F-TYPE NUTRUNNER SYSTEM

MAIN UNIT

INSTRUCTION MANUAL

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URYU SEISAKU, LTD.

CONTENTS

1 0	UTLINE	4
1.1 1.2 1.3	How to use this instruction manual Summary of functions Instructions for operation	4 4 5
2 S	PECIFICATIONS	6
2.1 2.2	Main specifications System structure layout	6 6
3 P.	ARTS NAMES	7
3.1	Front panel	7
4 IN	ISTALLATION AND WIRING	8
4.1	How to set up	8
4.2	External dimensions and mounting dimensions	8
4.3	Power plug connections	9
4.4	Control box layout	10
4.5	External control interface	11
	4.5.1 Type of external control interfaces	11
	4.5.2 Digital I/O	12
	4.5.2.1 Input signals (PLC 1)	12
	4.5.2.2 Output signals (PLC 2)	13
4.6	Timing chart	15

5	F-	F-TYPE NUTRUNNER SYSTEM USER CONSOLE 16					
	5.1	F-type	nutrunner system user console menu structure	16			
		5.1.1	File operation	18			
		5.1.2.	Multi-unit setting value operation	19			
		5.1.3	Setting operation	20			
		5.1.4	Tightening result display operation	20			
		5.1.5	Display operation	21			
		5.1.6	Security setting operation	21			
		5.1.7	Parameter communication operation	22			
		5.1.8	System setting operation	22			
		5.1.9	Window setting operation	23			

5.2	F-type nutrunner system user console basic operation				
	5.2.1 Initial display on PC screen				
	5.2.2	Syster	m setting screen	25	
	5.2.2	2.1	User console setting	25	
	5.2.2	2.2	Station setting	25	
	5.2.3	Param	neter communication screen	26	
	5.2.3	3.1	Parameter communication screen	26	
	5.2.4	Param	neter setting screen	27	
	5.2.4	4.1	Individual parameter setting screen	27	
	5.2.5	Param	neter communication screen (2) Data writing	30	

1 OUTLINE

1.1 How to use this instruction manual

This instruction manual is explaining system structure, specifications, and the handling etc of F-type nutrunner main unit.

1.2 Summary of functions

This is a fastener tightening system composed of newly developed multi-spindle controller having reinforced communicational functions being able to cope with everyday-evolving future-directive production equipment.

- This does not require complicated ladder circuit of sequencer for multi-spindle control. This has made it possible to do simple tightening sequence input by easy-to-understand command selection without professional knowledge and has contributed to remarkable job site operation time saving. (Time reduction of parameter change and prevention of error manufacture)
- You can make change of tightening parameter, tightening sequence or all settings under Windows 95, 98 or NT environment. (※See below)
- Maximum 31 spindle unit (sub controller and driver) are connected and controlled by high-speed serial communication, which has eliminated I/O wiring and terminal connections of spindle unit to sequencer.
- This can be connected with all sorts of open network when main-unit I/O module is replaced by a corresponding one. Communication with external equipment is made via open network.
- Status of whole system is protected in case of spindle unit power off due to emergency stop circuit. Main unit, energized by single-phase power supply 100V/200V, can take and retain status of whole system even if spindle unit is switched off due to emergency stop circuit.
- ※ Windows: Trade marks of Microsoft U.S.A.

1.3 Instructions for operation

Follow to the following instructions in order to use F-Type nutrunner main unit under the best condition.

Use power cord conforming to specifications for power supply to main unit. Lock connecting part of all connecting cables firmly. Never make common use of ground terminal and high voltage circuit terminal. Make separate connections of these terminals.

Mount main unit in a dust free control box. Avoid main unit mounting in the below-mentioned places where error operation or breakdown can be caused. Use different place for main unit mounting. Or, take counter measures to furnish the dust free control box with compulsory cooling equipment.

- Place where main unit is disposed under direct rays of the Sun or the temperature is out of the specified range of 0-45°C.
- Place where relative humidity is greater than specified range 20-90% or humidity variation is abrupt giving dew.

Never use main unit in the following places. (Ask us if the probability can be expected.)

- Places where you have conductible powders such as iron metal powder, oil-mist, salinity or organic solvent.
- Place where you have corrosive gas or combustible gas.
- Place where you have strong electric field or strong magnetic field.
- Place where main unit receives F-type motors' strong vibration or shock.
- Be careful of static electricity because main unit is composed of many electronic components. Be sure to discharge static electricity of your body by touching a metal object before you touch main unit because an excessive static electricity can be generated at dry air atmosphere.
- When you clean circumference of the main unit, never use kinds of thinner of organic solvent which dissolves the paint coating or penetrating in the main unit inviting breakdown. Use tepid water or alcohol wet clothes for cleaning.

2 SPECIFICATIONS

2.1 Main specifications

Power voltage	Single-phase AC100-200V
Consumption	15W
Condition of operational environment	Mount main unit in the dust free control box. Provide main unit with compulsory cooling equipment or heating equipment in case the environment is out of the following specifications.
Range of operational temperature	0-45°C and no dew
Range of operational humidity	less than 90% and no dew
Condition of storage environment	Temperature: -5~55°C Humidity: less than 90% and no dew
Condition of transportation by boat	Temperature: -5~55°C Humidity: less than 50% and no dew

2.2 System structure layout



3 PARTS NAMES

3.1 Front panel



- Power socket AC100-200V Single-phase
- Input/output connector (The details in the separate table.)
 - PLC1: Input signal connector For control signal input (Fixed allocation)
 - PLC2: Output signal connector For judgment result and status output (Free allocation)
- ③ Serial port (data input connector) RS232C DATA-IN accepts serial numbers etc provided by an external equipment such as barcode reader and outputs tightening data together with serial numbers.
- ④ Serial port (data output connector) RS232C PRINTER outputs tightening result data to printer (free format).
- Serial port (data output connector)
 RS232C PLC outputs tightening result data to PLC (free format).
- 6 Serial port (data output connector)
 RS485 outputs tightening result data to external intensive display unit.
- PC Connector
 RS232C for communication with PC.
- PC-Spindle unit connector
 RS485 for communication PC and spindle unit.
- (9) Manual switches RESET, START, REVERSE and CAL
- ID LED Display POWER, M RUN, OK, NOK and ALARM

4 INSTALLATION AND WIRING

4.1 How to set up

Follow to the below-mentioned instructions when you use F-type nutrunner system.

No.	Item	Instructions
1	Use dust free control box	Give main unit, spindle unit and dust free control box specified intervals.
2	Use cooling or heating equipment.	Have either one equipped as per specifications.
3	Select control unit (input and output signal selection).	Connect necessary signals.
4	Mount main unit and spindle unit.	Mount main unit and spindle unit with specified physical intervals.
5	Power cord connection with power socket	Make connections by accessory connectors.
6	Power supply	Check wiring and connections. Check voltage before switching on.
7	Input all setting values	Make value setting by a PC and input.
8	Initial action confirmation	Make initial action confirmation.

4.2 External dimensions and mounting dimensions

•				
Mounting	1 Mounting slot at upper part (Use M4 screw)			
	2 Deep holes at bottom part (Use M4 screw)			
Weight	1.4kg Main unit heat value 10W			
Handling instructions Give approximately 100mm distance betw				
	unit bottom and dust free control box			



4.3 Power plug connections

Use left bottom power socket to supply main unit with electricity. Use accessory power cord which comes with main unit.



AC100~ AC220V single-phase Not used FG

Suitable plugs

Manufacturer	AMP	
Туре:	D3200S Rise.housing	
Number:	1-178128-4 (keying X)	
Туре:	Rise.contact (crimp type)	
Number:	1-175218-2	

Above comes with 2m cord with connectors



Note) 024, 040 or 120 will be indicated instead of above 0**.

UEC-F024: 60mm UEC-F040: 74mm (with fin inclusive) UEC-F080: 105mm (with fin inclusive)

4.5 External control interface

4.5.1 Type of external control interface

- 1) Digital I/O sink type
- 2) Digital I/O source type (under development)
- 3) Device Net

4)

- InterBus (under development)
- 5) Profibus (under development)



Switching over to an external interface control requires an additional exclusive board and SW1 setting in the following table. <u>SW1 setting is</u> determined and set at the time of shipment from our factory. Be sure not to change setting of SW1.

	SW1-1	SW1-2	SW1-3	SW1-4	Type of interface
1	ON	OFF	OFF	OFF	Digital I/O sink type
2	OFF	ON	OFF	OFF	Digital I/O source type
3	ON	ON	OFF	OFF	Device Net-DT
4	OFF	OFF	ON	OFF	Device Net(E-stop)-DT
5	ON	OFF	ON	OFF	InterBus-DT
7	ON	ON	ON	OFF	ProfiBus-DT
9	ON	OFF	OFF	ON	Device Net-S
11	ON	ON	OFF	ON	InterBus-S
13	ON	OFF	ON	ON	ProfiBus-S

4.5.2.1 Input signals (PLC 1)

NO	Signal names	Connections	Functions		
1	Preparation	NC	Stop signal suspends operation		
2	System reset	NO	Reset main unit to resume initial status		
3	Reverse	NO	Rotate anti-clockwise only while reverse		
4	Stall	NO	Tightening signal lasting 500ms gets this function started.		
5	Start	NO	Start tightening.		
6	Cycle start	NO	Get one operation cycle started.		
7	Cycle count up	NO	Count up signal from internal cycle counter. A 500ms pulse signal will count up 1 cycle.		
8	Cycle count clear	NO	Reset signal from internal cycle counter A 500 ms pulse signal will reset (cancel counted numbers.		
9	Step IN1		This is to restart STEP which was		
~		NO	suspended by STEP OUT signal.		
14	Step IN6				
15	Judgment reset	NO	This is to reset each judgment.		
16	Work select 9-16 change signal	NO	Use this to change work select 9-16.		
17	Work select 1 (9)		This is to change work numbers which		
~	~	NO	has been selected.		
24	Work select 8 (16)				
25	OPTION 1		Assortment of bank select 1-4 does		
~	~	NO	output data bank change over.		
28	OPTION 4				
29	Z/C check	NO	This is to check torque sensor.		
30	Output bank select 1	NO	Output data bank change over		
31	Output bank select 2	NO			
32	Output bank select 4	NO			
33	Input signal power source	NO	Common terminal and +24V		
34	Input signal power source	NO			

Note) NC: Normal close NO: Normal open

Table 4-1Output data bank change over

Output bank 4 Output bank 2		Output bank 1	Output data bank
OFF	OFF	OFF	0
OFF	OFF OFF		1
OFF	ON	OFF	2
OFF	ON	ON	3
•	•	•	•
-	•	•	•
•	•	•	•
ON	ON	ON	7

4.5.2.2 Output signals (PLC 2)

Contents of output signals pin numbers 1-32 are for free format which is for free allocation by customers. The allocation can be made by user console. Main unit comes with data output bank setting 0 whose allocation table is as mentioned below (output data bank 1 to 7 are all free format (pin numbers 1 to 32).

NO	Signal names	Connections	Functions
1	TOTAL NOK	NO	Main unit outputs this signal when tightening result was NOK. This is output also when NOK judgment was provided even for a single spindle.
2	TOTAL OK	NO	Main unit outputs this signal when tightening result was OK. This is output only when OK judgment was provided for all spindles requiring judgment.
3	ALARM	NO	Main unit outputs this signal when system abnormality has been detected.
4	READY	NO	Main unit outputs this signal while operation is ready.
5	M RUN	NO	Main unit outputs this signal while sequencer program is in operation.
6	END	NO	Main unit outputs this signal when an operation cycle has been completed.
7	Z/C CHECK NOK	NO	Main unit outputs this signal when NOK was detected over zero and calibration check.
8	Z/C CHECK OK	NO	Main unit outputs this signal when OK was detected over zero and calibration check.
9 ~ 14	Step OUT1	NO	After a step is over and when jobs except for tightening is required, main unit outputs this signal
15	OPTION 1	NO	
16	Work select 9-16 Change answer	NO	Main unit outputs this signal when work select 9-16 has been changed.
17 ~	Work select 1 (9) answer	NO	Main unit outputs selected work numbers.
24	Work select 8 (16) answer		
25 ~ 32	Not used (free allocation)	NO	Free allocation can be made via users' PC.
33	Output signal power source		Common terminal for output signal. Connect +0V.
34	Output signal power source		Common terminal for output signal. Connect +0V.

Table 4-3 Sequence output select

Sequence 3	Sequence 2	Sequence 1	Sequence 0	Selected sequence number
OFF	OFF	OFF	OFF	1
OFF	OFF	OFF	ON	2
OFF	OFF	ON	OFF	3
OFF	OFF	ON	ON	4
ON	ON	ÓN	ÓN	16

Note Main unit comes with output signal numbers 1 to 6 (TOTAL OK to END) which is determined and fixed allocation from our factory.



Honda
Small multipolar connector
MR-34F+MR-34L (case)
MR-34M+MR-34L (case)

Above comes with soldered connectors.

Input and output hardware



- 14 -

4.6 Timing chart

① Basic control signal

STOP		
READY		
RESET		
START	DFF A	
TIGHTENING OPERATION	tightening	 -< tightening
M RUN		
TOTAL OK		
TOTAL NOK		
ALARM	DFF	
END		
CYCLE COUNT UP		
	DFFA	
	500ms	5(A)

2 Timing of tightening sequence signal and start



5 F-TYPE NUTRUNNER SYSTEM USER CONSOLE

5.1 F-TYPE NUTRUNNER SYSTEM USER CONSOLE MENE STRUCTURE

00 UEC		
<u>File M</u> ulti Set <u>up F</u> astenin <mark>e V</mark> iew	Security Communication Configuration Window	
		🖻 🖪 🗾 🗞 🐯 🧑

File	Load All Files Save All Files
	Open Parameter Save Parameter
	Open Sequence Save Sequence
	Open Communication Format Save Communication Format
	Open PLC Output Layout Save PLC Output Layout
	Print out
	Exit
Multi	Communication Format Clear Communication Format Copy Communication Format Setup
	PLC Output Clear PLC Output Copy PLC Output Setup
	Date/Time/Count
Setup	Tool type setup Calibration Manual Reverse Speed Repeat Mode

F-TYPE NUTRUNNER SYSTEM USER CONSOLE

5.1 F-TYPE NUTRUNNER SYSTEM USER CONSOLE MENE STRUCTURE

UEC									
<u>File M</u> u	ti Set <u>u</u> p	<u>F</u> astening	⊻iew	<u>S</u> ecurity	<u>C</u> ommunication	Configuration	<u>W</u> indow		
			2	5	주 🕜 🕐		L .		S 💥 🔘

Fastening	Fastening Data
	Torque/Current Curve
View	Tool Bar
	Key Pad
	Status Bar
Security	Log On
	Operation History
Communication	Units
Configuration	Software Configuration
	Software Version
Window	Cascade
	Vertical
	Horizontal
	Close All Windows

5.1 1 FILE OPERATION

Select File (F) and below mentioned pull down menus appear.

WEC .	
<u>F</u> ile <u>M</u> ulti Set <u>up</u> <u>F</u> astening <u>}</u>	jew <u>S</u> ecurity <u>C</u> ommunication C <u>o</u> nfiguration <u>W</u> indow
<u>L</u> oad All Files <u>S</u> ave All Files	
Open Parameter Save Parameter	
Open Sequence Save Sequence	
Open Communication Format Save Communication Format	
Open PLC Output Layout Save PLC Output Layout	
<u>P</u> rint Out	
Exit	

File	Load All Files	Read all setting values from file.
	Save All Files	Write all setting values in file.
	Open Parameter	Read parameter value from file.
	Save Parameter	Save parameter in file.
	Open Sequence	Read sequence setting from file.
	Save Sequence	Save sequence setting in file
	Open Communication Format	Read communication format from file
	Save Communication Format	Save communication format in file.
	Open PLC Output Layout	Read sequencer output allocation from file.
	Save PLC Output Layout	Save sequencer output
	Print out	Print data on screen
	Exit	Print data on screen

5.1.2 MULTI SETTING OPERATION

Select MULTI (M) from menu bar and below mentioned pull down menus appear.

UU	C	
<u>F</u> ile	<u>M</u> ulti Set <u>up</u> <u>F</u> astening <u>V</u> iew	Security Communication Configuration Window
	Communication Format Clear Communication Format Copy Communication Format Setup	
	PLC Output Layout Clear PLC Output Layout Copy PLC Output Layout Setup	
	Date/Time/Count	

Multi	Communication Format Clear	Delete communication format.		
	Communication Format Copy	Copy communication format.		
	Communication Format Setup	Edit communication format		
	PLC Output Clear	Delete sequencer output allocation		
	PLC Output Copy	Copy sequencer output allocation.		
	PLC Output Setup	Edit sequencer output allocation.		
	Date/Time/Count	Set date, time and cycle count.		

5.1.3 SETUP OPERATION

Select Setup (S) from menu bar and below mentioned pull down menus appear.

00U	EC								
<u>F</u> ile	<u>M</u> ulti	Set <u>u</u> p	<u>F</u> astening	⊻iew	Security	<u>Communication</u>	Configuration	<u>W</u> indow	
		<u>T</u> oo <u>C</u> alii <u>M</u> an <u>R</u> ep	l type setup bration ual Reverse eat	Speed	5	옥 🕜 🔮		î.] 🛆	
		Mod	e						

Setup	Tool type setup	Select tools
	Calibration	Set CAL value
	Manual Reverse Speed	Set reverse speed.
	Repeat	Set number of repetition.
	Mode	Set step mode.

5.1.4 FASTENING RESULT DISPLAY OPERATION

Select Fastening (F) from menu bar and below mentioned pull down menus appear.

UEC	
<u>File Multi Setup Fastening View Security</u>	Communication Configuration Window
Eastening Data Torque/Current <u>O</u> urve	È @ ⊘ ﷺ \$ [t,] _ ⊡ ⊑ ⊻ % ≫ (@

Fastening	Fastening Data	Displays tightening result.
	Torque/Current Curve	Displays torque or current
		curve.

5.1.5 VIEW OPERATION

Select View (V) from menu bar and below mentioned pull down menus appear.

MUEC .	
<u>File Multi Setup Fastening View Security Communication</u>	Configuration <u>W</u> indow
Key Pad	

View	Tool Bar	Set tool bar size.
	Key Pad	Set key pad size.
	Status Bar	Select display or not of status
		bar display.

5.1.6 SECURITY SETTING OPERATION

Select Security (S) from menu bar and below mentioned pull down menus appear.

WUEC		
<u>File M</u> ulti Set <u>up F</u> astening <u>V</u> iew	Security Communication Configuration Window	
	Log On Operation History	

Security	Log On	Input password.			
	Operation History	Displays value adju	history Istment.	of	setting

5.1.7 PARAMETER COMMUNICATION OPERATION

Select Communication (C) from menu bar and below mentioned pull down menus appear.



Communication	Units	Communicates with main unit.
---------------	-------	------------------------------

5.1.8 Configuration SETTING OPERATION

Select Configuration (O) from menu bar and below mentioned pull down menus appear.

WUEC				
<u>File M</u> ulti Set <u>u</u> p	<u>F</u> astening <u>V</u> iew	Security Communication	Configuration <u>W</u> indow	
		<u> 3</u> 주 🕜 📀	Software <u>C</u> onfiguration Software <u>V</u> ersion	

Configuration	Software Configuration	Input versior	password า	and	soft
	Software Version	will ap	pear.		

5.1.9 WINDOW SETTING OPERATION

Select Window (W) from menu bar and below mentioned pull down menus appear.



Window	Cascade	Displays all in the piled up
		Dianlova all in the vertical
	Vertical	Displays all in the vertical
		order.
	Horizontal	Displays all in the horizontal
		order.
	Close All Windows	Close all windows.

5.2 F-TYPE NUTRUNNER SYSTEM USERS' CONSOLE BASIC OPERATION

[Basic operation of users' PC]

- ① Start windows and get F-Type nutrunner system users' console started.
- ② Initial display appears on PC screen.
 - 2-1. See initial display screen.
- 3 Confirm connections users' console, main unit and spindle unit.
 - 2-2. See system setting screen.
- ④ Read setting data available with main unit and spindle unit.
 - 2-3. Use READ of parameter communication screen (1).
- ⑤ Check individual parameter setting.
 Edit individual parameter on this screen.
 2-4. See parameter screen.
- 6 Transmit as above edited parameter to main unit or to spindle unit.
 - 2-5. See TRANSMIT communication screen of parameter (2)
- O Verify and edit other setting values.

Read F-Type nutrunner system user console for the details.

5.2.1 INITIAL DISPLAY SCREEN

Connect F-type main unit controller and PC by a PC cable. Click an icon of F-type nutrunner system user console and the following screen will appear.



5.2.2 CONFIGURATION SETTING SCREEN

Select Configuration (O) from menu bar and below mentioned display will appear.

- 5.2.2.1 User console setting
- ① Communication port setting

Make communication port setting F-type nutrunner unit and PC.

Click items that you are going set.

I UEC				
<u>File M</u> ulti Set <u>up</u> <u>F</u> astening <u>V</u> iew <u>S</u> ecurity	<u>C</u> ommunication	C <u>o</u> nfiguration	<u>W</u> indow	
			1 . 🗠 📼	🖪 🗾 🍾 🐯 🔞
CONFIGURATIO	DN			
	STATION]			
COMMUNICATIO	N PORT			Ť
	C COM 2	C COM 3	C COM 4	
C COM 5	C COM 6	C COM 7	C COM 8	
COMML	INICATION SPEED	38400	•	
	1	1		
	ок	CAN)EL	
			-	

5.2.2.2 Station setting

Select STATION and below mentioned display will appear.

1 Names of stations

Name and input station name of F-type nutrunner. (Station name can be omitted.)

👜 UEC
<u>File M</u> ulti Set <u>up</u> Fastening <u>V</u> iew <u>S</u> ecurity <u>C</u> ommunication C <u>o</u> nfiguration <u>W</u> indow
CONFIGURATION
USER CONSOLE STATION
STATION NAME
OK CANCEL

5.2.3 COMMUNICATION SCREEN OF PARAMETER

This is to have a screen that you will read setting data of main unit and spindle unit. Select Configuration (O) [SPINDLE UNIT] and below mentioned display will appear.

5.2.3.1 Parameter communication screen

① Search spindle unit

Click SPINDLE SEARCH and the connected spindles will be checked.

- ② Check READ items you are going to read Select READ of setting value.
- ③ Read Spindle data and Main unit data Click READ and values of spindle unit and main unit will be displayed on PC screen.

UEC File Multi Setun	Fastening	View Se	curity Co	mmunicatio	in Configur	ation Wir	ndow		
		2 2	<u>う</u> 季						\$ 80
S	ETUP CO		САПОN						
	MAIN UN	IT							n
	☐ MOD	e set				JNICATION	FORMAT S	SET	
		eat set			PLC IN	put outp	ut signal	SET	
	AXIS UNI	т							
	☑ 1	▼ 5	9	1 3	□ 17	21	□ 25	29	
	₽ 2	□ 6	ll 10	l 14	la 18	□ 22	□ 26	1 30	
	☑ 3	Γ7	[] 11	l 15	1 9	23	□ 27	□ 31	
	☑ 4	8	l 12	1 6	□ 20	□ 24	□ 28		
				6			3		
	SEAR	CH	UPLOAD	D	OWNLOAD	VE	RIFY	CLOSE	
								12	
	17.								_
	14								

5.2.4 PARAMETER SETUP SCREEN

This screen is to verify or edit tightening parameter value. Select Setup (S) and below mentioned parameter display will appear.

5.2.4.1 Parameter setup screen

Verify or edit parameter what has been already set.

(1) Tool type setup screen

Verify or edit tool type what has been already set.

UEC			_ O ×
ile <u>M</u> ulti Set <u>u</u> p <u>F</u> astening <u>V</u> iew	Security Communication Configuration	n <u>W</u> indow	
<u> </u>	NS 2 2 2 2		1 % 🐼 ወ
TOOL TYPE SE	TUP		_ 🗆 🗙
SPINDLE NUMBER	TOOL TYPE		A
1	UNR-F050-1400NT	147.1	
2	UNR-F050-1400NT	147.1	
3	UNR-F050-1400NT	147.1	
4	UNR-F050-1400NT	147.1	
5	UNR-F050-1400NT	147.1	
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
Right click or de	press the ENTER key		

(2) CAL value setup screen

Verify CAL value of connected tool or edit it.

Ø	UEC										_ 🗆 ×
Ei	le <u>M</u> ulti S	et <u>u</u> p <u>F</u> aste	n ing <u>V</u> iew	<u>S</u> ecurity <u>(</u>	<u>C</u> ommunicatio	on C <u>o</u> nfigur	ation <u>W</u> ind	ow			
	CALIBRATION										
	SPINDLE					WORK					
	NUMBER	1	2	3	4	5	6	7	8	9	
	1	147.1	147.1	147.1	147.1	147.1	147.1	147.1	147.1	147.1	
	2	147.1	147.1	147.1	147.1	147.1	147.1	147.1	147.1	147.1	
	3	147.1	147.1	147.1	147.1	147.1	147.1	147.1	147.1	147.1	
	4	147.1	147.1	147.1	147.1	147.1	147.1	147.1	147.1	147.1	
	5	147.1	147.1	147.1	147.1	147.1	147.1	147.1	147.1	147.1	
	•									•	

(3) Manual reversing speed setup screen

Verify pre-set manual reversing speed or edit it.

UEC										_ 0		
<u>F</u> ile <u>M</u> ulti Se	t <u>u</u> p <u>F</u> aster	ning <u>V</u> iew	<u>S</u> ecurity <u>C</u>	ommunicatio	n C <u>o</u> nfigura	ation <u>W</u> indo	i₩					
	I	R Q	े वि						8			
MANUAL REVERSE SPEED												
SPINDLE	SPINDLE WORK											
NUMBER	1	2	3	4	5	6	7	8	9			
1	100	100	100	100	100	100	100	100	100			
2	100	100	100	100	100	100	100	100	100			
3	100	100	100	100	100	100	100	100	100			
4	100	100	100	100	100	100	100	100	100			
5	100	100	100	100	100	100	100	100	100			
										•		

(4) Tightening repetition setup screen

Verify pre-set tightening repetition or edit it.



(5) MODE setting screen

Verify pre-set tightening sequence or edit it.

UEC					- 0 >
<u>F</u> ile <u>M</u> ulti Set <u>up</u> <u>F</u> astening <u>V</u> iew <u>S</u> ecurity	<u>C</u> ommunication C <u>o</u>	nfiguration <u>W</u> indov	Ŷ		
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MODE 1 SPINDLE NUMBER MEMO	1 SETUP METHO	D	▼ TARG	et torque	X
SETUP ITEM	STEP 1	STEP 2	STEP 3	STEP 4	
ACTION	ON	SYNC	ON	LAST	
FASTENING DIRECTION	CW		CW	CW	
MOTOR TORQUE (Nm)	999.9		999.9	999.9	
INITIAL SPEED (rpm)	100		100	100	
CONTROL METHOD	TORQUE		TORQUE	TORQUE	
TORQUE CUT LIMIT (Nm)	999.9		999.9	999.9	
SNUG TORQUE (Nm)	15.0		15.0	15.0	
CUT TORQUE (Nm)	20.0		20.0	20.0	
TORQUE JUDGMENT	OFF		OFF	OFF	
PEAK TORQUE HIGH LIMIT (Nm)					
PEAK TORQUE LOW LIMIT (Nm)					
FINAL TORQUE HIGH LIMIT (Nm)					
SNUG TORQUE JUDGMENT					
SNUG TORQUE HIGH LIMIT (Nm)					
SNUG TORQUE LOW LIMIT (Nm)					
CUT ANGLE (deg)					
ANGLE JUDGMENT	OFF		OFF	OFF	
ANGLE HIGH LIMIT (deg)					
ANGLE LOW LIMIT (deg)					
PRESS HIGH LIMIT (Nm)					
PRESS RATIO	1				
				►	11.

5.2.5. PARAMETER COMMUNICATION SCREEN (2) [DATA WRITING]

Transmit (write) setting data to spindle unit and main unit.

Select Communication (C) [SPINDLE UNIT] from menu bar and below mentioned display will appear. This is the same as PARAMETER Communication SCREEN (1) [DATA READING].

TRANSMISSION (WRITING)

- Search spindle unit Click SPINDLE SEARCH and the connected spindles will be detected.
- ② Check items to write Select setting value items that you are going to write.
- ③ Write tightening setting of spindle unit and main unit Click TRANSMIT and your PC will transmit setting value to spindle unit and main unit.
 - ※ In case that you transmit parameter setting values, be sure to select SPINDLE CUT at the time of download, or do the transmission after selecting SPINDLE CUT by individual spindle's manual SPINDLE CUT switch.

UEC File Multi Setup	<u>F</u> astening	<u>V</u> iew <u>S</u> a	ecurity <u>C</u> o	mmunicatio	n C <u>o</u> nfigur	ation Wir	ndow		
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