# FUTURE KIT

HIGH QUALITY ELECTRONIC KITS

## ELECTRONIC CODE SWITCH
## CODE 422

LEVEL 1

This eletronic code switch circuit is an electronic key circuit that accepts working only for those who keys the right code. This circuit is working by 4 digits numeric code. Usage: As doorlock without using a key, to switch on device which should not be operated by strangers.

**Technical specifications:**

- power supply: 12VDC.
- consumption: 40mA. max. (output on)
- maximum load: 10A@125VAC, 5A@220VAC
- more than 3000 codes (4 digits)
- PCB dimensions : 2.38 x 2.77 inches.

**How to works:**

IC1 is 1 digit counting IC. When first awitching on, pin 3 will have voltage. When we press switch A, pin 14 which is the CLK signal receiver will have high voltage, pin 3 of output will be moved to pin 2. When switching on B, output at pin 2 will be moved to pin 4. When switching on C, pin 14 will have high voltage. Output at pin 4 will be moved to pin 7. When switching on D, pin 14 will have high current. Output at pin 7 will be moved to pin 10, so the base of TR2 makes TR2 conducts current, LED displays and relay works. So that we will switch A, B, C and D accordingly. S1 to S6 switches are reset IC1. When we pressing these 6 switches, output will be back to pin 3. If we press 2 digits rightly, and then switch on any R, the circuit will recounting and have to restart the above process including pressing the correct code in order to make relay working.

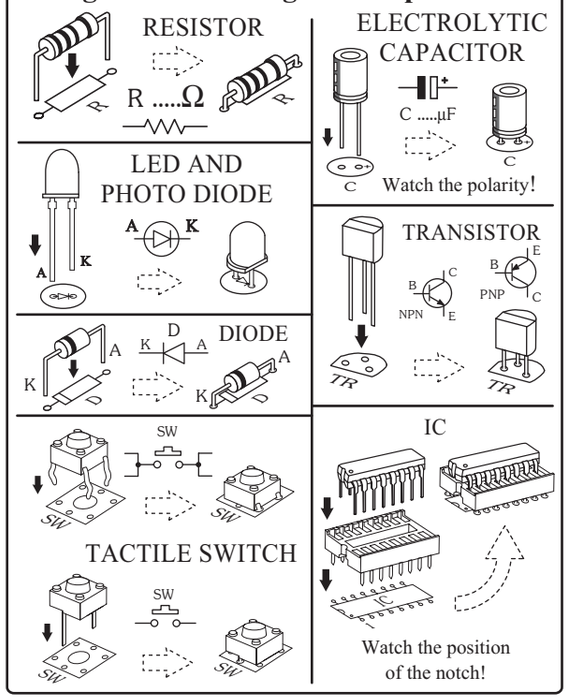
**PCB assembly:**

Shown in Figure 3 is the assembled PCB. Starting with the lowest height components first, taking care not to short any tracks or touch the edge connector with solder. Some tracks run under components, and care should be taken not to short out these tracks. All components with axial leads should be carefully bent to fit the position on the PCB and then soldered into place. Make sure that the electrolytic capacitors are inserted the correct way around. The LED has a flat spot on the body which lines up with the line on the overlay. Now check that you really did mount them all the right way round!

**Code connection:**

Putting PC-board which has copper line up and connecting code "6235" as per example in figure 3. Wiring switch no.6 to "A" point, switch no.2 to "B" point, switch no.3 to "C" point, and switch no.5 to "D" point respectively. Then giving supply from 9 volts battery or adapter to citcuit. Pressing switch no.1, 4, 7, 8, 9, 0 to "R" point according to the figure (square button closed to squqre switch leg is "R" point). Giving supply and key the correct code, LED displays. If you want to change code, taking soldering points and reset R that connected with switch leg off and testing as per above instruction. E.G. new code is 2, 5, 3, 0. Connecting no.2 to A, 5 to B, 3 to C and 0 to D. Connecting code no.1, 4, 6, 7,8, 9 with R according to the above mention.

**Figure 1. Installing the componants**




**Troubleshooting:**

The most problem like the fault soldering. Check all the soldering joint suspicious. If you discover the short track or the short soldering joint, re-solder at that point and check other the soldering joint. Check the position of all component on the PCB. See that there are no components missing or inserted in the wrong places. Make sure that all the polarised components have been soldered the right way round.

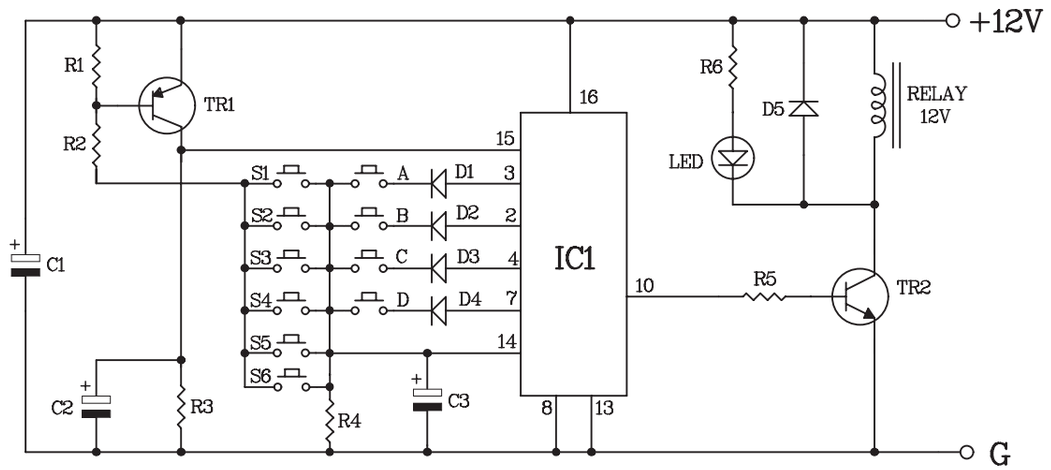



**Figure 2. The electrinic code switch circuit**

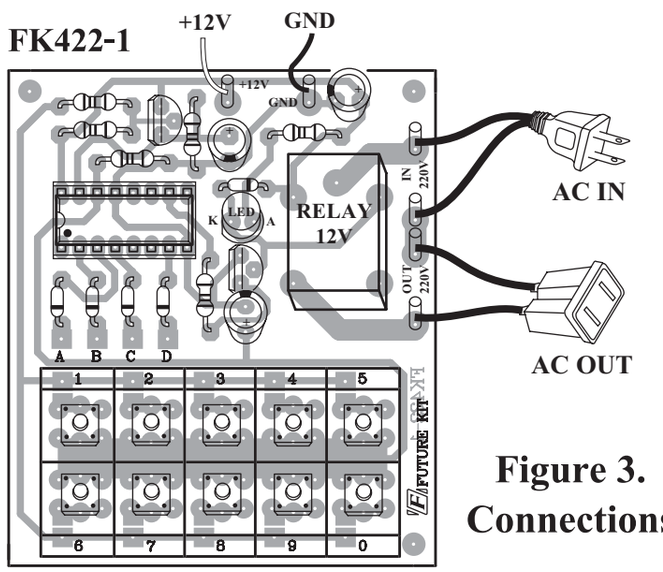
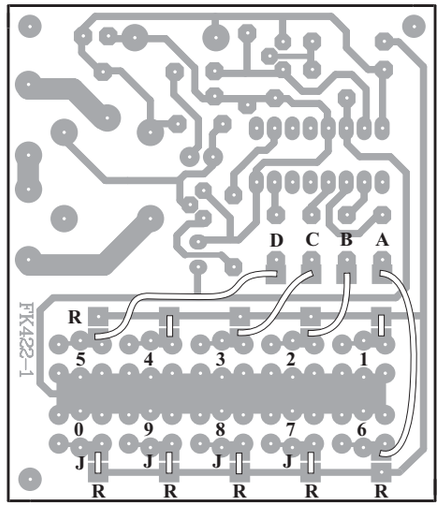
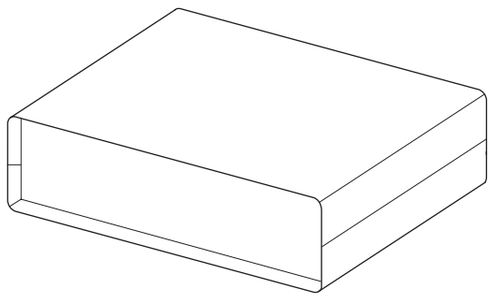



**Figure 3. Connections**




**J = JUMPER**



**NOTE:**

**FUTURE BOX FB16 is suitable for this kit.**

NEW KIT SET NEW

| CODE FK | DESCRIPTION | POWER |
|---|---|---|
| 161 | FEELING FLASHER 14 LED | 9-12VDC |
| 162 | SATURN'S RING FLASHER 31 LED | 9-12VDC |
| 163 | UNIVERSAL FLASHER 10 LED | 9VDC |
| 164 | XENON TUBE FLASHER (STRAIGHT TYPE) | 220VAC |
| 165 | SOUND ACTIVATED XENON FLASHER (STRAIGHT TYPE) | 220VAC |
| 166 | LIGHT ACTIVATED XENON FLASHER (STRAIGHT TYPE) | 220VAC |