

How to configure Controllercom loggers for DNP3

Since ControllerCom F/W V1.14, it has been possible to use the ControllerCom and Controller combination with the DNP3 protocol.

ControllerCom Configuration

The ControllerCom can recognise incoming DNP3 calls and can be configured to optionally contact a DNP3 Server when an alarm occurs. To configure the ControllerCom for these facilities, you will need RM301 V3.17 or greater.

F ReaderMate 301	
ReaderMate 301 Classic V3.17 - Radcom Technologies Ltd	
Infra-Red Probe	
F1Setup LoggerF2Read LoggerF3Spot ValuesF4View Logger DataF5Calibrate LoggerF6Step TesterF7Read RM2/4/501F8Set CommunicationF9Configure System	

After selecting the appropriate communication port for IR communication, press F1 to see the current Setup for the controller.

F Logger Setup (Online)	
Logging Start (0	GMT) = 00:00 01/01/98 (Barrel)
F1Read Logger SeF2Logger IDF3Logger (GMT)F4Logging RateF5Pulse InputF6ADC InputF7RegisterF8LocationF9Dial BackF10Setup Logger	<pre>etup < Channel > = NW0001 - 1 = 16:06:56 19/03/09 = 15 Min = Flow @ 10.000 1/Pulse = Pressure @ 0-409.2 m = 0.000000 = Res = No Inputs</pre>

Select "F9 – Dial Back" to view the telemetry related setup.



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Made By: AB 15/09/15

(Issue 2)

F Logger Setup (Online)	
Call In Parameters	
F1 Data Call In F2 Alarm Call In F3 Extra Settings F4 Phone Numbers & Stats F5 3s Signal Log F6 Daily Signal Log F7 Show Modem Schedule F8 Continue	

In order for the ControllerCom to be available for calls from the DNP3 Server, it is necessary to set up an appropriate Modem Schedule using "F7 – Show Modem Schedule"

F Logger Setup (Online)		
Modem	Power Schedule	•
 00:00 01:00 02:00 03:00 04:00 05:00 06:00 07:00 	V 08:00 V V 09:00 V V 10:00 V V 12:00 V V 13:00 V V 14:00 V V 15:00 V	16:00 17:00 18:00 19:00 20:00 21:00 22:00 23:00
<u>F1</u> -Clear All	<u>F2</u> -Set All	F3 -Save

Select the hours that you wish the ControllerCom to be available to the DNP3 Server and press "F3 – Save". Please note that you must have an add-on power supply to support this feature, either mains or battery box.

Select "F3 – Extra Setting".

F Logger Setup (Online)	
Extra Settings F1 Randomize Hours = 00 F2 Routing Number = 00	
F3 Call In = NO F4 Call In Type = Data F5 Call In Trigger = Time F6 Total Messages = Unlimited F7 SMS Messages = Full Only F8 DNP3 Settings = Alarm On (MS 120:0S 3 F9 F10 Save	300)



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Select "F8 – DNP3 Settings" to set the DNP3 settings.

F Logger Setup (Online)		
DNP3	Settings	
F1 DNP3 Alarm Enabled F2 Master Address F3 Outstation Address F4 Save	= Yes = 120 = 300	

Use "F1 – DNP3 Alarm Enabled" to have ControllerCom contact a DNP3 Server on the phone number and conditions specified using "F2 – Alarm Call In" from the "Call In Parameters" screen above. For suggested alarm settings see the end of this document.

Enter Master Address
120
OK CANCEL

Select "F2 – Master Address" to be able to change the DNP3 Master Address for the ControllerCom.

Enter Outstation Address
300
OK CANCEL

Select "F3 – Outstation Address" to be able to change the DNP3 Outstation Address for the Controller.

When the settings are made, select "F4 – Save".



The ControllerCom will initialise the DNP3 download pointer when it detects a change in the "Logging Start" of the Controller.

When you use "F10 – Setup Logger", to send the new settings to the Controller, select "F1 – Yes" for "Change Logging Start?"

F Logger Setup (Online)	_ 🗆 🗙
Change Logging Start?	
F1 -Yes F2 -No F3 -User Setting	

Once the new configuration has been sent to the Controller, you will be prompted as follows:



Select "Yes" and the ControllerCom will read the new Setup from the Controller.

Suggested Alarm Level Settings For A Pressure Controller

The first channel pair of the Controller has Flow and Downstream Pressure:

F Logger Setup (Online)		
Logger	Alarms	
F1Alarm Phone NumberF2Flow AlarmF3DurationF4HighF5LowF6Pressure AlarmF7DurationF8HighF9LowF10Save	: 075679876545 : On : 00:15:00 : 15 1/s : 0.15 1/s : On : 00:15:00 : 55 m : 32 m	



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Low Flow Alarm set at 0.5m3/hr

High Flow Alarm set at 10% higher than current max flow in control table

Downstream Low Pressure alarm set at 3m below actuator low setting Downstream High Pressure alarm set at 3m above actuator high setting

The second channel pair of the Controller has Upstream Pressure:

F Logger Setup (Online)		_ 🗆 🗙
Logger	Alarms	
F1Alarm Phone NumberF2Flow AlarmF3DurationF4HighF5LowF6Pressure AlarmF7DurationF8HighF9LowF10Save	: 075679876545 : Off : 00:15:00 : 15 1/s : 0.15 1/s : On : 00:15:00 : 90 m : 10 m	

Upstream Low Pressure alarm set at 10m Upstream High Pressure alarm set at 90m

Remember to set the Alarm Phone Number to the DNP3 Server's modem.

Document History:

Edition	Date of Issue	Modification	Notes
1st	02/05/12	Release	
2nd	15/09/15	Format update	