

TRAFFIC LIGHT

PLEASE SCAN THE QR CODE TO VIEW MULTI-LANGUAGE INSTRUCTIONS



FR. Veuillez scanner le code QR pour afficher les instructions multilingues pour ce kit. DE. Bitte scanne den QR-Code, um die mehrsprachige Anleitung für dieses Set anzusehen. NL. Scan de QR-code om de instructies voor deze set in verschillende talen te bekijken. IT. Scansiona il codice QR per visualizzare le istruzioni multi-lingua per questo kit. ES. Escanee el código QR para ver instrucciones en varios idiomas para este kit. JA. QRコードをスキャンして、本キットの多言語説明書をご覧ください。

⚠ WARNING:
CHOKING HAZARD - Small parts.
Not for children under 3 years.

TO PARENTS: PLEASE READ THROUGH THESE INSTRUCTIONS BEFORE PROVIDING GUIDANCE TO YOUR CHILDREN.

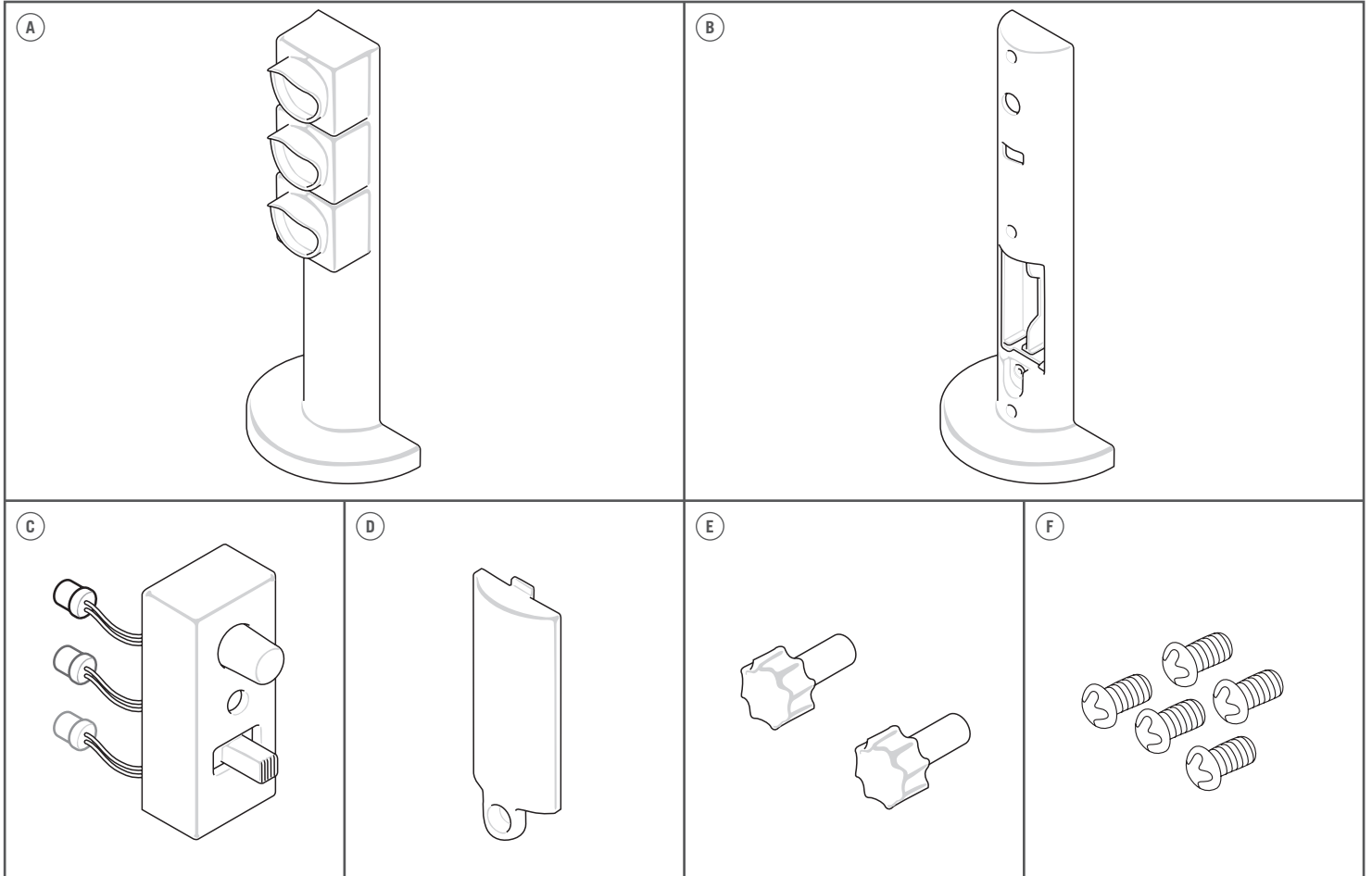
A. SAFETY MESSAGES

1. Please read through all the instructions and keep them since they contains important information. 2. Adult supervision and assistance are required at all times. 3. This kit is intended for children 5 years or older. 4. This kit and its finished product contain small parts which may cause choking if misused. Keep away from children under 3 years old. 5. To prevent possible short circuits, never touch the contacts inside the battery case with any metal. 6. Only install battery after the kit is assembled. Adult supervision is required.

B. USE OF BATTERIES

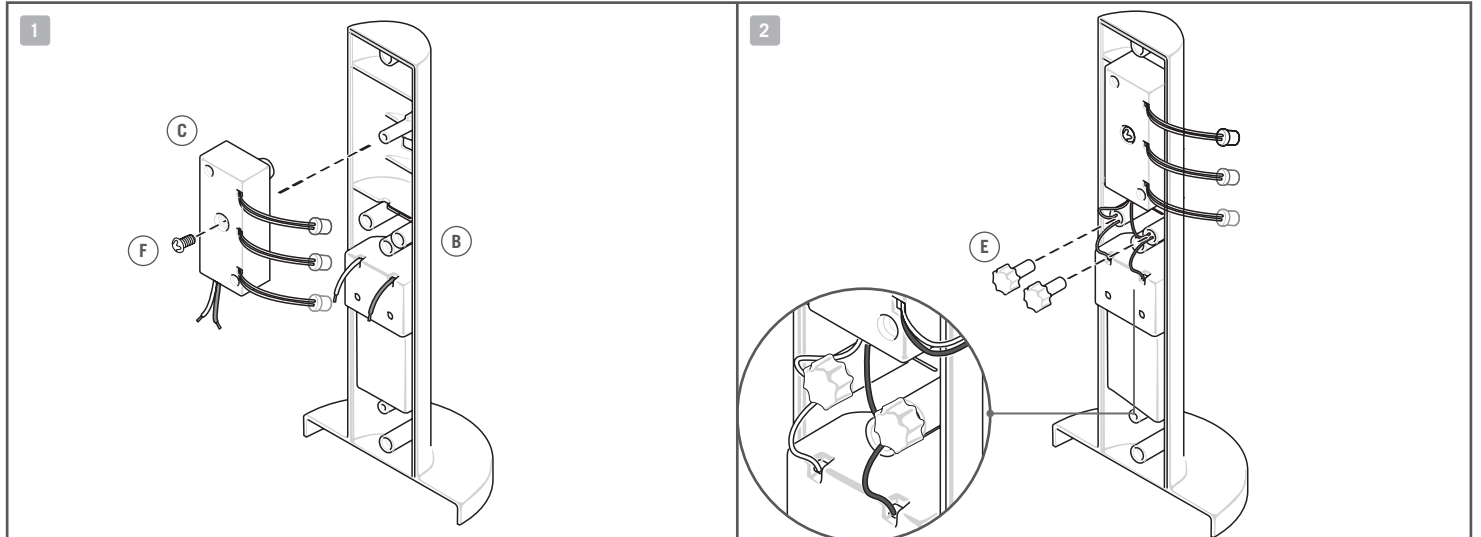
1. Requires two 1.5V AAA batteries (not included). 2. For best results, always use fresh batteries. 3. Make sure you insert the batteries with the correct polarities. 4. Remove the batteries from the kit when not in use. 5. Replace exhausted batteries straight away to avoid possible damage to the kit. 6. Rechargeable batteries must be removed from the kit before recharging. 7. Rechargeable batteries should be recharged under adult supervision. 8. Make sure that the supply terminals in the battery case are not short circuited. 9. Do not attempt to recharge non-rechargeable batteries. 10. Do not mix old and new batteries. 11. Do not mix alkaline, standard (carbon-zinc), or rechargeable batteries.

C. CONTENTS:

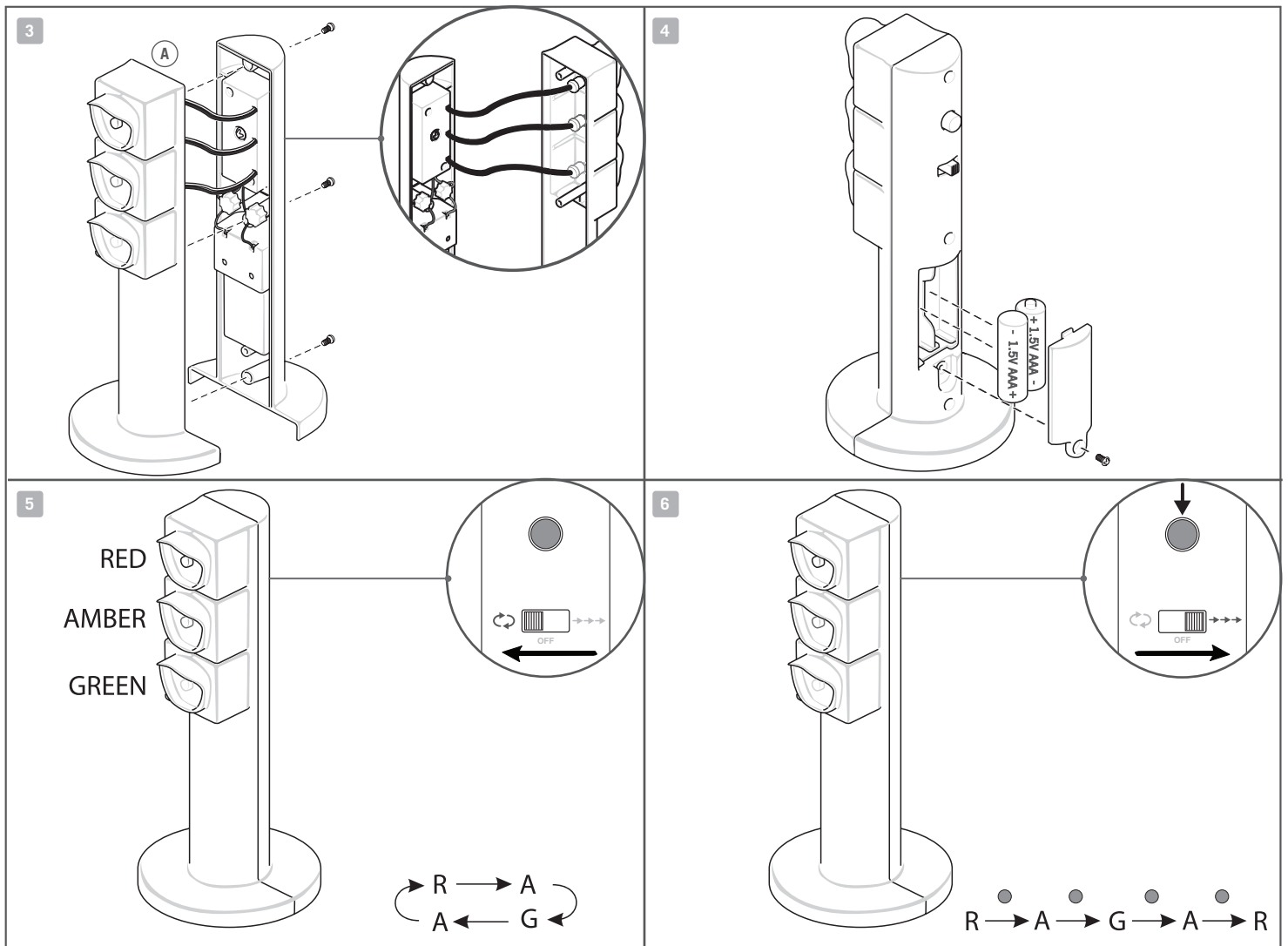


Part A: Front cover x 1, B: Rear cover x 1, C: IC control system x 1, D: Battery cover x 1; E: Terminal caps x 2; F: Screws x 5. Also required, but not included in the kit: a small crosshead screwdriver, two 1.5V AAA batteries.

D. ASSEMBLY



1. Fit the IC control system (C) into the rear cover (B) and secure it with a screw (F).
2. Push the red wire from the battery compartment and the red wire from the IC unit into the left-hand terminal. Make sure that the bare metal of both wires is touching the metal terminal and then push in a terminal cap (E) to secure the wires in place. Repeat with the two black wires in the right-hand terminal.



3. Carefully push the red LED into the top hole of the front cover (A), the yellow LED into the middle hole, and the green LED into the bottom hole. Push the front cover and back cover together being sure not to trap any wires. Secure them with three screws.

4. Fit two AAA batteries into the battery compartment, with the negative (flat) ends of the batteries against the springs in the compartment. Add the battery cover and secure it with a screw. Congratulations, your traffic light is now completed!

E. OPERATION

5. At the back of the Traffic Light are two controls: a slide switch and a press button. With slide switch in the central position the traffic light is switched off. Slide the switch to the left and the traffic light will cycle automatically through its pattern of lights (red, amber, green, amber, red and so on) keeping each light on for two seconds.

6. Slide the switch to the right for manual operation. Now press the button to change from one light to the next in the lighting sequence (red, amber, green, amber, red and so on).

F. TROUBLESHOOTING

If the Traffic Lights don't work when you slide the switch left or right:

- check that your batteries are fresh.
- check that you have inserted the batteries with the correct polarities.
- check that the wires in the two terminals are connected together properly (see step 2 above).

G. HOW IT WORKS

The Traffic Lights are operated by some clever digital electronics. In digital electronics there are just two sorts of electric signals: ons and offs. In manual mode, each time you press the button, an on signal is passed to a counting circuit that counts in 2-bits binary numbers (0 and 1) from zero to three. This counter is connected to the lights. On the count of zero it sends an on signal to the red LED, on the count of one it sends an on signal to the amber LED, on the count of two to the green LED, and on the count of three to the amber LED again. When you press the button again the counter resets back to zero. In automatic mode a separate timing circuit sends an on signal to the counting circuit every two seconds, which makes the lights change automatically.

H. FUN FACTS:

- The world's first traffic lights were lit by gas lamps and worked by a policeman. They were installed in London in 1868 and exploded soon after! The lights were built to control horse-drawn carriages.
- Three-coloured traffic lights were invented in 1920 by an American police officer in the city of Detroit called William Potts.
- Police officers controlled traffic lights by hand until automatic lights were invented.
- In some places the lights on traffic lights are arranged horizontally instead of vertically.
- In Japan some traffic lights have blue lights instead of green lights.
- The traffic light colours of red, green and amber were copied from the lights used on railway tracks to control trains.
- In cities different sets of traffic lights on busy roads are linked to each other and controlled by computers to keep the traffic flowing freely.

QUESTION AND COMMENTS

We treasure you as a customer and your satisfaction with this product is important to us. In case you have any comments or questions, or you find any parts of this kit missing or defective, please do not hesitate to contact our distributor in your country, whose address is printed on the package. You are also welcome to contact our marketing support team at Email: infodesk@4M-IND.com, Fax (852) 25911566, Tel (852) 28936241, Web site: WWW.4M-IND.COM