

MCM IMA Parameter Descriptions.

Most of these are relevant to all G1 Insight's, US, UK, & HCH1 Civic.

W PHASE AMPS

[A][V]

[Description]

This is W Phase Motor Current Sensor Ampere.

[Operating Range]

-250[A] - 250[A]

0.00[V] - 5.00[V]

V PHASE AMPS

[A][V]

[Description]

This is V Phase Motor Current Sensor Ampere.

[Operating Range]

-250[A] - 250[A]

0.00[V] - 5.00[V]

U PHASE AMPS

[A][V]

[Description]

This is U Phase Motor Current Sensor Ampere.

[Operating Range]

-250[A] - 250[A]

0.00[V] - 5.00[V]

TOTAL M AMPS

[A]

[Description]

This is Total Motor Current Ampere.

The "Total" meaning is all three Phases.

[Operating Range]

-250[A] - 250[A]

[NOTE]

Three Phases : W, V and U Phase

MPI MDL AMPS

[A][V]

[Description]

This is Motor Power Inverter Module Current Sensor Ampere.
[Operating Range]

-200[A] - 200[A]
0.00[V] - 5.00[V]

BATT.MDL AMPS
[A]

[Description]

This is Current Value of IMA Battery Current sensor.
[Operating Range]

-100[A] - 100[A]
[NOTE]

OOR : Out Of Range

SOC
[%]

[Description]

This value is charge status of IMA Battery Module.
[Operating Range]

0.0[%] - 100.0[%]
[NOTE]

SOC : Status Of Charge

TARGET AMPS
[A]

[Description]

This is the target output current value for the motor drive as calculated by the motor control module calculated.
[Operating Range]

0[A] - 250[A]

MDM VOLTAGE
[V]

[Description]

This is Motor Driver Module Voltage Sensor.

BM VOLTAGE
[V]

[Description]

This is showing Voltage of IMA Battery Module.
The high voltage input to the motor control module is measured.
[Operating Range]

92[V] - 192[V]
[NOTE]

BM : Battery Module

BATTERY
[V]

[Description]

This is showing DC voltage value of 12V Battery Voltage.
[Operating Range]

10[V] - 15[V]

MOTOR SPD
[RPM]

[Description]

This is showing Motor Speed.
This value is converted from motor commutation sensors by the motor control module.

VSS
[km/h][MPH]

[Description]

This is showing Vehicle Speed.
Vehicle speed is converted from the Vehicle Speed Sensor.
[NOTE]

VSS : Vehicle Speed Sensor

MPI MDL TEMP.
[°C][°F][V]

[Description]

This is showing the value of Motor Power Inverter Module Temperature Sensor.
Temperature of motor power inverter module is calculated at Motor Driver Module.
[Operating Range]

-40[°C] - 120[°C]
-40[°F] - 248[°F]
0.00[V] - 5.00[V]
[NOTE]

MPI : Motor Power Inverter
OOR : Out Of Range

D.C.TEMP.

[°C][°F][V]

[Description]

This is showing the temperature of DC-DC Converter.
Temperature of DC-DC converter is calculated at Motor Driver Module.

[Operating Range]

-40[°C] - 120[°C]

-40[°F] - 248[°F]

[NOTE]

- OOR : Out Of Range
- CHARGE LAMP is turned on in the situation below.
- Temperature is too high.
- Input or output voltage is abnormal.

BM TEMP S

[°C][°F]

[Description]

This is showing Battery Module Temperature.

[Operating Range]

-30[°C] - 100[°C]

-22[°F] - 212[°F]

[NOTE]

BM TEMP S : Battery Module Temperature Sensor

H.V.INSLT

[Kohm][infinity]

[Description]

This is showing the Insulation Resistance of High Voltage System.

[Operating Range]

infinity
(more than 200 Kohm)

IMA REQUEST

[kW][V]

[Description]

This is Assist Power Command Torque Value From ECM.
ECM calculates IMA required torque.

Motor Control Module is received this value from ECM.

[Operating Range]

-9.9[kW] - 9.9[kW]

[NOTE]

ECM : Engine Control Module
OOR : Out Of Range

ENGINE TORQUE SIGNAL
[%]

[Description]

This is showing Engine Torque value.
Engine Torque value is calculated by ECM.
Motor Control Module is received this value from ECM.
[NOTE]

ECM : Engine Control Module

SOC DATA
[%]

[Description]

This is showing the SOC data which was transmitted to ECM.
This is SOC Data for ECM.
[Operating Range]

0[%] -100[%]

IMA TORQUE
[kgf·m][N·m]

[Description]

This is showing the value of motor torque.
[Operating Range]

-10.0[kgf·m] - 10.0[kgf·m]

-98.0[N·m] - 98.0[N·m]

[NOTE]

nouse : Out Of Range

IMA STANDBY
[%]

[Description]

This is showing the percentage of assist available.
When this parameter displays 80% or more then it is shown that the motor assistance is possible.

ASSIST LIMIT CMD
[OFF/ON]

[Description]

This is showing Restrict Assistance Order from Battery management processor.
[NOTE]

<For example>

If the motor assist is turned off because of high battery temperature, it indicates [ON].

RESRC LIMIT CMD

[OFF/ON]

[Description]

This is showing Restrict Regeneration Order from Battery management processor.

[NOTE]

<For example>

If the Regeneration power can't be gotten because battery temperature is too high, it indicates [ON].

BM FAN SLOW

[OFF/ON]

[Description]

This is showing the status of IMA BATTERY MODULE Fan Driving Slow.

This parameter indicates [ON] when the battery module fan is running in the slow mode.

BM FAN FAST

[OFF/ON]

[Description]

This is showing the status of IMA BATTERY MODULE Fan Driving Fast.

This parameter indicates [ON] when the battery module fan is running in the fast mode.

MPI FAN ON/OFF

[ON/OFF]

[Description]

This is showing the Status of Motor Power Inverter Module Fan Driving.

When the motor power inverter module fan is running then this parameter displays [ON].

[NOTE]

MPI : Motor Power Inverter

MPI FAN S/F

[ON/OFF]

[Description]

This is the status of Motor Power Inverter Module Fan Driving Slow or Fast.

This parameter displays [ON] when the motor power inverter module fan is running fast.

When motor power inverter module fan is running slow [OFF] is displayed.

H.V. CONTACTOR

[ON/OFF]

[Description]

This is showing the status of high voltage contactor.

[NOTE]

H.V. CONTACTOR : High Voltage Contactor

H.V.CONTACTOR RTRN

[ON/OFF]

[Description]

This is showing Return Signal of H.V.Contactor.
This status is feedback signal of H.V.Contactor.
When H.V.Contactor is active this parameter indicates [ON].

[NOTE]

H.V.Contactor : High Voltage Contactor

BYPS. CONTACTOR

[ON/OFF]

[Description]

This is showing the status of Bypass Contactor.
BYPS. CONTACTOR exists to do precharge.

BYPS. CONTACT.RTRN

[ON/OFF]

[Description]

This is showing Return Signal of Bypass Contactor.
This status is feedback signal of Bypass Contactor.
When Bypass Contactor is active this parameter indicates [ON].

IGHLD RELAY

[ON/OFF]

[Description]

This is showing the command status of motor control module to the ignition hold(IGHLD) relay.

IGHLD RELAY RTRN

[ON/OFF]

[Description]

This is showing the output of the ignition hold(IGHLD) relay.
This is feedback signal.
It indicates [ON] when the relay is activated.

IMA WARNING

[ON/OFF]

[Description]

This is the status of IMA WARNING lamp.

[Operating Range]

IMA Warning Lamp : [ON]

MDM FAIL
[ON/OFF]

[Description]

This is showing the Status of Motor Driver Module Failure.

When Motor Driver Module detects a failure by the self diagnosis this parameter indicates [ON].

[NOTE]

MDM : Motor Driver Module

D.C.INHIBITOR
[ON/OFF]

[Description]

This is showing the control command of motor control module to DV-DC converter.

When this parameter indicates [ON] DC-DC converter outputs DC supply voltage of about 12[V].

[Operating Range]

[ON] : Instructing to run to DC-DC converter

[OFF] : Instructing to stop to DC-DC converter

ABS ACTION
[ON/OFF]

[Description]

This is showing the ABS signal status.

When ABS function works this parameter indicates [ON].

Motor Control Module receives this signal from ABS control unit.

SCS
[OPEN/SHORT]

[Description]

This is showing SCS Status.

[NOTE]

SCS : Service Check Signal