

Serial receiver configuration protocol

Uses the serial input on the PCB. Changes become effective after power cycling/reset. An USB to 3.3V serial UART cable and a serial terminal program on a computer are required. The serial terminal used must allow for sending manual commands. Below the Br@y v1.9b terminal program is used and advised.

Item	Spec.	Explanation	Values	USB to 3.3V serial cable		
Technical	3V3, 38400, 8N1	3.3V, 38400Baud, 8bits , no parity , 1 stop bit				
Format	P, P, P, S, C, D, D, D	P=pre-amble, S=sync, C= command ID, D=data	P=\$55, S=\$AA			

Command	Value	Hex string (Br@y v1.9b)	Arguments	Range	Remark
System configuration		\$55\$55\$55\$AA\$FF\$XX\$YY\$ZZ	\$XX = system setup	equals definition HW setup bits (see product manual)	Serial system configuration must be enabled (e.g. to ignore HW system configuration).
			\$YY = RF channel	00=26.995MHz 03=27.145MHz 01=27.045MHz 04=27.195MHz 02=27.095MHz 05=27.255MHz	
			\$ZZ = protocol address	00, 01, 02, 03	
Serial system configuration	Disable	\$55\$55\$55\$AA\$FE\$00\$00\$00			Default
	Enable	\$55\$55\$55\$AA\$FE\$00\$00\$01			
Digital integration time error input (EI)	0.5s	\$55\$55\$55\$AA\$FD\$00\$00\$01			
	1.0s	\$55\$55\$55\$AA\$FD\$00\$00\$02			
	2.0s	\$55\$55\$55\$AA\$FD\$00\$00\$03			Default

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Command	Value	Hex string (Br@y v1.9b)	Arguments	Range	Remark
CRC time out	0.5s	\$55\$55\$55\$AA\$FC\$00\$00\$01			
	1.0s	\$55\$55\$55\$AA\$FC\$00\$00\$02			
	2.0s	\$55\$55\$55\$AA\$FC\$00\$00\$03			Default
Run after time valves and pumps when ballast system is empty	0.0s	\$55\$55\$55\$AA\$FB\$00\$00\$00			Default
	0.5s	\$55\$55\$55\$AA\$FB\$00\$00\$01			
	1.0s	\$55\$55\$55\$AA\$FB\$00\$00\$02			
	2.0s	\$55\$55\$55\$AA\$FB\$00\$00\$03			
Run after time valves and pumps when ballast system is full	0.0s	\$55\$55\$55\$AA\$FA\$00\$00\$00			Default
	0.5s	\$55\$55\$55\$AA\$FA\$00\$00\$01			
	1.0s	\$55\$55\$55\$AA\$FA\$00\$00\$02			
	2.0s	\$55\$55\$55\$AA\$FA\$00\$00\$03			