

Candidate Handbook answers

Progress check 4.1, p. 165

1. What are the three main types of screwdriver?
Flat-blade, Phillips and Pozidriv
2. Why is it important to correctly adjust cable strippers before use?
It they are too loose the insulation will not be properly stripped away; too tight and the conductor will be damaged
3. What single tool can be used to replace cable cutters and cable strippers?
Combination pliers

Progress check 4.2, p. 169

1. Why is a retractable bladed knife a safe option for the electrician?
The blade can be drawn back into the knife's body when it is not in use.
2. In which direction should the teeth of a hacksaw blade face?
Forwards
3. What type of saw is used for cutting holes in plasterboard walls?
Pad saw

Progress check 4.3, p. 170

1. Give two safety reasons not to use a hammer.
Loose head; greasy handle
2. What are two uses for a claw hammer?
Knocking in nails and pulling out nails
3. What is a bolster chisel used for?
Levering up floorboards and cutting straight edges into masonry walls

Progress check 4.4, p. 173

1. What is the difference between mole grips and stilsons?
Mole grips can be locked onto the workpiece but stilsons cannot.
2. When filing, pressure should be put on which stroke?
Forward stroke
3. What is an Allen key used for?
Loosening and tightening screws and bolts on items of equipment



Progress check 4.5, p. 175

1. How does a spirit level work?

The bubble in the capsule must rest in the centre of the capsule.

2. What tool can be used for marking a straight line along a complete wall?

Chalk line or laser level

3. Which tool uses light to provide a straight fixing line?

Laser level

Progress check 4.6, p. 177

1. What type of drill bit is used for drilling a small hole in metal?

Twist bit

2. What is a pilot drill?

The twist bit fitted into a hole saw mandrill – the hole it drills acts as an anchor for the hole saw

3. What tool can be used for drilling wood if no power is available?

Brace-and-bit

Progress check 4.7, p. 181

1. Which conductor can be used for stripping twin-and-earth?

CPC

2. What is used to pull single cables into conduit?

Draw tape or wire

3. Why are armoured cables fitted with glands?

To create a secure fixing for the cable and to ensure an earthtight connection between the armouring and the installation earth

Progress check 4.8, p. 184

1. What is a loop-in terminal in a ceiling rose?

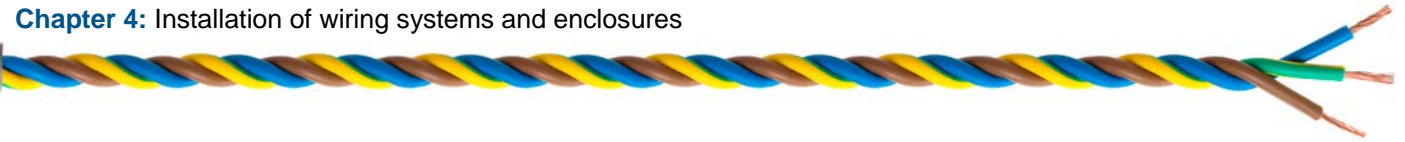
The terminal into which the line feed conductors are connected

2. Which conductor is connected to the N terminal in a 13 A socket?

Neutral

3. What is good practice when terminating a single conductor into a standard terminal?

Bend the conductor back on itself to create a larger, stronger connection point



Progress check 4.9, p. 189

1. What is the name of an extra-long thread cut onto the end of a conduit?

Running thread

2. Which tool is used to cut threads onto conduit?

Stocks and dies

3. Which tool is used to form bends in plastic conduit?

Bending spring

Progress check 4.10, p. 191

1. Give two occasions when bends have to be manufactured in trunking by an electrician.

No fittings are available; an awkward, non-standard angle has to be formed

2. On which side of a line should the blade rest when cutting trunking?

Waste side

3. What is the final task to be carried out after cutting metal trunking?

The edge should be filed smooth.

Progress check 4.11, p. 193

1. At which point are all the installation earth conductors connected to the supply earth?

MET

2. Which conductor connects gas and water supply pipes to the installation earth?

Main bonding conductor

3. Which conductor connects extraneous metalwork to the installation earth?

Supplementary bonding conductor

Progress check 4.12, p. 194

1. Why should an electrical installation be inspected and tested?

To make sure it works correctly and is safe

2. What instrument is used to test for continuity of protective conductors?

Low reading ohmmeter

3. What is the minimum acceptable reading for an insulation resistance test?

>1 MΩ

Knowledge check, p. 194

1. A slot can be cut into metal trunking using a:

b jigsaw

2. The cutting wheel on a grinder is made from:

a carborundum

3. Why must extra low voltage tools be used on construction sites?

b To reduce risk of electric shock

4. Which hammer is used with a cold chisel for cutting masonry?

d Lump



5. Which type of diagram is used for counting up amounts of materials needed?
b Layout drawing
6. Drawing the positions of equipment and cable runs on walls before starting the work is called:
b marking out
7. The length of cable cores left at a socket or switch box for connection should be:
a 1.5 times the width of the box
8. Which of these cables is normally run in conduit?
d Singles
9. What colour is a crimp lug for a 2.5 mm conductor?
c Blue
10. The main bonding conductor should be connected:
c as close to the point of supply as possible