SS-3 ORDER WIRE

GENERAL DESCRIPTION

CONTENTS PAGE

1. GENERAL

1.01 The SS-3 Order Wire System is designed for use with transmission facilities maintenance systems. The Order Wire System provides the circuitry for communicating and signaling on multipoint private line facilities.

1.02 The SS-3 order wire is compatible with centralized maintenance systems which could include many remote locations reporting to a common maintenance center within a large geographic area. A number of separate order wires, which individually serve common locations, may also be included within an order wire system. Dial-up connecting switches are provided to interconnect the separate order wires.

1.03 The equipment at an order wire terminal may consist of a TOUCH-TONE®, 4-wire telephone set, headset, a TOUCH-TONE receiver, SS-3 signaling equipment, a loudspeaker, a 4-wire terminating circuit, and a station circuit. Other equipment will be necessary at locations where order wire connecting switches and/or additional station sets are desired.

1.04 The SS-3 order wire will operate with any 4-wire, voice-frequency facility. A 4-way, 4-wire bridge is provided for connecting to through facilities while a 359-type equalizer is provided for terminating facilities. Repeaters and amplifiers may be used, as required, with the bridge and equalizer to ensure that the circuit interfaces the connecting facilities at the proper transmitting and receiving levels.

1.05 Standard TOUCH-TONE frequencies are used to provide the required 3-digit codes for signaling between stations and/or for dialing cut-through switches which may interconnect up to six 4-wire lines for conferencing.

1.06 The order wire terminating circuit permits the connection of up to 20 station circuits at a single location. The circuitry also provides for sidetone and local conferencing.

2. METHOD OF OPERATION

2.01 To initiate a call at an SS-3 order wire station, the originator goes off-hook by lifting the handset, plugging in a head telephone set, or operating a pickup key. The 3-digit code assigned to the called station is keyed on a standard TOUCH-TONE dial by the originator. A maximum of 2.75 seconds is allowed between digits when dialing the code sequence. If this interval is exceeded, the equipment resets and the 3-digit code must be redialed.

2.02 The signals are transmitted over the 4-wire facility to each TOUCH-TONE receiver at all locations within the system. The receivers convert the signals to dc pulses for decoding by the SS-3 logic. When a valid station code is received at a location, a 100 ms ground pulse is placed on the appropriate code lead to the corresponding station circuit. When an invalid code is received, the SS-3 logic does not react. A valid code is established by local strapping.

2.03 The ground pulse to the station circuit provides contact closures to activate audible and/or visual signals. The signals will continue until the call is answered or until a 3-minute interval has elapsed. The call may be answered by lifting the handset, plugging in a head telephone set, or operating a pickup key.

2.04 The procedure previously described also applies when dialing group codes, alert codes, or switch codes. Only the end result is different. A station code signals a single station. A group code may signal any number of locations and up to 20 stations at each location. The alert code may activate an additional ringer or alarm in the event the normal station code is not answered. The switch code may connect one order wire to another, or may be used to operate a remote circuit.

2.05 Once the called station is off-hook, the originator may recall the station, as required, by signaling the same code. The recall signal may be cancelled at the called station by flashing the line switch, removing and reinserting the head telephone jack, or releasing and reoperating the pickup key. If not cancelled, the recall signal will time out after a 3-minute interval.

2.06 Voice signaling may also be used by the call originator, when desired. The circuit may be optionally wired so that the loudspeaker is muted when the station is off-hook or for operation independent of station equipment.

2.07 To signal a station on another order wire, an interline switch code must be dialed to connect the two lines. After the lines are connected, the station code assigned to the called station is dialed in the same manner as a single-line call.

2.08 When the call is completed, a disconnect code must be dialed by one of the stations connected to the interline switch to restore the system to normal. The disconnect code will open ***all*** line connections to the switch.

> ***Note:*** For systems where three or more lines are arranged for interconnection, it may be necessary to signal a control station prior to attempting an interline call. The control station is equipped with a visual indication of the switch status to prevent connecting to a busy line.

3. EQUIPMENT DESCRIPTION

3.01 The SS-3 order wire equipment is made up using 2- by 23-inch panels suitable for mounting on a relay rack or in a wall-mounted cabinet. The panels include amplifiers, jacks, terminal strips, and plug-in AR-type circuit packs consisting of relays and integrated logic circuits.

3.02 The mounting panels are coded from two basic J specifications and are selected to fit the needs of the system at each location. The J1G027 specification includes all available SS-3 selective signaling equipment. The J1G032 covers the equipment specifically designed for the SS-3 order wire.

3.03 The order wire installations may be either single line or multiline, with or without a station(s). There will normally be three types of single line installations at a location; (1) single line with a single station, (2) single line without stations, or (3) single line with multistations.

3.04 The multiline installations may consist of from two to six lines with each line being one of the three single line-types at a location.

3.05 Two factory packaged units J1G032A, L1 and L2 (Fig. 1) are available to provide the signaling and the 4-wire termination required by an SS-3 order wire. The units are designed for single line-single station installations, however, the units may form the basic component of multiline and/or multistation installations. The two units are not interchangeable but differ only in that the L1 provides a connector for mounting a 359-type equalizer in the receive loop of a terminated facility, and the L2 provides a 4-way, 4-wire bridge network in the same connector for use when connecting to a through facility.

Note: The 359-type equalizer ***must be ordered separately*** for use with the J1G032A, L1 unit.

3.06 Each order wire will operate with any 4-wire, voice-frequency carrier (CXR) or metallic (MET.) facility. The circuit is designed to interface with a through facility at the standard −16 TLP transmitting and +7 TLP receiving levels, and with a terminating facility at any reasonable transmission levels. Figure 2 shows various combinations of equipment arrangements and typical transmission interfaces for a single order wire.

SINGLE LINE INSTALLATIONS

A. Single Line-Single Station

3.07 A single line order wire installation will normally include an associated station. The two factory-wired units J1G032A, L1 and L2 are assembled for this requirement. The units consist of the equipment listed in Table A, and the three 2- by 23-inch panels mount as shown in Fig. 3.

3.08 The top panel of the factory-wired units (Fig. 3) is a C-3 TOUCH-TONE receiver (J58844C, L1). The center panel is the SS-3 basic location unit (J1G027A, L5) which provides the connectors for AR537 (J1G027A, L2) and for either AR539 (four codes, J1G032A, L3) or AR540 (eight codes, J1G032A, L4) circuit packs. The lower panel (J1G032B, L1 or L2) contains the terminating and station circuits for the order wire application. There are two versions of the lower panel. One provides for the equalizer (L1) and the other provides the 4-way bridge network (L2). Both versions include transmit and receive amplifiers, test jacks for line up, low impedance bus transformers, and an AR706 station circuit pack. A block diagram of the single line-single station unit and telephone set is shown in Fig. 4.

3.09 The AR706 station circuit pack, which plugs into the lower panel, provides the logic for the signaling and remote control functions, the talk battery feed circuits for one telephone and/or one headset transmitter, and pick up relays for connecting the station to the low impedance buses of the terminating circuit.

B. Single Line Without Stations

3.10 An order wire, without associated stations, may appear at a location to provide a remote control function. This arrangement would permit locally designed equipment to respond to a pulse on an SS-3 code lead. A C-3 TOUCH-TONE receiver and an SS-3 basic location unit must be provided to receive and decode the 3-digit signal. Refer to Table C for the complete list of SS-3 equipment

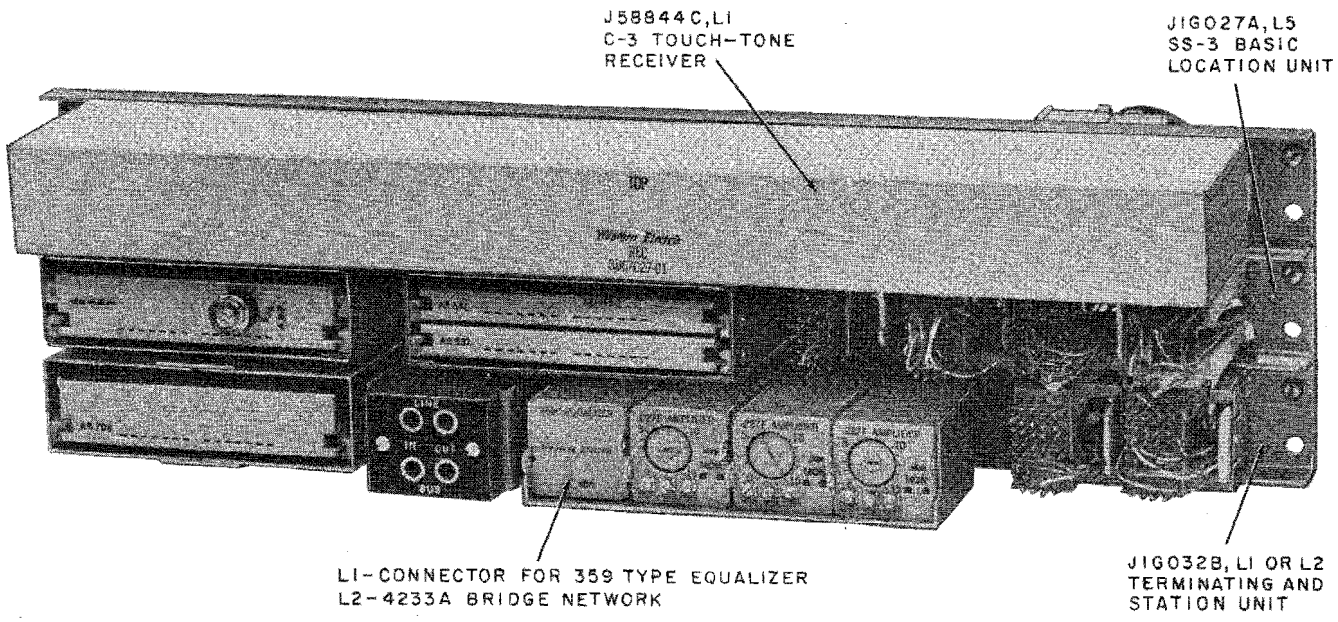


Fig. 1—Single Line-Single Station Packaged Units J1G032A, L1 or L2

that must be ordered separately and assembled at the location.

C. Single Line-Multiple Stations

3.11 When desired, additional stations may be connected to an order wire at a single location. A separate AR706 station circuit pack is required for the basic station and each additional station having a distinct station code. The station circuit for the basic station is provided by one of the two factory-wired units (J1G032A, L1 or L2). The additional circuit packs are provided by dual station units J1G032C, L1. The 2- by 23-inch panel comes equipped with one AR706 circuit pack and a connector for installing the second one. The second AR706 circuit pack is provided as J1G032C, L2. Refer to Table D for the number of units and station circuits required for each additional station(s). Each location is limited to a maximum of 20 stations.

3.12 When the total number of codes at any location exceeds eight, an SS-3 auxiliary code unit J1G027B, L1 must be provided. The unit is a 2- by 23-inch panel equipped with two connectors for installing AR539 or AR540 circuit packs. This permits the code capability to grow in steps of 4 to a maximum of 24 at any location. Refer to Table B for the circuit packs required for a specific code assignment and the equipment connector into which each mounts. A typical equipment arrangement for a multiple station installation requiring more than eight codes is shown in Fig. 5.

MULTIPLE LINE INSTALLATIONS

3.13 More than one order wire may appear or terminate at any one location. The order wires may be accessed by a standard 6-button, 2-wire/4-wire telephone set, or through dial up switches whereby from two to six lines may be connected together.

3.14 Equipment required for multiple line installations will vary depending on whether stations and dial up switches are to be associated with the order wires. However, it is recommended that a TOUCH-TONE receiver (J58844C, L1), an SS-3 basic location unit (J1G027A, L5), and an AR537 circuit pack (J1G027A, L2) be provided for each order wire appearing at a location. This is to prevent the mutilation of the code digit signals at a shared receiver when simultaneous dialing is performed on two order wires.

3.15 Two types of order wire switching is available. One is a 2-line cut-through arrangement and the other is a 6-way 4-wire bridge. Both types provide connecting relays which enable a station on one line to connect to any or all of the other lines and signal through the switch. A 3-digit SS-3 code is required to connect or disconnect the arrangement between the order wires.

A. Multiple Line-Single Station

3.16 A number of order wires may appear at a common location. When there is no need to interconnect the order wires, access to each may be provided by a single telephone set. A 323A terminal strip may be used to provide spare terminals for connecting standard key and lamp apparatus as required. The equipment for each order wire appearance is the same as for a single line-single station installation (Table A and Fig. 3). A block diagram of a multiple line-single station installation is shown in Fig. 6 using an auxiliary key and a modified 2554B telephone set. The 6-button, 2-wire/4-wire telephone set 2568HAA may also be used in the multiple line-single station installation.

B. 2-Line Cut-Through Installation

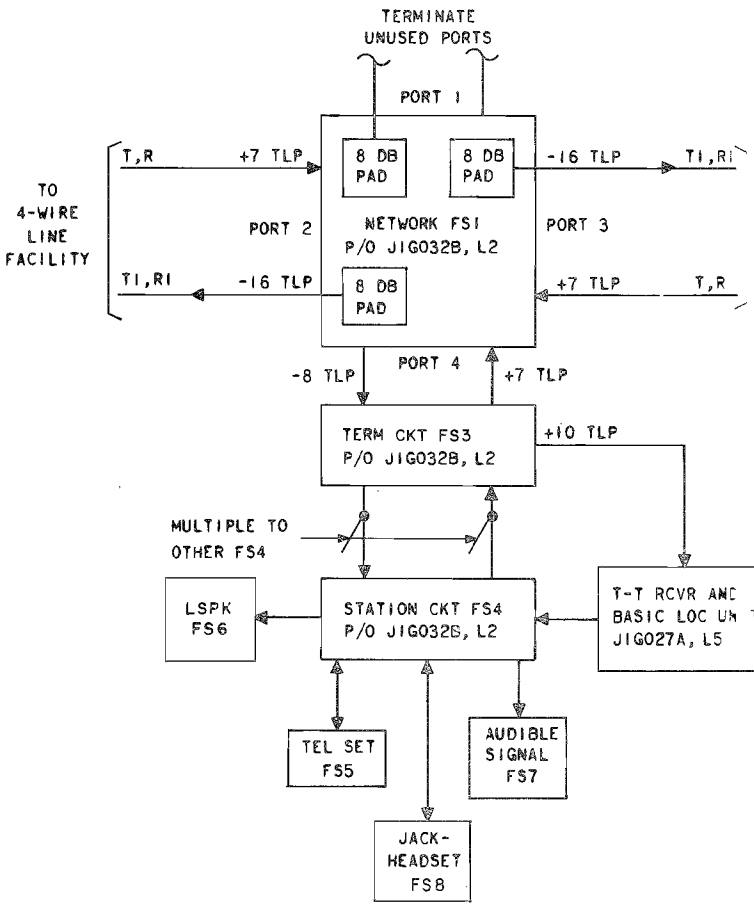
3.17 Two separate order wires may be connected together through a dial-up cut-through switch. This arrangement permits a station on one line, after dialing the code for the cut-through switch, to signal and connect to any station on the other line.

3.18 To provide this connecting feature, a 2-line cut-through unit J1G027H, L1 must be provided plus the equipment associated with each of the two lines.

3.19 The cut-through unit is a 2- by 23-inch panel equipped with an AR708 circuit pack to perform the connect and disconnect functions, test jacks for transmission lineup, step up transformer for connecting a TOUCH-TONE receiver (for lines without stations), and two connectors for accepting 227-type amplifiers or 849C networks.

3.20 The 2-line installation may include lines with or without associated stations or a combination

SINGLE OR MULTIPLE LOCAL STATION OFF
MAIN 4-WIRE LINE FACILITY



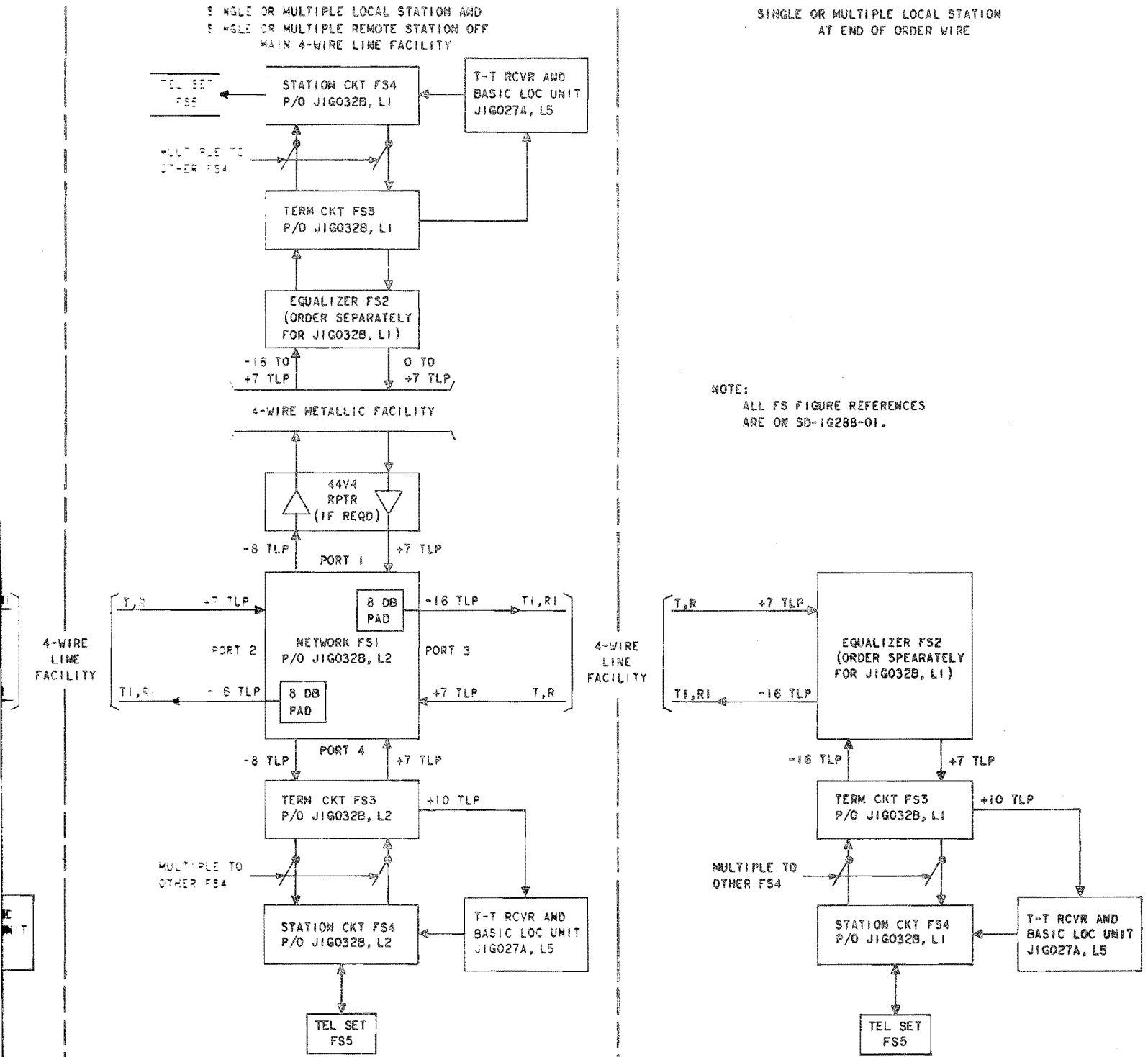


Fig. 2—Typical Equipment Combinations and Transmission Interfaces for Single Order Wire

TABLE A

EQUIPMENT PROVIDED WITH SINGLE LINE – SINGLE STATION PACKAGED UNITS J1G032A, L1 AND J1G032A, L2

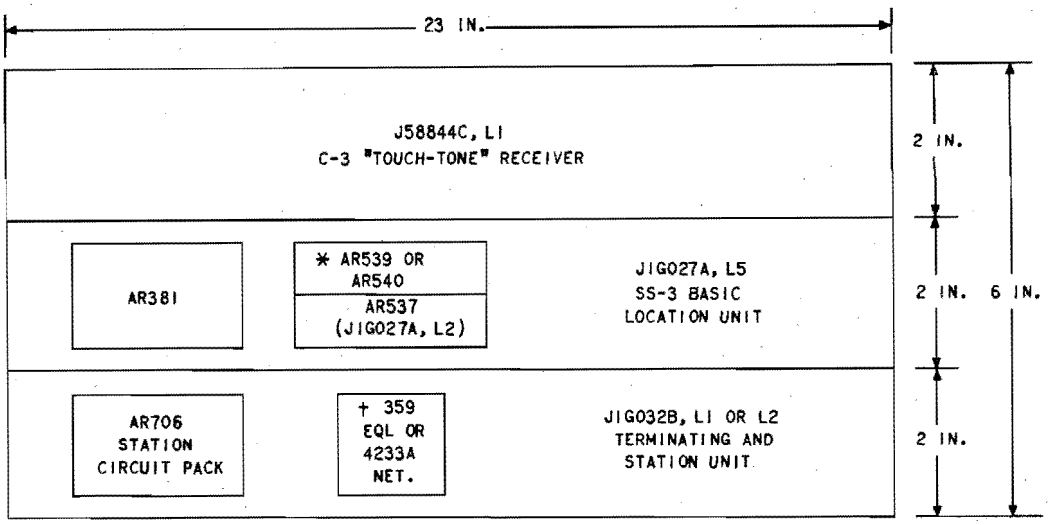
EQUIPMENT		J1G032A, L1 PACKAGED UNIT (PROVIDES FOR EQUALIZER)	J1G032A, L2 PACKAGED UNIT (PROVIDES 4-WIRE BRIDGE)
UNIT	TITLE		
J58844C, L1	C-3 TOUCH-TONE Receiver	•	•
J1G027A, L5	SS-3 Basic Location Unit	•	•
J1G027A, L2	AR537 Circuit Pack	•	•
J1G032B, L1	Terminating and Station Unit (Provides for equalizer)	•	
J1G032B, L2	Terminating and Station Unit (Provides 4-wire bridge)		•
J1G032A, L3	AR539 Station Code Circuit Pack (4 codes)	*	*
Or			
J1G032A, L4	AR540 Station Code Circuit Pack (8 codes)		

* Provide as required one J1G032A, L3 or L4 Circuit Pack with J1G032A, L1 or L2. When more than eight codes are desired, refer to Table B for additional equipment.

TABLE B

CIRCUIT PACKS REQUIRED FOR CODE ASSIGNMENT

CODES	INSTALL CIRCUIT PACKS INTO EQUIPMENT CONNECTORS		
	J2 ON J1G027A, L5	J1A ON J1G027B, L1	J2A ON J1G027B, L1
1-4	J1G032B, L3 (AR539)		
5-8	J1G032B, L4 (AR540)		
9-12	J1G032B, L4 (AR540)	J1G027B, L2 (AR539)	
13-16	J1G032B, L4 (AR540)	J1G027B, L3 (AR540)	
17-20	J1G032B, L4 (AR540)	J1G027B, L3 (AR540)	J1G027B, L2 (AR539)
21-24	J1G032B, L4 (AR540)	J1G027B, L3 (AR540)	J1G027B, L3 (AR540)



* PROVIDE AS REQUIRED ONE J1G032A, L3 (AR539- 4 CODES) OR J1G032A, L4 (AR540- 8 CODES) WITH J1G032A, L1 OR L2. WHEN MORE THAN EIGHT CODES ARE DESIRED, REFER TO TABLE B FOR ADDITIONAL EQUIPMENT.

† WHEN J1G032B, L1 IS PROVIDED, 359-TYPE EQUALIZER MUST BE ORDERED SEPARATELY. NETWORK 4233A IS PROVIDED WITH J1G032B, L2.

Fig. 3—Equipment Arrangement for J1G032A, L1 or L2 Packaged Units

of the two. Table E lists the common equipment plus the equipment required for each line. Figure 7 shows the equipment arrangement of a 2-line cut-through installation with a station associated with one of the lines. A block diagram of the cut-through unit and the various combinations of lines is shown in Fig. 8, 9, and 10.

C. 6-Line Cut-Through Installation

3.21 When it is necessary to connect more than two order wires, a cut-through unit is available for connecting up to six lines. Additional equipment required will vary depending on whether stations are to be associated with the lines.

3.22 The 6-line cut-through unit J1G027J, L1 provides the common functions for the location. The unit is a 2- by 23-inch panel equipped with two circuit packs, AR709 and AR710, and test jacks for transmission line-up. The AR709 unit provides a 6-way 4-wire bridge, and the relays for making the line connections. The AR710 unit provides transformers for connecting to TOUCH-TONE receivers (for lines without associated stations) and includes fixed 3 dB pads to ensure proper total loss within the circuit.

3.23 One AR711 circuit pack must be provided with each line associated with the 6-line switch. The unit provides the logic to recognize a valid cut-through code and operate the connecting relays for both the calling and called lines.

3.24 For lines without associated stations, the AR711 unit (J1G027A, L6) plugs into the same connector as the AR539 or AR540 on the SS-3 basic location unit (J1G027A, L5). For lines with associated stations, a 2- by 23-inch panel unit J1G027K, L1 must be provided. The 6-line cut-through code unit provides the AR711 circuit pack, two 227F amplifiers, and test jacks for transmission line-up. The amplifiers are required to provide proper levels at the input of the 4-way bridge (4233A network) and the 6-way bridge of the connecting circuit.

3.25 Table F lists the equipment required for lines with stations, for lines without stations, and equipment common to the connecting circuit. Fig. 11 shows the equipment arrangement for only two lines, one without stations and one with stations. One of the two groups of equipment must be provided for each line connecting to the circuit. A

block diagram of a 2- to 6-line cut-through installation is shown in Fig. 12.

4. POWER REQUIREMENTS

4.01 An order wire system requires the three power sources listed in Table G. When the supplies are not available at a location, the J1G032D, L1 power supply unit (ordered separately) may be provided. The unit consists of a KS-20575, L1 rectifier mounted on a 7- by 23-inch panel. Space is also provided for mounting additional units when required, such as a ringing generator and interrupter.

4.02 The J1G032D, L2 filter, or equivalent, is used to provide the −24V A supply from the −24V B supply of the rectifier. The filter should be used in the −24V A supply of any source that does not meet a noise requirement of 24 dBrnc.

4.03 The L2 filter is arranged to mount on the panel with the rectifier, or when necessary, on a wooden backboard.

5. SIGNALING

5.01 The SS-3 order wire systems provide for 3-digit TOUCH-TONE code signaling and optional voice signaling. There are 648 codes available for use by each system with the following restrictions:

- First digits cannot contain a 1 or 5.
- The middle digit must not be the same as the first or third digits.
- The first two digits of a group code should be 36.

5.02 Only two hundreds digits, four tens digits, and ten units digits may be used to make up the 24 code maximum that may be assigned at each location.

5.03 The 3-digit codes may be assigned to signal single stations or groups of stations, to connect and disconnect separate order wires, or to remotely control locally designed equipment.

5.04 All codes generated within the system are received at each location. The terminating equipment, however, will only react to a valid code which has been properly connected in the cross-connect field.

6. RELATED INFORMATION

SECTION OR DRAWING	TITLE
CD- & SD-67027-01	PBX Systems TOUCH-TONE Calling Receiving Circuit Type C
CD- & SD-1G265-01	Private Service Systems SS-3 TOUCH-TONE Selective Signaling System
CD- & SD-1G288-01	Private Service Systems SS-3 Order Wire
332-434-100	4233A Network Description
480-625-210	SS-3 Selective Signaling System, Identification, Installation, Connections, Operational Tests
811-019-150	SS-3 TOUCH-TONE Selective Signaling System—Equipment Design Requirements—Private Service Systems
982-328-100	SS-3 TOUCH-TONE Selective Signaling System—General Description
480-630-210	SS-3 Order Wire, Initial Line Up, Tests, and Maintenance
811-019-153	SS-3 Order Wire Equipment Design Requirements.

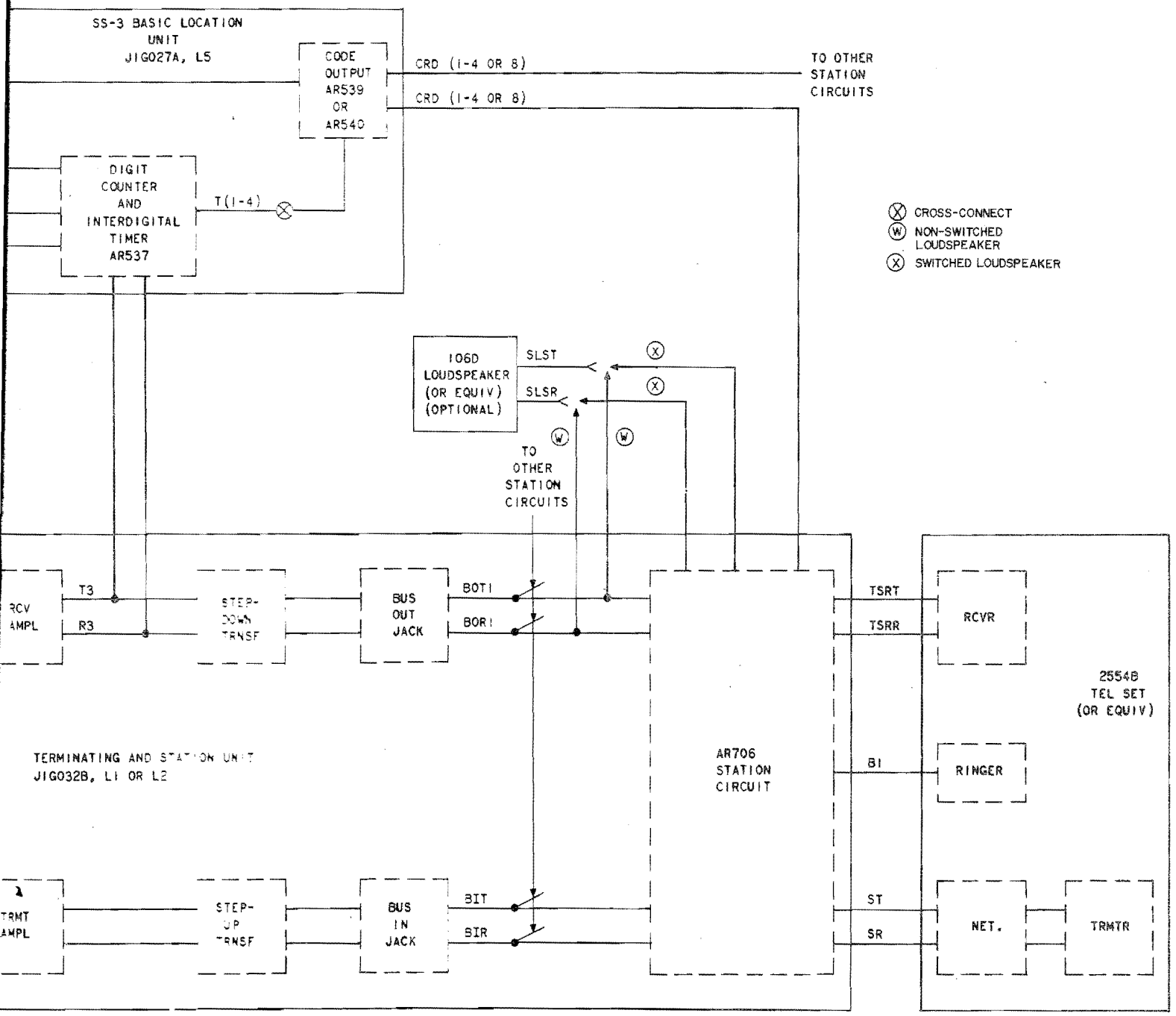
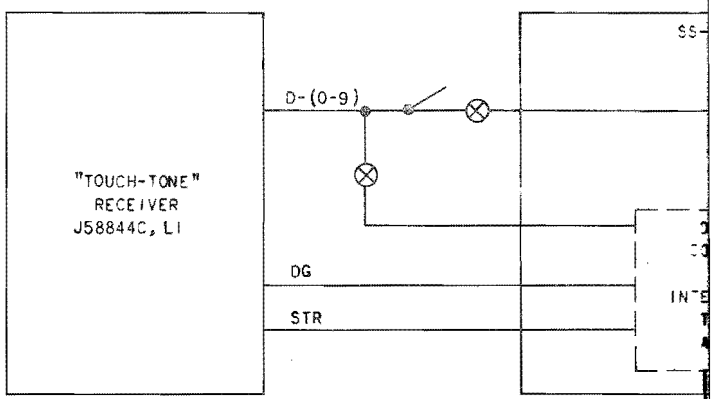


Fig. 4—Block Diagram of Single Line-Single Station Units


"TOUCH-TONE"
RECEIVER
J58844C, L1
D-(0-9)
DG
STR

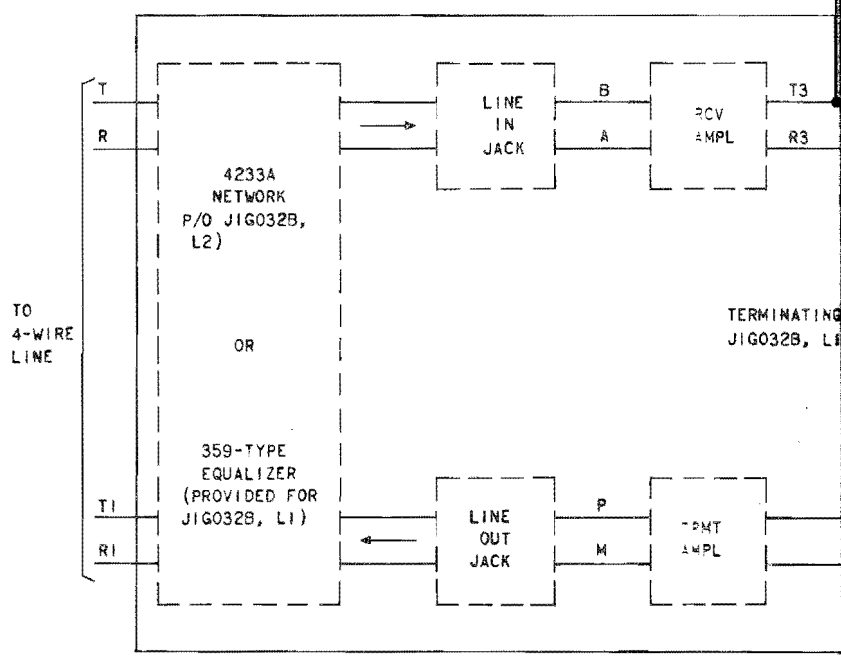

T
R
4233A
NETWORK
P/O J1G032B,
L2)
OR
359-TYPE
EQUALIZER
(PROVIDED FOR
J1G032B, L1)
TO
4-WIRE
LINE
T1
R1
LINE
IN
JACK
B
A
RCV
AMPL
T3
R3
LINE
OUT
JACK
P
M

TABLE C

EQUIPMENT REQUIRED FOR
SINGLE LINE WITHOUT STATIONS

QUANTITY	UNIT	TITLE
1	J58844C, L1	C-3 TOUCH-TONE Receiver
1	J1G027A, L5	SS-3 Basic Location Unit
1	J1G027A, L2	AR537 Circuit Pack
*	J1G027A, L3	AR539 Station Code Circuit Pack (4 codes)
	Or	
	J1G027A, L4	AR540 Station Code Circuit Pack (8 codes)

* Provide as required one J1G027A, L3 or L4 Circuit Pack with J1G027A, L5.

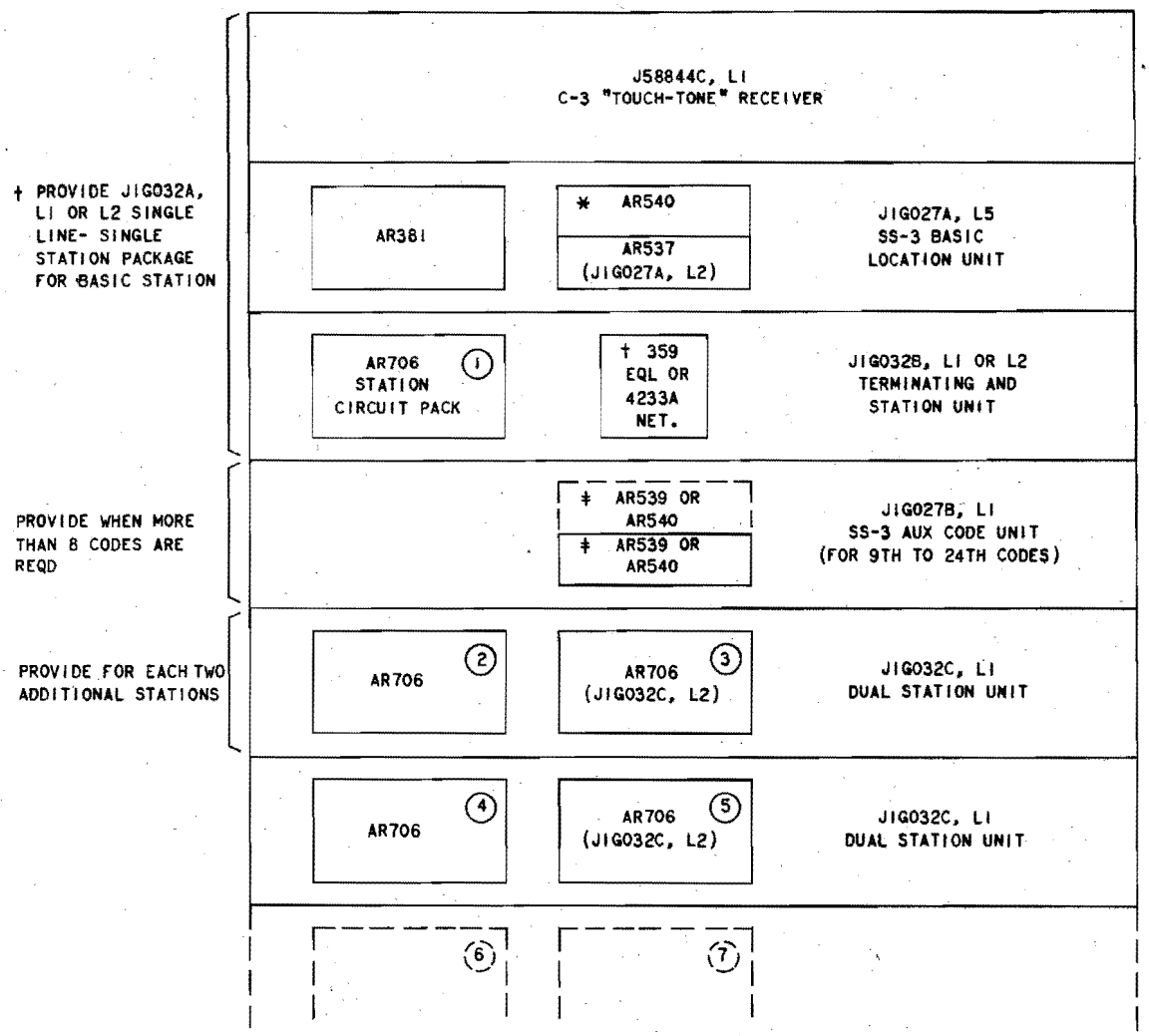
TABLE D

EQUIPMENT AND QUANTITIES REQUIRED
FOR ADDITIONAL STATIONS

TOTAL NUMBER OF ADDITIONAL STATIONS	J1G032C, L1	*J1G032C, L2 (AR706)
1	1	
2	1	1
3	2	1
4	2	2
5	3	2
6	3	3
†	†	†

* Unit(s) plugs in J2 on J1G032C, L1 panel(s).

† Continue to alternately provide another L1 and then another L2 for each additional station until maximum of 20.

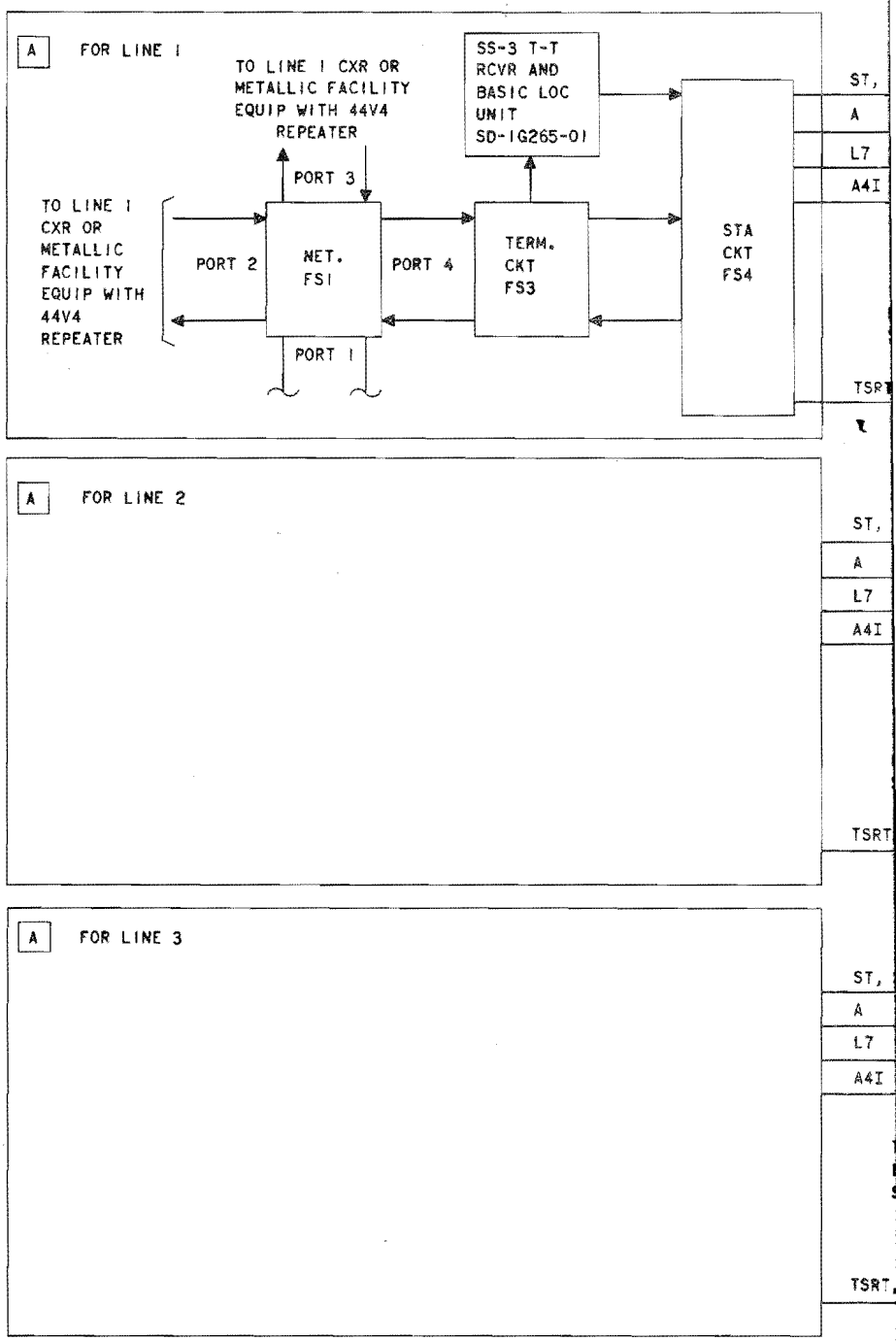


* PROVIDE J1G032A, L4 CIRCUIT PACK (AR540- 8 CODES) WITH EITHER J1G032A, L1 OR L2.

† WHEN J1G032A, L1 IS PROVIDED, 359-TYPE EQUALIZER MUST BE ORDERED SEPARATELY. THE NETWORK IS PROVIDED WITH J1G032A, L2.

‡ PROVIDE J1G027B, L2 (AR539- 4 CODES) OR J1G027B, L3 (AR540- 8 CODES) CIRCUIT PACK FOR EITHER OR BOTH CONNECTORS AS REQUIRED. REFER TO TABLE B.

Fig. 5—Typical Equipment Arrangement for Multiple Station Installation


A
FOR LINE 1
TO LINE 1 CXR OR METALLIC FACILITY EQUIP WITH 44V4 REPEATER
SS-3 T-T RCVR AND BASIC LOC UNIT SD-1G265-01
PORT 3
TO LINE 1 CXR OR METALLIC FACILITY EQUIP WITH 44V4 REPEATER
PORT 2
NET. FS1
PORT 4
TERM. CKT FS3
STA CKT FS4
PORT 1
ST,
A
L7
A4I
TSRT
A
FOR LINE 2
ST,
A
L7
A4I
TSRT
A
FOR LINE 3
ST,
A
L7
A4I
TSRT,

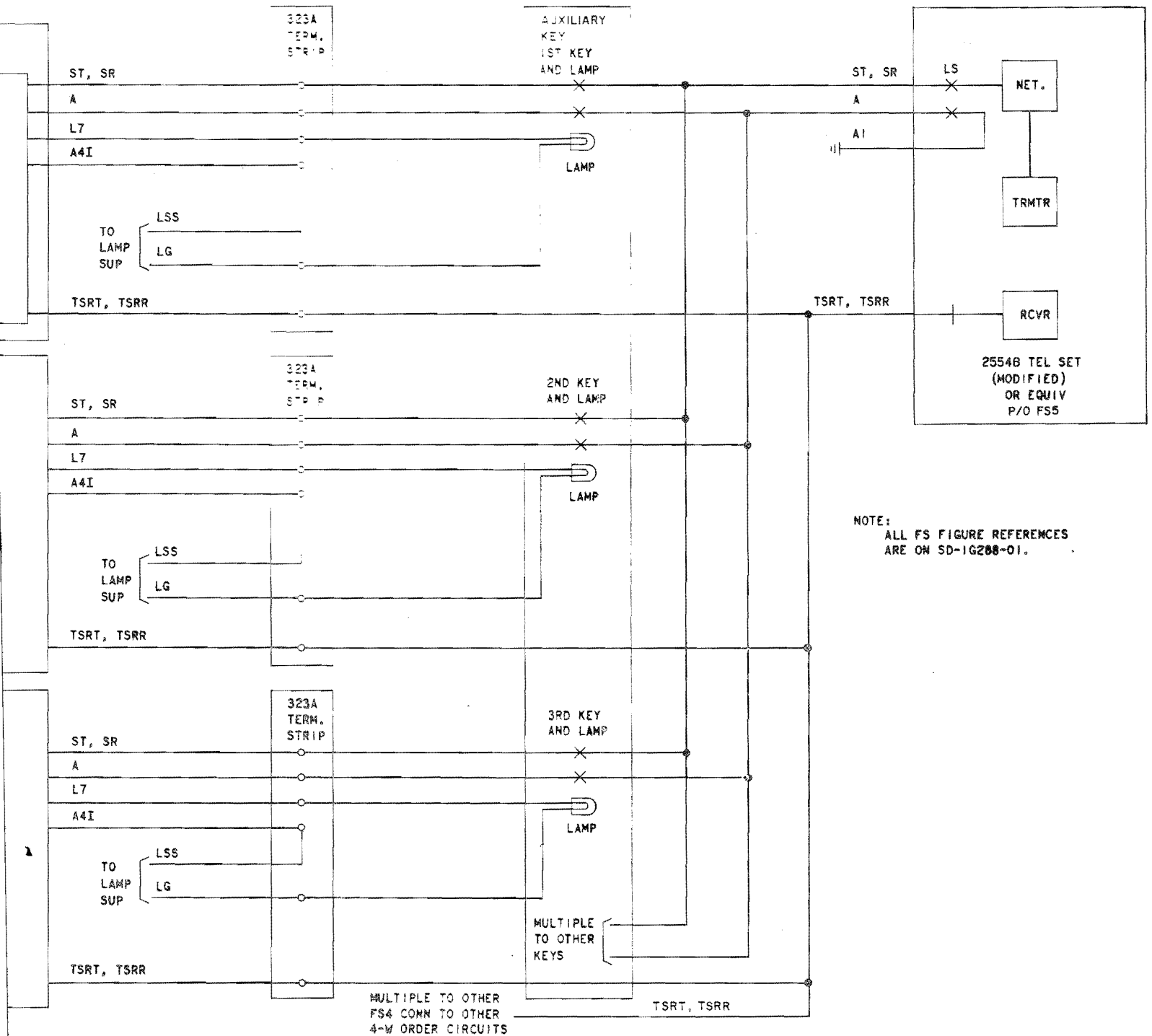


Fig. 6—Block Diagram of Multiple Line-Single Station Arrangement

TABLE E

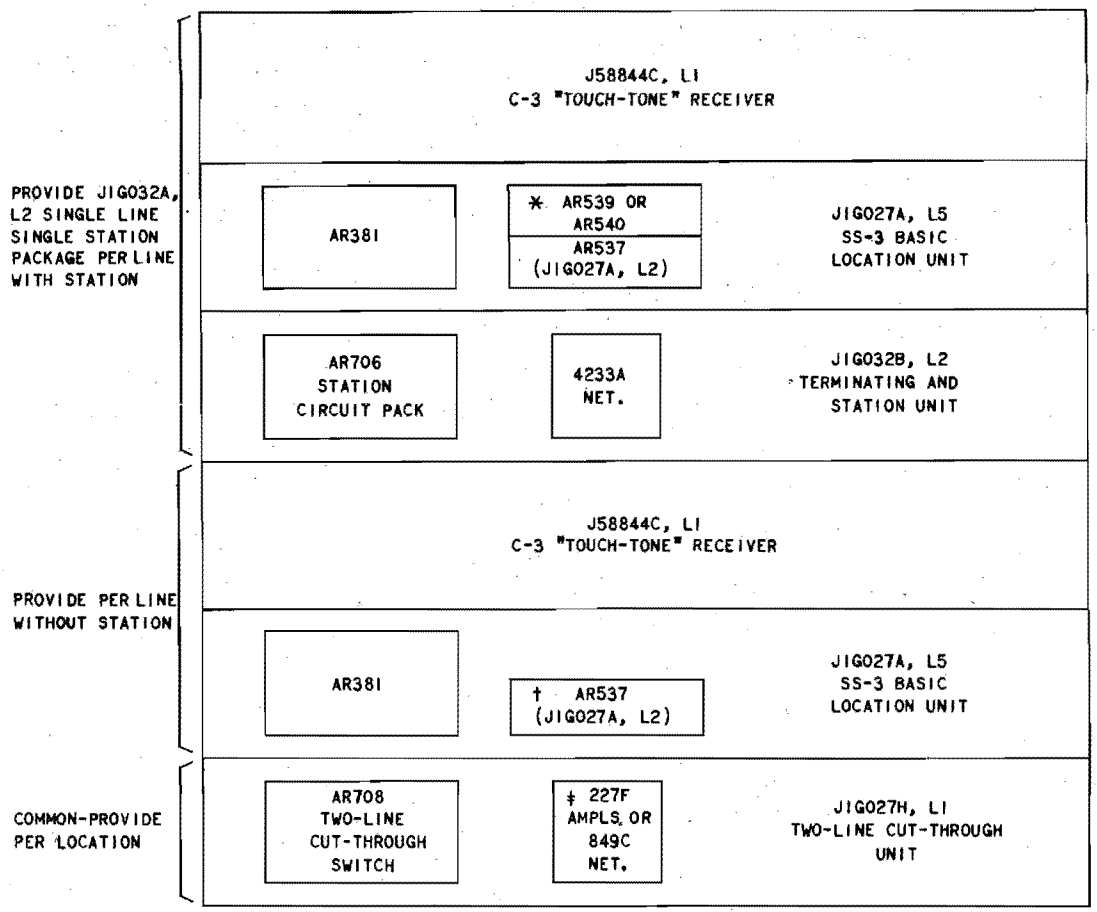
EQUIPMENT REQUIRED FOR 2-LINE
CUT-THROUGH SWITCH INSTALLATION

EQUIPMENT		*LINE WITH STATION	LINE WITHOUT STATION	COMMON (PROVIDE PER LOCATION)
UNIT	TITLE			
J1G032A, L2	Package Unit (Provides 4-wire bridge)	•		
J58844C, L1	C-3 TOUCH-TONE Receiver		•	
J1G027A, L5	SS-3 Basic Location Unit		•	
J1G027A, L2	AR537 Circuit Pack		•	
J1G032B, L2	Terminating and Station Unit (Provides 4-wire bridge)			
J1G032A, L3	AR539 Station Code Circuit Pack (4 codes)	†		
Or				
J1G032A, L4	AR540 Station Code Circuit Pack (8 codes)			
J1G027H, L1	2-Line Cut-Through Unit			•
J1G027H, L2	227F Amplifiers (2)			‡
Or				
J1G027H, L3	849C Network (2)			

* When more than one station is required at a location, refer to Table D for additional equipment.

† Provide as required one J1G032A, L3 or L4 Circuit Pack with J1G032A, L2. When more than eight codes are desired, refer to Table B for additional equipment.

‡ Provide J1G027H, L2 amplifiers only when stations are associated with both lines; otherwise, provide J1G027H, L3 networks. Order separately 89-type resistors for use with networks.



* PROVIDE AS REQUIRED ONE JIG032A, L3 (AR539 - 4 CODES) OR JIG032A, L4 (AR540 - 8 CODES) WITH JIG032A, L2. WHEN MORE THAN EIGHT CODES ARE DESIRED, REFER TO TABLE B FOR ADDITIONAL EQUIPMENT.

† PROVIDE ONE JIG027A, L2 (AR537) CIRCUIT PACK IN ADDITION TO JIG027A, L5.

‡ PROVIDE JIG027H, L2 (227F) AMPLIFIERS ONLY WHEN STATIONS ARE ASSOCIATED WITH BOTH LINES - OTHERWISE, PROVIDE JIG027H, L3 (849C) NETWORKS. ORDER SEPARATELY 89-TYPE RESISTORS FOR USE WITH NETWORKS.

Fig. 7—Typical Equipment Arrangement for 2-Line Cut-Through Installation

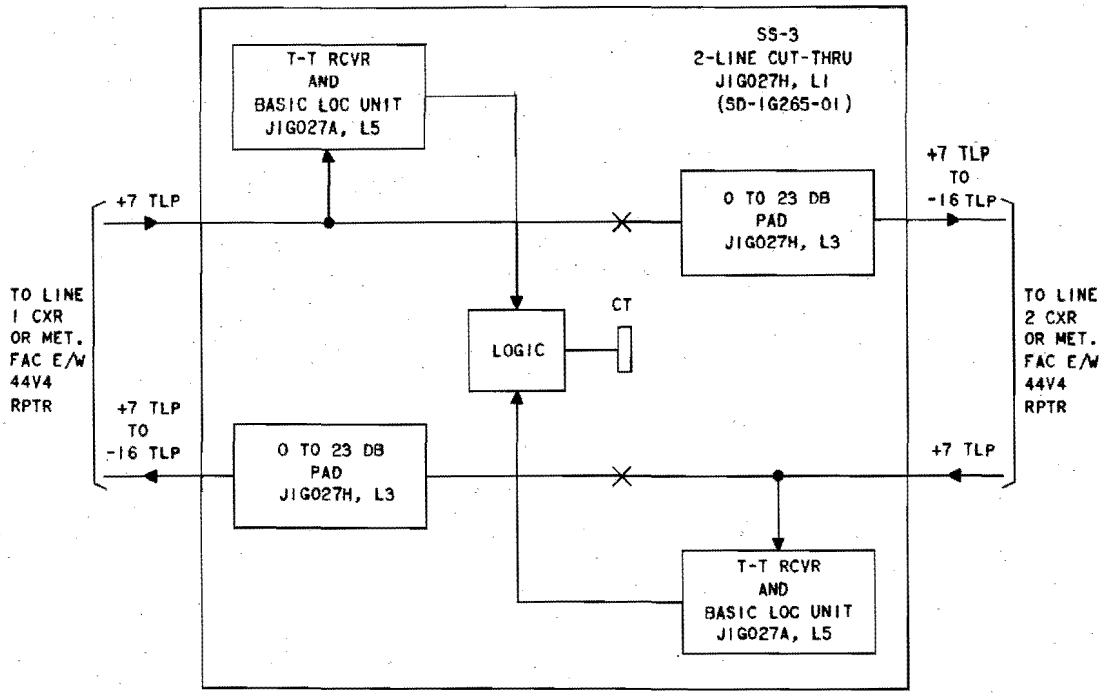


Fig. 8—2-Line Cut-Through Switch Installation—Without Terminating and Station Equipment

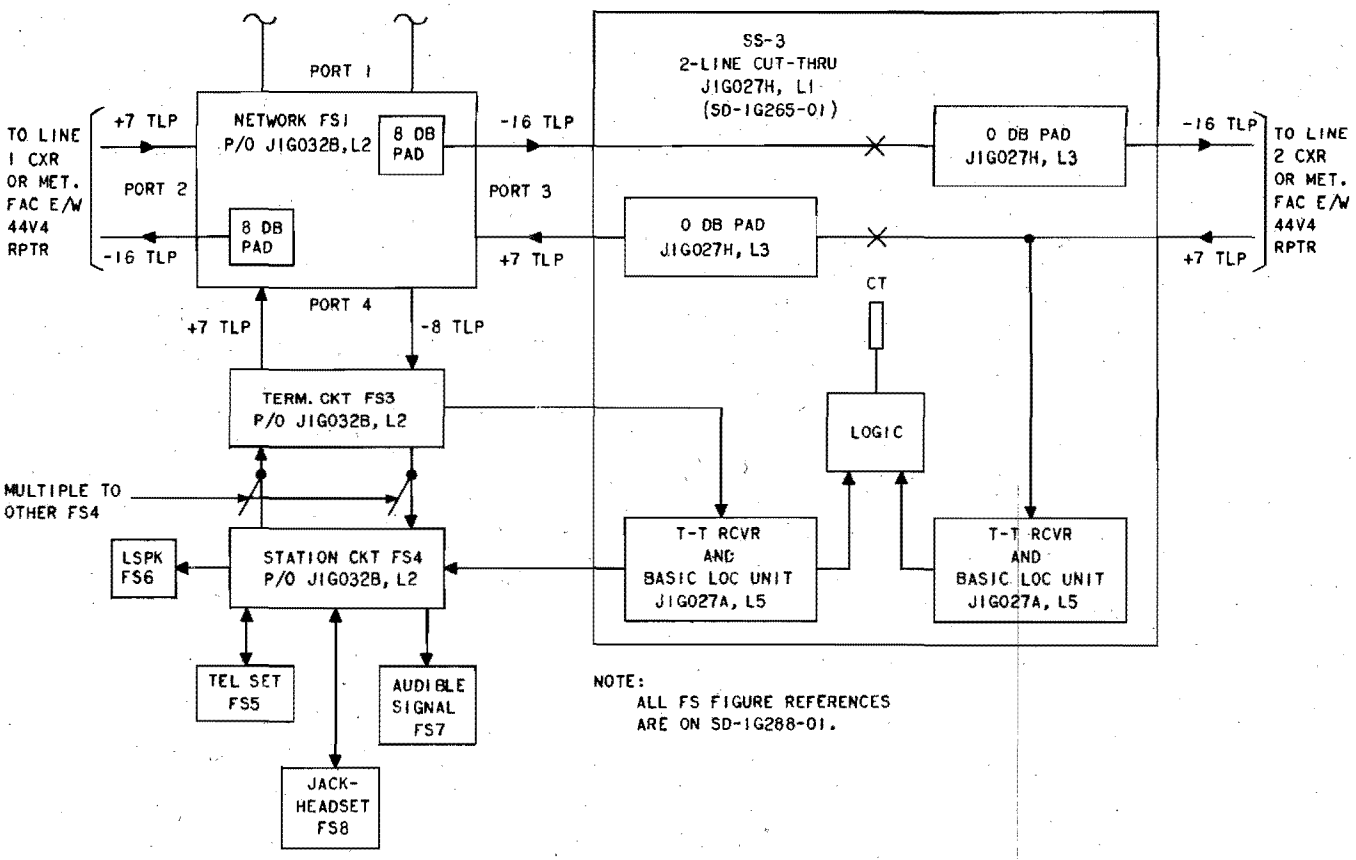


Fig. 9—2-Line Cut-Through Switch Installation—With Terminating and Station Equipment on One Line

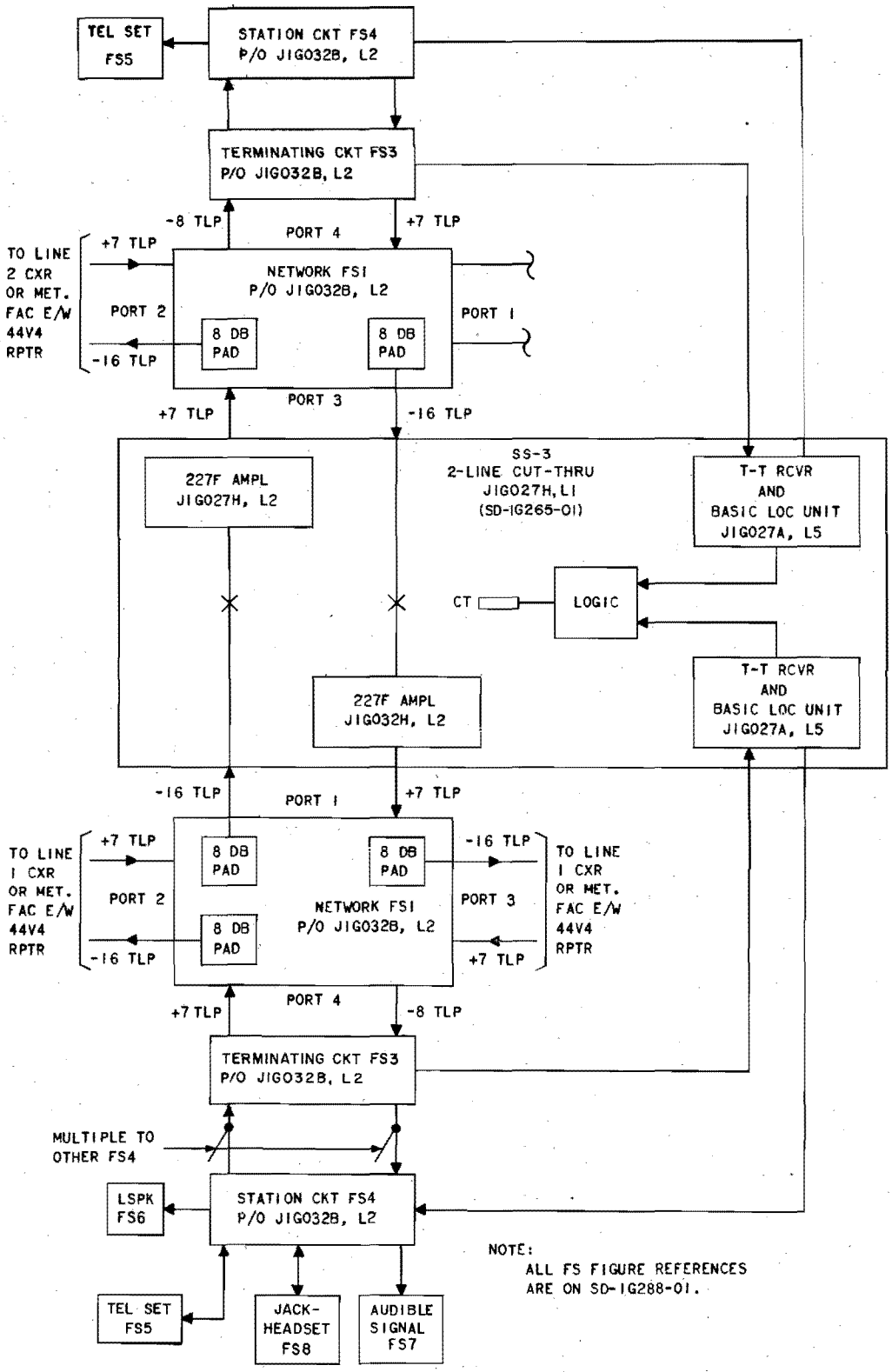


Fig. 10—2-Line Cut-Through Switch Installation—With Terminating and Station Equipment on Both Lines

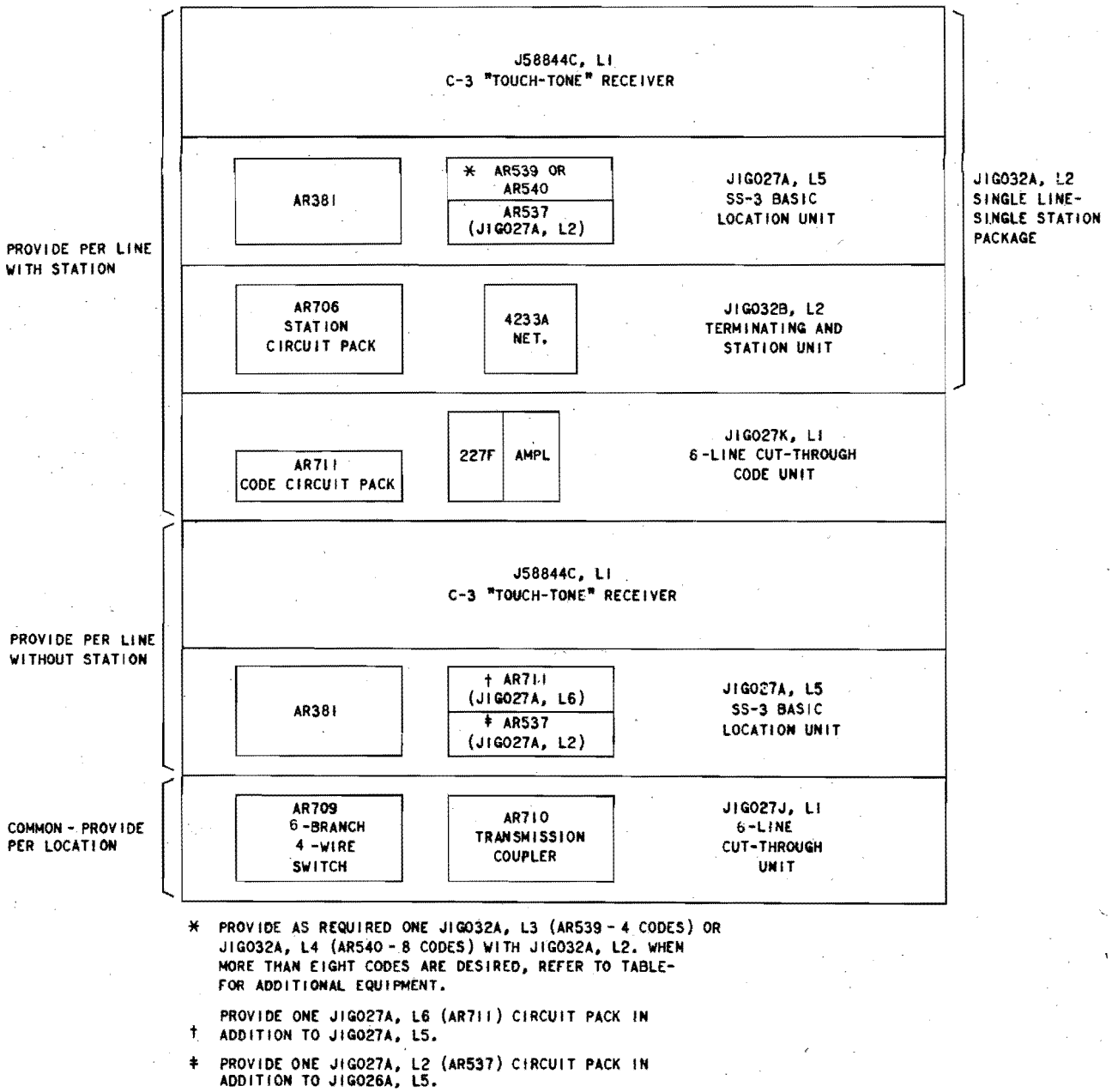
TABLE F

EQUIPMENT REQUIRED FOR 6-LINE
CUT-THROUGH SWITCH INSTALLATION

EQUIPMENT		*LINE WITH STATION	LINE WITHOUT STATION	COMMON (PROVIDE PER LOCATION)
UNIT	TITLE			
J1G032A, L2	Package Unit (Provides 4-wire bridge)	•		
J58844C, L1	C-3 TOUCH-TONE Receiver		•	
J1G027A, L5	SS-3 Basic Location Unit		•	
J1G027A, L2	AR537 Circuit Pack		•	
J1G032B, L2	Terminating and Station Unit (Provides 4-wire bridge)			
J1G032A, L3	AR539 Station Code Circuit Pack (4 codes)	†		
Or				
J1G032A, L4	AR540 Station Code Circuit Pack (8 codes)			
J1G027K, L1	6-Line Cut-Through Code Unit	•		
J1G027A, L6	AR711 Circuit Pack		•	
J1G027J, L1	6-Line Cut-Through Unit			•

* When more than one station is required at a location, refer to Table D for additional equipment.

† Provide as required one J1G032A, L3 or L4 Circuit Pack with the J1G032A, L2. When more than eight codes are desired, refer to Table B for additional equipment.

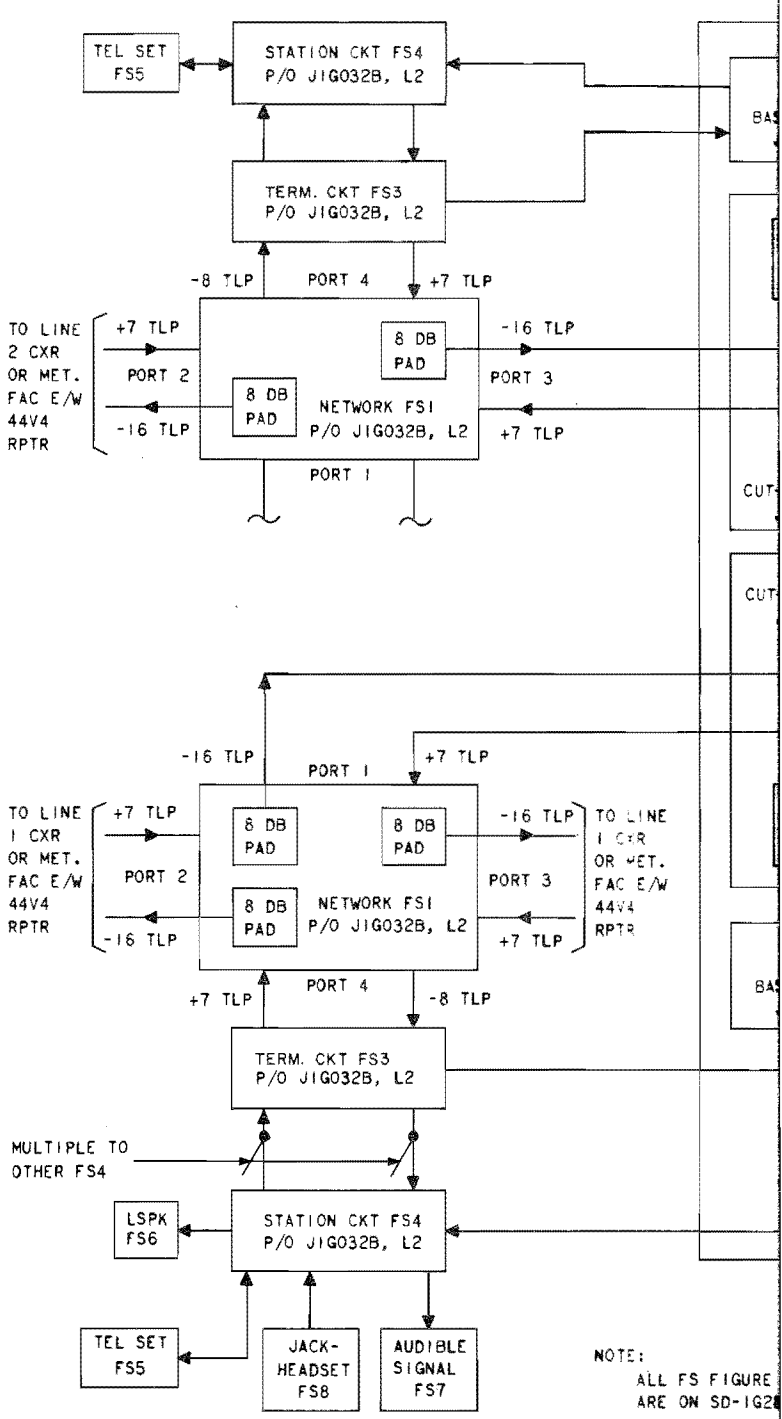


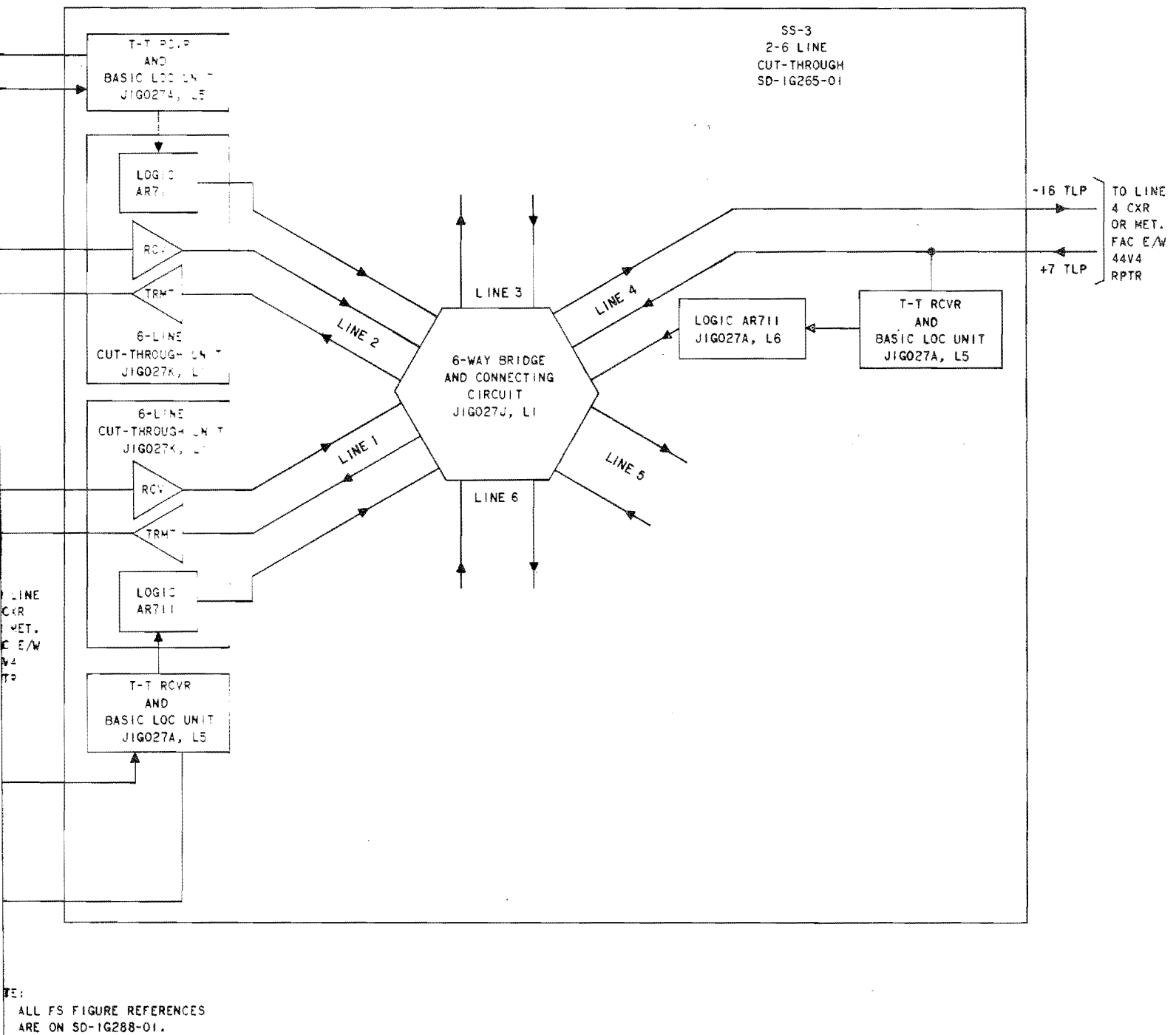
* PROVIDE AS REQUIRED ONE J1G032A, L3 (AR539 - 4 CODES) OR J1G032A, L4 (AR540 - 8 CODES) WITH J1G032A, L2. WHEN MORE THAN EIGHT CODES ARE DESIRED, REFER TO TABLE- FOR ADDITIONAL EQUIPMENT.

† PROVIDE ONE J1G027A, L6 (AR711) CIRCUIT PACK IN ADDITION TO J1G027A, L5.

‡ PROVIDE ONE J1G027A, L2 (AR537) CIRCUIT PACK IN ADDITION TO J1G026A, L5.

Fig. 11—Typical Equipment Arrangement for 2- to 6-Line Cut-Through Switch Installation


TEL SET FS5
STATION CKT FS4 P/O J1G032B, L2
TERM. CKT FS3 P/O J1G032B, L2
-8 TLP
PORT 4
+7 TLP
TO LINE 2 CXR OR MET. FAC E/W 44V4 RPTR
+7 TLP
PORT 2
-16 TLP
8 DB PAD
8 DB PAD
NETWORK FS1 P/O J1G032B, L2
-16 TLP
PORT 3
+7 TLP
PORT 1
-16 TLP
PORT 1
+7 TLP
TO LINE 1 CXR OR MET. FAC E/W 44V4 RPTR
+7 TLP
PORT 2
-16 TLP
8 DB PAD
8 DB PAD
8 DB PAD
NETWORK FS1 P/O J1G032B, L2
-16 TLP
PORT 3
+7 TLP
TO LINE 1 CXR OR MET. FAC E/W 44V4 RPTR
+7 TLP
PORT 4
-8 TLP
TERM. CKT FS3 P/O J1G032B, L2
MULTIPLE TO OTHER FS4
LSPK FS6
STATION CKT FS4 P/O J1G032B, L2
TEL SET FS5
JACK-HEADSET FS8
AUDIBLE SIGNAL FS7
NOTE:
ALL FS FIGURE
ARE ON SD-1G2



TE:
ALL FS FIGURE REFERENCES
ARE ON SD-1G288-01.

Fig. 12—Block Diagram of 2- to 6-Line Cut-Through Switch Installation

TABLE G

VOLTAGE REQUIREMENTS
FOR SS-3 ORDER WIRE

POWER SUPPLY	VOLTAGE LIMITS	CURRENT DRAIN (MILLIAMPERES)	*MAXIMUM CURRENT DRAIN (AMPERES)
+24V C	+21.5V to +26V DC	470 + 72/Station	1.2
−24V A	−20V to −26V DC	60 + 140/Station	1.5
−24V B	−20V to −26V DC	120/Station	1.2

* Maximum drains listed assume ten active stations at a location. A typical installation of a connecting switch should not exceed these maximums.