

13	Inverter System Controller (ISC)
14	High Voltage AC Lines
15	High Voltage DC Lines

Network Message Chart - Inverter System Controller (ISC)

Broadcast Message	Originating Module	Message Purpose
ABS status	ABS	Indicates when ABS is active.
Air Conditioning Compressor Status	ACCM	Indicates status of air conditioning compressor.
Accelerator pedal position	PCM	Accelerator pedal position used for OBDII freeze frame data.
Ambient air temperature filtered	PCM	Ambient air temperature, used to adjust high voltage battery cooling fan speed.
Brake pedal applied	PCM	Brake pedal position used for OBDII freeze frame data
Electric Motor Speed request	PCM	Used to control Electric Motor Machine.
Electric Motor Torque request	PCM	Used to control Electric Motor Machine.
Global clock data	BCM	Global clock used for OBDII freeze frame data
HVAC driver request	APIM	HVAC, used to indicate driver demands.
Ignition Status	BCM	Current ignition state; off, accessory, run, start, unknown or invalid.
Odometer master value)	IPC	Vehicle odometer value.
Restraint impact event status	RCM	Used to disable the high voltage system during a crash.
Transmission gear request	PCM	Used to determine transmission gear state.
Vehicle configuration data	PCM	Contains configuration data specific to the vehicle.
Vehicle speed	PCM	Vehicle speed, used to adjust load of the high voltage battery.

Vehicle Starting

Driver Demand

- The driver has changed one of the controls in the vehicle.
- The driver expects a reaction out of the vehicle. Example: Driver pressed down on accelerate pedal, air conditioning is requested on or off, and so forth.

Non-Driver Demand

- State of charge of HV battery is too low or too high.
- Air conditioning power levels to maintain core temperature.

Modes of Operation

Electric

The system operates in this mode when the vehicle is propelled by the electrical power stored in the high voltage battery. The torque is supplied to the output shafts by the electric motor. This is the preferred mode whenever the desired torque is low and can be produced more efficiently by the electrical system than the engine.

- Drive - The electric motor drives transmission providing torque to wheels meeting driver demand.
- Driven - The transmission is driven by inertia of vehicle and provides regenerative energy to electric motor meeting all or a portion of the braking demand.

Hybrid

The system operates in this mode when the engine is running and powering the electric motor which produces the electricity. The electricity produced by the electric motor charges the high voltage battery. In this mode the electric motor can operate as a motor or as a generator to make up the difference between engine torque and desired torque at the wheels. This mode is preferred whenever the electric battery needs to be charged or at moderate loads at low speeds.