# IDLE STOP START & HYBRID AUXILIARY BATTERIES







# IDLE STOP START & HYBRID VEHICLES

Century ISS Active & Hybrid batteries represent the latest in performance for vehicles with Stop Start or Hybrid technology. They are specially designed to meet or exceed the requirements of vehicles fitted with Idle Stop Start systems, providing fuel saving and emission reduction benefits.

Century ISS Active AGM and EFB batteries incorporate innovative design features and are built from the finest raw materials to deliver superior cycling performance, rapid recharging between repeated engine starts, and the extra power required to run on-board electrics.

The Century Hybrid Auxiliary battery range provides superior cycling performance and dependable auxiliary power to run on-board electrics and computer management systems. They've been designed from the ground up with improved micro-cycling ability to facilitate fast recharging.

## Century Batteries, designed for New Zealand conditions

Century Batteries is part of the Century Yuasa group, New Zealand's leading battery supplier. Our reputation for quality and innovation has been refined and demonstrated over many decades.

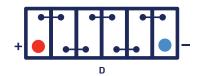
In this time we have developed the engineering expertise and technical know-how to ensure we deliver a range of superior quality batteries better suited to New Zealand's diverse climate and tough conditions.



### **Cell Assembly Layout**





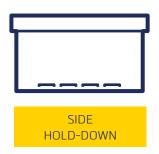


### **Terminal Types**

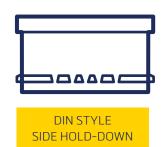




## **Battery Hold-Down**









### Special Features Glossary

AGM	Absorbed Glass Mat	FA	Flame Arrestor	PL	Platelock™ Technology
СН	Carry Handles	LI	Lithium Carbon	PV	Pressure Valve
CI	State of Charge Indicator	LM	Low Maintenance	RP	Recessed Post
cv	Central Venting	MF	Maintenance Free	VR	Vibration Resistant
EFB	Enhanced Flooded Battery	MR	Mud Rack		

### **ISS Active**

### **ISS Active AGM**

A range of premium batteries incorporating Absorbed Glass Mat (AGM) technology to deliver exceptional starting power, extreme cycle life and superior micro-cycling capabilities. ISS Active AGM batteries are designed and engineered specifically for vehicles fitted with advanced Stop Start engine management, regenerative braking and energy recovery systems.

- Perfect for replacing original equipment (OE) batteries
- Superior charge acceptance for faster recharge between repeated engine starts
- 3x higher cycling endurance
- Low self-discharge rate for longer shelf life





**EXCEPTIONAL** STARTING



MAXIMUM SERVICE



SUPERIOR STOP START CYCLING **PERFORMANCE** 



OLD ITEM ID	OLD BATTERY TYPE	NEW ITEM ID	NEW BATTERY TYPE	WARRANTY	VOLTS	CCA -18°C	RC @ 25°C	AH @ 20HR	(ALL M	L EASURE W	TH L W MENTS	_	POLARITY	WEIGHT (KG)	TERMINAL TYPE	HOLD	SPECIAL FEATURES
ISS A	CTIVE AGM	۸															
	NEW	618118	DIN44LH AGM	36	12	520	80	50	206	175	190	190	С	15.5	STD	SIDE/END	AGM, CH, FA, MF, MR, PL, VR
618101	DIN55LAGM	618111	DIN53LH AGM	36	12	640	100	60	242	175	190	190	С	17.60	STD	SIDE/END	AGM, CH, FA, MF, MR, PL, VR
618103	DIN66LAGM	618113	DIN65LH AGM	36	12	760	120	70	274	175	190	190	С	19.30	STD	SIDE/END	AGM, CH, FA, MF, MR, PL, VR
618104	DIN75LAGM	618114	DIN75LH AGM	36	12	800	140	80	316	175	190	190	С	23.00	STD	SIDE/END	AGM, CH, FA, MF, MR, PL, VR
	NEW	618119	DIN75RH AGM*	36	12	800	140	80	316	175	190	190	D	23.00	STD	SIDE/END	AGM, CH, FA, MF, MR, PL, VR
618105	DIN88LAGM	618115	DIN85LH AGM	36	12	850	160	95	353	175	190	190	С	27.50	STD	SIDE/END	AGM, CH, FA, MF, MR, PL, VR
618107	DIN110LAGM	618117	DIN110LHAGM	36	12	950	190	105	393	175	190	190	С	30.50	STD	SIDE/ END	AGM, CH, FA, MF, MR, PL, VR

<sup>†</sup> Conditions apply. Refer to individual warranty statements attached to each battery.





<sup>^</sup>NOTE - ISS AGM Battery is suitable for under bonnet fitment only when OE battery is an AGM battery. \*Available from June 2023.



### **ISS Active EFB**

A range of original equipment (OE) Enhanced Flooded Batteries (EFB) which are used and endorsed by some of the world's leading car brands. The ISS Active EFB range is designed to help reduce fuel consumption and  $CO_2$  emissions in vehicles fitted with Idle Stop Start systems.

- ✓ Direct OE replacement perfect for replacing your vehicle's original equipment battery\*
- Lithium carbon additive for up to 50% faster recharging and 2x higher cycling performance
- ✓ Thicker and stronger internal components for increased shock and vibration resistance
- ✓ Recommended upgrade for standard vehicles subjected to repeated short journeys





EXCEPTIONAL STARTING POWER



MAXIMUM SERVICE



SUPERIOR STOP START CYCLING PERFORMANCE



SUPERIOR RECHARGE EFFICIENCY

OLD ITEM ID	OLD BATTERY TYPE	NEW ITEM ID	NEW BATTERY TYPE	WARRANTY	VOLTS	CCA -18°C	RC @ 25°C	AH @ 20HR	(ALL M	L EASURE W	TH L W MENTSI	/] N MM) TH	POLARITY	WEIGHT (KG)	TERMINAL TYPE	HOLD	SPECIAL FEATURES
ISS A	CTIVE EFB								_								
606105	N65	606105	N65	36	12	500	76	50	238	128	200	227	С	13.00	JIS PENCIL	-	EFB, LI, LM
	NEW	606108	N65R	36	12	490	69	50	238	128	200	227	D	13.00	JIS PENCIL	-	EFB, LI, LM
606101	Q85	606101	Q85	36	12	650	116	60	232	173	200	225	С	17.30	STD	-	EFB, LI, LM
606102	S95	606102	S95	36	12	760	127	68	260	173	200	225	С	19.40	STD	-	EFB, LI, LM
606100	T110	606100	T110	36	12	780	155	86	303	173	200	225	С	22.20	STD	-	EFB, LI, LM
ISS A	ISS ACTIVE EFB MF																
616103	N55MF	616103	N55 MF	24	12	460	80	55	236	127	199	220	С	13.40	JIS PENCIL	-	CH, CI, EFB, MF
616101	Q85MF	616101	Q85 MF	24	12	550	110	65	230	171	202	222	С	17.00	STD	-	CH, CI, EFB, MF
616104	Q85RMF	616104	Q85R MF	24	12	550	110	65	230	171	202	222	D	17.00	STD	-	CH, CI, EFB, MF
616102	S95MF	616102	S95 MF	24	12	680	130	70	258	172	199	220	С	19.90	STD	-	CH, CI, EFB, MF
616100	T110MF	616100	T110 MF	24	12	760	150	95	302	170	200	222	С	22.50	STD	-	CH, CI, EFB, MF
	NEW	616105	DIN53LH EFB	24	12	560	100	60	242	175	190	190	С	16.50	STD	SIDE/END	CH, CI, EFB, FA, MF, RP
606106	DIN65LMF EFB	606106	DIN65L EFB	24	12	650	110	65	275	175	175	175	С	17.00	STD	SIDE/END	CH, CI, EFB, FA, MF, RP
	NEW	616106	DIN65LH EFB	24	12	720	130	75	275	175	190	190	С	19.10	STD	SIDE/END	CH, CI, EFB, FA, MF, RP
606107	DIN75LMF EFB	606107	DIN75L EFB	24	12	730	135	75	313	175	175	175	С	19.10	STD	SIDE/END	CH, CI, EFB, FA, MF, RP
	NEW	616107	DIN75LH EFB	24	12	730	145	80	313	175	190	190	С	21.20	STD	SIDE/END	CH, CI, EFB, FA, MF, RP





<sup>†</sup> Conditions apply. Refer to individual warranty statements attached to each battery.
\*Selected vehicles only.



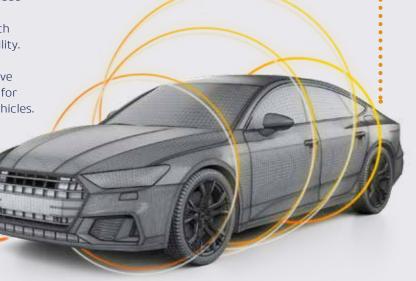
# HYBRID VEHICLES

Century's range of Hybrid Auxiliary batteries incorporate Absorbed Glass Mat (AGM) technology and a valve regulated recombinant lead acid (VRLA) design, to provide enhanced cycling capabilities and dependable power to run the vehicles on-board electrics and computer management systems.

The range features products that have low self-discharge and low internal resistance which enables them to be recharged more efficiently using a lower voltage.

The sealed non-spillable design eliminates the need for regular topping up of electrolyte levels and enables the products to be fitted in hard to reach locations without the need for regular accessibility.

Century's range of Hybrid Auxiliary batteries have been specially developed as an OE replacement for the auxiliary battery fitted in range of Hybrid vehicles.





### **Hybrid Auxiliary**

A range of original equipment (OE) Hybrid Auxiliary batteries endorsed by some of the world's leading car brands. Century Hybrid Auxiliary batteries provide superior cycling performance and dependable auxiliary power for hybrid vehicles. Designed to meet and exceed the unique requirements of vehicles with auxiliary battery systems.

- Direct OE replacement\*
- Optimum charge acceptance for fast recharging between repeated engine starts
- AGM technology for superior cycling endurance and longer service life^
- Sealed maintenance free design for maximum safety







SUPERIOR CYCLING PERFORMANCE



LONGER SERVICE



OPTIMUM RECHARGE **EFFICIENCY** 



OLD ITEM ID	OLD BATTERY TYPE	NEW ITEM ID	NEW BATTERY TYPE	WARRANTY	VOLTS	CCA -18°C	RC @ 25°C	AH @ 20HR	(ALL M	L EASURE	TH L w	_	POLARITY	WEIGHT (KG)	TYPE TYPE	HOLD	
	RID AUXILIAI		TERY	3				4	L	W	Н	TH		>			SPECIAL FEATURES
	NEW	616108	LN1 MF	24	12	438	91	52	206	174	190	190	С	12.5	STD	SIDE/END	CH, CI, CV, MF
601129	S34B20R	601129	S34B20R	24	12	270	47	27	192	123	195	225	D	10.5	JIS PENCIL	-	AGM, CH, CV, FA, MF, PV
601133	34B17L	601133	34B17L	24	12	280	27	27	167	127	215	235	С	10.2	JIS PENCIL	-	CH, CV, FA, LM, PV
601130	S46B24R	601130	S46B24R	24	12	325	45	45	238	128	200	227	D	12.9	JIS PENCIL	-	AGM, CH, CV, FA, MF, PV
601131	S46A24L	601131	S46A24L	24	12	325	45	45	238	128	170	195	С	12.9	STD	-	AGM, CH, CV, FA, MF, PV
618106	S55D23R	618106	S55D23R	24	12	550	85	50	220	170	195	220	D	15.1	STD	-	AGM, CH, CV, FA, MF, PV

<sup>†</sup> Conditions apply. Refer to individual warranty statements attached to each battery.





<sup>\*</sup>Selected vehicles only.

<sup>^</sup>Selected items only.

### Battery Replacement

When replacing the battery in an Idle Stop Start vehicle, ensure that the battery used is a 'like for like' replacement.

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Only replace EFB with EFB and AGM with AGM Stop Start compatible batteries. Never fit a conventional battery in a vehicle with Idle Stop Start technology as this may disable the ISS functionality and lead to premature battery failure.

In Idle Stop Start vehicles the battery is vital to maximising the environmental benefits of these technologies. Battery replacement in Idle Stop Start vehicles should be conducted in conjunction with a compatible Battery Management System (BMS) or Intelligent Battery Sensor (IBS). This ensures that all relevant sensors and electrical components are reset and subjected to a 'memory test' which ensures compatibility of the replacement battery.



### **YU-FIT Battery Configurator**

With the introduction of  $CO_2$  production control systems such as smart charging and Idle Start Stop (ISS) it is essential that the vehicle has the correct battery type and specification installed.

An increasing number of automotive manufacturers have introduced systems that now require a replacement battery to be correctly configured to the vehicle after installation.

### Failure to configure the correct specification battery could result in:

- Undercharging or overcharging of the battery resulting in damage which is not covered by the manufacturer's warranty
- Loss of the ISS CO₂ production control system functionality
- Possible loss of non-critical vehicle system functions

Battery configuration prevents incorrect battery charging, ensures the correct operation of the ISS  $CO_2$  production control system and prevents the loss of noncritical vehicle systems.

The Century YU-FIT battery configurator tool allows the configuration process to be carried out on a growing number of vehicles equipped with new technology smart charge and ISS systems.



# Testing & Charging

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### **Testing**

Pre-emptive battery replacement can help eliminate many of the costs and problems associated with a flat or end of life battery.

Before testing a battery, it is important that the battery is fully charged. Even a slightly discharged battery can give a false reading and deem the battery faulty when all that is required is a recharge.

There are many different types of testing equipment available. A digital battery tester is the preferred option as they are safe, easy to use, and offer a quick diagnosis of the condition of the battery.

Standard battery testing equipment should not be used to test Idle Stop Start batteries. Century ISS Active batteries are designed to operate in a partial state-of-charge. Using a tester configured for conventional batteries will not provide an accurate test result.

Ensure that you are using a digital tester that has a pre-programmed ldle Stop Start function.

### **Charging**

For optimum performance ensure the battery is maintained in a fully charged condition.

Always read the manufacturer's instructions before attempting to charge a battery and ensure you use an appropriate and good quality battery charger. The battery type and the internal technologies will determine which type of charger is required.

The following should be used as a guide when charging Century ISS Active batteries:

TYPE (ISS)	RECHARGE IF OCV IS BELOW	MAXIMUM RECHARGE VOLTAGE (25°C)
AGM (DIN)	12.60	14.8V
EFB (DIN)	12.50	14.8V

# Idle Stop Start Systems vs Conventional Batteries

In constant Idle Stop Start environments such as those experienced in city driving, an Idle Stop Start vehicle may stop and start at least once per kilometre. This places extreme demands on a battery which must be able to cycle constantly and start the vehicle, even when in a partial state of charge.

In vehicles fitted with Idle Stop Start systems, the battery must be able to handle the rigours associated with constant Idle Stop Start demands, rapid recharging and the power requirements needed to run electrical accessories whilst the engine is switched off.

The battery must also deliver the necessary cranking capacity to start the vehicle in a fraction of a second when the brake is released or the accelerator depressed.

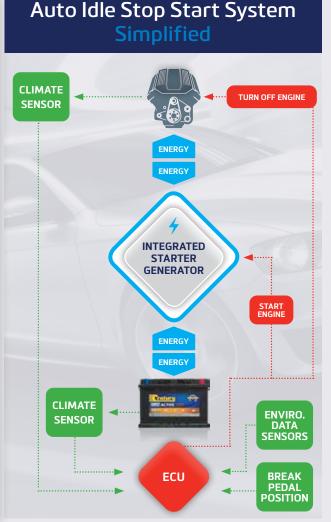
Conventional batteries are not designed to handle the cycling requirements of Idle Stop Start systems.

In a conventional system the battery operates in a high state of charge and starts the vehicle two or three times per day.

The capacity used to start the engine is replaced by the alternator throughout the duration of the journey. The battery is not subjected to constant cycling or required to operate in a partial state of charge.

Using a conventional battery in an Idle Stop Start system can effect the ISS and  $CO_2$  emission controls in the vehicle and lead to premature battery failure.





# Century Batteries Nationwide Warranty

Each battery supplied by Century Yuasa comes with a warranty against defects for the period and application, as detailed on each battery.

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If our testing determines the battery is defective we will replace it, however the costs of delivering it to the warranty location and collecting it and any replacement are yours. The claim must be made within the warranty period featured on the battery. Dated proof of purchase is required. The warranty period for replacement starts on the date of purchase of the defective battery it replaces. **Call 0800 93 93 93** for advice and assistance regarding warranty claims. This warranty does not cover defects due to abuse, damage, neglect, sulphation, over or under charging, normal wear and tear or incorrect application, installation or maintenance.

This warranty is in addition to other rights and remedies available at law. Our goods come with guarantees that cannot be excluded under New Zealand's Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

### THIS WARRANTY DOES NOT COVER:

- × A flat battery
- × Normal wear and tear
- × Physical damage
- Undercharging (sulphation)
- × Incorrect application
- X Negligence (before or during use)
- × Overcharging
- X Spillage from over filling
- × Modifications to the battery
- ➤ Failure arising from the addition of fluids other than water
- ➤ Batteries used for motorsport or racing activities



### **Private Use Statement**

Private use is a vehicle used for private needs, as opposed to business uses. These vehicles are generally defined as having only four wheels and are not used to carry passengers or goods for monetary purposes.

For more information on Century's range of products and services, contact your nearest Century sales office on 0800 93 93 93 or visit centurybatteries.co.nz

### **Head Office**

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Disclaimer: Century Yuasa Batteries Pty Ltd has compiled the data appearing in this guide from a variety of sources, including automobile manufacturer and unpublished information sources. Although the company believes these sources to be generally reliable, corroboration for some of the data has been either impossible or impractical to obtain. The company believes that the data presented is generally accurate for the purpose for which it is presented, however expressly disclaims any representation or warranty, expressed or implied, concerning the data or recommendations, and in no event shall be liable for loss or damage claimed to have arisen as a result of this guide.