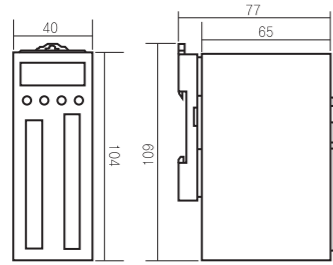
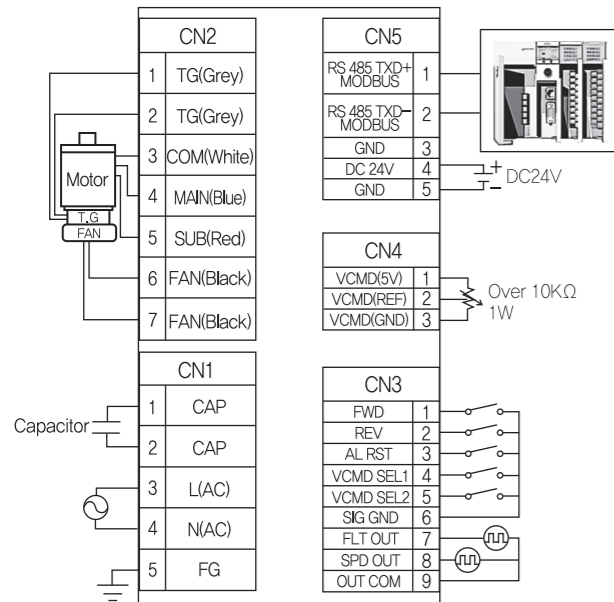


Dimension

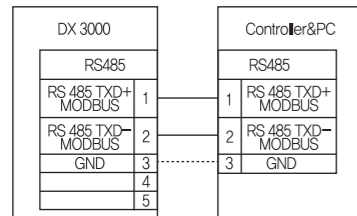


Controller Connection Diagram



*Please contact us if you want to connect DX3000 with other brand motor.

Communication Connection Diagram



*When using communication GND, attach GND of input power(DC24V).

Functions of CN1 Connector

NO.	Name	Description	Remark
1	CAP	Connect to capacitor	
2	CAP	Connect to capacitor	
3	L	Connect to AC power	
4	N	Connect to AC power	
5	FG	Connect to earth	

Functions of CN2 Connector

NO.	Name	Description	Remark
1	TG	Connect to Tacho Generator	Grey color
2	TG	Connect to Tacho Generator	Grey color
3	COM	Connect to Motor Power	White color
4	MAIN	Connect to Motor Power	Blue color
5	SUB	Connect to Motor Power	Red color
6	FAN	Connect to Motor Fan	Black color
7	FAN	Connect to Motor Fan	Black color

*Please contact us if you want to connect DX3000 with other brand motor.

Functions of CN3 Connector

NO.	Name	Description	Remark
1	FORWARD RUN	Motor forward switch input	Input Signal
2	REVERSE RUN	Motor reverse switch input	Input Signal
3	REVERSE RUN	Motor's alarm reset switch input	Input Signal
4	SPEED SELECT 1	Input internal/ external input select switch Select operation mode with parameter No.7 * Internal Speed: Parameter No.30~No.32 * External Speed: Input external variable resistance	Input Signal
5	SPEED SELECT 2	* Internal Torque: Parameter No.33~No.35 * External Torque: Input external variable resistance	Input Signal
6	SIGNAL COMMON	Motor switch common input	COMMON
7	FAULT OUT	Output controller status * Change output A, B replay according to parameter No.10	Input Signal
8	SPEED OUT	Motor operating speed output	Input Signal
9	OUT COMMON	Output Contact Common	COMMON

Functions of CN4 Connector

NO.	Name	Description	Remark
1	VCMD V	External speed command potentiometer + voltage output	5V Output
2	VCMD Vref	External speed directive value input	Voltage input
3	VCMD GND	Connect to external speed directive GND	V GND

Functions of CN5 Connector

NO.	Name	Description	Remark
1	RS 485 TXD+ MODBUS	Connect RS485 Communication line +	
2	RS 485 TXD- MODBUS	Connect RS485 Communication line -	
3	GND	Communication line Common	S GND
4	DC24V	Input power DC 24V	Input power
5	GND	Control power GND	GND

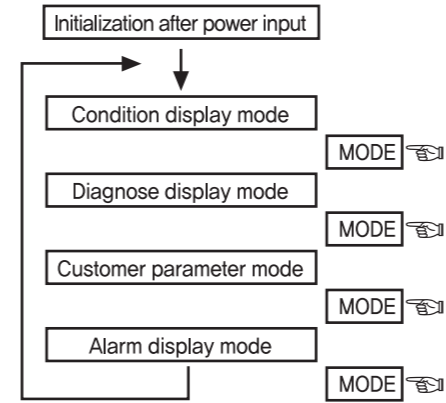
Troubleshooting and Action

Trouble	Indication Part	Reason	Action
Motor doesn't operate	No display	- Power doesn't be connected to controller	Check a source of electric power supply
		- Power doesn't be connected to FG terminal	Re-connect diagram
ALARM ON	AL SE	Internal arithmetic error inside of controller	Check alien substance inside Re-start controller
	AL CE	bad connection with motor or feedback Sensor	Check the motor connector Check the sensor connector Change or fix controller
	AL PE	Parameter alarm In case of failing to store parameter value in the controller memory	Re-start controller Change or fix controller
	AL AC	AC input alarm Occur when putting RUN signal without AC power	Check AC input connector Change or fix controller

Segment LCD

1. Segment LCD operation and transition diagram

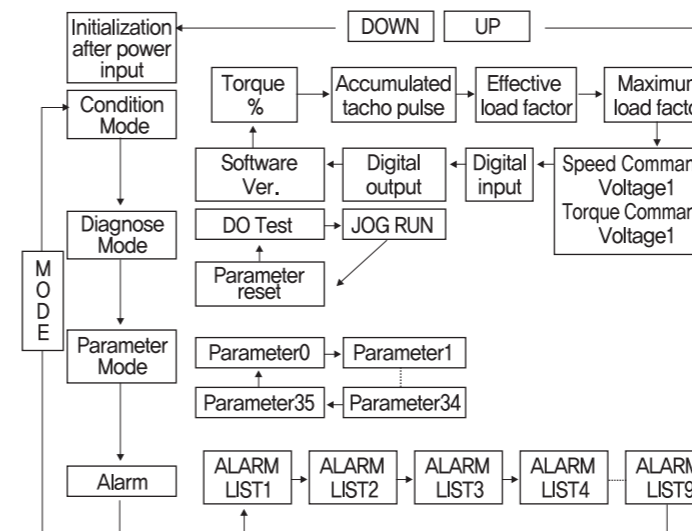
After power input, LED display will be status display mode and mode change will be done by MODE button.



▶ The display shows the PRM screen $\square\square\square 0$, which is the default mode if inputting power. (Torque control mode: %)

▶ UP/DOWN: Increase/ decrease of data for functions and setting in the same mode. SET Button: Setting and Storage of DATA

2. Entire transition diagram



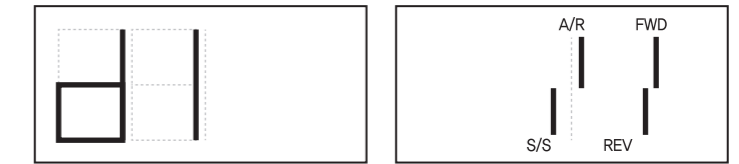
3. Condition display mode

Display the following status on the display during operation

Title	Symbol	Display Range	Contents
Motor Rotation Speed (Torque Command Value)	-	* Speed Mode : 0~1800[RPM] * Torque Mode : 0~100[%]	It is changed according to the motor rotation speed(torque), and setting value
Accumulated Tacho Pulse	t	0~999[PULSE]	Display amount of motor rotation by counting the tacho sensor value
Effective Load	L	0.0[A]	Display continuous effective current value with 0.1A unit
Max Load	H	0.0[A]	Display maximum effective current value with 0.1A unit
Speed(Torque) Command Voltage	U1	0~5.0[V]	Display speed(torque) command voltage with 0.1V unit
Digital Input	dI.		Display On/.Off of digital input signal
Digital Output	dO.		Display On/.Off of digital output signal
Software Version	Soft.	1.0~	Display software version of controller

◎ Details

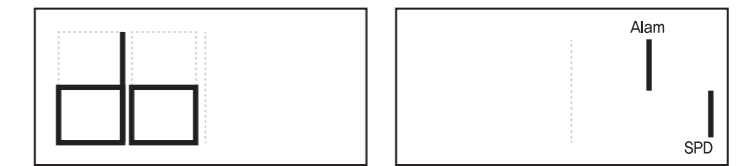
▶ Digital Input $\square d I. \square \square \square$: Display On/ Off on digital input screen



▶ Signal Explanation

- * S/S : Select parameter Speed/ External speed
- * A/R : Alarm Reset
- * REV : Reverse Operation Command
- * FWD : Forward Operation Command

▶ Digital Input $\square d O. \square \square \square$: Display On/ Off on digital input screen



▶ Signal Explanation

- * Alarm : Output motor alarm condition
- * SPD : Output motor RPM

4. Diagnose Display Mode

System conditions and system initialization can be checked and set with diagnose display mode

4-1. Digital Out Test

- Output signal of the controller status can be output arbitrarily.
- If SET button is pressed, all output contacts are output.

$\square d o \square F$: ALL OUTPUT STATUS IS OFF

$\square d o \square n$: ALL INPUT STATUS IS ON

▶ How to use

- * Set button is only available on conditions that Forward/ reverse input signal doesn't come
- * In communication mode, only available at stop signal input conditions (0x0005 address/Bit No.0 is On)
- * Setting is only available in conditions that LED doesn't blink

$\square d o \square F$ $\square d o \square n$

SET \leftarrow Over a second SET \leftarrow Over a second

$\square d o \square F$

◇ SP(Speed_out), FO(Fault_out) can be output

* Fault out: Output port signal is reversed during On / Off according to setting value of parameter No.10.

4-2. JOG RUN

◇ JOG operation starts according to set speed command

$\square J r \square F$: JOG RUN MODE IS OFF

$\square J r \square n$: JOG RUN MODE IS ON

▶ How to use

- * Set button is only available on conditions that Forward/ reverse input signal doesn't come
- * In communication mode, only available at stop signal input conditions (0x0005 address/ Bit No.0 is On)
- * Setting is only available in conditions that LED doesn't blink

$\square J r \square F$

SET \leftarrow

$\square J r \square n$

UP \leftarrow : Rotate 500 rpm to the forward direction while pressing the UP button

DOWN \leftarrow : Rotate 500 rpm to the reverse direction while pressing the DOWN button

* Operation will stop when user hands off UP, DOWN button SET \leftarrow

$\square J r \square F$