

# HITACHI

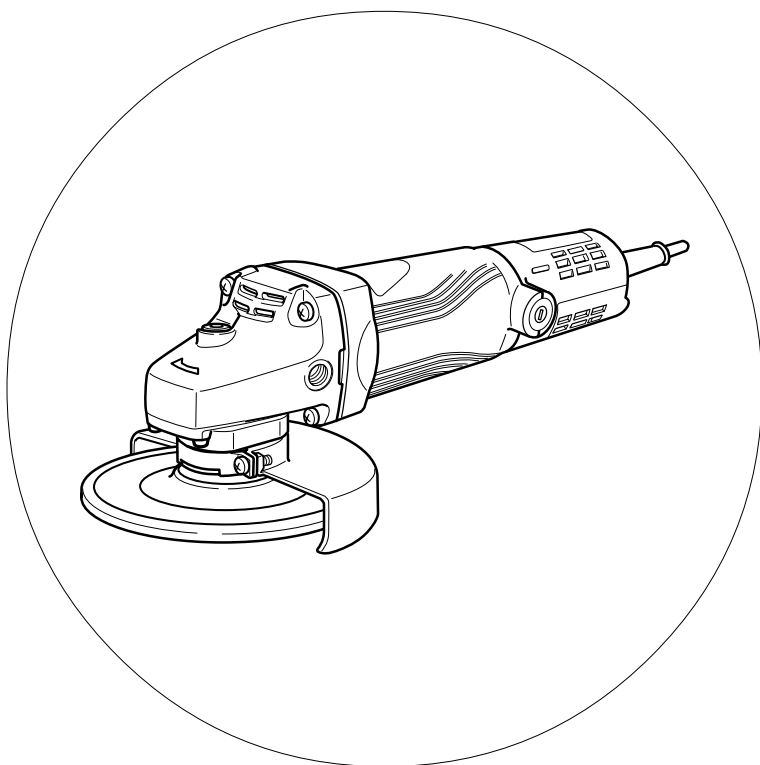
## Disc Grinder

## 日立牌手提圓盤電磨機

### PDA-100M

#### HANDLING INSTRUCTIONS

#### 使用說明書



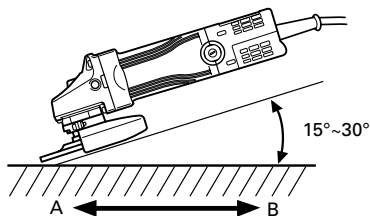
Read through carefully and understand these instructions before use.

使用前務請詳加閱讀

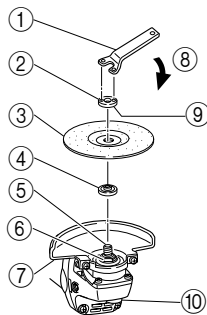
**Hitachi Koki**

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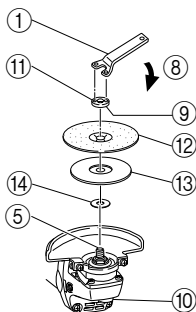
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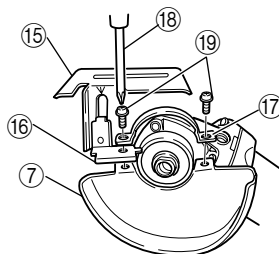
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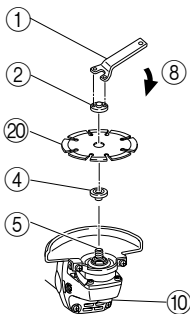
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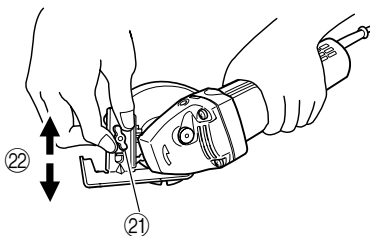
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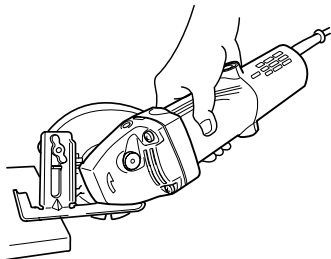
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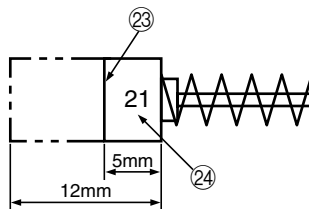
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8



①	Wrench
②	Wheel nut
③	Depressed center wheels
④	Wheel washer
⑤	Spindle
⑥	Notched part
⑦	Wheel guard
⑧	Tighten
⑨	Convex side
⑩	Lock pin
⑪	Washer nut
⑫	Sanding disc
⑬	Rubber pad
⑭	Washer
⑮	Guide base
⑯	Guide piece
⑰	Set plate (A)
⑱	Screwdriver
⑲	Screw
⑳	Diamond wheel
㉑	Wing bolt
㉒	Adjust the cutting depth by loosening the wing bolt.
㉓	Wear limit
㉔	No. of carbon brush

## GENERAL SAFETY RULES

### WARNING!

#### Read all instructions

Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury.

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

### SAVE THESE INSTRUCTIONS

#### 1) Work area

- a) **Keep work area clean and well lit.**  
*Cluttered and dark areas invite accidents.*
- b) **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 of fumes.*
- c) **Keep children and bystanders away while operating a power tool.**  
*Distractions can cause you to lose control.*

#### 2) Electrical safety

- a) **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.*
- b) **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.*
- c) **Do not expose power tools to rain or wet conditions.**  
*Water entering a power tool will increase the risk of electric shock.*
- d) **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.*
- e) **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*

#### 3) Personal safety

- a) **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.*
- b) **Use safety equipment. Always wear eye protection.**  
*Safety equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.*
- c) **Avoid accidental starting. Ensure the switch is in the off position before plugging in.**  
*Carrying power tools with your finger on the switch or plugging in power tools that have the switch on invites accidents.*

- d) **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.*
- e) **Do not overreach. Keep proper footing and balance at all times.**  
*This enables better control of the power tool in unexpected situations.*
- f) **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.*
- g) **If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.**  
*Use of these devices can reduce dust related hazards.*

#### 4) Power tool use and care

- a) **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.*
- b) **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.*
- c) **Disconnect the plug from the power source before making any adjustments, changing accessories, or storing power tools.**  
*Such preventive safety measures reduce the risk of starting the power tool accidentally.*
- d) **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.*
- e) **Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tools operation.**  
**If damaged, have the power tool repaired before use.**  
*Many accidents are caused by poorly maintained power tools.*
- f) **Keep cutting tools sharp and clean.**  
*Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.*
- g) **Use the power tool, accessories and tool bits etc., in accordance with these instructions and in the manner intended for the particular type of power tool, taking into account the working conditions and the work to be performed.**  
*Use of the power tool for operations different from intended could result in a hazardous situation.*

#### 5) Service

- a) **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.*

### PRECAUTION

Keep children and infirm persons away.

When not in use, tools should be stored out of reach of children and infirm persons.

## PRECAUTIONS ON USING DISC GRINDER

- Never operate these power tools without Wheel Guards.
- Use only a depressed center wheel of permissible peripheral speed 72 m/s (4300 m/min) or more.
- Correct use for safe operation.
- Mounting the standard depressed center wheel.
- Have a trial run before grinding commence.
- Keep away from a revolving depressed center wheel.
- Pay strict attention to sparks.
- Do not leave the revolving Grinder unattended on the floor.
- Follow the procedures of these Handling Instructions on depressed center wheel replacement.
- Avoid overload operation.
- Do not push in the lock pin while the spindle is running.
- Be careful those around one while operating.

## SPECIFICATIONS

Model	PDA-100M
Power Source (by areas)*1	(110V, 220V, 230V, 240V) ~ 50/60 Hz
Power Input*1	715 W
No-Load Speed	12,000/min
Wheel size external dia. thickness hole dia.	Max. Peripheral Speed: 72 m/s (4300 m/min) 100 mm 4 mm, 6 mm 16 mm
Weight*2	1.5 kg

\*1 Be sure to check the nameplate on product as it is subject to change by areas.

\*2 Only main body.

## STANDARD ACCESSORIES

- (1) Depressed center wheel ..... 1  
(Resinoid Wheel)
- external dia. 100 mm
  - thickness 4 mm
  - hole dia. 16 mm

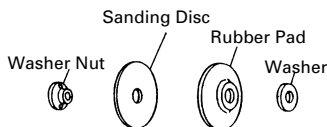
- (2) Wrench ..... 1
- Standard accessories are subject to change without notice.

## OPTIONAL ACCESSORIES .. sold separately

### CAUTION:

Always operate the grinder with the wheel guard attached.

### 1. 100mm Sanding Disc Set

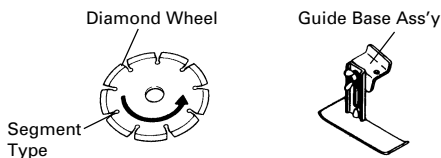


In case when only a relatively small metal surface area is to be polished and it is desired to give it a particularly fine finish, this is used for preliminary polishing of the metal surface before applying point, for removing rust, and for removing point when a new test is to be applied.

There are eleven different kinds of sanding discs, having grains of #16, #20, #24, #30, #36, #40, #50, #60, #80, #100, #120. When placing your order, please specify the grain of the disc desired.

### 2. Diamond Wheel Set

This is used for cutting and scribing of concrete, stone, tile etc.



Optional accessories are subject to change without notice.

## APPLICATIONS

- Removal of casting fin and finishing of various types of steel, bronze and aluminum materials and castings.
- Grinding of welded sections or sections cut by means of a cutting torch.
- Grinding of brick, marble, etc.
- Cutting and scribing of concrete, stone, tile, (use the diamond wheel)

## PRIOR TO OPERATION

### 1. Power source

Ensure that the power source to be utilized conforms to the power requirements specified on the product nameplate.

### 2. Power switch

Ensure that the power switch is in the OFF position. If the plug is connected to a receptacle while the power switch is in the ON position, the power tool will start operating immediately, which could cause a serious accident.

### 3. Extension cord

When the work area is removed from the power source, use an extension cord of sufficient thickness and rated capacity. The extension cord should be kept as short as practicable.

### 4. Confirming condition of the environment

Confirm that the work site is placed under appropriate conditions conforming to prescribed precautions.

When grinding a thin steel plate, depending upon the state of the workbench, a loud noise will be created due to resounding noise from the steel plate being ground. To eliminate unwanted noise in this instance, place a rubber mat beneath the material to be ground.

### 5. Mounting the wheel guard

Be sure to mount the wheel guard at an angle that will protect the operator's body from injury by a broken wheel piece.

### 6. Confirm the lock pin

Confirm that the lock pin is disengaged by pushing lock pin two or three times before switching the power tool on.

### 7. Confirming and mounting the depressed center wheel.

Thoroughly check that a specified depressed center wheel is free of cracks and splits is mounted. Confirm that the depressed center wheel is mounted under the specified condition and is firmly clamped. For details, refer to the item "Assembling and Disassembling the depressed center wheel."

### 8. Apply a trial run

To start grinding work without checking for possible cracks and splits in the depressed center wheel is very dangerous. Prior to start of grinding, direct the grinder in a direction where no one is present, and apply a trial run without fail to confirm that the grinder displays no abnormalities.

Duration of the trial run is as follows:

When depressed center wheels is replaced  
..... 3 minutes or more  
When starting daily work..... 1 minute or more

## PRACTICAL GRINDER APPLICATIONS

- Since grinding by utilizing only the grinder's own weight is feasible, the grinder should never be pressed forcibly against the plane to be ground. Hold the grinder lightly so that it only slightly contacts the plane to be ground. Heavy pressure will reduce the revolving speed and such deteriorate the finished surface, and phenomena as overload will lead to burning out of the motor.
- Do not utilize the grinder entire surface when grinding. Use only its peripheral surface by tilting the wheel at an angle of 15~30°, as shown in **Fig. 1**.
- When a grinder equipped with a new depressed center wheel is pushed forward (direction A), the wheel edge may occasionally cut into the material to be ground. Always pull it backward (direction B) in this instance. However, once the depressed center wheel angle has been adequately abraded, both forward and backward operations are permissible.

- The provided depressed center wheel (resinoid wheel) is rated as Class A grain and #36 grain size. Accordingly, its range of applications cover a wide variety, proving to be most suitable for heavy grinding of general steel materials. Since the wheel grain size is rather coarse, creating a fine-surfaced finish is very difficult.

In this instance, hold the grinder lightly as through trying to lift it, and apply grinding slowly at a constant low speed. Whereby a fine finish similar to that accomplished with a fine-grain depressed center wheel is obtainable.

### 5. Switching on the grinder

The switch can be turned ON by turning its lever ON side, or turn OFF by turning its lever to the OFF side.

### 6. Precaution after use

Do not lay the grinder down immediately after use in a place where there are many shavings and much dirt and dust until it has completely stopped revolving.

### CAUTIONS:

- Shock to the main body can be the cause of cracks or splits in the depressed center wheel. Be especially careful to avoid sudden shocks when using the equipment.  
If the main unit is accidentally bumped or dropped, make a careful check for cracks or splits on the depressed center wheel before further use.
- Do not press the lock pin when the equipment is turning. Also, do not turn on the switch when the lock pin is pressed down.

## ASSEMBLING AND DISASSEMBLING THE DEPRESSED CENTER WHEEL (Fig. 2)

### CAUTION:

Be sure to switch power OFF and disconnect the attachment plug from the power receptacle to avoid serious trouble.

- Turn the equipment upsidedown so that the spindle will be facing up.
- Mount the wheel washer onto the spindle.
- Mount the protuberance of the depressed center wheel onto the wheel washer.
- Mount the convex side of the wheel nut onto the depressed center wheel, and screw the wheel nut onto the spindle.
- As shown in **Fig. 2** push in the lock pin to prevent rotation of the spindle. Then, secure the depressed center wheel by tightening the wheel nut with the wrench.

**CAUTION:** Confirm that the depressed center wheel is mounted firmly.

Confirm that the lock pin is disengaged by pushing lock pin two or three times before switching the power tool on.

- Disassembling of the depressed center wheel is the reverse of assembling.

## HOW TO INSTALL THE OPTIONAL ACCESSORIES

### CAUTIONS:

- Be sure to switch power OFF and disconnect the plug from the power receptacle to avoid serious

trouble. When utilizing the optional accessories, keep the wheel guard attached and wear protective glasses.

- Do not use the optional accessories which exceed the designated external diameter designated in the paragraph.

### 1. Mounting the 100mm Sanding Disc. (see Fig. 3)

#### NOTE:

Do not use the wheel washer and wheel nut of the depressed center wheel.

- (1) Mount the washer, rubber pad and sanding disc onto the spindle.
- (2) Screw from the washer nut onto the spindle.
- (3) As shown in **Fig. 3**, push in the lock pin to prevent rotation of the spindle. Then, secure the sanding disc by tightening the wheel nut with the wrench.

### 2. Mounting the Diamond Wheel

#### CAUTION:

When utilizing the diamond wheel, pay particular attention to the following points.

- (1) Utilize the correct size diamond wheel (external dia. 105mm, internal dia. 20mm)
- (2) Do not apply cooling water or grinding fluid while utilizing the diamond wheel.
- (3) Hold the tool firmly to control the tendency of the tool to be repelled by the material during cutting operation.
- (4) Ensure that the cutting depth is kept within 2~5mm to prevent over-heating damage to the motor. Use with moderate cutting speed, and do not apply excessive pressure on the workpiece.

#### ○ Mounting the Guide Base Assembly. (Fig. 4)

- (1) Loosen the two small screws on the wheel guard.
- (2) Insert the guide piece between the wheel guard and set plate (A), and tighten one of the small screws. Ensure that the guide will not move.
- (3) Set the angle of the wheel guard to a suitable position for operation, and securely tighten the remaining small screw to fix the wheel guard in position.

#### ○ Mounting the Diamond Wheel. (Fig. 5)

#### NOTE:

Mounting of the diamond wheel on the spindle is illustrated in **Fig. 5**. Note that the wheel washer is reversed from ordinary usage with depressed center wheel.

- (1) Mount the wheel washer and diamond wheel onto the spindle.
- (2) Mount the concave side of the wheel nut onto the diamond wheel, and screw the wheel nut onto the spindle.
- (3) As shown in **Fig. 5** push in the lock pin to prevent rotation of the spindle. Then, secure the diamond wheel by tightening the wheel nut with the wrench.

screws be loose, retighten them immediately. Failure to do so could result in serious hazard.

### 3. Maintenance of the motor

The motor unit winding is the very “heart” of the power tool. Exercise due care to ensure the winding does not become damaged and/or wet with oil or water.

### 4. Inspecting the carbon brushes (Fig. 8)

The motor employs carbon brushes which are consumable parts. Since an excessively worn carbon brush can result in motor trouble, replace the carbon brush with a new one having the same carbon brush No. shown in the figure when it becomes worn to or near the “wear limit”. In addition, always keep carbon brushes clean and ensure that they slide freely within the brush holders.

### 5. Replacing carbon brushes:

Disassemble the brush caps with a slotted-head screwdriver. The carbon brushes can then be easily removed.

- (6) If the supply cord of this tool damaged, it must be replaced by a specially prepared cord available through the service organization.

### 7. Service parts list

#### CAUTION

Repair, modification and inspection of Hitachi Power Tools must be carried out by an Hitachi Authorized Service Center.

This Parts List will be helpful if presented with the tool to the Hitachi authorized Service Center when requesting repair or other maintenance.

In the operation and maintenance of power tools, the safety regulations and standards prescribed in each country must be observed.

### MODIFICATION

Hitachi Power Tools are constantly being improved and modified to incorporate the latest technological advancements.

Accordingly, some parts may be changed without prior notice.

### NOTE

Due to HITACHI's continuing program of research and development, the specifications herein are subject to change without prior notice.

## MAINTENANCE AND INSPECTION

### 1. Inspecting the depressed center wheel

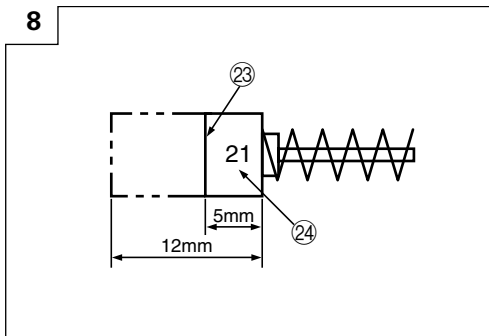
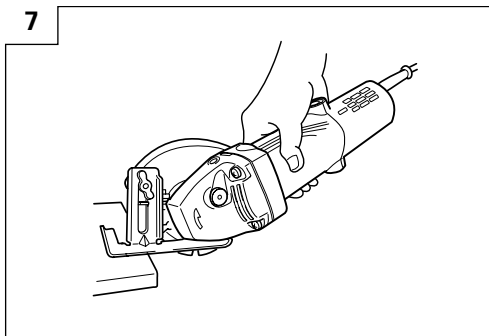
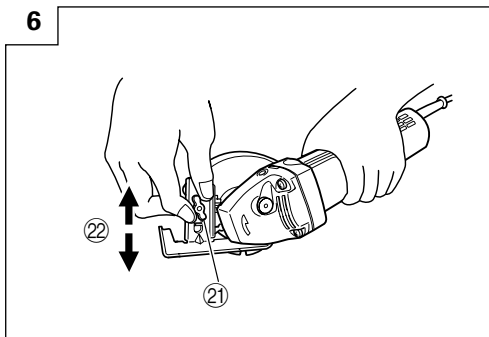
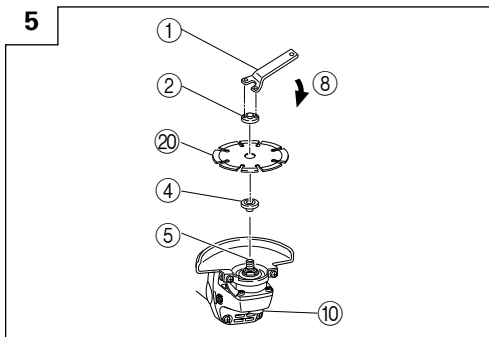
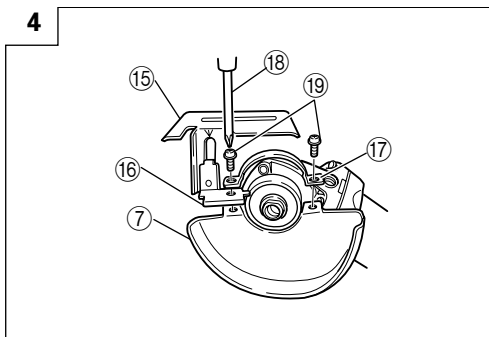
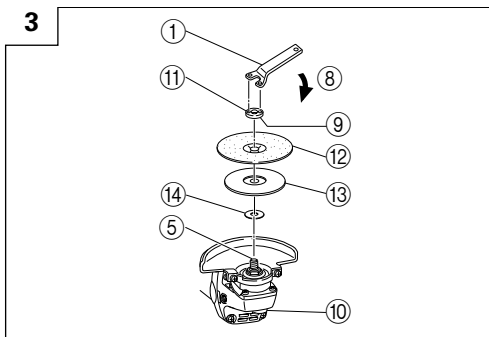
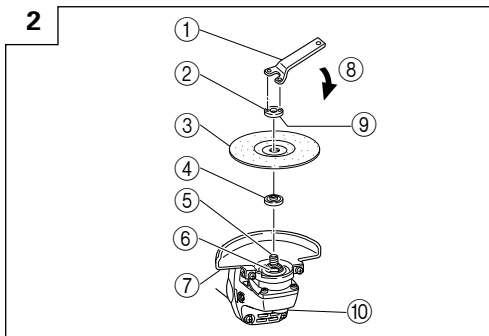
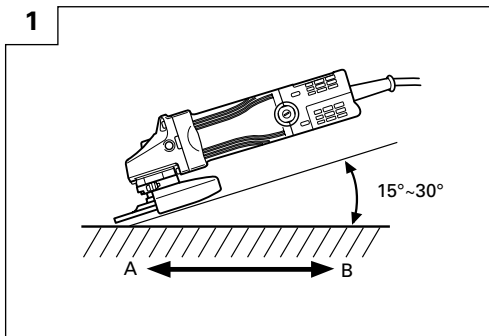
Ensure that the depressed center wheel is free of cracks and surface defects.

Replace the depressed center wheel when it has been worn out to about 60mm in external diameter.

### 2. Inspecting the mounting screws:

Regularly inspect all mounting screws and ensure that they are properly tightened. Should any of the

# 1





①	扳手
②	砂輪螺帽
③	砂輪
④	輪墊圈
⑤	主軸
⑥	槽口部分
⑦	砂輪保護裝置
⑧	緊
⑨	凸面
⑩	鎖定銷
⑪	墊片螺帽
⑫	砂盤
⑬	橡膠墊圈
⑭	襯墊
⑮	導軌基座
⑯	導軌片
⑰	支架板 (A)
⑱	螺絲刀
⑲	螺絲釘
⑳	金剛石輪
㉑	蝶形螺栓
㉒	利用放鬆蝶形螺栓來調節切削深度
㉓	磨損極限
㉔	碳刷號

## 一般安全規則

### 警告！

#### 請通讀本說明書

若不遵守下列注意事項，可能會導致電擊、火災及/或嚴重傷害。

下述警告中的術語「電動工具」，指插電（有線）電動工具或電池（無線）電動工具。

#### 請妥善保管本說明書

#### 1) 工作場所

- 工作場所應打掃乾淨，並保持充分的亮度。  
雜亂無章及光線昏暗容易導致事故。
- 請勿在易爆炸的環境中操作電動工具，如存在易燃液體、氣體或粉塵的環境中。  
電動工具產生的火花可能會點燃煙塵。
- 操作電動工具時，孩童與旁觀者勿靠近工作場所。  
工作時分神可能會造成工具失控。

#### 2) 電氣安全

- 電動工具插頭必須與插座相配。  
不得以任何形式改裝插頭。  
不得對接地的電動工具使用任何轉接插頭。  
原裝插頭及相配插座將會減少電擊的危險。
- 應避免身體與大地或接地表面，如管道、散熱器、爐灶、冰箱等的接觸。  
若身體接觸大地或接地表面，更會增加電擊的危險。
- 電動工具不可任其風吹雨打，或置於潮濕的環境中。  
水進入電動工具也會增加電擊的危險。
- 要小心使用電線。不要用電線提拉電動工具，或拉扯電線來拆除工具的插頭。  
電線應遠離熱源、油液，並避免接觸到銳利邊緣或轉動部分。  
電線損壞或攪纏在一起會增加電擊的危險。
- 在室外操作電動工具時，請使用專用延伸線。  
使用專用延伸線可降低電擊的危險。

#### 3) 人身安全

- 保持高度警覺，充分掌握情況，以正常的判斷力從事作業。  
疲勞狀態或服藥、飲酒後，請勿使用電動工具。  
操作電動工具時，一時的疏忽都可能造成嚴重的人身傷害。

b) 使用安全設備。始終配戴安全眼鏡。

在適用條件下，使用防塵面罩、防滑膠鞋、安全帽或聽覺保護裝置等安全設備，都會減少人身傷害。

c) 謹防誤開動。插接電源前，請先確認開關是否已切斷。

搬移電動工具時指頭接觸開關，或接通開關狀態下插上電源插座，都容易導致事故。

d) 開動前務必把調整用鍵和扳手類拆除下來。

扳手或鍵留在轉動部分上，可能會造成人身傷害。

e) 要在力所能及的範圍內進行作業。作業時腳步要站穩，身體姿勢要保持平衡。

這樣在意外情況下可以更好地控制工具。

f) 工作時衣服穿戴要合適。不要穿著過於寬鬆的衣服或佩帶首飾、頭髮、衣角和手套等應遠離轉動部分。

鬆散的衣角、首飾或長髮都可能會捲入轉動部分。

g) 如果提供連接除塵和集塵的設備，請確認是否已經連接好並且使用正常。

使用這些設備可降低粉塵引起的危險。

4) 電動工具的使用和維護

a) 不要使勁用力推壓。應正確使用電動工具。

正確使用才能讓工具按設計條件有效而安全地工作。

b) 如果電動工具不能正常開關，切勿使用。

無法制開關的電動工具非常危險，必須進行修理。

c) 進行調整、更換附件或存放工具前，請拆除電源插頭。

此類預防安全措施可減少誤開動工具的危險。

d) 閒置不用的工具，應存放在孩童夠不到的地方；不熟悉電動工具或本說明書的人員，不允許操作本工具。

未經培訓的人員使用電動工具非常危險。

e) 妥善維護工具。檢查轉動部分的對準、連接，各零件有無異常，及其他足以給工作帶來不良影響的情況。

如有損壞，必須修理後才能使用。

許多事故都是因工具維護不良引起的。

f) 保持工具鋒利、清潔。

正確維護工具，使其保持鋒利，作業順暢，便於控制。

g) 請根據本說明書，按照特殊類型電動工具的方式，使用本工具、附件及鑽頭，並考慮作業條件及具體的作業情況。

電動工具用於規定外的作業，可能會導致危險狀況。

5) 維修

a) 本電動工具的維修必須由專業人員使用純正配件進行。

這樣才能確保電動工具的安全性。

注意事項：

不可讓孩童和體弱人士靠近工作場所。

應將不使用的工具存放在孩童和體弱人士伸手不及的地方。

## 使用手提圓盤電磨機時應注意事項

1. 沒有砂輪防護裝置千萬不要使用圓盤電磨機這種動力工具。
2. 只能使用容許外緣速度為 72 m/秒（4300 m/分）以上的砂輪。
3. 正確使用確保操作安全。
4. 安上標準磨輪。
5. 研磨開始之前應試車。
6. 應遠離旋轉的磨輪。
7. 嚴密注意打火花。
8. 不要將旋轉的盤磨機放在地板上在無人照管的情況下離去。
9. 遵守使用說明書規定的磨輪更換步驟。
10. 防止過載操作。
11. 當主軸轉動時不要撤下鎖定銷。
12. 操作時當心周圍的人。

規格

型式	PDA-100M
電源（按地區）*1	（110V, 220V, 230V, 240V） $\sim$ 50/60 Hz
輸入功率*1	715 W
額定輸出功率	400 W
無負荷速度	12000 轉／分
砂輪尺寸 外徑 厚度 穴徑	最高周速: 4300 m/min 100 mm 4 mm, 6 mm 16 mm
重量*2	1.5 kg

\*1 當須改變地區時應檢查產品上的銘牌  
\*2 僅限於本體

標準附件

- (1) 砂輪（人造的樹脂黏結的砂輪）..... 1

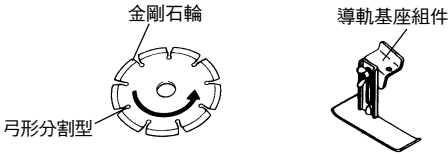
外徑100mm

厚度4mm

穴徑16mm
- (2) 扳手..... 1
- 標準附件可能不預先通告而徑予更改。

2. 金剛石砂輪裝置

這常用於對混凝土，石頭及瓷磚，瓦片等的切割和畫痕。

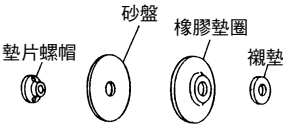


選購附件可能不預先通告而徑予更改。

選購附件（分開銷售）

注意：一定要在有砂輪防護件時操作圓盤電磨機

1. 裝 100mm 的砂盤



在對相當小的金屬表面區拋光並期望得到特別細的拋光時，常用這種砂盤作相應突端的預拋光，以便去掉鐵鏽以及去除添增新製費的端點有 11 種砂盤，它們分別具有的粒度是 #16，#20，#24，#30，#36，#40，#50，#60，#80，#100，#120，當你提出要求時，請詳細說明所希望的砂盤的粒度。

用途

- 用於去除鑄品毛刺，飛邊等物及拋光各種型號的鋼，青銅，鋁及鑄造品。
- 研磨焊接部分或研磨用焊接切割的部分。
- 研磨磚塊，大理石等等。
- 研磨和切割混凝土，石頭，瓦片（用金剛輪）。

作業之前

1. 電源：

確認所使用的電源與工具銘牌上標示的規格是否符合。
2. 電源開關：

確認電源開關是否切斷。若電源開關接通，則插頭插入電源插座時電動工具將出其不意地立刻轉動，從而招致嚴重事故。
3. 延伸線纜：

若作業場所移到離開電源的地點，應使用厚度足夠、額定電容的延伸線纜，並且要盡可能地短些。

4. 確認環境條件：

確認工作場地安排在符合規定措施的條件下。當研磨薄鋼板時，因工作臺的狀態會產生很大的噪音，它是因為研磨鋼板引起的。為了消除這種有害的噪音可在被研磨的材料下放一塊橡皮墊。

5. 砂輪保護的安裝

務請以一個角度安裝輪保護裝置，它將保護操作者的身體免受碎輪片的損傷。

6. 檢查鎖定銷

在打開電源開關之前掀兩、三下鎖定銷，檢查鎖定銷是否被釋放。

7. 砂輪的檢查和安裝

仔細檢查所安裝的砂輪確無破損和裂縫，確認所安裝的砂輪在規定的條件下牢固地被夾持。

8. 試行運轉

不檢查砂輪上是否存在著破損和裂縫就開始研磨，將非常危險。所以在開始正式研磨之前使該圓盤電磨機在無人的情況下試行運轉，如果沒有問題，就表明此圓盤電磨機沒有異常。

試運轉的持續時間如下：

- 當更換砂輪時 ..... 3 分鐘以上
- 當開始日常工作前 ..... 1 分鐘以上

實用手提圓盤電磨機的應用

- 1. 因為只用圓盤電磨機本身的重量研磨是切實可行的，千萬不要把圓盤電磨機強壓在被研磨的表面上，輕輕地握住圓盤電磨機以使它輕輕地和磨削面接 觸。
- 2. 研磨時不要利用圓盤電磨機的整個表面，如圖 1 所示使砂輪傾斜 15°~30°，只利用它的周邊表面。
- 3. 當用新砂輪裝備的圓盤電磨機向前推行時（方向 A），可能偶爾地切進所研磨的材料，這時要立即拉它後退（方向 B）。
- 4. 若提供的砂輪（人造樹脂黏結的砂輪）的額定粒度級是 A，粒度尺寸是 # 36，因此，它的應用範圍涉及面很廣，事實證明它最適合於普通鋼材的重研 磨。因為這類鋼材的的粒度大小相當粗糙要產生一個細的表面拋光是很困難的，在本例中輕輕地握住圓盤電磨機，提起它，慢慢地用一恆定的低速進行研 磨，借此，可以得到與用細粒度砂輪時得到的細研 磨相類似。
- 5. 圓盤電磨機的開關  
開關是積桿手柄式的，按它的 ON 端，開關就被接 通，按它的 OFF 端，開關就會斷開。

6. 使用後的注意事項

使用後但在完全停止轉動前，不要把圓盤電磨機立 刻放在有許多細屑和污物和灰塵的地方。

注意：

- 本機受到衝擊時，會導致砂輪的破裂或發生裂 痕。因此，在使用本機時，請留意勿使它受到 衝擊。  
在使用本機前，不小心碰到或掉下本機時，請 充分地檢查一下砂輪是否有破裂或裂痕。
- 本機在旋轉時，請勿按下鎖定銷。如鎖定銷被 按下的話，則請勿按下開關。

砂輪的裝卸（圖 2）

注意：

確認開關已斷開並且從電源插座中拔去電源插頭以 避免嚴重事故。

- (1) 把裝置倒置使主軸朝上。
- (2) 把墊片裝到主軸上。
- (3) 給砂輪的隆起部配裝砂輪墊圈。
- (4) 把砂輪螺帽的凸面裝到砂輪上並且把螺帽擰到主 軸上。
- (5) 如圖 2 所示，撤下鎖定銷防止主軸轉動。用扳手 擰緊砂輪螺帽卡緊磨輪。

注意：

確認砂輪安裝是否牢固。  
確認鎖定銷被解除鎖定；可在打開電源開關之前通 過掀二、三次鎖定銷進行檢查。

- 砂輪的拆卸和裝配相反-

安裝配選部件的方法

注意：

- 確認電源開關已斷開並且電源插頭沒有接在電 源插座上以避免嚴重事故，當使用配選附件 時，要保證裝上砂輪保護罩並且戴上眼鏡。
- 不得使用其外徑超過記載在選購附件上的外徑 的砂盤。

## 1. 安裝100mm的砂盤（參看圖3）

### 注意：

不得利用砂輪的輪墊圈和輪螺帽。

- (1) 配上墊圈，橡皮襯墊及砂盤到主軸上。
- (2) 旋裝圈螺帽到主軸。
- (3) 如圖3所示，撤下鎖定銷防止主軸轉動。用扳手擰緊砂輪螺帽卡緊砂盤。

## 2. 安裝金剛石輪

### 注意：

利用金剛石輪時，要特別注意以下幾點。

- (1) 使用正確尺寸的金剛石輪（外徑 105mm；內徑 20mm）
- (2) 使用金剛石輪時不要加涼水或且磨削液。
- (3) 在切削操作中要牢固地握住工具來控制被材料抵制的工具的傾斜度。
- (4) 可使切削深度保持在 2-5mm 以防過熱損壞馬達。使用適中的切削速度以及不要在工具上施加過多的壓力。

### ○ 安裝導軌基座組件（圖4）

- (1) 在砂輪導軌上鬆開兩個小的螺絲釘。
- (2) 在輪導軌和支架板（A）之間插入導軌片，並且上緊兩個螺絲釘中的一個，保證導軌將不會運動。
- (3) 以一角度把砂輪導軌放到適合於操作的位置，並安全地擰緊另一個留下的小螺絲釘把砂輪保護固定在所定的位置。

### ○ 安裝金剛石輪（圖5）

### 注意：

如圖5所示在主軸上安裝金剛石輪，要注意輪墊圈和砂輪螺帽，它與砂輪的普通用法相反。

- (1) 把輪墊圈和金剛石砂輪安裝到主軸。
- (2) 把輪螺帽的凸面安裝到金剛石輪上，並把輪螺帽旋進主軸。
- (3) 如圖5所示，撤下鎖定銷防止主軸轉動。用扳手擰緊砂輪螺帽卡緊金剛石輪。

## 維護和檢查

### 1. 檢查砂輪

檢查砂輪確無破裂和表面缺隱。

當砂輪外徑被磨損 60mm 時要更換砂輪。

### 2. 檢查安裝螺絲：

要經常檢查安裝螺絲是否緊固妥善。若發現螺絲鬆了，應立即重新扭緊，否則會導致嚴重的事故。

### 3. 電動機的維護：

電動機繞線是電動工具的心臟部。應仔細檢查有無損傷，是否被油液或水沾濕。

### 4. 檢查碳刷：（圖8）

馬達使用碳刷，它是消耗部品，因為使用過久的碳刷將會導致馬達故障，用具有相同碳刷號的新碳刷去更換舊的，碳刷編號用數字表示碳刷何時用舊或接近於磨損極限以外，要經常保持碳刷清潔以及保證它在刷握裡能自由滑動。

### 5. 更換碳刷：

用無頭螺絲刀卸下碳刷蓋、然後可以很容易地取下碳刷。

### 6. 如果此電動工具的電源線破損，務必用維修部提供的專用電源線更換。

### 7. 維修部件目錄

### 注意：

日立電動工具的修理、維護和檢查必須由日立所認可的維修中心進行。

當尋求修理或其他維護時，將本部件目錄與工具一起提交給日立所認可的維修中心會對您有所幫助。

在操作和維護電動工具中，必須遵守各國的安全規則和標準規定。

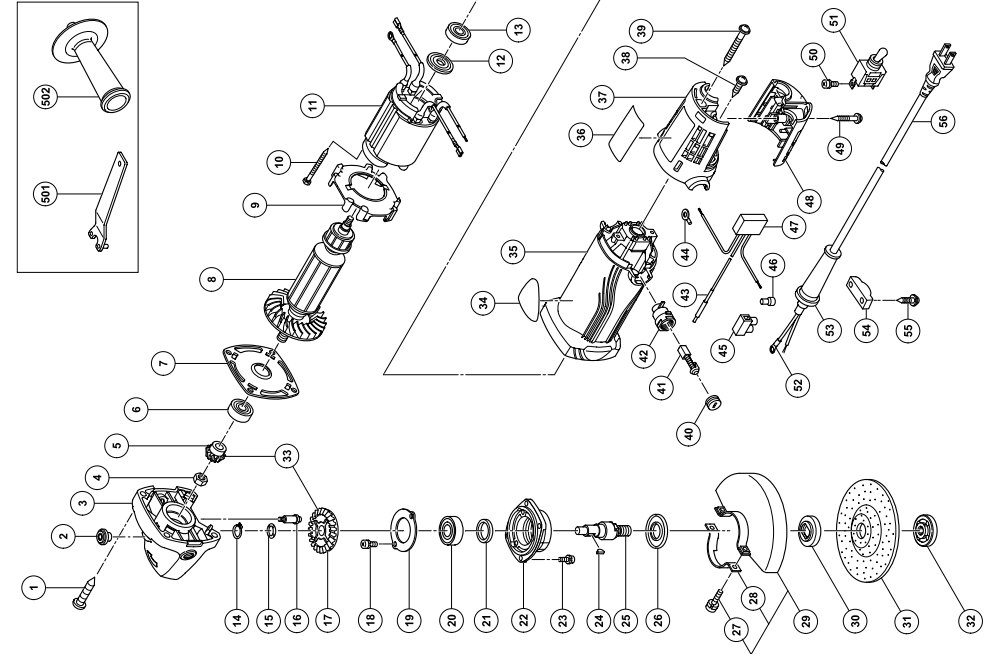
### 改進：

日立電動工具隨時都在進行改進以適應最新的技術進步。

因此，有些部件可能未預先通知而進行改進。

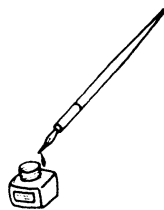
### 注：

為求改進，本手冊所載規格可能不預先通知而徑予更改。



Item No.	Part Name
1	TAPPING SCREW D5X25
2	PUSHING BUTTON
3	GEAR COVER ASS'Y
4	SPECIAL NUT M7
5	PINION
6	BALL BEARING 628VV/C2PS2-L
7	BEARING HOLDER
8	ARMATURE
9	FAN GUIDE
10	TAPPING SCREW (W/FLANGE) D4X70
11	STATOR
12	DUST SEAL
13	BALL BEARING 608VV/C2PS2L
14	RETAINING RING FOR D11 SHAFT
15	WAVE WASHER
16	LOCK PIN
17	GEAR
18	SEAL LOCK SCREW (W/SP. WASHER) M4X10
19	BEARING COVER
20	BALL BEARING 6201VVCMP52L
21	FELT PACKING
22	PACKING GLAND
23	SEAL LOCK SCREW (W/SP. WASHER) M4X12
24	WOODRUFF KEY
25	SPINDLE
26	FRINGER
27	MACHINE SCREW (W/SP. WASHER) M5X16
28	SET PLATE
29	WHEEL GUARD ASS'Y
30	WHEEL WASHER
31	D. C. WHEELS 100MMX4T A36Q
32	WHEEL NUT
33	GEAR AND PINION SET
34	HITACHI LABEL
35	HOUSING ASS'Y
36	NAME PLATE
37	TAIL COVER (A)
38	TAPPING SCREW (W/FLANGE) D4X20
39	TAPPING SCREW (W/FLANGE) D4X40
40	BRUSH CAP
41	CARBON BRUSH
42	BRUSH HOLDER

Item No.	Part Name
43	EARTH TERMINAL
44	TERMINAL
45	PILLAR TERMINAL
46	CONNECTOR 50091
47	NOISE SUPPRESSOR
48	TAIL COVER (B)
49	TAPPING SCREW (W/FLANGE) D4X25
50	MACHINE SCREW (W/WASHER) M3.5X6
51	SWITCH
52	TERMINAL
53	CORD ARMOR
54	CORD CLIP
55	TAPPING SCREW (W/FLANGE) D4X16
56	CORD
501	WRENCH
502	SIDE HANDLE





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