

# POWER TOOLS



# POWER TOOL Technical Basics



## Battery type and variation:

Battery type	Ni-Cd	Ni-Mh	Li-Ion
Nominal Voltage	1.2V	1.2V	3.6V
Energy / Size	300 Wh/L	340 Wh/L	450 Wh/L
Energy / weight	50 Wh/kg	65 Wh/kg	100~160 Wh/kg
Minimum voltage	0.7V	0.7V	2.5V
Operating temperature	-40~60°C	-20~60°C	-20~60C
Cycle durability	500~1000 times	500~1000 times	1000 times
Disadvantage	<ol style="list-style-type: none"> <li>1. Due to memory effect problem, it needs to be completely recharged and discharged after using ten times.</li> <li>2. Cadmium pollution problem, please recycle the battery.</li> <li>3. Lower self-discharging rate: 25~30%/month</li> </ol>	<ol style="list-style-type: none"> <li>1. It has less memory effect. After fifty times, it needs to be fully recharged and discharged.</li> <li>2. It makes less environmental pollution</li> <li>3. The Highest self-discharging rate: 30~35%/month</li> </ol>	<ol style="list-style-type: none"> <li>1. The elevating temperature shortens its life cycle.</li> <li>2. Poor in overcharging and discharging</li> <li>3. Need to have over charging and discharging protection</li> <li>4. The highest internal resistance and the lowest transient current (Suitable for the products which require low torque and power)</li> </ol>
Advantage	<ol style="list-style-type: none"> <li>1. The recharging efficiency is high. Fast and simple to recharge.</li> <li>2. The lowest internal resistance and the highest transient current. (Suitable for the products which require high torque and power.)</li> <li>3. Maintains a constant voltage to terminal when it discharges.</li> </ol>	<ol style="list-style-type: none"> <li>1. Higher battery capacity than Ni-Cd battery</li> <li>2. Lower internal resistance, and lower transient current than Li-Ion battery</li> <li>3. Less memory effect than Ni-Cd battery</li> <li>4. Less environment pollution than Ni-Cd battery. No Cadmium metal problem</li> </ol>	<ol style="list-style-type: none"> <li>1. Lack of memory effect no need to fully recharge.</li> <li>2. Make the least pollution</li> <li>3. The lowest self-discharging rate: 5%~10%/month.</li> </ol>

## Battery life measuring method:

Using multimeter to measure: such as **Proskit**® MT-1232 or MT-2017

1. Before measuring, charging the battery for one minute.
2. Set the multimeter to DCV function and measure the DC voltage: if the value is between 104~120%, which means the battery still in a good condition. If the value is extremely low, that means battery is almost exhausted.
3. The normal voltage for rechargeable battery: **3.6V**: 3.7V~4.3V, **4.8V**: 5.0V~5.8V, **7.2V**: 7.5V~8.6V, **12V**: 12.5V~14.4V, **14.4V**: 15V~17.3V

## PT-1441A / PT-1441F Cordless Drill Driver 14.4V



Variable speed trigger for complete control



Removable battery pack for charging convenience



21+1 Adjustable torque settings

- No-load speed 0-550rpm
- 21 adjustable torque settings for screwing, and extra position for drilling purpose
- Maximum output torque up to 7nm
- 3/8" (10mm) keyless chuck for driver bits or drills
- Magnetic strip on the back for convenient operation
- Removable battery pack for charging convenience
- Variable speed trigger for complete control

Model No.	PT-1441A	PT-1441F
Main body	Max. Drilling capacity	Steel: Ø6mm Concrete: ø8mm Wood: Ø10mm
	Torque setting	21+1 positions
	Rated no load speed	One Gear Speed: 0-550rpm
	Output torque	7 Nm (71.4 kgf-cm/62.0 lbf-in)
	Drive (Collet)	3/8" (10mm) Keyless Chuck
	Special function	Switch for forward or reverse rotation, with drill function
Battery	Overall length	225mm x 245mm
	Model No.	5PT-1441-BAT
	Battery type	Ni-Cd
	Battery voltage	14.4V
	Battery capacity	1000mAh
	Charging time	3-5 hours
Adapter	Free running time	40min
	Model No.	5PT-1441-ADA 5PT-1441F-ADF
	Input voltage	120V AC 60Hz 230V AC 50Hz
	Output voltage	DC 18V 400mA DC 18V 400mA
	Adapter plug	A I I F
	Certificate	CE RoHS EMC UL LISTED
Charger	Model No.	5PT-1441-CH
	Voltage	DC 18V 400mA
Standard Accessories	Bits set	6pcs drill: Ø 1.5, 2.5, 3, 4, 5, 6mm 6pcs 25mm Driver Bits: ⊕ 5.0, 6.0 ⊕ #1, #2 ⊕ PZ#1, PZ#2 1 pc Magnetic insert bits holder 1 pc 45mm double ends driver bits ⊕ #2, ⊕ 6.0
	Others	Adapter and Charger / Blow-molded case (380x280x95mm)
	Optional bits set	5PT-1080-P1(13 pcs/set)
Individual packing		
		Color sleeve shrink

## PT-1201A / PT-1201F Cordless Drill Driver 12V



Variable speed trigger for complete control



Removable battery pack for charging convenience



16+1 adjustable torque settings

- No-load speed 0-550rpm
- 16 adjustable torque settings for screwing, and extra position for drilling purpose
- Maximum output torque up to 6nm
- 3/8" (10mm) keyless chuck for driver bits or drills
- Removable battery pack for charging convenience
- Variable speed trigger for complete control

Model No.	PT-1201A	PT-1201F
Main body	Max. Drilling capacity	Steel: Ø6mm Concrete: ø8mm Wood: Ø10mm
	Torque setting	16+1 positions
	Rated no load speed	One Gear Speed: 0-550rpm
	Output torque	6Nm (61.2 kgf-cm / 53.11 lbf-in)
	Drive (Collet)	3/8" (10mm) Keyless Chuck
	Special function	Switch for forward or reverse rotation, with drill function
Battery	Overall length	225mm x 245mm
	Model No	5PT-1201-BAT
	Battery type	Ni-Cd
	Battery voltage	12V
	Battery capacity	1000mAh
	Charging time	3-5 hours
Adapter	Free running time	35min
	Model No.	5PT-1201-ADA 5PT-1201F-ADF
	Input voltage	120V AC 60Hz 230V AC 50Hz
	Output voltage	DC 15V 400mA DC 15V 400mA
	Adapter plug	A I I F
	Certificate	CE RoHS EMC UL LISTED
Charger	Model No.	5PT-1201-CH
	Voltage	DC 15V 400mA
Standard accessories	Bits set	6pcs drill: Ø 1.5, 2.5, 3, 4, 5, 6mm 6pcs 25mm Driver Bits: ⊕ 5.0, 6.0 ⊕ #1, #2 ⊕ PZ#1, PZ#2 1 pc Magnetic insert bits holder 2 pcs 45mm double ends driver bits ⊕ #2, ⊕ 6.0 ⊕ #1, ⊕ 5.0
	Others	Adapter and Charger / Blow-molded case
	Optional bits set	5PT-1080-P1(13 pcs/set)
Individual packing		
		Color sleeve shrink



## PT-1080A / PT-1080F Li-ion Cordless Drill Driver 10.8V



- No-Load speed 0-350/0-1100 rpm
- 21 adjustable torque settings for screwing, and extra position for drilling purpose
- Maximum output torque up to 14Nm
- 3/8" (10mm) keyless chuck for driver bits or drills
- Removable battery pack for charging convenience
- Variable speed trigger for complete control

Model No.	PT-1080A	PT-1080F
Main body	Max. Drilling capacity	Steel: Ø6mm Wood: Ø16mm
	Torque setting	21+1 positions
	Rated no load speed	two gear speed : 0-350/0-1100 rpm
	Output torque	14 Nm (142.8 kgf-cm/123.9 lbf-in)
	Drive (Collet)	3/8" (0.8-10mm) Keyless chuck
	Special function	Switch for forward or reverse rotation, with drill function 2 gear-speed switch LED battery power indicator
Battery	Overall length	215 mm x 210 mm
	Model No.	5PT-1080-BAT
	Battery type	Li-ion
	Battery voltage	10.8V
	Battery capacity	1300mAh
	Charging time	3-5 hours
Adapter	Free running time	30min
	Model No.	5PT-1080-ADA 5PT-1080-ADF
	Input voltage	120V AC 60Hz 230V AC 50Hz
	Output voltage	DC 12V 500mA DC 12V 500mA
	Adapter plug	A (I I) F (◁ ▷)
	Certificate	CE, EMC, UL LISTED
Charger	Model No.	5PT-1080-CH
	Voltage	DC 12V 500mA DC 12V 500mA
Standard Accessories	Model No.	5PT-1080-P1(13 pcs/set)
	Bits set	6 pcs Drills: Ø 1.5/2.5/3.4/5/6mm 6 pcs 25mm Driver bits: 5.0, 6.0 #1, #2 PZ#1, #2 1pc Magnetic insert bits holder
	Others	Adapter and Charger / Blow-molded case
Individual packing	Color sleeve shrink	



LED light provides convenient work in dark



Battery power indication



21+1 adjustable torque setting

## PT-0721A / PT-0721F Cordless Pocket Screwdriver 7.2V



4pcs 50mm Driver Bits

- Two gear speed : 0-200rpm/0-400rpm
- 1300mAh Li-ion battery. Long life battery pack, anti-pollution
- 15+1 Adjustable torque settings.
- Maximum output torque up to 5nm
- Quick release chuck
- Switch for forward or reverse rotation.
- Battery power indication
- LED light provides convenient work in dark
- Handy and easy to carry in a tool belt
- Over charging and discharging protection

Model No.	PT-0721A	PT-0721F
Main body	Torque setting	15+1 Position
	Rated no load speed	two gear speed:0-200rpm/0-400rpm
	Output torque	5Nm (51 kgf-cm / 44.26 lbf-in)
	Drive (collet)	1/4 quick release chuck
	Special function	Switch for forward or reverse rotation, quick release chuck, LED light, battery power indicator
	Overall length: angled	160mm x 180mm
Battery	Battery type	Li-ion
	Battery voltage	7.2V
	Battery capacity	1300mAh
	Charging time	3-5 hours
	Free running time	>70 min
	Model No.	5PT-0721-ADA 5PT-0721-ADF
Adapter	Input voltage	120V AC 60Hz 230V AC 50Hz
	Output voltage	DC 9V 300 mA DC 9V 300 mA
	Adaptor plug	A (I I) F (◁ ▷)
	Certificate	CE, EMC, UL LISTED
	Model No.	5PT-1361-P1
	Bits set	4pcs 50mm Driver Bits: 5.0, 6.0 #1, #2
Standard accessories	Other	Adapter
Individual packing	Double blister card	



LED light provides convenient work in dark



Battery power indication



15+1 adjustable torque settings

## PT-1362U USB Li-ion Cordless Screwdriver 3.6V



- Powerful motor comes with 350RPM/3 Nm, provides plenty of power for a variety of applications.
- The durable metal gear features small volume, high torsion and not easy to wear.
- Equipped with SANYO power cell series li-ion batter, offer high performance and long service life.
- Compact design for easy access to narrow space.
- LED light increased visibility in dark areas.
- Charging protective circuit design for quickly charging and over current protection.



Accessories

Model No.	PT-1362U
Rated no load speed	350 rpm
Output torque	3 Nm (31 kgf-cm/26.9 lbf-in)
Special function	LED charging indicator
Overall length: angled	140(L)x110(H) mm
Battery	Li-ion 3.6V 1100 mAh
Charging time	1.5-2 hours (5V/2A)
Free running time	30 min
Accessories	5pcs 50mm driver bits: ⑥ 6.0 #1, #2 ③ 3.0, 4.0 Micro USB charging cord
Individual packing	Double blister



**BEST Value**

Full metal gearbox  
Powerful 350RPM/3 Nm Motor  
Japan SANYO Li-ion battery



Product Video



Full metal gearbox



Japan SANYO Li-ion battery



USB charging

## PT-1361A / PT-1361F Li-ion Cordless Screwdriver 3.6V



- Battery power indication
- LED light provides convenient work in dark
- 1300mAh Li-ion Battery. Long life battery pack, anti-pollution.
- Dual angle adjustment allows straight and angle use
- 6+1 Adjustable torque settings, maximum output torque up to 3 Nm
- Quick release chuck, switch for forward or reverse rotation.

Model No.	PT-1361A	PT-1361F
Main body	Torque setting	6+1 positions
	Rated no load speed	200 rpm
	Output torque	3 Nm (30.6 kgf-cm/26.55 lbf-in)
	Drive (Collet)	Hex 1/4 (6.3mm) quick release chuck
	Special function	Switch for forward or reverse rotation, 2 different angle settings Includes LED Light. LED Battery Power Status Indicator
Battery	Overall length: straight	235mm (L)
	Overall length: angled	170(L)x145(H)mm
	Battery type	Li-ion
	Battery voltage	3.6V
	Battery capacity	1300mAh
Adapter	Charging time	3-5 hours
	Free running time	60 min
	Model No.	5PT-1361-ADA 5PT-1361-ADF
	Input voltage	120V AC 60Hz 230V AC 50Hz
	Output voltage	DC 6V 300mA
Standard Accessories	Adapter plug	A I I F
	Certificate	CE, EMC, UL LISTED
Model No.	5PT-1361-P1 (4 pcs/set)	
Bits set	4pcs 50mm driver bits: ⑥ 5.0, 6.0 ③ #1, #2,	
Individual packing	Double blister	



4pcs 50mm Driver Bits



LED light provides convenient work in dark



Battery power indication



Dual Angle

## PT-1136A / PT-1136F Cordless Lighted Screwdriver 3.6V



- High quality motor. Speed gear (operating ratio 1:80). 200rpm. Smooth and quiet operation
- Equipped with 3.6V, 1000mAh, rechargeable NI-MH anti-pollution battery. Charging time: 5-7 hrs.
- Maximum output torque up to 25kgf.cm. Ideal for computer, electronic and home repair.
- Adjustable 3 different angle to meet different application's demand.
- Switch for forward or reverse rotation. Easy to screw / unscrew.
- Ergonomic design. Soft grip is easy to handle.
- LED light provides convenient work in the dark area.

Model No.	PT-1136A	PT-1136F
Main body	Torque setting	None
	Rated no load speed	200 rpm
	Output torque	2.5 Nm(25.5 kgf-cm/ 22.13 lbf-in)
	Drive (collet)	6.35mm (1/4") Hex Bit Shank
	Special function	Switch forward or reverse rotation, LED light Handle can be used in 3 different position
	Overall length: straight	270mm (10-13/16")
Battery	Overall length: angled	210x140mm (7-23/32")
	Battery type	NI-MH
	Battery voltage	3.6V
	Battery capacity	1000mAh
	Charging time	5-7 hours
	Free running time	30-35 min. (unload speed)
Adapter	Input voltage	120V AC 60Hz
	Output voltage	DC 6V 300mA
	Adaptor plug	A  F
	Certificate	
Standard accessories		2 pcs magnetic insert bits holder 11 pcs 25mm driver bits:  3.0, 4.0, 5.0, 6.0, 7.0 #1, #2, #3  T10, T15, T20 Adapter
Individual packing		Double blister card

## PT-5721A / PT-5721F Mini Grinder Set 7.2V



Product Video



Drilling



Polishing



Battery power indication



On/Off speed adjustable controller

- 1000mAh Li-ion Battery, long life battery pack, anti-pollution.
- Low vibration, high torque and lightweight ergonomically designed
- Adjustable speed settings, Quick Release Chuck
- Battery Power Indication, LED light provides convenient work in dark
- Ideal for lightweight grinding, drilling, cutting, polishing, sanding, milling, sharpening, engraving and many other uses



Standard accessories: 9PT-5721-P2 (16pcs/set)

Model No.	PT-5721A	PT-5721F
Main body	Max. diameter	Ø3.2
	Rated no load speed	5000rpm~18000rpm
	Battery Type	Li-ion
Battery	Battery voltage	7.2V
	Battery capacity	1000mAh
	Charging Time	3-5 hours
	Free running time	60 min
Adapter and charger	Model No.	5PT-5721-ADA 5PT-5721-ADF
	Input voltage	120V AC 60Hz 230V AC 50Hz
	Output voltage	DC 9V 300mA DC 9V 300mA
	Adaptor plug	A  F
Standard accessories	Certificate	
	Model No.	9PT-5721-P2 (16pcs / set)
	Bits set	2pcs brass collet (Ø2.4x1, Ø3.2x1) 3pcs high speed drills (3/32" Ø2.4x 2, 1/8" Ø3.2 x1) 2pcs Engraving bits (Ø2.4x 2) 2pcs diamond bits (Ø3.2 x 2) 2pcs nylon brush (Ø2.4, Ø3.2) 4pcs grinding stones (Ø2.4x 2, Ø3.2 x2) 1pc sanding band (Ø2.4 x1)
Other		Adapter and charger
Individual packing		Double blister card



## PT-5501A / PT-5501I Variable Speed Rotary Tool Kit



Powerful variable speed and 40-piece accessories to meet most applications.

- Powerful variable speed from 10,000 to 32,000RPM
- Flexible shaft and cable attachment allows precision work
- 40-piece multipurpose accessories and carrying case included
- Outer carbon brush for replacement convenience
- Cutting, sanding, polishing, drilling, burr removal.



Comes with flexible shaft



Polishing

Model No.	PT-5501A	PT-5501I
Maximum Output	135 W	
No Load Speed	10,000-32,000 rpm	
Collet Chuck Capacity	3.2mm and 2.5mm	
Available Voltages	120V, 60Hz	230V, 50Hz
Plug	A I I	I I I
Carrying Case Size	285x235x80(mm)	
Individual packing	Color sleeve shrink	



## PT-5202A / PT-5202F Mini Grinder Set



- Build-in LED light provides illumination during use.
- Includes 19 accessories and 2 stencils for most tasks.
- Durable plastic storage case for easy organized.



Storage case



Engraving



Drilling

Model No.	PT-5202A	PT-5202F
Main body	Collet size	Max. Ø 3.2mm
	No-load speed	15,000 rpm
	Working voltage	18V DC
	Acoustic pressure	< 70dB
	Overall length	Ø43x127 mm
	Weight	123 g
Switch adapter	Input voltage	100-240VAC 50/60Hz 0.5A Max.
	Output voltage	18V DC 400mA
	Adaptor plug	A I I F I I
	Certificate	c UL US CE
Accessories	19 accessories and 2 stencils	
Carrying Case	142x137x57mm (5.6"x5.4"x2.3")	



## PT-5201A / PT-5201B Mini Grinder



- Naturally and comfortable operation body shape.
- The quick-change chuck is ideal for drilling, polishing, engraving, routing, shaping, sanding and milling.
- Low vibration, high torque & lightweight ergonomically design.

Model No.	PT-5201A	PT-5201B
Max. diameter	ø 3.2mm	
No load speed	8000~18000 rpm adjustable	
Adaptor Voltage	Output: DC 18V 400mA Input: AC 120V 60Hz	Output: DC 18V 400mA Input: AC 230V 50Hz
Adaptor plug	A I I	F I I
Adaptor certificate	CE emc LISTED	
Replacement accessories	9PT-5201-P2 (10 pcs/set)	
Replacement adaptor	9PT-5201A-P	9PT-5201B-P
Individual packing	Double blister card	



### 9PT-5201-P2



- Contents (10 pcs/set):
- 2 pcs diamond bits
  - 2 pcs grinding stones
  - 2 pcs sanding bands
  - 1 pc collet (Ø 2.4/ Ø 3.2 mm)
  - 1 pc nylon brush
  - 1 pc engraving bit
  - 1 pc connective post for sanding band

## ▶ PT-5203A / PT-5203I Electric Engraver



9 position stroke setting  
Speed 7100 spm  
LED light

**BEST Value**



- 9 position stroke setting regulates engraving depth from fine lines to deep grooves.
- Soft TPR handle provides extra comfort and control.
- Comes with LED light allows operating even in dark area.
- Replaceable solid carbide point gives you the power to engrave on different surfaces.
- Light and compact design provides comfortable use for precision engraving performance.
- Ideal for engraving or decorating metal, glass, stone and more.



Accessories:  
2 solid carbide tips  $\Phi 3.0 \times 20$  mm and 1 hex wrench included  
1. A round needle tip for deep or thread engraving.  
2. A flat tip for general and large area engraving.



Model No.	PT-5203A	PT-5203I
Voltage	AC 120V 60Hz	AC 220V-240V 50Hz
Consumption	10 W	
Speed	7,100 spm	
Stroke setting	9 Position	
Engraver point holder	$\Phi 3.0$ mm	
Standard plug	A	I
Individual packing	Double blister card	

## ▶ Super Drill Set



- Features in performance include low vibration, high torque and lightweight ergonomically designed.
- The quick-change chuck is ideal for drilling, polishing, engraving, routing, shaping, sending and milling.
- A super mill electric drill with an efficient, high speed motor and encased in a rugged high impact polystyrene body.

### 1PK-500-1



#### Contents:

- 5 pcs high speed steel drills ( $\Phi 0.5, 1.0, 1.5, 2.5, 3.0$ mm)
- 5 pcs brass collets ( $\Phi 0.5, 1.0, 1.5, 2.5, 3.0$ mm)
- Adaptor output: DC 12V/0.8A D/J  $\Phi 5.5 / \Phi 2.1$

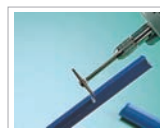
### 1PK-500A-2 / 1PK-500C-2







#### Contents:

- 5 pcs high speed steel drills ( $\Phi 0.5, 1.0, 1.5, 2.5, 3.0$ mm)
- 5 pcs brass collets ( $\Phi 0.5, 1.0, 1.5, 2.5, 3.0$ mm)
- 4 pcs grindstones with arbour
- 1 pc super thin grinding wheel
- Adaptor output: DC 12V/0.8A D/J  $\Phi 5.5 / \Phi 2.1$

### 1PK-500B-2



Model No.	Chuck	Torque	No-load speed	Adapter					Case(mm)	Individual packing
				Model No.	Input Voltage	Output Voltage	Plug	Certificate		
1PK-500-1	Ø0.5-Ø3.0mm	530 gf-cm	9000~11000 rpm	-	-	-	-		165x120x45	Color label shrink
1PK-500A-2				9500-012A	120V AC 60HZ	DC 12V 800mA	A 			
1PK-500B-2				9500-013B	100~240V AC 50/60HZ	DC 13V 800mA	F 			
1PK-500C-2				9500-012C	230V AC 50HZ	DC 12V 800mA	C 			

## ▶ 1H055-T Accessories



High speed steel drill bits designed for precision drilling applications in wood, non-ferrous metals and plastics. Available in pack, each containing 5 different drill sizes.



Model No.	Size (mm)	Individual packing
1H055-T (5pcs/set)	$\Phi 0.5$	Blister card
	$\Phi 1.0$	
	$\Phi 1.5$	
	$\Phi 2.5$	
	$\Phi 3.0$	