HobbyPCB RS-UV3 Serial Command Reference

Command	Syntax	Description	Notes	Response
AF	AFn or AF?	Turns on (n = 1) or off (n = 0) Audio Lowpass Filter	300-2500 Hz - Filter ON; 300-5500 Hz Filter Off	AF? reports current Audio Lowpass Filter state
AI	AIn or AI?	Sets Function of the Arduino DIN pin	0 - OFF, 1 - SQ OPEN, 2 - PTT	AI? reports current Arduino DIN pin function
AO	AOn or AO?	Sets Function of the Arduino DOUT pin	0 - LOW, 1 - SQ OPEN, 2 - DTMF DETECT, 3 - TX ON, 4 - CTCSS DET, 5 - HIGH	AO? reports current Arduino DOUT pin function
B1	B1n or B1?	Sets serial port 1 baud rate (Arduino/FTDI/internal)	0 - 1200, 1 - 4800, 2 - 9600, 3 - 19200, 4 - 38400, 5 - 57600	B1? reports current serial port 1 baud rate
B2	B2n or B2?	Sets serial port 2 baud rate (I/O connector/external)	0 - 1200, 1 - 4800, 2 - 9600, 3 - 19200, 4 - 38400, 5 - 57600	B2? reports current serial port 2 baud rate
BC	BCnnn or BC?	Sets the RF CW Beacon Timer in sec	Will send RF CW Beacon after nnn seconds; 60 - 600 seconds, 0 = off.	BC? Reports RF CW Beacon Time
BL	BL	Sends program control to the bootloader	Used to update the firmware	None
BM	BM<text> or BM?	Sets beacon message to text 32 char max		BM? reports current beacon message; In RF CW mode, '#nn' sends a carrier for nn seconds (up to 30); & repeats the message.
BT	BTnnn or BT?	Sets the audio CW Beacon Timer in sec	Will send audio CW Beacon after nnn seconds; 60 - 600 seconds, 0 = off.	BT? Reports audio CW Beacon Time
CC	CCn	Checks to see if the squelch is open on memory channel n	Takes about 50 msec for signal squelch and 100 mS for tone squelch	0 - squelch closed; 1 squelch open
CF	CFnnnn or CF?	Sets CW audio tone frequency 400 - 1300 hz	all digits required	CF? reports current CW frequency
CL	CL<text> or CL?	Sets call sign to text 20 char max		CL? reports current call sign
CP	CPn	Returns all parameter for memory channel n	TX Fr, RX Fr, Tone Fr, SQ Mode, PWR; Channel 0 is current operating set	TX Fr<CR> RX Fr<CR> Tone Fr<CR> SQ Mode<CR> PWR<CR>
CS	CSnn or CS?	Sets CW speed, 5 - 25 wpm	all digits required	CS? reports current CW speed
CT	CT<string>	Sends a string of audio CW characters	Non CW characters generate a space, 28 characters max	None
CW	CW<string>	Sends a string of RF CW characters	Non CW characters generate a space, 28 characters max	None
DD	DDnnnn or DD?	Sets DTMF tone duration in msec. 50 - 2000	all digits required	DD? reports current DTMF tone duration
DP	DPn or DP?	Turns on (n = 1) or off (n = 0) De-emphasis/Pre-emphasis		DP? reports current De-emphasis/Pre-emphasis state
DR	DRn or DR?	Turns on (n = 1) or off (n = 0) DTMF detection	Will send the hex value of the DTMF character via serial	DR? reports current DTMF detection state
DS	DS<string>	Sends DTMF characters 0,1,2,3,4,5,6,7,8,9,A,B,C,D,* and #	Non DTMF characters generate a pause, 28 characters max	None
EX	EXn or EX?	Sets the function of E_TX and E_RX pins	0 - E_TX radio transmitting, E_RX sq open; 1 - TTL serial port	EX? reports current function of the E pins
FD1	FD1	Sets all settings to 'Factory Defaults'	Used to return the RS-UV3 to default state	None
Fz	Fz nnnnnn or F?	Sets freq to nnnnnn kHz z = R, T, S, U, D	all digits are required, R - RX only, T - TX only, S - simplex, D - down, U - up	F? reports RX and TX frequencies
FM	FMnnnnnn	Measures the signal level on the given frequency (nnnnnn kHz)	all digits required, returns RX to original channel, takes about 0.1 sec	Signal level in dBm
FW	FW	Report current firmware version		FW: version
GM	GMnn or GM?	Sets Mic Gain level from 0 - 15 in 2 dB steps	Defaults to 10, all digits required	GM? Reports current gain setting
GT	GTnn or GT?	Sets DTMF/CW Tx Gain level from 0 - 15 in 2 dB steps	Defaults to 8, all digits required	GT? Reports current gain setting
HP	HPn or HP?	Turns on (n = 1) or off (n = 0) Audio Highpass Filter	Sets the low frequency corner	HP? reports current Audio Highpass Filter state
HT	HTnnnn or HT?	Sets the TX Hang Time in mSec, 0 - 5000, 0 = off	The TX will unkey nnnn mSec after PTT goes away, all digits are required	HT? reports Hang Time
ID	ID	Sends call sign in Morse code at the set speed/audio frequency		None

IT	ITnnn or IT?	Sets the CW ID Timer in sec, 0 - 500 seconds, 0 = off.	Will send CW ID after the current transmission ends, all digits required	IT? reports CW ID Time
LD	LDn or LD?	Sets the funstion of the ST LED (Rev C or higher HW)	0 - off, 1 - on, 2 - sq open, 3 - Batt Chg Stat	LD? Reports the ST LED function
MC	MCn or MC?	Sets the maximum channel for multichannel beacons	n=0 is a single channel beacon. n = 2 - 9 will cause the RS-UV3 to recal a new channel before sending a beacon starting at channel 1 going to channel n and repeating	MC? Reports the current maximum beacon channel
PD	PDn or PD?	Turns on (n = 1) or off (n = 0) the transceiver chip		None
PW	PWn or PW?	Sets TX power to high (n = 1) or low (n = 0)	High is 23-25 dBm, low is	PW? reports power setting
RC	RCn	Recalls stored operating parameters from memory n, 1-9		None
RR	RRnn	Reads RDA1846S register xx	xx is the address of the register in hex	the value in hex of register xx
RS	RSxxyyyy	Sets RDA1846S register xx to value yyyy	in hex xx 2 andyyyy 4 digits	if successful OK<CR>, otherwise nothing
SD	SDn or SD?	Turns the CW/DTMF sidetone on/off	0 = Sidetone Off; 1 = Sidetone On	SD? reports current state of the sidetone
SN	SN	Returns receiver noise strength, lower is a better quality signal	xxxx audio S/N ratio	SN: xxxx<CR>
SO	SO	Reports the state of the squelch	0 = closed; 1 = open	SO: x <CR>
SQ	SQn or SQ?	Sets the squelch level 0-9	0 = 0ff, 1 - 8 = auto, 9 = mute	SQ? reports current SQ level
SS	SS	Returns receiver signal strength	xxxx = RF level in dBm	SS: xxxx<CR>
ST	STn	Stores the current operating parameters in memory n, 0-9	Storing channel 0 saves the default power-up state	None
TF	TFnnnn or TF?	Sets CTCSS tone freq to nnnn/100 hz	all digits are required, example: TF13180 sets tone to 131.8 hz	TF? reports current CTCSS tone frequency
TG	TG<text> or TG?	Sets TO message to text 10 char max	Message is sent after the TX times out and before it unkeys	TG? reports current TO messege
TM	TMx or TM?	Sets the Tone Squelch Mode	0 = off; 1 = Tone; 2 = Tone SQ; 3 = DCS	TM? reports the current Tone Squelch Mode
TO	T0nnn or TO?	Sets the Timeout Time in mec, 0 - 600 seconds, 0 = off.	Max transmit time, after specified time sends TO_msg and unkeys	TO? reports Timeout Time
TP	TP	Returns receiver temperature	xxx Temp in C, generaly warmer then the ambient temperature	TP: xxx<CR>
TX	TXn	Turns the transmitter on/off	n = 0 off (RX); n = 1 - 5 on (TX) with a time-out of n minutes	none
VT	VT	Returns operating/battery voltage	8.5V with external power; 6.5-8.5V on battery	VT: x.xxV<CR>
VU	VUnn or VU?	Sets volume level from 0 - 39 in 1 dB steps	DTMF decode works best with vloume 10	VU? reports current volume