

**DECODER TEST FRAME  
3-DIGIT OFFICE CODE  
EQUIPMENT DESIGN REQUIREMENTS  
PANEL SYSTEMS**

**1. GENERAL**

**Scope**

1.01 This specification, together with the supplementary information listed herein, covers the equipment design requirements for the decoder test frame arranged for use with decoder equipment in panel offices.

1.02 This specification is reissued to incorporate previous appendix changes.

**Capacity**

1.03 The decoder test frame has a capacity of two decoder groups, each consisting of a maximum of six decoders and 17 connector groups of three connectors each. A decoder group of three capacity connector frames consists of a maximum of 51 connectors. When five capacity connector frames are employed, the five connectors of a frame are treated from a testing standpoint as two groups of three connectors each. Since alternate groups have only two connectors, the capacity of a decoder group in this case is reduced to 43 connectors. A decoder group may serve a combination of these two types of decoder connectors.

**Description**

1.04 The framework is a steel, 2-bay structure of a type generally known as a single-sided frame. It is arranged to line up with the trouble indicator and decoder connector frames with which it is closely associated. The left bay consists of sequence switch equipment and the motor and drive; the right bay contains relay, key, and lamp panel equipment to provide lamp indication of the particular sender, sender frame, connector, and decoder being tested.

1.05 Since the decoder test frame will always be mounted adjacent to the trouble indicator frame, the alarm bell connecting blocks and frame jack equipment are mounted on the trouble indicator frame.

**2. SUPPLEMENTARY INFORMATION**

815-000-000 — Panel Systems Index

AA128.002 — List of Equipment Design Requirements Sections

AA128.006 — List of General Equipment Requirement Sections

Floor Plan Data — Section 4.3 — Sheet 24

**3. DRAWINGS**

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

**Key Sheets — Panel Systems**

SD-21300-01 — Battery on CO Relay Offices

SD-21680-01 — Ground on CO Relay Offices

ES-262532 — 3-digit Sender Selector Type Offices

ES-262829 — 3-digit Rotary Link — Ground on CO Relay Offices

**Framework**

ED-20081-01 — Sequence Switch Frame Details

ED-20087-01 — Relay Casing Assembly

ED-20150-01 — Framework Limits

ED-20509-54 } — Fuse Panel Assembly  
-55 }

ED-20587-01 — Key Casing Assembly

ED-20660-30 — Writing Shelf Assembly

ED-20693-10 — Frame Assembly

ED-20695-10 — Key Panel Assembly

ED-20696-10 — Lamp Panel Assembly

ES-392001 — Baffle Details

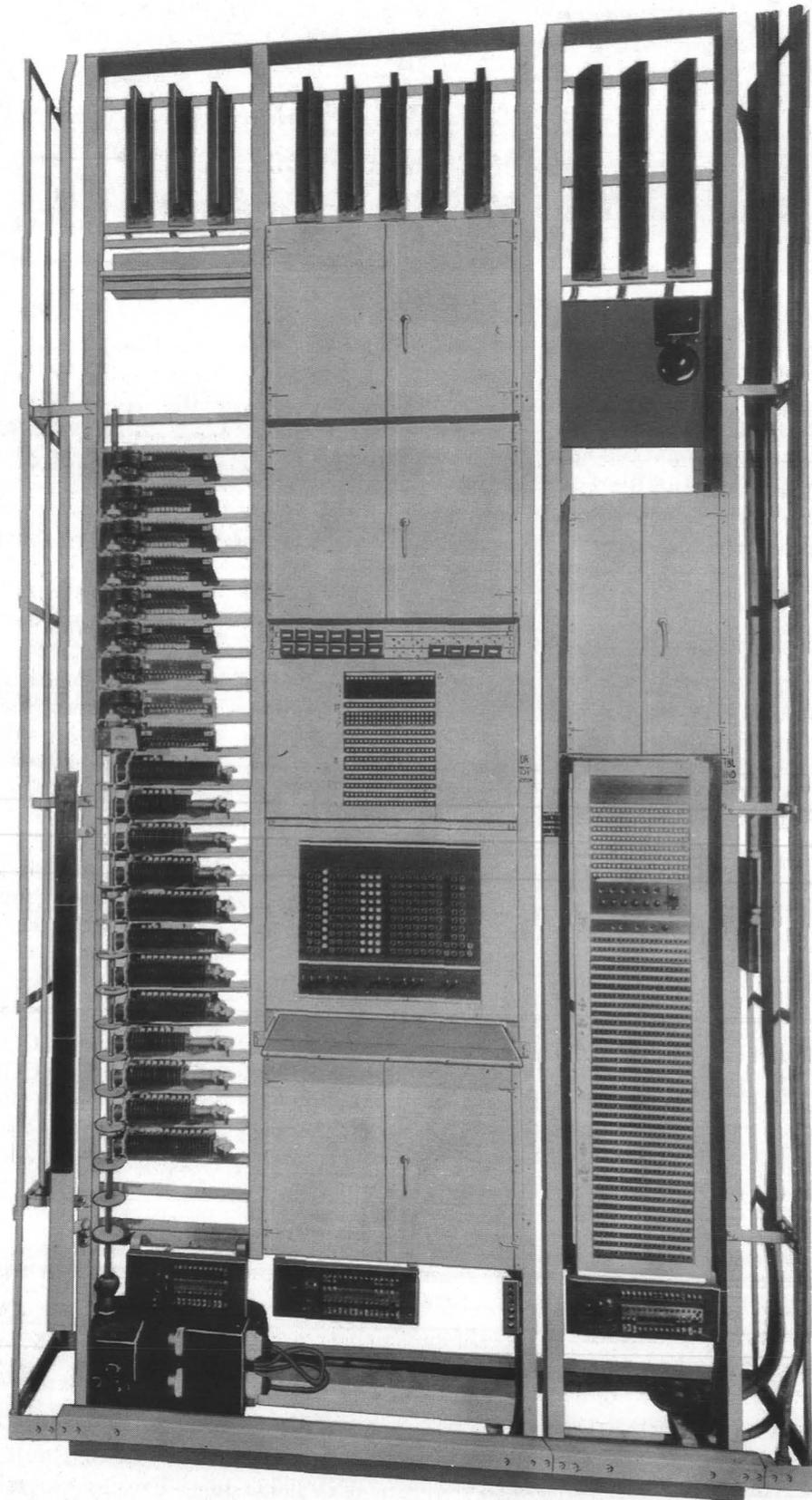


Fig. 1 – Decoder Test Frame With Trouble Indicator Frame Adjacent

**Equipment**

ED-20351-11 — Mounting Plate Equipment  
 ED-20663-01 — Method of Mounting Baffles  
 J23205A-( ) — Frame Equipment

**Wiring and Cabling**

ED-20146-01 — Cabling Schematic for Decoder Equipment — Three Connector Capacity  
 ED-20355-01 — Switchboard Cabling Plan  
 ED-20622-01 — Method of Running and Supporting Frame Battery and Ground Leads  
 ED-20697-01 — Local Cable  
 ED-20857-01 — Cabling Schematic for Decoder Equipment — Five Connector Capacity

**4. EQUIPMENT**

**J23205A (A&M Only) — Decoder Test Frame**

Equipment — J23205A-( )  
 Local Cable — ED-20697-01

**List 1** — Framework, assembly, wiring, and equipment for testing one group of six decoders, less variable equipment.

	WIRE	EQUIP	SEE NOTES
Framework, ED-20693-10, G2		1	
Key Panel, ED-20695-10, G1		1	
Lamp Panel, ED-20696-10, G1		1	
Writing Shelf, ED-20660-30, G1		1	
Key Panel Casing, ED-20587-01, Item 4-L		1	
Relay Casing, ED-20087-01, Item 9-L		2	
Relay Casing, ED-20087-01, Item 35-L		1	
Fuse Panel, ED-20509-54, G2		1	
Fuse Panel, ED-20509-55, G1		1	
Decoder Test Ckt, SD-21188-01	1	1	A,B,&H
Decoder Conn. Ckts, SD-21187-01, SD-21187-02, or SD-21967-01: Lamps and Key, G-0, Fig. 1	1	1	C

	WIRE	EQUIP	SEE NOTES
Connector Lamps, G-0, Fig. 2	51	0	D
Conn. Alm Interrupters, CA-3 and CA-4, Fig. 2	4	1	
Decoder Ckt, SD-21277-01, TM and DB Interrupters each	1	1	
Misc Ckt, SD-21250-01: Dr Tst Fuse Alm, Fig. 1	1	1	E
Dr Conn. Time Alm, Fig. 4	1	1	
Test Frame Time Alm, Fig. 5	1	1	
Dr Fuse Alm, Fig. 6	3	1	E&F
Dr Conn. Fuse Alm, Fig. 7	10	1	E&G
Dr Time Alm, Fig. 8	3	1	F
Common Eqpt, Fig. 9	1	1	
Tbl Ind Alm Int, Fig. 10	1	1	
Motor Stop Alm, Fig. 11	1	1	
Dr Tbl Release Reg, Fig. 18	6	3	

**List 2** — Framework, assembly, wiring and equipment for testing one group of six decoders, with wiring for second group, less variable equipment.

	WIRE	EQUIP	SEE NOTES
Framework, ED-20693-10, G2		1	
Key Panel, ED-20695-10, G1		1	
Lamp Panel, ED-20696-10, G1		1	
Writing Shelf, ED-20660-30, G1		1	
Key Panel Casing, ED-20587-01, Item 4-L		1	
Relay Casings, ED-20087-01, Item 9-L		2	
Relay Casing, ED-20087-01, Item 35-L		1	
Fuse Panel, ED-20509-54, G2		1	
Fuse Panel, ED-20509-55, G1		1	
Decoder Test Ckt, SD-21188-01	1	1	A,B,&H

	WIRE	EQUIP	SEE NOTES		WIRE	EQUIP	SEE NOTES
Decoder Conn. Ckts, SD-21187-01, SD-21187-02 or SD-21967-01: Lamps and Key, Equip G-0, Fig. 1	2	1	C	Fuse Panel, ED-20509-55, G1		1	
Conn. Lamps, Equip G-0, Fig. 2	102	0	D	Decoder Test Ckt, SD-21188-01	1	1	A,B,&H
Conn. Alm Inter- rupters, CA-3 and CA-3, Fig. 2	7	1		Decoder Conn. Ckts, SD-21187-01, SD-21187-02 or SD-21967-01: Lamps & Key, G-0 and G-100, Fig. 1	2	2	C
Decoder Ckt, SD-21277-01: TM and DB Inter- rupters each	1	1		Conn. Lamps, G-0 and G-100, Fig. 2	102	0	D
Misc Ckt, SD-21250-01: Dr Tst Fuse Alm, Fig. 1	1	1	E	Conn. Alm Inter- rupters, CA-3 and CA-4, Fig. 2	7	2	
Dr Conn. Time Alm, Fig. 4	1	1		Decoder Ckt, SD-21277-01, TM and DB Inter- rupters each	1	1	
Test Frame Time Alm, Fig. 5	1	1		Misc Ckt, SD-21250-01: Dr Tst Fuse Alm, Fig. 1	1	1	E
Dr Fuse Alm, Fig. 6	3	1	E&F	Dr Conn. Time Alm, Fig. 4	1	1	
Dr Conn. Fuse Alm, Fig. 7	10	1	E&G	Test Frame Time Alm, Fig. 5	1	1	
Dr Time Alm, Fig. 8	3	1	F	Dr Fuse Alm, Fig. 6	3	1	E&F
Common Eqpt, Fig. 9	1	1		Dr Conn. Fuse Alm, Fig. 7	10	1	E&G
Tbl Ind Alm Int, Fig. 10	1	1		Dr Time Alm, Fig. 8	3	1	F
Motor Stop Alm, Fig. 11	1	1		Common Eqpt, Fig. 9	1	1	
Dr Tbl Release Reg (Equip Drs 1 to 3), Fig. 18	12	3		Tbl Ind Alm Int, Fig. 10	1	1	
				Motor Stop Alm, Fig. 11	1	1	
				Dr Tbl Release Reg (Equip Drs 1 to 3 & 101 to 103), Fig. 18	12	6	

**List 3** — Framework, assembly, wiring, and equipment for testing two groups of six decoders each, less variable equipment.

	WIRE	EQUIP	SEE NOTES
Framework, ED-20693-10, G2		1	
Key Panel, ED-20695-10, G1		1	
Lamp Panel, ED-20696-10, G1		1	
Writing Shelf, ED-20660-30, G1		1	
Key Panel Casing, ED-20587-01, Item 4-L		1	
Relay Casing, ED-20087-01, Item 9-L		2	
Relay Casing, ED-20087-01, Item 35-L		1	
Fuse Panel, ED-20509-54, G2		1	

**List 4** — Wiring and equipment per SD-21188-01, Fig. P, required in addition to list 1, 2, or 3 to arrange the decoder test frame to test decoder equipment that is arranged to work with subscriber senders that handle direct distance dialing calls.

**List 5** — Wiring and equipment per SD-21188-01, Fig. X and AS and AT options required in addition to list 1, 2, or 3 and 4 to provide for testing decoders and decoder connectors arranged for 6-digit translation (sender recycle).

**List 6** — Wiring and equipment per SD-21188-01, Fig. Z and AQ option required in addition to list 5 when the associated decoders are arranged for 6-digit translation (sender recycle) and extended area codes with prefix 1-1.

**List 7** — Wiring and equipment per SD-21188-01, Fig. H, and "AW" option, required in addition to list 5 when part of the decoders associated with this frame are not arranged for 6-digit translation (sender recycle).

**List 8** — Wiring and equipment per SD-21188-01, Fig. J and K, and "AY" option, required in addition to list 1 or 2 when the associated decoders are arranged for prefix 0 special service code and prefix .1 access code operation.

**List 9** — Wiring and equipment per SD-21188-01, Fig. R required in addition to list 8 when Decoder Group 100 is not arranged for prefix 0/1.

**List 10** — Wiring and equipment per SD-21188-01, Fig. S required in addition to list 8 when Decoder Group 0 is not arranged for prefix 0/1.

**Notes**

- A. Optional wiring and equipment for testing decoder groups 0 and 100 shall be furnished in accordance with the lists specified and the ultimate job requirements.
- B. Relay equipment for the translation of zero as a six for either or both second and third digits is not required on new decoder test frames unless there are existing units in the building which require such a translation. This equipment should be furnished for new test frames only when specified by the customer.
- C. Sender lamps A to E, A to F, or A to K for decoder G-0 and G-100 shall be furnished, as required, depending on whether the sender frames associated with the decoder group are five, six, or ten sender capacity frames.
- D. Connector lamps G-0 and G-100, keys, wiring and terminal strip numbering shall be furnished in accordance with equipment drawing ED-20694-10.

E. The decoder test frame aisle pilot and fuse alarm aisle pilot shall be furnished when the decoder test frame is not in a line-up with other frames equipped with similar aisle pilots.

F. The decoder test frame is arranged for decoder fuse and time alarm equipment for a maximum of three decoder line-ups.

G. Provision is made on the decoder test frame for decoder connector fuse alarm equipment for a maximum of ten decoder connector frame line-ups.

H. Provide SD-21188-01, Fig. E when decoders are equipped for diversion of restricted PBX traffic on extra charge calls. Provide Fig. F to cancel this feature for decoder group 0 and Fig. G to cancel it for decoder group 100.

**5. GENERAL NOTES**

**5.01** The decoder test circuit is designed to test decoder circuits by matching one against the other. The first decoder in each decoder group has been assigned as the master decoder for this purpose and is referred to on the equipment and circuit drawings as Decoder 1 and Decoder 101.

**5.02** When the decoder test frame is furnished per list 1 connector sequence switches R1, R2, and R3 and decoder sequence switch R4, shall neither be wired nor equipped. When list 2 is specified, these switches shall be wired but not equipped. When list 3 is specified, these switches shall be wired and connector switch R1 and decoder switch R4 equipped.

**5.03** The following equipment which is mounted on the decoder test frame, is shown on the decoder connector circuits:

Connector Lamps	C
Sender Lamps	S
Test Lamp	T
Battery Key	BAT
Connector Alarm	
Interrupters	CA-3 & CA-4

The decoder time measure and decoder busy interrupters TM and DB are shown on the decoder circuit.

5.04 The decoder test frame tone bar signal alarm shall be located in the office as specified by the telephone company. Where the audible alarms are located on a wall or column, the wiring shall preferably be run in conduit from a cable rack to the group of signals.

5.05 The decoder test frame will always be mounted adjacent to the trouble indicator frame. The connecting blocks and frame jack equipment for the decoder test frame are mounted on the trouble indicator frame.

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