REGISTER AND CAMA SENDER TEST EQUIPMENT UNITS MOUNTED ON CONTROL BAYS — MASTER TEST FRAME EQUIPMENT DESIGN REQUIREMENTS NO. 5 CROSSBAR SYSTEM

1. GENERAL

Scope

1.01 This specification, together with the supplementary information listed herein, covers the equipment design requirements for the framework, equipment, and circuits to be used in the manufacture and installation of the incoming register test circuit equipment and of the sender test circuit equipment which form parts of the master test frame used in No. 5 Crossbar System.

1.02 This specification is reissued:

(a) To incorporate changes made in Addendum Issues 1 and 2.

(b) To bring J23258 into agreement with SD-25800-01, Issue 69D.

(c) To arrange the MTF control bay for testing the traffic sampling counter associated with the completing marker when sampling by customer group is provided. J23258AA, List 4 is added.

Description

1.03 The units listed herein, together with the units of specifications J23253, J23255, and J23256, are the "building blocks" for the master test frame which is covered in specification J23252. The keys, lamps, and switches of the test circuit for incoming registers and CAMA senders and of the sender test circuit are mounted on the control bay key and lamp panel.

1.04 The relay equipment of the test circuit for registers and CAMA senders is assembled on four surface-wired units which are made up of 2- by 30-1/2 inch mounting plates. These units are mounted on the left bay of the master test frame control bay. All interunit wiring and other frame wiring associated with these units and all optional wiring is included in the bay local cable, when required, as specified in J23252A, (Mfr Disc.), J23252U (A&M) or J23252AJ. The relay equipment of this circuit used to test FSP incoming registers is assembled on two surface-wired units which are made up of 2- by 23-inch mounting plates. These units are mounted on the auxiliary master test frame. All interunit wiring and other frame wiring associated with these units and all optional wiring is included in the frame local cable, as specified in J23252AH. The relay equipment used to test transfer registers is assembled on one surface-wired unit made up of 2- by 23-inch mounting plates. This unit is mounted on a miscellaneous relay rack, and is provided with unit terminal strips which are cabled to the master test control bay.

1.05 The relay equipment of the sender test circuit is assembled on nine surface-wired units of which eight are made up of 2- by 30-1/2 inch mounting plates and are mounted on the left bay of the master test frame control bay. All interunit wiring and other frame wiring associated with these eight units and their associated optional wiring is included in the bay local cable, when required, as specified in J23252A (Mfr Disc.), J23252U (A&M) or J23252AJ. The ninth unit, J23258L, consists of a 4- by 30-1/2 inch mounting plate and, when required, is mounted on the master test frame recorder bay together with a multifrequency receiver J95102B. Connection between the unit J23258L and the other units of the sender test circuit is made with switchboard cables connected to terminal strips on the top of the control bay and to a unit terminal strip on

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J23258L unit. The relay equipment of this circuit used to test FSP senders is assembled on four surface-wired units which are made up of 2- by 23-inch mounting plates. These units are mounted on the auxiliary master test frame. All interunit wiring and other frame wiring associated with these units and all optional wiring is included in the frame local cable as specified in J23252AH.

Test Circuit For Registers and CAMA Senders

1.06 This circuit is used in conjunction with the portable register test set, the trouble recorder, the precision pulse generator and a telephone set to test dial pulse, revertive pulse, and multifrequency, and frequency shift pulsing incoming registers. When it is used in conjunction with the register test set, the trouble recorder, and telephone set, it may be used for testing central B incoming registers. A multiconductor belt line connected to the incoming register test circuit has jack appearances at the master test frame control bay, the auxiliary master test frame, and at each of the register frames. The register test set may be connected to the incoming register test circuit at any of the jack appearances by means of a multiconductor cord which is provided with the test set. This circuit is also used in conjunction with the register and CAMA sender test set and the master test control circuit to test CAMA senders.

Sender Test Circuit

1.07 This circuit, under control of the portable sender test set, provides facilities which may be used to test dial pulse, revertive pulse, multifrequency line link pulsing, frequency shift pulsing, and panel call indicator senders. A multiconductor belt line connected to the sender test circuit has jack appearances at the master test frame control bay, the auxiliary master test frame, and at each of the sender frames. The sender test set may be connected to the sender test circuit at any of the jack appearances by means of multiconductor cords which are provided with the test set. The conditions required for test and progress are simulated principally by the manipulation of keys in the sender test set. The satisfactory completion of a test must be determined by observation.

Signaling Receiving Panel

1.08 A multifrequency receiver unit is also required in conjunction with the sender test circuit. This unit is mounted on the master test frame recorder bay.

FSP Transmitter-Receiver Test Unit

1.09 An FSP transmitter-receiver test unit, J95115A, is required in conjunction with the test circuit for registers and CAMA senders and the sender test circuit when FSP registers or senders are to be tested. This unit is to be mounted on the auxiliary master test frame.

Subdivision of Equipment and Detailed Index

WECo J drawings should be ordered by referring to the prefix and base number and requesting the highest suffix dash (—) number.

EQUIPMENT CODE	RATING OF UNIT	TITLE	EQUIPMENT DRAWING	CIRCUIT DRAWING	CKTS PER UNIT	MTG PLTS PER UNIT
J23258A	AT&TCo Std	Register Selection and Simulated Incoming Trunk Unit	J23852A-( )	SD-25988-01, Fig. 1, 2, 3 7, 9, & 19	1	1
J23258B	AT&TCo Std	Revertive Register Test Unit	J23258B-( )	SD-25988-01, Fig. 6	1-15	2
J23258C	AT&TCo Std	Dial Pulse and Multifrequency Incoming Register Test Unit	J23258C-( )	SD-25988-01, Fig. 4 & 5	1	1
J23258D	AT&TCo Std	Sender Test Control Unit	J23258D-( )	SD-25675-01, Fig. 1	1	2

EQUIPMENT CODE	RATING OF UNIT	TITLE	EQUIPMENT DRAWING	CIRCUIT DRAWING	CKTS PER UNIT	MTG PLTS PER UNIT
J23258E	AT&TCo Std	Dial Pulse and Revertive Pulse Counter Unit	J23258E-( )	SD-25675-01, Fig. 2	1	1
J23258F	AT&TCo Std	Dial Pulse, Revertive Pulse, and Multifrequency Digit Register Unit	J23258F-( )	SD-25675-01, Fig. 3	1	1
J23258G	AT&TCo Std	Dial Pulse Sender Test Unit	J23258G-( )	SD-25675-01, Fig. 4	1	1
J23258H	AT&TCo Std	Revertive Pulse Sender Test Unit	J23258H-( )	SD-25675-01, Fig. 5	1	1
J23258J	AT&TCo Std	Multifrequency Sender Test Unit	J23258J-( )	SD-25675-01, Fig. 6 & 7	1	1
J23258K	AT&TCo Std	PCI Sender Test Unit	J23258K-( )	SD-25675-01, Fig. 9	1	3
J23258L	AT&TCo Std	Multifrequency Receiver Connector Unit	J23258L-( )	SD-25675-01, Fig. 7	1	2
J23258N	AT&TCo Std	CAMA Sender Test Unit	J23258N-( )	SD-25988-01, Fig. 5	1	1
J23258P	AT&TCo Std	FSP Digit Register and Steering Unit	J23258P-( )	SD-25988-01, Fig. 15	1	4
J23258R	AT&TCo Std	FSP Test Control and Timing Circuit	J23258R-( )	SD-25988-01, Fig. 16	1	4
J23258S	AT&TCo Std	FSP Pulse Receiving Receiver Control and Timer Unit	J23258S-( )	SD-25675-01, Fig. 11	1	3
J23258T	AT&TCo Std	FSP Pulse Receiving and Receiver Control Relay Unit	J23258T-( )	SD-25675-01, Fig. 11	1	2
J23258U	AT&TCo Std	FSP Digit Steering Unit	J23258U-( )	SD-25675-01, Fig. 12 & 14	1	2
J23258W	AT&TCo Std	FSP Digit Matching And Register Unit	J23258W-( )	SD-25675-01, Fig. 13	1	3
J23258Y	AT&TCo Std	Transfer Register Identification & Control Unit	J23258Y-( )	SD-25988-01, Fig. 20	1	2
J23258AA	AT&TCo Std	RP Sdr Pulsing and Traffic Sampling Tst Unit	J23258AA-( )	SD-25675-01 SD-25800-01		

Circuit Schematic Index

CIRCUIT DRAWING	J23258 EQUIP CODE
SD-25675-01	D through M, S, T, U, W & AA
SD-25988-01	A, B, C, N, P, R, & Y
SD-25800-01	AA

2. SUPPLEMENTARY INFORMATION

819-000-000 — Numerical Index — No. 5 Crossbar System — Equipment Design Requirements

J23252 (819-700-150) — Master Test Frame

J29259 (819-005-150) — General Outline — No. 5 Crossbar System

J95102 (AA388.082) — Multifrequency Receiver
J95115 (AA388.166) — Common Systems Signaling — Transmitter-Receiver Test Unit — B1 Freq Shift Pulsing

3. DRAWINGS

For additional drawings forming a part of this specification, see listings under Subdivisions of Equipment and Detailed Index.

Keysheet

SD-25760-01 — No. 5 Crossbar System

Circuits

SD-25675-01 — Sender Test Circuit
SD-25988-01 — Test Circuit for Incoming Registers and CAMA Sender Circuits
SD-94820-01 — Common Systems Time Delay Control Circuit
SD-99317-01 — Common Systems Signaling — Transmitter-Receiver Test Circuit — B1 Freq Shift Pulsing
SD-25800-01 — Master Test Control Circuit

Equipment

ED-94859-( ) G1 — Component Assembly, Plug In

4. EQUIPMENT

J23258A (AT&TCo Std) — Register Selection And Simulated Incoming Trunk Unit

Equipment — J23258A-( )

List 2 (A&M Only) — Wiring and equipment per SD-25988-01, Fig. 1, Z option, required in addition to list 1 when the automatic monitor, register, and sender test circuit is provided.

List 3 (A&M Only) — Wiring and equipment per SD-25988-01, Fig. 3, X option, required in addition to list 1 where by-link operation of dial pulse incoming registers is to be tested by this circuit.

List 4 — Wiring and equipment per SD-25988-01, Fig. 2 required in addition to list 1 or 6 for each incoming register group to be tested by this circuit (capacity 15 register groups).

List 5 (A&M Only) — Wiring and equipment per SD-25988-01, Fig. 9 required in addition to list 1 when central B revertive incoming registers are to be tested by this circuit.

List 6 — Assembly, wiring, and equipment per SD-25988-01, Fig. 1 and 3 with X option, and Fig. 7, 9, and 19 for one register selection and simulated incoming trunk unit when the incoming register and CAMA sender test circuit is used to test incoming registers or transfer registers. (See 5.01 and 5.07.)

Note

A. In addition to the foregoing lists, there are options involving wiring only as follows:

1. (A&M Only) — Wiring per SD-25988-01, Fig. 1, Y option, required in addition to list 1 when the automatic monitor frame is not provided.

J23258B (AT&TCo Std) — Revertive Register Test Unit

Equipment — J23258B-( )

List 1 — Assembly, wiring, and equipment per SD-25988-01, Fig. 6 for one revertive register test unit when the register and CAMA sender test circuit is used to test revertive pulse or revertive pulse tandem incoming registers.

J23258C (AT&TCo Std) — Dial Pulse and Multifrequency Incoming Register Test Unit

Equipment — J23258C-( )

List 2 (A&M Only) — Wiring and equipment per SD-25988-01, Fig. 4 required in addition to list 1 when dial pulse incoming registers are to be tested by this circuit.

List 3 (A&M Only) — Wiring and equipment per SD-25988-01, Fig. 5 (less 145A resistors) required in addition to list 1 when dial pulse incoming registers or CAMA senders are to be tested by this circuit.

List 4 — Assembly, wiring, and equipment per SD-25988-01, Fig. 4 and 5 (less 145A resistors) for one dial pulse and multifrequency incoming register test unit when the incoming register test circuit is used to test any incoming register or transfer register, or when this circuit is required for testing any incoming register and CAMA senders. (See 5.01, 5.07, and Note B.)

List 5 (A&M Only) — Wiring and equipment per SD-25988-01, Fig. 18 and YG option required in addition to list 4 when station dial transfer registers are to be tested, and line identifier is not provided. (See 5.01 and 5.07.)

List 6 — Wiring and equipment per SD-25988-01, Fig. 18 required in addition to list 4 when station dial transfer registers are to be tested and line identifier is provided. (See 5.01 and 5.07.)

Notes

A. Reserved.

B. (A&M Only) When this unit is provided in phase II centrex offices, it shall also be used to test centrex trunks for use with 608A switchboards.

J23258D (AT&TCo Std) — Sender Test Control Unit

Equipment — J23258D-( )

List 2 (A&M Only) — Wiring and equipment per SD-25675-01, Fig.1, T option, required in addition to list 1 where any outgoing sender is required to complete calls on trunks requiring CX pulsing and/or out CX supervision.

List 3 (A&M Only) — Wiring and equipment per SD-25675-01, Fig. 1, Z option required in addition to list 1 where any outgoing sender is required to complete pulse conversion calls of any type and tandem class calls that require pulsing.

List 4 (A&M Only) — Wiring and equipment per SD-25675-01, Fig. 1, W option, required in addition to list 1 where any trunk used for test of any sender has incoming CX or SX supervision.

List 5 (A&M Only) — Wiring and equipment per SD-25675-01, Fig. 1, Y and/or T option (M res only), required in addition to list 1 when MF senders are to be tested when intertoll trunks use CX supervision and/or when list 2 is specified, respectively.

List 6 — Assembly, wiring, and equipment per SD-25675-01, Fig. 1 and T, W, Y, and Z options for one sender test controller unit where sender test circuit is to be used to test DP, RP, MF, PCI, or FSP senders. (See 5.01, 5.04, and 5.08.)

List 8 — Wiring and equipment per SD-25675-01, Fig. 1, ZQ option, required in addition to list 6 where DP senders for line link pulsing are to be tested.

List 9 — Wiring and equipment per SD-25675-01, Fig. 1, ZL, ZW and YC options, required in addition to list 6 when the sender test circuit is equipped with the 4-wire feature.

Note

A. In addition to the foregoing lists, there are options involving wiring only as follows:

1. (A&M Only) — Wiring per SD-25675-01, Fig. 1, S option, required in addition to list 1 where dial pulse senders are not to be tested.

J23258E (AT&TCo Std) — Dial Pulse and Revertive Pulse Counter Unit

Equipment — J23258E-( )

List 1 — Assembly, wiring, and equipment per SD-25675-01, Fig. 2, less options, for one dial pulse and revertive pulse counter unit where sender test circuit is to be used to test DP or RP senders. (See 5.01, 5.03, to 5.06, and 5.08.)

J23258F (AT&TCo Std) — Dial Pulse, Revertive Pulse, and Multifrequency Digit Register Unit

Equipment — J23258F-( )

List 1 — Assembly, wiring, and equipment per SD-25675-01, Fig. 3 for one dial pulse, revertive pulse, and multifrequency

digit register unit where sender test circuit is to be used to test DP, RP, or MF senders. (See 5.01, 5.03 to 5.06, and 5.08.)

J23258G (AT&TCo Std) — Dial Pulse Sender Test Unit

Equipment — J23258G-( )

List 1 — Assembly, wiring, and equipment per SD-25675-01, Fig. 4 for one dial pulse sender unit where sender test circuit is to be used to test DP senders. (See 5.01, 5.03 to 5.06, and 5.08.)

J23258H (AT&TCo Std) — Revertive Pulse Sender Test Unit

Equipment — J23258H-( )

List 1 — Assembly, wiring, and equipment per SD-25675-01, Fig. 5 for one revertive pulse sender test unit where sender test circuit is to be used to test RP senders. (See 5.01, 5.03, to 5.06, and 5.08.)

J23258J (AT&TCo Std) — Multifrequency Sender Test Unit

Equipment — J23258J-( )

List 2 (A&M Only) — Wiring and equipment per SD-25675-01, Fig. 6, Y option, required in addition to list 1 when intertoll trunks use CX supervision.

List 5 — Assembly, wiring, and equipment per SD-25675-01, Fig. 6 and Y option (less ZT and YB apparatus) and Fig. 7 (TR capacitor only) for one multifrequency sender test unit. (See 5.01, 5.04, and 5.08.)

List 6 — Padding resistors per SD-25675-01, Fig. 6, YB option only, required in addition to list 5 where senders operating in class 5 or local tandem offices are to be tested.

List 7 — Padding resistors per SD-25675-01, Fig. 6, ZT option only, required in addition to list 5 where senders operating in combined class 5 and 4 or higher offices are to be tested.

J23258K (AT&TCo Std) — Panel Call Indicator Sender Test Unit

Equipment — J23258K-( )

List 3 (A&M Only) — Wiring and equipment per SD-25675-01, Fig. 9, R option, required in addition to list 1 where sender transmits 3-digit codes.

List 4 (A&M Only) — Wiring and equipment per SD-25675-01, Fig. 9, Q option, required in addition to list 1 where sender transmits 2- and/or 3-digit codes.

List 5 — Assembly, wiring, and equipment per SD-25675-01, Fig. 9 and R and Q options for one panel call indicator sender test unit where sender test circuit is to be used to test panel call indicator senders. (See 5.01, 5.04, and 5.08.)

Note

A. In addition, there are options involving wiring only as follows:

1. (A&M Only) — Wiring per SD-25675-01, Fig. 9, J option, required in addition to list 1 where PCI senders transmit a final heavy positive pulse.

2. (A&M Only) — Wiring per SD-25675-01, Fig. 9, H option, required in addition to list 1 where PCI senders do not transmit a final heavy positive pulse.

J23258L (AT&TCo Std) — Multifrequency Receiver Connector Unit

Equipment — J23258L-( )

List 1 — Assembly, wiring, and equipment per SD-25675-01, Fig. 7, less TR capacitor, for one multifrequency receiver connector unit where sender test circuit is to be used to test MF senders. (See 5.01, 5.03 to 5.06, and 5.08.)

J23258N (AT&TCo Std) — CAMA Sender Test Unit

Equipment — J23258N-( )

List 1 — Assembly, wiring, and equipment per SD-25988-01, Fig. 5 (less 145A resistors) for one CAMA sender test unit when only CAMA senders are to be

tested by this circuit. (See 5.01, 5.09, and Note B.)

Notes

A. Reserved.

B. (A&M Only) When this unit is to be provided in phase II centrex offices, it shall also be used to test centrex trunks for use with 608A switchboards.

J23258P (AT&TCo Std) — FSP Digit Register And Steering Unit

Equipment — J23258P-( )

List 1 — Assembly, wiring, and equipment per SD-25988-01, Fig. 15 for one FSP digit register and steering unit required where FSP incoming registers are to be tested. (See 5.01 and 5.10.)

J23258R (AT&TCo Std) — FSP Test Control and Timing Unit

Equipment — J23258R-( )

List 1 — Assembly, wiring, and equipment per SD-25988-01, Fig. 16 and SD-94820-01, Fig. 2 for one FSP test control and timing unit required where FSP incoming registers are to be tested. (See 5.01 and 5.10.)

J23258S (AT&TCo Std) — FSP Pulse Receiving, Receiver Control and Timer Unit

Equipment — J23258S-( )

List 1 — Assembly, wiring, and equipment per SD-25675-01, Fig. 11 (less AF, AJ, and AK relays) for one FSP pulse receiving, receiver control, and timer unit required where FSP senders are to be tested. (See 5.01 and 5.11.)

J23258T (AT&TCo Std) — FSP Pulse Receiving and Receiver Control Relay Unit

Equipment — J23258T-( )

List 1 — Assembly, wiring, and equipment per SD-25675-01, Fig. 11, AF, AJ, and AK relays only for one FSP pulse receiving and receiver control relay unit required where FSP senders are to be tested. (See 5.01 and 5.11.)

J23258U (AT&TCo Std) — FSP Digit Steering Unit

Equipment — J23258U-( )

List 1 — Assembly, wiring, and equipment per SD-25675-01, Fig. 12 and 14 for one FSP digit steering unit required where FSP senders are to be tested. (See 5.01 and 5.11.)

J23258W (AT&TCo Std) — FSP Digit Matching and Register Unit

Equipment — J23258W-( )

List 1 — Assembly, wiring, and equipment per SD-25675-01, Fig. 13 for one FSP digit matching and register unit required where FSP senders are to be tested. (See 5.01 and 5.11.)

J23258Y (AT&TCo Std) — Transfer Register Identification Control Unit

Equipment — J23258Y-( )

List 1 — Assembly, wiring, and equipment per SD-25988-01, Fig. 20 for one transfer register identification control unit required when dial transfer registers are to be tested and line identifier is provided. (See 5.01 and 5.07.)

J23258AA (AT&TCo Std) — Revertive Pulse Sender Pulsing and Traffic Sampling Test Unit

Equipment — J23258AA-( )

List 1 — Common equipment required when revertive pulse sender pulsing test or traffic sampling test is provided.

List 2 — Wiring and equipment per SD-25675-01, Fig. 10, required in addition to list 1 where sender test circuit is to be used to test revertive pulse senders. (See 5.01, 5.03, 5.06, and 5.08.)

List 3 — Wiring and equipment per SD-25800-01, Fig. 122, required in addition to list 1 when testing of selected trunk group traffic sampling is provided (less keys, lamps and switches). (See Note B.)

List 4 — Wiring and equipment per SD-25800-01, Fig. 77, ZXZ option only, required in addition to list 1 when customer group traffic sampling is provided.

5. GENERAL NOTES

5.01 All wiring between components on a unit except optional wiring which may be connected in the field shall be surface-wired.

5.02 (A&M Only) — All wiring between units of the incoming register test circuit to the associated terminal strips, keys, jacks, lamps, switches, and fuses shall be run in the local cable per J23252A, List 45.

5.03 (A&M Only) — All wiring between units of the sender test circuit (except that covered by 5.04) to the associated terminal strips, keys, jacks, lamps, switches, fuses, and to the master test control circuit shall be run in the local cable per J23252A, List 46.

5.04 All wiring between the multifrequency sender test unit per J23258J and the associated equipment mounted on the recorder bay is run in the control bay local cable to terminal strip MISC J, (Mfr Disc.), or J at the top of the control bay and is covered by J23252A, List 46, (A&M Only), J23252U, List 4 or J23252AJ, List 3. Switchboard cable is used between terminal strip J and unit terminal strips on the multifrequency receiving unit. The 115-volt, ac, 60-cycle power is supplied to the multifrequency receiver connector unit through an armored cable supplied with the unit. It shall be connected per ED-81404-01 to 115-volt, 60-cycle power supply which is fused separately from lighting or convenience outlets. The multifrequency receiving unit on the recorder bay is provided with +130 volt power from the PRTD frame over a wire to its unit terminal strip and with 48 volts and ground from the unit terminal strip to the frame fuse panel.

5.05 (A&M Only) — All keys, lamps, lamp caps and switches included in lists shall be mounted on control bays J23252A as shown on ED-2611-01, Fig. Y.

5.06 (A&M Only) — Key adapters, designation strips, lamp socket and mountings, key spaces, and jack spaces for use in the key and lamp panel in the control bay shall be provided as shown on ED-26611-01, Fig. Y.

5.07 The following wiring and apparatus is specified in J23252U, List 5 (A&M Only) or J23252AJ, List 4.

(a) The local cable shall contain all wiring between units of the incoming register test circuit and the associated terminal strips, keys, jacks, lamps, switches, fuse panel, and ground bar, and all optional wiring which may be connected in the field.

(b) All keys, switches, lamps, and jacks per SD-25988-01.

5.08 The following wiring and apparatus is specified in J23252U, List 4 (A&M Only), or J23252AJ, List 3.

(a) The local cable shall contain all wiring between units of the sender test circuit (except that covered by 5.04) and the associated terminal strips, keys, jacks, lamps, switches, fuse panel, and ground bar, and all optional wiring which may be connected in the field.

(b) All keys, switches, lamps, and jacks, except unit-mounted jacks, per SD-25675-01.

5.09 The following wiring and apparatus is specified in J23252U (A&M Only), List 8, J23252A (A&M Only), List 52, or J23252AJ, List 5.

(a) Local cable for SD-25988-01, Fig. 5 and 8 and Fig. 5 (MF) switch with associated 145-type resistors and Fig. 8 (IRT) jack when this circuit is used only for testing CAMA senders.

5.10 The local cable for SD-25988-01, Fig. 15, 16, and 17 is specified in list 1 of J23252AH. All keys and switches for Fig. 15, 16, and 17 are specified in list 21 of J23252U (A&M Only) or list 11 of J23252AJ.

5.11 The local cable for SD-25675-01, Fig. 11, 12, 13, and 14 is specified in list 1 of J23252AH. All keys and switches for Fig. 11 are specified in list 21 of J23252U (A&M Only) or list 11 of J23252AJ.

List of A&M Only and Mfr Disc. Equipment

The following equipment has been replaced as indicated. Where A&M Only items appear, the issue numbers shown are those of the issue in which the rating was first applied.

EQUIPMENT	RATING	DETAILS LAST SHOWN IN ISSUE	REPLACING EQUIPMENT
J23258A,L1 L2	Mfr Disc.	1	J23258A,L6
L3, & L5	A&M Only	2	—
J23258C,L1 L2	Mfr Disc.	1	J23258C,L4
& L3	A&M Only	2	—
L5	A&M Only	3	J23258C,L6
J23258D,L1 L2	Mfr Disc.	1	J23258D,L6
to L5	A&M Only	2	—
L7	Mfr Disc.	5	J23258D,L9
J23258J,L1	Mfr Disc.	1	J23258J,L5
L2	A&M Only	2	—
L3 & L4	Mfr Disc.	1	J23258J,L5
J23258K,L1	Mfr Disc.	1	J23258K,L5
L2	Mfr Disc.	3	—
L3 & L4	A&M Only	2	—
J23258M	Mfr Disc.	5	J23258AA,L2

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