SANTO®

RO BORMASINA ELECTRICA

GB IMPACT DRILL

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Main safety instructions for power tools

⚠ WARNING when using a power tool, the following basic safety precautions should always be taken to reduce the risk of electric shock, of fire and / or personal injury. read and understand the user's manual before operating the power tool is required.

- **Basic electrica safety**

Double insulation. this tool is double insulated from the main power supply making it unnecessary for this power tool to be earthed.

Outlet voltage and power tool voltage compatibility. make sure that the outlet voltage is within the voltage range of the power tool.

Avoid electrical shock. do not work in wet and humide conditions with a power tool.

- **Basic personal safety**

Be watchful. operating a power tool requires attention, concentration and control to avoid any personal injury. thus, while using a power tool you must not be tired and/or under the influence of alcohol, drugs or medication.

use safety equipment. use appropriate safety equipment such as goggles, dust mask, non-skid safety shoes, or hearing protection whenever and wherever applicable.

dress properly. do not wear loose clothing or jewelry suck as necklace that can be caught by the power tool moving parts.

remove any adjusting tool such as key or wrench. before plugging in the power tool, remove any adjusting tool to avoid accident caused by the rotation of the adjusting tools left attached to a rotation part.

avoid accidental start. ensure that the switch is in the “off” position before pluging in the power tool.

avoid electrical shock. always hold power tool by insulated gripping surfaces, when performing an operation where the drilling or cutting tools may contact hidden electrical wires.

maintain the power tool and your hand clean. keep power tool, notably the handle(s) and your hands clean and free from oil and grease to ensure better control of the power tool in operation.

keep children and untrained people away.

- **Power tool use and care**

Do not force the power tool. do not use the power tool in an inappropriate context or in a context the power tool is not designed for. each power tool is designed for specific performance. a power tool designed to be served as a do-it-yourself tool should not be used

by professionals for extended uses.

and must be repaired by a qualified person.

disconnect the power tool from the power source before any intervention. disconnect the plug from the power source and/or the battery pack before making any adjustment, changing accessories, storing the power tool, and maintaining the power tool.

store power tools in a safe place. store idle power tools in a dry and a clean place, out of the reach of children.

maintain preventively the power tool.

inspect regularly the mounting parts; check if all the loose screws are properly tightened.
regrease the power tool with gears with special lubricant at every brush change.
after regular examination of the state of the brushes and commutator, see whether these parts need to be changed.

clean your power tools body using a cleaning cloth lightly wet with a mixed solution of water and soap.

Main safety instructions for impact drill

Wear safety protection. always wear safety goggles or eye protection when using the impact drill to prevent any projection that may damage your eyes.

Do not wrap the cord around your wrist, arm or waist to avoid being destabilized.

Do not grasp the tool or place your hands too close to the spinning chuck or drill bit. your hand may run the risk of being injured.

Position yourself to avoid being caught between the tool or side handle and walls. should the bit become bound or jammed in the work, the reaction torque of the tool could crush your hand or leg.
When installing an accessory, insert the shank of the accessory deep enough in the jaws of the chuck to prevent the risk of losing the control of your impact drill.

As drill bits may be hot after prolonged use, when removing the bit from the tool, avoid any contact with your skin, and use proper protective gloves when grasping the bit or accessory.

Never use excessive force when using your impact drill. too much pressure can reduce the speed of your drill and reduce its efficiency. this can result in an overload which can cause damage to the electric motor of your impact drill.

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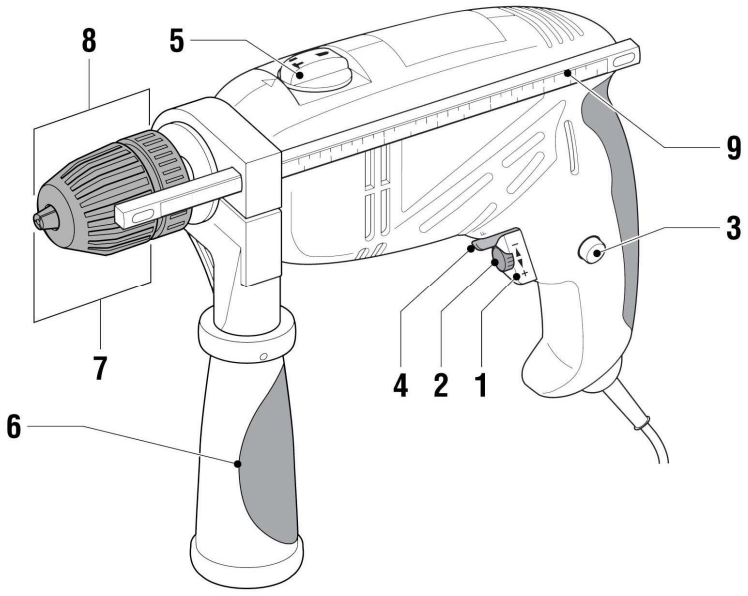
Symbol

Important: certain symbols mentioned below are printed on your power tool. the understanding of these symbols will allow you to operate your power tool in safer condition.

Symbo	Name	Designation / explanation
V	Volt	Voltage
A	Ampere	Current
Hz	Hertz	Frequency
W	Watt	Power
n0	No load speed	Tool's speed before contact with the workpiece
.../MIN	Revolution per minute	Number of rotations / minute
0	"OFF"	"OFF" position
1, 2, 3, ...OU I, II, III,	Speed selector	A high number indicates a higher speed
⧈	Construction classe ii	Double insulation
⏚	Earth terminal	Earth terminal liaison

Main impact drill functions

your impact drill possesses some or all of the following functions:



1. “On/off” switch
2. Speed adjusting wheel
3. Lock button
4. Forward/reverse switch
5. Switch hammer drill function
6. Auxiliary handle
7. Collar
8. Chuck
9. Depth gauge

Impact drill in operation

The operation below intend to make you familar with different functions of your impact drill.

Your impact drill has been designed for drilling in wood, metal, plastic, stone and concrete . Also it has been designed for screw driving application.

1. **Positoning and removing a drill or screw bit.** (reference the drill functions picture)

- Open the chuck by turing the collar(7).
- Insert the drill or screw bit in the chuck.
- Close the chuck by firmly tightening che collar (7) while hold the rear part of the chuck with the other hand.
- In order to remove the drill or screw bit proceed in reverse order.

Warning: before inserting or removing a drill or screw bit always pull the wall socket.

2. **“On/off” + continuous operation functions.** (reference the drill functions picture)

once the plug is connected to the power source, depress the “on/off” switch (1) to start the impact drill, and relese the “on/off switch to stop the impact drill.

if you press the “lock-on” button (3) while the “on/off” switch is depressed, the impact drill can operate continuously. to release the “lock-on” button, press on the “on/off” switch.

3. **“Forward / reverse” function.** (reference the drill functions picture)

deplace the “forward / reverse” level on the left or on the right side to choose the direction of the rotation. (4).
Push the forward /reverse switch(4) to the left for drill holes or fasten screws.

To the other direction (right) for loosen screw.
Never change the setting of the hammer switch,the speed switch or the forward / reverse when your drill is in operation.

A lways wait until the motor has been to a complete standstill before changing the direction of rotation.

4. **Adjust speed fuction.** (reference the drill functions picture)

Fit the correct accessory for the job, set the speed of your drill. Set the variable speed control to the desired positon (2) .
Turning the swith toward sign “+” indicated to high speed, and to ”-“ meaned low speed.
As a general rule., for large size drill bits use low speeds and for smaller drill bits use high speeds.

5. **Selecting the operation mode.** (reference the drill functions picture)

Select the required operation mode before use (drilling or hammer drilling)

- For drilling in wood , metal, plastics and soft stone and for driving screws, turning the drill symbol on the switch (5) to the arrow.

- For drilling in masonry, turing the hammer and drill symbol on the switch (5) to the arrow.

A lways wait until the motor has been to a complete standstill before changing the operation mode.

6. Fiting the auxiliary handle. (reference the drill functions picture)

The auxiliary handle give a secondary gripping position for your drill.

- Loosen the side grip (6) so that the collar can be removed.

- Remove the bolt from the collar.

- slightly bend the collar and slide it over the drill chuck on the machine.

- Insert the bolt into the collar and fit the side grip onto the bolt.

- Turn the side grip into the required position and tighten it firmly.

7. **Mounting the depth gauge.** (reference the drill functions picture)

The adjustable depth gauge gives 0precise control of the hole depth, when you drill bind holes.

- Loosen the side grip (6).

- Insert the depth gauge (9) into the hole in the side grip.

- Set the depth gauge to the required drilling depth.

- Tighten the handle by turing clockwise.

main technical data

Modele / model:	Z1J-KR-13A2
Rated input power:	810 W
Voltage / frequency:	230 V - 50 HZ
No load speed:	0 - 2,800 /MIN
Chuck diameter:	13 MM
Max drilling capacity:	
*Concrete:	10 MM
*Wood:	22 MM
*Steel:	8 MM

BORMASINA ELECTRICA

ATENTIE Cand folositi o scula electrica,urmatoarele masuri principale de siguranta trebuie retinute pentru a reduce riscul elecrocutarilor,al focului si/sau al ranirilor personale.Cititi cu atentie instructiunile de folosire ale bormasinii pentru o sigura si rationala.

Masuri de siguranta electrica

Dubla izolare.Aceasta unealta este prevazuta cu dubla izolare incepand de la sursa de alimentare cu energie electrica,nefiind necesara impamantarea.
Tensiunea sursei de alimentare si tensiunea bormasinii trebuie sa fie compatibile.
Asigurati-va intotdeauna de aceasta compatibilitate inainte de inceperea lucrului cu bormasina electrica.
Feriti-va de socuri electrice.Nu expuneti scula electrica la ploaie.Nu utilizati bormasina in locatii umede sau ude.

Masuri de siguranta personala

Operarea cu bormasina necesita intotdeauna atentie,concentrare si control pentru a evita accidentarile,astfel incat la manevrarea uneltei nu trebuie sa fiti obosit si/sau sub influenta alcoolului,a drogurilor sau a medicamentelor.
Utilizati echipament de protectie.Echipamentul de protectie adecvat cum ar fi ochelarii de protectie,masca de praf, incaltaminte fara aderenta,sau pentru protectia auzului sunt intotdeauna necesare.
Nu purtati imbracaminte larga sau bijuterii,pentru ca pot fi prinse de partile mobile ale bormasinii.Legati-va parul si acoperiti-l.
Inainte de a utiliza scula electrica,trebiue verificate cu atentie toate componentele.
Verificati daca partile mobile sunt corect aliniate,daca exista defectiuni,parti montate gresit sau orice alte probleme care pot afecta operarea.
Evitati pornirile accidentale.Asigurati-va ca comutatorul de pornire se gaseste in pozitia ,,OPRIT” inainte de conectarea masinii la sursa de curent electric.
Feriti-va de socurile electrice.Evitati contactul cu suprafetele impamantate (tevi,radiatoare,frigidere,etc.)Pastrati cablul electric al bomasinii departe de surse de caldura,grasime sau obiecte taioase.
Ingrijiti scula electrica.Pastrati uneltele de taiat curate pentru un rezultat mai bun si mai sigur.Pastrati manerele uscate,curate si fara urme de ulei sau de grasime.
Nu lasati copiii sa se apropie.Nu lasati persoanele din jur sa atinga unealta sau cablul electric.Nu permiteti accesul altor persoane in apropierea zonei de lucru.

Instructiuni de operare si ingrijire a sculei electrice

Nu fortati scula electrica.Folositi unealta potrivita.Nu utilizati unelte mici sau accesorii pentru a face treaba destinata uneltelor de talie mare.De asemenea nu folositi unelte la operatii pentru care nu au fost proiectate (de exemplu nu utilizati fierastraie circulare pentru a taia busteni).
Deconectati bormasina de la sursa electrica de alimentare inainte de orice interventie.
Reparatiile uneltei trebuie facute de o persoana specializata.
Deconectati unealta de la sursa de energie atunci cand nu este in uz,cand o reparati sau schimbati accesoriile.
Depozitati unealta intr-un loc sigur.Depozitarea uneltei este indicat a se face intr-un loc uscat si curat,un loc inaccesibil copiilor.
Verificati in permanenta partile componente.Verificati daca ati indepartat toate cheile folosite la reglaj inainte de inceperea lucrului.Verificati ca toate suruburile uneltei sa fie bine stranse.Examinati regulat periile bormasinii si comutatorul pentru a vedea care dintre parti trebuie schimbata.
Curatati carcasa uneltei folosind o panza moale umezita cu o solutie mixta alcatuita din apa cu sapun.

Masuri de siguranta pentru operarea cu bormasina electrica

Intotdeauna utilizati ochelari de protectie in timpul lucrului cu unealta.
Nu abuzati de cablul electric.Nu transportati niciodata scula electrica tinand-o de cablul de alimentare.Nu trageti de cablu pentru a scoate stecherul din priza.
Securizati piesa cu care lucrati.Utilizati o menghina pentru a fixa piesa cu care lucrati.Este mai sigur decat fixarea manuala si va lasa ambele maini libere pentru a putea opera, astfel evitati accidentarile.
Este importanta asigurarea unei pozitii de lucru astfel incat sa evitati prinderea mainii de mandrina bormasinii aflata in functiune.
Aveti grija ca bormasina sa fie deconectata de la sursa de curent inainte de fixarea accesoriilor.Atentie la momentul de tensiune reactiv,in special atunci cand burghiul este prins strans.Inainte de a efectua orice operatiune asupra bormasinii,deconectati-o de la sursa de energie electrica,scotand stecherul din priza.
Burghiele ascutite optimizeaza performanta si minimizeaza uzura bormasinii.
La utilizarea bormasinii evitati orice contact cu pielea,protejandu-va mainile cu manusi de protectie.
Niciodata nu fortati excesiv scula electrica.Presiunea ridicata asupra uneltei reduce eficienta acesteia,dar apare si o supraincarcare,ceea ce dauneaza motorului electric.
In timpul functionarii nu obturati fantele de ventilatie.

Simboluri folosite

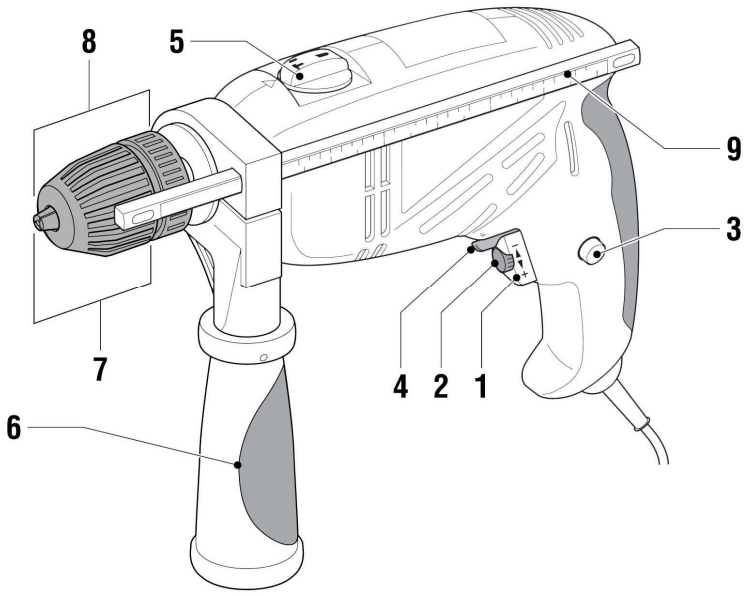
Important:simbolurile mentionate mai jos sunt tiparite pe bormasina electrica iar pentru intelegerea acestor simboluri te vor ajuta sa operezi in siguranta cu unealta.

Simbol	Nume	Descriere / explicare
V	Volt	Tensiune
A	Amperi	Intensitate
Hz	Hertz	Frecventa
W	Watt	Putere
n0	Fara turatie	Turati unealta inainte de contactul cu piesa
.../MIN	Rotatii pe minut	Numarul de rotatii/minut
0	,,OPRIT”	Pozitia ,,OPRIT”
1, 2, 3, ...OU I, II, III,	Selector de viteza	Un numar mare indica o viteza ridicata
⧈	Clasa de constructie II	Dubla izolatie
⏚	Impamantare	Legatura cu pamantul

Partile componente ale bormasinii electrice

Bormasina electrica are urmatoarele parti componente:

1.Comutatorul ,,PORNIT/OPRIT”
2.Buton de control al turatiei
3.Buton de blocare
4.Parghie schimbare de sens
5.Buton selectare percutie
6.Maner
7.Gulerul mandrinei
8.Mandrina
9.Tija reglaj adancime de gaurire



MODUL DE OPERARE CU BORMASINA ELECTRICA

Operatiile urmatoare intentioneaza sa va familiarizeze cu diferitele functii pe care le poate indeplini bormasina electrica.
Bormasina dumneavoastra a fost proiectata pentru a gauri lemn,metal,plastic,piatra si beton.De asemenea,scula electrica a fost proiectata si pentru realizarea operatiilor de insurubare/desurubare,fiind o masina care apartine clasei hobby.

1.Introducerea si scoaterea burghiului

-se deschide mandrina prin rotirea gulerului 7
-se introduce burghiul sau capul de surubelnita in mandrina
-se strange mandrina cu mana
-scoaterea se face procedand in ordine inverse
Atentie:aceste operatiuni se fac intotdeauna dupa scoaterea de sub tensiune a bormasinii electrice.

2.Comutatorul ,,PORNIT/OPRIT" si continuarea operatiilor de lucru

Indata ce bormasina este conectata la sursa electrica, actionati, butonul 1 (PORNIT/OPRIT) pentru inceperea lucrului si eliberand comutatorul ,,PORNIT/OPRIT" incetati operatiile de lucru.
Daca actionati butonul 3,in timp ce comutatorul PORNIT/OPRIT este apasat bormasina poate opera continuu.Prin eliberarea butonului de blocare,apasati comutatorul PORNIT/OPRIT.

3.Folosirea inversorului de sens

Aceasta operatie se face prin folosirea parghiei 4,respectiv prin rotirea acesteia stanga-dreapta.
Apasand butonul 4 spre stanga se pot realiza gauri si pentru a strange suruburi.
Apasand butonul 4 spre dreapta se pot realiza desurubari sau scoateri de suruburi.
Niciodata nu schimbati si nu actionati asupra inversorului de sens in timp ce bormasina se afla in functiune.
Intotdeauna asteptati pana cand motorul bormasinii este complet oprit inainte de folosirea inversorului de sens.

4.Selectarea vitezei de lucru

Alegeti accesoriile adecvate si viteza in functie de tipul de material pe care urmeaza sa-l gauriti.Controlati viteza dorita cu ajutorul butonului 2.
Rotiti comutatorul pana la semnul ,,+" care indica viteza ridicata,iar semnul ,,-" indica viteza scazuta.Ca o regula generala,pentru gauri de dimensiuni mari utilizati viteze mici,iar pentru gauri de dimensiuni mici (de suprafata) folositi viteze mari la gaurire.

5.Selectarea modului de operare

Inainte de inceperea lucrului selectati modul de operare corespunzator(simplu sau cu percutie)

Pentru gaurirea in lemn,metal,plastic si piatra semidura si pentru insurubari,rotiti comutatorul 5 cu simbolul burghiu spre sageata.
Pentru gaurirea in zidarie,rotiti comutatorul 5 cu simbolul ciocan spre sageata.
Intotdeauna asteptati pan ace motorul s-a oprit complet,inainte de a schimba modul de operare.

6.Montarea manerului.
Manerul auxiliar ofera uneltei o pozitie secundara de prindere.
-se slabeste surubul manerului 6 astfel incat gulerul mandrinei poate fi distantat
-desfaceti surubul din gulerul mandrinei
-se trece manerul peste mandrina si se pozitioneaza pe gatul bormasinii
- se introduce surubul in guler si fixati-l in pozitia de strangere
-se strange surubul astfel incat legatura manerului pe corpul bormasinii sa fie ferma.

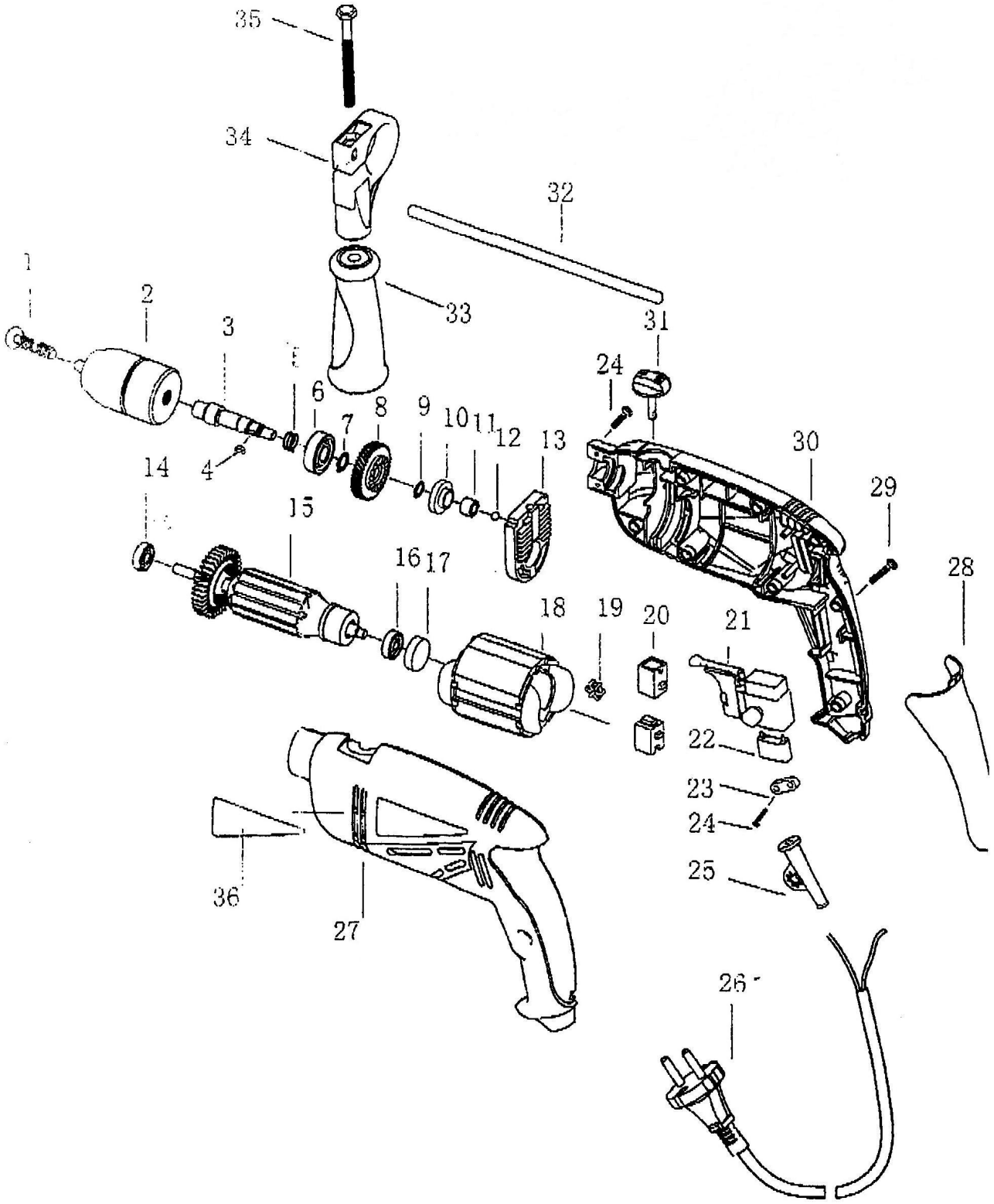
7.Montarea limitatorului de adancime
Reglarea limitatorului de adancime va ofera un control précis asupra adancimii gaurilor pe care le realizati.
-desfaceti manerul 6
-introduceti tija de reglaj a adancimii 9 in gaura manerului
-reglati tija limitatorului de adancime in functie de adancimea de gaurire
-strangeti manerul prin rotirea lui in sensul acelor de ceasornic.

PRICIPALELE DATE TEHNICE

Modele / model:	**Z1J-KR-13A2**
PUTEREA NOMINALA	810 W
TENSIUNEA/FRECVENTA	230 V - 50 HZ
FARA TURATIE	0-2800 ROT/MIN
DIAMETRUL MANDRINEI	13 MM
CAPACITATEA MAXIMA DE GAURIRE	
*BETON	10 MM
*:LEMN	22 MM
*:OTEL	8 MM
GREUTATE	2.2 KG
PUTERE ACUSTICA	110.7 DB
NIVEL DE ZGOMOT	97.7 DB

TABELUL PARTILOR COMPONENTE

Numar	Denumire	Numar	Denumire
1	Surub de mandrina	19	Inductanta
2	Mandrina	20	Perii din carbine
3	Ax	21	Comutator
4	Pana	22	Condensator
5	Arc de rezistenta	23	Clema cablu electric
6	Bucsa de otel	24	Surub
7	Opritor 10	25	Invelis cablu electric
8	Roata dintata	26	Stecher
9	Opritor 12	27	Semicarcasa stanga
10	Roata dintata de impact	28	Carcasa maner
11	Bucsa de cupru	29	Surub
12	Bila de otel	30	Semicarcasa dreapta
13	Suport prindere	31	Buton
14	Rulment	32	Rigla
15	Stator	33	Suport maner
16	Rulment	34	Surub de strangere maner
17	Bucsa de cauciuc	35	Surub hexagonal
18	Rotor	36	Placa de marcare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