



14.4V / 18V

Use 14.4V or 18V power!

Li-ion
S 4.2Ah

TOUGH IP™

Panasonic
14.4V / 18V EY74A1

TOUGH IP

Li-ion 18V 4.2Ah

Panasonic is the World's Largest Manufacturers of battery and charging technology utilized in cordless tools. Panasonic began manufacturing professional cordless power tools in 1979. Panasonic is an industry leader with innovative products.

A tradition of product innovation:

- D/D with clutch
- First D/D with keyless chuck
- First D/D with speed control and power feed back system
- First 15 minute charging system
- First compact and light D/D
- First 2.0Ah Ni-Cd High capacity battery
- First 3.0Ah Ni-MH High capacity battery
- First 3.5Ah Ni-MH High capacity battery
- First Multi-Function Tool
- First Auto Shut-off Impact
- First Electronic Monitoring Charging System
- First IP Rated Cordless Power Tool
- First 3.1Ah "Rated" Li-ion Battery Pack
- First IP56 Rated Cordless Tool
- First 3.3Ah "Rated" Li-ion Battery Pack
- First 4.2Ah "Rated" Li-ion Battery Pack
- First Dual Voltage Tool – 14.4V / 18V



INTRODUCING

TOUGH IP™

Li-ion S 4.2Ah



Use 14.4V or 18V power!



IP56

International Protection Code

Water Protection Level

Dust Protection Level



18V
Li-ion 4.2Ah

14.4V
Li-ion 4.2Ah

18V
High speed and high performance

14.4V
Easy to hold, resists fatigue for upward application

TOUGH JUST GOT TOUGHER

Panasonic delivers a new level of dust and water resistant technology for the toughness evolution.

IP56



ToughIP products have passed the IP standard test administered by the International Electrotechnical Commission (IEC). Panasonic dust and water resistant technology has been demonstrated to comply with the IP standard by tests designed to gauge the level of protection against intrusion of solid objects and water

Dust Protection Testing



Water Protection Testing



What is IP56

Panasonic cordless tools are designed with protection features and have attained level IP56. These results shows Panasonic's on-going commitments by providing customers innovative products to work in the toughest conditions.

IP56

International Protection Code classifies the degree of protection provided against intrusion of sold foreign objects and liquids in electrical machinery and fixtures as defined by IEC standards.



Dust Resistance Level indicates the degree of protection provided against the intrusion of solid foreign objects using a scale of six levels.

Level	Brief description
1	Protected against solid foreign objects of 50 mm \varnothing and greater
2	Protected against solid foreign objects of 12.5 mm \varnothing and greater
3	Protected against solid foreign objects of 2.5 mm \varnothing and greater
4	Protected against solid foreign objects of 1.0 mm \varnothing and greater
5	Dust-protected
6	Dust-tight

Water Resistance Level indicates the degree of protection provided against the intrusion of water associated with harmful effects using a scale of eight levels.

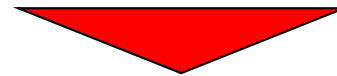
Level	Brief description
1	Protected against vertically falling water drops
2	Protected against vertically falling water drops when enclosure tilted up to 15
3	Protected against spraying water
4	Protected against splashing water
5	Protected against water jets
6	Protected against powerful water jets
7	Protected against the effects of temporary immersion in water
8	Protected against the effects of continuous immersion in water



If a different voltage battery pack is attached to tool body...

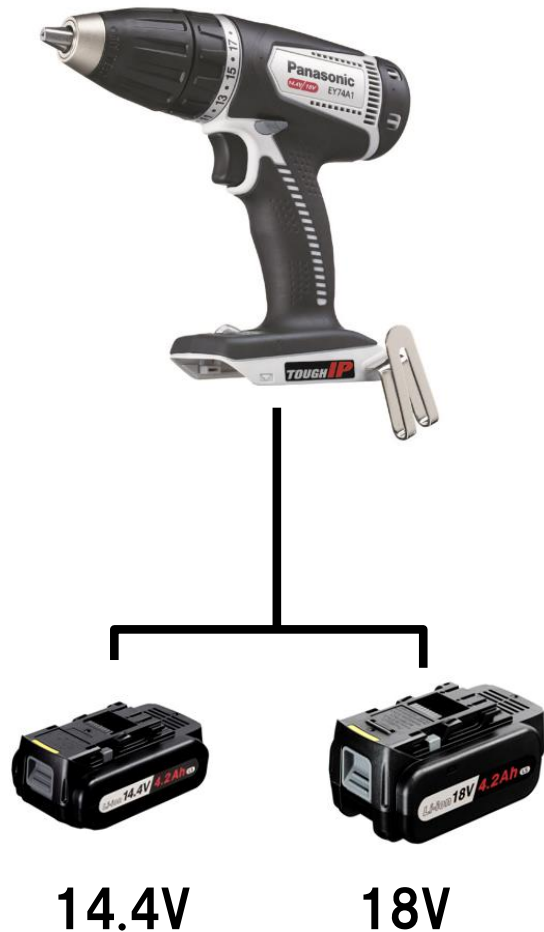
With Current Tools, there is a high risk of :

1. Motor gets too hot and protection system shuts tool down if 18V battery pack is attached to 14.4V tool.
2. 18V tool is not usable if 14.4V battery pack is attached to it.
3. Damage to Li-Ion battery cell due to deep discharge



With New Dual Voltage Tools, there is a benefit of :

1. The tool can be used with either 18V or 14.4V battery pack
2. With 14.4V battery pack, same performance as the previous dedicated 14.4V tools.
4. With 18V battery pack, the power and/or work speed is enhanced and supported by durability of motor and gears.
3. With over-discharge prevention circuit, the Li-ion battery pack is free from the risk of damage.



Thus, encourage our 14.4V users to shift 18V because they can use currently owned 14.4V battery packs with the new dual voltage tools.



A

Working speed goes up!

Increase Ratio 18V vs 14.4V

Approx.
~
30%

EY74A1
Drill & Driver



Approx.
20%

EY45A1
Reciprocating
Saw



Approx.
10%

EY75A1
Impact



EY75A2
Wrench



※Increase ratio may fluctuate by application by model

B

Versatility!



Use 14.4V or
18V power !





Dual Voltage Circuit
The circuit detects battery voltage,
controls the proper current and delivers
the right voltage flow to the tool for best
performance.



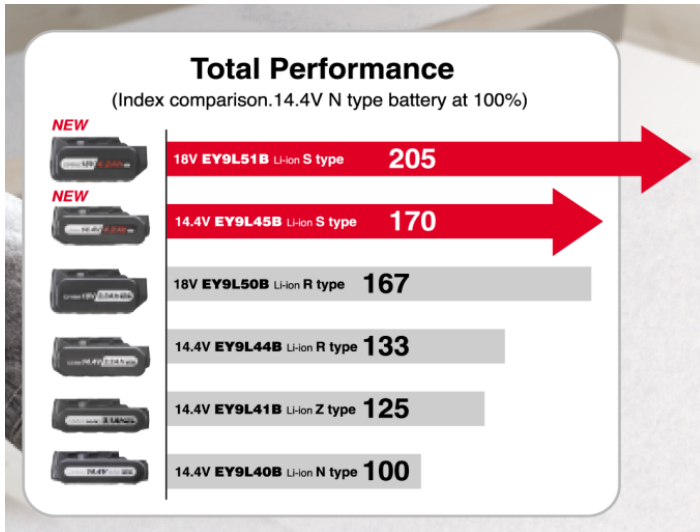


**Approx. 27%
More working capacity per charge**

Holes in Yellow Pine dia.11/16" x t=4-3/4" *Drill & Driver 18V EY74A1

	Li-ion S 4.2Ah 18V EY9L51B Li-ion S type	120 holes
	Li-ion R 3.3Ah 18V EY9L50B Li-ion R type	95 holes

1. **4.2Ah** – Highest Capacity Li-ion Battery Pack in the Power Tool Industry.
2. **Advanced Lithium Nickel Chemistry**. More capacity in same size cell.
3. **Long lasting** for heavy duty applications.
4. **Individual cell monitoring system**. GuardION System. Prevents overcharging and discharging of battery pack.
5. **Overheat protection system**. Protects motor from high heats which cause damage.



The new battery pack offers protection, durability and are long lasting.

Individual Monitoring of Battery Cell Voltage

Each 3.6V segment is monitored by sensor to ensure optimal discharge control, preventing both overcharging and overdischarging.

Overdischarge Prevention Sensor

A sensor works to prevent overdischarging (discharge of the battery until voltage falls below a minimum threshold), a disadvantage inherent to lithium ion cells.

Battery Overheat Protection Sensor

A temperature sensor cuts off power to the motor before the battery temperature rises to a harmful level and flashes a warning lamp on the tool's control panel to notify the user.

