

Relay output module for K8006

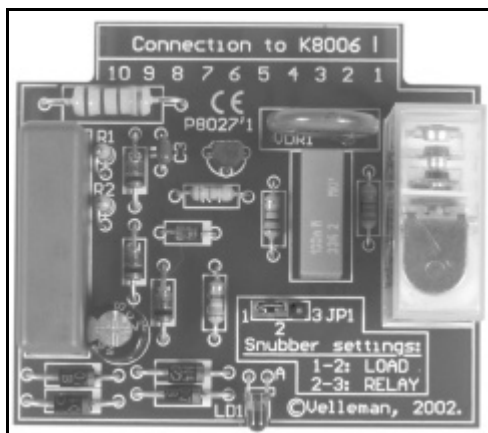
K8027

Features:

- For use with K8006 Base unit for home modular light system.
- Suited for both resistive and inductive loads.
- Can be operated from an external push button & open collector trough : ex. K6711 - K8023 - K8000 - K8046
- Control LED.

Specifications :



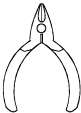
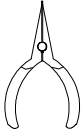
- Operating voltage : 110 to 240Vac (50/60Hz).
- Max Load : 2,5A (275W/110V - 575W/230V).
- Dimensions : 65 x 57 x 25mm / 2,6" x 2,2" x 1"



1. Assembly (Skipping this can lead to troubles !)

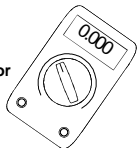
Ok, so we have your attention. These hints will help you to make this project successful. Read them carefully.

1.1 Make sure you have the right tools:

- A good quality soldering iron (25-40W) with a small tip. 
- Wipe it often on a wet sponge or cloth, to keep it clean; then apply solder to the tip, to give it a wet look. This is called 'thinning' and will protect the tip, and enables you to make good connections. When solder rolls off the tip, it needs cleaning. 
- Thin raisin-core solder. Do not use any flux or grease. 
- A diagonal cutter to trim excess wires. To avoid injury when cutting excess leads, hold the lead so they cannot fly towards the eyes. 
- Needle nose pliers, for bending leads, or to hold components in place.
- Small blade and Phillips screwdrivers. A basic range is fine.



For some projects, a basic multi-meter is required, or might be handy

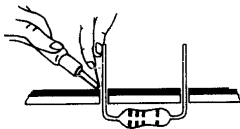
**1.2 Assembly Hints :**

- ⇒ Make sure the skill level matches your experience, to avoid disappointments.
- ⇒ Follow the instructions carefully. Read and understand the entire step before you perform each operation.
- ⇒ Perform the assembly in the correct order as stated in this manual
- ⇒ Position all parts on the PCB (Printed Circuit Board) as shown on the drawings.
- ⇒ Values on the circuit diagram are subject to changes.
- ⇒ Values in this assembly guide are correct*
- ⇒ Use the check-boxes to mark your progress.
- ⇒ Please read the included information on safety and customer service

* Typographical inaccuracies excluded. Always look for possible last minute manual updates, indicated as 'NOTE' on a separate leaflet.

1.3 Soldering Hints :

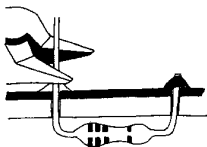
Mount the component against the PCB surface and carefully solder the leads



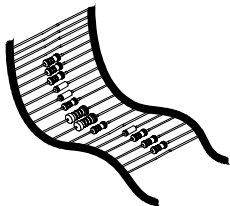
Make sure the solder joints are cone-shaped and shiny



Trim excess leads as close as possible to the solder joint

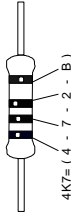


AXIAL COMPONENTS ARE TAPED IN THE CORRECT MOUNTING SEQUENCE !

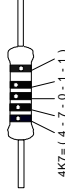


REMOVE THEM FROM THE TAPE ONE AT A TIME !

5%



1%

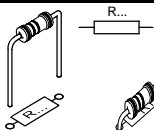


COLOR= 2...5



	I	P	E	SF	S	DK	N	D	GB	F	NL
C O D E	CODICE COLORE	CODIGO DE CORES	CODIGO DE COL- ORES	VÄRI KOODI	FÄRG SCHEMA	FARVE- KODE	FARGE- KODE	FARB KODE	COLOUR CODE	CODIFI- CATION DES COU- LEURS	KLEUR KODE
D E											
0	Nero	Preto	Negro	Musta	Svart	Sort	Sort	Schwarz	Black	Noir	Zwart
1	Marrone	Castanho	Marrón	Ruskea	Brun	Brun	Brun	Braun	Brown	Brun	Bruin
2	Rosso	Encarnado Rojo		Punainen	Röd	Röd	Röd	Rot	Red	Rouge	Rood
3	Aranciato	Laranja	Naranja	Oranssi	Orange	Orange	Orange	Orange	Orange	Orange	Oranje
4	Giallo	Amarelo	Amarillo	Keltainen	Gul	Gul	Gul	Gelb	Yellow	Jaune	Geel
5	Verde	Verde	Verde	Vihreä	Grön	Grøn	Grønn	Grün	Green	Vert	Groen
6	Blu	Azul	Azul	Sininen	Blå	Blå	Blå	Blau	Blue	Bleu	Blauw
7	Viola	Violeta	Morado	Purppura	Lila	Violet	Violet	Violet	Purple	Violet	Paars
8	Grigio	Cinzeno	Gris	Harmaa	Grå	Grå	Grå	Grau	Grey	Gris	Grijs
9	Bianco	Branco	Blanco	Valkoinen	Vit	Hvid	Hvidt	Weiss	White	Blanc	Wit
A	Argento	Prateado	Plata	Hopea	Silver	Sølv	Sølv	Silber	Silver	Argent	Zilver
B	Oro	Dourado	Oro	Kulta	Guld	Guld	Guldi	Gold	Gold	Or	Goud

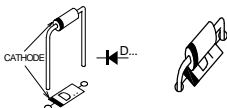
1. Resistors



- R4 : 4K7 (4-7-2-B)
- R5 : 10K (1-0-3-B)
- R6 : 3K9 (3-9-2-B)
- R7 : 220 ^{1/2W} (2-2-1-B-9)

2. Diodes

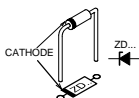
Watch the polarity !



- D1: 1N4007
- D2: 1N4007
- D3: 1N4007
- D4: 1N4007
- D5: 1N4148

3. Zenerdiodes

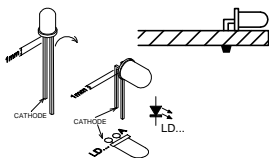
Watch the polarity !



- ZD1: 8V2
- ZD2: 8V2
- ZD3: 8V2

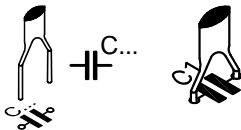
4. LED

Watch the polarity !



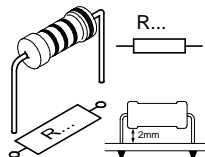
- LD1: 3mm Red

5. Ceramic Capacitor

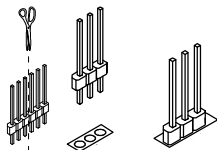


- C3: 100nF (104)

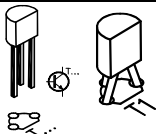
6. 1w Resistor



- R3 : 220 (2-2-1-B)

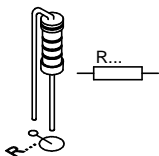
7. Header

JP1 : 3p

8. Transistor

T1: BC557B

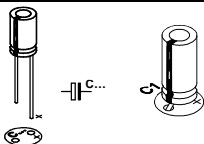
**9. 1/2W Resistors.
(Check the color code
& mount them vertical)**



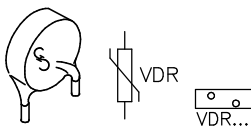
R1 : 220K (2-2-4-B-9)

R2 : 220K (2-2-4-B-9)

**10. Electrolytic
Capacitor.
Watch the polarity !**

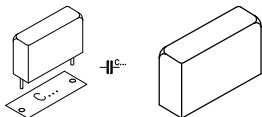


C2 : 100 μ F/35V

11. VDR

VDR1 : VDR300

12. Capacitors

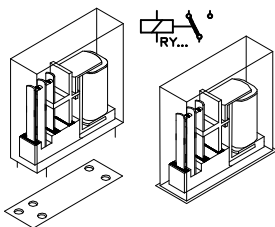


- C4 : 100nF/250V

Depending operating voltage :

- For 220 - 245VAC :
C1 : 470nF/630V
- For 110 - 125VAC :
C1 : 1 μ F/250VAC

13. Relay

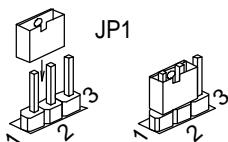


- RY1 : VR10V241C

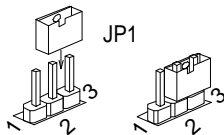
14. Shunt

The unit is equipped with a transient suppressor to reduce sparking. Normally, this suppressor is put over the relay contacts. In some cases it might be necessary to put it on the load (eg. with very small loads).

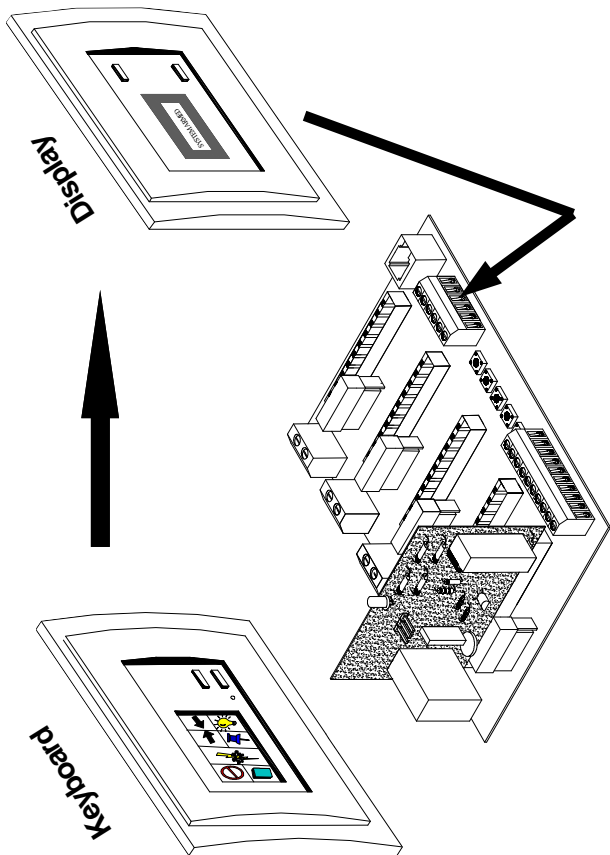
- Load (1-2)



- Relay (2-3)

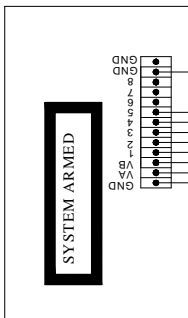


15. Application example



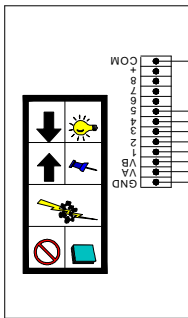
Display (K8045)

K8045

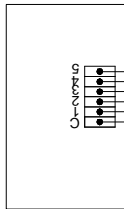


Keyboard (K8046)

K8046



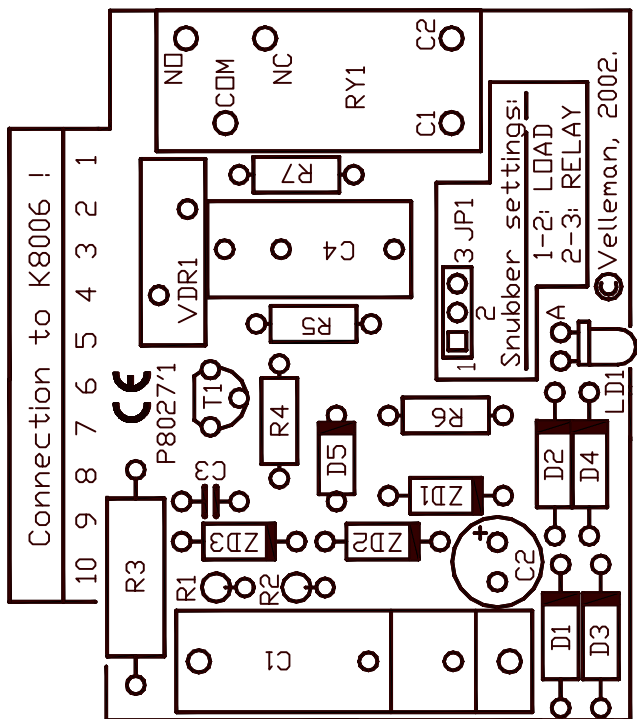
K8006 whit k8027
'relay module'



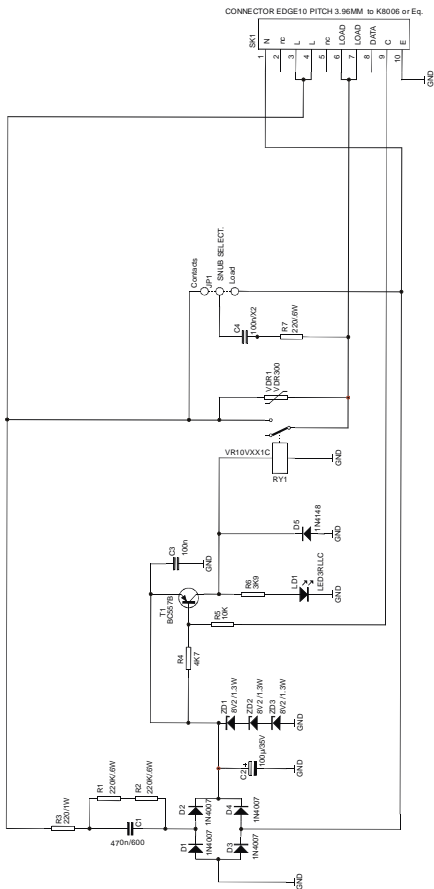
2 X 9VAC / 150mA

2 X 9VAC / 150mA

16. PCB layout.



17. Schematic diagram.



VELLEMAN Components NV
Legen Heirweg 33
9890 Gavere
Belgium Europe
www.velleman.be
www.velleman-kit.com

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