MODEL 1350*
5-CHANNEL DIGITAL DIALER
(For Silent Knight, Ademco, DCI, Franklin, & Sescoa Receivers)

INSTALLATION MANUAL
* Referred to inside as MODEL 135

1. Before connecting this device the telephone company must be notified and provided with the following information:

    a) Manufacturer (Silent Knight)
    b) Model number -- 135
    c) F.C.C. registration number -- AC698R-67314-AL-R
    d) Ringer equivalence -- 0.0B
    e) Type of jack (to be installed by the telephone company) RJ31X

    Note: The telephone company must also be notified if this device is permanently disconnected!

2. This device may not be directly connected to coin telephone or party line services.

3. The telephone company under certain circumstances may temporarily discontinue service and/or make changes in its facilities and services which may affect the operation of this device; however, the telephone company is required to give adequate notice in writing of such changes or interruptions.

4. This device cannot be adjusted or repaired in the field; in case of trouble with the device notify the installing company or return to:

                    Silent Knight Security Systems
                    1700 Freeway Blvd. No.
                    Minneapolis, Minnesota 55430

TABLE OF CONTENTS

DESCRIPTION

The Model 135 is a 5 channel Digital Dialer designed for application with any alarm system; it can be employed as a "slave" or add-on to a local alarm, or as a self contained silent alarm.

Features of the Model 135 include:

1) Full "Memory" reporting on all channels; all channels which are in alarm will be reported.
2) Built-in A.C. power supply and battery charger.
3) "Restore-to-Normal" reporting.
4) Optional "Restore-to-Normal" on momentary inputs (Channels 1, 2 and 3).
5) Optional momentary and/or continuous inputs.
6) Normally-closed and/or normally-open inputs to channels 1 and 3.
7) Normally-closed or normally-open inputs to channels 4 and 5. (Channel 2 is NO only).
8) Separate "Test" input.
9) Battery test.
10) Self initiating "Low Battery" reporting.
11) Supervised Channel 2. (reports same alarm code as "Low Battery")
12) Built-in "Line Seizure" relay.
13) Anti-jam.
14) Opening and closing reporting.
15) Auto and manual reset.
16) 11 digit dialing.
17) Compatible with Ademco, Sescoa, DCI, Franklin and most other receivers.

REPORTING SEQUENCE

A. Transmission Format

1) Once activated the Model 135 will seize the telephone line and begin listening for dial tone.
2) If dial tone is detected it will commence dialing the programmed number.
3) When the Receiver answers, it will send an "Acknowledge" tone to the 135 which tells the 135 to send its data. (If the 135 does not reach the "Receiver" for whatever reason, it will hang-up and try again. This will happen a total of 21 times).
4) The alarm data (3 digit location number and single alarm digit) is transmitted.
5) When the Receiver has decoded two (2) complete and identical alarm transmissions from the 135 it will send a "message correct" (Kiss-off) tone to the 135.
6) If more than one channel input is active after the 135 receives the "Kiss-off", it will report the next alarm message. This will continue until all alarms are reported.
7) The final Kiss-off will cause the 135 to hang-up. (The memory reports in ascending order Channel 1 - 9).

B. Low Battery

The Model 135 has a low battery detector which will cause the dialer to activate and report low battery (Code 8) when the battery voltage reaches 5.6 volts D.C.

SELECTION OF OPTIONS

There are four screw options labeled S01 (A-B), S02 (A-B), S03 (A-B) and S04 and five wire jumper options labeled 5, 6, 7, 8 and 9 on the 135. These options are described in the following paragraphs and tables.

-2-

A. Input Selection

Channels 1,2,3,4 of the Model 135 can be programmed for Momentary (Latching) or Continuous (Non-Latching) activation. Channel 5 of the Model 135 is Continuous (Non-Latching) only.

Input selection is as follows:

Momentary Activation Channels 1,2,3,4

Jumper 6 Out   SO1-A or B, SO2-A or B, SO3-A or B

Continuous Activation Channels 1,2,3,4

Jumper 6 In.   SO1-B, SO2-B, SO3-B

Jumper six is the primary determining factor as to whether the channels will accept momentary or continuous inputs. However with Jumper 6 IN there is the option of continuous or momentary inputs for Channels 1,2,3 which may be selected by the Screw Options SO1, SO2 and SO3. A table for the options is shown below.

CHANNEL	INPUT	
	CONTINUOUS	MOMENTARY
1. (SO1)	B	A
2. (SO2)	B	A
3. (SO3)	B	A
4. Continuous input only since J6 is in		

-3-

B. Restore-to-Normal

The Restore-to-Normal reporting option (Code 7) is selected by Jumper 7, as follows:

No Restore-to-Normal	Jumper 7 In
Restore-to-Normal	Jumper 7 Out

Channels 1,2 and 3 can be programmed to report Restore-to-Normal on a momentary or a continuous input. In order to report restore on a momentary input, input Channel must be in the "A" position.

Channels 4 and 5 will only report Restore-to-Normal on a continuous input.

Restore-to-Normal on a continuous input will be transmitted only if the initiating alarm is removed after the Model 135 has received the "Kiss-Off" signal from the receiver.

Opening Closing Reporting

The Model 135 can report Opening and Closing as shown below:

Opening Code 9 Closing Code 4

Jumper 8 Out	J6 Out	S04 In

-4-

D. Data Transmission Format

The Model 135 is Wire Jumper programmable for use with several types of Receivers. The transmission format options are shown below.

<u>Silent Knight, Ademco Format</u>

Jumper 5 In   Jumper 9 In

<u>Sescoa, DCI, Franklin Format</u>

Jumper 5 Out   Jumper 9 Out

INPUT CONNECTIONS

A.C.   - Connect 12 VAC transformer to terminals 1 & 2

Battery - Connect <u>6</u> Volt battery to battery cables.
            CAUTION Red to(+) plus. Black to (-) minus

Ch. 1   - Channel 1 will operate with normally-closed (N.C.) and/or normally-
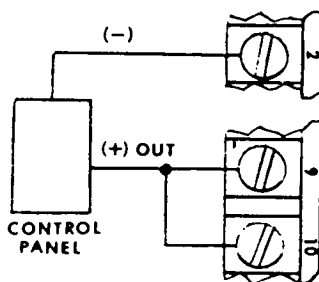   open (N.O.) contacts. As shown in Figure 1.

NOTE: If N.C. contacts are <u>NOT</u> used a jumper must be con-
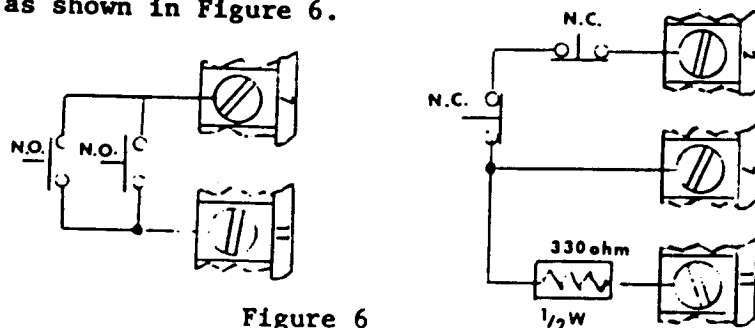nected across terminals 3 & 4.

Figure 1.
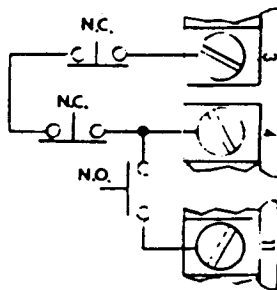
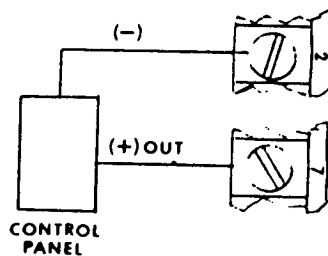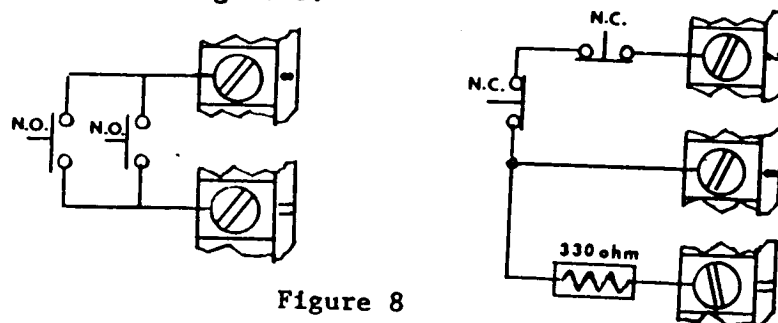Channel 1 may also be activated by a voltage connect as shown in figure 2.

Figure 2.
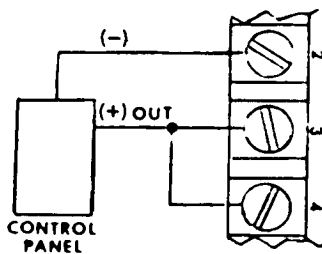
Channel 1 will be reported as an alarm code (1) for Silent Knight format or a code
(3) for Sescoa format.

Ch. 2   −   Channel 2 will operate with (N.O.) contacts <u>only</u>. Connect as shown in Figure 3.

> <u>NOTE</u>: The Channel 2 input is supervised. A 15 K resistor <u>must</u> be connected across the last sensor in the (N.O.) loop. If Channel 2 is not used connect the resistor across terminals 6 & 11.
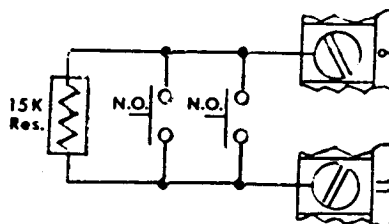
Figure 3.

Channel 2 will be reported as an alarm code (2) for Silent Knight format or code (1) for Sescoa format. Loss of supervisory on Channel 2 will be reported as an alarm code (8)

Ch. 3   — Channel 3 will operate with (N.C.) <u>and/or</u> (N.O.) contacts as shown in Figure 4.

> <u>NOTE</u>: If N.C. contacts are <u>not</u> used a Jumper must be connected across terminals 9 & <u>10</u>.

Figure 4.
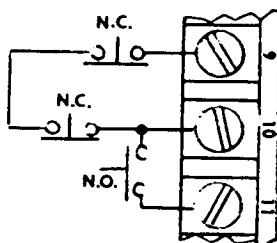
Channel 3 may also be activated by a voltage. Connect as shown in Figure 5.

Figure 5.

Channel 3 will be reported as an alarm code (3) for Silent Knight format or code (2) for Sescoa format.

-8-

Ch. 4   −   Channel 4 will operate with (N.C.) <u>or</u> (N.O.) contacts but <u>not</u> both. Connect as shown in Figure 6.

Figure 6

Channel 4 may also be activated by a voltage. Connect as shown in Figure 7.

Figure 7

Channel 4 will be reported as an alarm code (4) for Silent Knight format or code (6) for Sescoa format.

Ch. 5   —   Channel 5 will operate with (N.C.) <u>or</u> (N.O.) contacts but <u>not</u> both. Connect as shown in Figure 8.

Figure 8

Channel 5 may also be activated by a voltage. Connect as shown in Figure 9.
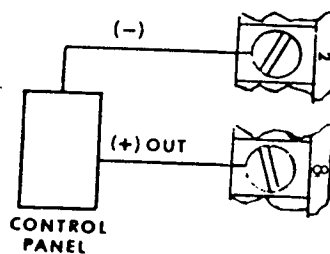
Figure 9

Channel 5 will be reported as an alarm code (5) for both Silent Knight and Sescoa format.

Test   –   The "Test" input will operate with a "Momentary" N.O. switch. Connect as shown in Figure 10.
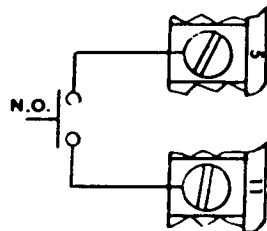
Test will be reported as an alarm code (9).

Figure 10.

NOTE: When the "Test input is active (switched closed) the (A.C.) is automatically turned off. If the battery is low the 135 will report low battery (code 8). If the battery is dead or <u>not connected</u> the 135 will <u>not</u> dial or seize the line.

TELEPHONE LINE CONNECTIONS

The 135 has a built-in line seizure relay which will disconnect both sides of any house phone telephone lines. Connect as shown in Figure 11.
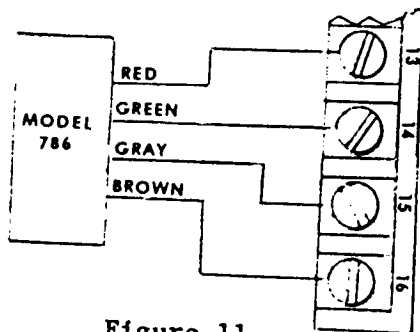
IMPORTANT: A LINE SEIZURE RELAY PROVIDES ONLY MARGINAL PROTECTION AGAINST LIGHTNING. IT IS STRONGLY RECOMMENDED THAT AN ADDITIONAL SUPPRESSOR (MODEL 787) BE CONNECTED TO THE TELCO. TERMINAL BLOCK.

Figure 11

OUTPUTS

Switched ground (coupler pull-DOWN) (Reporting indicator)

The "reporting" light output provides a (-) minus potential whenever the 135 is in the reporting (active) sequence. This output may be used to turn on a light or activate a relay or control a coupler. Connect as shown in Figure 12.
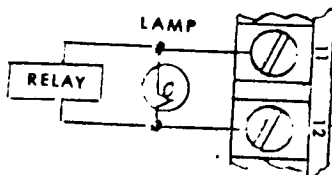
Figure 12

(D.C. current available at)
(terminal 12 is 50 MA.   )

-12-

TERMINAL STRIP SUMMARY

12 VAC	1
12 VAC (Common)	2
CH.1 OUT	3
CH.1 IN	4
TEST	5
CH. 2	6
CH. 4	7
CH. 5	8
CH.3 IN	9
CH.3 OUT	10
+7 VDC OUT	11
REPORTING	12
TELCO (R)	13
TELCO (T)	14
PHONES (R)	15
PHONES (T)	16

-13-

DIALER PROGRAMMING

Dialing – The 135 will dial as few as 3 digits or as many as 11, depending on how the matrix is programmed. See examples in Figure 13.

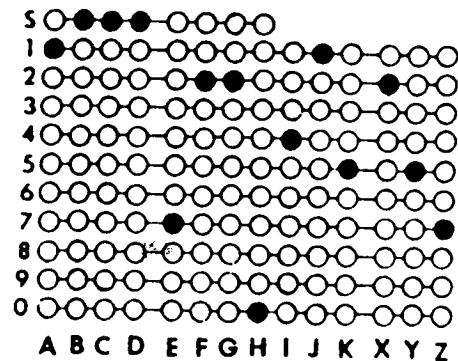> NOTE: If more than 7 digits are used the digits must start with the "A" row of the matrix. The appropriate number of "skips" left in the "S" position and the remaining digits programmed normally. Each "skip" (S) provides .8 sec of delay.
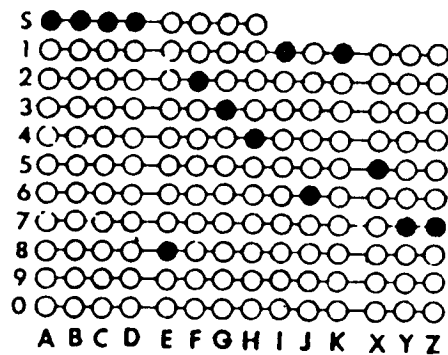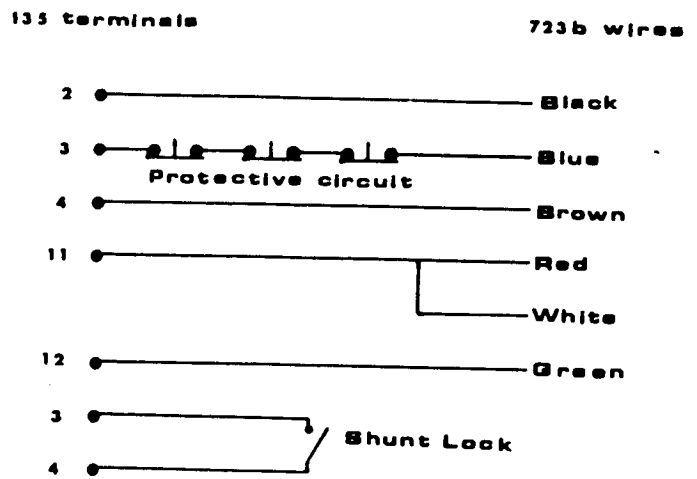

EXAMPLE: 823-4161, Act. 577

Program the telephone number in rows A thru K.

Program the account number in rows X Y & Z.

EXAMPLE: 1-722-0415, Act 257

-14-

723 b to 135 for opening/closing

135 terminals		723b wires
2	————————————————	Black
3	—●|●——●|●——●|●—	Blue
	Protective circuit	
4	————————————————	Brown
	In 40 01 diode	
7		Red
	470Ω resistor	
11		White
2		
	Shunt Lock	
7		
12	————————————————	Green

135 terminals		723b wires
2	————————————————	Black
3	—●|●——●|●——●|●—	Blue
	Protective circuit	
4	————————————————	Brown
11		Red
		White
12	————————————————	Green
3		
	Shunt Lock	
4		
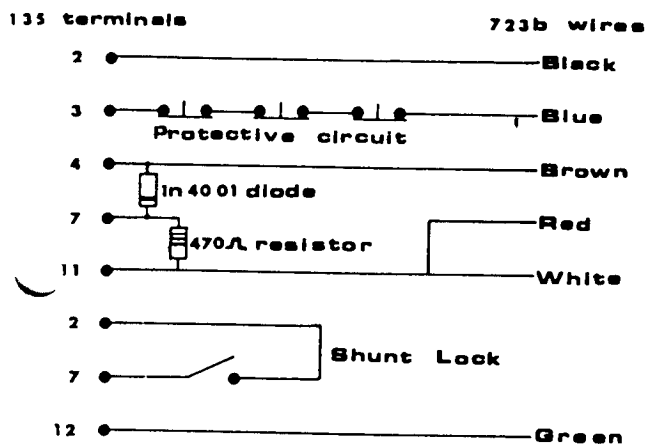
IMPORTANT: Silent Knight products should be tested every month (under no circumstances less than every three months) to insure complete and proper operation and proper input and output connections.

LIMITED WARRANTY

Silent Knight Security Systems warrants that the products of its manufacture shall be free from defects in materials or workmanship for one year from the date of invoice if such goods have been properly installed and subject to normal proper use. Upon notification to Silent Knight Security Systems, 1700 Freeway Blvd. No., Minneapolis, Minnesota 55430, Silent Knight will repair or replace, at no cost to the customer, such goods as may be of defective material or workmanship.

SILENT KNIGHT SECURITY SYSTEMS SHALL NOT UNDER ANY CIRCUMSTANCES BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING FROM LOSS OF PROPERTY OR OTHER DAMAGE OR LOSSES OWING TO THE FAILURE OF SILENT KNIGHT SECURITY SYSTEMS PRODUCTS BEYOND THE COST OF REPAIR OR REPLACEMENT OF ANY DEFECTIVE PRODUCTS.

SILENT KNIGHT SECURITY SYSTEMS MAKES NO WARRANTY OF FITNESS OR MER-CHANTABILITY AND NO OTHER WARRANTY, ORAL OR WRITTEN, EXPRESS OR IMPLIED, BEYOND THE ONE YEAR WARRANTY EXPRESSLY SPECIFIED HEREIN.