

Total solder points: 91
Difficulty level: *beginner* 1 2 3 4 5 *advanced*

2 CHANNEL RF RECEIVER



K8057

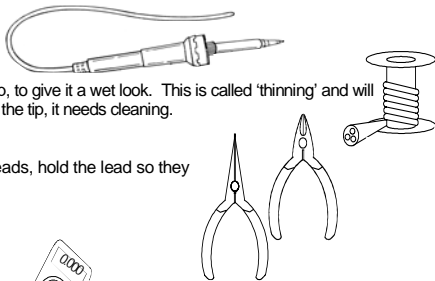
For use with K8059/VM108
2 Channel RF transmitter

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

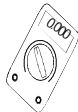
Ok, so we have your attention. These hints will help you to make this project successful. Read them carefully.

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



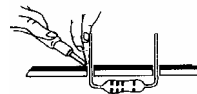
1.2 Assembly Hints :

- ⇒ 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

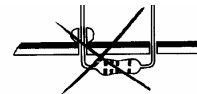
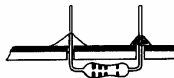
* Typographical inaccuracies excluded. Always look for possible last minute manual updates, indicated as 'NOTE' on a separate leaflet.

1.3 Soldering Hints :

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



2- Make sure the solder joints are cone-shaped and shiny

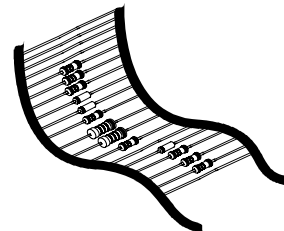


3- Trim excess leads as close as possible to the solder joint



REMOVE THEM FROM THE TAPE ONE AT A TIME !

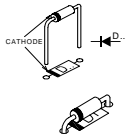
**AXIAL COMPONENTS ARE TAPED IN THE
CORRECT MOUNTING SEQUENCE !**



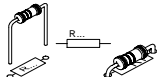
👉 You will find the colour code for the resistances and the LEDs in the HALG (general manual) and on our website: <http://www.velleman.be/common/service.aspx>

1. Diodes / Diode / Diodo

- D1 : 1N4148
- D2 : 1N4148
- D3 : 1N4007
- D4 : 1N4007
- D5 : 1N4007
- D6 : 1N4007



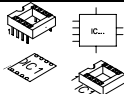
Watch the polarity! - Let op de polariteit!
 Attention à la polarité! - Achten Sie auf die Polarität! - ¡Controle la polaridad!

2. Resistors / Weerstand / Résistances / Widerstände / Resistencias

- R1 : 330 (3 - 3 - 1 - B)
- R2 : 330 (3 - 3 - 1 - B)
- R3 : 330 (3 - 3 - 1 - B)
- R4 : 330 (3 - 3 - 1 - B)
- R5 : 47K (4 - 7 - 3 - B)
- R6 : 47K (4 - 7 - 3 - B)

3. IC socket / IC voetje / support de CI / IC-Fassung / Zócalo de integrado

- IC1 : 8p



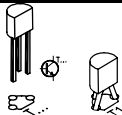
Pay attention of the notch!
 Let op de positie van de nok!
 Attention à la position de l'encoche!
 Achten Sie auf des position des Nockens!
 ¡Atención a la posición del la muesca!

4. Capacitors / Kondensatoren / Condensateurs / Kondensatoren / Condensadores

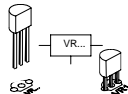
- C1 : 100nF (104)
- C2 : 100nF (104)

5. Transistor

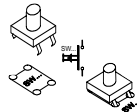
- T1 : BC547B
- T2 : BC547B

**6. Voltage regulator / Spanningsregelaar / Régulateur de tension / Spannungsregler / Regulador de tensión**

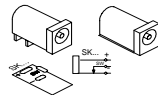
- VR1 : UA78L05

**7. Push button / Drukknop / bouton-poussoir / Druckknöpfe / Pulsador**

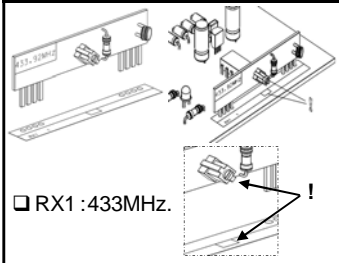
- SW1 : KRS0610

**8. DC-jack / DC connector / Connecteur CC / DC - Einbaubuchse / Conector CC**

- SK1



9. Receiver module / Ontvangst-module / Module récepteur / Empfängermodul / Módulo de recepción



RX1 : 433MHz.

10. Screw terminal / schroef-connectoren / connecteurs à visser / Schraubconnectoren / Regletas de conexión

SK2 : 2p.

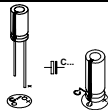


SK3 : 3p.
 SK4 : 3p.



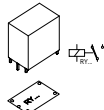
11. Electrolytic Capacitors / Electrolytische condensatoren / Condensateurs électrolytiques / Elektrolytkondensatoren / Condensadores electrolíticos

- C4 : 100 μ F
- C5 : 10 μ F



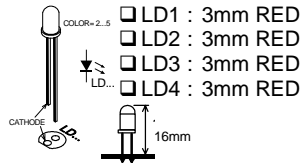
Watch the polarity!
Let op de polariteit!
Attention à la polarité!
Achten Sie auf die Polarität!
¡Controle la polaridad!

12. Relays / Relais / Relés



- RY1 : V3SM121C (12VDC - 3A - 1 c)
- RY2 : V3SM121C (12VDC - 3A - 1 c)

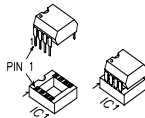
13. LEDs



Watch the polarity!
Let op de polariteit!
Attention à la polarité!
Achten Sie auf die Polarität!
¡Controle la polaridad!

14. IC / CI

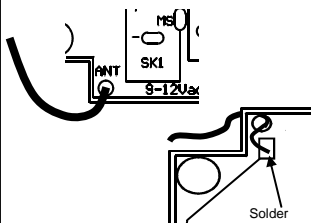
- IC1 : VK8057



VK8057=(Programmed PIC12F629)

Pay attention of the notch!
Let op de positie van de nok!
Attention à la position de l'encoche!
Achten Sie auf des position des Nockens!
¡Atención a la posición del la muesca!

15. Antenna / Antenne / Antena



Solder a 30cm / 0.5mm² wire (option) for an improved reception quality.

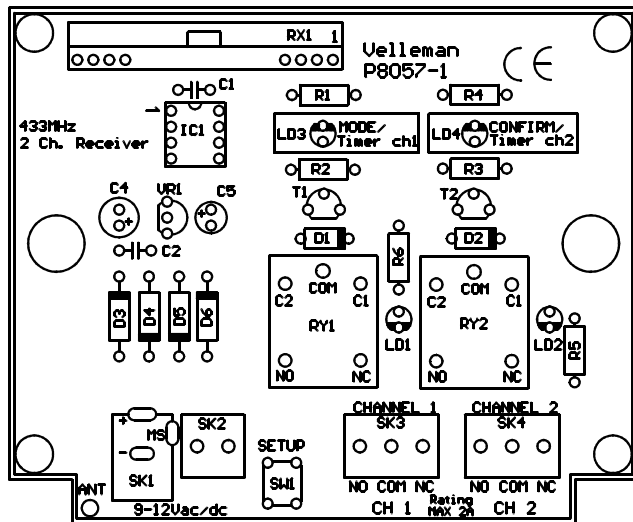
Soldeer een draad van 30cm / 0.5mm² (optie) voor een betere ontvangst.

Soudez un fil de 30cm / 0.5mm² (option) pour une meilleure réception.

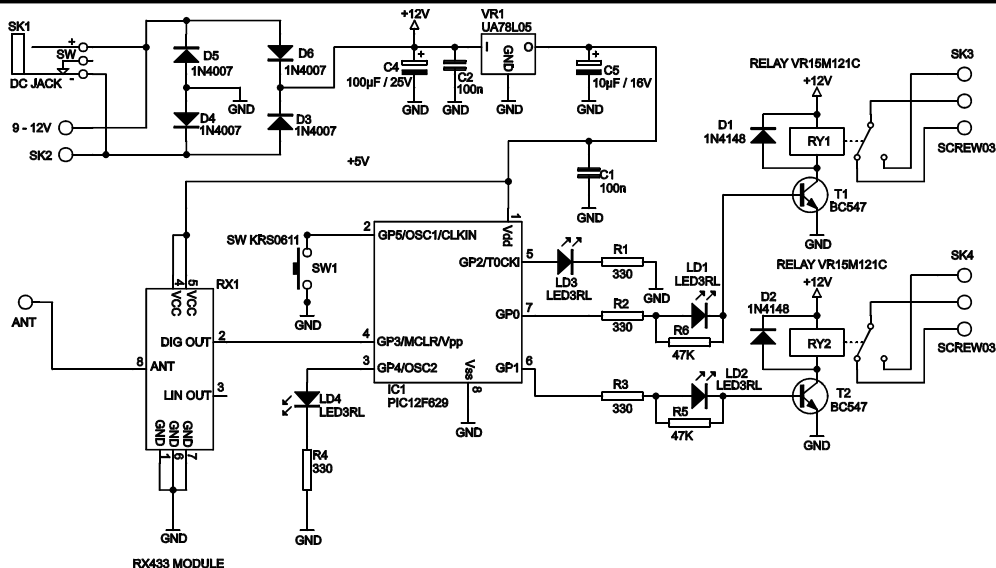
Löten Sie einen Draht von 30cm/0.5mm² (optional) wenn Sie einen besseren Empfang wünschen.

Suelde un hilo de 30cm / 0,5mm² (opción) si quiere una mejor recepción

16. PCB / Print layout / Circuit imprimé / Leiterplatten-Lay-out / Circuit integrado



17. Schematic diagram / Schema / Schematisches diagram / Diagrama esquemática





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