Quick Reference for External Mode Commands

This document is intended as a quick reference for the communications protocol between the Brookfield DV2T/DV3T and a host PC.

Connection: USB
Data Rate: 10 Hz
Driver: Serial port emulation.

External Mode Commands			
Format of Command	**Send Command**	**Format of Response**	**Description**
I<cccc><CR>	I01B0<CR>	I<dddd><mm><xxxxxx><ss><cccc><CR>	Identify
D1<cccc><CR>	D0836C<CR>	R<tttt><qqqq><TTTT><ss><cccc><CR>	Data stream on
D0<cccc><CR>	D10369<CR>	D0<ss><cccc><CR>	Data stream off
R<cccc><CR>	R01EA<CR>	R<tttt><qqqq><TTTT><ss><cccc><CR>	Retrieve 1 data pt.
V<vvvv><cccc><CR>	V00008317<CR>	V<ss><cccc><CR>	Set Speed 0.0 RPM
	V001E02B4<CR>		Set Speed 0.3 RPM
	V00320324<CR>		Set Speed 0.5 RPM
	V003C0202<CR>		Set Speed 0.6 RPM
	V00640374<CR>		Set Speed 1.0 RPM
	V009683B7<CR>		Set Speed 1.5 RPM
	V00C88350<CR>		Set Speed 2.0 RPM
	V00FA0201<CR>		Set Speed 2.5 RPM
	V012C81DB<CR>		Set Speed 3.0 RPM
	V019000E4<CR>		Set Speed 4.0 RPM
	V01F4007B<CR>		Set Speed 5.0 RPM
	V025880AF<CR>		Set Speed 6.0 RPM
	V03E883A0<CR>		Set Speed 10 RPM
	V04B08122<CR>		Set Speed 12 RPM
	V07D081D2<CR>		Set Speed 20 RPM
	V0BB80131<CR>		Set Speed 30 RPM
	V13880297<CR>		Set Speed 50 RPM
	V177000B7<CR>		Set Speed 60 RPM
	V271003FF<CR>		Set Speed 100 RPM
Z<cccc><CR>	Z81D9	Z<ss><cccc><CR>	Zero
T<cccc><CR>	T01FE	T<line><ss><cccc><CR>* TEND<ss><cccc><CR>**	Read Tech Support *Each line in file **End of file

Explanation of codes used in the table above:

<cccc>	4 hex digits that encode a CRC or checksum value returned with every command.
<CR>	Carriage return (ASCII 13)
<mm>	2 alphanumeric chars that encode a Torque Model. See table below for details.
<xxxxxx>	6 digits that encode a Firmware version. MM.mm.bb format, without periods. Example: Major ver 1, minor ver 1, build 7, FWV = 01.01.07, xxxxxx = 010107.
<dddd>	4 alphanumeric chars that encode a Series (example: DV3T)
<tttt>	4 hex digits that encode a Record Number
<qqqq>	4 hex digits that encode a Torque. 0.01% resolution. %Torque * 100.
<TTTT>	4 hex digits that encode a Temperature. 0.01% resolution.(Temptr°C + 100) *100.
<vvvv>	4 hex digits that encode a speed. 0.01% resolution. RPM * 100.
<ss>	2 hex digit status packet returned with every command. See table below.

Torque Model <mm>

Torque Model	mm
LV	LV
2.5LV	4L
5LV	5L
RV	RV
1/4RV	1R
1/2RV	2R
HA	HA
2HA	3A
2.5HA	4A
HB	HB
2HB	3B
2.5HB	4B
5HB	5B
Custom	XX

Status Packet <ss> (binary representation)

Status / Bit ->	7	6	5	4	3	2	1	0
Audit Trail Write Error	1							
INI Write Error		1						
Sent Speed is Out of Range			1					
Temperature Probe Unplugged				1				
Temperature Probe Failure					1			
{Not Used}						✔		
Exiting External Mode							1	
Checksum Failure								1