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JTL ENERGY MONITORING ITEM NUMBERS						RL450	
ITEM	DESCRIPTION	CODE	CODE MEANING	FACTORY DEFAULTS	RANGE	ITEM 9 VALUE	
1. Jnet NETWORK IDENTIFICATION							
0	Unit type	RL450	Unit type				
19	Software version Number						
1	Unit number (channel 1)				0.1 - 899.7		
1.1 UNIT NUMBERS							
31	No of channels	0 1	8.Ch 16.Ch	8 channels 16 channels		0 - 1 16ch	
101	Channel 1				0 - 899.9		
102	Channel 2						
103	Channel 3						
104	Channel 4						
105	Channel 5						
106	Channel 6						
107	Channel 7						
108	Channel 8						
109	Channel 9						
110	Channel 10						
111	Channel 11						
112	Channel 12						
113	Channel 13						
114	Channel 14						
115	Channel 15						
116	Channel 16						
1.2 MODBUS REGISTER BASE ADDRESS							
301	Channel 1				0 - 9000	1	
302	Channel 2						
303	Channel 3						
304	Channel 4						
305	Channel 5						
306	Channel 6						
307	Channel 7						
308	Channel 8						
309	Channel 9						
310	Channel 10						
311	Channel 11						
312	Channel 12						
313	Channel 13						
314	Channel 14						
315	Channel 15						
316	Channel 16						

JTL ENERGY MONITORING ITEM NUMBERS						RL450	
ITEM	DESCRIPTION	CODE		CODE MEANING	FACTORY DEFAULTS	RANGE	ITEM 9 VALUE
2. CHANNEL SELECTION							
201	Channel 1 enable	0	oFF	Disable		0 - 1	on
202	Channel 2 enable	1	on	Enable			
203	Channel 3 enable						
204	Channel 4 enable						
205	Channel 5 enable						
206	Channel 6 enable						
207	Channel 7 enable						
208	Channel 8 enable						
209	Channel 9 enable						
210	Channel 10 enable						
211	Channel 11 enable						
212	Channel 12 enable						
213	Channel 13 enable						
214	Channel 14 enable						
215	Channel 15 enable						
216	Channel 16 enable						
3. TIMER DATA SELECTION							
The data for each timer is delivered on common item number use them to select the meter for which the data is to be displayed.							
400	Timer number					1 - 16	
401	Timer output level %						
402	Light level (in 10s of lux)						
407 (22)	Mode	oFF 30 60 FULL Or.on L.C.FL		Off 30% 60% Full on Override on Link to JTL fault			
4. INPUTS AND OUTPUTS							
410	Output state	Graphical					
411	Output	oFF OP.on					
420	Input state	Graphical					
421	Full override	oFF Or.on					
422	Low override	oFF L.O.on					
423	Low permanent	oFF 60.on					
424	BMS override	oFF b.o.on					
425	Enable	oFF t.c.En					

JTL ENERGY MONITORING ITEM NUMBERS					RL450	
ITEM	DESCRIPTION	CODE	CODE MEANING	FACTORY DEFAULTS	RANGE	ITEM 9 VALUE
5. MODBUS COMMUNICATIONS						
30	Modbus device number for energy meter				1 - 247	1
37	Delay between modbus requests (secs)				0 - 5	0
38	Delay before modbus retry requests (secs)				2 - 5	2
36	Inter-character timing multiplier		1 = Standard Modbus timing		1 - 10	4
39	Interface baud rate	9.6	9600 baud			
6. CLOCK/CALENDAR FUNCTIONS						
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	0 = Sunday 1 = Monday etc			
4	Date				01.01 - 31.12	
5	Year				2015 - 2042	
18	Daylight saving enable	Stnd dAY.S	Standard time Daylight saving time		0 - 1	Stnd
7. RESTORE FACTORY DEFAULTS						
To set the factory defaults into the memory of the controller, first set the virtual bitswitch as shown, then 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.						
966	Virtual bitswitch setting	unused				
9	Set default values	1234 1066	Load default settings Write to Nvram immediately			
8. RESTORE PARAMETERS FROM NETWORK						
To restore the data from the network first set the virtual bitswitch on item 966 and the appropriate unit number on item 1. Then check item 965 to see if this facility is available on the network. The information on item 965 is received from a network broadcast every few minutes. If the restore parameter facility is available and operational then item 965 will be set to a non zero number e.g. 2. To request restore parameters set item 964 to 1234. Item 963 displays parameters restore progress. When all parameters are downloaded item 964 is cleared to 0.						
965	Master database port	0 1 - 4	Not in use NC port no			
964	Set restore parameters from network	1234	Request restore			
963	Parameter restore progress	rdy dnl.r din.p dnl.c FAIL	Restore function possible Restore requested Restore in progress Restore complete Restore fault			
959	Requested template	0 1-9999	As commissioned Template number		0 - 9999	









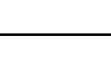
JTL ENERGY MONITORING ITEM NUMBERS

RL450

ITEM	DESCRIPTION	CODE	CODE MEANING	FACTORY DEFAULTS	RANGE	ITEM 9 VALUE
9. SYSTEM ALARMS & EVENTS						
80	Group alarm 81-88 (see graphical display data)	0 1-255	No alarms Check 81-88			
88	Unit number corrupt	Clr Un.Ft	No Fault Fault			
10. TIMER CHANNEL ALARMS						
Use item 400 to select the timer for which the alarms are displayed.						
90 (430)	Group alarms (91 - 98) (431 - 438)	See graphical data				
92 (432)	Override	oFF Or.on	Off On			
93 (433)	BMS Override	OFF b.o.on	Off On			
96 (436)	Channel on	oFF Ch.on	Off On			
97 (437)	Low override	oFF L.O.on	Off On			
98 (438)	Modbus link fault	Clr Ln.Ft	No fault Fault			

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ITEM	DESCRIPTION	CODE	CODE MEANING	FACTORY DEFAULTS	RANGE	ITEM 9 VALUE
11. DIAGNOSTIC & TEST FUNCTIONS						
6	Communications speed	4.8	Kilo baud rate			
7	Communications	HALF	2 wire			
967	Latest unit no polled on zone					
973	Latest polling interval This time shows the polling interval between the last two successful network awake messages to this unit.	min:sec				
974	Time since last awake message	min:sec				
975	Network receive timer Each time a message is read correctly the timer is set to 10 it counts down. If the timer reaches 0 then the communications module is reset.	seconds	(counts down to 0)			
976	Network receive bad character counter. The counter counts down from a preset number. When the counter reaches 0 the communications module is reset.		(counts down to 0)			
977	Transmit control line status for the operation of the Jnet network communications.	Hi Lo	Transmit Receive			
8	Bitswitch setting	unused				
99	Test digital display	Clr SEt	Not active Active			
875	Phoenix CPU supply voltage (mV)					
876	Phoenix battery voltage (mV)					
877	Phoenix CPU temperature					
10	Processor alarms (11-17) (see graphical display data)	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		RL450	
TEXT			
JTL	Start-up text		

Graphical Display of Bit Data			
Graphical display of bit data used on items where the data was shown previously as a decimal value.	Bit	Graphic	Value
	None		0
	1		1
	2		2
	3		4
	4		8
	5		16
	6		32
	7		64
8		128	