

CONTENTS

- 1. Jnet NETWORK IDENTIFICATION 2
- 2. CHANNEL DATA 2
 - 2.1 CHANNEL 1 2
 - 2.2 CHANNEL 2 3
 - 2.3 CHANNEL 3 4
 - 2.4 CHANNEL 4 5
- 3. MASTER TIME SCHEDULE DATA 6
- 4. CHANNEL EVENT DATA 9
- 5. SPECIAL DAY DATES 12
- 6. LIGHT SENSOR DATA 12
- 7. INPUTS & OUTPUTS 13
- 8. CLOCK CALENDAR 13
- 9. RESTORE FACTORY DEFAULTS 13
- 10. DIAGNOSTIC & TEST FUNCTIONS 14
- DISPLAY DATA 15

JTL 4 CHANNEL RELATIVE TIME CLOCK ITEM NUMBERS					NT210 NT211	
ITEM	DESCRIPTION	CODE	CODE MEANING	BIT	RANGE	ITEM 9 VALUE
				4321		
1. Jnet NETWORK IDENTIFICATION						
0	Unit type	nt21	Unit type			
19	Software version number					
61(1)	Unit number channel 1				0.0 - 899.8	
62	Unit number channel 2				0.0 - 899.8	
63	Unit number channel 3				0.0 - 899.8	
64	Unit number channel 4				0.0 - 899.8	
2. CHANNEL DATA						
2.1 CHANNEL 1						
22	Channel status	OFF On	Contacts open Contacts closed			
199	Master time schedule to be used for this channel				1 - 4	1
197	On time relative to master time schedule (minutes)				-240 to +240	0
198	Off time relative to master time schedule (minutes)				-240 to +240	0
28	Daylight saving selection. For daylight saving item 18 must be set to dAY.S	Std.t dAY.t	Standard time Daylight saving time		0 - 1	Std.t
23	Site manned input enable Note: for the site manned function to be enabled the external override function on item 77 MUST BE off.	OFF In.En	Site manned input ignored (i.e. timed operation only) Input determines whether channel is off or operating in timed mode.		0 - 1	OFF
25	Display pushbutton override function enable	OFF Or.En	Disabled Enabled		0 - 1	Or.En
24	Display pushbutton override status	OFF Or.On	Off Override on			
26	External override switch input status	Off Or.On				
27	Communications command enable	OFF Co.En	Off Enabled		0 - 1	Co.En
20	Force channel on (advance status to on)	CLr F.On	Timed operation Forced on		0 - 1	
21	Force channel off (advance status to off)	CLr F.OFF	Timed operation Forced off		0 - 1	

JTL 4 CHANNEL RELATIVE TIME CLOCK ITEM NUMBERS					NT210 NT211	
ITEM	DESCRIPTION	CODE	CODE MEANING	BIT	RANGE	ITEM 9 VALUE
				4321		
2.2 CHANNEL 2						
32	Channel status	OFF On	Contacts open Contacts closed			
299	Master time schedule to be used for this channel				1 - 4	1
297	On time relative to master time schedule (minutes)				-240 to +240	0
298	Off time relative to master time schedule (minutes)				-240 to +240	0
38	Daylight saving selection. For daylight saving item 18 must be set to dAY.S	Std.t dAY.t	Standard time Daylight saving time		0 - 1	Std.t
33	Site manned input enable Note: for the site manned function to be enabled the external override function on item 77 MUST BE off.	OFF In.En	Site manned input ignored (i.e. timed operation only) Input determines whether channel is off or operating in timed mode.		0 - 1	OFF
35	Display pushbutton override function enable	OFF Or.En	Disabled Enabled		0 - 1	Or.En
34	Display pushbutton override status	OFF Or.On	Off Override on			
36	External override switch input status	Off Or.On				
37	Communications command enable	OFF Co.En	Off Enabled		0 - 1	Co.En
30	Force channel on (advance status to on)	CLr F.On	Timed operation Forced on		0 - 1	
31	Force channel off (advance status to off)	CLr F.OFF	Timed operation Forced off		0 - 1	

JTL 4 CHANNEL RELATIVE TIME CLOCK ITEM NUMBERS					NT210 NT211	
ITEM	DESCRIPTION	CODE	CODE MEANING	BIT	RANGE	ITEM 9 VALUE
				4321		
2.3 CHANNEL 3						
42	Channel status	OFF On	Contacts open Contacts closed			
399	Master time schedule to be used for this channel				1 - 4	1
397	On time relative to master time schedule (minutes)				-240 to +240	0
398	Off time relative to master time schedule (minutes)				-240 to +240	0
48	Daylight saving selection. For daylight saving item 18 must be set to dAY.S	Std.t dAY.t	Standard time Daylight saving time		0 - 1	Std.t
43	Site manned input enable Note: for the site manned function to be enabled the external override function on item 77 MUST BE off.	OFF In.En	Site manned input ignored (i.e. timed operation only) Input determines whether channel is off or operating in timed mode.		0 - 1	OFF
45	Display pushbutton override function enable	OFF Or.En	Disabled Enabled		0 - 1	Or.En
44	Display pushbutton override status	OFF Or.On	Off Override on			
46	External override switch input status	Off Or.On				
47	Communications command enable	OFF Co.En	Off Enabled		0 - 1	Co.En
40	Force channel on (advance status to on)	CLr F.On	Timed operation Forced on		0 - 1	
41	Force channel off (advance status to off)	CLr F.OFF	Timed operation Forced off		0 - 1	

JTL 4 CHANNEL RELATIVE TIME CLOCK ITEM NUMBERS					NT210 NT211	
ITEM	DESCRIPTION	CODE	CODE MEANING	BIT	RANGE	ITEM 9 VALUE
				4321		
2.4 CHANNEL 4						
225	Channel status	OFF On	Contacts open Contacts closed			
499	Master time schedule to be used for this channel				1 - 4	1
497	On time relative to master time schedule (minutes)				-240 to +240	0
498	Off time relative to master time schedule (minutes)				-240 to +240	0
58	Daylight saving selection. For daylight saving item 18 must be set to dAY.S	Std.t dAY.t	Standard time Daylight saving time		0 - 1	Std.t
53	Site manned input enable Note: for the site manned function to be enabled the external override function on item 77 MUST BE off.	OFF In.En	Site manned input ignored (i.e. timed operation only) Input determines whether channel is off or operating in timed mode.		0 - 1	OFF
55	Display pushbutton override function enable	OFF Or.En	Disabled Enabled		0 - 1	Or.En
54	Display pushbutton override status	OFF Or.On	Off Override on			
56	External override switch input status	Off Or.On				
57	Communications command enable	OFF Co.En	Off Enabled		0 - 1	Co.En
50	Force channel on (advance status to on)	CLr F.On	Timed operation Forced on		0 - 1	
51	Force channel off (advance status to off)	CLr F.OFF	Timed operation Forced off		0 - 1	

JTL 4 CHANNEL RELATIVE TIME CLOCK ITEM NUMBERS						NT210 NT211	
ITEM	DESCRIPTION	CODE	CODE MEANING	BIT	RANGE	ITEM 9 VALUE	
				4321			
3. MASTER TIME SCHEDULE DATA							
The master time schedule events are in 4 blocks of 100 items. 500 - 599 for master time 1 and 600 - 699 for master time 2 etc. There are 32 master time events each using 3 items starting at item 501. The 32 events end at item 598.							
The master time schedule can bet locally on the timer or the schedule can be delivered by the JTL network. This feature depends on item t98.							
t98	Disable JTL network update of master time events Note: The master time schedule can be updated automatically from the JTL network controller when this item is set to nEt. This function is supported by network controller version 74 and on for master time schedulers 1&2. This function is not currently supported for master time schedulers 3&4 which can only operate in local mode.	nEt Loc	Network enabled Local only		0 - 1	Master time schedule 1&2	
						nEt	
						Master time clock 3&4	
						Loc	
t00	Extend master time hours	nonE E.Hr.S	No extension Extend hours		0 - 1	nonE	
957	Master time clock extension time				00:00 - 02:00	01:00	
t97	Master time event checksum						
t01 t04 t07 t10 t13 t16 t19 t22 t25 t28 t31 t34 t37 t40 t43 t46 t49 t52 t55 t58 t61 t64 t67 t70 t73 t76 t79 t82 t85 t88 t91 t94	Event 1 mode Event 2 mode Event 3 mode Event 4 mode Event 5 mode Event 6 mode Event 7 mode Event 8 mode Event 9 mode Event 10 mode Event 11 mode Event 12 mode Event 13 mode Event 14 mode Event 15 mode Event 16 mode Event 17 mode Event 18 mode Event 19 mode Event 20 mode Event 21 mode Event 22 mode Event 23 mode Event 24 mode Event 25 mode Event 26 mode Event 27 mode Event 28 mode Event 29 mode Event 30 mode Event 31 mode Event 32 mode	0 1 2 3	nonE t.dis oFF on	Not used Event disabled Off event On event	0 - 3	on off on off on off on off on off on off on off nonE nonE nonE nonE nonE nonE nonE nonE nonE nonE nonE nonE nonE nonE nonE nonE nonE	

JTL 4 CHANNEL RELATIVE TIME CLOCK ITEM NUMBERS					NT210 NT211	
ITEM	DESCRIPTION	CODE	CODE MEANING	BIT	RANGE	ITEM 9 VALUE
				4321		
t03 t06 t09 t12 t15 t18 t21 t24 t27 t30 t33 t36 t39 t42 t45 t48 t51 t54 t57 t60 t63 t66 t69 t72 t75 t78 t81 t84 t87 t90 t93 t96	Event 1 time Event 2 time Event 3 time Event 4 time Event 5 time Event 6 time Event 7 time Event 8 time Event 9 time Event 10 time Event 11 time Event 12 time Event 13 time Event 14 time Event 15 time Event 16 time Event 17 time Event 18 time Event 19 time Event 20 time Event 21 time Event 22 time Event 23 time Event 24 time Event 25 time Event 26 time Event 27 time Event 28 time Event 29 time Event 30 time Event 31 time Event 32 time	00:00 - 23:55	Time in 5 minute intervals only allowed		00:00 - 23:55	Depends on selected master schedule

JTL 4 CHANNEL RELATIVE TIME CLOCK ITEM NUMBERS					NT210 NT211	
ITEM	DESCRIPTION	CODE	CODE MEANING	BIT	RANGE	ITEM 9 VALUE
				4321		
t02	Event 1 day	Sun - Sat			0 - 6	Sun
t05	Event 2 day					Sun
t08	Event 3 day					Mon
t11	Event 4 day					Mon
t14	Event 5 day					Tues
t17	Event 6 day					Tues
t20	Event 7 day					Wed
t23	Event 8 day					Wed
t26	Event 9 day					Thurs
t29	Event 10 day					Thurs
t32	Event 11 day					Fri
t35	Event 12 day					Fri
t38	Event 13 day					Sat
t41	Event 14 day					Sat
t44	Event 15 day					-
t47	Event 16 day					-
t50	Event 17 day					-
t53	Event 18 day					-
t56	Event 19 day					-
t59	Event 20 day					-
t62	Event 21 day					-
t65	Event 22 day					-
t68	Event 23 day					-
t71	Event 24 day					-
t74	Event 25 day					-
t77	Event 26 day					-
t80	Event 27 day					-
t83	Event 28 day					-
t86	Event 29 day					-
t89	Event 30 day					-
t92	Event 31 day					-
t95	Event 32 day					-

JTL 4 CHANNEL RELATIVE TIME CLOCK ITEM NUMBERS					NT210 NT211	
ITEM	DESCRIPTION	CODE	CODE MEANING	BIT	RANGE	ITEM 9 VALUE
				4321		
4. CHANNEL EVENT DATA						
The channel data is in 4 blocks of 100 items. Items 100 - 199 for channel 1, 200 - 299 for channel 2 etc. There are 32 events each using 3 items starting at item 101. The 32 nd event ends at item 196. The times are calculated using the selected master time schedule. c=channel no.						
C00	Enable channel	oFF Ch.En	Off Enabled		0 - 1	Ch.En
c01	Event 1 mode	nonE t.dis oFF on	Not used Event disabled Off event On event			
c04	Event 2 mode					
c07	Event 3 mode					
c10	Event 4 mode					
c13	Event 5 mode					
c16	Event 6 mode					
c19	Event 7 mode					
c22	Event 8 mode					
c25	Event 9 mode					
c28	Event 10 mode					
c31	Event 11 mode					
c34	Event 12 mode					
c37	Event 13 mode					
c40	Event 14 mode					
c43	Event 15 mode					
c46	Event 16 mode					
c49	Event 17 mode					
c52	Event 18 mode					
c55	Event 19 mode					
c58	Event 20 mode					
c61	Event 21 mode					
c64	Event 22 mode					
c67	Event 23 mode					
c70	Event 24 mode					
c73	Event 25 mode					
c76	Event 26 mode					
c79	Event 27 mode					
c82	Event 28 mode					
c85	Event 29 mode					
c88	Event 30 mode					
c91	Event 31 mode					
c94	Event 32 mode					

JTL 4 CHANNEL RELATIVE TIME CLOCK ITEM NUMBERS					NT210 NT211	
ITEM	DESCRIPTION	CODE	CODE MEANING	BIT	RANGE	ITEM 9 VALUE
				4321		
c03	Event 1 time	00:00 - 23:59				
c06	Event 2 time					
c09	Event 3 time					
c12	Event 4 time					
c15	Event 5 time					
c18	Event 6 time					
c21	Event 7 time					
c24	Event 8 time					
c27	Event 9 time					
c30	Event 10 time					
c33	Event 11 time					
c36	Event 12 time					
c39	Event 13 time					
c42	Event 14 time					
c45	Event 15 time					
c48	Event 16 time					
c51	Event 17 time					
c54	Event 18 time					
c57	Event 19 time					
c60	Event 20 time					
c63	Event 21 time					
c66	Event 22 time					
c69	Event 23 time					
c72	Event 24 time					
c75	Event 25 time					
c78	Event 26 time					
c81	Event 27 time					
c84	Event 28 time					
c87	Event 29 time					
c90	Event 30 time					
c93	Event 31 time					
c96	Event 32 time					

JTL 4 CHANNEL RELATIVE TIME CLOCK ITEM NUMBERS					NT210 NT211	
ITEM	DESCRIPTION	CODE	CODE MEANING	BIT	RANGE	ITEM 9 VALUE
				4321		
c02	Event 1 day	Sun - Sat				
c05	Event 2 day					
c08	Event 3 day					
c11	Event 4 day					
c14	Event 5 day					
c17	Event 6 day					
c20	Event 7 day					
c23	Event 8 day					
c26	Event 9 day					
c29	Event 10 day					
c32	Event 11 day					
c35	Event 12 day					
c38	Event 13 day					
c41	Event 14 day					
c44	Event 15 day					
c47	Event 16 day					
c50	Event 17 day					
c53	Event 18 day					
c56	Event 19 day					
c59	Event 20 day					
c62	Event 21 day					
c65	Event 22 day					
c68	Event 23 day					
c71	Event 24 day					
c74	Event 25 day					
c77	Event 26 day					
c80	Event 27 day					
c83	Event 28 day					
c86	Event 29 day					
c89	Event 30 day					
c92	Event 31 day					
c95	Event 32 day					

JTL 4 CHANNEL RELATIVE TIME CLOCK ITEM NUMBERS						NT210 NT211	
ITEM	DESCRIPTION	CODE		CODE MEANING	BIT	RANGE	ITEM 9 VALUE
					4321		
5. SPECIAL DAY DATES							
The special days are disabled by selecting the number of special days allowed on item 940. Channels are "off" on selected special days regardless of schedule or light levels.							
940	No of special days					0 - 16	2
941	Date of special day 1					01.01 - 31.12	25.12
942	Date of special day 2					01.01 - 31.12	01.01
943	Date of special day 3					01.01 - 31.12	01.01
944	Date of special day 4					01.01 - 31.12	01.01
945	Date of special day 5					01.01 - 31.12	01.01
946	Date of special day 6					01.01 - 31.12	01.01
947	Date of special day 7					01.01 - 31.12	01.01
948	Date of special day 8					01.01 - 31.12	01.01
949	Date of special day 9					01.01 - 31.12	01.01
950	Date of special day 10					01.01 - 31.12	01.01
951	Date of special day 11					01.01 - 31.12	01.01
952	Date of special day 12					01.01 - 31.12	01.01
953	Date of special day 13					01.01 - 31.12	01.01
954	Date of special day 14					01.01 - 31.12	01.01
955	Date of special day 15					01.01 - 31.12	01.01
956	Date of special day 16					01.01 - 31.12	01.01
6. LIGHT SENSOR DATA							
The sensor data are in 4 blocks of 10 items 900 - 939. 900 - 909 for channel 1, 910 - 919 for channel 2, 920 - 929 for channel 3, 930 - 939 for channel 4							
9s0	Light sensor mode	0 1 2 3	nonE oFF.P on.P both	Disable Operates when in OFF period only Operates when in ON period only Operates all the time		0 - 3	nonE
9s1	Light level (in 10s of Lux)						
9s2	Light level threshold (in 10s of Lux)					0 - 1000	50
9s3	Light level deadband selected (% of full scale)					1 - 10	5
9s4	Light sensor full scale range (Lux) (Must match the light sensor switch setting)	1 2 3 4	20 - 3 10 - 3 4000 2000	20000 lx 10000 lx 4000 lx 2000 lx		1 - 4	2000

JTL 4 CHANNEL RELATIVE TIME CLOCK ITEM NUMBERS					NT210 NT211	
ITEM	DESCRIPTION	CODE	CODE MEANING	BIT	RANGE	ITEM 9 VALUE
				4321		
7. INPUTS & OUTPUTS						
75	Site manned switch input If site manned input function is enabled for the channel, the channel can only come on if the input is present.	OFF In.On	Input absent Input present			
76	Display pushbutton override time				00:30 - 04:00	01:00
77	External override switch enable	oFF or.En	Disabled Enabled		0 - 1	oFF
78	Output relay state selection	En.On DE.On	Energised for on Deenergised for on		0 - 1	DE.On
79	Disable remote forcing functions for JTL SiteSuite computer	En F.diS	Enable forcing Disable forcing		0 - 1	F.diS
8. CLOCK CALENDAR						
Note, the time and date can be displayed as standard or daylight saving (summer) time. This choice is made on item 18. When daylight saving is chosen and the controller is connected to a JTL Network Controller supporting daylight saving operation, the change is made automatically to the current EU directive.						
2	Time of day				00:00 - 23:59	
3	Day of week	Sun - Sat				
4	Date				01.01 - 31.12	
5	Year				1992 - 2022	
18	Daylight saving enable	Stnd dAY.S	Standard time Daylight saving time		0 - 1	Stnd
9. RESTORE FACTORY DEFAULTS						
To set the factory defaults into the memory of the controller, set item 9 to the set default value of "1234". This should be done on initial commissioning of the unit or when the unit is being installed as a replacement part.						
9	Set default values	1234 1066	Set factory default Write to NVRAM without delay			

JTL 4 CHANNEL RELATIVE TIME CLOCK ITEM NUMBERS					NT210 NT211	
ITEM	DESCRIPTION	CODE	CODE MEANING	BIT	RANGE	ITEM 9 VALUE
				4321		
10. DIAGNOSTIC & TEST FUNCTIONS						
6	Communications speed	38.4 4.8	kilo baud rate kilo baud rate			
7	Communications choice (Half/Full duplex)	HALF	2 wire			
8	Bitswitch Setting		Not used			
99	Test display	clr Set	Off Test active		0 - 1	
71	Switch input status (Note more than 1 input can be shown simultaneously)	1 - - - - 2 - - - - 3 - - - - 4	Input 1 on Input 2 on Input 3 on Input 4 on			
72	Pushbutton inputs (Note more than 1 pushbutton can be shown simultaneously)	P1 - - P- 2 - P- - 3	Pbutton 1 pressed Pbutton 2 pressed Pbutton 3 pressed			
73	Test outputs	clr SEt	Off Test active		0 - 1	
916	Analogue input from ADC for channel 1	0 255	Zero (0 V) Full scale (10 V)			
926	Analogue input from ADC for channel 2	0 255	Zero (0 V) Full scale (10 V)			
936	Analogue input from ADC for channel 3	0 255	Zero (0 V) Full scale (10 V)			
946	Analogue input from ADC for channel 4	0 255	Zero (0 V) Full scale (10 V)			
10	Processor alarms (11-17)	0 1-255	No alarms Check 11-17			
11	Static RAM fault	CLr rA.Ft	No fault Fault			
12	Program/counter fault	CLr PC.Ft	No fault Fault			
13	Stack pointer fault	CLr SP.Ft	No fault Fault			
14	Background loop fault	CLr bL.Ft	No fault Fault			
15	PROM checksum fault	CLr Pr.Ft	No fault Fault			
16	NVRAM fault	CLr n.Ft	No fault Fault			
17	Instruction TRAP fault	CLr tP.Ft	No fault Fault			

DISPLAY DATA		NT210 NT211
NORMAL DISPLAY		
JTL	Start-up text	
Ch-1	Channel 1 status follows this text	
Ch-2	Channel 2 status follows this text	
Ch-3	Channel 3 status follows this text	
Ch-4	Channel 4 status follows this text	
OTHER TEXT		
Or-1	Channel 1 override status follows this text	
Or-2	Channel 2 override status follows this text	
Or-3	Channel 3 override status follows this text	
Or-4	Channel 4 override status follows this text	
tod	Time of day follows this text	
Func	Function pushbutton pressed	
data	Normal display mode follows this text	