

NO. 23 AUTOMATIC CALL DISTRIBUTING (ACD) SYSTEM
NO. 23 CONCENTRATOR
THROUGH AND TERMINAL BALANCE
BALANCE TEST EQUIPMENT AND TEST CIRCUIT

1. GENERAL

1.01 The information in this section covers the balance testing applications of the KS-20501 Return-Loss Measuring Set (RLMS) to the No. 23 Automatic Call Distributing (ACD) System or No. 23 Concentrator.

1.02 When this section is reissued, the reason for reissue will be given in this paragraph.

2. TEST EQUIPMENT

2.01 Balance measurements and build-out procedures for the No. 23 ACD System include the use of the KS-20501 RLMS. The KS-20501 RLMS has the capability of making both 2-wire and 4-wire return-loss measurements with a minimum amount of measurement error, as outlined in Section 103-106-115.

2.02 In addition to the KS-20501 RLMS, decade capacitance boxes, 7A or equivalent, are required to obtain the correct value of build-out capacitance.

3. APPLICATION OF BALANCE TEST EQUIPMENT

3.01 Table A in this section shows the various types of measurements required in office balancing. It also shows the various test connections

and lists the proper adjustments of the KS-20501 RLMS for making the required measurements and tests. Before making verification measurements, the KS-20501 RLMS should be adjusted to compensate for trans-hybrid loss (THL) in the test hybrid as shown in Test 2A.

3.02 The configurations of test equipment given in this section may be used in testing for the balance requirements given in Section 660-462-301 and for performing the drop build-out and requirement verification test in Section 660-462-502.

3.03 The test equipment is interconnected and calibrated in accordance with Table A and then used in the procedures in the applicable sections.

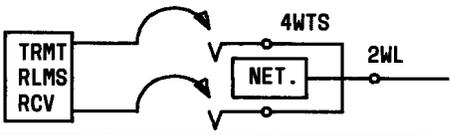
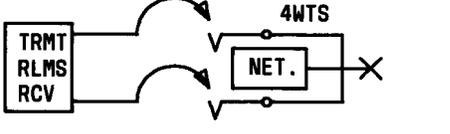
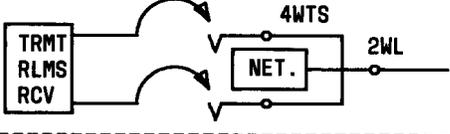
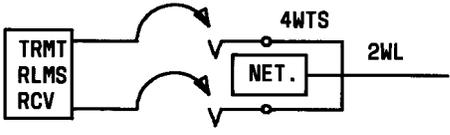
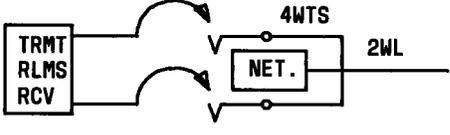
4. TEST CIRCUITS AND TEST TERMINATION

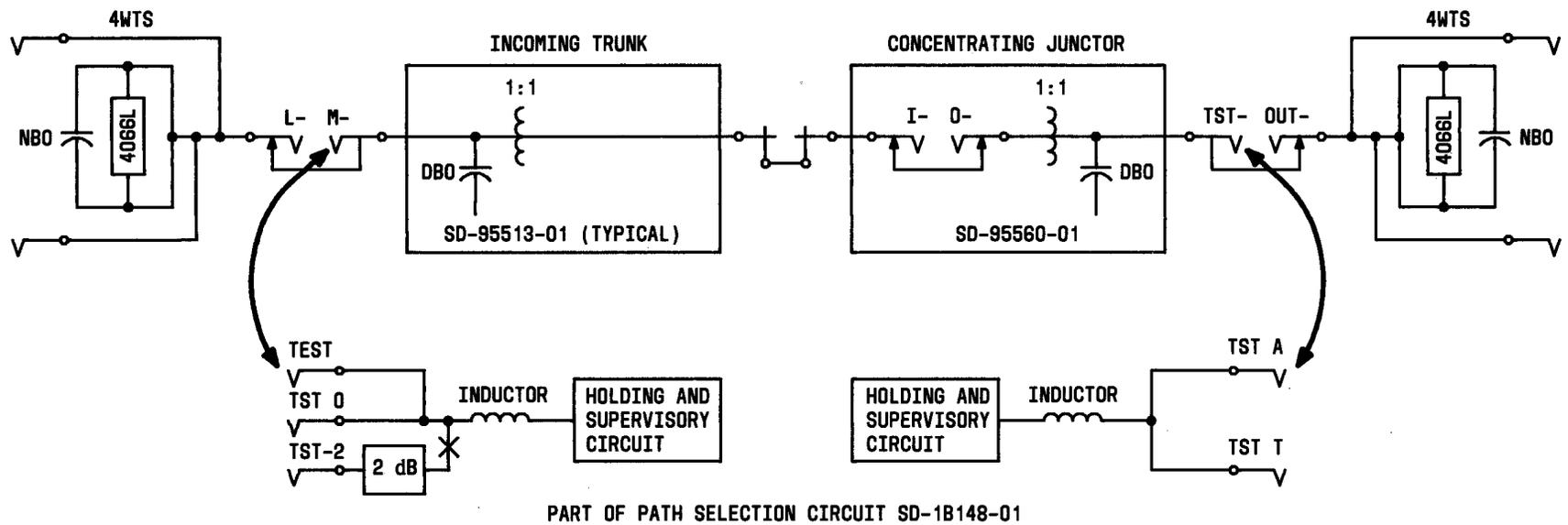
4.01 Balance testing of the No. 23 ACD System or No. 23 Concentrator can be performed using the Access Jack Circuit and Path Selection Circuit. See CD-27997-01 for using the Path Selection Circuit. The 4WTSs associated with the incoming trunk and outgoing circuit are used for balance testing. These may be located with the carrier terminal or with the No. 23 ACD framework. Figure 1 shows the test connections for build-out and balance verification tests.

NOTICE

Not for use or disclosure outside the
Bell System except under written agreement

Table A

TEST NO.	TYPE OF MEASUREMENT	KS-20501 RETURN LOSS MEASURING SET (RLMS)		
		TEST CONNECTIONS	SWITCH FUNCTIONS	SETTING
1	ADJUSTMENT OF BUILD-OUT (BO) CAPACITORS		POWER NETWORK TEST LOCATION TEST TYPE THL OR ADD	ON NOT USED +0DB (TEST HYBRID) SRL-HI 0.0DB
2A	ERL: TRANS-HYBRID LOSS CALIBRATION PROCEDURE		POWER NETWORK TEST LOCATION TEST TYPE ADD DB THL OR ADD	ON NOT USED +23DB (VFPB) ERL SET TO 0DB WITH A SHORT ON THE 2-WIRE LINE AT THE 4WTS ADJUST FOR 0-DB RETURN LOSS
2B	ERL: MEASUREMENT PROCEDURE		POWER NETWORK TEST LOCATION	ON NOT USED +23DB (VFPB)
			TEST TYPE ADD DB THL OR ADD	ERL ADJUST FOR ON-SCALE READING SAME SETTING AS DETERMINED IN TEST 2A FOR THL (1) AT VFPB-ZERO (2)
3A	SRL: MEASUREMENT PROCEDURE		POWER NETWORK TEST LOCATION TEST TYPE ADD DB	ON NOT USED SAME AS TEST 2B SRL ADJUST FOR ON-SCALE READING
			THL OR ADD	SAME SETTING AS DETERMINED IN TEST 2A
3B	SRL HI: MEASUREMENT PROCEDURE		POWER NETWORK TEST LOCATION TEST TYPE ADD DB	ON NOT USED SAME AS TEST 2B SRL-HI ADJUST FOR ON-SCALE READING
			THL OR ADD	SAME SETTING AS DETERMINED IN TEST 2A
	FINAL SRL READING			THE LOWER OF THE SRL/SRL-HI MEASUREMENTS IS THE SRL READING



PART OF PATH SELECTION CIRCUIT SD-1B148-01

Fig. 1—Test Connection for No. 23 ACD