

CONTENTS

1. Jnet NETWORK IDENTIFICATION..... 1
 1.1 UNIT NUMBERS..... 1
 1.2 Global Fault Data..... 1
 2. GAS CONCENTRATIONS (ppm)..... 2
 3. CHANNEL GAS DATA & ALARMS..... 2
 4. CPC COMMUNICATIONS..... 3
 5. Jnet COMMAND FUNCTIONS..... 3
 6. DISPLAY FUNCTIONS..... 3
 7. CLOCK CALENDAR..... 3
 8. RESTORE FACTORY DEFAULT DATA..... 3
 9. RESTORE PARAMETERS FROM NETWORK..... 3
 10.1 GLOBAL SYSTEM ALARMS..... 4
 10.2 SYSTEM ALARMS..... 4
 11. DIAGNOSTIC & TEST FUNCTIONS..... 5
 DISPLAY MESSAGES..... 6
 GRAPHICAL DISPLAY DATA..... 6

JTL CPC LEAK DETECTOR INTERFACE ITEM NUMBERS					RL220		
ITEM	DESCRIPTION	CODE	CODE MEANING	BIT	RANGE	ITEM 9 VALUE	
				4321			
1. Jnet NETWORK IDENTIFICATION							
0	Unit type	rl22	Unit type				
19	Software Version number						
1.1 UNIT NUMBERS							
31	No of channels	0	8.Ch	8 channels		up to v0.00.6	
		1	16.Ch	16 channels		0 - 1	16ch
		2	24 Ch	24 channels		From v0.00.7	
		3	24 Ch	31 channels		0 - 3	16ch

JTL CPC LEAK DETECTOR INTERFACE ITEM NUMBERS					RL220	
ITEM	DESCRIPTION	CODE	CODE MEANING	BIT	RANGE	ITEM 9 VALUE
				4321		
211	Channel 1				0 - 899.9	
221	Channel 2					
231	Channel 3					
241	Channel 4					
251	Channel 5					
261	Channel 6					
271	Channel 7					
281	Channel 8					
291	Channel 9					
301	Channel 10					
311	Channel 11					
321	Channel 12					
331	Channel 13					
341	Channel 14					
351	Channel 15					
361	Channel 16					
371	Channel 17					
381	Channel 18					
391	Channel 19					
401	channel 20					
411	Channel 21					
421	Channel 22					
431	Channel 23					
441	Channel 24					
451	Channel 25					
461	Channel 26					
471	Channel 27					
481	Channel 28					
491	Channel 29					
501	Channel 30					
511	Channel 31					
1.2 Global Fault Data (From v0.00.3)						
32	Global fault data facility	0 1	Gd.En Gd.di	Enabled Disabled		0 - 1 Gd.di
40	Global Fault Data (Refer to CPC Manual)					

JTL CPC LEAK DETECTOR INTERFACE ITEM NUMBERS					RL220	
ITEM	DESCRIPTION	CODE	CODE MEANING	BIT	RANGE	ITEM 9 VALUE
				4321		
2. GAS CONCENTRATIONS (ppm) Up to v0.00.6 16 Channels From v0.00.7 31 Channels						
101	Channel 1					
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					
117	Channel 17					
118	Channel 18					
119	Channel 19					
120	Channel 20					
121	Channel 21					
122	Channel 22					
123	Channel 23					
124	Channel 24					
125	Channel 25					
126	Channel 26					
127	Channel 27					
128	Channel 28					
129	channel 29					
130	Channel 30					
131	Channel 31					

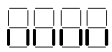

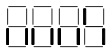




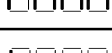
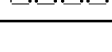
JTL CPC LEAK DETECTOR INTERFACE ITEM NUMBERS					RL220	
ITEM	DESCRIPTION	CODE	CODE MEANING	BIT	RANGE	ITEM 9 VALUE
				4321		
3. CHANNEL GAS DATA & ALARMS A general form of item numbers is shown below. The "x" shown in each item number should be replaced by the channel number (1 - 9). Up to v0.00.6 This sequence covers item numbers 210-299 and 400 - 499. For channels 10 - 16 the item nos are 300 - 369 and 500 - 569. From v0.00.7 This sequence covers item numbers 210 - 299 and 600 - 699. For channels 10 - 19 these item numbers are 300 - 399 & 700 - 799. For channels 20 - 29 400 - 499 & 800 - 899 & channels 30 - 31 500 - 519 & 900 - 919						
2x0 3x0 4x0 5x0	Channel Selection	OFF on			0 - 1	on
2x7 3x7 4x7 5x7	Mode	0 strt rdy C.E.FL sh.dn C.C.FL	Unknown Warm up Ready CPC equipment fault Shutdown CPC communications fault			
2x6 3x6 4x6 5x6	CPC status	strt run Lo.AL Zn.AL SP.AL	Warm up Ok Low level alarm Zone alarm Critical alarm			
2x2 3x2 4x2 5x2	Gas Concentration (ppm)					
2x4 3x4 4x4 5x4	Average Gas Concentration (ppm)					
2x5 3x5 4x5 5x5	Period over which averages taken				00:02 - 04:00	00:10
2x8 3x8 4x8 5x8	CPC Global fault number (see CPC Manuals)	P.Blc P.LEA	Pipe blockage Pipe leak			
2x9 3x9 4x9 5x9	Network command status	run sh.dn	Run Shutdown			
4x0 5x0	Leak alarm level (from v0.00.4 to v0.00.6)					
6x0 7x0 8x0 9x0	Leak alarm level (from v0.00.7)					
4x1 5x1	Zone alarm level (from v0.00.4 - v0.00.6)					

JTL CPC LEAK DETECTOR INTERFACE ITEM NUMBERS					RL220	
ITEM	DESCRIPTION	CODE	CODE MEANING	BIT	RANGE	ITEM 9 VALUE
				4321		
6x1 7x1 8x1 9x1	Zone alarm level (from v0.00.7)					
4x2 5x2	Spill alarm level (from v0.00.4 - v0.00.6)					
6x2 7x2 8x2 9x2	Spill alarm level (from v0.00.7)					
4. MODBUS COMMUNICATIONS						
909	Interface baud rate (from v0.00.4 - v0.00.6)	0	600 Baud		up to v0.00.6	9600
39	Interface baud rate (from v0.00.7)	1	1200 Baud		0 - 5	
		2	2400 Baud			
		3	4800 Baud		from v0.00.7	
		4	9600 Baud		0 - 6	
5	19200 Baud					
6	38400 Baud					
30	CPC unit address				1 - 248	1
34	Delay between modbus requests(secs) (from v0.00.7)				0 - 5	0
35	Delay before modbus retry requests (secs) (from v0.00.7)				2 - 5	2
36	Inter-character timing multiplier (v0.01.1 on)		1 = Standard Modbus timing		1 - 10	4
5. Jnet COMMAND FUNCTIONS						
62	Network controlled Shutdown selection	oFF sh.dn	Disabled Enabled		0 - 1	oFF
6. DISPLAY FUNCTIONS						
189	Backlight control (v0.00.4 on)	0 1 2 3	B.off BL.on BL.F.F BL.n.F	Backlight off Backlight on Backlight off, flashes for alarm Backlight on, flashes for alarm		0 - 3 B.off
7. 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	0 = Sunday 1 = Monday etc			
4	Date				01:01 - 31:12	
5	Year				2012 - 2042	
18	Daylight saving enable	Stnd dAY.S	Standard time Daylight saving time		0 - 1	Stnd
8. RESTORE FACTORY DEFAULT DATA						
9	Set default values	1234 1066	Set default values Write to NVRAM without delay			

JTL CPC LEAK DETECTOR INTERFACE ITEM NUMBERS					RL220	
ITEM	DESCRIPTION	CODE	CODE MEANING	BIT	RANGE	ITEM 9 VALUE
				4321		
9. RESTORE PARAMETERS FROM NETWORK To restore the data from the network first set 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 the parameter 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	
10.1 GLOBAL SYSTEM ALARMS (from v0.00.3)						
50	Group alarm 51-88 (see display data)	0 1-255	No alarms Check 51-58			
51	CPC equipment fault	CLr C.E.FL	No Fault Fault			
53	CPC communications failure	CLr C.C.FL	No Fault Fault			
54	Pipe blocked at all zones	CLr P.b.A.Z	No fault Fault			
55	Pipe leak at all zones	CLr P.L.A.Z	No fault Fault			
56	Vacuum test pressure high	CLr tP.Hi	No fault Fault			
57	Vacuum test deferential pressure high	CLr dp.Hi	No fault Fault			
10.2 SYSTEM ALARMS Note: Alarms 84-87 are only shown when item 32 is disabled. For channel alarms see channel data (section 3) items 2x6 & 3x6 where x is the channel number.						
80	Group alarm 81-88 (see display data)	0 1-255	No alarms Check 81-88			
81	CPC equipment fault	CLr C.E.FL	No Fault Fault			
83	CPC communications failure	CLr C.C.FL	No Fault Fault			
84	Pipe blocked at all zones (v0.00.3 on)	CLr P.b.A.Z	No fault Fault			
85	Pipe leak at all zones (v0.00.3 on)	CLr P.L.A.Z	No fault Fault			
86	Vacuum test pressure high (v0.00.3 on)	CLr tP.Hi	No fault Fault			

JTL CPC LEAK DETECTOR INTERFACE ITEM NUMBERS					RL220	
ITEM	DESCRIPTION	CODE	CODE MEANING	BIT	RANGE	ITEM 9 VALUE
				4321		
87	Vacuum test deferential pressure high (v0.00.3 on)	CLr dp.Hi	No fault Fault			
88	Unit number corrupted/not set	CLr Un.CF	No fault Fault			
11. DIAGNOSTIC & TEST FUNCTIONS						
6	Jnet communications speed	4.8	kilo baud rate			
7	2 wire 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)			
8	Bitswitch setting		Not used			
99	Test digital display	CLr SEt	Not active Test active		0 - 1	
10	Processor alarms (11-17) (see 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 MESSAGES		RL220
NORMAL DISPLAY		
RL22	Unit type	
ALARM TEXT (in descending priority order)		
LL-xx	Low level alarm on channel xx	
Zn.xx	Intermediate level alarm (zone) on channel xx	
SP-xx	High level alarm spill on channel xx	
P.b-xx	Pipe blocked on channel xx	
P.L-xx	Pipe leak on channel xx	
C.E.FL	CPC equipment fault	
C.C.FL	CPC communications fault	
Lo.FL	CPC low flow fault	
FAIL	JTL network communications failure	
OTHER TEXT		
JTL	Start-up message	

GRAPHICAL DISPLAY OF BIT DATA (FROM V0.00.4)				
Graphical display of bit data used on items where the data was shown previously as a decimal value	bit	Graphic	Value	<u>Note:</u> Where the data is shown as a decimal value the meaning is the sum of the associated value e.g. bits 2 and 5 set would be displayed as 18 (16+2)
	None		0	
	1		1	
	2		2	
	3		4	
	4		8	
	5		16	
	6		32	
	7		34	
	8		128	