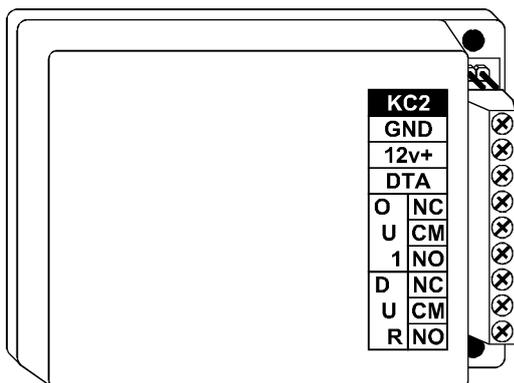# Presco™ KEYPAD

KC2 "Series 2"

2 Relay Output Presco™ Keypad Decoder.

⟳ N761

FEATURES

- Compatible with Presco™ PRE, PSE-NI & PSE-IL keypads.
- Split system for maximum security.
- Alarm activate relay output.
- Duress relay output.
- One way code for OU1 activation only.
- 29 client programmable user codes (125 optional).
- Code digits can repeat. i.e. 12321.
- 3 to 7 digit management and user codes.
- Minimum 19 million possible user code combinations.
- Up to 10 keypads can be connected to one decoder.
- 10 year non volatile memory.
- Operating Temperature Range: 0°C to 70°C.

KC2
GND
12v+
DTA

O	NC
U	CM
1	NO
D	NC
U	CM
R	NO

1

Design Philosophy - Problems and Solutions.

1/ Most keypads contain the switching relay and control wiring within the keypad housing. A skilled person could easily bypass the keypad function simply by removing it then manipulating the control wiring, a disastrous situation. Presco™ is "split" in 2 parts, so that the decoder can do all the processing at a remote protected environment. The code is transmitted between keypad and decoder in "computer" language, therefore cutting or shorting wires won't compromise security.

2/ Typical keypad installations require 7 or more wires thus increasing labour and cost. Presco™ uses only 4 wires to communicate arm/disarm, isolate, emergency, auxiliary, One Way Code, LED/buzzer feedback of code entry, acknowledgment of correct code, state of alarm, previous alarm warning, remote management code programming and power. Up to 10 keypads can be connected to a KC6 by simple parallel wiring. No synchronising is required.

PROTECTION.

The NIDAC Presco™ keypad system has a high immunity to all types of static, EMF, and RF transmissions including those of Police and CB radio systems. Reverse polarity and over voltage protection from lightning strike up to 10Kv is provided.

WARRANTY.

NIDAC SECURITY PTY. LTD. will repair or replace this product if proven to be faulty (excluding accidental or malicious damage) under the 36 month warranty offered from the date of purchase.

As NIDAC SECURITY PTY. LTD. or it's agents do not perform the final installation, inspection or training in the use of this product, they cannot be held liable for injury, loss or damage directly or consequentially arising from the use or misuse of this product.

Presco™ is a registered Trade Mark belonging to NIDAC SECURITY PTY. LTD. The Presco™ Keypad system is protected by provisional and pending patents in various countries including Australia.

The software design is protected internationally and remains the intellectual property of NIDAC SECURITY PTY. LTD.

Design improvement and specifications are subject to change without notice. All designs are copyright 1992 - 2004.

Designed and Manufactured by:
NIDAC SECURITY PTY. LTD.

AUSTRALIAN MADE®

NIDAC
"When you're serious about security"

SPECIFICATIONS

Input Voltage:	10-15V D.C.
Input Current:	15mA + 35mA per relay when operated.
OU1 & DUR contacts:	30V, 1A SPDT relays.
Max. KC2/Keypad separation:	1Km (max. return resistance 100Ω. Non shielded).
Dimensions:	88mm x 69mm x 25mm.
Weight:	200gms.

IMPORTANT! Disconnect all power during wiring.
Do not over-tighten terminal screws on decoder.

DECODER TERMINAL DESCRIPTIONS

GND Negative output or Ground from Power Supply.

12v+ 12 Volt D.C. positive from Power Supply.

DTA Data (white wire from Keypad).

OU1 This output can be set up for timed or toggle operation (refer to memory 8) and operated with a programmed user code. However when it is set for toggle operation (default setting) it can also be turned on (only) using the built in One Way Code of #E (a valid OU1 code must be used to turn it off).

DUR This output is the Duress output and it can only be operated using the emergency code or duress function as described below in DURESS OPERATION. The Duress output can only be set for timed operation.

DURESS OPERATION.

The DUR output operates for the programmed time (refer to memory 8) when either the emergency code of *E is used or a * is inserted into a valid user code. eg. if a valid code for OU1 is 1234E then using the code as *1234E or 12*34E, etc. will operate OU1 as usual but will also operate DUR for its programmed time.

3

DISABLING THE EMERGENCY AND ONE WAY CODES.

The One Way Code of #E and Emergency code of *E can be disabled on an individual keypad basis by simply cutting the link on the back of the keypad.

OPERATING MODE RULES

1/ **1 beep** = successful code (output turned on).

2/ **2 beeps** = successful code (output turned off).

3/ **5 beeps** = management code entered.

4/ a **long beep** = a non existent code.

   a **pause** then a **long beep** = 5 unsuccessful "tries". (System is locked out for 1 minute).

   *The * and Memory No. are NOT required in the OPERATE mode.*

5/ Cancel a wrong entry with E, then re-try.

THE MEMORIES

Memory 0	Memory 1	Memory 2	Memory 3	Memory 4
NOT USED.	OU1 user codes.	NOT USED.	NOT USED.	NOT USED.
Memory 5	Memory 6	Memory 7	Memory 8	Memory 9
NOT USED.	NOT USED.	NOT USED.	Timed/toggle set-up.	Management code.

BASIC SETUP SEQUENCE

1/ Set outputs as timed or toggle (Currently OU1 toggles and DUR operates for 1 second). [Memory 8]

2/ Program MANAGEMENT CODE. [Memory 9]

3/ Program USER CODES. [Memories 1 to 6]

NOTE: Use the Program Link for steps 1 to 3 above (and step 4 if the management code is not used). Remove link when finished.

4

TIMED/TOGGLE SETUP.   (MEMORY 8)

Factory preset to: OU1 toggles, DUR momentary for 2 seconds.

Memory 8 stores which outputs are to operate as toggle or timed (operate momentarily between 1 to 20 seconds). Each output (**OU1** and **DUR**) can have different time settings.

1/ The program link **must be on**.
2/ The **position** of the digit after the **8** represents the output. i.e. 1st position = OU1, 6th position = DUR.
3/ DUR cannot be set to toggle and so the 6th digit after the **8** cannot be set to a **0**.
4/ When changing momentary times, your choice will overwrite any previous settings.
5/ The **value** of the digit determines the output's operate time in seconds. ①=1s, ②=2s, ③=3s, ④=4s, ⑤=6s, ⑥=8s, ⑦=11s, ⑧=15s, ⑨=20s, ⓪=TOGGLE.
6/ The One Way Code of #E for OU1 is disabled if OU1 is set for a timed operation.

Set Output times............ ▣▣
* 8 2 0 0 0 0 1 E......OU1 = 2s, DUR = 1s (Warble).
* 8 0 0 0 0 0 8 E......OU1 toggles, DUR = 15s (Warble).

PROGRAMMING

PROGRAMMING MODE RULES.

1/ The * key = **Add**.
2/ The # key = **Delete**.
3/ Enter memory number (① for OU1 user codes, ⑨ for the management code, etc.) **before** any programmable information. This ensures the information is directed to the correct memory location.
4/ **Warble** = successful **Add** or **Delete**.
5/ **Long beep** warns that either codes are already in use, too long or short, or more than **125** codes have been used.
6/ Press each digit within 10 seconds after the preceding digit, otherwise information will be lost. If a wrong number is pressed, wait 10 seconds then start again.

NOTES:

1/ After trying the example codes below, delete them then add your own unique code/s. Avoid obvious codes like 1234.
2/ Up to 125 different user codes can be stored between **Mems 1** and **2**.
3/ Repeating digits, including the #, are allowed in codes eg. 2#3#3 provided that # is not the first digit.
4/ Codes can be from **3** to **7** digits in length.
5/ There are **NO** factory preset codes programmed.

THE MANAGEMENT CODE.   (MEMORY 9)

Memory 9 stores the **Management** code which allows the **Program** mode to be entered from any keypad **without** the Program link. Use this feature if regularly changing codes, or the decoder is difficult to access. As supplied, no **Management** code exists.

To add, change or delete the **Management** code, the Program link **must be on**. The digits after the * 9 are the **Management** code.

Add Management Code ▣▣
* 9 2 4 6 E .... **246** is the management code (warble).
* 9 3 6 9 E .... **369** has now over written 246 (warble).
....▫▣ Restore operate mode.

Using the Management code .▫▣
3 6 9 E.........................**Program** mode entered (5 beeps).
* 1 4 5 6 E .... 456 added to memory 1 user codes (warble).
.... **Operate** mode entered automatically.
Note: that the system automatically returns to the **Operate mode** after a single management function has been performed. i.e. add or delete a code. If the management function was not successful, the system still returns to the **Operate mode** (after a long beep).
Note: how **369E** replaces the Program link function but with the addition of the 5 beeps to clearly indicate which mode is current. All user code programming examples shown below could be done with the management code. **369** is an example only, with the link ON overwrite it with a new code or delete with #9E. **REMOVE LINK**.

Note: If after entering the **Management mode** you decide not to add or delete a code, then press E to return to the **Operate mode**.
Note: If the Management code is forgotten, use the program link to over write the forgotten code with a new code. This feature obsoletes factory preset or "house codes" which can compromise security.

USER CODES.   (MEMORIES 1 and 2)

The codes programmed into **Memories 1** and **2** are used to operate the outputs OU1 to DUR respectively.

1/ The digits after the * and memory no are the user code.
2/ Memory 6 (DUR codes) can only be programmed if the Duress feature is disabled (memory 0).
3/ The same user code cannot be used for multiple outputs.

Add user codes.............▣▣ Link **on both** pins (**Program mode**).
* 1 5 6 7 E .... 567 is added for OU1 (warble).
* 1 6 7 8 E .... 678 is also added for OU1 (warble).
* 2 7 8 9 E .... 789 is added for DUR (warble).

Try user codes ....▫▣ Park link on 1 pin (**Operate mode**).
5 6 7 E...........................OU1 turns on (1 beep).
6 7 8 E...........................OU1 turns off (2 beeps).
7 8 9 E...........................DUR turns on (1 beep).

Delete a user code.........▣▣
1 6 7 8 E .... 678 is deleted from OU1 (warble), 567 remains.

Delete all user codes for an output ▣▣
1 E............................ Deletes all codes stored for OU1 (warble).
....▫▣ Restore operate mode.

BASIC WIRING DIAGRAM

✻ Up to 10 keypads can be connected to a KC2 decoder.