

Two channel code lock transmitter

Features:

K6706B/G

- Easy to construct, no adjustment necessary
- Can operate two K6707 receivers remotely
- Can operate K6727 two channel receiver or K8022 remote volume
- Can work together with the old adjustable transmitter type K6706 and K6706A
- For operating car door locks or alarm systems (K3511/K3504)
- Can be used on the garage door
- Wireless operation of indoor or outdoor lighting
- Remote opening and closing of electric door locks

Specifications :

- Fixed 433.92 MHz transmitter frequency, as required by law
- SAW resonator
- Approved design (report BLC/96-0452 according to I-ETS 300 220)
- Two code channels
- 8,748 possible codes
- On/off LED and battery indicator
- Custom "design" Keychain enclosure
- Supply: 12V battery type V23GA, GP23A, etc
- Dimensions: WxHxD 39x15x57 mm

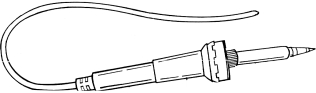

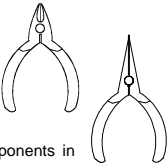
* modifications reserved.

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

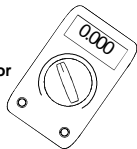
Ok, so we have your attention. These hints will help you to make this project successful. Read them carefully.

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



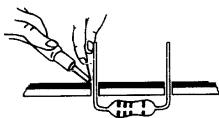
1.2 Assembly Hints :

- ⇒ 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

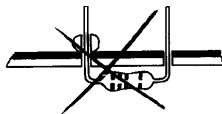
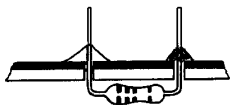
* Typographical inaccuracies excluded. Always look for possible last minute manual updates, indicated as 'NOTE' on a separate leaflet.

1.3 Soldering Hints :

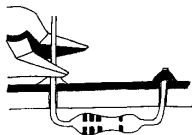
Mount the component against the PCB surface and carefully solder the leads



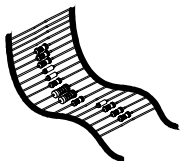
Make sure the solder joints are cone-shaped and shiny



Trim excess leads as close as possible to the solder joint



AXIAL COMPONENTS ARE TAPED IN THE CORRECT MOUNTING SEQUENCE !

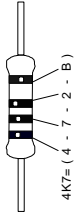


REMOVE THEM FROM THE TAPE ONE AT A TIME !

Velleman hereby certifies that the device K6706B/G meets the essential requirements and all other relevant stipulations of directive 1999/5/EG and 1995/5/EC.

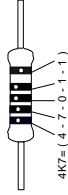
For the complete conformity declaration check out :
[Http://www.velleman.be/downloads/doC/CE_K6706B.pdf](http://www.velleman.be/downloads/doC/CE_K6706B.pdf)
[Http://www.velleman.be/downloads/doC/CE_K6706G.pdf](http://www.velleman.be/downloads/doC/CE_K6706G.pdf)

5%



4K7 = (4 - 7 - 2 - B)

1%



4K7 = (4 - 7 - 0 - 1 - 1)

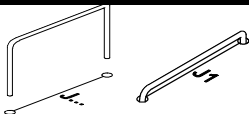
COLOR= 2...5



4K7 = (4 - 7 - 0 - 1 - 1)

	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
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	Grön	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	Bianco	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

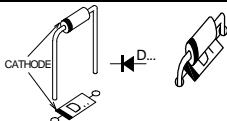
1. Jumper wires



- J
- J

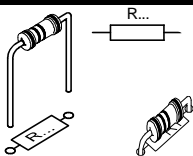
2. Diodes

Watch the polarity !



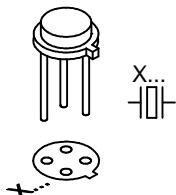
- D1 : BAT85
- D2 : BAT85

3. 1/8W Resistors



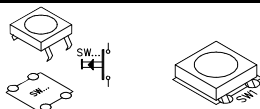
- R1: 33K (3-3-3)
- R2: 47 (4-7-0)
- R3: 220 (2-2-1)
- R4: 33K (3-3-3)
- R5: 100K (1-0-4)

4. SAW resonator (check the position of the notch)



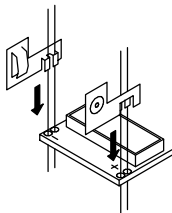
- X1 : SAW433

5. Pushbuttons.



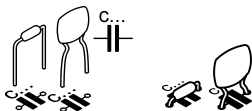
- SW1: KRS0611
- SW2: KRS0611

6. Battery contacts



Check for good attachment of the solder to the contacts

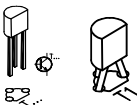
7. Capacitors



- C1 : 100p (101)
- C2 : 1pF
- C3 : 56pF
- C4 : 4,7pF (104p7, 4.7)
- C5 : 56pF
- C6 : 470pF (104p7, 4.7)

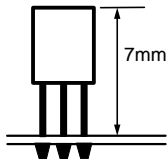
A 1pf capacitor should normally be left over, which should be used on certain receivers (see set-up).

8. Transistors.



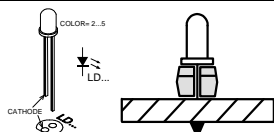
- T1 : MPSH10

Check the minimum height ! :



9. LED's.

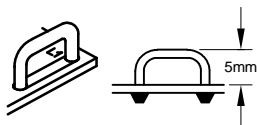
Watch the polarity !



- LD1: 3mm (2)

Use the supplied spacer (see enclosure package)

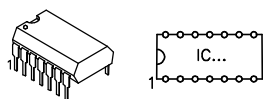
10. Coil



A simple air core coil has to be made as shown in the diagram using the jumper lead supplied

- L1: 1 turn

11. IC, Check the position of the notch !

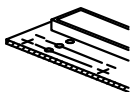


- IC1: UM3758

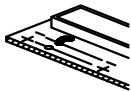
12. Create your code

Your own individual code can be set for a transmitter/receiver combination. There is a row of nine code pads that are the closest to IC1. The code can be set by linking one or more code pads to a neighbouring "-" pad or "+" pad by using a jumper lead.

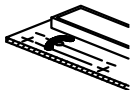
a) No connection



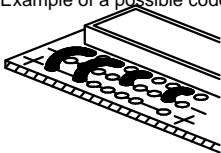
b) Code connection to '-'



c) Code connection to '+'



d) Example of a possible code



Note: two code connections cannot be connected to the "+" line, this is normal

13. Sticker

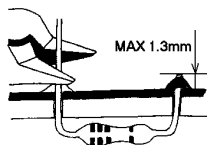
Affix the supplied sticker to the housing.



Test and set-up

IMPORTANT:

- Before mounting the PCB into the enclosure, be sure to trim all the leads !



- Bend C6 like in the drawing:



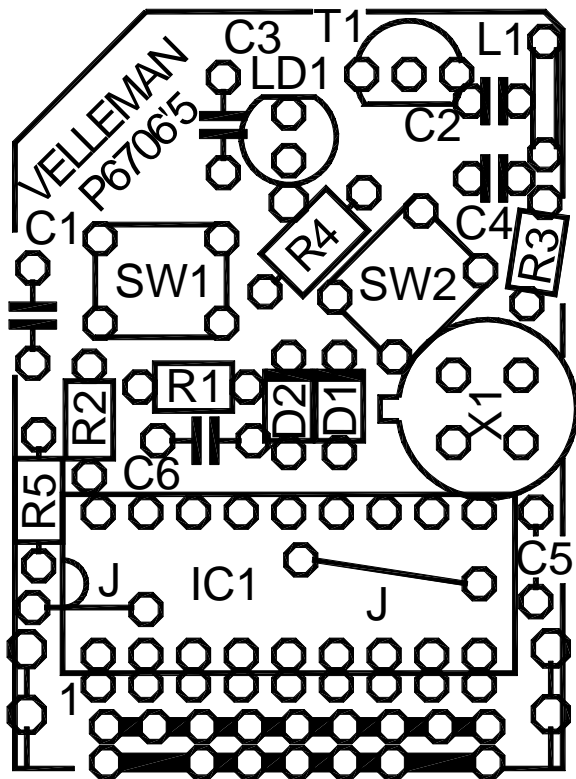
- For adjusting the receiver, a completely plastic tuning screwdriver is needed. This is supplied with the receiver.
- The transmitter must be in its housing with cover on, and fitted with a new battery type V23GA or GP23A. Check the polarity which is shown in the enclosure.
- The receiver may not be in the vicinity of a metal object.
- The transmitter and receiver must have the same code.
- On the receiver K6707, either jumper lead CH1 has to be mounted in order to be operated by button SW1 (big) of the transmitter, or jumper lead CH2 has to be mounted for operation by button SW2 (small).

1) Use of the new transmitter with the K6707 receiver or car alarm type K3511

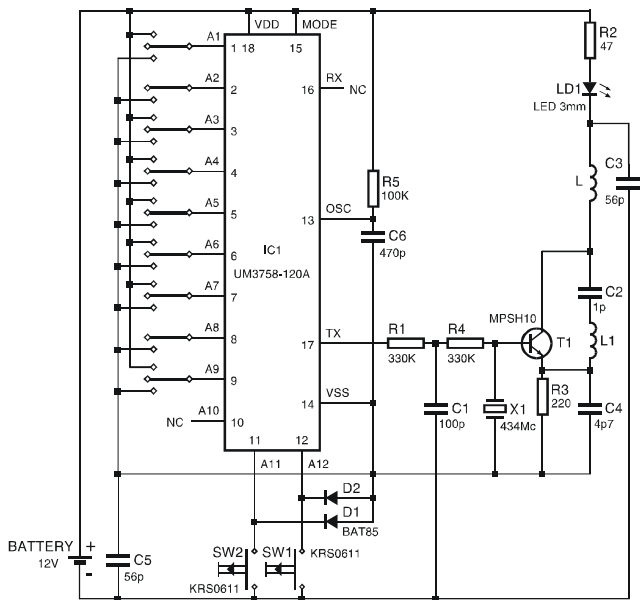
- Replace C1 on the receiver with a 1pF capacitor. This capacitor is supplied with the transmitter.
- Set the tuning capacitor of the receiver to around its mid position (see fig. 17 in the receiver handbook). Check that the tuning LED of the receiver is not lit or is only just lit up, if not set the capacitor slightly differently. Do not touch the circuit with your hand.
- Activate the transmitter and turn the tuning capacitor on the receiver until the receiver tuning LED lights up. If all is well, the relay should switch if the transmitter and receiver codes are the same.
- For more precise tuning, get someone else to activate the transmitter from a few metres away and then fine-tune the receiver.

Once the receiver has been set to a transmitter, then it will also be set for other transmitters of the new type.

PCB layout.



Diagram



modifications reserved

For use with old version of receiver K6707
replace C1 by 1pF on the receiver P.C.B.
and readjust the receiver.

Modifications and typographical errors reserved
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