

**MODEL 182691 AUTOMATIC EXCLUSION PCB**

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**1. INTRODUCTION**

1.01 This document covers the Model 182691 automatic exclusion PCB (Printed Circuit Board). (See Figure 1.) A general description as well as information on removal, disassembly, replacement parts, and installation is included.

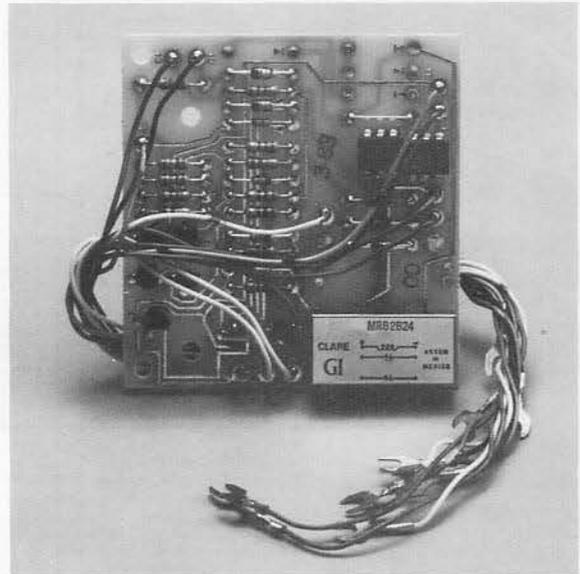
1.02 Whenever this section is reissued, reason for reissue will be listed in this paragraph.

1.03 For information concerning telephones that the automatic exclusion PCB is used in, refer to the appropriate section in Volume 1 of the ITT Telephone Apparatus Practices Manual.

**2. GENERAL DESCRIPTION**

2.01 The Model 182691 PCB is an automatic exclusion (privacy) circuit for use in ITT multibutton telephones. (See Figure 2.) The circuit provides the station user with the ability to exclude other stations from a CO/PBX line. The circuit can only exclude multibutton stations that are equipped with an automatic exclusion PCB.

2.02 The automatic exclusion circuit is activated when the station user goes off-hook and presses a CO/PBX line button. The PCB applies a logic "0" to the A lead of the selected CO/PBX line. This logic "0" maintains control of the A lead at the off-hook station and excludes all other exclusion telephones. The automatic exclusion circuit can be released by pressing and holding the exclusion release pushbutton at the off-hook station. This allows another station to access the same CO/PBX line.



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**Figure 1: Model 182691 Automatic Exclusion PCB**

2.03 The automatic exclusion circuit is a printed circuit assembly. (See Figure 3.) It is designed for field replacement; it is mounted on brackets using screws. The PCB is connected to the telephone circuit using spade-tip connectors.

2.04 The automatic exclusion PCB is available in two styles and is identified by a code number etched on the PCB. Refer to ordering information in Table A for an explanation of the code number and for a description of each style.

**3. REMOVAL**

3.01 To remove the automatic exclusion PCB from the telephone, proceed as follows:

- (a) Remove the telephone faceplate.
- (b) Disconnect the leads from the exclusion release pushbutton.
- (c) Remove the telephone housing.
- (d) Remove any telephone components that may obstruct access to the automatic exclusion PCB.

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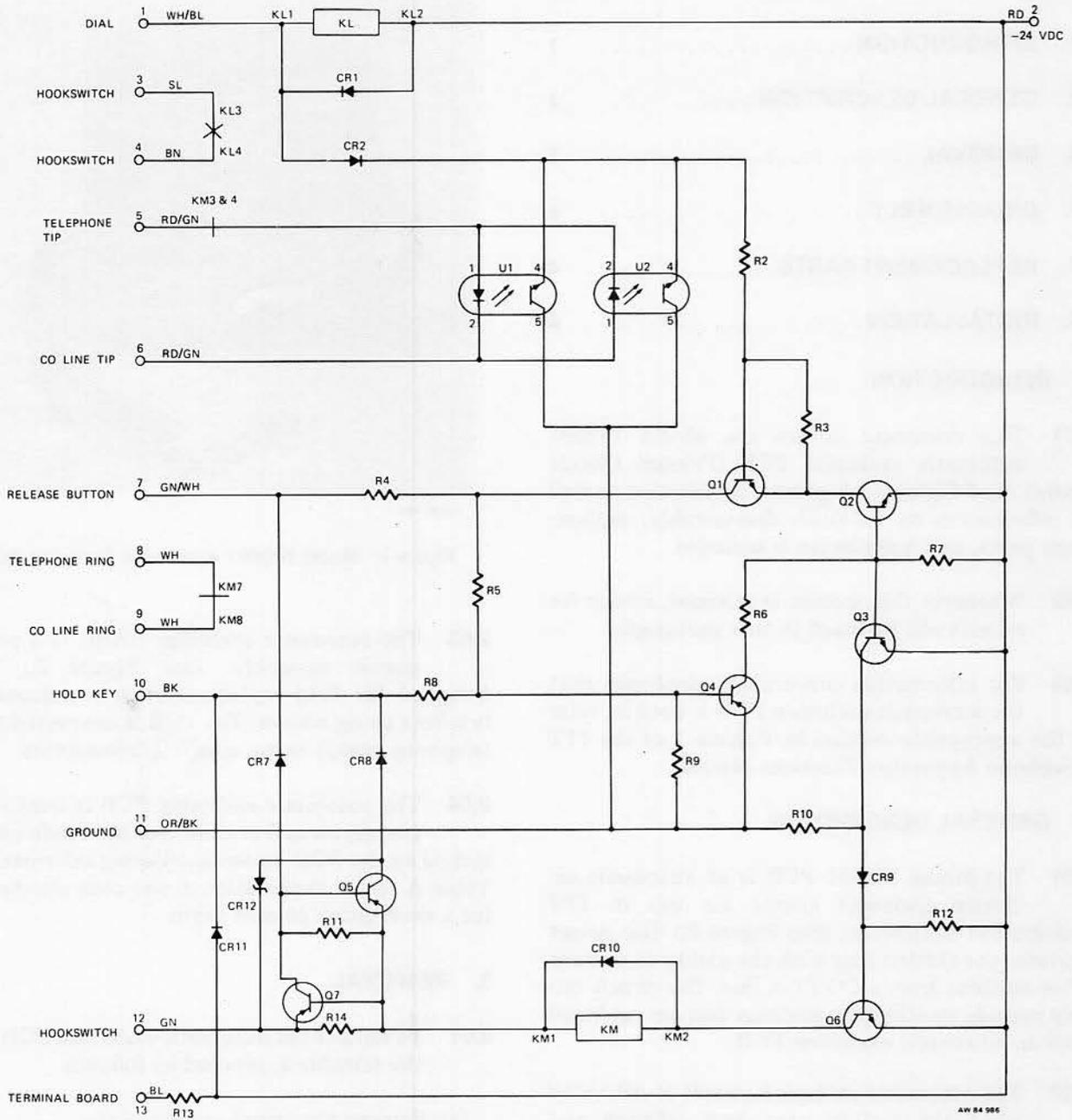
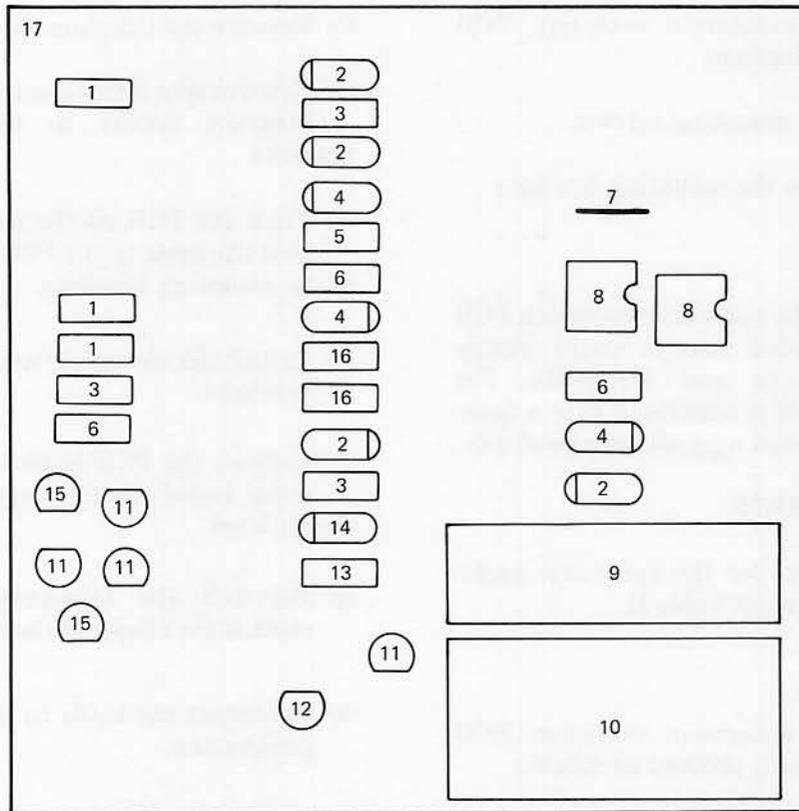


Figure 2: Model 182691 Automatic Exclusion PCB, Schematic



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Figure 3: Model 182691 Automatic Exclusion PCB, Component Location

TABLE A  
ORDERING INFORMATION

CODE NUMBERS			
PCB CODE NUMBERS ARE FORMED IN TWO STEPS AS FOLLOWS:			
(1) PCB Model Number (See Part 1)	_____		<u>182691</u>
(2) PCB Style (See Part 2)	_____		<u>101</u>
PART 1 PCB MODEL NUMBER		PART 2 PCB STYLE	
CODE	DESCRIPTION	CODE	DESCRIPTION
182691	Model 182691 Automatic Exclusion PCB	101	Standard PCB
		102	PCB For Handsfree Operation

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- (e) Disconnect the automatic exclusion PCB leads from the telephone.
- (f) Remove the PCB mounting screws.
- (g) Lift the PCB from the mounting brackets.

**4. DISASSEMBLY**

**4.01** Disassembly of the automatic exclusion PCB is not recommended since it would require removal of components and terminals. For maintenance purposes, it is suggested that a questionable unit be substituted with a known good unit.

**5. REPLACEMENT PARTS**

**5.01** Replacement parts for the automatic exclusion PCB are listed in Table B.

**6. INSTALLATION**

**6.01** To install the automatic exclusion PCB inside the telephone, proceed as follows:

- (a) Remove the telephone faceplate.

- (b) Remove the telephone housing.
- (c) Remove any telephone components that may obstruct access to the PCB mounting brackets.
- (d) Place the PCB on the mounting brackets so that the holes in the PCB align with the holes in the mounting brackets.
- (e) Install the mounting screws in the mounting brackets.
- (f) Connect the PCB leads to the telephone terminal board while referring to the telephone circuit label.
- (g) Reinstall the telephone components and replace the telephone housing.
- (h) Reconnect the leads to the exclusion release pushbutton.
- (j) Replace the telephone faceplate.

TABLE B  
REPLACEMENT PARTS LIST

INDEX NO	PART NUMBER	DESCRIPTION	QUANTITY USED	
			101	102
		<b>Model 182691 Automatic Exclusion PCB</b>	<b>101</b>	<b>102</b>
1	181789-150	Resistor, 22 K, R4, R5, R8	3	3
2	180658-101	Diode, 1N4004, CR1, CR8, CR10, CR11	4	4
3	181789-138	Resistor, 2.2 K, R9, R11, R13	3	3
4	180656-102	Diode, 1N4148, CR2, CR7, CR9	3	3
5	181789-145	Resistor, 8.2K, R3	1	1
6	181789-146	Resistor, 10 K, R2, R6, R10	3	3
7	182126-101	Strap, Wire	1	1
8	182261-104	Opto-Isolator, U1, U2	2	2
9	182735-101	Relay, Dry Reed, KL	—	1
10	182736-101	Relay, Dry Reed, KM	1	1
11	182076-101	Transistor, NPN, Q1, Q2, Q3, Q6	4	4
12	183541-101	Transistor, PNP, Q5	1	1
13	181789-111	Resistor, 15 Ohm, R14	1	1
14	183611-149	Diode, Zener, 33 V, ±10%, CR12	1	1
15	182090-101	Transistor, PNP, Q4, Q7	2	2
16	181789-134	Resistor, 1 K, R7, R12	2	2
17	182690-101	Printed Card, Drilled	1	1

NOTE: All resistors are 1/4 W, ±5% unless otherwise specified.

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