

Instruction Manual for
DC Quick Charging Connector

**Information in this instruction manual is
subject to change without prior notice.**

Yazaki Corporation



Yazaki Parts Co., Ltd.

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DC Quick Charging Connector

- Conforms to JEVS G105.
- * This product is designed exclusively for the CHAdeMO system.
Do NOT use this product for other purposes.
- Conforms to IEC 62196-1.
- Conforms to UL 2251.

		Contents	
<p>Thank you very much for purchasing our DC quick charging cable.</p> <p>Please read this manual carefully to fully understand the contents for safe and correct use of the cable.</p> <p>It is recommended to always keep this manual readily available.</p>		<input type="checkbox"/> Safety Precautions	P2 to 4
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		<input type="checkbox"/> Specifications and Circuit Diagram	P9 to 10
Description of each sign			
	Warning	Indicates a situation in which improper handling may cause death or major property damage. (in particular, blindness, burns, electric shock, broken bones)	
	Caution	Indicates a situation in which improper handling may cause injury or property damage. (minor injuries/burns that need no hospitalization; or damage of properties including residential buildings, household goods, livestock, and pet animals)	

1. Safety Precautions

Before putting this product to use, please read the following precautions carefully and be sure to observe them.



Warning: Improper use may cause death or major property damage.

- **Do NOT disassemble/repair/modify this product.**

This may result in fire, electric shock, or injury.



NEVER disassemble this product.

- **Do NOT use this product at voltage higher than its voltage rating.**

This may result in fire or electric shock.

- **Do NOT use any damaged cable, or do NOT damage cables.**

(The cable assembly may not be modified or forcibly bent. It should not be put close to hot temperature parts. No heavy object must be placed on top. Furthermore, it should not get caught between two objects.)

This may result in fire or electric shock.

- **Do NOT use this product if smoke, strange noise or odor comes out of it.**

This may result in fire or electric shock.

Stop charging immediately. Make sure that it has stopped emitting smoke. Then, consult the dealer from whom you purchased this product.

- **Be sure to turn off the power before maintenance.**

This may result in electric shock or injury.

- **Do NOT handle this product with wet hands.**

This may result in electric shock or burns.



NEVER handle with wet hands.

- **NEVER pull it out forcibly during charging.**

This may result in malfunction.

The charging connector cannot be removed when locked with the vehicle side connector.

To remove it, push the unlock button.

When removing the connector, do NOT pull the cable; be sure to hold the grip.



Warning

- **The charging connector should not be exposed to any water.**

This product has a waterproof rating of IP44 * during charging. However, if its interface, etc. is exposed to water, an electric shock or a short circuit may occur.

* Do NOT put this product in sea/swimming pool/hot spring water. The charging function will be maintained even if exposed to jet water from a nozzle in any direction by injecting water at 10 l/min from a height of 300 to 500 mm for more than 10 minutes.



- **Do NOT touch any of the terminals.**

This may result in electric shock.



DO NOT TOUCH

- **Do NOT put this product to fire.**

This may result in fire.

- **Do not subject the main unit to shock during charging.**

This may result in electric shock or fire.

If the main unit becomes damaged, disconnect the power plug immediately. Then, consult the dealer from whom you purchased this product.



- **Do NOT step on the product. Do NOT let vehicles run over the product.**

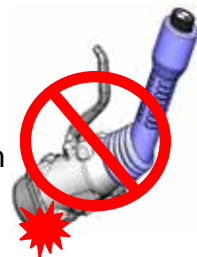
If it becomes damaged, injury, electric shock, or fire may occur.



- **Be careful NOT to drop this product.**

Electrical shock, fire, or injury may occur due to failure/breakage.

If you drop this product into a puddle, etc., please consult the dealer from whom you purchased this product.



- **During charging, do NOT step on or lean against this product. In addition, do NOT place any object on it.**

Injury, electrical shock, or fire may occur due to deformation/breakage.

- **Make sure that no foreign objects enter the mating interface.**

This may result in breakage, electric shock, or fire.

Before using this product, make sure that there are no foreign object.



Warning

- **Keep this product away from children.**

This may result in electric shock, injury, or burns.

- **This product is heavy in weight; care must be taken when handling it.**

This may result in injury.

- **Do NOT use any extension cable.**

Current leakage may occur from the connection. Must be used within the reach of the cable.

- **Do NOT drive the car with the charging connector**

This may result in a serious accident.



Caution: Improper handling may cause injury or property damage.

- **Do NOT use this product outside the ambient temperature range of -40°C to $+60^{\circ}\text{C}$.**

The charging functional parts may become damaged.

- **Do NOT store this product at an ambient temperature of -40°C or less.**

This may result in injury or moderate temperature burns.

- **Do NOT store this product at an ambient temperature of 80°C or more.**

This may result in injury or burns.

- **Do NOT leave this product outdoors.**

This may result in failure. When storing the charging connector, be sure to put its cap in place and keep it in a place where it will not be exposed to rain and dust.

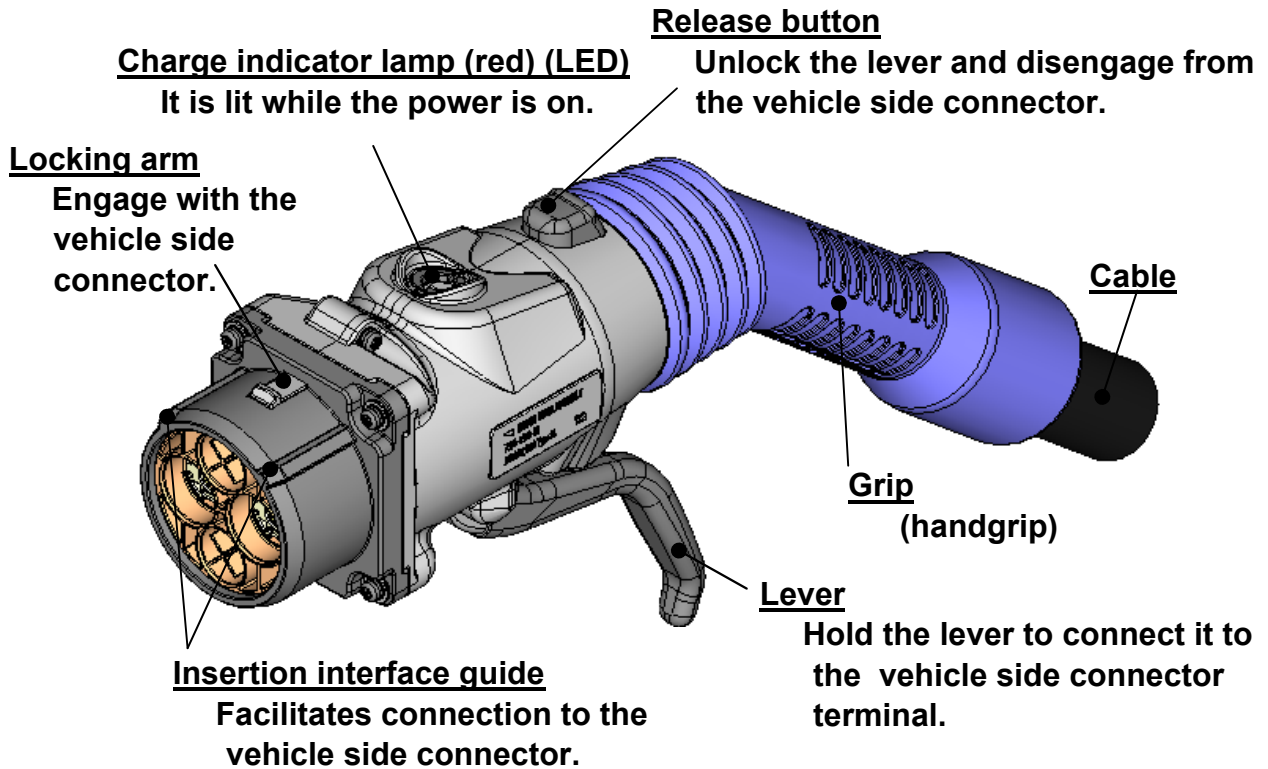
- **Be careful not to get your fingers caught when operating the lever.**

This may result in injury.

- **Do NOT touch the charging connector with bare hands, regardless of whether it is hot or cold.**

This may result in burns or moderate temperature burns.

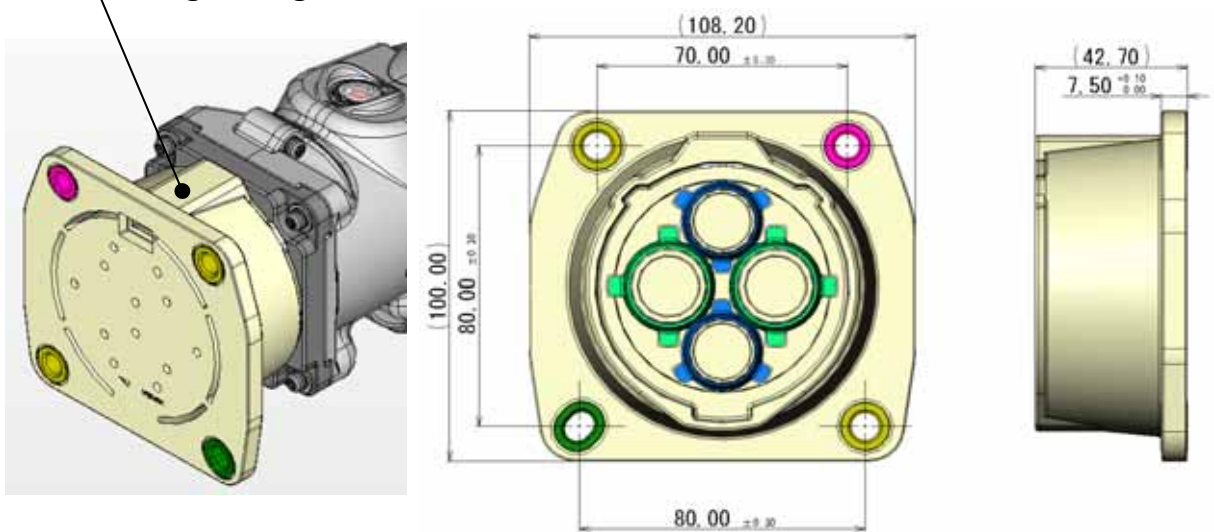
2. Names and Functions



When Infra Cap is Attached

Cap
Prevents entry of foreign matter during storage.

Secure the infra cap to the stand, etc. with the following mounting dimensions.

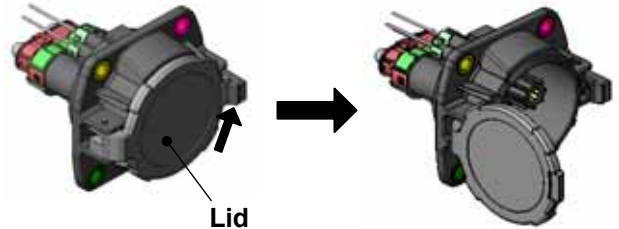


Recommended mounting dimensions

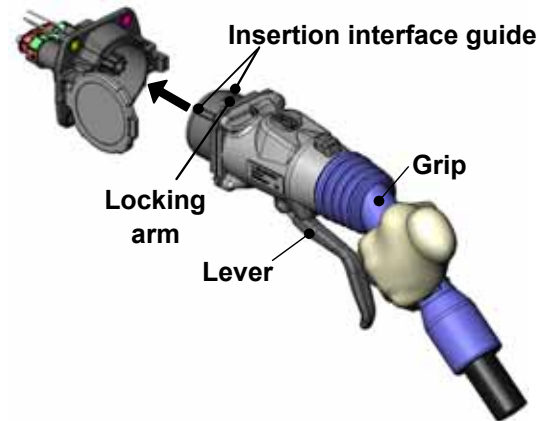
3. How to Use This Product (Operation procedure)

<<Insertion operation>>

(1) Open the vehicle side connector's lid.



(2) Hold the grip and insert the connector with reference to the insertion interface guide until it reaches the end.

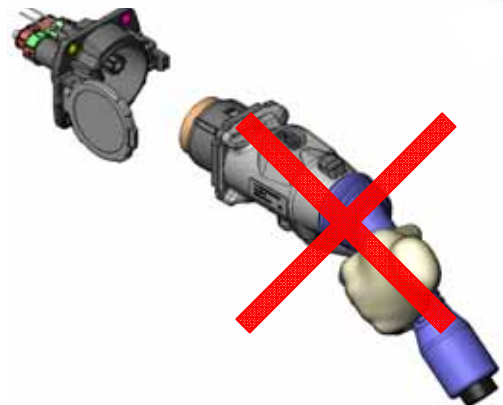


[Precautions]

Do NOT pull the lever before the connector reaches the end.

The connector cannot be inserted because the lock arm is inoperable.

NEVER try to forcibly insert the connector.



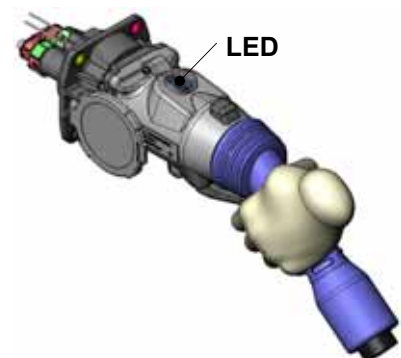
(3) Hold the lever until it clicks and does not return to its original position.

[Precautions]

Please make sure that the lever is properly locked.

If the lever is not properly locked, the quick charging connector will be disconnected from the vehicle inlet while charging and there is a chance of burning out.

DO NOT touch the connector and the cable while charging.



When it starts charging, the LED comes on and the lever is locked by the electromagnetic solenoid device.

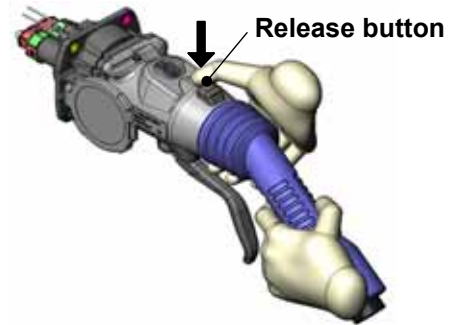
How to Use This Product (Operation procedure)

<<Removal operation>>

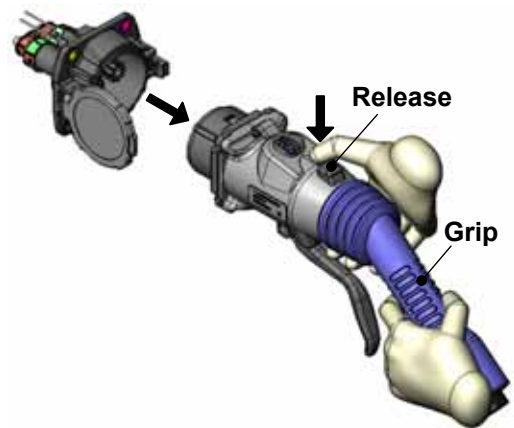
- (1) Press the release button and lower the lever until it clicks.

[Precautions]

If the lever is not at its lowest position, the connector is still locked; it cannot be removed.



- (2) Hold the grip and pull out the connector while depressing the release button.



- (3) Be sure to return the connector to the specified installation place at the charging station.

[Precautions]

Please note that installation places differ from one charging station to another.

4. Periodic Checks and Maintenance



Warning

Be sure to disconnect the charging plug from the outlet before doing any periodic checks or maintenance operations.

1. Periodic Checks

- **Before using this product, make sure that there is no foreign matter inside the charging connector's mating interface. If there is any foreign matter inside, remove it.
(If you use the charging connector with foreign matter inside its mating interface, a charging failure may occur due to a damaged terminal or current leakage may result from damaged packing, etc. This can be a very dangerous situation.)**
- **"If the insulation covering of the cable tears and the wires inside become exposed as a result, please consult the dealer from whom you purchased this product."**

2. Maintenance



Warning

Make sure that the charging connector is not exposed to any water. This may result in electric shock.

Wipe the charging connector with a clean, dry cloth.

(NEVER use gasoline, benzine, thinner, scouring powder, detergent, etc. This may cause damage to the product.)

5. Specifications

Specifications (TUV)

Type		TUV
Rated voltage	Power circuit	500 VDC or less
	Signal circuit	12 V or less
Rated current	Power circuit	120 A or less
	Signal circuit	1 3 A or less
Wires used	Power circuit	35 sq × 2
	Signal circuit	0.75 sq × 7
Outside dimensions (mm)		77 (W) x 351.65 (D) x 183.89 (H)
Weight (kg)		1.8 kg(weight of connector excluding cable)
Insulation resistance		5 MΩ or more (500 VDC)
Withstand voltage		2500 VDC applied for 1 min.
Solenoid		Coil resistance value $46\Omega \pm 10\%$, service voltage 9 to 16 VDC
LED		Voltage 2.5 V, current 20 mA
Certification acquired		IEC 62196-1
Wire length		

* A detailed circuit diagram is provided on page 11.

Specifications (UL)

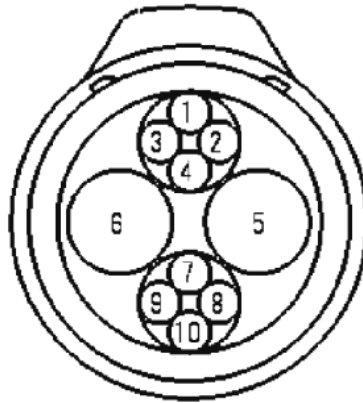
Type		UL
Rated voltage	Power circuit	500 VDC max.
	Signal circuit	12 V max.
Rated current	Power circuit	120 A max.
	Signal circuit	1 3 A max.
Wires used	Power circuit	2AWG × 2
	Signal circuit	18AWG × 7
Outside dimensions (mm)		77 (W) x 351.65 (D) x 183.89 (H)
Weight (kg)		1.8 kg(weight of connector excluding cable)
Insulation resistance		5 MΩ or more (500 VDC)
Withstand voltage		2500 VDC applied for 1 min.
Solenoid		Coil resistance value $46\Omega \pm 10\%$, service voltage 9 to 16 VDC
LED		Voltage 2.5 V, current 20 mA
Certification acquired		UL 2251
Wire length		

* A detailed circuit diagram is provided on page 11.

Quick Charging Connector

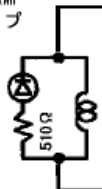
(JEVS G105 compliant circuit)

Terminal Assignment Front view



①	MARKING "3" マーキング "3"	18AWG : BLUE
②	MARKING "4" マーキング "4"	18AWG : BLUE
③	空回路 (EMPTY CIRCUIT) MARKING "5" マーキング "5"	18AWG : BLUE
④		2AWG : BLACK
⑤		2AWG : WHITE
⑥	MARKING "6" マーキング "6"	18AWG : BLUE
⑦	MARKING "7" マーキング "7"	18AWG : BLUE
⑧	MARKING "9" マーキング "9"	18AWG : BLUE
⑨	MARKING "8" マーキング "8"	18AWG : BLUE
⑩	MARKING "8" マーキング "8"	18AWG : BLUE

CHARGE STATE
INDICATING LAMP
充電表示ランプ



0.75 mm² : BLUE

MARKING "2"
マーキング "2"

⊖

DC 12V

⊕

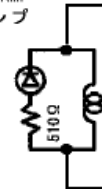
0.75 mm² : BLUE

MARKING "1"
マーキング "1"

CONNECTOR CIRCUIT (UL)

①	MARKING "3" マーキング "3"	0.75 mm ² : BLUE
②	MARKING "4" マーキング "4"	0.75 mm ² : BLUE
③	空回路 (EMPTY CIRCUIT) MARKING "5" マーキング "5"	0.75 mm ² : BLUE
④		35.0 mm ² : LIGHT BLUE
⑤		35.0 mm ² : BROWN
⑥	MARKING "6" マーキング "6"	0.75 mm ² : BLUE
⑦	MARKING "7" マーキング "7"	0.75 mm ² : BLUE
⑧	MARKING "9" マーキング "9"	0.75 mm ² : BLUE
⑨	MARKING "8" マーキング "8"	0.75 mm ² : BLUE
⑩	MARKING "8" マーキング "8"	0.75 mm ² : BLUE

CHARGE STATE
INDICATING LAMP
充電表示ランプ



0.75 mm² : BLUE

MARKING "2"
マーキング "2"

⊖

DC 12V

⊕

0.75 mm² : BLUE

MARKING "1"
マーキング "1"

CONNECTOR CIRCUIT (TUV)