

E91 Modbus Protocol

Protocol in E91	2
1. Warning item	2
2. Capability setting (look for Application example 1)	3
3. Support Capability list	4
4. Control item (look for Application example 2)	4
5. The result of control	5
6. Setting Parameter to default value	5
7. UPS working status	5
8. UPS battery information (sys or rack info inquiry addr)	6
9. The temperature inquiry	7
10. The three phase load inquiry	7
11. Load level inquiry	7
12. The bypass three phase info	8
14. UPS working Mode	8
15. UPS fault information	8
16. Loss point	8
19. Setting Parameter succeed or fail	8
20. Remote shutdown and test	9
21. CPU information	9
22. UPS model and rating information	9
Note	10
1. Note1	10
2. Note2	10
3. Note3	11
Application example	13
1. Audible alarm Enable or Disable	13
2. Setting buzzer beeps Silent	13
3. Setting control parameter to default value	13
4. Get input voltage	13
5. Output socket status	13
6. Remote shut down the UPS	14
7. Shut down UPS and auto restart later	14
8. Setting Parameter item	14

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Protocol in E91

1. Warning item

Hex	Dec	Size	Content	Bit value	type
0x0000	0	bit15	Battery open	0:FALSE/1:TRUE	Read only
		bit14	IP N loss	0:FALSE/1:TRUE	Read only
		bit13	IP site fail	0:FALSE/1:TRUE	Read only
		bit12	Line phase error	0:FALSE/1:TRUE	Read only
		bit11	Bypass phase error	0:FALSE/1:TRUE	Read only
		bit10	Bypass frequency unstable	0:FALSE/1:TRUE	Read only
		bit9	Battery over charge	0:FALSE/1:TRUE	Read only
		bit8	Battery low	0:FALSE/1:TRUE	Read only
		bit7	Overload warning	0:FALSE/1:TRUE	Read only
		bit6	Fan lock warning	0:FALSE/1:TRUE	Read only
		bit5	EPO active	0:FALSE/1:TRUE	Read only
		bit4	Turn on abnormal	0:FALSE/1:TRUE	Read only
		bit3	Over temperature	0:FALSE/1:TRUE	Read only
		bit2	CHGFail	0:FALSE/1:TRUE	Read only
		bit1	Remote shut down	0:FALSE/1:TRUE	Read only
0x0001	1	bit0	L1 IP fuse fail	0:FALSE/1:TRUE	Read only
		bit15	L2 IP fuse fail	0:FALSE/1:TRUE	Read only
		bit14	L3 IP fuse fail	0:FALSE/1:TRUE	Read only
		bit13	L1 PFC positive error	0:FALSE/1:TRUE	Read only
		bit12	L1 PFC negative error	0:FALSE/1:TRUE	Read only
		bit11	L2 PFC positive error	0:FALSE/1:TRUE	Read only
		bit10	L2 PFC negative error	0:FALSE/1:TRUE	Read only
		bit9	L3 PFC positive error	0:FALSE/1:TRUE	Read only
		bit8	L3 PFC negative error	0:FALSE/1:TRUE	Read only
		bit7	CAN communication error	0:FALSE/1:TRUE	Read only
		bit6	Synchronization line error	0:FALSE/1:TRUE	Read only
		bit5	Synchronization pulse error	0:FALSE/1:TRUE	Read only
		bit4	Host line error	0:FALSE/1:TRUE	Read only
		bit3	Male connection error	0:FALSE/1:TRUE	Read only
		bit2	Female connection error	0:FALSE/1:TRUE	Read only
				bit1	Parallel line connection error
		bit0	Battery connect different	0:FALSE/1:TRUE	Read only
		bit15	Line connect different	0:FALSE/1:TRUE	Read only

		bit14	Bypass connect different	0:FALSE/1:TRUE	Read only
		bit13	Mode type different	0:FALSE/1:TRUE	Read only
0x0002	2	bit12	Parallel inverter voltage setting different	0:FALSE/1:TRUE	Read only
		bit11	Parallel output frequency setting different	0:FALSE/1:TRUE	Read only
		bit10	Battery cell over charge	0:FALSE/1:TRUE	Read only
		bit9	Parallel output parallel setting different	0:FALSE/1:TRUE	Read only
		bit8	Parallel output phase setting different	0:FALSE/1:TRUE	Read only
		bit7	Parallel Bypass Forbidden setting different	0:FALSE/1:TRUE	Read only
		bit6	Parallel Converter Enable setting different	0:FALSE/1:TRUE	Read only
		bit5	Parallel Bypass Freq High loss setting different	0:FALSE/1:TRUE	Read only
		bit4	Parallel Bypass Freq Low loss setting different	0:FALSE/1:TRUE	Read only
		bit3	Parallel Bypass Volt High loss setting different	0:FALSE/1:TRUE	Read only
		bit2	Parallel Bypass Volt Low Loss setting different	0:FALSE/1:TRUE	Read only
		bit1	Parallel Line Freq High Loss setting different	0:FALSE/1:TRUE	Read only
		bit0	Parallel Line Freq Low Loss setting different	0:FALSE/1:TRUE	Read only
				bit15	Parallel Line Volt High Loss setting different
0x0003	3	bit14	Parallel Line Volt Low Loss setting different	0:FALSE/1:TRUE	Read only
		bit13	Locked in bypass after overload 3 times in 30min	0:FALSE/1:TRUE	Read only
		bit12	Warning for three-phase AC input current unbalance	0:FALSE/1:TRUE	Read only
		bit11	Battery Phase loss	0:FALSE/1:TRUE	Read only
		bit10	Inverter current unbalance	0:FALSE/1:TRUE	Read only
		bit9	P1 cut off pre-alarm	0:FALSE/1:TRUE	Read only
		bit8	Warning for Battery replace	0:FALSE/1:TRUE	Read only
		bit7	Warning for input phase error	0:FALSE/1:TRUE	Read only
		bit6	Cover of maintain switch is open	0:FALSE/1:TRUE	Read only
		bit5	Phase Auto Adapt Failed	0:FALSE/1:TRUE	Read only
		bit4	Utility extremely unbalanced	0:FALSE/1:TRUE	Read only
		bit3	Bypass unstable	0:FALSE/1:TRUE	Read only
		bit2	Parallel protect warning	0:FALSE/1:TRUE	Read only
		bit1	Discharger overly	0:FALSE/1:TRUE	Read only
bit0	Battery too high	0:FALSE/1:TRUE	Read only		
0x0004	4	bit15	Battery too low	0:FALSE/1:TRUE	Read only
		bit14	Battery Volt High	0:FALSE/1:TRUE	Read only
		bit13	Battery Volt Unbalance	0:FALSE/1:TRUE	Read only
		bit12	CHG Short	0:FALSE/1:TRUE	Read only

2. Capability setting (look for Application example 1)

Hex	Dec	Size	Content	Bit value	Register value	type
		bit15	Enable/disable audible alarm	0:FALSE/1:TRUE	E:8000/D:7FFF	Read/Write

0x0006	6	bit14	Enable/disable battery mode audible warning	0:FALSE/1:TRUE	E:4000/D:BFFF	Read/Write
		bit13	Enable/disable battery open status check	0:FALSE/1:TRUE	E:2000/D:DFFF	Read/Write
		bit12	Enable/disable high efficiency mode (ECO mode)	0:FALSE/1:TRUE	E:1000/D:EFFF	Read/Write
		bit11	Enable/disable bypass forbidden	0:FALSE/1:TRUE	E:800/D:F7FF	Read/Write
		bit10	Enable/disable inverter short clear function	0:FALSE/1:TRUE	E:400/D:FBFF	Read/Write
		bit9	Enable/disable bypass when UPS turn off. (bps enable/disable)	0:FALSE/1:TRUE	E:200/D:FDFF	Read/Write
		bit8	Enable/disable bypass audible warning	0:FALSE/1:TRUE	E:100/D:FEFF	Read/Write
		bit7	Enable/disable auto-restart	0:FALSE/1:TRUE	E:80/D:FF7F	Read/Write
		bit6	Enable/disable battery deep discharge protect	0:FALSE/1:TRUE	E:40/D:FFBF	Read/Write
		bit5	Enable/disable battery low protect (if disable, the battery will discharge to 6V)	0:FALSE/1:TRUE	E:20/D:FFDF	Read/Write
		bit4	Enable/disable converter mode	0:FALSE/1:TRUE	E:10/D:FFEF	Read/Write
		bit3	Enable/disable period battery test	0:FALSE/1:TRUE	E:8/D:FFF7	Read/Write
		bit2		0:FALSE/1:TRUE	E:4/D:FFFB	Read/Write
		bit1	Enable/disable battery test stop by time	0:FALSE/1:TRUE	E:2/D:FFFD	Read/Write
bit0	Enable/disable battery test stop by voltage		E:1/D:FFFE	Read/Write		
0x0007	7	bit15	Enable/disable frequency auto detection	0:FALSE/1:TRUE	E:8000/D:7FFF	Read/Write
		bit14	Enable/disable auto battery test function	0:FALSE/1:TRUE	E:4000/D:BFFF	Read/Write
		bit13	Enable/disable warning mute	0:FALSE/1:TRUE	E:2000/D:DFFF	Read/Write
		bit12	Enable/disable fault mute	0:FALSE/1:TRUE	E:1000/D:EFFF	Read/Write
		bit11	Enable/disable all mode mute	0:FALSE/1:TRUE	E:0800/D:F7FF	Read/Write
			bit0 - bit10 =Reservation			

3. Support Capability list

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4. Control item (look for Application example 2)

Hex	Dec	Size	Content	Bit value	Register value	Type
0x001A	26	bit15	bit15=Silence buzzer beep	0:FALSE/1:TRUE	Y:8000/N:7FFF	Read/Write

	bit14	bit14=buzzer beep open	0:FALSE/1:TRUE	Y:4000/N:BFFF	Read/Write
	bit13	bit13=Test until battery low	0:FALSE/1:TRUE	Y:2000/N:DFFF	Read/Write
	bit12	bit12=Remote turn off UPS	0:FALSE/1:TRUE	Y:1000/N:EFFF	Read/Write
	bit11	bit11=Remote turn on UPS	0:FALSE/1:TRUE	Y:800/N:F7FF	Read/Write
	bit10	bit10=Cancel shutdown	0:FALSE/1:TRUE	Y:400/N:FBFF	Read/Write
	bit9	bit9=Cancel test	0:FALSE/1:TRUE	Y:200/N:FDFF	Read/Write
	bit8	bit8=10 seconds test	0:FALSE/1:TRUE	Y:100/N:FEFF	Read/Write
	bit7	bit7= Reservation			
	bit6	bit6 = Reservation			
	bit5	bit5= Reservation			
	bit4	bit4 = Reservation			
		b3-b0 = Reservation			

5. The result of control

Hex	Dec	Size	Content	Bit value	Type
0x0025	37	bit15	bit15=Flag:Silence buzzer beep	0:FAIL/1:SUCCESS	Read only
		bit14	bit14=Flag:buzzer beep open	0:FAIL/1:SUCCESS	Read only
		bit13	bit13=Flag:Test until battery low	0:FAIL/1:SUCCESS	Read only
		bit12	bit12=Flag:Remote turn off UPS	0:FAIL/1:SUCCESS	Read only
		bit11	bit11=Flag:Remote turn on UPS	0:FAIL/1:SUCCESS	Read only
		bit10	bit10=Flag:Cancel shutdown	0:FAIL/1:SUCCESS	Read only
		bit9	bit9=Flag:Cancel test	0:FAIL/1:SUCCESS	Read only
		bit8	bit8=Flag:10 seconds test	0:FAIL/1:SUCCESS	Read only
		bit7	bit7= Reservation	0:FAIL/1:SUCCESS	Read only
		bit6	bit6 = Reservation	0:FAIL/1:SUCCESS	Read only
		bit5	bit5= Reservation	0:FAIL/1:SUCCESS	Read only
		bit4	bit4 = Reservation	0:FAIL/1:SUCCESS	Read only
		b3-b0 = Reservation	0:FAIL/2:SUCCESS	Read only	

6. Setting Parameter to default value

Hex	Dec	Size	Content	Bit value	Type
0x0030	48	bit15	bit15=Setting control parameter to default value	0:FAIL/1:SUCCESS	Read/Write
			b14-b0 = Reservation		
0x003B	59	bit15	bit15=Flag:Setting control parameter to default value	0:FAIL/1:SUCCESS	Read
			b14-b0 = Reservation		

7. UPS working status

Hex	Dec	Size	Content	units	Type
0x031E	798	1	R Input voltage	0.1V	Read only
0x031F	799	1	S Input voltage	0.1V	Read only
0x0320	800	1	T Input voltage	0.1V	Read only
0x0321	801	1	Input frequency	0.1Hz	Read only
0x0322	802	1	R Output voltage	0.1V	Read only
0x0323	803	1	S Output voltage	0.1V	Read only
0x0324	804	1	T Output voltage	0.1V	Read only
0x0325	805	1	Output frequency	0.1Hz	Read only
0x0326	806	1	R Output current	0.1A	Read only
0x0327	807	1	S Output current	0.1A	Read only
0x0328	808	1	T Output current	0.1A	Read only
0x0329	809	1	R Output load percent	0.1%	Read only
0x032A	810	1	S Output load percent	0.1%	Read only
0x032B	811	1	T Output load percent	0.1%	Read only
0x00AF	175	1	Total Output load percent	0.1%	Read only
0x032C	812	1	P Battery voltage	0.1V	Read only
0x032D	813	1	N Battery voltage	0.1V	Read only
0x032E	814	1	Max Temperature of the detecting pointers	0.1C	Read only
0x032F	815	1	status	Note1	Read only

8. UPS battery information (sys or rack info inquiry addr)

0x00BC	188	1	P Battery voltage	0.1V	Read only
0x00BD	189	1	P Battery Charging Current		Read only
0x00BE	190	1	P Battery Discharging Current	Ah	Read only
0x00BF	191	1	Battery Capacity	%	Read only
0x00C0	192	1	Battery Remain time(minute)	minutes	Read only
0x00C1	193	1	N Battery voltage	0.1V	Read only
0x00C2	194	1	N Battery Charging Current		Read only
0x00C3	195	1	N Battery Discharging Current	Ah	Read only
0x00C4	196	1	--	%	Read only
0x00C5	197	1	--	minutes	Read only
0x02ED	749	1	Battery mode work time	min	Read only
0x0307	775	1	Battery AH Number	AH	Read only
0x0318	792	1	--	0.01A	Read only
0x0319	793	1	--	0.01A	Read only
0x0364	868	1	Battery shutdown voltage	0.1V	Read/Write

0x036A	874	1	Battery Low voltage	0.1V	Read/Write
0x05B0	1456	1	Battery High voltage	0.1V	Read/Write
0x05B1	1457	1	Battery max charging current	0.1A	Read only
0x05D5	1493	1	Battery Bluk voltage	0.1V	Read only

9. The temperature inquiry

0x00CC	204	1	heatsink temperature 1	°C	Read only
0x00CD	205	1	heatsink temperature 2	°C	Read only
0x00CE	206	1	cabinet temperature	°C	Read only
0x00CF	207	1	battery temperature	°C	Read only

10. The three phase load inquiry

0x00DD	221	1	R phase of load	0.1%	Read only
0x00FC	252	1	S phase of load	0.1%	Read only
0x00FD	253	1	T phase of load	0.1%	Read only
0x00FE	254	1	The whole load	0.1%	Read only

11. Load level inquiry

0x00B7	183	1	Total VA percent	0.1%	Read only
0x00B8	184	1	Total Watt percent	0.1%	Read only
0x030C	780	1	Load VA R	VA	Read only
0x030D	781	1	Load VA S	VA	Read only
0x030E	782	1	Load VA T	VA	Read only
0x030F	783	1	Load Watt R	W	Read only
0x0310	784	1	Load Watt S	W	Read only
0x0311	785	1	Load Watt T	W	Read only
0x0312	786	1	R VA percent	0.1%	Read only
0x0313	787	1	S VA percent	0.1%	Read only
0x0314	788	1	T VA percent	0.1%	Read only
0x0315	789	1	R Watt percent	0.1%	Read only
0x0316	790	1	S Watt percent	0.1%	Read only
0x0317	791	1	T Watt percent	0.1%	Read only

12. The bypass three phase info

0x011A	282	1	R voltage of bypass	0.1V	Read only
0x011B	283	1	S voltage of bypass	0.1V	Read only
0x011C	284	1	T voltage of bypass	0.1V	Read only
0x011D	285	1	R current of bypass	0.1A	Read only
0x011E	286	1	S current of bypass	0.1A	Read only
0x011F	287	1	T current of bypass	0.1A	Read only
0x0123	291	1	frequency of bypass	0.1Hz	Read only

14. UPS working Mode

0x00D0	208	1	UPS Mode inquiry	Note2	Read only
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15. UPS fault information

0x02A3	675	1	Fault kind ASC	Note3	Read only
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16. Loss point

Hex	Dec	Size	Content	Units	Type
0x034A	842	1	Line Voltage High	V	Read only
0x034B	843	1	Line Voltage Low	V	Read only
0x034C	844	1	Line Frequency High	0.1Hz	Read only
0x034D	845	1	Line Frequency Low	0.1Hz	Read only
0x034E	846	1	Bypass Frequency High	0.1Hz	Read/Write
0x034F	847	1	Bypass Frequency Low	0.1Hz	Read/Write
0x0350	848	1	Bypass Voltage High	V	Read/Write
0x0351	849	1	Bypass Voltage Low	V	Read/Write
0x0352	850	1	ECO Voltage High	V	Read/Write
0x0353	851	1	ECO Voltage Low	V	Read/Write
0x0354	852	1	ECO Frequency High	0.1Hz	Read/Write
0x0355	853	1	ECO Frequency Low	0.1Hz	Read/Write

19. Setting Parameter succeed or fail

Hex	Dec	Size	Content	Bit value	type
0x0384	900	Bit15	Flag:Bypass Frequency High	0:FALSE/1:TRUE	Read only
		Bit14	Flag:Bypass Frequency Low	0:FALSE/1:TRUE	Read only
		Bit13	Flag:Bypass Voltage High	0:FALSE/1:TRUE	Read only
		Bit12	Flag:Bypass Voltage Low	0:FALSE/1:TRUE	Read only
		Bit11	Flag:ECO Voltage High	0:FALSE/1:TRUE	Read only

Bit10	Flag:ECO Voltage Low	0:FALSE/1:TRUE	Read only
Bit9	Flag:ECO Frequency High	0:FALSE/1:TRUE	Read only
Bit8	Flag:ECO Frequency Low	0:FALSE/1:TRUE	Read only
Bit7	Flag: Battery shutdown voltage	0:FALSE/1:TRUE	Read only
Bit6	Flag: Battery Low voltage	0:FALSE/1:TRUE	Read only
Bit5	Flag: Battery High voltage	0:FALSE/1:TRUE	Read only

20. Remote shutdown and test

Hex	Dec	Size	Content	Units/Bit value	Type
0x03AB	939	1	Shutdown	minutes(ASCII)	Read/Write
0x03AC	940	1	Test for specified time	minutes(ASCII)	Read/Write
0x03AD	941	1	Shutdown and restore(N)	minutes(ASCII)	Read/Write
0x03AE	942	2	Shutdown and restore(M)	minutes(ASCII)	Read/Write
0x03DA	986	bit15	B15=flag:Shutdown	0:FAIL/1:SUCCESS	Read only
		bit14	B14=flag:Test for specified time	0:FAIL/1:SUCCESS	Read only
		bit13	B13=flag:Shutdown and restore	0:FAIL/1:SUCCESS	Read only
			b12-b0=Reservation		

21. CPU information

Hex	Dec	Size	Content	Units	Type
0x03E0	992	1	Protocol ID Inquiry	ASCII	Read only
0x03E1	993	10	Main CPU Firmware version	ASCII	Read only

22. UPS model and rating information

0x03EB	1003	7	Main Production type	ASCII	Read only
			Sub Production type	ASCII	Read only
			VA type	ASCII	Read only
			H/LV type	ASCII	Read only
			Year	ASCII	Read only
			Month	ASCII	Read only
			Manufacturer ID	ASCII	Read only
			Serial number	ASCII	Read only
0x03F2	1010	1	Battery Piece Number		Read only
0x03F3	1011	1	Battery standard voltage per unit	0.1V	Read only
0x03F4	1012	1	Input phase		Read only
0x03F5	1013	1	Output phase		Read only
0x03F6	1014	1	Nominal I/P Voltage	V	Read only
0x03F7	1015	1	Nominal O/P Voltage	V	Read only
0x03F8	1016	1	Output power factor		Read only
0x03F9	1017	2	Output rated VA	W	Read only

0x03FB	1019	8	Device model	ASCII	Read only
0x048A	1162	1	Battery Voltage	0.1V	Read only
0x048B	1163	1	Rating Output Current	0.1A	Read only
0x048C	1164	1	Rating Output Frequency	0.1Hz	Read/Write
0x048D	1165	1	Rating Output Voltage	0.1V	Read/Write
0x048E	1166	1	The parallel number.		Read only

Note

1. Note1

Note 1:	
815 (bit15-bit8)	bit15 bit14: 00: standby ; 01: line-interactive ; 10: on-line .
	bit13: Utility Fail bit12: Battery Low bit11: Bypass/Boost Active bit10: UPS Failed bit9: EPO bit8: Test in Progress
815 (bit2-bit0)	Bit2: Shutdown Active bit1: bat silence bit0: Bat test OK

2. Note2

Note 2:		
0x00D0H	0x50	Power on mode
	0x53	Standby mode
	0x59	Bypass mode
	0x4C	Line mode
	0x42	Battery mode
	0x54	Battery test mode
	0x46	Fault mode
	0x45	HE/ECO mode
	0x43	Converter mode

	0X44	Shutdown mode
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3. Note3

Fault Kind	Fault Number	Fault Name
Bus fault	0x3031	Bus start fail
	0x3032	Bus volt over
	0x3033	Bus volt under
	0x3034	Bus volt unbalance
	0x3035	Bus short
	0x3036	PFC over current
	0x3037	PFC IGBT over current
	0x3038	Input contact fault
Inverter fault	0x3131	Inverter soft fail
	0x3132	Inverter volt high
	0x3133	Inverter volt low
	0x3134	L1 inverter short
	0x3135	L2 inverter short
	0x3136	L3 inverter short
	0x3137	L1L2 inverter short
	0x3138	L2L3 inverter short
	0x3139	L3L1 inverter short
	0x313A	L1 inverter negative power
	0x313B	L2 inverter negative power
	0x313C	L3 inverter negative power
Electric link fault	0x3231	Bat SCR short fault
	0x3232	Line SCR short fault
	0x3233	Inverter relay open fault
	0x3234	Inverter relay short fault
	0x3235	Wiring fault
	0x3236	Battery reverse fault
	0x3237	Battery too high
	0x3238	Battery too low
	0x3239	Battery Fuse
	0x3330	Open-Circuit Fault
Parallel system fault	0x3331	CAN communication fault
	0x3332	Host line fault

	0x3333	Synchronization line fault
	0x3334	Synchronization pulse line fault
	0x3335	Parallel communication line loss
	0x3336	Output circuit fault
Others	0x3431	Over temperature
	0x3432	CPU communication fault
	0x3433	Overload fault
	0x3434	Fan fault
	0x3435	Charger fault
	0x3436	Model fault
	0x3437	MCU communication fault
	0x3438	DSP firmware version incompatible
	0x3439	IpOPPhaseError
	0x3441	
	0x3442	
	0x3443	
	0x3444	
	0x3445	
	0x3446	
	0x3630	Inverter over current
	0x3631	BypScrShort
	0x3632	BypScrOpen
	0x3633	RINVWaveAbnormal
	0x3634	SINVWaveAbnormal
	0x3635	TINVWaveAbnormal
	0x3636	CTSatiation
	0x3637	OPShort_BYP
	0x3638	OPLineShort_BYP
	0x3639	InvScrShort
	0x3641	BusVoltVaryFault

Application example

1. Audible alarm Enable or Disable

Look for Enable audible alarm, It in table address 0x000E bit15. Then you may write 0x8000 to 0x000E to Enable audible alarm or write 0xFF to 0x0E to disable audible alarm.

For example:

[XX 10 00 0E 00 01 02 80 00 CRCL CRCH]Mean: Enable audible alarm. [XX
10 00 0E 00 01 02 7F FF CRCL CRCH]Mean: Disable audible alarm.

Inquire the result of execute, you may read the follow address 0x10 bit15. For example:

[XX 03 00 10 00 01 CRCL CRCH]
[XX 03 02 80 00 CRCL CRCH]Mean: Execute success
[XX 03 02 00 00 CRCL CRCH]Mean: Execute fail

2. Setting buzzer beeps Silent.

Look for silence buzzer beep in address 0x001A bit 15 . Then you may write 0x8000 to 0x001A.

For example:

[XX 10 00 1A 00 01 02 80 00 CRCL CRCH]Silence buzzer beep.

Inquire the execution result. You may read 0x0025

[XX 03 00 25 00 01 CRCL CRCH] to inquire the results of command.

3. Setting control parameter to default value

Look for setting control parameter to default value it ,then write 0x8000 to 0x0030.If execute success then set 0x003B bit15 to 1;

For example:

[XX 10 00 30 00 01 02 80 00 CRCL CRCH]Setting control parameter to default value.
[XX 03 00 3B 00 01 CRCL CRCH]to inquire the results of command.

4. Get input voltage

Look for input voltage in address 0x00AA, when read 0x00AA to get input voltage and it units is 0.1V

For example:

PC:[XX 03 00 AA 00 01 CRCL CRH]
DEVICE:[XX 03 02 08 89 CRCL CRCH]
Mean: HEX [0x0889] to DEC[2185] .Input voltage:218.5V.

5. Output socket status

Inquire output socket status, Write socket number to 0x0345, then read 0x0346 to inquire socket status.

For example:

PC:[XX 10 03 45 00 01 02 01 00 CRCL CRCH] 01:Means inquire socket 1 status.

PC:[XX 03 03 46 00 01 CRCL CRCH]

DEVICE:[XX 03 02 01 00 CRCL CRCH] 01:Means socket1 was on.

6. Remote shut down the UPS

Remote shut down the UPS, then write is a number ranging from (.2, .3, ..., 01, 02,..., to 10)to the 0x3AB.If execute success then 0x003DA bit0 was set to 1.

For example:

PC:[XX 10 03 AB 00 01 02 2E 32]Mean: Shut down the UPS in 0.2 minutes

7. Shut down UPS and auto restart later

Cut UPS output off in <n> minutes and waiting for <m> minutes and then turn on UPS output again. Then write n to 0x03AD and write m to 0x003AE.

For example:

PC:[XX 10 03 AD 00 03 06 2E 32 30 30 30 32 CRCL CRCH]Mean: Shut down the UPS in 0.2 minutes and waiting for 0002 minutes turn on the UPS.

8. Setting Parameter item

Set The bypass Voltage high loss point of UPS ,You want to Set the value 286V . Then write 0x011E to 0x0350 .

For example:

PC:[XX 10 03 50 00 01 02 01 1E CRCL CRCH]Mean: Set The bypass Voltage high loss point of UPS for 286V.