

Instruction Manual

SXN-U Series Communication

1 RS-485 Communication

1. Pin

- 8번 Pin : RS-485(+)
- 9번 Pin : RS-485(-)

2. Communication Spec.

- Baud : 9600
- Parity Bit : None
- Data Bit : 8
- Stop Bit : 1

2 Communication Protocol

Command Format		통신장비 → SXN-U Series												
Byte	0	1	2	3	4	5	6	7	8	9	10	11	12	13
ASCII	\$	P	M	,	C	M	D	,	A	*	Checksum	CR	LF	

1. Data Request		통신장비 → SXN-U Series												
Byte	0	1	2	3	4	5	6	7	8	9	10	11	12	13
ASCII	\$	P	M	,	R	E	Q	,	A	*	Checksum	CR	LF	

Byte	Information	Byte	Comment	Remarks
0	Start Code	1		
1	Product Type	1	Photo : A	Photo Type Ionizer
2	Ionizer Model	1	05U : A, XRC-05(10U) : B, 15U : C	
1, 2	Broadcasting	2	ZB	제품군, 제품명 상관없이 응답
4, 5, 6	Command	3	REQ	Request
8	Address	1	1 ~ 16 : 1,2,3,4,5,6,7,8,9, A,B,C,D,E,F,G	
9	End Code	1	*	
10, 11	Check Sum	2	Checksum	
12, 13	Carriage Return, Line Feed	2		

1. Data Receive				통신장비 — SXN-U Series										
Byte	0	1	2	3	4	5	6	7	8	9	10	11	12	13
ASCII	\$	P	M	,	A	,	H/C	,	H/O	,	H/A	,	Head	
Byte	14	15	16	17	18	19	20	21	22	23	24	25	26	27
ASCII	Run Time			,	I/S	,	R/S	,	P/S	,	A/S	,	R/S	*
Byte	28	29	30	31										
ASCII	Checksum		CR	LF										

Byte	Information	Byte	Comment	Remarks
0	Start Code	1		
1	Product Type	1	Photo : A	Photo Type Ionizer
2	Ionizer Model	1	05U : A, XRC-05(10U) : B, 15U : C	
4	Address	1	1 ~ 16 : 1,2,3,4,5,6,7,8,9, A,B,C,D,E,F,G	
6	Head Connect	1	Normal:1	1 : Head Con(상시 온)
8	Head Over Time	1	Normal:0, Abnormal:1	Over Time 시 Abnormal
10	Head Alarm	1	Normal:0, (Head Fail/Random):1, (Over/Under Current):2	0 이외 Abnormal
12 ~ 16	Head Run Time	5	00000 ~ 99999 Hour	
18	Controller Interlock State	1	0 : Interlock Off, 1 : Interlock On	
20	Controller Remote State	1	0 : Remote Off, 1 : Remote On	
22	Controller Power State	1	0 : Power Off, 1 : Power On	

Byte	Information	Byte	Comment	Remarks
24	Controller Alarm State	1	Normal:0, (Head Fail/Random):1, (Over/Under Current):2	Head Alarm 발생 시 Abnormal
26	Controller Run/Stop State	1	0 : Stop, 1 : Run	
27	End Code	1	*	
28, 29	Check Sum	2	Checksum	
30, 31	Carriage Return, Line Feed	2		

2.Control [Run]		통신장비 → SXN-U Series												
Byte	0	1	2	3	4	5	6	7	8	9	10	11	12	13
ASCII	\$	P	M	,	R	U	N	,	A	*	Checksum	CR	LF	

2.No Receive		통신장비 ← SXN-U Series												
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3.Control [Stop]		통신장비 → SXN-U Series												
Byte	0	1	2	3	4	5	6	7	8	9	10	11	12	13
ASCII	\$	P	M	,	S	T	P	,	A	*	Checksum	CR	LF	

3.No Receive		통신장비 ← SXN-U Series												
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4.Control [Address Set]		통신장비 → SXN-U Series												
Byte	0	1	2	3	4	5	6	7	8	9	10	11	12	13
ASCII	\$	P	M	,	A	D	R	,	A	,	A	*	Checksum	
Byte	14	15												
ASCII	CR	LF												

Byte	Information	Byte	Comment	Remarks
0	Start Code	1		
1	Product Type	1	Photo : A	Photo Type Ionizer
2	Ionizer Model	1	05U : A, XRC-05(10U) : B, 15U : C	
4 ~ 6	Command	3	ADR	Address set
8	Address	1	현재 Address	1 ~ 16 : 1,2,3,4,5,6,7,8,9, A,B,C,D,E,F,G
10	Address	1	변경 Address	
11	End Code	1	*	
12, 13	Check Sum	2	Checksum	
14, 15	Carriage Return, Line Feed	2		

4.No Receive		통신장비 ← SXN-U Series												
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5.Version Request		통신장비 → SXN-U Series												
Byte	0	1	2	3	4	5	6	7	8	9	10	11	12	13
ASCII	\$	P	M	,	V	E	R	,	A	*	Checksum	CR	LF	

Byte	Information	Byte	Comment	Remarks
0	Start Code	1		
1	Product Type	1	Photo : A	Photo Type Ionizer
2	Ionizer Model	1	05U : A, XRC-05(10U) : B, 15U : C	
1, 2	Broadcasting	2	ZB	제품군, 제품명 상관없이 응답
4, 5, 6	Command	3	VER	Version
8	Address	1	1 ~ 16 : 1,2,3,4,5,6,7,8,9, A,B,C,D,E,F,G	
9	End Code	1	*	
10, 11	Check Sum	2	Checksum	
12, 13	Carriage Return, Line Feed	2		

5.DATA Receive				통신장비 ← SXN-U Series										
Byte	0	1	2	3	4	5	6	7	8	9	10	11	12	13
ASCII	\$	P	M	,	A	,	R	,	U	,	D	,	C	*
Byte	14	15	16	17										
ASCII	Checksum	CR	LF											

Byte	Information	Byte	Comment	Remarks
0	Start Code	1		
1	Product Type	1	Photo : A	Photo Type Ionizer
2	Ionizer Model	1	05U : A, XRC-05(10U) : B, 15U : C	
4	Address	1	1 ~ 16 : 1,2,3,4,5,6,7,8,9, A,B,C,D,E,F,G	
6	Release	1		
8	Update	1		
10	Debug	1		
12	Compile	1		
13	End Code	1	*	
14, 15	Check Sum	2	Checksum	
16, 17	Carriage Return, Line Feed	2		

Checksum Calculation	
\$ ~ * Calculation	
#include<stdio.h>	
void main()	
{	
char packet[] = "AC,REQ,1", cksum = 0;	
int i, size = 0;	
while(packet[size] != '\0') size++;	
for(i = 0 ; i < size ; i++)	
{	
if(i == 0)	
cksum = packet[i];	
else	
cksum^= packet[i];	
}	
printf("Request : \$AC,REQ,1*%2X",cksum); //Checksum character send by ASCII.	
}	

※ Checksum 검사는 \$표시 이후부터 *표시 전까지의 모든 데이터를 Exclusive-or 연산한 것입니다.



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