

## SECTION 667-303-111

connector groups or 40,000 SMAS numbers. The maximum size of the SMAS 5B maintenance connector network is 1600 maintenance connectors or 38,400 SMAS numbers. The combination of both the connector group network and the maintenance connector network in SMAS 5B gives a maximum number of 78,400 SMAS numbers. For a detailed description of how each SMAS number represents an access point in a circuit, see Section 667-000-001.

1.10 The SMAS numbering for SMAS 5A and 5B requires five digits. The 1600 maintenance connectors in SMAS 5A or 5B are in groups of 400. The first digit (ten thousands) identifies these groups using the numbers 5 through 8. The numbers 0 through 3 of the first digit identify the connector group network of SMAS 5B.

1.11 For the maintenance connector network, the next two digits (thousands and hundreds) route through the stage 1 distribution panels and distribution network. The last two digits identify the access relay in a given maintenance connector.

1.12 For the connector group network, the first three digits are used by the connector group network controller to provide a path through the switch controllers to the identified connector group. The last two digits identify the access relay in the indicated connector group.

1.13 The J, K & L ACC PNL functions include the following:

- An access completed indication when a circuit is accessed
- An access point TSV arrangement
- Capability to complete a loop test through the maintenance connector or connector group to verify circuit continuity in the SMAS 5 network
- An arrangement to split the access point in the facility or the equipment direction
- A release control to return the access circuitry to normal
- An alarm indication when the access circuitry has an alarm condition
- A busy indication when the accessed maintenance connector or connector group is busy

- A no-such-number indication when an invalid SMAS number is selected
- A special indication when the accessed circuit is designated special
- An indication for T&L termination
- Test jacks which can be connected to access points for testing circuits
- A reset provision to restart a time-out device which is used when the SMAS 5 is connected to a remote test system (RTS).

1.14 The J, K & L ACC PNL may be used to gain SMAS 5 access to the digital test access connector (DTAC) for testing circuits appearing on the Digital Access and Cross-connect System (DACS). Tests of 8-wire circuits may not be made due to insufficient jacks and keys, but local testing of DSOA digital data circuits may be made.

1.15 The DTAC simulates the type 2, type 3, or type 4 maintenance connector for test access, dependant upon a unique 5-digit SMAS 5 access number. See Section 667-303-112 for DTAC description and operation.

## 2. EQUIPMENT DESCRIPTION

2.01 The J, K & L ACC PNL (Fig. 1) is 23 inches wide by 4 inches high. It can be mounted in a testboard or installed in an equipment bay.

2.02 The front panel has two duplicate ports complete with control keys and jacks. One port is located at the left side of the panel, and the other is at the right side. Controls and lamps common to both ports are in the middle of the panel.

2.03 As depicted in Fig. 1, all keys and jacks for port A and the controls and indicators common to both ports A and B are labeled. Each of these items (assume an accessed circuit for keys that require this condition) are described as follows:

ITEM NO.	NAME MEANING
1 SMAS NO.	A 5-digit thumbwheel switch used to select a unique access point of a circuit.
2 SS	Split signal—When this key/lamp is depressed, it splits the

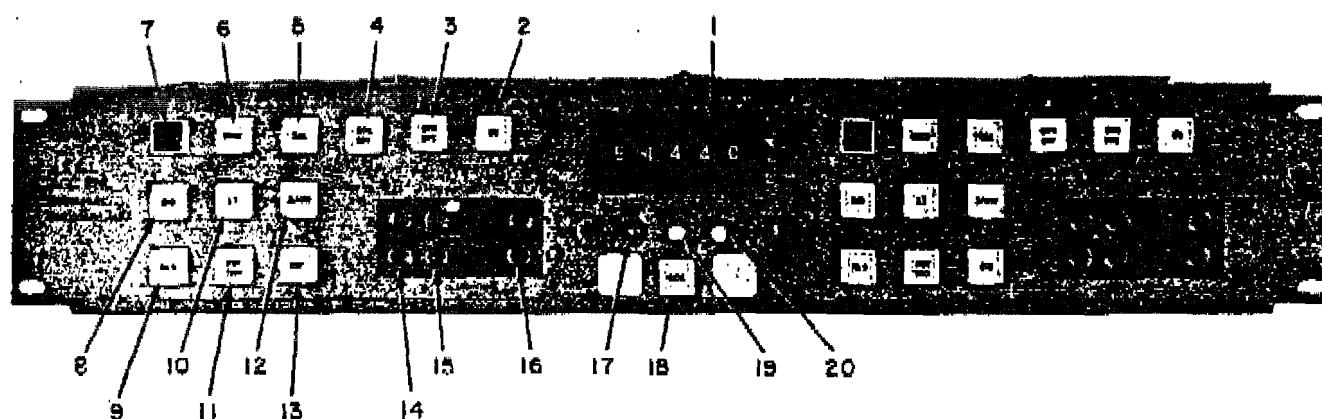


Fig. 1—Jack, Key, and Lamp Access Panel

ITEM NO.	NAME MEANING	ITEM NO.	NAME MEANING
	signaling paths of a 6-wire circuit.		access to the circuit selected on the thumbwheel switches.
3 SPB/SPE	When this key/lamp is depressed, it splits the B half of a 2- or 4-wire access point or splits toward the equipment side of a 6-wire access point.	9 RLS	Release—Flashes to indicate an unsuccessful access. When this key/lamp is depressed, it releases the accessed circuit.
4 SPA/SPF	When this key/lamp is depressed, it splits the A half of a 2- or 4-wire access point or splits toward the facility side of a 6-wire access point.	10 LT	Loop Test—When this key/lamp is depressed, it allows the test person to verify circuit continuity between the test jack and the loop test relay of the selected circuit.
5 T&L	When this key/lamp is depressed, it will provide or remove a termination from the circuit access point equipped with the T&L feature. When this lamp is lighted, it indicates that the accessed circuit has T&L operated.	11 RST TMR	Reset Timer—When this key/lamp is depressed, it resets a 16-minute timer in the control circuit. This feature is used when a SMAS 5 System is connected to an RTS.
6 MON	Monitor (TSV)—When this key/lamp is lighted, it allows for TSV of the accessed circuit.	12 TST 2/4W	Test 2- or 4-wire—When this lamp is lighted, it indicates that a 2- or 4-wire access point has been accessed.
7 SPL	Special—When this lamp is lighted, a priority special service circuit has been accessed.	13 6W	6-wire—When this lamp is lighted, it indicates that a 6-wire access point has been accessed.
8 BID	Bid—When this key/lamp is depressed, it initiates a bid for	14 A jack	When the circuit is split, the A half of the access point is made available to these jacks.

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ITEM NO.	NAME	MEANING
15 B jack		When the circuit is split, the B half of the access point is made available to these jacks.
16 S jack		These jacks allow the accessing of the signaling leads of a 6-wire circuit.
17 ALM		Alarm—When this lamp is lighted, it indicates that trouble was encountered in attempting to make the connection to the access point selected.
18 ACC		Access—When this lamp is lighted, it indicates that the bid for an access point has been successful (access circuitry is available), and that the ACC key can be depressed to seize the access point for testing.
19 BSY		Busy—When this lamp is lighted, it indicates that the circuit with the access point selected is busy and cannot be accessed until it is idle.
20 NSN		No-such-number—When this lamp is lighted, it indicates that the SMAS number selected does not have a corresponding access point.

## 3. OPERATION

3.01 Operation of the J, K & L ACC PNL is to gain circuit access via the maintenance connector or connector group network.

## A. Stand-alone

## Access

3.02 To access the circuit, a valid SMAS 5A or 5B number (obtained from the circuit layout record card) is entered on the SMAS NO. selector (thumbwheel switch). After setting the indicator, the test person operates the BID key/lamp on the desired port. If the bid is successful, the BID lamp is extinguished and the ACC lamp is lighted. The test person

then operates the ACC key/lamp. A successful access is indicated by lamps MON and TST 2/4W (or TST 6W) being lighted. If the circuit has been designated for special class marking, the SPL lamp is also lighted.

3.03 When the access point is not immediately available, because the access circuitry is busy, the BID lamp will remain lighted until access circuitry is free.

3.04 If the attempt is unsuccessful (other than the condition listed in paragraph 3.03), one of the following lamps will light:

Lamp Designation	Indication
BSY	The accessed circuitry is in use.
NSN	No-such-number—The SMAS number set on the SMAS NO. selector is invalid.
ALM	The accessed maintenance connector has an alarm condition (RLS key/lamp will also light).
RLS	This lamp will flash to request a release for an unsuccessful access.

## TSV (Monitor)

3.05 Assuming that the access has been made successfully, the access point is brought up to the A, B, and S jacks in the TSV condition (TSV is done on the facility side of the A or B jack). After splitting the circuit, the tester can test the access point (circuit) by connecting a test set to the A, B, and S jacks.

## Split

3.06 Split controls are dual purpose, as determined by the access point configuration code (see Section 667-303-102). Splitting arrangements are defined as follows:

- TST 2/4W lamp is lighted (a type 3 or a type 4 maintenance connector), and a 2-wire or 4-wire access point is accessed.

Operation of key/lamp SPA SPF splits the A half of the access point; both the equipment

and facility sides of the access point appear on the **A** jacks with equipment side appearing at the **E** jack and facility side appearing at the **F** jack. [Continuity of the **B** half of the access point is maintained through the SP ( ) relay in the maintenance connector.]

Operation of key/lamp SPB SPE splits the **B** half of the access point; both the equipment and facility sides of the access point appear on the **B** jack with equipment side appearing at the **E** jack and facility side appearing at the **F** jack. [Continuity of the **A** half of the access point is maintained through the SP ( ) relay of the maintenance connector.]

- TST 6W lamp is lighted (type 2 maintenance connector), and a 6-wire access point is accessed.

Operation of key/lamp SPA SPF splits the access point, causing both the A&B halves of the facility side to appear on the **F** jacks (horizontal where marked **F** for facility).

Operation of key/lamp SPB SPE splits the access point, causing both the A&B halves of the equipment side to appear on the **E** jacks (horizontal where marked **E** for equipment).

**Note:** For 2- and 4-wire access points, both the equipment and facility sides can appear on the jacks at the same time. For 6-wire access points, the test person can toggle between key/lamps SPA SPF and SPB SPE but the equipment and facility sides of the access point never appear on the jacks at the same time. Operation of the key/lamp SS causes both the equipment and facility sides of the signaling lead paths (such as E and M leads) to appear at the signaling jacks **E** and **F**.

#### Release

- 3.07 When circuit testing is completed and holding the circuit is no longer required, the test per-

son then operates the RLS key/lamp. The circuit is released and returned to normal. A terminated access point will stay terminated until accessed again and released by operation of the T&L key/lamp.

#### Miscellaneous

- 3.08 Circuits requiring special class marking (due to priority) for special service protection or local practices, may be designated at the maintenance connectors. When these circuits are accessed, the SPL lamp will light on the J, K & L ACC PNL and will remain lighted until the circuit is released from the panel.

#### B. Connected to the RTS

##### Access

- 3.09 The same procedures for the bid state apply under stand-alone operation and under the combined SMAS 5A or 5B/RTS 5A operation. After the bid is successful, the tester has 7 seconds to press the ACC key/lamp. If the tester fails to do so, the RTS microcomputer will move the J, K & L ACC PNL into the reorder state, (which releases the panel) requiring the tester to start again.

- 3.10 The microcomputer also times test state activity and will release the J, K & L ACC PNL if it has been on the same test access for 16 minutes. Each time a panel accesses a circuit, the time-out is reset and a new 16-minute timing is initiated. When the active panel has been in the test state for 15 minutes, the microcomputer lights the reset timer key/lamp. If the reset timer key is depressed within the next minute, a new 16-minute cycle is initiated; otherwise, the microcomputer will release the panel.

- 3.11 The TSV, split, release, and miscellaneous procedures are the same under the combined SMAS 5A or 5B/RTS 5A option as in the stand-alone option.