



# YUASA BATTERY



IDLE STOP  
START &  
HYBRID  
AUXILIARY  
BATTERIES



# ISS ACTIVE & HYBRID

YUASA'S ISS ACTIVE & HYBRID BATTERY RANGE REPRESENTS THE LATEST IN PERFORMANCE AND TECHNOLOGY FOR IDLE STOP START SYSTEMS AND MICRO HYBRID VEHICLES.

Yuasa ISS Active batteries are specially designed to satisfy the fuel saving and emission reducing benefits of vehicles fitted with Idle Stop Start systems. The range incorporates innovative design features and advanced raw materials to deliver superior cycling performance, high charge acceptance for rapid recharge in between engine off modes and the extra power to run on-board electrics whilst the engine is switched off.

Yuasa Hybrid Auxiliary batteries provide enhanced cycling capability and the power required to run the vehicle's on-board electrics and computer management system. The advanced design features improve cycling ability and enable the battery to recharge faster.



## A PROVEN LEADER FOR STORED ENERGY SOLUTIONS.

Yuasa Batteries is part of the Century Yuasa group, 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 deliver a range of batteries better suited to New Zealand's extreme climate and harsh conditions.

Today we pride ourselves in offering our customers a range of market leading products and services which continue to set new standards in technology and performance.

# CHOOSING THE RIGHT BATTERY

Idle Stop Start vehicles are becoming increasingly complex, the battery must be able to handle the rigours associated with constant Idle Stop Start demands, regenerative braking technology and advanced engine management systems even when in a partial state of charge, all of which are placing extra demands on a battery's performance.

ISS & HYBRID AUXILIARY RANGE			
<b>Battery Type</b>	AGM	EFB	Hybrid
<b>Fitment</b>	For higher specification vehicles with Advanced ISS Systems	For lower specification vehicles with Standard ISS Systems	Auxiliary battery for Hybrid vehicles
<b>Application</b>	For late model ISS vehicles with multiple accessories	For early model ISS vehicles with standard accessories	Power for on-board electrics & computer management systems
<b>Performance</b>	760 CCA	650 CCA	
SPECIFICATIONS			
<b>Special Features</b>	<ul style="list-style-type: none"> <li>» Superior starting power</li> <li>» Increased cranking capacity*</li> <li>» Higher cycling endurance*</li> <li>» Deep discharge capability</li> </ul>	<ul style="list-style-type: none"> <li>» Dependable starting power</li> <li>» EFB technology</li> <li>» 2 x cycling performance*</li> <li>» OE replacement</li> </ul>	<ul style="list-style-type: none"> <li>» Superior grid design</li> <li>» Enhanced cycle life</li> <li>» Deep discharge capability</li> <li>» Low self-discharge</li> </ul>
<b>Design</b>	MAINTENANCE FREE DESIGN	MAINTENANCE FREE DESIGN	MAINTENANCE FREE DESIGN
<b>Warranty</b>	24 MONTH WARRANTY†	24 MONTH WARRANTY†	18 MONTH WARRANTY†

Based on DIN66LAGM, Q85and S46B24R. † Conditions apply. Refer to individual warranty statements attached to each battery. \* Compared with conventional flooded batteries.



# ONLINE BATTERY FINDER

Are you short on time?

Use Yuasa's online Battery Finder to quickly and easily find the most suitable battery for your needs.

- 1 Visit [yuasabatteries.co.nz](http://yuasabatteries.co.nz)
- 2 Key in the vehicle make, model and year
- 3 The online Battery Finder quickly finds the most suitable battery for your needs





# ISS Active AGM

A range of premium batteries incorporating Absorbed Glass Mat (AGM) technology that combines to deliver superior starting power, extreme cycle life and discharge capability in advanced Idle Stop Start systems.

- » Superior starting power
- » Increased cranking capacity\*
- » Higher cycling endurance\*
- » Deep discharge capability



ITEM ID	BATTERY TYPE	WARRANTY*	VOLTS	CCA -18°C	RC @ 25°C	AH @ 20HR	Dimensions (mm)				POLARITY	WEIGHT (KG)	TERM. TYPE	HOLD DOWN	SPECIAL FEATURES
							L	W	H	TH					
<b>ISS ACTIVE AGM</b>															
618201	DIN55LAGM	24	12	640	100	60	242	175	190	190	C	17.60	STD	SIDE/END	AGM, CH, EL, FA, MF, MR, PL, SL, VR
618203	DIN66LAGM	24	12	760	140	70	274	175	190	190	C	19.30	STD	SIDE/END	AGM, CH, EL, FA, MF, MR, PL, SL, VR
618204	DIN75LAGM	24	12	800	140	95	225	175	190	190	C	23.00	STD	SIDE/END	AGM, CH, EL, FA, MF, MR, PL, SL, VR
618205	DIN88LAGM	24	12	850	160	80	353	175	190	190	C	27.50	STD	SIDE/END	AGM, CH, EL, FA, MF, MR, PL, SL, VR

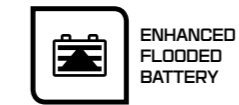
\*Conditions apply. Refer to individual warranty statements attached to each battery. \*Compared with conventional flooded batteries.



# ISS Active EFB

A range of Enhanced Flooded Batteries (EFB) designed to aid the reduction of CO<sub>2</sub> emissions and fuel consumption in vehicles fitted with standard Idle Stop Start systems. The range includes DIN style maintenance free batteries for popular European vehicles, plus low maintenance flooded batteries for Asian manufactured vehicles.

- » 15% more cranking capacity\*
- » 2 x higher cycling endurance\*
- » Durable grid design



ITEM ID	BATTERY TYPE	WARRANTY*	VOLTS	CCA -18°C	RC @ 25°C	AH @ 20HR	Dimensions (mm)				POLARITY	WEIGHT (KG)	TERM. TYPE	HOLD DOWN	SPECIAL FEATURES
							L	W	H	TH					
<b>EFB FLOODED JIS</b>															
601230	N55	24	12	520	80	45	238	128	200	227	C	15.75	JIS PENCIL	-	EFB, LM
606200	T110	24	12	780	155	86	303	173	200	225	C	22.20	STD	-	EFB, LM
606201	Q85	24	12	650	116	60	232	173	200	225	C	17.30	STD	-	EFB, LM
606202	S95	24	12	760	127	68	260	173	200	225	C	19.40	STD	-	EFB, LM
<b>EFB DIN#</b>															
606203	DIN65LMF EFB	24	12	590	100	70	278	175	175	175	C	22.00	STD	SIDE/END	CH, CV, EFB, EL, FA, MF, SL
606204	DIN75LMF EFB	24	12	700	135	75	135	175	175	175	C	25.94	STD	SIDE/END	CH, CV, EFB, EL, FA, MF, SL

\*Conditions apply. Refer to individual warranty statements attached to each battery. \*Compared with conventional flooded batteries.  
# Only available in CENTURY brand.





# ADVANCED TECHNOLOGY FOR HYBRID VEHICLES

CENTURY'S RANGE OF HYBRID AUXILIARY BATTERIES INCORPORATES ABSORBED GLASS MATT (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.

Yuasa ISS Active batteries are specially designed to satisfy the fuel saving and emission reducing benefits of vehicles fitted with Idle Stop Start systems. The range incorporates innovative design features and advanced raw materials to deliver superior cycling performance, high charge acceptance for rapid recharge in between engine off modes and the extra power to run on-board electrics whilst the engine is switched off.

Yuasa Hybrid Auxiliary batteries provide enhanced cycling capability and the power required to run the vehicle's on-board electrics and computer management system. The advanced design features improve cycling ability and enable the battery to recharge faster.



## Hybrid Auxiliary

Yuasa Hybrid Auxiliary batteries provide enhanced cycling capability and the power required to run the vehicle's on-board electrics and computer management system. The advanced design features improve cycling ability and enable the battery to recharge faster.

- » Deep discharge capability
- » Low internal resistance and low self-discharge
- » Enhanced cycling ability to run vehicles electrics and computer management system



ITEM ID	BATTERY TYPE	WARRANTY*	VOLTS	CCA -18°C	RC @ 25°C	AH @ 20HR	DIMENSIONS (all measurements in mm)				POLARITY	WEIGHT (KG)	TERM. TYPE	HOLD DOWN	SPECIAL FEATURES
							L	W	H	TH					
<b>HYBRID VEHICLE (AUXILIARY BATTERY)</b>															
601226	S34B20R	18	12	270	47	27	192	123	195	225	D	10.50	JIS PENCIL	-	AGM, CH, CV, FA, MF, PV
601229	34B17L	18	12	280	27	27	167	127	215	235	C	10.20	JIS PENCIL	-	AGM, CH, CV, FA, MF, PV
601227	S46B24R	18	12	325	45	45	238	128	200	227	D	12.90	STD	-	AGM, CH, CV, FA, MF, PV
601228	S46A24L	18	12	225	45	45	238	128	170	195	C	12.90	STD	-	AGM, CH, CV, FA, MF, PV
618106	S55D23R#	18	12	550	85	50	220	170	195	220	D	15.10	JIS PENCIL	-	AGM, CH, CV, FA, MF, PV

\* Conditions apply. Refer to individual warranty statements attached to each battery.  
 # Only available in CENTURY brand.



## What are Idle Stop Start Systems?

Vehicles fitted with Idle Stop Start systems are often referred to as mild or micro hybrids. They have been developed by vehicle manufacturers to improve vehicle fuel efficiency and reduce CO<sub>2</sub> emissions to satisfy global carbon emission targets.

## How do Idle Stop Start Systems work?

Basic Idle Stop Start systems work by shutting off the engine whilst the vehicle is stationary. When the brake pedal is released or the accelerator depressed, the engine quickly re-starts enabling the vehicle to be driven.

In more advanced Idle Stop Start systems, the vehicle may also incorporate regenerative braking or engine power assistance technology. This technology has the ability to switch off the engine when the vehicle is coasting or braking as well as whilst stationary. Shutting off the engine eliminates the amount of fuel that would otherwise have been used, reducing both vehicle emissions and fuel consumption.

## Identifying vehicles fitted with Idle Stop Start systems

Idle Stop Start technology can be incorporated into both petrol and diesel vehicles with a manual or automatic powertrain.

It may not be possible to identify whether a vehicle incorporates Idle Stop Start technology, by lifting the bonnet, as manufacturers will not always promote this technology on engine components. Some vehicle manufacturers include a device on the dash board which enables the Idle Stop Start system to be deactivated as required.

To avoid fitting a conventional or incorrect battery into an Idle Stop Start vehicle, run through the following checklist.

- » Does your vehicle turn off when stationary?
- » Can you see an Idle Stop Start Symbol on the dash board?
- » Do you have a switch that allows you to disable the Idle Stop Start function as required?
- » Check the battery that is fitted, is it marked as an ISS AGM or ISS EFB battery?

If you are still unsure contact your vehicle manufacturer or visit [www.yuasabatteries.co.nz](http://www.yuasabatteries.co.nz)



 Idle Stop Start Batteries

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.

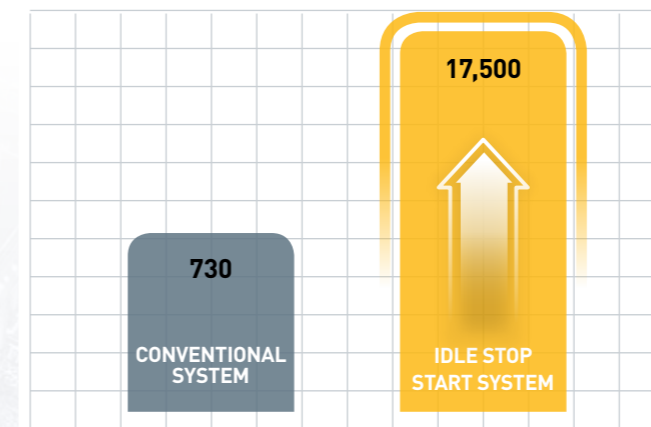
Conventional batteries are not designed to handle the cycling requirements of Idle Stop Start systems.

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.

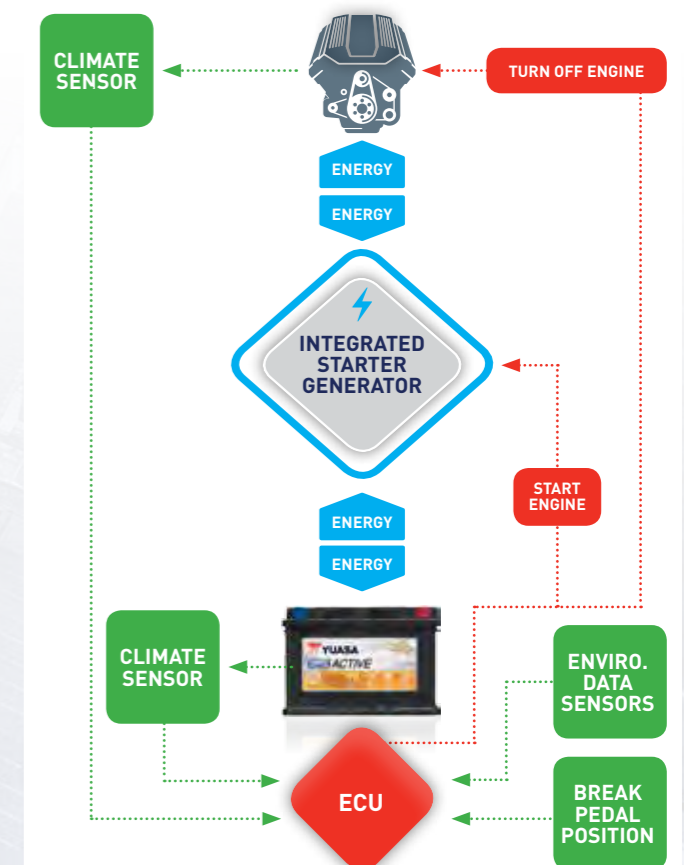
Using a conventional battery in an Idle Stop Start system can effect the ISS and CO<sub>2</sub> emission controls in the vehicle and lead to premature battery failure.

### ⚡ Average Annual Starts



CONVENTIONAL SYSTEM	IDLE STOP START SYSTEM
Starts vehicle 2 to 3 times per day	Starts vehicle every 1 to 2 kilometres
730 average annual starts	17,500 average annual starts
Minimal cycling required	Battery is constantly required to cycle
Accessories draw from a fully charged battery	Accessories draw from battery when engine is off
Battery maintained in a near to full state of charge	Battery operates in a partial state of charge
Battery is recharged overtime during the journey	Battery has to recharge rapidly in between engine off modes

### Auto Idle Stop Start System Simplified







# Battery Replacement

WHEN REPLACING THE BATTERY IN AN IDLE STOP START VEHICLE, ENSURE THAT THE BATTERY USED IS A LIKE FOR LIKE REPLACEMENT.

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 Configurator Battery Replacement Made Easy

WITH THE INTRODUCTION OF NEW CO<sub>2</sub> 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:

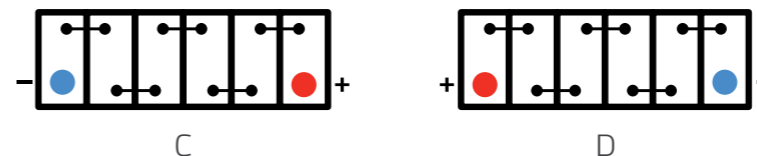
- » Undercharging or overcharging of the battery resulting in damage which is not covered by the manufacturer's warranty
- » Loss of the ISS CO<sub>2</sub> production control system functionality
- » Possible loss of non-critical vehicle system functions

Battery configuration prevents incorrect battery charging, ensures the correct operation of the ISS CO<sub>2</sub> production control system and prevents the loss of non-critical 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.

## Cell Assembly Layout

12 Volt



## Terminal Types

Standard Terminal Post (STD)

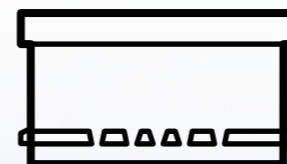


JIS Pencil

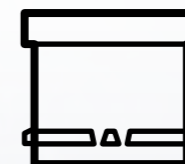


## Battery Hold-Down

Din Style Side Hold-down



Din Style End Hold-down



## Special Features Glossary

<b>AGM</b>	Absorbed Glass Mat	<b>FA</b>	Flame Arrestor	<b>PL</b>	Platelock™ Technology
<b>CH</b>	Carry Handles	<b>GM</b>	Glass Mat Separator	<b>PV</b>	Pressure Valve
<b>CV</b>	Central Venting	<b>LM</b>	Low Maintenance	<b>SL</b>	Side Ledge
<b>EFB</b>	Enhanced Flooded Battery	<b>MF</b>	Maintenance Free	<b>VR</b>	Vibration Resistant
<b>EL</b>	End Ledge	<b>MR</b>	Mud Rack		



# YUASA BATTERY

For more information on Yuasa's range of products and services, visit [yuasabatteries.co.nz](http://yuasabatteries.co.nz)

Available from:

