

K415A KEY TELEPHONE UNIT (KTU) AUTOMATIC DC SIGNALING TIE LINE CIRCUIT

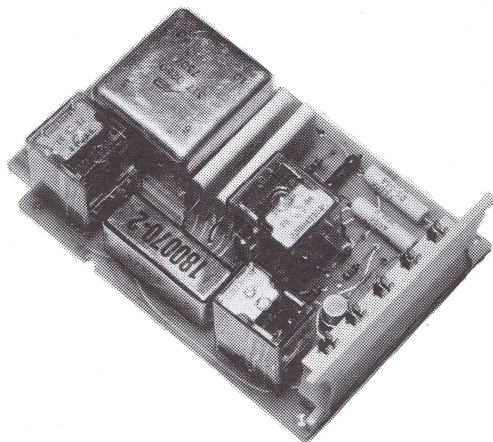


Figure 1. K415A Key Telephone Unit

1.0 GENERAL

The K415A KTU is a 18-contact unit for connecting a telephone to a private line terminated at a distant location.

Another K415A KTU or another tie line KTU which will respond to a dc signal is required at the distant location. The K415A KTU is NOT compatible with a K203A KTU. The distant telephone is automatically signaled when the line pickup key on the local telephone is operated and the handset is lifted.

The K415A KTU provides a talking and signaling circuit with the following features:

- Flashing line lamp on an incoming call *
- Steady lamp indicating line busy
- Time-Out on unanswered incoming calls; optional time intervals
- Choice of audible signals, common audible, steady, or interrupted *
- Audible ringback signal option so calling party can hear ringback tone when the distant telephone is rung *
- A spare relay contact for control of other features
- Line hold
- Optional lamp wink indication when distant set is on hold *

* From interrupter

2.0 INSTALLATION

Unplug power cord

A K259B Panel may be used for installation of the K415A KTU and Table B provides wiring instructions for the K259B unit.

After connections have been checked for correctness, plug the K414A KTU into the wired connector of the K259B.

Plug power cord in.

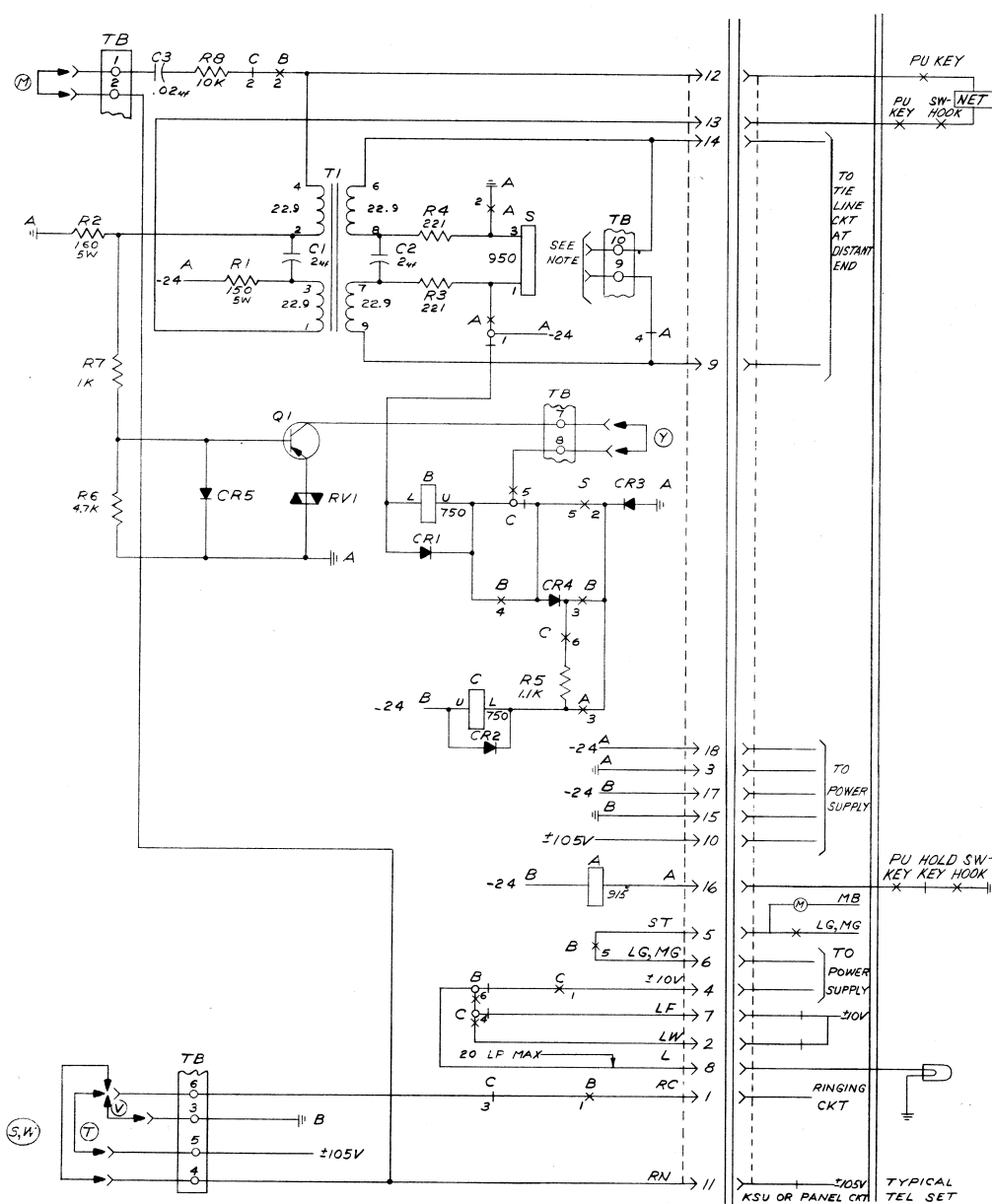
TABLE B. CONNECTIONS TO K259B KTU

Term No. Term Strip	K415A KTU Automatic D.C. Signaling Tie Line Circuit	
1	Not Used	
2	RC	Ring Control
3	LW	Lamp Wink *
4	AG	A Grd
5	$\pm 10V$	Lamp Batt
6	ST	Start Lead
7	LG	Lamp Grd
8	LF	Lamp Flash *
9	L	Lamp
10	R	Ring To Tie line Circuit at Distant end
11	$\pm 105V$	Ringing Voltage
12	RN	Interrupted Ringing Voltage *
13	T	Tip To phone at this end of
14	R	Ring Tie line Circuit
15	T	Tip To Tie line Circuit at Distant end
16	BG	B Grd
17	A	A Lead
18	BB	B Batt
19	AB	A Batt
20	Not Used	

TABLE A. RINGING RANGES WITH -20V BATTERY SUPPLY

MINIMUM BATTERY VOLTAGE	MINIMUM LEAKAGE RESISTANCE (OHMS) K	MAXIMUM DC SIGNALING RANGE OHMS
- 20	10	2200
- 20	15	2325

KEY SYSTEM PRACTICE



FEATURES & OPTION WIRING CONNECTIONS OF Y4:5A KTU

FEATURE	WIRING OPTION	TERMINALS (TEL)									
		1	2	3	4	5	6	7	8	9	10
AUDIBLE SIGNAL TYPE	INTERRUPTED RING										
	STEADY RING										
	USING AUXILIARY CONTROL RELAY										
	USING DIODE MATRIX										
AUDIBLE RING FEEDBACK	M*†										
WINKING LAMP DURING HOLD	Y*										

IDLE LINE TERMINATION: A RESISTOR AND CAPACITOR (310 OHMS & 2W) CAN BE ADDED IN SERIES BETWEEN PINS 9 & 10 ON THE OPTION BLOCK TO TERMINATE THE LINE DURING THE IDLE AND HOLD CIRCUIT CONDUCTIONS.

* M OPTION REQUIRES AN AUDIBLE TONE SUPERIMPOSED ON THE RINGING SUPPLY FOR SATISFACTORY OPERATION IF REPEATERS ARE USED ON THE LINE.

* FACTORY STRAP

NOTES:

ALL CAPACITORS ARE IN MFD UNLESS OTHERWISE SPECIFIED.

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