



Volvo Buses. Driving quality of life

# INTRODUCING I-START. THE INTELLIGENT START.



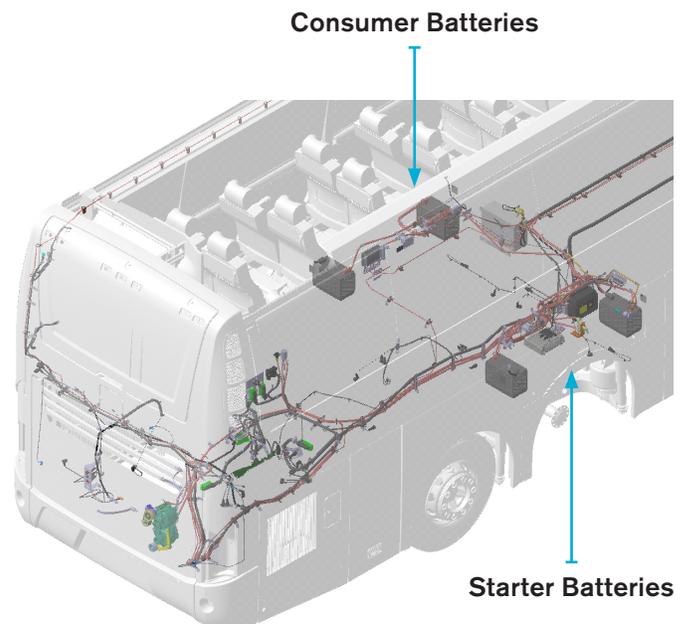
Increase uptime with a system that can dramatically decrease the risk of your vehicle not starting due to loss of battery voltage. I-Start is a dual battery system designed to secure cranking and provide a longer service life for the batteries even if deep-cycled by the consumers.

- **No master switch** in cockpit to leave on and potentially cause drained batteries — everything controlled by ignition key switch with an accessories position.
- **Jump start feature** from curb side
- **Relocation of batteries** closer to the charging source and their loads that allows shorter battery cables, and therefore less main voltage drops
- **AGM batteries Group 31** for ease of replacement (capacity: 800CCA 105 Ah)

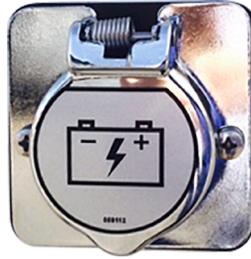
In order to achieve this, vehicle loads are split in two systems:

- **Chassis Electronics**  
(Engine and Transmission ECU, etc)  
Connected to Starter Batteries
- **Body Electronics**  
(Radio, interior lights, etc)  
Connected to Consumer Batteries

(Battery main switch located inside starter battery compartment for disconnecting chassis loads connected to B+ when bus is parked more than 24hrs.)



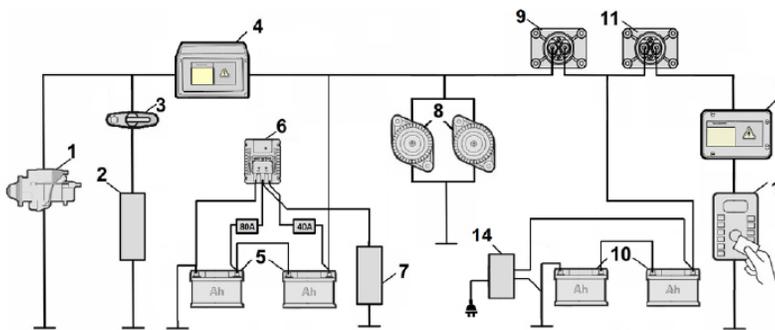
# INTRODUCING I-START. THE INTELLIGENT START.



- Handy battery charger with bulk mode
- Toolbox easily accessed in special compartment
- Dedicated area for liquid storage
- More luggage space
- Easy to read 3 language instructions



## I-START SYSTEM OVERVIEW



When battery charger is plugged on power grid, consumer batteries are always charged.  
For charging starter batteries, please switch ignition key to position II.  
Never crank engine with battery charger plugged on the power grid.

Cuando el cargador de batería está conectado a la red eléctrica, las baterías de consumo siempre se cargan.  
Para cargar las baterías de arranque por favor gire la llave de ignición a la posición II.  
Nunca arranque el motor si el cargador de batería está conectado a la red eléctrica.

Lorsque le Chargeur de Batterie est branché, les batteries de Carrosserie seront maintenues pleine charge.  
Pour charger les batteries du Châssis, mettre l'ignition à la position II.  
Ne jamais démarrer le moteur avec le Chargeur de Batterie branché.



For more information see electrical service manual.  
Para mas información mire el manual eléctrico de servicio.  
Pour plus d'informations voir le manuel de service électrique.



## CAUTION

### I-Start components:

- 1- Starter motor
- 2- Chassis loads
- 3- Battery Main Switch
- 4- Chassis fuse box
- 5- Starter batteries
- 6- Battery equalizer
- 7- 12V Chassis loads (EMS, TECU and NOx sensor)
- 8- 24V Alternators
- 9- Split relay (Ignition controlled)
- 10- Consumer batteries
- 11- Body relay (MCM controlled)
- 12- Body fuse box
- 13- Consumer loads (Power outlets, DVD, TV, etc.)
- 14- Battery Charger

### Componentes de I-Start:

- 1- Motor de arranque
- 2- Cargas del chasis
- 3- Interruptor de batería
- 4- Caja de fusibles del chasis
- 5- Baterías de arranque
- 6- Ecuualizador de batería
- 7- Cargas 12V del chasis (EMS, TECU y sensor de NOx)
- 8- Alternadores 24V
- 9- Relé de división (controlado por la ignición)
- 10- Baterías de los consumidores
- 11- Relé de carrocería (controlado por la MCM)
- 12- Caja de fusibles de la carrocería
- 13- Cargas de consumidores (Tomas de corriente, DVD, TV, etc.)
- 14- Cargador de Batería

### Composantes I-Start:

- 1- Démarreur
- 2- Charge de châssis
- 3- Interrupteur principal
- 4- Boite à fusibles du châssis
- 5- Batteries de démarrage
- 6- Égalisateur de batteries
- 7- Charge de châssis 12V (EMS, TECU, Capteur Nox)
- 8- Alternateurs 24V
- 9- Relais de division châssis/carrosserie (contrôlé par l'ignition)
- 10- Batteries de consommation
- 11- Relais de coupure de charge - carrosserie (contrôlé par le MCM)
- 12- Boite à fusibles de la carrosserie
- 13- Charges de consommation (prise 110V, système audio/vidéo, etc)
- 14- Chargeur de Batterie

**VOLVO**

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