

Battery Model	Cranking Amps*	Max Output	Charging STD	Dimensions (inch)	Polarity	Approx Weight (lbs)	Equal to Lead Battery Capacity**	Main Replacement Lead battery Part #
PTZ5S	90	9	1.5	6	4.49*2.76*3.39	- +	1.21	4A#-6A# YTX4L-BS, YTZ5S, YB4L-A, YB4L-B
PTX5L	90	9	1.5	6	4.49*2.76*4.13	- +	1.21	4A#-6A# YTX5L-BS
PT5L-B	90	9	1.5	6	4.72*2.36*5.12	Controlled terminals	1.42	4A#-6A# 12N5-3B, 12N5-4B, YB5L-B, 12N5.5-3B, 12N5.5-4A, YB7B-B
PTZ7S	125	10	1.3	5	4.49*2.76*4.13	- +	1.21	4A#-8A# YTX5L-BS, YTX7L-BS, YTZ7S, YB7C-A
PT7B	125	10	1.3	5	5.83*2.56*3.62	- +	1.32	4A#-8A# YT7B-BS
PT7L-B	125	10	1.3	5	5.28*2.95*5.24	- +	1.43	4A#-8A# 12N7-3B, 12N7D-3B
PTX7A	125	10	1.3	5	5.83*3.43*3.70	- +	1.43	4A#-8A# YTX7A-BS
PT9-B	160	15	1.7	7	5.28*2.95*5.24	- +	1.87	6A#-10A# 12N7-4A, 12N7-4B, YB7-A, 12N9-4B-1, YB9A-A, YB9B-B
PT9L-B	160	15	1.7	7	5.28*2.95*5.24	- +	1.87	6A#-10A# 12N7-3B, 12N7D-3B, YB7L-B, 12N9-3B, YB9L-A, YB9L-B
PT9B	160	15	1.7	7	5.83*2.56*3.62	- +	1.76	6A#-10A# YT7B-BS, YT9B-BS
PTX9	160	15	1.7	7	5.83*3.43*3.70	- +	1.87	6A#-10A# YTX7A-BS, YTX9-BS
PT10L-B	180	18	3	12	5.28*3.46*5.71	- +	2.43	7A#-12A# 12N10-3B, 12N10-3A-2, YB10L-A2, YB10L-B, YB10L-B2
PT12B	180	18	3	12	5.83*2.56*5.12	- +	2.25	7A#-12A# YT12B-BS
PT12A	180	18	3	12	5.83*3.43*3.70	- +	2.09	7A#-12A# YTZ10S, YT12A-BS
PT12A-A	180	18	3	12	5.28*2.95*6.30	- +	2.20	7A#-12A# 12N12A-4A-1, YB12A-A, YB12A-B, YB12C-A
PT12AL-A	180	18	3	12	5.28*2.95*6.30	- +	2.20	7A#-12A# YB12AL-A, YB12AL-A2
PT14B	250	20	2.5	10	5.83*2.56*5.12	- +	2.38	8A#-16A# YT12B-BS, YT14B-BS
PTZ14S	250	20	2.5	10	5.83*3.43*3.70	- +	2.43	8A#-16A# YTZ10S, YT12A-BS, YTZ12S, YTX12-BS, YTZ14S, YB12B-B2
PTX14AH	250	20	2.5	10	5.28*3.46*6.50	- +	2.43	8A#-16A# YB10A-A2, YTX14AH-BS, YB14-A2, YB14A-A1, YB14A-A2, YB14-B2
PTC14AHL	250	20	2.5	10	5.28*3.46*6.50	- +	2.43	8A#-16A# YTX14AHL-BS, YB14L-A1, YB14L-A2, YB14L-B2, SYB14L-A2, 12N14-3A
PTX14	250	20	2.5	10	5.83*3.43*5.71	- +	2.43	8A#-16A# YTX14-BS
PTX14L	250	20	2.5	10	5.83*3.43*5.71	- +	2.43	8A#-16A# YTX14L-BS
PTX16-1	270	27	4.5	18	5.83*3.43*3.70	- +	2.87	12A#-18A# YTX16-BS-1, HYB16A-AB, YB16B-A1
PTX16	270	27	4.5	18	5.83*3.43*5.71	- +	3.09	12A#-18A# YTX14H, YTX14H-BS, YTX16-BS
PTX20CH	375	30	4	15	5.83*3.43*5.71	- +	3.42	16A#-24A# YB16B-A, YTX20CH, YTX20CH-BS
PTX51913	375	30	4	15	7.28*3.15*6.69	- +	3.75	16A#-24A# 51814, 51913
PTX20	375	30	4	15	6.89*3.43*6.10	- +	3.53	16A#-24A# YB16-B, YB16C-B, YB16-B-CX, YB18-A, YTX20-BS
PTX20L	375	30	4	15	6.89*3.43*6.10	- +	3.53	16A#-24A# YB16L-B, YB16CL-B, YB16HL-A-CX, YB18L-A, YTX20, YTX20L, YTX20L-BS
PTX20H	500	40	5	20	6.89*3.43*6.10	- +	4.41	20A#-30A# YB16-B, YB16C-B, YB18-A, YTX20-BS, YTX20H-BS, YHD-12H
PTX20HL	500	40	5	20	6.89*3.43*6.10	- +	4.41	20A#-30A# YB16L-B, YB16CL-B, YB16HL-A-CX, YB18L-A, YTX20L-BS, YTX20H-BS, YTX20HL-BS-PW
PTX24HL	500	40	5	20	6.89*3.43*6.10	- +	4.41	20A#-30A# Y50-N18L-A, YB50-N18L-AT, Y50-N18L-A-CX, Y50-N18L-A3, YTX24HL, 53030
PTX52113	625	50	6.5	25	7.28*3.15*6.69	- +	5.21	30A#-40A# 51814, 51913, 52113, 53030
PTX30L	625	50	6.5	25	6.54*4.88*6.89	- +	5.51	30A#-40A# YX30L, YX30L-BS, YB30L-B, YB30CL-B, GYZ32H, Y60-N24L-B, Y60-N24L-A, 12N24-3
PTX30HL	1250	100	12.5	50	6.54*4.88*6.89	- +	9.04	30A#-70A# YX30L, YX30L-BS, YB30L-B, YB30CL-B, GYZ32H, Lead-acid batteries for special Heavy-duty Engine

Harley Davidson Series

PTX14HL-HD	250	20	2.5	10	5.83*3.43*5.67	- +	2.43	14A#-16A# GHD14HL-BS, GYZ16HL
PTX20H-HD	375	30	4	15	6.89*3.43*6.02	- +	3.75	20A#-24A# GHD20HL-BS, GYZ20HL
PTX20HL-HD	375	30	4	15	6.93*3.43*6.02	- +	3.75	20A#-24A# GHD20HL-BS, GYZ20HL
PTX30L-HD	625	50	6.5	25	6.54*4.88*6.89	- +	5.51	30A#-40A# GHD30HL-BS, GYZ32HL



- CA value is measured by actual discharging at room temperature, (55@77°F)
- Operating environment temperature: 0°F-131°F, if the environment temperature is lower than 32°F, the PbEq. will be smaller.
- Including plastic gaskets for dimension adjusting.

Cautions

- Do not make the battery terminals short circuit or reverse connected.
- Do not connect the battery with a pocket socket directly.
- Do not open or damage the battery case.
- Do not throw, squeeze, puncture, impact, twist, heat, burn or dismantle the battery.
- Keep the battery away from children and pets.
- Do not throw the battery into water or get the battery wet.
- Do not make the static voltage of the battery lower than 12.8V
- Do not make the charging voltage of charger and vehicle higher than 15V.
- Do not series connect or parallel connect the batteries for using.
- Do not use the battery with the original lead-acid battery or batteries of other brands together.
- Do not turn on the headlights in the case of flame out for a long time (over 5 minutes), to prevent battery damage from over-discharge.
- Please fully discharge before disposing the battery.

Warning!

- Please strictly follow the instructions, otherwise, it is likely to make the battery short circuit or cause the output current higher than specified value, then the battery may smoke, fire and even endanger personal safety.
- Do not try to take apart the battery! Do not touch the battery directly if the electrolyte leaks, as the electrolyte may harm skin & eyes. If skin contact occurs, washing skin.

Charging

The new battery can be used directly if the voltage is higher than or equal to 12.8V. Make sure the charging voltage between 14.0V and 15.0V if you want to use fully charged battery. The battery cannot be fully charged if the charging voltage is lower than 14.0V, and the battery can be damaged if the charging voltage is higher than 15.0V.

Please use the special charger (limited voltage 15.0V, with automatic stop-charging function) for lithium iron phosphate battery to charge the lithium ion battery. It's not recommended to use the charger for lead-acid battery because many chargers in the market are not suitable for lithium-ion batteries. Make sure the charging voltage is lower.

Inspection of Pre-installation

Remove the old battery from your motorcycle.
Check the voltage of the new battery before installation, charge the battery if the voltage is lower than 12.8V.
Ask the professional to follow these steps to inspect the electrical system of the vehicle before installation.

Step one Check the charging voltage of the vehicle. Connect the electric wires with battery terminals, red wire to positive terminal and black wire to negative terminal, then start the vehicle. Disconnect the black wire with negative terminal during running condition, and connect the positive wire of the voltage tester with red wire of the motorcycle, negative wire with black wire, increase the accelerator to the maximum, then check the maximum voltage displayed on the voltage tester. If the charging voltage is between 14.0V and 15.0V, the battery can be used normally in the vehicle. If the charging voltage is lower than 14.0V, then battery cannot be fully charged. If the charging voltage is higher than 15.0V, the battery can be damaged. Please repair the charging system of the vehicle.

Step two Check the self-discharge of the vehicle. Turn off the main switch of the motorcycle, use a multimeter (milliampere mode) to series connect the output wires of the vehicle, and switch to millivolt direct current mode, then check the current value. If the current value is lower than 2mA, the battery can be used normally in the vehicle. If the current value is higher than 2mA, the battery can be damaged from used over-discharge for the idle vehicle.

Step three Check the starting current of the vehicle. Make sure the connection between the battery and the vehicle is good, use a tong-type ammeter to check the starting current of the vehicles for 5 times. If the starting current is within the CA range, the battery can be used normally in the vehicle. If the starting current is beyond the CA range, the battery can be damaged easily.

Step four If the vehicle passed all the above tests, the lithium ion battery can be used normally in the vehicle. Use the new battery to compare with the original one, such as new battery size is too small (length, width and height), use with plastic gasket increase the battery size, so that the new battery can suitable for battery pack.

In order to save material, please cut the adhesive foam into small pieces, then paste on the battery to achieve better heat dissipation effect.
Any questions about installation, please contact the dealer directly.

Usage

- Verify the specification of the chosen lithium ion battery is correct.
- It is better to control per starting time within 5s and each starting time interval above 3s. Besides, there should be at least 3 minutes standing time when you consecutively starting the vehicle for 5 times. Because of the performance differences of each vehicle, we suggest you to change a higher capacity lithium ion battery once the battery is found powerless.
- Try to avoid keeping the vehicle light on for a long time (over 5 minutes) after the engine turned off, otherwise it will cause the vehicle in difficult restarting because of over-discharge.
- In order to avoid the battery losing power, we suggest you take the battery out of the vehicle for separate storage or disconnect the negative connector from the negative terminal if the vehicle was kept still for more than 7 days. (The vehicle installed with anti-theft device will let the battery lose power faster)
- The performance of the battery may be influenced by the low-temperature environment. For instance, when used under 32°F, it should be preheated for 1-2 minutes by turning on the headlamp, and then the vehicle can be started. In this way, a better starting performance can be achieved and a longer battery service-life will be maintained.

- The vehicle which used our product should avoid using or storing in hot-temperature environment for a long time, especially do not expose the vehicle in the sun too long (over a few hours), otherwise the battery's service life will be shortened. The battery needs no special maintenance until dead if the vehicle with good power supply system and working.

Storage

The battery will be damaged at high temperature or humid environment for long time storage. It should be stored in dry and ventilated environment, and the storage temperature should be lower than 77°F, the suitable warehouse temperature is 32°F-77°F. This can help to maximize the battery's storage life. If the ambient temperature for long-term storage (> 30days) is higher than 104°F, it may certainly shorten the battery storage life; if higher than 131°F, the battery may be damaged (Meanwhile the battery will not be under the warranty).
If the battery is stored for a long time (over 50 days), the storage capacity should be from 70%.

The reference values of the static voltage are as follows:

Residual Capacity(30%)	100%	90%	80%	70%	60%	50%	40%	30%	20%	10%	0%
Static Voltage(V)	13.4	13.36	13.32	13.23	13.15	13.10	13.05	12.98	12.90	12.78	9.20

Transportation

- Please make sure the battery packed intact before shipping.
- The battery should be handled with care when loading and unloading during transportation.
- Do not throw the batteries and avoid squeezing the package.
- Then battery should be prevented from vibration and collision during transportation.
- Do not transport the batteries together with flammable, explosive objects, or sharp metal goods.
- Any items damaged in transit, should be reported to the shipper and the dealer immediately. All original packages must be retained until further notice.

Warranty

- The new battery under regular use comes with a 2-year limited warranty, except in the following cases:
- The package is damaged after purchasing, or the stickers on the battery have been tore.
- The battery is damaged by over-voltage or over-current charging.
- The battery is damaged by over-charging or over-current discharging.
- The battery is damaged by improper operations, such as external short circuit, impacting, falling, or soaking.
- The battery is damaged in any natural disasters or man-made disasters such as earthquake, rainstorm, fire, traffic accident, etc.
- The battery is damaged because of the vehicle's motorcyclist.
- The battery is for other purposes (not for starting the motorcycle).
PowerTex batteries will not be responsible for any trouble caused by operations beyond this specification.

