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2010 NISSAN Maxima OEM Service and Repair Workshop Manual

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Design/Purpose

EV system warning warns the driver that EV system is not normal.

Symbol	Message	EV system warning		Description
		ON	Blink	
	Service EV System	○	—	Operating Condition : DTC detected Vehicle Condition : EV system error (No need to vehicle stop)
	Service EV System Stop safely	—	○	Operating Condition : DTC detected Vehicle Condition : EV system error (Vehicle is driving, Need to vehicle stop)
	Service EV System Power reduced	○	—	Operating Condition : DTC detected Vehicle Condition : EV system error (No need to vehicle stop, Output is limited)
	Service EV System Power reduced Stop safely	—	○	Operating Condition : DTC detected Vehicle Condition : EV system error (Vehicle is driving, Need to vehicle stop, Output is limited)
	Service EV System Unable to restart after power off	○	—	Operating Condition : DTC detected Vehicle Condition : EV system error (Restart not possible)
	EV System off	○	—	Operating Condition : DTC detected Vehicle Condition : EV system error (Vehicle stop, P range, Cut off the high voltage circuit)
	EV System off Stop safely	—	○	Operating Condition : DTC detected Vehicle Condition : EV system error (Vehicle is driving, Cut off the high voltage circuit)
	Service EV System Apply parking brake	○	—	Operating Condition : DTC detected Vehicle Condition : EV system error (Vehicle stop, Except P range, Cut off the high voltage circuit)

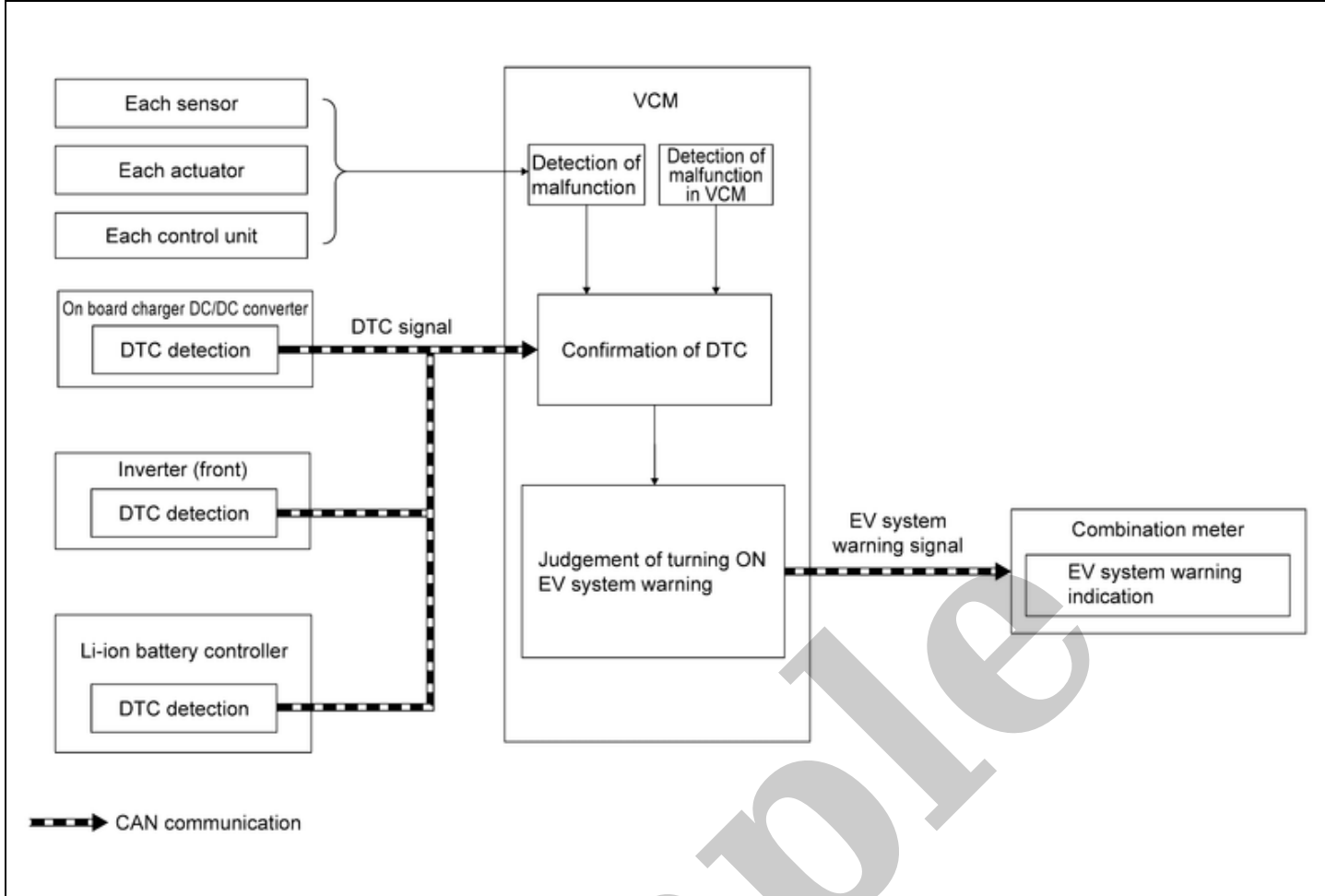
SYNCHRONIZATION WITH MASTER WARNING LAMP

Applicable

For master warning lamp, Refer to [Master Warning Lamp](#).

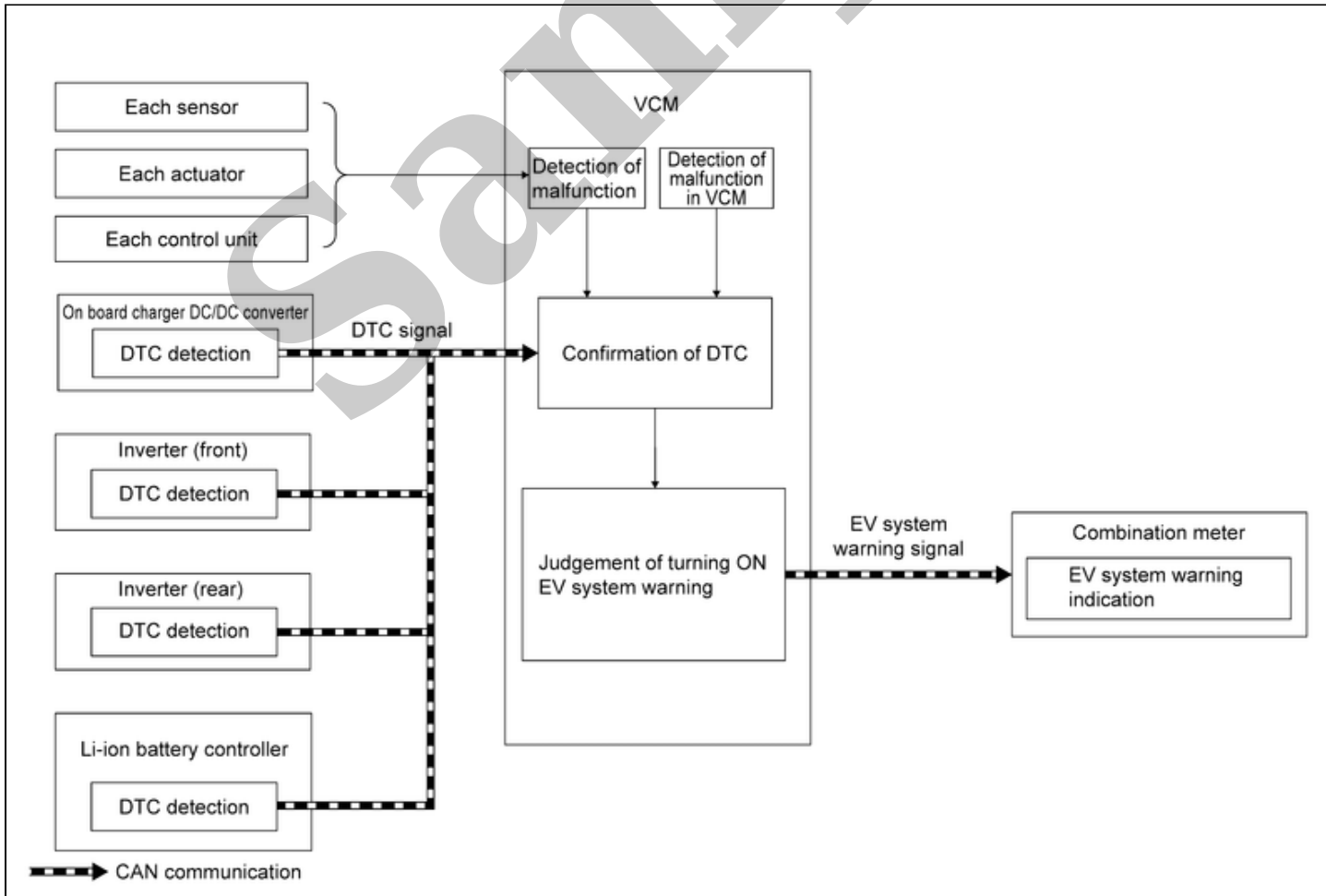
SYSTEM DIAGRAM

2WD models



SIEMD-7196741-04-000420220

AWD models



SIEMD-7196741-03-000420221

SIGNAL PATH

- If VCM detects a malfunction or receives DTC signals from each ECU, VCM transmits EV system warning lamp request signal to the combination meter via CAN communication.
- Combination meter indicates EV system warning in the vehicle information display according to the input signal.

WARNING OPERATING CONDITION

When all of the following conditions are satisfied:

- Power switch: ON or READY
- EV system-related DTC is detected.



NOTE:

For DTCs that EV system warning lamp turns ON, refer to following table.

Control unit	Reference page
VCM	Refer to DTC Index .
<ul style="list-style-type: none"> • On-board charger • DC/DC converter 	Refer to DTC Index .
Inverter (front)	Refer to DTC Index .
Inverter (rear)	Refer to DTC Index .
Li-ion battery controller	Refer to DTC Index (66kWh LI-ION BATTERY), DTC Index (91kWh LI-ION BATTERY).

WARNING CANCEL CONDITION

When any of the following conditions are satisfied:

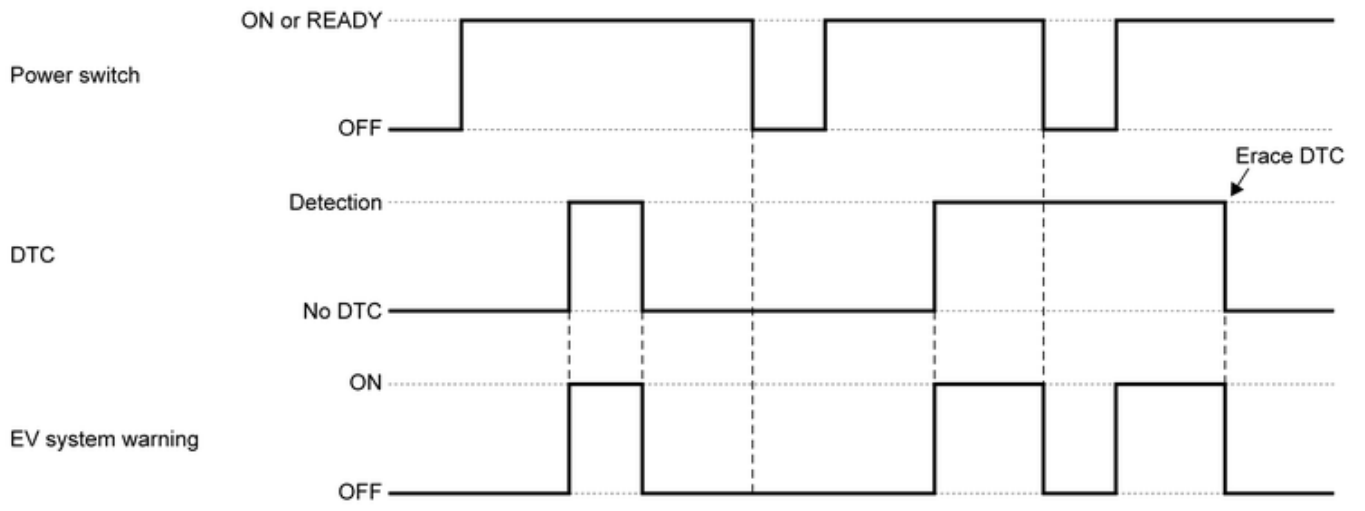
- Power switch: OFF
- DTC is erased.



NOTE:

- The warning may turn ON even after the power switch is turned OFF, depending on a detected DTC.
- For DTC erasing method, Refer to [Diagnosis Description](#).

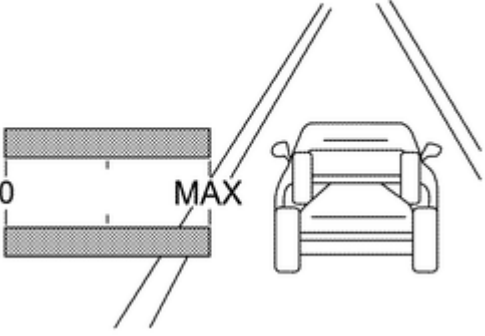
TIMING CHART



SIEMD-7196741-02-000384992

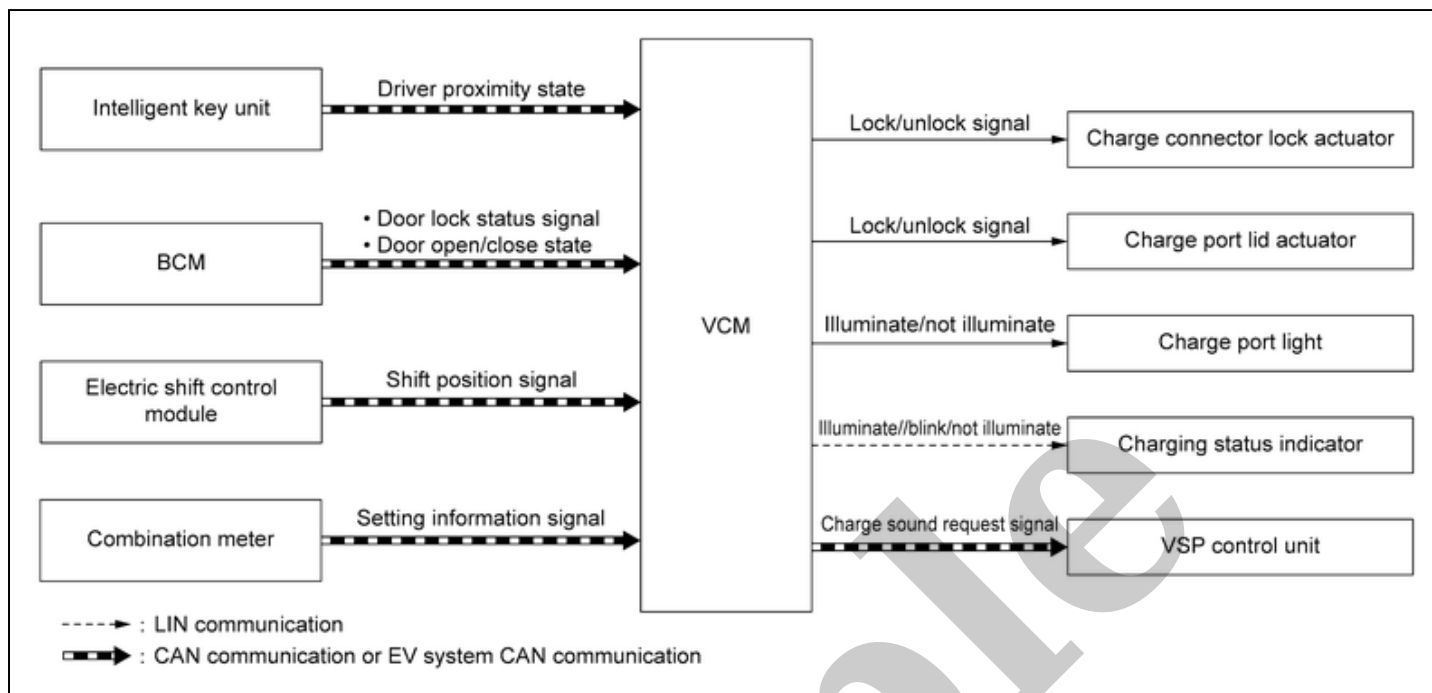
Sample

DESIGN/PURPOSE

Design	Purpose
<p data-bbox="292 282 528 327">AWD Torque</p>  <p data-bbox="341 683 695 712">SIEMD-7503209-01-000399484</p> <p>The diagram shows a gauge with a needle pointing to the right, labeled '0' on the left and 'MAX' on the right. To the right of the gauge is a front view of a car. Lines connect the gauge to the front and rear wheels of the car, indicating torque distribution.</p>	<p data-bbox="715 472 1485 533">Displays the drive torque to the front and rear wheels while driving and informs the driver of this.</p>

Sample

SYSTEM DIAGRAM



SIEMD-7307255-04-000391566

DESCRIPTION

For charging port control, VCM comprehensively controls the following related to charging according to the vehicle status and signals from each switch.

Control	Description
Charge connector lock/unlock control	When the normal charge connector is connected or during normal charging, charge connector is automatically locked and unlocked.
Charge port light control	Automatically turns ON/OFF LED lighting inside the charge port.
Charge port lock/unlock control	Perform lock /unlock charge port

CHARGE PORT LOCK / UNLOCK CONTROL

Description

The charging connector lock/unlock control automatically locks the charging connector according to the charging scene to prevent tampering during charging.

The VCM determines lock activation and unlock conditions based on signals such as EVSE connection signals received from EVSE, setting information signal received from combination meters via CAN communication, and door lock status signal from BCM.

When the condition is satisfied, the charging connector lock relay is activated to operate the charging connector lock actuator in the closed or open direction to lock/unlock the normal charging connector.

There are the following types of lock modes.

Lock mode	Function
"LOCK"	When the normal charge connector is connected, charge connector is automatically locked.
"AUTO"	When charge power supply is not detected even charge connector is locked, or charge connector is locked during normal charge.

Lock mode	Function
	(When charge is completed, charge connector is automatically unlocked.)
"UNLOCK"	Charge connector is locked when normal charge connector is connected. Charge connector is unlocked when charge power supply is detected.



NOTE:

- **To switch the mode, select "Charging connector lock" of the "EV setting" item of the vehicle information display in the combination meter.**
- **When the normal charge connector is connected and the vehicle is in the P range, it will be locked once even if the unlock condition is satisfied.**

LOCK OPERATION CONDITION

When the following conditions are satisfied, VCM locks the charge port connector.

"LOCK" mode

- Select "Charge connector lock" (Vehicle information display): "LOCK" mode
- Shift position : P range
- Normal charge connector: Connect (Complete lock)

"AUTO" mode

- Select "Charge connector lock" (Vehicle information display): "AUTO" mode
- Shift position : P range
- Normal charge connector: Connect (Complete lock)
- When the start normal charge and the charge power supply are not detected

"UNLOCK" mode

- Select "Charge connector lock" (Vehicle information display): "UNLOCK" mode
- Shift position : P range
- Normal charge connector: Connect (Complete lock)
- When the charge power supply are not detected

"UNLOCK" OPERATION CONDITION

When the following conditions are satisfied, VCM unlocks the charge port connector.

"LOCK" mode

- When unlock while the door is locked.
- Select "Charge connector lock" (Vehicle information display): "UNLOCK" mode
- Shift position : Except P range
- Vehicle is READY

"AUTO" mode

- When unlock while the door is locked.
- Select "Charge connector lock" (Vehicle information display): "UNLOCK" mode

- Shift position : Except P range
- Vehicle is READY
- When the normal charge is completed.
- When the charge power supply is shut down.

"UNLOCK" mode

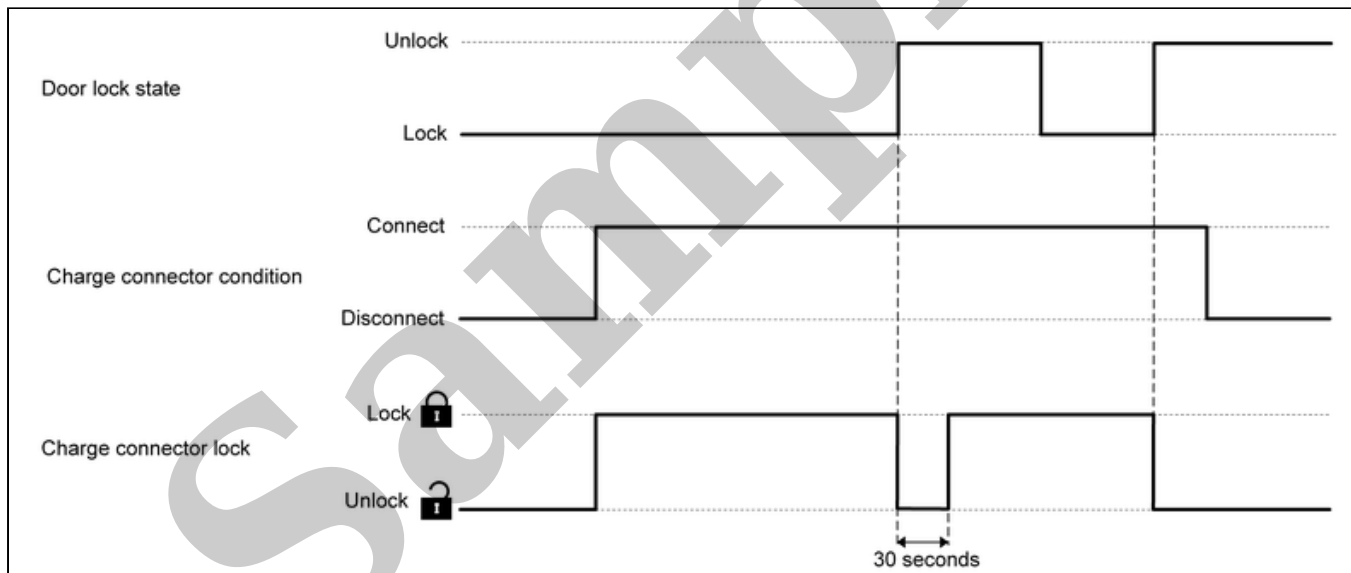
- When unlock while the door is locked.
- Shift position : Except P range
- Vehicle is READY
- When the charge power supply is detected, the charge connector is automatically locked again.

CAUTION:

When the charge connector is not disconnected 30 seconds after door unlocked.

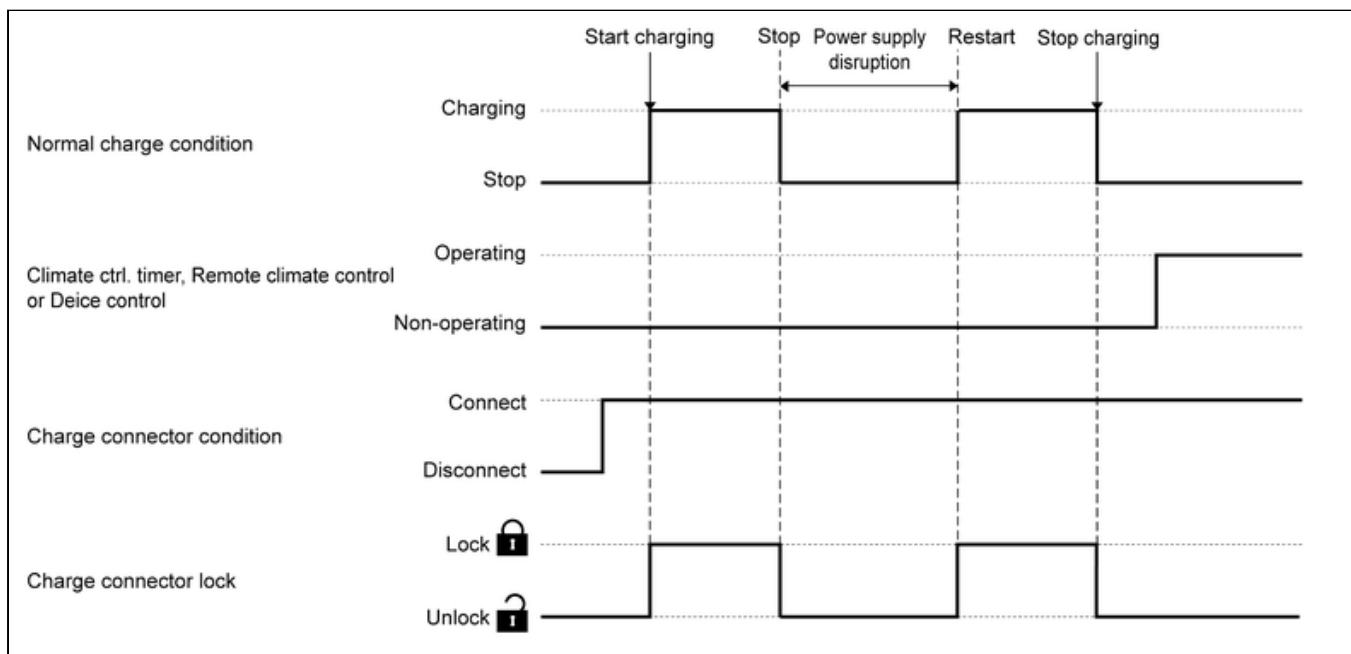
OPERATION TIMING CHART

- "LOCK" MODE



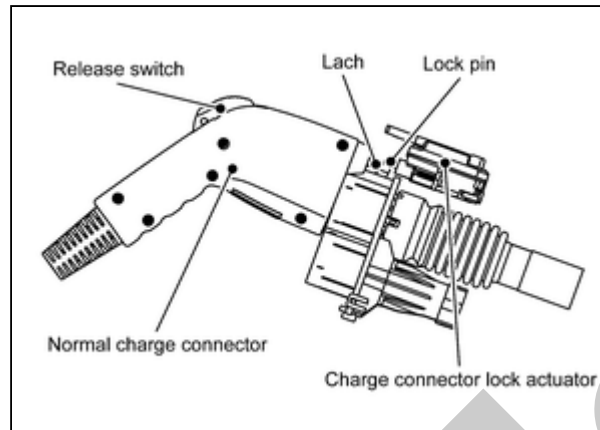
SIEMD-7307255-01-000377106

- "UNLOCK" MODE



OPERATION DESCRIPTION

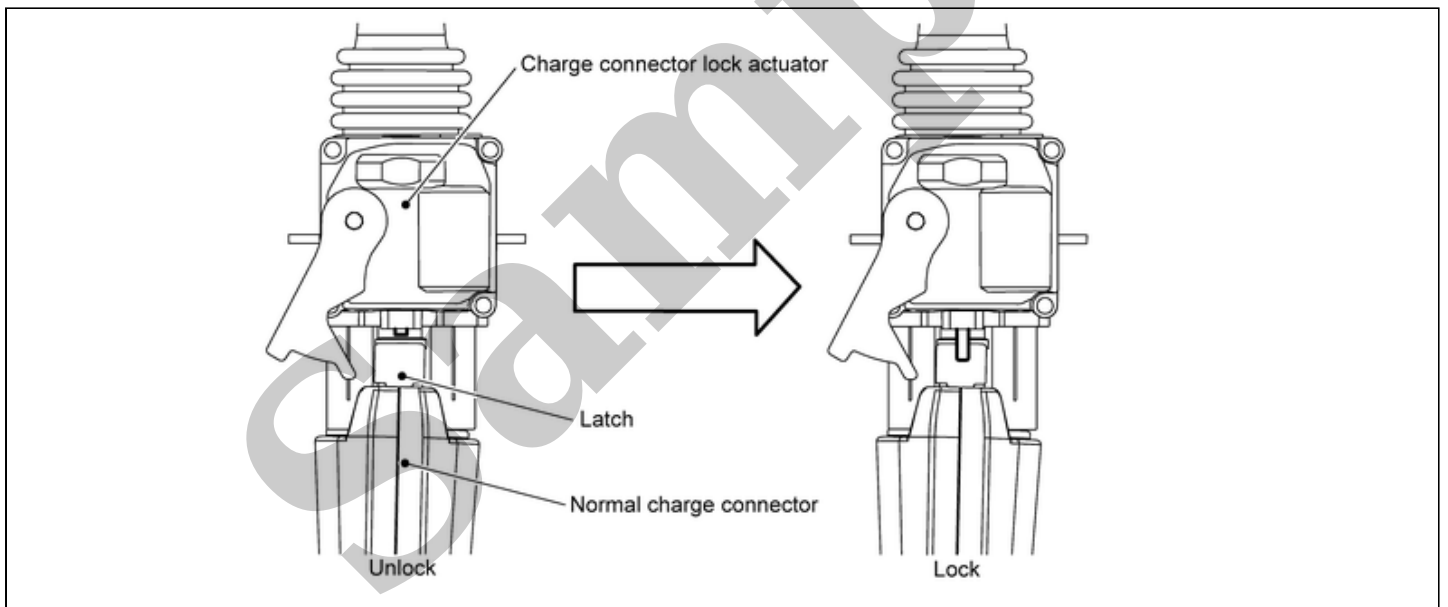
The swing arm of the charge port lock actuator is inserted into the upper part of the latch at the tip of the normal charge connector, and charge connector is locked by restricting the movement of the latch.



SIEMD-7307255-02-000391563

CAUTION:

Release switch cannot be push during LOCK mode.



SIEMD-7307255-03-000391564

CAUTION:

When the charge connector lock cannot be unlock, perform the following procedure to unlock manually.

PROCEDURE FOR CHARGE CONNECTOR LOCK / UNLOCK CONTROL ABNORMALITY

When the charge connector lock cannot be unlock automatically, perform the following procedure to unlock manually.

1. Open the hood
2. Operate the lock release lever **(A)** on the back of the charge port base assembly on the normal charge port side in the direction of the arrow in the figure to release the charge port lid lock.