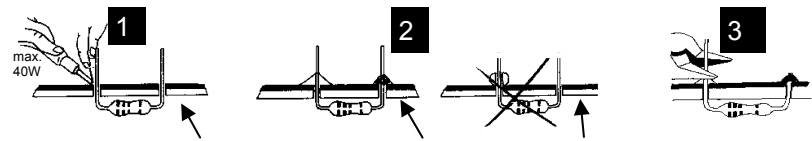


Soldering - Solderen - Soudage - Lötten - Soldadura - Lödning - Juottaminen - Saldatura - Solda

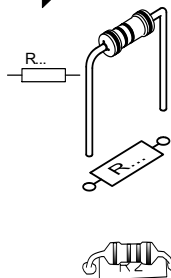


Component side - componentzijde - Côte composants - Bauteileseite - Lado de los componentes

START

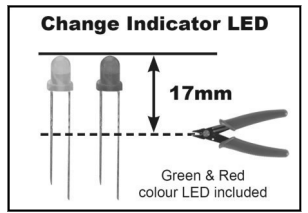
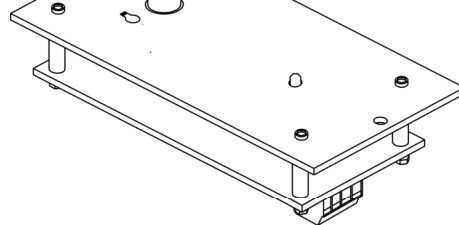
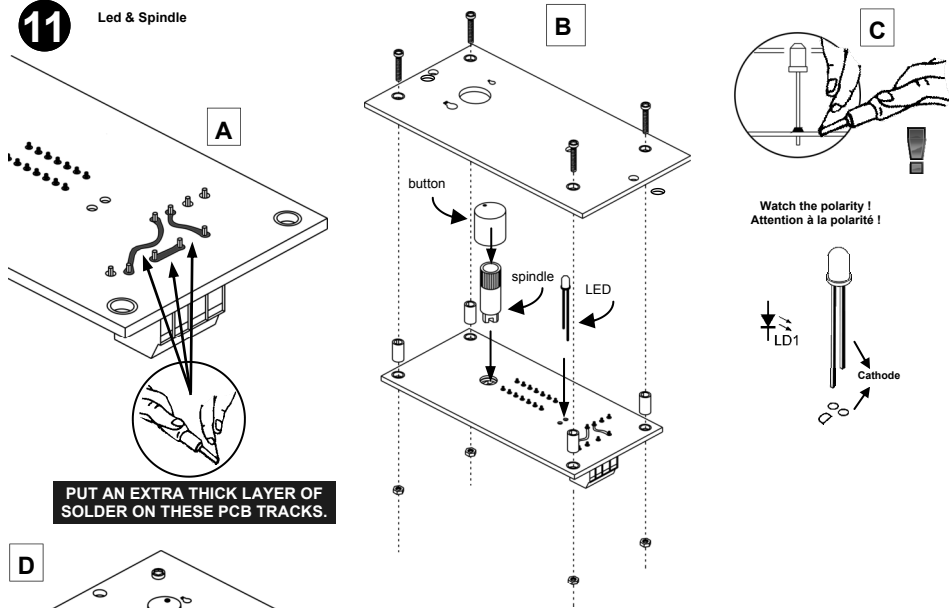
1

Resistor - Weerstand - Résistance - Widerstand - Resistencia - Motstand - Vastus - Resistenze

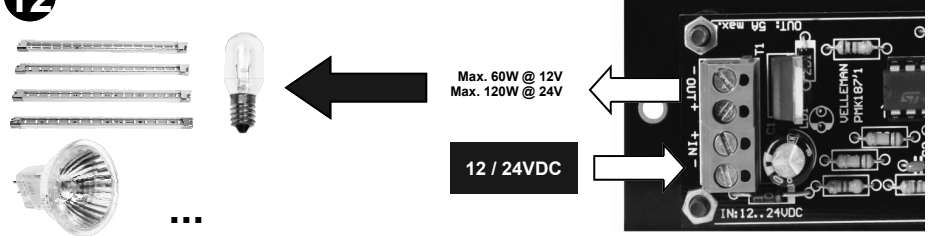


- ◇ R1, R2: 47K (Yellow, Purple, Orange) - (Geel, Paars, Oranje) - (Jaune, Violet, Orange) - (Gelb, Violet, Orange) - (Gul, Lila, Oranje) - (Keltainen, Purppura, Oranssi) - (Amarillo, Morado, Naranja) - (Amarelo, Violeta, Laranja) - (Giallo, Viola, Aranciato)
- ◇ R3, R4: 100K (Brown, Black, Yellow) - (Bruin, zwart, Geel) - (Brun, noir, Jaune) - (Braun, Schwarz, Gelb) - (Brun, Svart, Gul) - (Ruskea, Musta, Keltainen) - (Marrón, Negro, Amarillo) - (Castanho, Preto, Amarelo) - (Marrone, Nero, Giallo)
- ◇ R5: 56K (Green, Blue, Orange) - (Groen, Blauw, Oranje) - (Vert, Bleu, Orange) - (Grün, Blau, Orange) - (Grön, Blå, Orange) - (Vihreä, Sininen, Oranssi) - (Marrón, Azul, Naranja) - (Verde, Azul, Laranja) - (Verde, Blu, Aranciato)
- ◇ R6: 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)
- ◇ R7, R8: 33K (Orange, Orange, Orange) - (Oranje, Oranje, Oranje) - (Oranssi, Oranssi, Oranssi) - (Naranja, Naranja, Naranja) - (Laranja, Laranja, Laranja) - (Aranciato, Aranciato, Aranciato)
- ◇ R9: 10K (Brown, Black, Orange) - (Bruin, Zwart, Oranje) - (Brun, noir, Orange) - (Braun, Schwarz, Orange) - (Brun, Svart, Orange) - (Ruskea, Musta, Oranssi) - (Marrón, Negro, Naranja) - (Castanho, Preto, Laranja) - (Marrone, Nero, Aranciato)

11 Led & Spindle



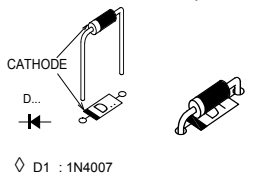
12 Connection diagram



MK187_rev1

2

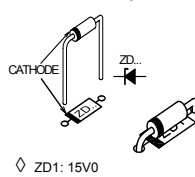
Diode Watch the polarity! Att. la polarité!



◇ D1 : 1N4007

3

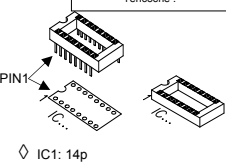
Zenerdiode Watch the polarity! Att. la polarité!



◇ ZD1: 15V0

4

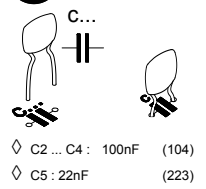
IC sockets Watch the position of the notch! Attention à la position de l'encoche!



◇ IC1: 14p

5

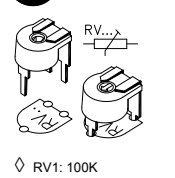
Ceramic capacitors



◇ C2 ... C4 : 100nF (104)
◇ C5 : 22nF (223)

6

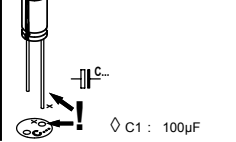
Potentiometer



◇ RV1: 100K

7

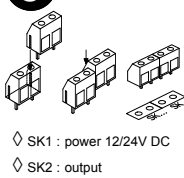
Electrolytic capacitors Watch the polarity! Attention à la polarité!



◇ C1 : 100µF

8

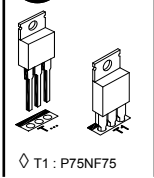
Terminal blocks



◇ SK1 : power 12/24V DC
◇ SK2 : output

9

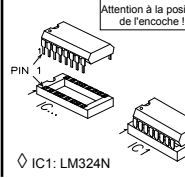
Transistor



◇ T1 : P75NF75

10

IC Watch the position of the notch! Attention à la position de l'encoche!



◇ IC1: LM324N