



For VRLA & Conventional type Motorcycle batteries

# AUTOMATIC BATTERY CHARGER MB-2060

(Applied Battery type: 12V · 2~21Ah/10HR)

This 2A/4A/6A selectable output current battery charger has the following advantages when compared with normal charger (Semi-CV type) and is suitable for both VRLA & Conventional type lead acid motorcycle batteries.

## ■ Features

### 1. Selectable output current

Output current can be selected suitable for any capacity of Yuasa motorcycle battery.

### 2. Capability to charge deeply discharged batteries

Deeply discharged batteries can be recharged using the recovery-charging mode.

### 3. Determination if battery can be recovered

Determines if the battery can be recovered after 30 min. as indicated by LED.

### 4. Automatic shut off

Charging will stop automatically after 12 hours maximum. ("NEW" mode)

### 5. Safety charging for new battery

Safety charging mode for charging newly acid filled battery. ("NEW" mode)

### 6. Maintain charging function

Switch to maintain charging mode max. after 10 hours maximum to keep battery in charged condition. ("NORMAL" mode)

※Explanation of charging mode:

"NEW" : Mode for newly acid filled battery in the event that the battery voltage does not reach to 12.5V 20 minutes after filled with acid.

"NORMAL": Mode for battery once in use.

### 7. Safety standard

Applied for CE and UL/CUL.

## ■ Protection

#### ① Reverse connection and Short circuit

#### ② Spark prevention when connecting charging clips

#### ③ Automatic shut-off when charging clip is disconnected

#### ④ Over charge-high current protection (Output)

#### ⑤ Reverse current prevention (3.0mA or less)

#### ⑥ Thermally protected transformer prevents overheating

#### ⑦ Safety charging function for charging newly acid filled battery ("NEW" mode)



AC input (50/60Hz)		DC Output							Dimension(m/m)			Mass (Approx. kgs.)	Applied battery (V) / (Ah/10HR)
Voltage(V)	Current(A)	Charging mode	Recovery charging		Bulk charging		Maintain charging		W	OH	D		
100	Max. 2.3		NEW	Voltage(V)	Current(A)	Voltage(V)	Current(A)	Voltage(V)	Current(A)	177	91	210	3.8
120	Max. 1.8	NORMAL				Max.20.0	Max.0.2	Max.14.0	Max. 2.0				
220	Max. 1.0		Max.14.5	4.0	---			---					
230	Max. 1.0		6.0	Max.13.3	Max.1.0								
240	Max. 1.0												

(※ Input voltage, current and frequency to be changed from country to country)

## ≪Estimated charging time (at 20 deg.C ambient temperature)≫

Battery capacity (Ah / 10HR)		3	4	6	8	10	11	12	18	21
Battery size selection		2A			4A				6A	
YUASA battery type		YTR4A-BS YT4B-BS YT4L-BS	YB4L-BS YTX5L-BS	YTX7L-BS YTX7A-BS YTZ6 YTZ7S	YB7-A YTX9-BS YTX10S	YB9-B YT12-BS YTX12-BS	YB10L-B YTZ12S YTZ14S	YB12A-A YTX14-BS	YTX20L-BS	YTX24H YIX30
Time (H)	NEW mode	0.5	1.0	1.5	1.0	1.5	2.0	2.0	2.5	3.0
	NORMAL mode	6.5	7.5	8.0	7.0	8.0	8.5	9.0	8.5	10.0

(Note: Specification shown on this leaflet may change time to time without notice)

Cat No.: MB-2060\_E\_20090401