

Kantech No Phone Bill Systems



Installation Manual

KANTECH™

DN1905-0911

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1.0 - General Description

1.1 Copyright Information

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1.2 Technical Support

For technical assistance with the Kantech No Phone Bill Systems and other Kantech products, contact technical support, Monday to Friday. See the following table for the technical support phone numbers.

Country/Region	Phone Numbers	Support Hours	Email
North America Toll Free +888 222 1560 (GMT -05:00)			
US and Canada	Direct: +450 444 2030 Fax: +450 444 2029	8:00 to 20:00	kantechsupport@tycoint.com

Note: The Kantech No Phone Bill Systems are available for North America only.

1.3 No Phone Bill System Models Information

Models	Description
KTES-5048MC	No Phone Bill system main controller for up to 48 lines maximum. Requires a 16VAC 40VA transformer. For line cards (KTES-5000RB) and interconnection cables (KTES-5000IC) refer to section 1.4 Ordering Requirements .
KTES-5000MC	No Phone Bill system, main controller, to be used with an auxiliary relay cabinet (KTES-5000AC) for up to 1152 lines maximum. Requires a 16VAC 40VA transformer. For line cards (KTES-5000RB) and interconnection cables (KTES-5000IC) refer to section 1.4 Ordering Requirements .
KTES-5000AC	No Phone Bill auxiliary relay cabinets to use with the main controller (KTES-5000MC)
KTES-5000RB	No Phone Bill line card for 12 tenants
KTES-5000IC	No Phone Bill CA71A/RJ71C interconnecting cable

1.4 Ordering Requirements

Number of Lines	System Components		
1-12	(1) KTES-5048MC		(1) KTES-5000RB
13-24			(1) KTES-5000IC
25-36			(2) KTES-5000RB
37-48			(2) KTES-5000IC
49-60	(1) KTES-5000MC	(1) KTES-5000AC	(3) KTES-5000RB
61-72			(3) KTES-5000IC
73-84			(4) KTES-5000RB
85-96			(4) KTES-5000IC
97-108	(1) KTES-5000MC	(2) KTES-5000AC	(5) KTES-5000RB
109-120			(5) KTES-5000IC
121-132			(6) KTES-5000RB
133-144			(6) KTES-5000IC
145-156			(7) KTES-5000RB
157-168			(7) KTES-5000IC
169-180			(8) KTES-5000RB
181-192			(8) KTES-5000IC
193-204	(1) KTES-5000MC	(3) KTES-5000AC	(9) KTES-5000RB
205-216			(9) KTES-5000IC
217-228			(10) KTES-5000RB
229-240			(10) KTES-5000IC
241-252			(11) KTES-5000RB
253-264			(11) KTES-5000IC
265-276			(12) KTES-5000RB
277-288			(12) KTES-5000IC

Number of Lines	System Components			
289-300	(1) KTES-5000MC	(4) KTES-5000AC	(25) KTES-5000RB	(25) KTES-5000IC
301-312			(26) KTES-5000RB	(26) KTES-5000IC
313-324			(27) KTES-5000RB	(27) KTES-5000IC
325-336			(28) KTES-5000RB	(28) KTES-5000IC
337-348			(29) KTES-5000RB	(29) KTES-5000IC
349-360			(30) KTES-5000RB	(30) KTES-5000IC
361-372			(31) KTES-5000RB	(31) KTES-5000IC
373-384			(32) KTES-5000RB	(32) KTES-5000IC
385-396	(1) KTES-5000MC	(5) KTES-5000AC	(33) KTES-5000RB	(33) KTES-5000IC
397-408			(34) KTES-5000RB	(34) KTES-5000IC
409-420			(35) KTES-5000RB	(35) KTES-5000IC
421-432			(36) KTES-5000RB	(36) KTES-5000IC
433-444			(37) KTES-5000RB	(37) KTES-5000IC
445-456			(38) KTES-5000RB	(38) KTES-5000IC
457-468			(39) KTES-5000RB	(39) KTES-5000IC
469-480			(40) KTES-5000RB	(40) KTES-5000IC
481-492	(1) KTES-5000MC	(6) KTES-5000AC	(41) KTES-5000RB	(41) KTES-5000IC
493-504			(42) KTES-5000RB	(42) KTES-5000IC
505-516			(43) KTES-5000RB	(43) KTES-5000IC
517-528			(44) KTES-5000RB	(44) KTES-5000IC
529-540			(45) KTES-5000RB	(45) KTES-5000IC
541-552			(46) KTES-5000RB	(46) KTES-5000IC
553-564			(47) KTES-5000RB	(47) KTES-5000IC
565-576			(48) KTES-5000RB	(48) KTES-5000IC
577-588	(1) KTES-5000MC	(7) KTES-5000AC	(49) KTES-5000RB	(49) KTES-5000IC
589-600			(50) KTES-5000RB	(50) KTES-5000IC
601-612			(51) KTES-5000RB	(51) KTES-5000IC
613-624			(52) KTES-5000RB	(52) KTES-5000IC
625-636			(53) KTES-5000RB	(53) KTES-5000IC
637-648			(54) KTES-5000RB	(54) KTES-5000IC
649-660			(55) KTES-5000RB	(55) KTES-5000IC
661-672			(56) KTES-5000RB	(56) KTES-5000IC

Number of Lines	System Components			
673-684	(1) KTES-5000MC	(8) KTES-5000AC	(57) KTES-5000RB	(57) KTES-5000IC
685-696			(58) KTES-5000RB	(58) KTES-5000IC
697-708			(59) KTES-5000RB	(59) KTES-5000IC
709-720			(60) KTES-5000RB	(60) KTES-5000IC
721-732			(61) KTES-5000RB	(61) KTES-5000IC
733-744			(62) KTES-5000RB	(62) KTES-5000IC
745-756			(63) KTES-5000RB	(63) KTES-5000IC
757-768			(64) KTES-5000RB	(64) KTES-5000IC
769-780	(1) KTES-5000MC	(9) KTES-5000AC	(65) KTES-5000RB	(65) KTES-5000IC
781-792			(66) KTES-5000RB	(66) KTES-5000IC
793-804			(67) KTES-5000RB	(67) KTES-5000IC
805-816			(68) KTES-5000RB	(68) KTES-5000IC
817-828			(69) KTES-5000RB	(69) KTES-5000IC
829-840			(70) KTES-5000RB	(70) KTES-5000IC
841-852			(71) KTES-5000RB	(71) KTES-5000IC
853-864			(72) KTES-5000RB	(72) KTES-5000IC
865-876	(1) KTES-5000MC	(10) KTES-5000AC	(73) KTES-5000RB	(73) KTES-5000IC
877-888			(74) KTES-5000RB	(74) KTES-5000IC
889-900			(75) KTES-5000RB	(75) KTES-5000IC
901-912			(76) KTES-5000RB	(76) KTES-5000IC
913-924			(77) KTES-5000RB	(77) KTES-5000IC
925-936			(78) KTES-5000RB	(78) KTES-5000IC
937-948			(79) KTES-5000RB	(79) KTES-5000IC
949-960			(80) KTES-5000RB	(80) KTES-5000IC
961-972	(1) KTES-5000MC	(11) KTES-5000AC	(81) KTES-5000RB	(81) KTES-5000IC
973-984			(82) KTES-5000RB	(82) KTES-5000IC
985-996			(83) KTES-5000RB	(83) KTES-5000IC
997-1008			(84) KTES-5000RB	(84) KTES-5000IC
1009-1020			(85) KTES-5000RB	(85) KTES-5000IC
1021-1032			(86) KTES-5000RB	(86) KTES-5000IC
1033-1044			(87) KTES-5000RB	(87) KTES-5000IC
1045-1056			(88) KTES-5000RB	(88) KTES-5000IC

Number of Lines	System Components			
1057-1068	(1) KTES-5000MC	(12) KTES-5000AC	(89) KTES-5000RB	(89) KTES-5000IC
1069-1080			(90) KTES-5000RB	(90) KTES-5000IC
1081-1092			(91) KTES-5000RB	(91) KTES-5000IC
1093-1104			(92) KTES-5000RB	(92) KTES-5000IC
1105-1116			(93) KTES-5000RB	(93) KTES-5000IC
1117-1128			(94) KTES-5000RB	(94) KTES-5000IC
1129-1140			(95) KTES-5000RB	(95) KTES-5000IC
1141-1152			(96) KTES-5000RB	(96) KTES-5000IC

2.0 - Installation Hints

- Arrangements must be made with your local telephone company for the installation of CA71A / RJ71C or equivalent telephone jacks.
- Two 16 Volt/40 VA CSA approved Class 2 power transformers are required, one for the KTES (Kantech Telephone Entry System) at the supervised door, the other one is required for the telephone room equipment.
- The KTES controls the door strike device directly from the lock output terminals (12 VDC, 750 mA or less) or through on-board relay one (Max. 28 volts AC/DC, 3 A).
- Transformers and remote devices such as the door strike, fire alarm and door contacts, must be wired to the KTES. A wiring channel must be provided for these devices to the rear of the KTES enclosure. Follow local building code requirements for low voltage wiring.
- If a Postal Service Lock option is to be installed on the KTES, arrangements must be made with the Post Office to have the lock supplied.
- In multiple entrance applications, connect the next KTES (TIP and RING terminals) in parallel (See **Appendix B - Wiring Diagram**).
- A ready made wiring harness is provided to replace the 10 wire interconnection between cabinets in the telephone room. For longer distances, such as wiring between buildings, an additional terminal block is provided.

3.0 - Installation

3.1 Equipment

For communications, terminals RING and TIP from the KTES unit connect to terminals R and T on the Main Controller in the telephone room (polarity is not important).

3.2 Telephone Room Equipment

Mount the Main Control Cabinet (5000MC) and Auxiliary Relay Cabinet (5000AC) close to the RJ71/CA71 telephone jacks.

If cabinets are mounted adjacent to each other, wire connections between cabinets can be eliminated by using the supplied 10 conductor cable to interconnect the Main Controller to the Relay Cabinets.

Connect one end of cable to JP1 on 5000MC (RED wire to right side) and other end to J9 on 5000AC (RED wire to left side).

If additional relay cabinets are used, connect cable from J10 of first cabinet to J9 of next relay cabinet (RED wire to left side on both).

Plug the Relay Cards into the proper locations. Set the Relay Cabinet Select Jumper (located in the top right corner of the Relay Cabinet) to the proper setting. For Relay Cabinet #1 set jumper to location #1, for Cabinet #2, set jumper to location 2, etc.

Make the wiring connections to the KTES, guard phone, etc. as shown on the wiring diagram. Connect the system relays to the phone jacks using the necessary cables.

Ensure that system is Properly Grounded.

Finally, connect the 16VAC to the system. The red Power On indicators will illuminate in all cabinets. It is recommended to test the control equipment separately prior to connecting it to the KTES. To test communications with the tenant, connect a standard tone telephone to lobby or guard terminals. Dial the four digit Relay Number. The proper relay card indicator will illuminate and you will establish communication.

Appendix A - Regulatory Approvals

IMPORTANT NOTICE

The following information is provided to the installation contractor for compliance with Industry Canada standards.

NOTICE: The Industry Canada label identifies certified equipment. This certification means that the equipment meets certain telecommunications network protective, operational and safety requirements. The department does not guarantee that the equipment will operate to the users satisfaction.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment should be made by an authorized Canadian maintenance facility designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

Users should ensure for their own protection that the electrical ground connections of the power utility, telephone lines and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.

CAUTION: Users should not attempt to make such connections themselves, but should contact the appropriate electric inspection authority, or electrician, as appropriate.

The Load Number (LN) assigned to each terminal device denotes the percentage of the total load to be connected to a telephone loop which is used by the device, to prevent overloading. The termination on a loop may consist of any combination of devices subject only to the requirement that the sum of the Load Numbers of all devices does not exceed 100.

The Load Number for this Equipment is 4.0
Industry Canada Certification No.: 1949 5630 A

INSTRUCTION TO THE U.S. USER/FCC REQUIRED INFORMATION FCC REGULATIONS

This device has been granted a registration number by the FCC, under part 68 rules and regulations governing devices that directly connect to the telephone lines. This equipment complies with Part 68 of the FCC rules. A label on the controller housing of the DoorGuard 5000 contains, among other information, the FCC Registration Number and Ringer Equivalence Number (REN) for this equipment. You must, upon request, provide this information to your telephone company.

The REN is useful to determine the quantity of devices that you may connect to your telephone line and still have all of those devices ring when your telephone number is called. In most, but not all areas, the sum of the REN's of all devices connected to one line should not exceed five (5.0). To be certain of the number of devices that you may connect to your line, you may want to contact your telephone company to determine the maximum REN for your calling area.

This equipment is designed to be connected to the telephone network or premises wiring using an RJ-71C jack which is FCC Part 68 compliant.

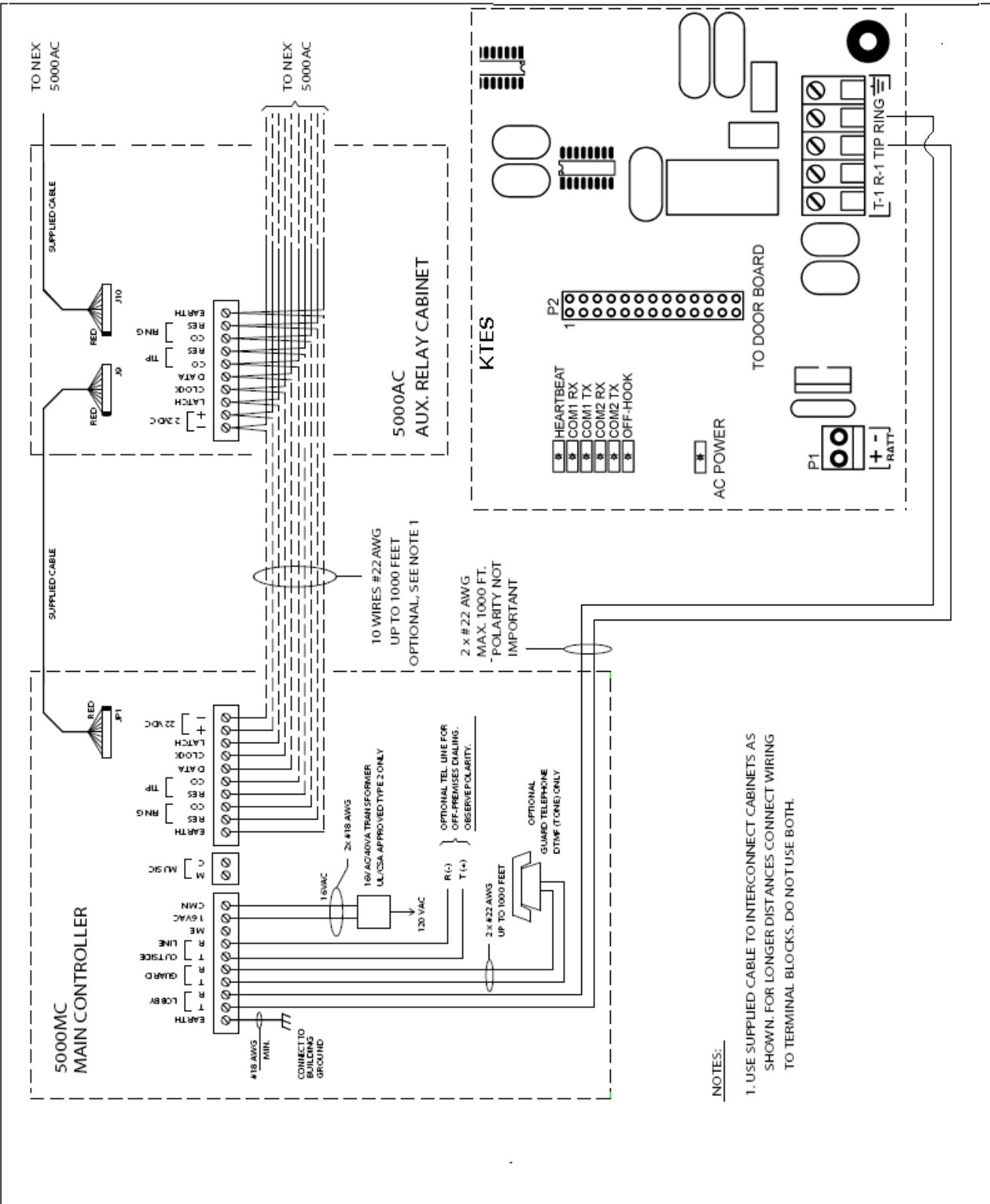
This equipment may not be used on coin service provided by the telephone company. Connection to party lines is subject to state tariffs.

Should the DoorGuard 5000 cause harm to the telephone network, the telephone company may discontinue your service temporarily. If possible, they will notify you in advance. But if advanced notice is not practical, you will be

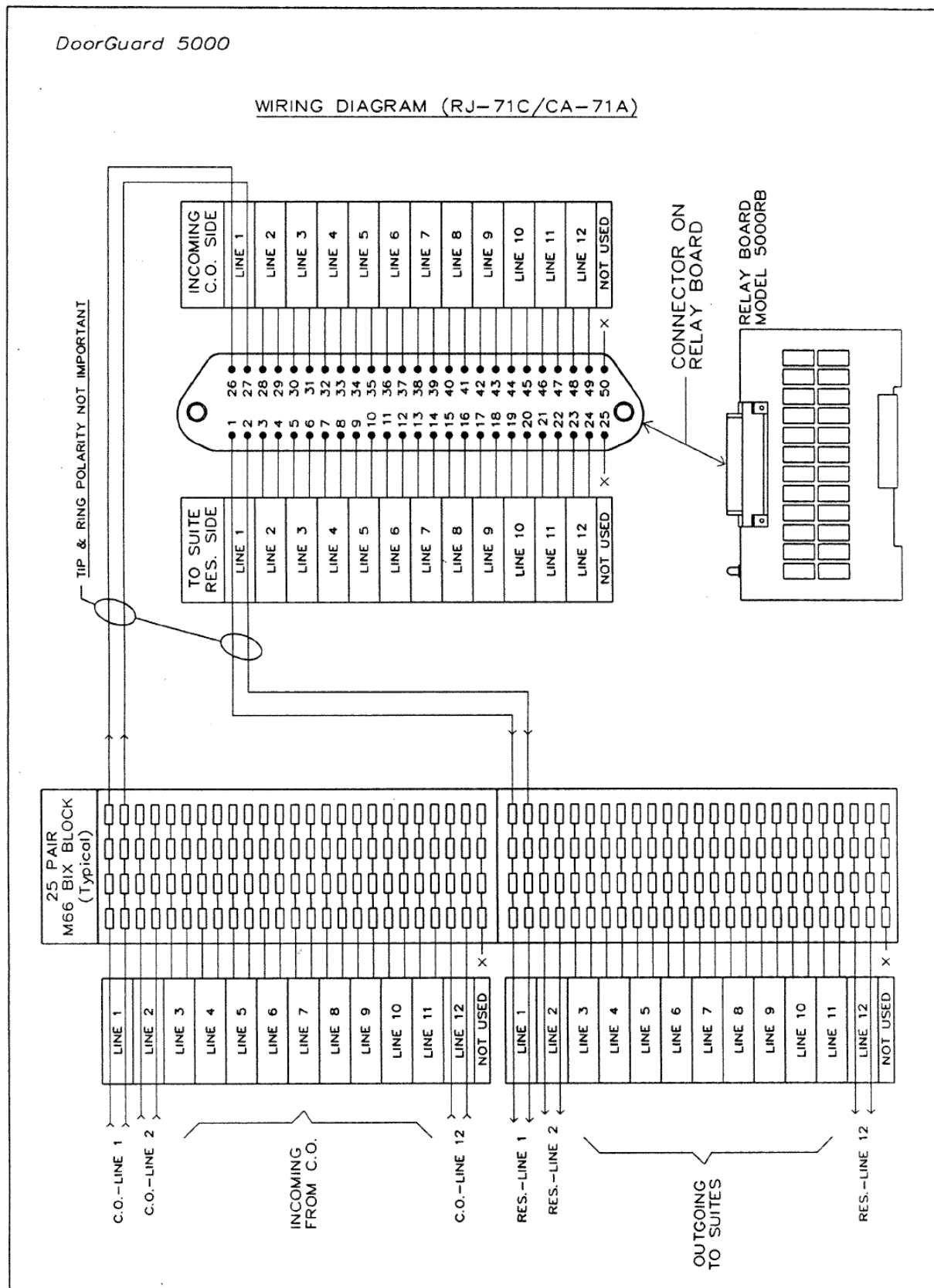
notified as soon as possible. You will be informed of your right to file a complaint with the FCC. The telephone company may make changes in its facilities, equipment, operations or procedures that could affect the proper functioning of your equipment. If they do, you will be notified in advance to give you an opportunity to maintain uninterrupted telephone service.

The telephone company may ask that you disconnect this equipment from the network until the problem has been corrected or until you are sure the equipment is not malfunctioning.

Appendix B - Wiring Diagram



Appendix C - Wiring Diagram (RJ-71C/CA-71A)



Appendix D - Connector PIN Assignment (RJ-71C / CA-71A / CA-79X)

DIRECTORY WORKSHEET

RESIDENT	PIN #		C.O.	LINE #
TIP	1	26		1
RING	2	27		
TIP	3	28		2
RING	4	29		
TIP	5	30		3
RING	6	31		
TIP	7	32		4
RING	8	33		
TIP	9	34		5
RING	10	35		
TIP	11	36		6
RING	12	37		
TIP	13	38		7
RING	14	39		
TIP	15	40		8
RING	16	41		
TIP	17	42		9
RING	18	43		
TIP	19	44		10
RING	20	45		
TIP	21	46		11
RING	22	47		
TIP	23	48		12
RING	24	49		
	25	50		

Appendix E - Programming Phone Number in the KTES Using the No Phone Bill System

Here is how to program the phone number in the KTES using the No Phone Bill System. Looking at the breakdown of the phone number, the digits is fix value 5, the following 4 digits are the relay code where the resident phone is connected to. The last 2 digits are not used and should always be at 00. These phone numbers are programmed by default and cannot be changed. Same principle applies to the 5048MC (48 lines).

Replace the 7 digits telephone number as follows:

5CODEXX(CODE=RELAY CODE,XX=DON'T CARE)

Relay	Line	Phone Number
0000	1	5000100
0001	2	5000200
0002	3	5000300
...	...	...
0011	10	5001100
0100	99	5010000
0200	199	5020000