

DRAFT

The comparison between the functions of L02CPU and the supported functions of the FR-A800 PLC CPU is shown below.

*The below items with an ‘ - ’ are items that are not supported with the FR-A800 PLC function. (It will not work even with setting the parameters, etc. for the L02CPU).

✓ : Supported - : Not supported

Function Name	Description	FR-A800 PLC function	L02CPU (for reference)
Error clear	Clears continuation errors by error type. User can specify continuation errors to clear.	-	✓
LED control function	Sets the timing to turn off and indication of the LEDs located on the front of the CPU module.	-	✓
Unit error history collection function	Allows collecting errors with the intelligent function module that occurred inside the CPU	-	✓
Latch data backup to standard ROM	Backs up latch data such as device data and error history without using a battery.	-	✓
Writing/reading device data to/from standard ROM	Writes/reads device data to/from the standard ROM using an instruction.	-	✓
Module model name read	Reads the model name of a module connected.	-	✓
CPU module change function with SD memory card	Saves the data in a CPU module to an SD memory card when changing the CPU module.	-	✓
Clock function	Controls the clock data of the CPU module.	✓	✓
Battery-life prolonging function	Prolongs a battery life by limiting the data to be latched to clock data only.	-	✓
Memory check function	Checks whether data in the memories of the CPU module are not changed due to excessive electric noise.	-	✓
Program cache memory auto recovery function	Restores the error location automatically by using data in the program memory, which are stored in the flash ROM, when the memory check function detects an error in the program cache memory.	-	✓
Project data batch save/load function	Saves data in the CPU module to an SD memory card, and also reads the data saved in an SD memory card to the CPU module.	-	✓
Built-in I/O function	Performs the following dedicated functions: general-purpose input function, general-purpose output function, interrupt input function, pulse catch function, positioning function, and high-speed counter function.	*	✓
Built-in Ethernet function	Allows data communications using the MC protocol, and performs the socket communication function, the file transfer function (FTP server), and the simple PLC communication function through built-in Ethernet ports.	-	✓
Built-in CC-Link function	Allows data communications over CC-Link.	-	✓
Priority Setting	Sets the LED to indication execution / non-execution that corresponds to each priority when an errors occurs.	-	✓
Interrupt from the intelligent function unit	Allows interrupting a program, by an interrupt request from the intelligent function module.	-	✓
Serial communication function	Allows a PC / display, etc. to connect with the RS-232 interface of the CPU unit by a RS-232 cable, and while performing communication by MC protocol.	-	✓

* Regarding Analog input and output, and pulse train input, it is possible to use the only the inverter functions from the PLC function.

DRAFT

Supported PLC function Instruction comparison table

The instructions for the A800 / C500 / F700-NA / A700 that are supported are shown in the table below.

✓ : Supported - : Not supported

Command Name		A800 PLC function	L02CPU (for reference)	A0J2H equivalent		A0J2H (for reference)
				F700-NA	A700	
Basic commands	Contact	LD	✓	✓	✓	✓
		LDI	✓	✓	✓	✓
		AND	✓	✓	✓	✓
		ANI	✓	✓	✓	✓
		OR	✓	✓	✓	✓
		ORI	✓	✓	✓	✓
	Union	ANB	✓	✓	✓	✓
		ORB	✓	✓	✓	✓
		MPS	✓	✓	✓	✓
		MRD	✓	✓	✓	✓
		MPP	✓	✓	✓	✓
	Output	OUT	✓	✓	✓	✓
		SET	✓	✓	✓	✓
		RST	✓	✓	✓	✓
		PLS	✓	✓	✓	✓
		PLF	✓	✓	✓	✓
	Shift	SFT	✓	✓	✓	✓
		SFTP	✓	✓	✓	✓
	Master controller	MC	✓	✓	✓	✓
		MCR	✓	✓	✓	✓
	Finish	END	✓	✓	✓	✓
	No operation	NOP	✓	✓	✓	✓
		NOPLF	✓	✓	✓	✓

DRAFT

Command Name		A800 PLC function	L02CPU (for reference)	A0J2H equivalent		A0J2H (for reference)	
				F700-NA	A700		
Application commands	16 bit comparison	LD=	✓	✓	✓	✓	
		AND=	✓	✓	✓	✓	
		OR=	✓	✓	✓	✓	
		LD<>	✓	✓	✓	✓	
		AND<>	✓	✓	✓	✓	
		OR<>	✓	✓	✓	✓	
		LD>	✓	✓	✓	✓	
		AND>	✓	✓	✓	✓	
		OR>	✓	✓	✓	✓	
		LD<=	✓	✓	✓	✓	
		AND<=	✓	✓	✓	✓	
		OR<=	✓	✓	✓	✓	
		LD<	✓	✓	✓	✓	
		AND<	✓	✓	✓	✓	
		OR<	✓	✓	✓	✓	
		LD>=	✓	✓	✓	✓	
		AND>=	✓	✓	✓	✓	
		OR>=	✓	✓	✓	✓	
	32 bit comparison	LDD=	✓	✓	✓	-	✓
		ANDD=	✓	✓	✓	-	✓
		ORD=	✓	✓	✓	-	✓
		LDD<>	✓	✓	✓	-	✓
		ANDD<>	✓	✓	✓	-	✓
		ORD<>	✓	✓	✓	-	✓
		LDD>	✓	✓	✓	-	✓
		ANDD>	✓	✓	✓	-	✓
		ORD>	✓	✓	✓	-	✓
		LDD<=	✓	✓	✓	-	✓
		ANDD<=	✓	✓	✓	-	✓
		ORD<=	✓	✓	✓	-	✓
		LDD<	✓	✓	✓	-	✓
		ANDD<	✓	✓	✓	-	✓
		ORD<	✓	✓	✓	-	✓
		LDD>=	✓	✓	✓	-	✓
ANDD>=	✓	✓	✓	-	✓		
ORD>=	✓	✓	✓	-	✓		

DRAFT

Command Name		A800 PLC function	L02CPU (for reference)	A0J2H equivalent		A0J2H (for reference)		
				F700-NA	A700			
Arithmetic operation commands	16-bit addition and subtract ion	+ 2 Device	✓	✓	✓	✓	✓	
		+P 2 Device	✓	✓	✓	✓	✓	
		+ 3 Device	✓	✓	✓	✓	✓	
		+P 3 Device	✓	✓	✓	✓	✓	
		− 2 Device	✓	✓	✓	✓	✓	
		−P 2 Device	✓	✓	✓	✓	✓	
		− 3 Device	✓	✓	✓	✓	✓	
		−P 3 Device	✓	✓	✓	✓	✓	
	32-bit addition and subtract ion	D+ 2 Device	✓	✓	✓	-	✓	✓
		D+P 2 Device	✓	✓	✓	-	✓	✓
		D+ 3 Device	✓	✓	✓	-	✓	✓
		D+P 3 Device	✓	✓	✓	-	✓	✓
		D− 2 Device	✓	✓	✓	-	✓	✓
		D−P 2 Device	✓	✓	✓	-	✓	✓
		D− 3 Device	✓	✓	✓	-	✓	✓
		D−P 3 Device	✓	✓	✓	-	✓	✓
	16-bit multiplic ation and division	*	✓	✓	✓	✓	✓	✓
		* P	✓	✓	✓	✓	✓	✓
		/	✓	✓	✓	✓	✓	✓
		/P	✓	✓	✓	✓	✓	✓
	32-bit multiplic ation and division	D*	✓	✓	✓	-	✓	✓
		D* P	✓	✓	✓	-	✓	✓
		D/	✓	✓	✓	-	✓	✓
		D/P	✓	✓	✓	-	✓	✓
	Data increme nt	INC	✓	✓	-	-	✓	✓
		INCP	✓	✓	-	-	✓	✓
		DINC	✓	✓	-	-	✓	✓
		DINCP	✓	✓	-	-	✓	✓
Data decrem ent	DEC	✓	✓	-	-	✓	✓	
	DECP	✓	✓	-	-	✓	✓	
	DDEC	✓	✓	-	-	✓	✓	
	DDECP	✓	✓	-	-	✓	✓	
Transfer commands	16-bit transfer	MOV	✓	✓	✓	✓	✓	
		MOVP	✓	✓	✓	✓	✓	
	32-bit transfer	DMOV	✓	✓	✓	-	✓	✓
		DMOV P	✓	✓	✓	-	✓	✓
Data conversion command	BCD Convers ion	BCD	✓	✓	-	-	✓	
		BCDP	✓	✓	-	-	✓	
		DBCD	✓	✓	-	-	✓	
		DBCDP	✓	✓	-	-	✓	
	BIN Convers ion	BIN	✓	✓	-	-	✓	
		BINP	✓	✓	-	-	✓	
		DBIN	✓	✓	-	-	✓	
		DBINP	✓	✓	-	-	✓	

DRAFT

Command Name		A800 PLC function	L02CPU (for reference)	A0J2H equivalent		A0J2H (for reference)	
				F700-NA	A700		
Logic Command	Logic product	WAND 2 Device	✓	✓	✓	✓	✓
		WANDP 2 Device	✓	✓	✓	✓	✓
		WAND 3 Device	✓	✓	✓	✓	✓
		WANDP 3 Device	✓	✓	✓	✓	✓
		DAND 2 Device	✓	✓	-	-	✓
		DANDP 2 Device	✓	✓	-	-	✓
		DAND 3 Device	✓	✓	-	-	✓
		DANDP 3 Device	✓	✓	-	-	✓
	Logic Sum	WOR 2 Device	✓	✓	✓	✓	✓
		WORP 2 Device	✓	✓	✓	✓	✓
		WOR 3 Device	✓	✓	✓	✓	✓
		WORP 3 Device	✓	✓	✓	✓	✓
		DOR 2 Device	✓	✓	-	-	✓
		DORP 2 Device	✓	✓	-	-	✓
		DOR 3 Device	✓	✓	-	-	✓
		DORP 3 Device	✓	✓	-	-	✓
	Exclusive OR	WXOR 2 Device	✓	✓	✓	✓	✓
		WXORP 2 Device	✓	✓	✓	✓	✓
		WXOR 3 Device	✓	✓	✓	✓	✓
		WXORP 3 Device	✓	✓	✓	✓	✓
		DXOR 2 Device	✓	✓	-	-	✓
		DXORP 2 Device	✓	✓	-	-	✓
		DXOR 3 Device	✓	✓	-	-	✓
		DXORP 3 Device	✓	✓	-	-	✓
	Exclusive NOR	WXNR 2 Device	✓	✓	✓	✓	✓
		WXNRP 2 Device	✓	✓	✓	✓	✓
		WXNR 3 Device	✓	✓	✓	✓	✓
		WXNRP 3 Device	✓	✓	✓	✓	✓

DRAFT

		Device					
		DXNR 2 Device	✓	✓	-	-	✓
		DXNRP 2 Device	✓	✓	-	-	✓
		DXNR 3 Device	✓	✓	-	-	✓
		DXNRP 3 Device	✓	✓	-	-	✓
	Two's complement	NEG	✓	✓	✓	✓	✓
		NEGP	✓	✓	✓	✓	✓
		DNEG	✓	✓	-	-	✓
		DNEGP	✓	✓	-	-	✓

DRAFT

Command Name		A800 PLC function	L02CPU (for reference)	A0J2H equivalent		A0J2H (for reference)
				F700-NA	A700	
Application commands	String transfer	ASC	-	✓	✓	✓
	String output	PR *1 *3	-	-	✓	✓
	No operation	PAGE *2	✓	✓	-	-
	String transfer	\$MOV *2	✓	✓	-	-
		\$MOVP *2	✓	✓	-	-
	String output	G.PRR *1 *2	✓	✓	-	-
GP.PRR *1 *2		✓	✓	-	-	

* 1: The command name for the Q00UJ and A0J2HCPU is the same, but the command operation contents are different.

* 2: is a command not originally available on the A series CPU.

* 3: Because the PR command was not available on the L02CPU, in the FR-A800 sequence function **B** is unavailable. (When creating a PLC program, **B** cannot be entered.)