

Rain8UPB protocol

9/15/08

Rain8upb configuration for examples below

NID = 1

DID = 2 (Rain8 module # = 1, zone 2 used for example)

Rain8UPB module numbers from 1 to 30. Module 1 would translate to DID 1 - 8, Module 2 would translate to DID 9 - 16, module 3 = DID 17 - 24, etc.

INPUT DID = 9 (used when input feature connected to flow meter or rain sensor)

DIRECT MODE on cmd, zone 2, 8 byte mode

CW1	CW2	NID	DID	SID	MDID	ARG	CHK
08h	00h	01h	02h	FFH	22h	64h	6EH

DIRECT MODE off cmd, zone 2, 8 byte mode

CW1	CW2	NID	DID	SID	MDID	ARG	CHK
08h	00h	01h	02h	FFH	22h	00h	D2H

Commands may also be sent in the 9-byte mode

LINK MODE on cmd, zone 2

CW1	CW2	NID	DID	SID	MDID	ARG	ARG	CHK
89h	00h	01h	02h	FFH	20h	FFh	FFh	55h

LINK MODE off cmd, zone 2

CW1	CW2	NID	DID	SID	MDID	ARG	ARG	CHK
89h	00h	01h	02h	FFH	21h	FFh	FFh	54h

Status request, zone 2

CW1	CW2	NID	DID	SID	MDID	CHK
07h	00h	01h	02h	FFH	30h	C5

Status response (ON)

CW1	CW2	NID	DID	SID	MDID	ARG	CHK
08h	00h	01h	FFH	02h	86h	64h	0AH

Status response (OFF)

CW1	CW2	NID	DID	SID	MDID	ARG	CHK
08h	00h	01h	FFH	02h	86h	00h	6EH

Input Feature

To utilize the input feature your Rain8upb must be configured with the Rain8UPB Config V3.1 software:

1. The "input enable" box must be checked.
2. The DID set to any address desired that is not in use.
3. The "rain switch" check box is cleared for flow meter applications.
4. Click "load Module".

The rain switch or flow meter must be connected between the Rain8UPB's input (#10) and ground (#12) terminals

When the **flow meter is active** a 16bit register is incremented each time a contact closure is detected. The contents of this register can be read by sending a status request as shown below to the DID selected (09 in the example below) in the above configuration. The registers are non-volatile ram. The count will roll over at the FFFFhex (65536 dec) count.

Request reading (DID is set to value entered in "inputDID" box)

CW1	CW2	NID	DID	SID	MDID	CHK
07h	00h	01h	09h	FFH	30h	BEh

flow meter response to above request

CW1	CW2	NID	DID	SID	MDID	ARG1	ARG2	CHK
09h	00h	01h	FFH	09h	86h	00h	04h	62h

ARG2 is the least significant byte of the 16bit register and ARG1 is the most significant byte

When the **rain switch is active** the request is the same but the response is only 8 bytes with the ARG byte either 00 or 64. The rain switch is connected to the Rain8UPB's input (#10) and ground (#12) terminals.

Rain switch response to above request

CW1	CW2	NID	DID	SID	MDID	ARG	CHK
08h	00h	01h	FFH	09h	86h	00h	04h

ARG = 00 means rain switch is closed (wet)

ARG = 64 means rain switch is open (dry)

Note that if the "input enable" box is not checked and loaded there will be no response to an input status request.