

ELECTRICAL TOOLS AND EQUIPMENT

16.1. Vocabulary

Ex. 1. Match the words to their Russian equivalents.

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|----------------------------|--|
| 1. blade connector | a. проволока |
| 2. soldering iron | b. паяльник |
| 3. fish tape | c. глухой полюсный наконечник |
| 4. crimper | d. ножевой соединитель |
| 5. ring terminal | e. антистатический браслет |
| 6. wire stripper | f. переставные клещи |
| 7. flashlight | g. контактная пластина |
| 8. wire | h. клемма высокого напряжения |
| 9. side-cutting pliers | i. обжимные щипцы |
| 10. coaxial connector | j. прибор для контроля целостности изоляции проводов |
| 11. spade terminal | k. проволока для протаскивания |
| 12. anti-static wristband | l. коаксиальный разъем |
| 13. continuity detector | m. универсальный измерительный прибор |
| 14. high-voltage connector | n. клещи для удаления изоляции |
| 15. channel lock pliers | o. фонарик |
| 16. multimeter | p. бокорезы |

Ex. 2. Complete the sentences with the given words:

terminal, fish, anti-static, high-voltage, coaxial, continuity, pliers, flashlight, stripper, wire, crimper, multimeter, blade, side-cutting

You should always wear an _____(1) wristband when working with sensitive electrical components.

The _____(2) connectors on this circuit board are not aligned correctly.

Use channel lock _____(3) to tighten the bolts on the junction box securely.

The _____(4) connector needs to be replaced as it is damaged.

Before connecting any wires, use a _____(5) detector to make sure there are no breaks in the insulation.

A good _____(6) is essential for making secure connections when working with electrical wiring.

The electrician used a _____(7) tape to pull the wire through the conduit.

Make sure to have a _____(8) handy when working in dark and confined spaces.

The _____(9) connector should only be handled by trained professionals.

A _____(10) is a versatile tool that can measure voltage, resistance, and current.

The black side of the ring _____(11) indicates the ground connection.

_____(12) pliers are useful for cutting and stripping wires while also having the ability to grip small objects.

Spade terminals are commonly used to connect the _____(13) to a screw terminal.

Choose a wire _____(14) with adjustable pressure settings to ensure precise cutting and stripping.

16.2. Reading

Ex. 1. Read the text.

Electrical Tools and Equipment

If you're going to do any electrical work, you'll need some basic electrical tools. In this article, we'll discuss the most common tools that an electrician uses and what they're used for.

Anti-static wristband

An anti-static wristband is worn by an electrician when working on electronic devices or with sensitive components. It prevents static electricity from damaging the device.

Blade connector

A blade connector is a single wire connector. It's used to connect wires to a terminal block or other electrical component.

Channel lock pliers

Channel lock pliers are adjustable pliers that can be locked into different positions. They're used to grip and turn nuts, bolts, and other objects.

Coaxial connector

A coaxial connector is a type of radio frequency (RF) connector. It's used to connect coaxial cables to electronic devices, such as televisions and radios.

Continuity detector

A continuity detector is a handheld device that's used to check if an electrical circuit is complete. It's used to test the continuity of wires, fuses, switches, and other electrical components.

Crimper

A crimper is a tool that's used to join two pieces of metal or plastic together. It's commonly used to attach connectors to the ends of wires.

Fish tape

A fish tape is a long, flat strip of steel that's used to route new wiring through walls, ceilings, and other hard-to-reach areas. It's often used by electricians and cable installers.

Flashlight

A flashlight is a portable, battery-powered light source. It's used to provide temporary lighting in dark areas, such as attics, basements, and crawl spaces.

High-voltage connector

A high-voltage connector is a type of electrical connector that's used to connect high-voltage equipment. It's typically used in power distribution systems, electric vehicles, and other high-voltage applications.

Multimeter

A multimeter is a handheld device that's used to measure electrical voltage, current, and resistance. It can also be used to test continuity, diodes, and other electrical components.

Ring terminal

A ring terminal is a type of electrical connector that's used to connect a wire to a screw or stud. It's commonly used in automotive, marine, and industrial applications.

Side-cutting pliers

Side-cutting pliers, also known as lineman's pliers, are used by electricians to cut, bend, and twist wires. They're designed with cutting edges near the pivot point, which allows for greater leverage when cutting wires.

Soldering iron

A soldering iron is a hand tool that's used to melt solder and join two pieces of metal together. It's commonly used in electronics repair, plumbing, and jewelry making.

Spade terminal

A spade terminal is a type of electrical connector that's used to connect a wire to a terminal block or other electrical component. It's shaped like a flat, U-shaped fork and is available in various sizes.

Wire stripper

A wire stripper is a tool that's used to remove the insulation from the end of a wire. It typically has several notches of different sizes to accommodate various wire gauges.

These are just a few examples of the many tools and equipment that an electrician uses. As you can see, each tool has its own specific purpose and is designed to perform a certain task. Whether you're a professional electrician or a DIY enthusiast, having the right tools will make your job much easier and safer.

Ex. 2. Answer the questions.

1. What is the purpose of an anti-static wristband?
2. How is a blade connector used in electrical work?
3. What are channel lock pliers used for?
4. When would you use a coaxial connector?
5. What does a continuity detector check for?
6. How is a crimper used in electrical work?
7. What is the function of a fish tape?

16.3. Communication

Ex. 1. Make sentences using the following words:

1. screwdriver/please/pass
2. drill/batteries/charge
3. hammer/garage/think
4. power saw/use/know
5. lightbulb/needs/changed

6. extension cord/vacuum/long
7. outlet/working/electrician
8. wire cutter/used/ever
9. unplug/toaster/cleaning
10. surge protector/computer/new