

Made By: AB 07/10/14

Version: 1.0

Title – Status channel configuration

(Issue 1)

User Manual to Configure the Status Sensor for a GPRS Logger using Radwin Advanced Download/Upload/Utilities

Before you begin, you must ensure that:

- The installed Radcom software is at least v4.55.
- The installed Firmware on the Lx Logger is at least v2.23.
- Ensure logger is 'stopped' (not recording)

Logger Configuration

To start programming your logger, select Download Options > Advanced Download/Upload /Utilities and select your Logger type from the drop-down menu, the Baud rate will automatically update.

Select the correct Comm port which the logger is connected to.

Click 'Download Parameter Settings For Last Recording' and click the 'OK' button to continue.

Advanced Download/Upload/Utilities				
Logger Zone Location Type: Connection:	₩ Multilog LX		▼ Baud:	දි 9600 ▼ දි COM3: A1 ▼
Number:				
Download/Upload Utiliti	es Signal			
C Enter New Paramete	ers			
Ownload Parameter	er Settings For Last Recordi	ng		
C Download Parameter	er Settings And All Recorded	d Data		
O Download Last Num	ber Of Days Data:		30	
C Download Logger M	emory From Address:	0	Of Length:	0
			0	K Cancel

The information will then start downloading from the logger.



Click the 'Location' button to choose a new Location for the logger.



Multilog LX GPRS - v3.27				
Multilog LX GPR5 - v. i Identity Channel Configuration Main Recording Secondary Recording Secondary Recording Data Display Configurat GPR5 Configuration	Identity: Zono: Location: Ime Logger Time: GSM Clock:	00 0F 10:23:13 21/01/2013 Error: 0 Minutes 10:23:22		
🗐 Status	Comments: Name: Site Info:	Test Comment. Halma Water Management TY Coch House Liantarnam Park Way CWMPR AN	^	
	Load	Save Upload	Cancel	

To create a new Location, select the Zone in which it is to be located, then click the 'Tools' button, and then click 'Create New Location...'.



The Location Configuration screen will open. Enter your new Location number (and comment if required) as highlighted below

	Location Con	figuratio	n13_01 : Radwin All
Configure: Basic Radwin All Manual Call			tity and name. Enter names for each of the logger channels.
View Autocall Data Generator	Identity Zone:	13	
Alarm Programm Alarm Receiver	Location:	_01	Status logger " N, 00° 00' 0.00" E
	Channel Names Channel Name A 01 A 02		
			Print Save Cancel

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Click the 'Logger' tab, and change the following: Select 'GPRS' from the Connection Type drop down menu. Enter the phone number of the logger in the SMS Voice Number text box **in international format (e.g. for UK +44)**.

	Location Configu	ration TEST101 : Radwin All
Configure: Configure: Configure: Radwin Al Wiew Configure: Natural Configure: Natural Configure: Natural Configure: Natural Configure: Natural Configure: Natural Configure: Natural Configure: Natural Configure: Natural Configure: Natural Configure: Natural Configure: Natural Configure: Natural Configure: Natural Configure: Natural Configure: Natural Configure: Configure: Configure: Configure: Configure: Natural Configure: Configure: Natural Configure: Configu	communicate with the logge	type and baud rate. Select the connection type (how the computer will r), and enter telephone numbers if required. The logger manufacture nsducer Unit/Levels Meter Autocal Memo Auto Database E LX GPRS Baud: 9600 I1/01/1970 Serial: 12434 11/01/1970 Last Known Logger Configuration GPRS +447876344553
		Print Save Cancel

Click the 'Transducers' tab, select 'Channel 01' from the Channel drop down menu, and change the following:

Uncheck the 'Apply Logger Calibration' checkbox. Select 'Digital (Flow)' from the Transducer Type drop down menu.

	Location Configuration _12_01 : Radwin All
Configure: Basic Radwin All Manual Call Autocal Data Generator Export Alarm Receiver Remote Autocall Remote Alarm Ro	Transducer - Select the transducer type for each channel. Transducers Must be configured for each recording channel in order to calibrate the downloaded data. Select 'Configure' or double
	Print Save Cancel



Change the Sensor Type to 'Open =1 ; Closed =0', by double clicking on 'Sensor Type' (as highlighted above), and choosing " from the Sensor Type drop down menu on the Flow Transducer screen.

Flow Transducer				
Select the units Sensor type. This defines the type of units that can be applied to the data. Select a stored transducer from the list, or select use	я У			
Sensor Type:				
Transducer Volume				
Select: User Frequency Remove				
Enter/Edit Transducer				
Name:				
Units Per Pulse: 1.000000				
Offset: 0.000000				
Data Type: All Data Values	-			
Add to Select Transducer List Bands				
Export	icel			

Click the 'OK' button to exit the Flow Transducer screen.

Click the 'Save' button to exit this screen, and then double click on the Zone which you have just created.



Click on the 'Main Recording' tab, and set the time and date you wish for the recording to start. Also select the rate which you want the data to be sampled at.

Select Cyclic Memory. (Cyclic Memory continues to record when the memory is full, by overwriting the first stored data stored in the memory.

For initial trialling a Sample Rate of 5 seconds is recommended – this may be extended to suit local requirements.

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	RADIO-TECH	Title – Status channel o	configuration
	ECHNOLOGIES	Made By: AB 07/10/14	(Issue 1)
	Multilog LX GPR	- v3.05 - Main Recording	×
Multilog LX GPRS - v. Identity Channel Configuration Main Recording Secondary Recording Secondary Recording Bacton Josplay Configurat GPRS Configuration Status	Record Record Start Time: Record Stop Time: Sample Rate: Enable Stop Logging Mode Channel 1: F Ena Channel 2: F Ena Channel 3: Ena Channel 4: Ena SMS Message Type: Load Save	ibled Count Standard ibled Count Standard ibled Count Standard Variable sample rate	▼ ▼ ▼ ▼ Cancel

Click on the 'GPRS Configuration' tab and from the Data drop down select the GPRS method to be used:-

	Multilog LX G	iprs - v3.27 - gprs c	Configuration	×
Multilog LX GPRS - v. Glaentity Channel Configuration Main Recording Secudo Recording Secundary Recording Configuration GRRS Configuration Status	Data: [1] UDP: [2] UDP: Call Times: Enable X01 X02	GPRS UDP ▼ SMS GPRS Email GPRS FTP GPRS FTP + SMS Backup GPRS UDP 00:00:00 00:00:00	Alarms: G SMS Backup Number UDP [1] [1]	PRS UDP
	Stress GPRS Network Co Network Name: APN: SMTP Server: Email Username:	00:00:00 nfiguration 02.wyless.net Save	[1] Username: Password: Password:	Select Radcom r4dt3ch

Click on 'Edit' and apply your site details (those for HWM Datagate are shown)

\sim	× ()	Ref: FAQ0063		Version: 1.0
V/ V \	nvironmental RADIO-TECH	Title – Status	channel configu	iration
	Fund Conservation Systems	Made By: AB 07	7/10/14	(Issue 1)
	Updat	te UDP Site Details	×	
UDP Configur UDP Configur UDP Addres UDP Port Nu UDP Port Nu I Identity	ation s: inbound.hwmonli mber: 23024 Multilog LX GPRS Data: GPRS	ок - v3.27 - GPRS Configuratio	GPRS UDP	
 Channel Configuration Main Recording 	[1] UDP: inbot	and.nwmonline.com	Edit	
 Pseudo Recording Secondary Recording 	· · · · · · · · · · · · · · · · · · ·	īmes Table 💽 SMS Backup		
Data Display Configurat GPRS Configuration Status	<mark>₹01 0</mark> ₹02 0	0:00:00 [1] inb 0:00:00 [1] inb ation	iound.hwmonline.com iound.hwmonline.com iound.hwmonline.com	
	APN: SMTP Server: Email Username:	O2.wyless.net Username Password: Password:	r4dt3ch	

To enable the logger to send the data in, double click on the '01' line (as highlighted above).

	Configure Call Time 01	×
Call Time		
Enable Call		
Call Time:	07 🕶 : 00 🕶 :00	
UDP:	[01] inbound.hwmonline.com	•
	OK Canc	

-

Check the 'Enable Call' checkbox, and then select the hours which you want the logger to dial to the modem. The minutes will automatically be generated from the serial number of the logger and cannot be changed (if you change it, it will default back at a later time).

Click the 'Upload' button to upload the parameters to the logger.



The Upload Parameters page will display.

	Upload Parameters	×
Logger00 Location0F Type: Connection: GSM Data Number: SIM Voice Number:	Image: Multilog LX GPRS Baud: \$\$ 9600 Direct (Cable) Image: Port: \$\$ COM3: A +447500087128 +447500087128	•
Options Main Recording and Re Update Logger Time Stop Main Recording	estart	
Update Logger Time as:	PC Time Advanced OK Can	

Click the 'Advanced' button. Check the following checkboxes:

- Main Recording Params and Restart
- General Parameters
- Update Logger Time (this will enable the 'Update Logger Time as' drop down menu, where you can choose to set the logger time as the same time as your PC, or +/- up to 24 hours as required).
- SMS Parameters
- SIM Card Voice Number (this will enable the 'SIM Card Voice Number (in '+' international format)' text box where you must enter the phone number of the logger.

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RECONSTRUCTION Systems	Made By: AB 07/10/14	(Issue 1)
Uploa	ad Parameters	
Logger Zone _0F Type: [™] Multilog LX (Connection: GSM Data Number: GSM Data Number: SIM Voice Number: SIM Voice Number: • 444750008712 Options Options Options GRRS Parameters Image: Sim Card Voice Number Stop Main Recording Image: Sim Card Voice Number ('+' format):	▼ Port: 💭 COM3: AT ▼	

Click the 'OK' button to upload the parameters to the logger, and the Uploading box will appear. When this is complete the parameters have been uploaded to the logger.

Alarm setting

To set up alarms for the status sensor open Radwin alarm programmer -



Select Options, Alarm configuration

Select the correct Logger type, Connection by Direct (cable) and 'Enter New Alarm Configuration'. Then 'OK'

	Ref: FAQ0063	Version: 1.0
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RECORD	Made By: AB 07/10/14	(Issue 1)
Downl	oad Configuration	
Logger Zone		
Location		
Type:	▼ Baud: 🖉 9600 ▼	
Connection: Direct (Cable)		
GSM Data Number:		
SIM Voice Number:		
C Options		
Enter New or Load Stored Alarm Configuration	ation	
O Download Alarm Configuration		
	els, Telephone Numbers, Comments	
🗖 Alarm Profiles		
Alarm Report	Profile Exceedances	
Min/Max Data		
	OK Cancel	

You should now see the alarm set up screen -

		Alarn	n Configuratio	n : Leveis				
Multilog LX	Channel	Upp	er L	ower	Minimum Ni	ght Rat	e Of Change	
	h 01 [Invalid Sei	nsor -] 0.00	0000 0	.000000	0.000000	0.00	00000	
	02 [Invalid Sei	-	0000 0	.000000	0.000000	0.00	00000	
🌺 Tel Numbers	03 [Invalid Sei		0000 0	.000000	0.000000	0.00	00000	
🗒 Comments	04 [Invalid Se	-	0000 0	.000000	0.000000	0.00	00000	
I Configuration:	Alarm	nel Tune		Telenhone		Persistence		
Configuration:	Alarm Chan			Telephone		Persistence	courences	/
ionfiguration:	A01 01	LUA	- Lower or Upper .	01 "		1 Out Of 1 O		^
nfiguration:	▲01 01 ▲02 01	LUA	- Lower or Upper . - Lower or Upper .	01 · " 01 · "		1 Out Of 1 O 1 Out Of 1 O	ccurences	^
onfiguration:	▲01 01 ▲02 01 ▲03 01	LUAI LUAI LUAI	- Lower or Upper . - Lower or Upper . - Lower or Upper .	01 - " 01 - " 01 - "		1 Out Of 1 O	ccurences ccurences	
onfiguration:	▲ 01 01 ▲ 02 01 ▲ 03 01 ▲ 04 01	LUA LUA LUA LUA	- Lower or Upper . - Lower or Upper . - Lower or Upper . - Lower or Upper .	01 - " 01 - " 01 - " 01 - "		1 Out Of 1 O 1 Out Of 1 O 1 Out Of 1 O	ccurences ccurences ccurences	
nfiguration:	▲ 01 01 ▲ 02 01 ▲ 03 01 ▲ 04 01	LUAI LUAI LUAI LUAI LUAI	- Lower or Upper . - Lower or Upper . - Lower or Upper .	01 - " 01 - " 01 - " 01 - " 01 - "		1 Out Of 1 O 1 Out Of 1 O 1 Out Of 1 O 1 Out Of 1 O	ccurences ccurences ccurences ccurences	
onfiguration:	▲ 01 01 ▲ 02 01 ▲ 03 01 ▲ 04 01 ▲ 05 01	LUAI LUAI LUAI LUAI LUAI	Lower or Upper . Lower or Upper .	01 - " 01 - " 01 - " 01 - " 01 - "		1 Out Of 1 Out 1 Out Of 1 Out 1 Out Of 1 Out 1 Out Of 1 Out 1 Out Of 1 Out	ccurences ccurences ccurences ccurences	

For alarm levels on Channel 1 - leave all the values at Zero. The normal 'Closed' event status event has a value of Zero and the 'Open' event has a value of 1 - so an alarm will trigger directly the

status moves away from Zero. Enable Alarm 01 on Channel 01 with a lower alarm level exceedance and a persistence of 1 out of 1 as below -

		Ref: FAQ0063	Version: 1.0
HV		Title – Status channel configura	tion
	Riccarevalue	Made By: AB 07/10/14	(Issue 1)
	Alarm Con	figuration Update	
	Alarm Configuration 01 Status: Finabled Type: Channel: Channel: Channel: Channel 01 Telephone: Other of the second seco	arm Level Exceedance	
	Persistence: 1 💌 Out Of	1 Occurences OK Cancel	

Apply a phone number for the alarm to be sent to. If the phone number isn't yet in your phone book go to the Tel Numbers tab -

In the Tel Numbers list insert the phone numbers that you want the Alarms to be sent to. Double click on each to insert the numbers.

		Al	arm Configuration : Te	Numbers	_ 🗆	×
Multilog LX Levels Profiles Tel Numbers Comments	Position 01 02 03 04 05 06 07 08 09 09 09 10 09 11 01 12		mber 4163362780			<
Load Configuration:	Alarm	Channel 01 01 01 01 01 01 01 01 01	Type: LUAE - Lower or Upper LUAE - Lower or Upper	Telephone 01 - '+44163362780' 01 - '+44163362780' 01 - '+44163362780' 01 - '+44163362780' 01 - '+44163362780' 01 - '+44163362780' 01 - '+44163362780'	Persistence 1 Out Of 1 Occurences 1 Out Of 1	- ^

Then select 'Upload' to load the alarm configuration to the logger -

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	RECEIVICIONS Fluid Conservation Systems	Made By: AB 07/10/14	(Issue 1)
		Ioad Options	
	Options Alarm Conditions, Levels, Telephone Numb Alarm Profiles		

And select 'OK' to complete

If you are going to use Radwin to view the graphs of the data at any time you will need to create a Special Transducer type in order for the titles on the Graph axis to appear correct.

To do this go to Radwin Set Up > Options > System Configuration > 'Transducers/Sensors/Units' tab –

System Configuration : Radwin All					
Configure: Basic Radwin All Manual Call View	to change between	ors/Units - Select the default ur n Metric and Imperial units. ctions Startup Transducers.	nits for sensor types. Base flow units may be selv /Sensors/Units Statistics Manual Call Auto	~	
	Configuration Path:	C:\Radwin	Edit		
Export Marm Programm Marm Receiver Semote Autocall	Base Flow Units: Transducers Channel Type:	Litres	Edit Transducer Types		
	Sensors/Units			_	
	Sensor Type: Pressure Flow Depth Dissolved Oxygen Chlorine Edit Sensor Ty	Units: Metres Head Litres/Sec Metres Base Units Base Units Pase Ilnits	43.599998 Next Data Value Next Data Value Next Data Value	·	
			ОК С	ancel	

Select Edit Sensor Types -

	Ref: FAQ0063 Title – Status channel con	Version: 1.0
Red Contraction	Made By: AB 07/10/14	(Issue 1)
	Edit Sensor Types	
	pes to be created, and new Units to be created and new sensor types. To create a new Sensor Create a new Sensor Remove Create	

From the 'Select Sensor Type' drop down select –User Defined Sensor-

Create a Sensor – Open = 1 ; Closed = 0

Edit Sensor Types			
Allows new Sensor Types to be created, and for both pre-defined and new sensor types.		\$	
Current Sensor Types			
Select Sensor Type:	Edit Units		
User Defined Sensor Remove			
User Defined Sensor			
Sensor Type to Create:			
Open =1; Closed =0	Create		
	ОК		

Then Select OK to save it (see below)

	System Configura	tion : View - Advance	ed	×
Configure: Advanced Radwin All Manual Call View	Transducers/Sensors/Units - Signal to change between Metric and Startup Transducers/Sensors/Units	mperial units.	sor types. Base flow units may be aph Options Graph Colours/Sty	~
Autocall Data Generator Export Alarm Programm Alarm Receiver Remote Autocall	Configuration Path: C:\Radv Base Flow Units: US Gall Transducers Channel Type: Z Dini		Edit Transducer Types	
- 🔐 Remote Alarm R	Sensors/Units Sensor Type: Unit Noise Spread dBu Open = 1: Closed = 0 Swpty: 0 Full = 1. Units	:: Mis 3 Nev 3 Nev Nev	sing Data Replacement Value xt Data Value xt Data Value xt Data Value xt Data Value	
	Edit Sensor Types]	Edit Selected Item	Cancel

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In the location Database for the logger you will need to select this Sensor type so that it appears on the Y axis of the graph –

Go to the Radwin Data File, find the logger, right click on it and select 'Location Database' and 'Edit location' and select the transducers tab –



Then select 'Configure' and from the Transducer type drop down select 'Open = 1 ;Closed = 0'

Flow Transducer				
	nsor type. This defines the type of units that can be A Select a stored transducer from the list, or select user			
Sensor Type: Transducer	Open = 1; Closed = 0			
	r Defined Transducer 🗾 Remove			
Enter/Edit Transducer-				
Name:				
Units Per Pulse:	1.000000			
Offset:	0.000000			
Data Type:	All Data Values			
Add to Select Transducer List Bands				
Export	OK Cancel			

Now when you view the graph the X Axis will show the timescale and the Y axis will show the Open and Closed events –



The Horizontal portions of the graph at level = 1 are the durations of the Open events. The angles in the vertical lines of the graph indicate where the Open event has occurred across one of the 1 minute sample rate boundaries.

Document History:

Edition	Date of Issue	Modification	Notes
1st	07/10/14	Release	