

LONWORKS PROTOCOL GATEWAY OPERATION MANUAL

ADV04

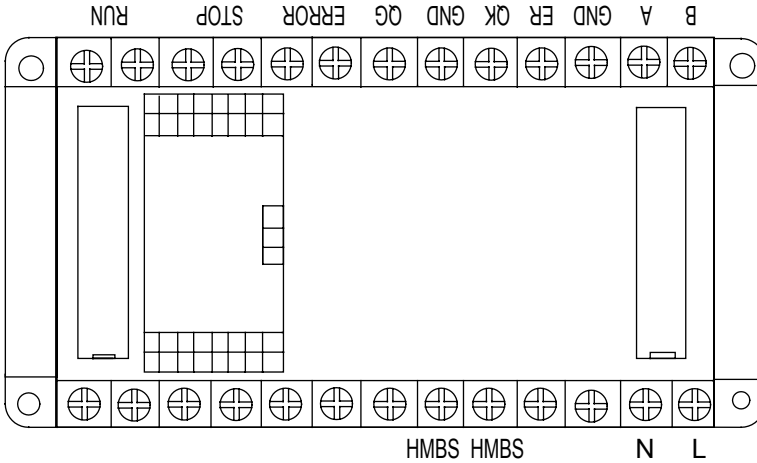
CONTENTS	
Connection Illustration.....	1
Function.....	2
Constructed program.....	2
Protocol Verify Table.....	3

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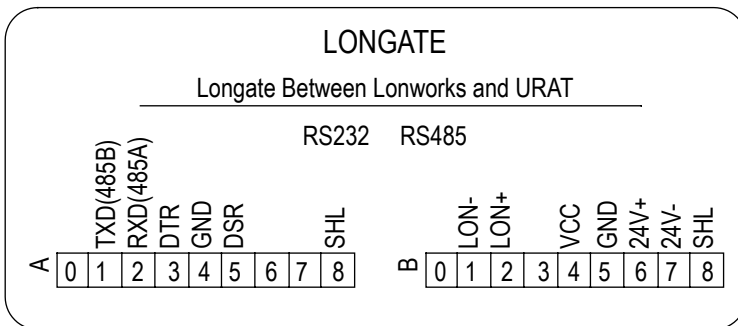
- Please read this manual carefully before using
- Keep this operation manual for future reference

Connection Illustration

Plug Identify



- L, N: Power supply 220V AC 50hz
- A: To IGU07 RXD(485A)
- B: To IGU07 TXD(485B)
- HMBS: To AC system P/Q



- 24V+ : To positive terminal of 24 VDC
- 24V-: To negative terminal of 24 VDC
- TXD(485B): To IGU06 B terminal
- RXD(485A): To IGU06 A terminal
- LON+, LON-: To host of Lon

Function

IGU06 works together with IGU07 to convert AC protocol to Lonworks protocol.
Connect IGU06 with AC system to convert AC Homebus protocol to Modbus RTU protocol.
IGU07 convert Modbus RTU protocol to Lonworks protocol.

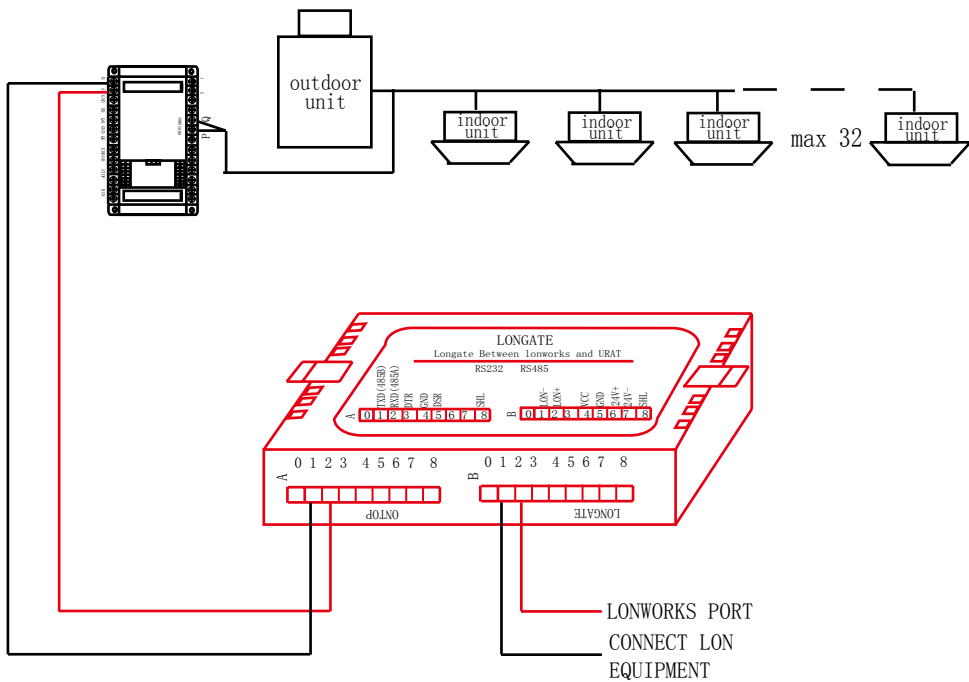
Power supply:

IGU06: 220V AC 50 Hz

IGU07: 24V DC

XIF document is supplied separately.

Constructed program



One VRF system must be equipped with 1 set of IGU06+IGU07. Max. 32 ps indoor units are in one VRF system.

Protocol Verify Table

No.	Point description	Property Data type	Name: Read	Name: Write	State
1	Indoor 1 WorkMode	SNVT_hvac_mode	nvoMode 0	nviMode 0	0: AUTO 1: Fan 2: Cool 3: Dry 4: Heat
2	Indoor 2 WorkMode		nvoMode 1	nviMode 1	
3	Indoor 3 WorkMode		nvoMode 2	nviMode 2	
4	Indoor 4 WorkMode		nvoMode 3	nviMode 3	
5	Indoor 5 WorkMode		nvoMode 4	nviMode 4	
6	Indoor 6 WorkMode		nvoMode 5	nviMode 5	
7	Indoor 7 WorkMode		nvoMode 6	nviMode 6	
8	Indoor 8 WorkMode		nvoMode 7	nviMode 7	
9	Indoor 9 WorkMode		nvoMode 8	nviMode 8	
10	Indoor 10 WorkMode		nvoMode 9	nviMode 9	
11	Indoor 11 WorkMode		nvoMode 10	nviMode 10	
12	Indoor 12 WorkMode		nvoMode 11	nviMode 11	
13	Indoor 13 WorkMode		nvoMode 12	nviMode 12	
14	Indoor 14 WorkMode		nvoMode 13	nviMode 13	
15	Indoor 15 WorkMode		nvoMode 14	nviMode 14	
16	Indoor 16 WorkMode		nvoMode 15	nviMode 15	
17	Indoor 17 WorkMode		nvoMode 16	nviMode 16	
18	Indoor 18 WorkMode		nvoMode 17	nviMode 17	
19	Indoor 19 WorkMode		nvoMode 18	nviMode 18	
20	Indoor 20 WorkMode		nvoMode 19	nviMode 19	
21	Indoor 21 WorkMode		nvoMode 20	nviMode 20	
22	Indoor 22 WorkMode		nvoMode 21	nviMode 21	
23	Indoor 23 WorkMode		nvoMode 22	nviMode 22	
24	Indoor 24 WorkMode		nvoMode 23	nviMode 23	
25	Indoor 25 WorkMode		nvoMode 24	nviMode 24	
26	Indoor 26 WorkMode		nvoMode 25	nviMode 25	
27	Indoor 27 WorkMode		nvoMode 26	nviMode 26	
28	Indoor 28 WorkMode		nvoMode 27	nviMode 27	
29	Indoor 29 WorkMode		nvoMode 28	nviMode 28	
30	Indoor 30 WorkMode		nvoMode 29	nviMode 29	
31	Indoor 31 WorkMode		nvoMode 30	nviMode 30	
32	Indoor 32 WorkMode		nvoMode 31	nviMode 31	
33	Indoor 1 SetTemperature	SNVT_temp_p	nvoTempSet 0	nviTempSet 0	Integer from 16 to 30
34	Indoor 2 SetTemperature		nvoTempSet 1	nviTempSet 1	
35	Indoor 3 SetTemperature		nvoTempSet 2	nviTempSet 2	
36	Indoor 4 SetTemperature		nvoTempSet 3	nviTempSet 3	
37	Indoor 5 SetTemperature		nvoTempSet 4	nviTempSet 4	
38	Indoor 6 SetTemperature		nvoTempSet 5	nviTempSet 5	
39	Indoor 7 SetTemperature		nvoTempSet 6	nviTempSet 6	
40	Indoor 8 SetTemperature		nvoTempSet 7	nviTempSet 7	
41	Indoor 9 SetTemperature		nvoTempSet 8	nviTempSet 8	
42	Indoor 10 SetTemperature		nvoTempSet 9	nviTempSet 9	

Protocol Verify Table

No.	Point description	Property Data type	Name : Read	Name: Write	State		
42	Indoor 10 SetTemperature		nvoTempSet 9	nviTempSet 9			
43	Indoor 11 SetTemperature		nvoTempSet 10	nviTempSet 10			
44	Indoor 12 SetTemperature		nvoTempSet 11	nviTempSet 11			
45	Indoor 13 SetTemperature		nvoTempSet 12	nviTempSet 12			
46	Indoor 14 SetTemperature		nvoTempSet 13	nviTempSet 13			
47	Indoor 15 SetTemperature		nvoTempSet 14	nviTempSet 14			
48	Indoor 16 SetTemperature		nvoTempSet 15	nviTempSet 15			
49	Indoor 17 SetTemperature		nvoTempSet 16	nviTempSet 16			
50	Indoor 18 SetTemperature		nvoTempSet 17	nviTempSet 17			
51	Indoor 19 SetTemperature		nvoTempSet 18	nviTempSet 18			
52	Indoor 20 SetTemperature		nvoTempSet 19	nviTempSet 19			
53	Indoor 21 SetTemperature		nvoTempSet 20	nviTempSet 20			
54	Indoor 22 SetTemperature		nvoTempSet 21	nviTempSet 21			
55	Indoor 23 SetTemperature		nvoTempSet 22	nviTempSet 22		0: Auto 1: Low 2: Normal 3: High	
56	Indoor 24 SetTemperature		nvoTempSet 23	nviTempSet 23			
57	Indoor 25 SetTemperature		nvoTempSet 24	nviTempSet 24			
58	Indoor 26 SetTemperature		nvoTempSet 25	nviTempSet 25			
59	Indoor 27 SetTemperature		nvoTempSet 26	nviTempSet 26			
60	Indoor 28 SetTemperature		nvoTempSet 27	nviTempSet 27			
61	Indoor 29 SetTemperature		nvoTempSet 28	nviTempSet 28			
62	Indoor 30 SetTemperature		nvoTempSet 29	nviTempSet 29			
63	Indoor 31 SetTemperature		nvoTempSet 30	nviTempSet 30			
64	Indoor 32 SetTemperature		nvoTempSet 31	nviTempSet 31			
65	Indoor 1 Fan Speed		SNVT_lev_disc	nvoFan 0			nviFan 0
66	Indoor 2 Fan Speed			nvoFan 1			nviFan 1
67	Indoor 3 Fan Speed			nvoFan 2			nviFan 2
68	Indoor 4 Fan Speed			nvoFan 3			nviFan 3
69	Indoor 5 Fan Speed			nvoFan 4			nviFan 4
70	Indoor 6 Fan Speed			nvoFan 5			nviFan 5
71	Indoor 7 Fan Speed			nvoFan 6			nviFan 6
72	Indoor 8 Fan Speed			nvoFan 7			nviFan 7
73	Indoor 9 Fan Speed			nvoFan 8		nviFan 8	
74	Indoor 10 Fan Speed	nvoFan 9		nviFan 9			
75	Indoor 11 Fan Speed	nvoFan 10		nviFan 10			
76	Indoor 12 Fan Speed	nvoFan 11		nviFan 11			
77	Indoor 13 Fan Speed	nvoFan 12		nviFan 12			
78	Indoor 14 Fan Speed	nvoFan 13		nviFan 13			
79	Indoor 15 Fan Speed	nvoFan 14		nviFan 14			
80	Indoor 16 Fan Speed	nvoFan 15		nviFan 15			
81	Indoor 17 Fan Speed	nvoFan 16		nviFan 16			
82	Indoor 18 Fan Speed	nvoFan 17		nviFan 17			
83	Indoor 19 Fan Speed	nvoFan 18	nviFan 18				

Protocol Verify Table

No.	Point description	Property Data type	Name : Read	Name: Write	State		
84	Indoor 20 Fan Speed		nvoFan 19	nviFan 19			
85	Indoor 21 Fan Speed		nvoFan 20	nviFan 20			
86	Indoor 22 Fan Speed		nvoFan 21	nviFan 21			
87	Indoor 23 Fan Speed		nvoFan 22	nviFan 22			
88	Indoor 24 Fan Speed		nvoFan 23	nviFan 23			
89	Indoor 25 Fan Speed		nvoFan 24	nviFan 24			
90	Indoor 26 Fan Speed		nvoFan 25	nviFan 25			
91	Indoor 27 Fan Speed		nvoFan 26	nviFan 26			
92	Indoor 28 Fan Speed		nvoFan 27	nviFan 27			
93	Indoor 29 Fan Speed		nvoFan 28	nviFan 28			
94	Indoor 30 Fan Speed		nvoFan 29	nviFan 29			
95	Indoor 31 Fan Speed		nvoFan 30	nviFan 30			
96	Indoor 32 Fan Speed		nvoFan 31	nviFan 31			
97	Indoor 1 OnOFF	SNVT_state	nvoSwitchState 0	bit0	nviSwitchState 0	bit0	0: Off 1: On
	Indoor 2 OnOFF			bit1		bit1	
	Indoor 3 OnOFF			bit2		bit2	
	Indoor 4 OnOFF			bit3		bit3	
	Indoor 5 OnOFF			bit4		bit4	
	Indoor 6 OnOFF			bit5		bit5	
	Indoor 7 OnOFF			bit6		bit6	
	Indoor 8 OnOFF			bit7		bit7	
	Indoor 9 OnOFF			bit8		bit8	
	Indoor 10 OnOFF			bit9		bit9	
	Indoor 11 OnOFF			bit10		bit10	
	Indoor 12 OnOFF			bit11		bit11	
	Indoor 13 OnOFF			bit12		bit12	
	Indoor 14 OnOFF			bit13		bit13	
	Indoor 15 OnOFF			bit14		bit14	
	Indoor 16 OnOFF			bit15		bit15	
98	Indoor 17 OnOFF		nvoSwitchState 1	nviSwitchState 1	bit0	bit0	
	Indoor 18 OnOFF				bit1	bit1	
	Indoor 19 OnOFF				bit2	bit2	
	Indoor 20 OnOFF				bit3	bit3	
	Indoor 21 OnOFF				bit4	bit4	
	Indoor 22 OnOFF				bit5	bit5	
	Indoor 23 OnOFF				bit6	bit6	
	Indoor 24 OnOFF				bit7	bit7	
	Indoor 25 OnOFF				bit8	bit8	
	Indoor 26 OnOFF				bit9	bit9	
	Indoor 27 OnOFF				bit10	bit10	
	Indoor 28 OnOFF				bit11	bit11	
	Indoor 29 OnOFF				bit12	bit12	
	Indoor 30 OnOFF				bit13	bit13	
	Indoor 31 OnOFF				bit14	bit14	
	Indoor 32 OnOFF				bit15	bit15	

Protocol Verify Table

No.	Point description	Property Data type	Name : Read	Name: Write	State
99	Indoor 1 Temperature	SNVT_temp_p	nvoWorkTemp 0		Integer
100	Indoor 2 Temperature		nvoWorkTemp 1		
101	Indoor 3 Temperature		nvoWorkTemp 2		
102	Indoor 4 Temperature		nvoWorkTemp 3		
103	Indoor 5 Temperature		nvoWorkTemp 4		
104	Indoor 6 Temperature		nvoWorkTemp 5		
105	Indoor 7 Temperature		nvoWorkTemp 6		
106	Indoor 8 Temperature		nvoWorkTemp 7		
107	Indoor 9 Temperature		nvoWorkTemp 8		
108	Indoor 10 Temperature		nvoWorkTemp 9		
109	Indoor 11 Temperature		nvoWorkTemp 10		
110	Indoor 12 Temperature		nvoWorkTemp 11		
111	Indoor 13 Temperature		nvoWorkTemp 12		
112	Indoor 14 Temperature		nvoWorkTemp 13		
113	Indoor 15 Temperature		nvoWorkTemp 14		
114	Indoor 16 Temperature		nvoWorkTemp 15		
115	Indoor 17 Temperature		nvoWorkTemp 16		
116	Indoor 18 Temperature		nvoWorkTemp 17		
117	Indoor 19 Temperature		nvoWorkTemp 18		
118	Indoor 20 Temperature		nvoWorkTemp 19		
119	Indoor 21 Temperature		nvoWorkTemp 20		
120	Indoor 22 Temperature		nvoWorkTemp 21		
121	Indoor 23 Temperature		nvoWorkTemp 22		
122	Indoor 24 Temperature		nvoWorkTemp 23		
123	Indoor 25 Temperature		nvoWorkTemp 24		
124	Indoor 26 Temperature		nvoWorkTemp 25		
125	Indoor 27 Temperature		nvoWorkTemp 26		
126	Indoor 28 Temperature		nvoWorkTemp 27		
127	Indoor 29 Temperature		nvoWorkTemp 28		
128	Indoor 30 Temperature		nvoWorkTemp 29		
129	Indoor 31 Temperature		nvoWorkTemp 30		
130	Indoor 32 Temperature	nvoWorkTemp 31			

Protocol Verify Table

No.	Point description	Property Data type	Name : Read	Name: Write	State	
131	Indoor 1 Error Code	SNVT_state	nvoErrorstate 0	bit0		0: Normal 1: Error
	Indoor 2 Error Code			bit1		
	Indoor 3 Error Code			bit2		
	Indoor 4 Error Code			bit3		
	Indoor 5 Error Code			bit4		
	Indoor 6 Error Code			bit5		
	Indoor 7 Error Code			bit6		
	Indoor 8 Error Code			bit7		
	Indoor 9 Error Code			bit8		
	Indoor 10 Error Code			bit9		
	Indoor 11 Error Code			bit10		
	Indoor 12 Error Code			bit11		
	Indoor 13 Error Code			bit12		
	Indoor 14 Error Code			bit13		
	Indoor 15 Error Code			bit14		
	Indoor 16 Error Code			bit15		
132	Indoor 17 Error Code	SNVT_state	nvoErrorstate 1	bit0		
	Indoor 18 Error Code			bit1		
	Indoor 19 Error Code			bit2		
	Indoor 20 Error Code			bit3		
	Indoor 21 Error Code			bit4		
	Indoor 22 Error Code			bit5		
	Indoor 23 Error Code			bit6		
	Indoor 24 Error Code			bit7		
	Indoor 25 Error Code			bit8		
	Indoor 26 Error Code			bit9		
	Indoor 27 Error Code			bit10		
	Indoor 28 Error Code			bit11		
	Indoor 29 Error Code			bit12		
	Indoor 30 Error Code			bit13		
	Indoor 31 Error Code			bit14		
	Indoor 32 Error Code			bit15		

