KEPTEL SNI-2100

NETWORK INTERFACE CLOSURE

WITH HALF RINGER

METHODS AND PROCEDURES

1.   GENERAL

1.01   This section is a cover sheet for the Keptel SNI-2100 Network Interface Closure with Half Ringer.

1.02   Whenever this section is reissued the reason(s) for reissue will be listed in this paragraph.

1.03   The SNI-2100 is a weather-resistant Network Interface designed to serve as the Demarcation Point between Telco-owned wiring and Subscriber/Vendor provided or maintained wiring.

1.04   If corrections are required in the attached documentation, use Form E-3973 as described in Section 000-010-015.

1.05   If equipment design and/or manufacturing problems should occur, refer to Section 010-700-011 for procedures on filing an Engineering Complaint.

2.   ORDERING PROCEDURE

2.01   The KEPTEL SNI-2100, Network Interface closure with Half Ringer may be ordered via Form SW-6528. Forward the SW-6528 to your appropriate Local Purchasing Office (LPO) location.

2.02   To order additional copies of this practice use Section KPTL 462-005-800SW as the section number.

3.   REPAIRS/RETURN

KEPTEL guarantees all products for a (1) one year period. Piece parts for any of their units may be obtained directly from the factory.

Attachment: KEPTEL SNI-2100
              Network Interface Closure
              With Half Ringer
              Methods and Procedures

NOTICE

Not for use or disclosure outside

Southwestern Bell Telephone Company

except under written agreement.

KEPTEL SNI-2100

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WITH HALF RINGER

METHODS AND PROCEDURES

1. GENERAL

1.01 This package is designed to serve as the Methods and Procedures for the Keptel SNI-2100 Network Interface Closure with Half Ringer.

1.02 This package is intended for the Technician/Craftperson who is already familiar with completing service orders.

1.03 This package will focus on both the initial installation and the second line upgrade (in field using #34004H Kit) of the SNI-2100 with Half Ringer.

2. NETWORK INTERFACE DESCRIPTION

2.01 The SNI-2100 is a weather-resistant Network Interface. It is designed to serve as the Demarcation Point between Telco-owned wiring and Subscriber/Vendor provided or maintained wiring.

2.02 The Closure is designed to contain the Station Protector, Network Interface (RJ11), Subscriber Wiring Bridge (inside wire termination) and slots for electronics. Refer to Figure 1.

2.03 Features of the SNI-2100 Network Interface Closure are as follows:

(a) Easy Subscriber access to premise wiring and Network Interface while maintaining Telco security.

(b) Weather-resistant and Flame-resistant.

(c) Universal mounting.

(d) One or two line capability.

2.04 The SNI-2100 is factory equipped for single line use and is upgradable (in the field) to two lines using the #34004H kit.

VERTICAL CONDUIT
MOUNTING SUPPORT

SLOTS FOR
ELECTRONICS

STATION PROTECTOR
MOUNTING HOLES
(A THROUGH E)

TELCO COVER
MOUNT POST

GROUND
TERMINALS

RJ-11C
MODULAR JACK

KNOCK OUT
HOLES
(FOR MOUNTING IN
PLACE OF CUSTOMER
SERVICE CLOSURE)

GRN RED YEL BLK

GRN RED YEL BLK

SUBSCRIBER
WIRING BRIDGE

KNOCK OUT
HOLES
FOR "THRU-WALL"
CONDUIT

DROP
ENTRANCE
GROMMET

LINE 2 I/W
ENTRANCE
GROMMET

VERTICAL CONDUIT
MOUNTING SUPPORT

LINE 1 I/W
ENTRANCE
GROMMET

D
C
B
A

E

D
C

A

A

B

Fig. 1—SNI-2100 Details and Features

HOW IT WORKS

2.05   The SNI-2100 Network Interface Closure houses the components necessary to provision the Subscriber/Vendor wiring (protection, grounding, N.I., etc.).

2.06   The SNI-2100 provides security for the Subscriber/Vendor provided or maintained wiring, while allowing for easy override by Telco personnel.

2.07   The SNI-2100 will provide a secure area for Telco access and an area that the Subscriber/Vendor can easily access to terminate wires or test their equipment.

2.08   The SNI-2100 will eliminate the need for multiple pieces of hardware to be placed at the customer premise.

3.   HALF RINGER DESCRIPTION

3.01   The Keptel Half Ringer (also known as "919 Half Ringer") is a solid state 0.5 R.E.N. (ringer equivalance) termination circuit that is installed <u>under</u> the RJ11 jack in the SNI-2100 Network Interface Closure.

3.02   The Half Ringer is designed to meet all Bell and U.S.T.A. specifications for a device of this type.

3.03   The Half Ringer does not interfere with normal transmission.

3.04   The Half Ringer is designed to fit under the RJ11 jack in the SNI-2100. It will also fit other closures by various manufacturers.

3.05   The Half Ringer is designed to fail open under a power cross condition.

HOW IT WORKS

3.06   The Half Ringer is an electronic circuit placed at the Subscriber premise to provide a 0.5 R.E.N. load to the network.

3.07   The Half Ringer provides a known termination at the end of the line to insure line continuity.

3.08   The impedance of the Half Ringer is capacitive and is equal to $1/2$ that of a standard C4A Ringer (500 telephone set).

4.   INSTALLATION

NOTE: It is recommended that the N.I. closure and protector be pre-wired prior to mounting the closure at the premise (refer to section under "Wiring Diagrams").

INITIAL INSTALLATION

External Mounting Ears

4.01   Use a 216 tool to open the hinged covers (Note that both the Subscriber and Telco covers will open).

4.02   Using the screws provided, mount closure on a flat surface.

4.03   If N.I. closure has not been pre-wired, mount station protector using screws provided. Refer to Table A.

4.04   Punch hole in drop entrance grommet (center) and slide grommet over drop wire before connecting leads.

CAUTION: Do not slit grommet with a knife, use a pointed object such as a pen or pencil (refer to Figure 2).

4.05   Using the jumper wires included with the N.I. closure, connect station protector to terminals 1 and 2, marked Green(Tip) and Red(Ring) on Figure 3.

4.06   Connect ground wire per procedure.

**4.07**   Push drop entrance grommet into place.
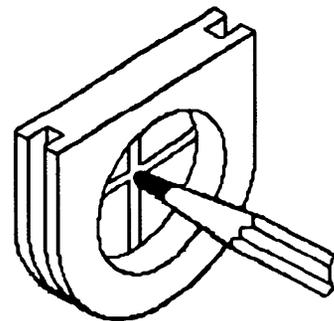
Fig. 2—Piercing grommet with a pencil

TABLE A
STATION PROTECTOR MOUNTING POSITIONS

PROTECTOR TYPE	MOUNTING HOLES
Cook 500	B & D or C & E
Reliable 351	B & D or C & E
Sylvania CP505/508	B & D or C & E
Tii 355/356 (requires optional mounting block)	A
Tii 125 style	B & C
Sankosha MS-8000	A
AT&T 125E style (requires optional mounting block)	B & C
WECo 123 style	B & C or D & E
WECo 128 style	A

YELLOW
(GROUND)

GREEN (TIP)
RED (RING)

D
C
B
A
E
D

GRN RED YEL BLK

GRN RED YEL BLK

T   G   R

DROP

I/W

* see note paragraph 4.19

Fig. 3—SNI-2100 with W.E. 123 style Station Protector

4.08 Punch hole in I/W entrance grommet (right side) and slide grommet over I/W before connecting leads. Refer to Figure 2.

4.09 Connect I/W to Subscriber Wiring Bridge.

4.10 Push I/W entrance grommet into place.

4.11 Close covers completely and secure using 216 tool. Make sure Subscriber cover is securely tightened to Telco cover.

Vertical Conduit Supports

4.12 Use a 216 tool to open the hinged covers (Note that both the Subscriber and Telco covers will open).

4.13 Using a screwdriver, knock-out areas of the Vertical Conduit Mounting Support as indicated in Figure 4.

4.14 Attach unit to vertical conduit per Southwestern Bell procedure.

NOTE: When using knock-out holes for installation, an approved caulking compound should be used to fill holes to retain closure integrity.

4.15 Follow procedures described in paragraphs 4.03 through 4.11.

Knock-Out Holes

4.16 Use a 216 tool to open the hinged covers (Note that both the Subscriber and Telco covers will open).

4.17 Using a screwdriver, knock-out the appropriate mounting holes (Note that these holes will enable the SNI-2100 to be mounted in place of the "B" or "C" series Customer Service Closure).

4.18 Using the screws provided mount the SNI-2100.

NOTE: When using knock-out holes for installation, an approved caulking com-

pound should be used to fill holes to retain closure integrity.

4.19 Follow procedures described in paragraphs 4.03 through 4.11.

NOTE: For proper electrical contact, wires or spade terminals should be between terminal post washers.

NOTE: Each N.I. closure package will contain vendor installation instructions.

NOTE: It is recomended that the Yellow (Ground) wire from the RJ11 jack, inside the Network Interface, be disconnected from Ground if:
(a) All station sets have been wired for bridged ringing (at the set).
(b) The Yellow wire within the I/W is no longer in use.

SECOND LINE UPGRADE

Parts List

4.20 The follwing is a list of the parts contained within the #34004H Second Line Upgrade Kit for the SNI-2100 with Half Ringer. Refer to Table B for physical description.

1. Subscriber Wiring Bridge
2. Subscriber Wiring Bridge Mount Screws
3. RJ11 Jack Module
4. Jumper Wires
5. Terminal Screws with 3 Washers
6. Terminal Screws with 2 Washers
7. Half Ringer Circuit

Materials Needed

4.21 The following is a list of materials needed to complete the installation of the #34004H Second Line Upgrade Kit for the Keptel SNI-2100.

1. #34004H Second Line Upgrade Kit
2. Two Line Protector (if required)
3. Screws and Clamps as required for securing service wire, I/W and ground wire.

USE SCREWDRIVER BLADE TO
PUNCH OUT THIN PLASTIC-WALL
NEAR AND FAR SIDE
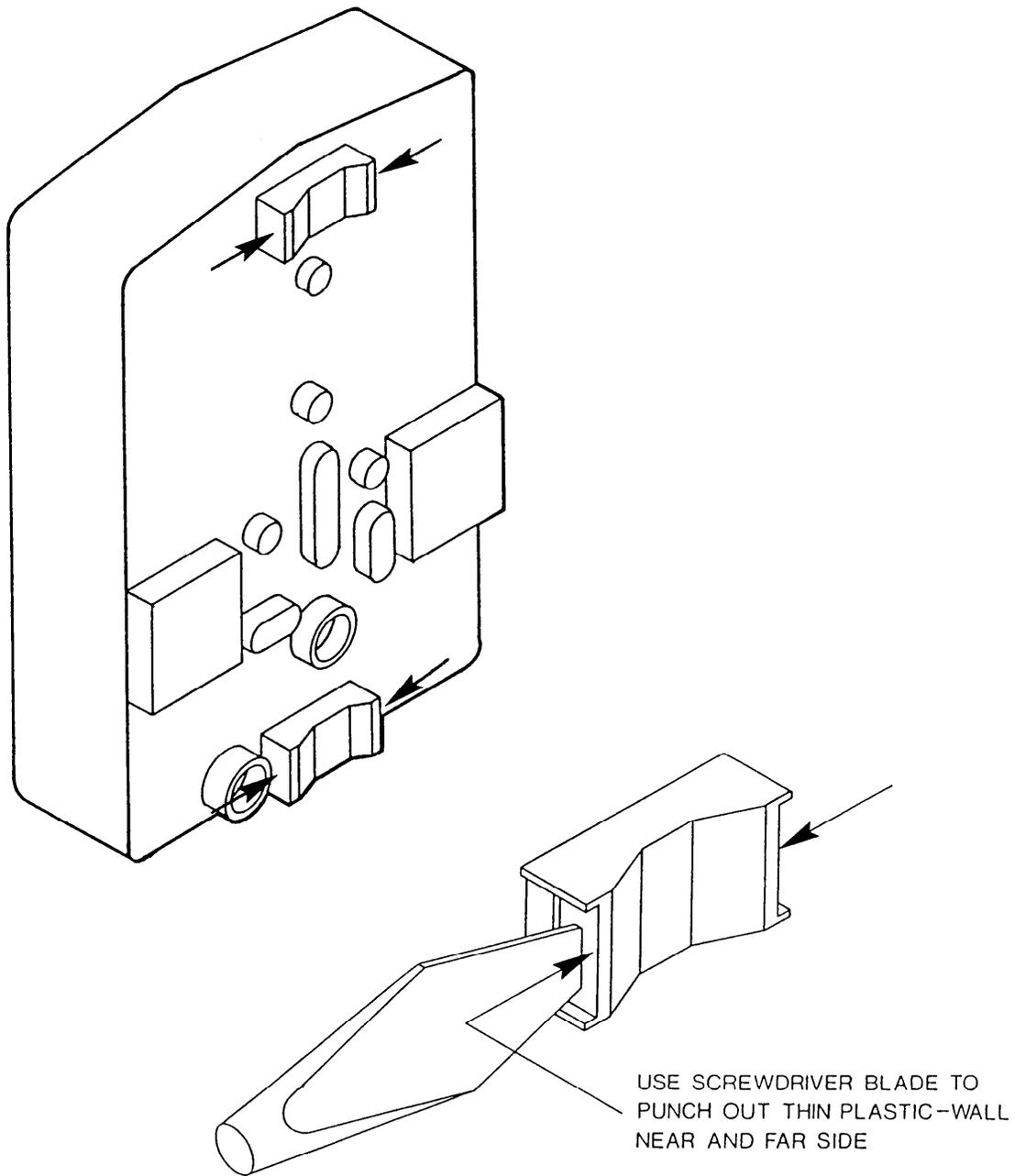
Fig. 4—Knock-outs for Vertical Conduit Mounting

	PART DESCRIPTION	QUANTITY	KEPTEL PART NO.
	Subscriber Wiring Bridge	1	#1804 Kit
	Subscriber Wiring Bridge Mounting Screw (#4 x 3/4" Type AB)	2	
	RJ11 Jack Module	1	#1811 Kit
	Jumper Wires	1 Green 1 Red	#27047 #27058
	Terminal Screws	4 (2 with 3 washers) (2 with 2 washers)	#13023
	Half Ringer	1	#919
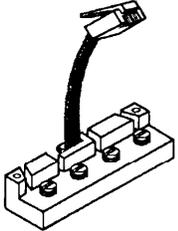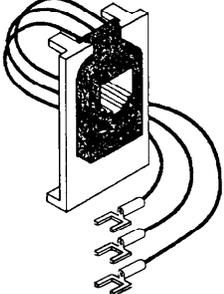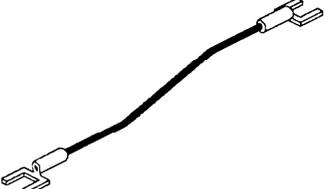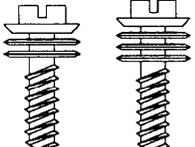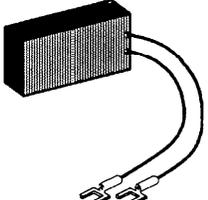
Tools Required

4.22   The following is a list of tools required to complete the installation of the #34004H Second Line Upgrade Kit for the Keptel SNI-2100.

1. Diagonal Cutting Pliers
2. 216 Tool
3. Screwdriver
4. Other tools as required

Procedure

4.23   Use a 216 tool to open the hinged covers of the SNI-2100 (Note that both the Subscriber and Telco covers will open).

4.24   Using the (2) #4 x 7/8" Type AB screws included, mount the Subscriber Wiring Bridge. Refer to Figure 5 and 6.

4.25   Install terminal screws in positions 1(Tip) and 2 (Ring) as per Figure 5.

4.26   Place Half Ringer in cavity located where the RJ11 Jack is installed. Slip spade connectors (Green and Red wires) between washers of terminal screws 1 and 2 respectively. DO NOT tighten terminal screws at this time.

4.27   Push the RJ11 Jack into the location indicated in figure 5. Connect Green and Red wires to terminals 1 and 2 respectively (see notes below).

NOTE: It is recommended that the Yellow (Ground) wire inside the Network Interface be disconnected from Ground if:
(a) All station sets have been wired for bridged ringing (at the set).
(b) The Yellow wire inside the I/W is no longer in use.

4.28   Mount station protector (or change to two line unit). Refer to Figure 5.

4.29   Connect the Green and Red jumper wires (included) to terminals 1 and 2 respectively. Note, that the #6 (small) spade terminals go to terminals 1 and 2 and the #10 (large) spade terminals go to the station protector.

4.30   Connect Line 2 drop to station protector.

**4.31**   Punch hole in I/W entrance grommet (left side). Slide grommet over I/W before connecting leads.

CAUTION: Do not slit grommet with a knife, use a pointed object such as a pen or pencil (refer to Figure 2).

4.32   Connect I/W to Subscriber Wiring Bridge.

4.33   Push I/W entrance grommet into place.

4.34   Insert the Modular Plug into the RJ11 Jack. Verify continuity by testing (with an ohmmeter) from terminals 1, 2 and Ground to corresponding terminals on Subscriber Wiring Bridge.

4.35   Using diagonal cutting pliers, remove the break-away plate covering the RJ11 Jack Module of Line 2.

4.36   Close covers completely and secure using 216 tool. Make sure Subscriber cover is securely tightened to Telco cover.

YELLOW
(GROUND)

RED
(LINE 2 RING)

GREEN
(LINE 2 TIP)

GREEN
(LINE 1 TIP)

RED
(LINE 1 RING)

LINE 2 I/W

LINE 1 I/W

LINE 2 DROP

LINE 1 DROP
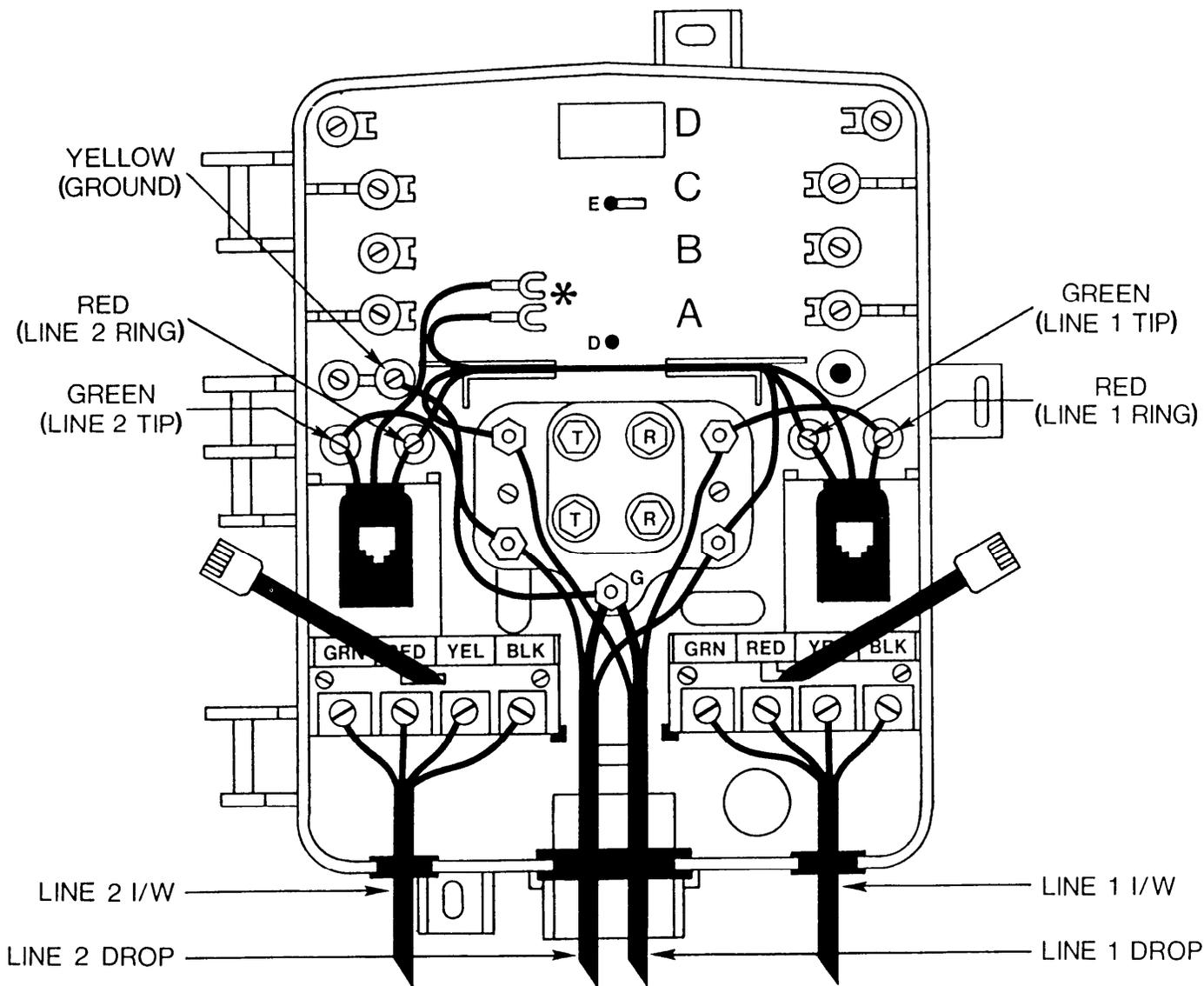
∗ see note paragraph 4.19

Fig. 5—SNI-2100 with #34004H Second Line Upgrade and W.E. 128 Style Station Protector
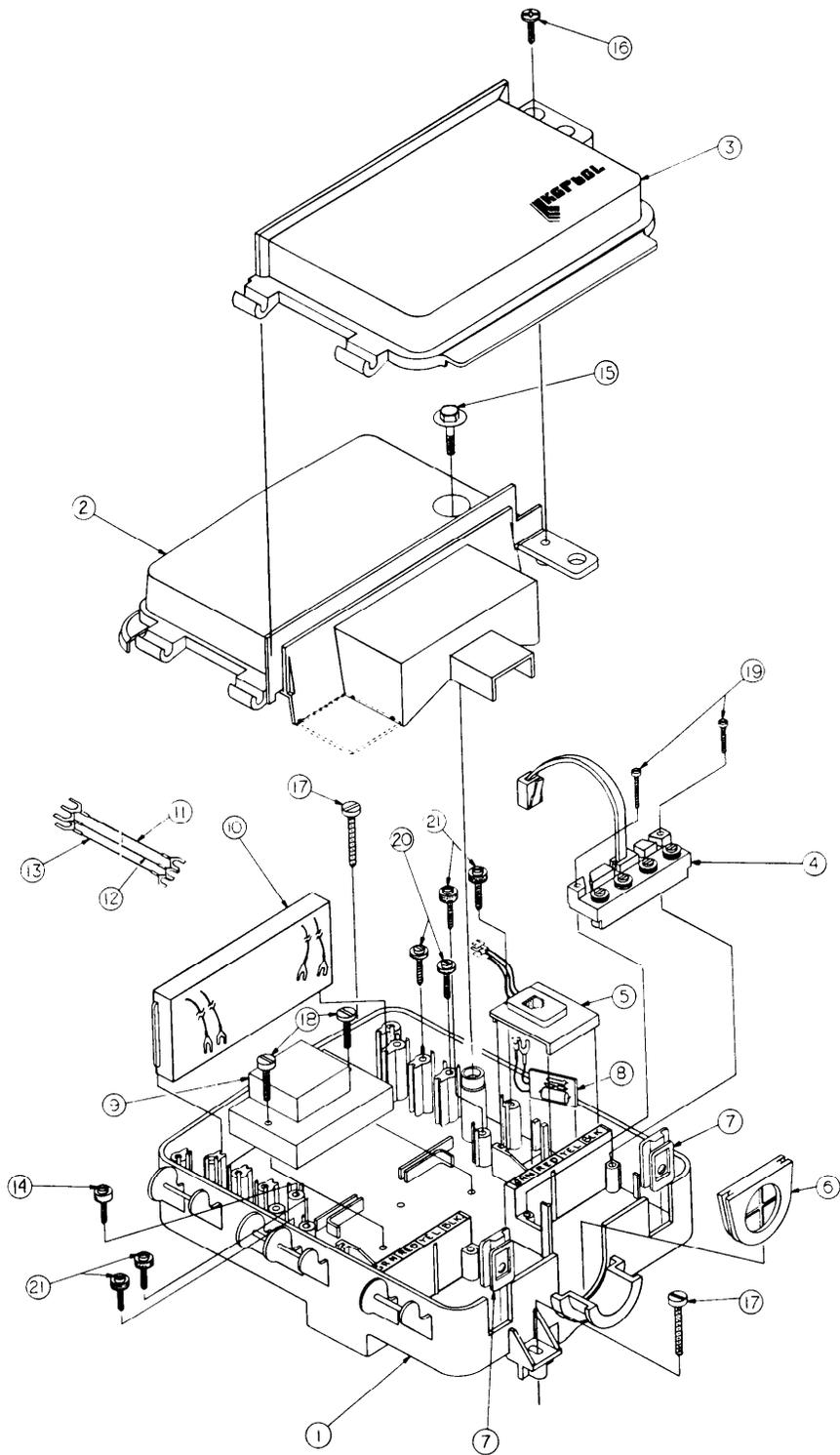
1. Base	8. Half Ringer Circuit	15. Telco Cover Screw
2. Telco Cover	9. Station Protector	16. Subscriber Cover Screw
3. Subscriber Cover	10. Electronic Module	17. Closure Mounting Screws
4. Subscriber Wiring Bridge	11. Jumper Wire (Yellow)	18. Protector Mounting Screws
5. RJ11 Jack Module	12. Jumper Wire (Green)	19. Wirng Bridge Mount Screws
6. Drop Entrance Grommet	13. Jumper Wire (Red)	20. Terminal Screws (2 Washer)
7. I/W Entrance Grommet	14. Terminal Screw (4 Washer)	21. Terminal Screws (3 Washer)

Fig. 6—SNI-2100 Exploded View