

MK103 SOUND-TO-LIGHT UNIT - LED LICHTORGEL - ORGUE LUMINEUX SIMPLE - EINFACHE LICHTORGEL - ÓRGANO DE LUZ CON LEDS

START **1** Resistor - Weerstand - Résistance - Widerstand - Resistencia - Motstand - Vastus - Resistenze

- ◇ R1 : 10K (Brown, Black, Orange) - (Bruin, Zwart, Oranje) - (Brun, noir, Orange) - (Braun, Schwarz, Orange) - (Brun, Svart, Orange) - (Ruskea, Musta, Oranssi) - (Marrón, Negro, Naranjado) - (Castanho, Preto, Laranja) - (Marrone, Nero, Aranciato)
- ◇ R2 : 330K (Orange, Orange, Yellow) - (Oranje, Oranje, Geel) - (Orange, Orange, Jaune) - (Orange, Orange, Gelb) - (Orange, Orange, Gul) - (Oranssi, Oranssi, Keltainen) - (Naranjado, Naranjado, Amarillo) - (Laranja, Laranja, Amarelo) - (Aranciato, Aranciato, Giallo)
- ◇ R3 ... R5 : 100K (Brown, Black, Yellow) - (Bruin, zwart, Geel) - (Brun, noir, Jaune) - (Braun, Schwarz, Gelb) - (Brun, Svart, Gul) - (Ruskea, Musta, Keltainen) - (Marrón, Negro, Amarillo) - (Castanho, Preto, Amarelo) - (Marrone, Nero, Giallo)
- ◇ R6 ... R9 : 47E (Yellow, Purple, Black) - (Geel, Paars, Zwart) - (Jaune, Violet, Noir) - (Gelb, Violet, Schwarz) - (Gul, Lila, Svart) - (Keltainen, Purppura, Musta) - (Amarillo, Morado, Negro) - (Amarelo, Violeta, Preto) - (Giallo, Viola, Nero)
- ◇ R10 ... R12 : 1M5 (Brown, Green, Green) - (Bruin, Groen, Groen) - (Brun, Vert, Vert) - (Braun, Grün, Grün) - (Brun, Grön, Grön) - (Ruskea, Vihreä, Vihreä) - (Marrón, Verde, Verde) - (Castanho, Verde, Verde) - (Marrone, Verde, Verde)
- ◇ R13, R14 : 47K (Yellow, Purple, Orange) - (Geel, Paars, Oranje) - (Jaune, Violet, Orange) - (Gelb, Violet, Orange) - (Gul, Lila, Orange) - (Keltainen, Purppura, Oranssi) - (Amarillo, Morado, Naranjado) - (Amarelo, Violeta, Laranja) - (Giallo, Viola, Aranciato)

2 LED Watch the polarity! Att. la polarité!

◇ LD1 ... LD4 : 5mm

3 Transistor

◇ T1 ... T3 : BC547
◇ T4 : BC557

4 Ceramic capacitors

◇ C1 ... C3 : 100nF (104)

5 Electrolytic capacitors Watch the polarity! Att. la polarité!

◇ C4 : 100µF

6 Horizontal Trimmer

◇ RV1 : 220K

7 Microphone

◇ MIC1 : M300

8

20mm

The circuit diagram for MK103 shows a microphone (MIC1) connected to a BC547B transistor (T1). The signal path includes resistors R1 (10K), R2 (330K), R3 (100K), R4 (100K), R6 (47K), R7 (47K), R8 (47K), R9 (47K), R10 (1M5), R11 (1M5), R12 (1M5), R13 (47K), and R14 (47K). It features two more BC547B transistors (T2, T3) and a BC557B transistor (T4). The output stage uses four LEDs (LD1-LD4) of type L-53SRD-D. A 9V battery (E1) powers the circuit through a 100nF capacitor (C1) and a 100µF electrolytic capacitor (C4). A 100nF ceramic capacitor (C2) is also present. A horizontal trimmer (RV1) is used for volume control.

MK102 FLASHING LEDS - KNIPPERENDE LEDS - LEDS CLIGNOTANTES - BLINKENDE LEDS - LEDS INTERMITENTES

START **1** Resistor - Weerstand - Résistance - Widerstand - Resistencia - Motstand - Vastus - Resistenze

- ◇ R1, R2 : 1K (Brown, Black, Red) - (Bruin, Zwart, Rood) - (Brun, Noir, Rouge) - (Braun, Schwarz, Rot) - (Brun, Svart, Röd) - (Ruskea, Musta, Punainen) - (Marrón, Negro, Rojo) - (Castanho, Preto, Encarnado) - (Marrone, Nero, Rosso)
- ◇ R3, R4 : 10K (Brown, Black, Orange) - (Bruin, Zwart, Oranje) - (Brun, noir, Orange) - (Braun, Schwarz, Orange) - (Brun, Svart, Orange) - (Ruskea, Musta, Oranssi) - (Marrón, Negro, Naranjado) - (Castanho, Preto, Laranja) - (Marrone, Nero, Aranciato)

2 Trimmer

◇ RV1, RV2 : 220K

3 Transistor

◇ T1, T2 : BC547

4 LED Watch the polarity! Att. la polarité!

◇ LD1, LD2 : 5mm

5 Electrolytic capacitors Watch the polarity! Att. la polarité!

◇ C1, C2 : 10µF

6 Battery snap

◇ RV1, RV2 : 220K

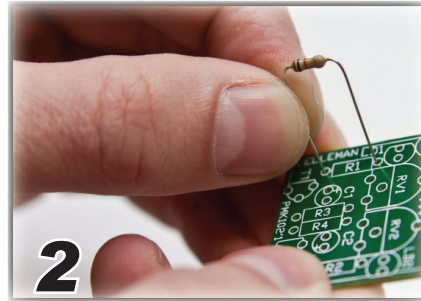
The diagram shows a 9V battery snap connected to the PCB. The positive terminal (RED) is connected to the positive supply rail, and the negative terminal (BLACK) is connected to the common ground rail.

The circuit diagram for MK102 features a 9V battery (E1) connected to a BC547B transistor (T1) through a 1K resistor (R1). The signal path includes resistors R2 (1K), R3 (10K), R4 (10K), and R5 (1K). It uses two BC547B transistors (T1, T2) and two LEDs (LD1, LD2) of type LED5RL. A 10µF electrolytic capacitor (C1) is connected to the base of T1, and another 10µF capacitor (C2) is connected to the base of T2. Two horizontal trimmers (RV1, RV2) are used for frequency and pulse width control.

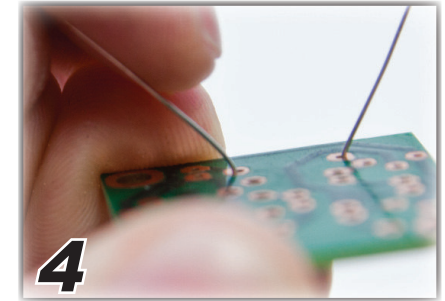
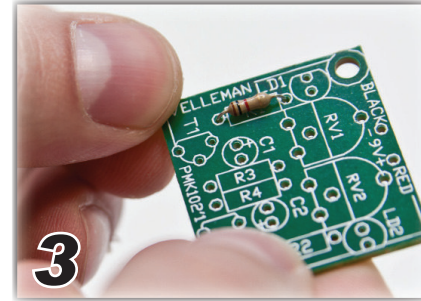
HOW TO SOLDER? - HOE SOLDEREN ? - COMMENT SOUDER? - WIE LÖTEN? - ¿CÓMO SOLDAR?



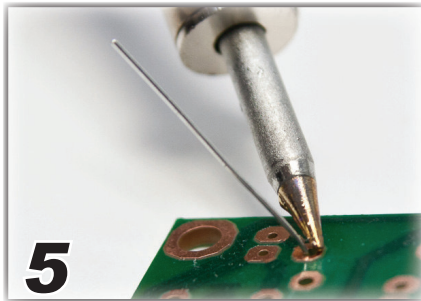
Wipe tip - Reinig de punt - Nettoyez la panne - Reinigen Sie die Spitze - Limpie la punta



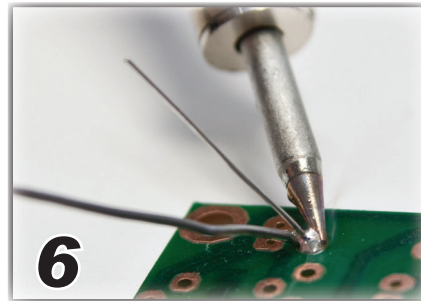
Insert part against PCB - Monteer het onderdeel tot tegen het printplaatje - Montez le composant contre le circuit imprimé - Montieren Sie das Bauteil bis gegen die Leiterplatte - Ponga la pieza junto al CI



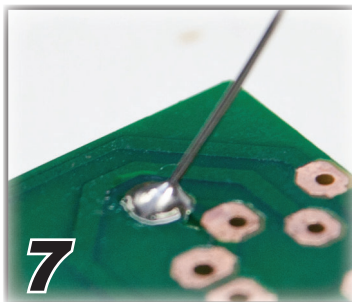
Bend leads - Plooi de aansluitdraden - Pliez les fils de connexion - Biegen Sie das Drahtende um - Pliegue los hilos



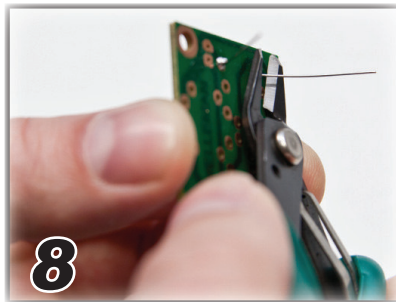
Heat part lead & PCB pad - Verwarm het uiteinde van de aansluitdraad en het printplaatje - Réchauffez l'extrémité du fil de connexion et le circuit imprimé - Erhitzen Sie den Anschlussdraht und die Lötstelle - Caliente una parte del hilo junto a la placa CI



Apply solder - Breng soldeersel aan - Appliquez de la soudure - Führen Sie Lötzinn zu - Haga la soldadura



Correct joint - Correcte soldeerverbinding - Joint de soudure correct - Korrekte Lötverbindung - Soldado correcto

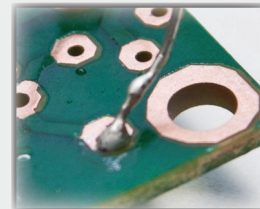


Cut close to PCB - Knip af tot tegen het printplaatje - Coupez jusqu'au bord du circuit imprimé - Zwicken Sie die Anschlussdrähte knapp über den Lötverbindungen ab - Corte cerca de la placa CI

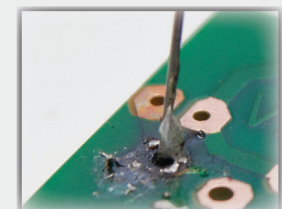


Inspect - Controleer - Vérifiez - Überprüfen Sie - Compruebe la soldadura

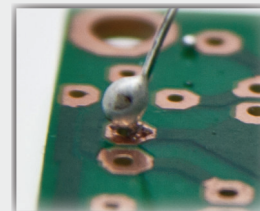
Bad solderings - slechte solderingen - mauvaises soudures - Schlechte Lötstellen - Malas soldaduras



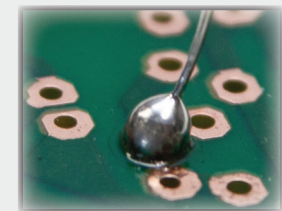
Too little solder - Te weinig soldeersel - Pas assez de soudure - Zu wenig Lot - Poco soldado



Too much heat - Te warm - Chaleur de soudure trop élevée - Zu warm - Demasiada temperatura



Bad contact - Slecht contact - Mauvais contact - Schlechter Kontakt - Mal contacto



Too much solder - Te veel soldeersel - Trop de soudure - Zu viel Lot - Soldado en exceso