITY	OTHER
68	OUT OF SVC lamp not extinguished, motor running.		Contacts, ESU				Check that TTY MAINT switch is in NORM position.
	False alarms.		Noise network contacts, ESU	AR65			
		Hit characters				Loop, D/S	

STEP	ACTION	VERIFICATION

C. Continuity Test of DAS 804R3 (Receive Attendant Set)

Caution: Remove power cord to the customer-provided ac receptacle before performing this test.

1 Gain access to the controller as described in the section referenced in 1.07.

2 Disconnect the N plug from the controller.

3 Connect N plug to the KS-16786-L3 connector.

4 Using a KS-14510-L1 volt-ohm-milliammeter—Perform the continuity tests shown in Table B by using the pins of KS-16786-L3 connector to make connections. — See Table B.

TABLE B

CONTINUITY TEST OF DAS 804R3

STEP	KEY	POSITION	VOLT-OHM-MILLIAMMETER			
			SCALE	CONNECT PROBE		READING OHMS
				+	–	
1			R X 10	3	9	55 ± 15
2				3	6	55 ± 15
3				3	2	55 ± 15
4				3	14	55 ± 15
5				3	13	55 ± 15
6				3	12	55 ± 15
7	AUD OFF	RLS		3	8	∞
8		OPR		3	8	55 ± 15
9	AUD OFF	OPR		8	11	∞
10		RLS		8	11	0 to 2
11	OUT OF SVC	RLS		8	15	0 to 2
12		OPR		8	15	∞
13	MSG REC	RLS		5	4	0 to 2
14		OPR		5	4	∞
15	ERROR	RLS		5	7	0 to 2
16		OPR		5	7	∞
17	*PAPER LOW	RLS		5	10	0 to 2
18		OPR		5	10	∞
19				36	FRAME VIO-SL	0 to 2
20				16	LDSPKR YEL-BL	0 to 2

* TAPE LOW designation substituted for PAPER LOW on DAS 804R3 used with 37 ROTR TTY.

STEP	ACTION	VERIFICATION
5	Disconnect N plug from KS-16786-L3 connector and reconnect to the controller.	
6a	If no further tests are to be made— Perform the Customer Verification procedure described in Part 5.	

D. Continuity Test of DAS 804R2 (Transmit Attendant Set)

Caution: Remove power cord to the customer-provided ac receptacle before performing this test.

1	Gain access to the controller as described in the section referenced in 1.07.	
2	Disconnect P plug from the controller.	
3	Connect P plug to KS-16786-L2 connector.	
4	Using KS-14510-L1 volt-ohm-milliammeter— Perform continuity test shown in Table C by using the pins of the KS-16786-L1 connector to make connections.	See Table C.

TABLE C

CONTINUITY TEST OF DAS 804R2

STEP	KEY	POSITION	VOLT-OHM-MILLIAMMETER			
			SCALE	CONNECT PROBE		READING OHMS
				+	–	
1				3	18	55 ± 15
2				3	2	55 ± 15
3				3	15	55 ± 15
4				3	13	55 ± 15
5				3	11	55 ± 15
6				3	9	55 ± 15
7				3	7	55 ± 15
8				LDSPKR BL-VIO	8	0 to 2
9	AUD OFF	RLS		3	8	∞
10		OPR		3	8	55 ± 15

TABLE C (Cont)

STEP	KEY	POSITION	VOLT-OHM-MILLIAMMETER			
			SCALE	CONNECT PROBE		READING OHMS
				+	–	
11	AUD OFF	OPR	R X 10	17	8	∞
12		RLS		17	8	0 to 2
13	OUT OF SVC	RLS		16	8	0 to 2
14		OPR		16	8	∞
15	OUT OF SVC	OPR		21	8	0 to 2
16		RLS		21	8	∞
17	HOLD	RLS		14	8	∞
18		OPR		14	8	0 to 2
19	PRIOR	RLS		12	8	0 to 2
20		OPR		12	8	∞
21	BID	RLS		10	8	0 to 2
22		OPR		10	8	∞
23	TAPE	RLS		5	4	0 to 2
24		OPR		5	4	∞
25	EMG STOP	RLS		5	6	0 to 2
26		OPR		5	6	∞
27				19	LDSPKR YEL-SL	0 to 2
28				24	FRAME VIO-SL	0 to 2

STEP	ACTION	VERIFICATION
5	Disconnect P plug from KS-16786-L2 connector and reconnect to controller.	
6a	If no further tests are to be made— Perform the Customer Verification procedure described in Part 5.	

E. Continuity Test of DAS 804R4 (Split Operation Originate/Terminate Station Attendant Set)

Caution: Remove power cord to the customer-provided ac receptacle before performing this test

1 Gain access to the controller as described in the section referenced in 1.07.

STEP	ACTION	VERIFICATION
2	Disconnect N plug from the controller.	
3	Connect N plug to KS-16786-L3 connector.	
4	Using KS-14510-L1 volt-ohm-milliammeter perform continuity test shown in Table D by using the pins of KS-16786-L3 connector to make connections.	See Table D.
5	Disconnect N plug from KS-16786-L3 connector and reconnect to controller.	
6a	If no further tests are to be made— Perform the Customer Verification procedure described in Part 5.	

4. TROUBLESHOOTING TESTS AND PROCEDURES FOR DAS 820A5 (CONTROLLER)

4.01 Maintenance of the controller can be accomplished by substitution of circuit packs. Refer to Fig. 1 and Table A for information on circuit pack substitution. Table A is keyed to the Attended Test by the table steps corresponding to the test steps. When the station fails a step, Table A gives the suggested circuit pack substitutions and areas that should be checked for trouble or malfunction.

4.02 Table A may be used, if desired, to narrow the list of possible circuit packs in trouble. All previously substituted circuit packs should be left in place until further substitutions eliminate the trouble condition. In order to determine the circuit packs which caused the trouble, replace the new circuit packs with the old ones in a reverse order until the trouble condition returns. Leave each old circuit pack in place after determining that it is not in trouble. If the trouble condition persists after all of the suggested circuit packs have been replaced, then a replacement of the entire controller may be required.

4.03 The elimination of all trouble conditions by the substitution of circuit packs is not always possible since the source of trouble may be associated with nest wiring, connectors, power supply, etc. Table A indicates possible areas of trouble that should also be checked. In such cases, replacement of the complete station controller DAS 820A5 or other defective components will be necessary.

5. CUSTOMER VERIFICATION

5.01 When a test is complete, all test requirements have been met, and no further tests are to be made, suggest that the customer verify that service is satisfactory. If the customer has messages to deliver, verify that the service is satisfactory in this manner. If the customer has no messages to deliver, consider the station satisfactory for service. When customer verification has been completed, return the station to normal service.

TABLE D

CONTINUITY TEST OF DAS 804R4

STEP	KEY OR LAMP	POSITION	VOLT-OHM-MILLIAMMETER			
			SCALE	CONNECT PROBE		READING OHMS
				+	–	
1	OUT OF SVC lamp		R X 1	3	12	55 ± 15
2	HOLD lamp			3	11	55 ± 15
3	PRIOR lamp			3	7	55 ± 15
4	BID lamp			3	5	55 ± 15
5	CALL lamp			3	2	55 ± 15
6	REC lamp			3	4	55 ± 15
7	PAPER LOW lamp			3	26	55 ± 15
8	EMG STOP lamp			3	22	55 ± 15
9	TAPE lamp			3	24	55 ± 15
10	ERROR lamp			3	18	55 ± 15
11	MSG REC lamp			3	16	55 ± 15
12				36	FRAME YEL-GN	0 to 2
13	AUD OFF key	RLS		3	8	∞
14		OPR		3	8	*55 ± 15
15	OUT OF SVC key	RLS		13	8	0 to 2
16		OPR		13	8	∞
17		OPR		28	8	0 to 2
18		RLS		28	8	∞
19	HOLD key	RLS		10	8	∞
20		OPR		10	8	0 to 2
21	PRIOR key	RLS		9	8	0 to 2
22		OPR		9	8	∞
23	BID key	RLS		6	8	0 to 2
24		OPR		6	8	∞
25	AUD OFF key	OPR		25	8	∞
26		RLS		25	8	0 to 2
27				LDSPKR GR-RD	8	0 to 2
28				LDSPKR RD-BR	27	0 to 2

TABLE D (Cont)

29	PAPER LOW key	RLS		14	23	0 to 2
30		OPR		14	23	∞
31	EMG STOP key	RLS		14	21	0 to 2
32		OPR		14	21	∞
33	TAPE key	RLS		14	19	0 to 2
34		OPR		14	19	∞
35	ERROR key	RLS		14	17	0 to 2
36		OPR		14	17	∞
37	MSG REC key	RLS		14	15	0 to 2
38		OPR		14	15	∞

*Checks AUD OFF lamp as well as contacts of key.

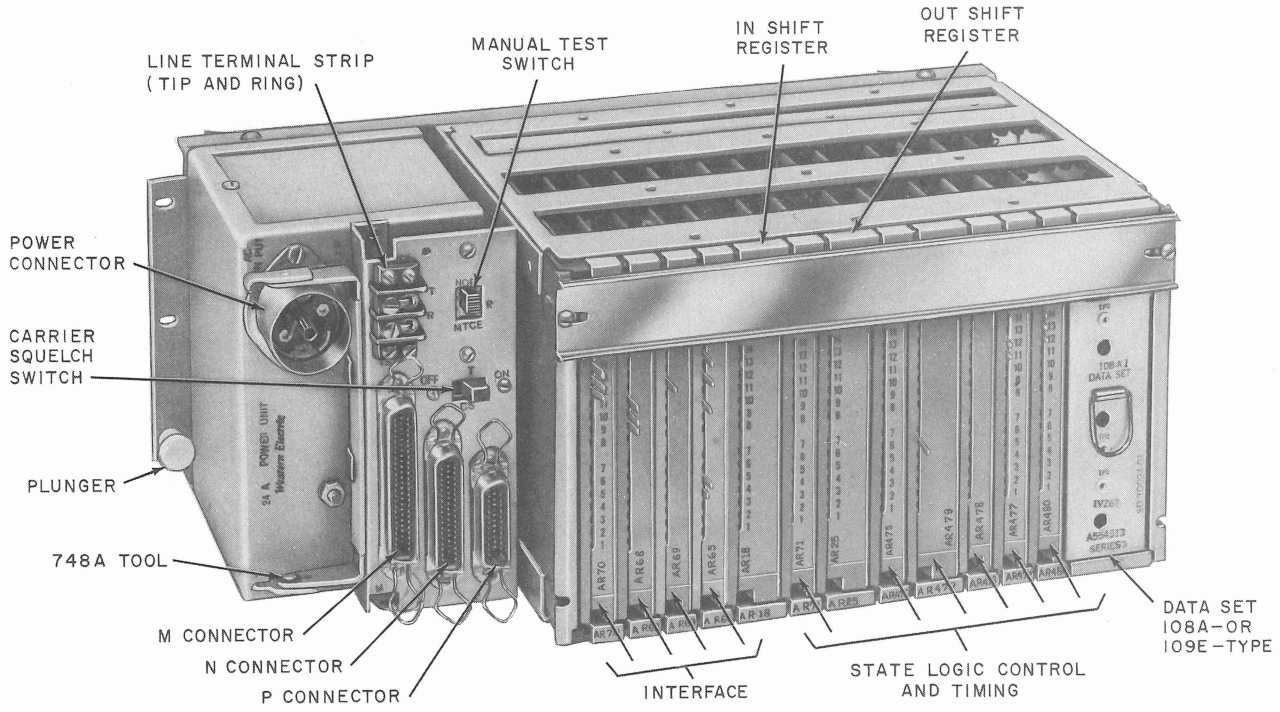

Fig. 1—Data Auxiliary Set 820A5 (Controller)