# ДРЕЛЬ-ШУРУПОВЕРТ АККУМУЛЯТОРНАЯ



AD-12.2A AD-12.14B

AD-18.2

AD-18.21B

**AD-DF18DW** 

AD-2150QBL

**AD-2150BL** 

AD-2155BL

**AD-2160BL** 

**AD-2180BL** 



ИНСТРУКЦИЯ



Original instructions



Оригинальное руководство по эксплуатации



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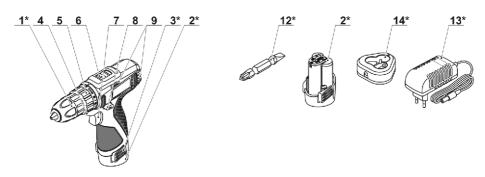
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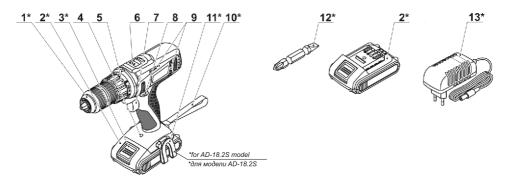
## AD-12.2A/12.14B

The images and illustrations in this manual are schematic and may differ from the actual product. may differ from the appearance of the assemblies and parts of actual products.

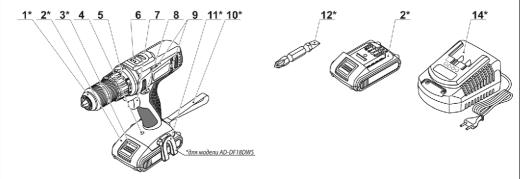


Представленные в инструкции изображения и иллюстрации схематичны и могут отличаться от вида узлов и деталей реальных изделий.

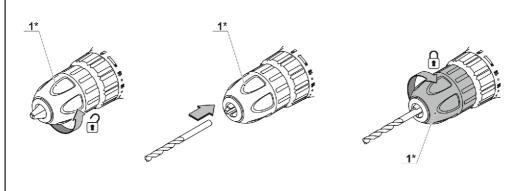
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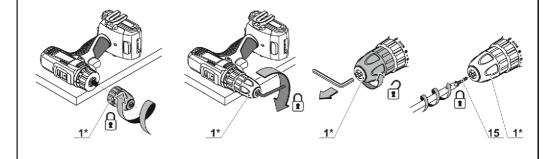


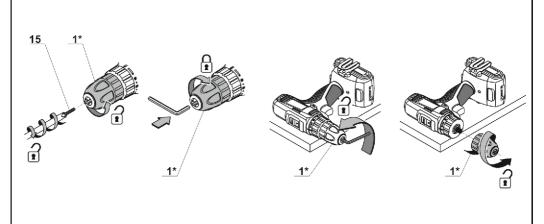
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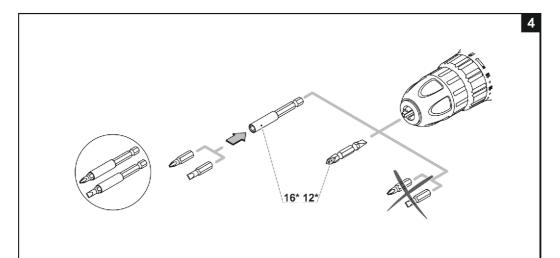


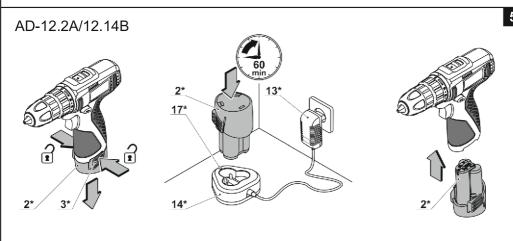


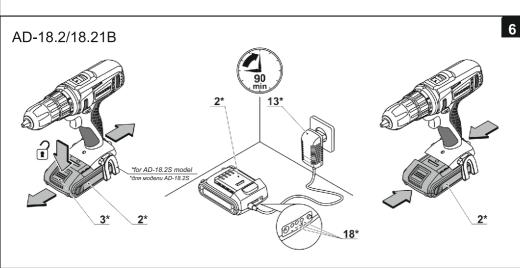




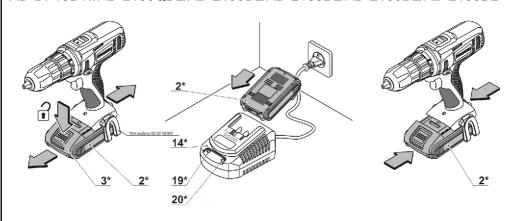




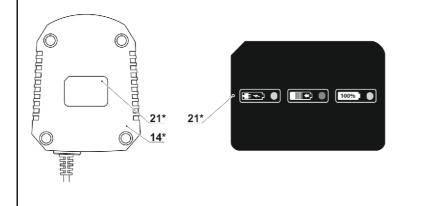




## AD-DF18DW/AD-2150QBL/AD-2150BL/AD-2155BL/AD-2160BL/AD-2180BL



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- 9.1
- 9.2
- 9.3

## КОМПЛЕКТ НАСАДОК ДЛЯ МОДЕЛИ AD-2150QBL

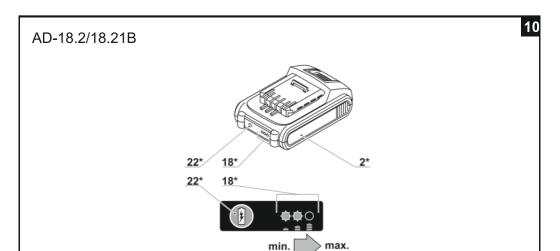
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- 24- Патрон сверлильный
- 25- Редуктор угловой
- 26- Насадка под биту



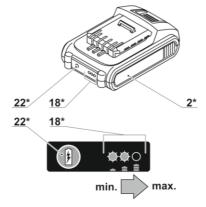


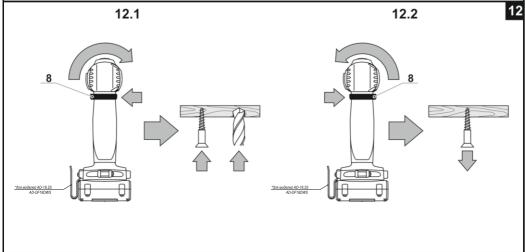


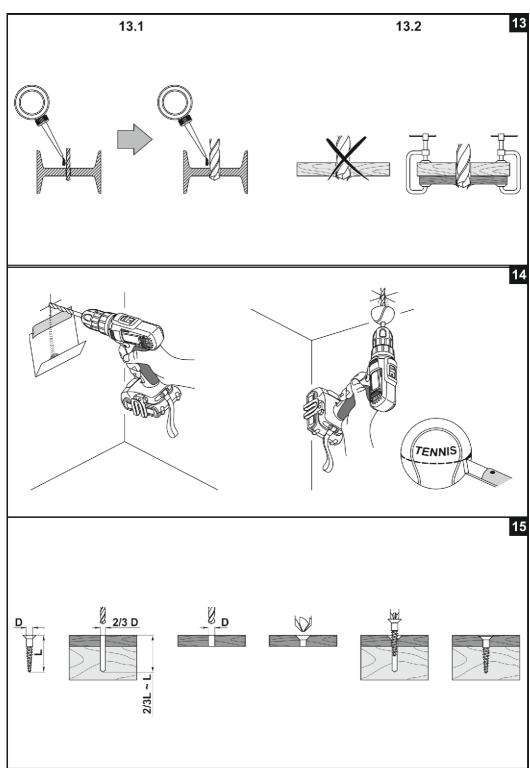












## AD-12.2A/12.14B







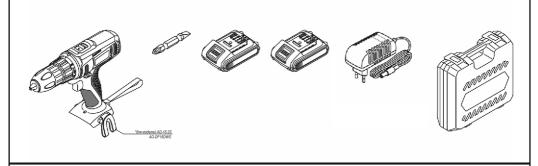






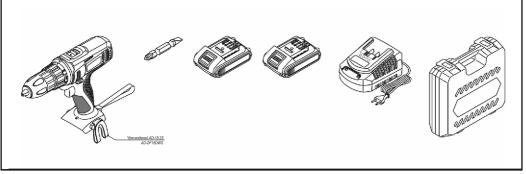


## AD-18.2/18.21B



## AD-DF18DW/ AD-2150QBL/AD-2150BL/2155BL/AD-2160BL / AD-2180BL\*

\*для модели AD-2180BL - 1 аккумулятор 4.0Ач в комплекте



## Power tool specification

Cordless drill / screwdriver		AD-12.2A/12.14.B	AD-18.2/18.21B	AD-DF18DW	AD-2150QBL
Motor type		brushed	brushed	brushless	brush <b>l</b> ess
Rated voltage	[V]	12	18	18	21
No-load speed:					
- first gear	[min <sup>-1</sup> ]	0-400	0-400	0-400	0-450
- second gear	[min <sup>-1</sup> ]	0-1400	0-1400	0-1500	0-1650
Battery type		Li-lon	Li-lon	Li-lon	Li-Ion
Battery charging time	[min]	60-90	90	90	90
Battery capacity	[Ah]	1,5	2.0	2.0	2.0
Max. torque (soft / hard)	[Nm]	17/25	19/30	25/45	25/50
Chuck tightening range	[mm] [inches]	0,8-10 1/32"-25/64"	0,8-10 1/32"-25/64"	0,8-10 1/32"-25/64"	0,8-10 1/32"-25/64"
Drilling output:					
- steel	[mm] [inches]	10 25/64"	10 25/64"	13 33/64"	13 33/64"
- wood	[mm] [inches]	28 1-7/64"	28 1-7/64"	35 1-1/2"	35 1-1/2"
Max. screw diameter	[mm] [inches]	6 15/64"	8 5/16"	8 5/16"	8 5/16"
Weight	[kg] [lb]	1 2.2	1,54 2.21	1,54 2.21	1.57 2.21
Sound pressure	[dB(A)]	64,83	69,23	69,23	69,23
Acoustic power	[dB(A)]	75,83	80,23	80,23	80,23
Weighted vibration	[m/s²]	1,06	1,29	1,29	1,29

Cordless drill / screwdriver		AD-2150BL	AD-2155BL	AD-2160BL	AD-2180BL
Motor type		brushless	brushless	brush <b>l</b> ess	brush <b>l</b> ess
Rated voltage	[V]	21	21	21	21
No-load speed:					
- first gear	[min <sup>-1</sup> ]	0-400	0-400	0-400	0-400
- second gear	[min <sup>-1</sup> ]	0-1500	0-1400	0-1500	0-2100
Battery type		Li-lon	Li-lon	Li-lon	Li-lon
Battery charging time	[min]	90	90	90	90
Battery capacity	[Ah]	2.0	2.0	2.0	4.0
Max. torque (soft / hard)	[Nm]	25/50	30/55	35/60	50/80
Chuck tightening range	[mm] [inches]	0,8-10 1/32"-25/64"	0,8-10 1/32"-25/64"	2-13 5/64"-1/2"	2-13 5/64"-1/2"
Drilling output:					
- steel	[mm] [inches]	10 25/64"	13 33/64"	13 33/64"	13 33/64"
- wood	[mm] [inches]	35 1 <b>-</b> 1/2"	35 1-1/2"	40 1 <b>-</b> 37/64"	40 1 <b>-</b> 37/64"
Max. screw diameter	[mm] [inches]	8 5/16"	8 5/16"	8 5/16"	8 5/16"
Weight	[kg] [lb]	1.57 2.21	1.58 2.21	1.6 2.21	1.83 2.21
Sound pressure	[dB(A)]	69,23	69,23	69,23	69,23
Acoustic power	[dB(A)]	80,23	80,23	80,23	80,23
Weighted vibration	[m/s²]	1,29	1,29	1,29	1,29

#### Noise information



Always wear ear protection if the sound pressure exceed 85 dB(A).



WARNING - To reduce the risk of injury, user must read instruction manual!

### General safety rules



WARNING! Read all safety warnings, instructions, illustrations and specifications provided with this power tool. Failure to follow the warnings and instructions may result in electric shock, fire and / or serious in-

jury. Save all warnings and instructions for future reference.

The term "power tool" in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

#### Work area safety

- · Keep work area clean and well lit. Cluttered or dark areas invite accidents.
- Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust. Power tools create sparks which may ignite the dust or fumes.
- Keep children and bystanders away while operating a power tool. Distractions can cause you to lose control.

#### Electrical safety

- Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools. Unmodified plugs and matching outlets will reduce risk of electric shock.
- Avoid body contact with earthed or grounded surfaces, such as pipes, radiators, ranges and refrigerators. There is an increased risk of electric shock if your body is earthed or grounded.
- Do not expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.
- Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts. Damaged or entangled cords increase the risk of electric shock.
- When operating a power tool outdoors, use an extension cord suitable for outdoor use. Use of a cord suitable for outdoor use reduces the risk of electric shock.
- If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) protected supply. Use of an RCD reduces the risk of electric shock. NOTE! The term "residual current device (RCD)" may be replaced by the term "ground fault circuit interrupter (GFCI)" or "earth leakage circuit breaker (ELCB)".
- Warning! Never touch the exposed metal surfaces on gearbox, shield, and so on because touch-

ing metal surfaces will be interfered with the electromagnetic wave, thus causing potential injury or accidents.

#### Personal safety

 Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication. A moment of inattention while operating power tools may result in serious personal injury.

 Use personal protective equipment. Always wear eye protection. Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce

personal injuries.

 Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and / or battery pack, picking up or carrying the tool. Carrying power tools with your finger on the switch or energising power tools that have the switch on invites accidents.

 Remove any adjusting key or wrench before turning the power tool on. A wrench or a key left attached to a rotating part of the power tool may result

in personal injury.

- Do not overreach. Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.
- Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewellery or long hair can be caught in moving parts.
- If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used. Use of dust collection can reduce dust-related hazards.
- Do not let familiarity gained from frequent use of tools allow you to become complacent and ignore tool safety principles. A careless action can cause severe injury within a fraction of a second.
- · Warning! Power tools can produces an electromagnetic field during operation. This field may under some circumstances interfere with active or passive medical implants. To reduce the risk of serious or fatal injury, we recommend persons with medical implants to consult their physician and the medical implant manufacturer before operating this power tool.

#### Power tool use and care

- The persons with lowered psychophysical or mental aptitudes as well as children can not operate the power tool, if they are not supervised or instructed about use of the power tool by a person responsible for their safety.
- Do not force the power tool. Use the correct power tool for your application. The correct power tool will do the job better and safer at the rate for which it was designed.
- Do not use the power tool if the switch does not turn it on and off. Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
- Disconnect the plug from the power source and / or the battery pack from the power tool before making any adjustments, changing accessories, or

storing power tools. Such preventive safety measures reduce the risk of starting the power tool accidentally.

- Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool. Power tools are dangerous in the hands of untrained users
- Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired **before use.** Many accidents are caused by poorly maintained power tools.
- Keep cutting tools sharp and clean. Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
- Use the power tool, accessories and tool bits etc. in accordance with these instructions, taking into account the working conditions and the work to be performed. Use of the power tool for operations different from those intended could result in a hazardous situation.
- Keep handles and grasping surfaces dry, clean and free from oil and grease. Slippery handles and grasping surfaces do not allow for safe handling and control of the tool in unexpected situations
- Note that when you operate a power tool, please hold the auxiliary handle correctly, which is helpful when controlling the power tool. Therefore, proper holding can reduce the risk of accidents or injuries.

#### Battery tool use and care

- Recharge only with the charger specified by the manufacturer. A charger that is suitable for one type of battery pack may create a risk of fire when used with another battery pack.
- power tools only with specifically **designated battery packs.** Use of any other battery packs may create a risk of injury and fire.
- When battery pack is not in use, keep it away from other metal objects, like paper clips, coins, keys, nails, screws or other small metal objects, that can make a connection from one terminal to another. Shorting the battery terminals together may cause burns or a fire.
- Under abusive conditions, liquid may be ejected from the battery; avoid contact. If contact accidentally occurs, flush with water. If liquid contacts eyes, additionally seek medical help. Liquid ejected from the battery may cause irritation or burns.
- Avoid unintentional switching on. Ensure the on / off switch is in the off position before inserting **battery pack.** Carrying the power tool with your finger on the on / off switch or inserting the battery pack into power tools that have the switch in accidents.
- Do not open the battery. Danger of circuit
- In case of damage and improper use of the battery, vapors may be emitted. Provide for fresh air and seek medical help in case of complaints. The vapors can irritate the respiratory system.
- When the battery is defective, liquid can escape and come into contact with adjacent components. Check any parts concerned. Clean such parts or replace them, if required.
- Protect the battery against heat, e.g., also against continuous sun irradiation and fire. There is danger of explosion.



#### WARNING! Read all safety warnings and all instructions.

Protect the battery charger from rain and moisture. The penetration of water in a battery charger increases the risk of electric shock.

Do not charge other batteries. The battery charger is suitable only for charging lithium ion batteries within the listed voltage range. Otherwise there is danger of fire and explosion.

 Keep the battery charger clean. Contamination may cause the danger of electric shock.

- Check the battery charger, cable and plug each time before using. Do not use the battery charger when defects are detected. Do not open the battery charger yourself and have it repaired only by qualified personnel using original spare parts. Damaged battery chargers, cables and plugs increase the risk of electric shock.
- Do not operate the battery charger on easily inflammable surfaces (e.g., paper, textiles, etc.) or in combustible environments. There is danger of fire due to the heating of the battery charger during charg-

#### Service

- Have your power tool serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the power tool is maintained.
- Follow instruction for lubricating and changing ac-

## Special safety warnings

- Hold power tool by insulated gripping surfaces, when performing an operation where the cutting accessory may contact hidden wiring or its own cord. Cutting accessory contacting a "live" wire may make exposed metal parts of the power tool "live" and could give the operator an electric shock.
- Wear ear protectors Exposure to noise can cause hearing loss.

#### Safety guidelines during power tool operation

- The workpiece shall be fastened. Fixed devices or vice shall be used to fasten the workpiece, which will be more secure than holding the workpiece with your hands.
- Considering that asbestos may cause cancer, asbestos - containing materials shall not be processed.
- The power tool could be put down only after the parts of power tool is completely static. Accessory on the power tool might be clamped during work, which may make it difficult for you to control the power tool.
- Appropriate detector shall be used to find the location of hidden power wires. Or you should obtain relevant information from local power supply unit. Drilling electric wires will cause fire and electric shock. Damaged gas pipe will cause exploration. If water pipes are punctured, damage will be caused to property
- In case a accessory installed on the power tool is clamped, you shall shut down the power tool and

stay calm. At that time, the power tool will produce extremely high reactive torque thus resulting in return stroke. The accessory installed on the power tool are likely to be clamped, for example: hypercharge of power tool or skewing of accessory installed on the power tool during work.

If hidden electric wires or power lines of the power tool itself might be cut off during work, you must hold the insulated handle to operate the power tool. When the power tool is in touch with a charged line, the metal parts on the power tool will conduct electricity and may cause the operator to get an electric shock.

 During work, you must tightly hold the power tool and ensure you stand firmly. You should hold the power tool with your hands.

 When operating and using the power tool, you can only hold switch position of the main handle rather than other parts.

Avoid stopping an power tool motor when loaded.
Never remove any chips or fragments with your

power tool's motor running.

Use accessories without defects - it will make working with the power tool easier.

 The modification of the drill bits design and the use of removable orifices and accessories not envisaged for this power tool is strictly forbidden.

 Do not apply excessive pressure when operating the power tool - it can jam the drill bit and overload the engine.

 Do not allow drill bits to jam in the material processed. If this occurs, do not try to release them by means of the power tool engine. This can put the power tool out of order.

 Striking out drill bits jammed in the material processed with a hammer or other objects is strictly forbidden - metal fragments can hurt both the operator and the people nearby.

 Avoid overheating your power tool, when using it for a long time.

## Symbols used in the manual

Following symbols are used in the operation manual, please remember their meanings. Correct interpretation of the symbols will allow correct and safe use of the power tool.

Symbol	Meaning
	Cordless drill / screwdriver Sections marked gray - soft grip (with insulated surface).
S.N.: XXXXXXXXXX	Serial number sticker: XXXX - date of manufacture; XXXXXX- model; XXXXXXX - serial number.

Read all safety regulations

and instructions.

Symbol	Meaning
	Wear safety goggles.
	Wear a dust mask.
max. 40°C	Do not heat the battery above 45°C. Protect from prolonged exposure to direct sunlight.
	Do not dispose of the battery in a domestic waste container.
***	Do not dispose of the battery in the fire.
	Protect the battery from the rain.
min	Battery charging time.
	Movement direction.
	Rotation direction.
•	Locked.
. 1	Unlocked.
<u></u>	Attention. Important.
i	Useful information.
	Wear protective gloves.
***	Torque control position: "Drilling".

#### Symbol

#### Meaning



Stepless speed control.



Do not dispose of the power tool in a domestic waste container.

### Power tool designation

Cordless drills / screwdrivers are designed for hole drilling in wood, plastic and metal, as well as for screwing in and loosening of threaded fastening elements (screws, bolts, etc.).

Model AD-2150QBL is equipped with special nozzles (Fig.9).

## **Power tool components**

- 1 Keyless chuck
- 2 Battery \*
- 3 Battery lock \* (for the models AD-18.2S/AD-DF18DWS)
- 4 LED lamp
- 5 Torque regulator
- 6 Step speed selector switch
- 7 On / off switch
- 8 Reverse switch
- 9 Ventilation slots
- 10 Strap
- 11 Belt clip \*
- 12 Screwdriver bit \*
- 13 Power unit '
- 14 Charger \*
- 15 Screw
- 16 Magnetic holder \*
- 17 Indicator of the charger \*
- 18 Indicators of the state of battery charge \*
- 19 Indicator (red) \*
- 20 Indicator (green) \*
- 21 Charger label \*
- 22 Control button of the state of battery charge \*
- 23 Eccentric reducer (attachment)\*\*
- 24 Drilling chuck (accessory)\*\*
- 25 Angle reducer (accessory)\*\*
- **26** Bit attachment (accessory)\*\*
- \* Optional extra
- \*\* Included only for the modelAD-2150QBL

Not all of the accessories illustrated or described are included as standard delivery.

## Installation and regulation of power tool elements

Before execution of any procedures, centre the reverse switch 8.



Do not draw up the fastening elements too tight to avoid damaging the thread.



Mounting / dismounting / setting-up of some elements is the same for all power tool models, in this case specific models are not indicated in the illustration.

Mounting / replacement of accessories (see fig. 1)



With long-term use the drill bit may become very warm; use gloves to remove it.

- Open the jaws of the keyless chuck **1**, rotating its front part as shown in figure 1.
- Mount / replace the accessory.
- Tighten the keyless chuck 1 without skewing the accessory as it is shown in figure 1.

## Mounting / dismounting of the keyless chuck (see fig. 2-3)

- To mount the keyless chuck 1, carry out the operations in consecutive stages as it is shown in figure 2.
- To dismount the keyless chuck 1, carry out the operations in consecutive stages as it is shown in figure 3.



Attention: keep in mind that in the process of mounting / dismounting of the keyless chuck 1 the screw 15 has a left-hand thread.

#### Screwdriver bit / magnetic holder (see fig. 4)

For short screwdriver bits use the magnetic holder **16** for their reliable fixing (see fig. 4).

A magnetic holder **16** is not needed for extended screwdriver bits **12** (specially purposed for screwdrivers).

# Charging procedure of the power tool battery

Initial operating of the power tool

The power tool is supplied with a partially charged battery 2. Before the first use, the battery 2 must be fully charged.



Warning! Do not work under the charging status!

#### Charging process (see fig. 5-7)

- · Centre the reverse switch 8.
- Press the battery lock 3 (for AD-12.2A/12.14B two battery locks 3) and remove the battery 2 (see fig. 5-8).

#### [ AD-12.2A/12.14B ]

- Connect the power unit 13 to the charger 14(fig.5).
- Connect the power unit 13 to the power supply.
- Insert battery 2 into charger 14 (see fig. 5).
- Remove the battery 2 from the charger 14 and mount battery 2 in the power tool.
- Disconnect the power unit 13 from power supply.