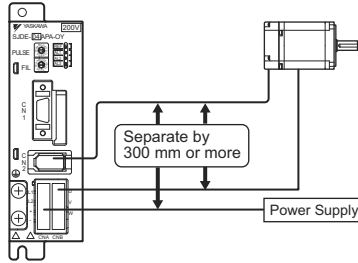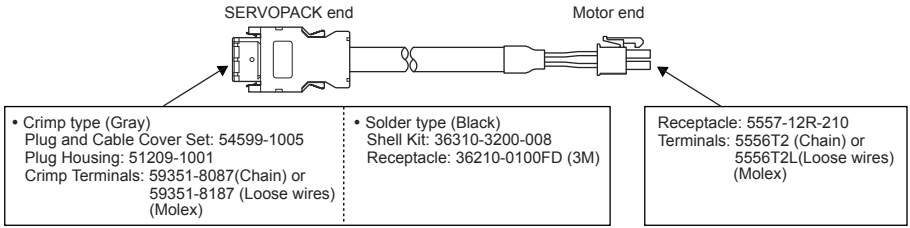# 3.10 Wiring the Encoder Connector (CN2)
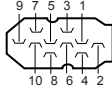

NOTE
• Separate the encoder cable at least 300 mm from power lines (i.e., high-voltage lines such as the power supply line and servomotor main circuit cable).
• Do not bundle with or run the encode cable in the same duct as power lines.
• Be sure that the maximum wiring length of the encoder cable is 20 m.

## ■ Connection Diagram for Standard Encoder Cable

If a user-prepared encoder cable is used for relaying, refer to the following connection diagram for the standard cable (JZSP-CHP800-□□ Cable with Connectors on Both Ends) and wire the encoder cable.


SERVOPACK end   Motor end

• Crimp type (Gray)
Plug and Cable Cover Set: 54599-1005
Plug Housing: 51209-1001
Crimp Terminals: 59351-8087(Chain) or
                59351-8187 (Loose wires)
                (Molex)

• Solder type (Black)
Shell Kit: 36310-3200-008
Receptacle: 36210-0100FD (3M)

Receptacle: 5557-12R-210
Terminals: 5556T2 (Chain) or
          5556T2L(Loose wires)
          (Molex)

SERVOPACK Connector
(Viewed from soldered side)

Servomotor Connector
(Viewed from cable insertion side)
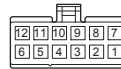
Pin No.	Signal Name	Lead Color
1	PG5V	Red
2	PG0V(GND)	Black
3	Phase A (+)	Blue
4	Phase A (-)	Blue/White
5	Phase B (+)	Yellow
6	Phase B (-)	Yellow/White
7	Phase /Z	Purple
8	Phase U	Gray
9	Phase V	Green
10	Phase W	Orange
Shell	—	Shield
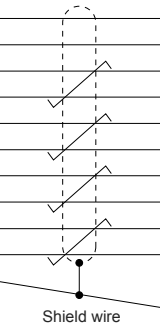
Pin No.	Signal Name	Lead Color
1	PG5V	Red
2	PG0V(GND)	Black
3	Phase A (+)	Blue
4	Phase A (-)	Blue/White
5	Phase B (+)	Yellow
6	Phase B (-)	Yellow/White
7	Phase /Z	Purple
8	Phase U	Gray
9	Phase V	Green
10	Phase W	Orange
11	—	—
12	Shield	Shield

Shield wire

Note: Pin numbers are given on the connector as well.

English

3.11 Wiring I/O Connectors
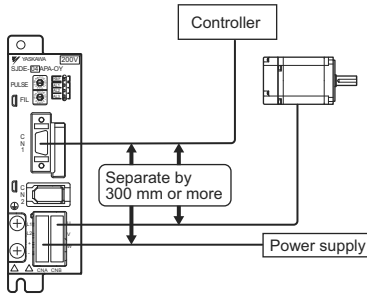
Note: Do not apply excessive force when connecting or disconnecting the cable or the connector.
Damage to the cable or connectors may cause the product to stop operating or malfunction.

NOTE
• Separate the I/O cable at least 300 mm from power lines (i.e., high-voltage lines, such as the power supply line and servomotor main circuit cable).
• Be sure that the maximum wiring length of the I/O cable is 3 m.
• The longer the I/O cable is, the lower the maximum transmission frequency will be.

■ Connection Diagram for Standard I/O Cable

If a user-prepared I/O cable is used for relaying, refer to the following connection diagram for the standard cable (JZSP-CHI003-□□ Cable with Connector) and wire the encoder cable.

SERVOPACK end   Host controller end
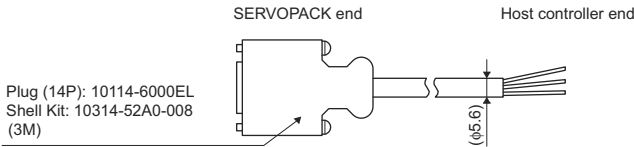
Plug (14P): 10114-6000EL
Shell Kit: 10314-52A0-008
(3M)

(φ5.6)

SERVOPACK Connector (Plug)
(Viewed from soldered side)

8 9 10 11 12 13 14

1 2 3 4 5 6 7
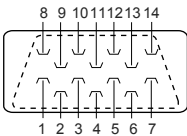
Pin No.	I/O	Code	Signal Name	Lead Color	Dot Mark Number	Dot Mark Color
1	Input	CW, PULS	Reverse pulse, Reference pulse	Orange	1	Black
2	Input	/CW, /PULS				Red
3	Input	CCW, SIGN	Forward pulse, Reference sign	Light gray		Black
4	Input	/CCW, /SIGN				Red
5	Input	+24VIN	External input power supply	White		Black
6	Input	/S-ON	Servo ON			Red
7	Output	SG-COM	Output signal ground	Yellow		Black
8	Input	CLR	Position deviation Pulse clear			Red
9	Input	/CLR		Pink		Black
10	Output	PCO	Phase-C signal			Red
11	Output	SG-PCO	Phase-C signal ground	Orange	2	Black
12	Output	ALM	Servo alarm			Red
13	Output	/BK	Brake	Light gray		Black
14	Output	/COIN	Positioning completion			Red
Shell	–	–	FG	–	–	

Note: Pin numbers are given on the connector as well.