CREATE A FreeDOS BOOTABLE USB THUMB DRIVE WITH PWM GENERATOR FOR USE WITH LAPTOP OR DESKTOP PC

1) Go to the following web page and follow the instructions to create a FreeDOS bootable USB thumb drive:

http://www.pendrivelinux.com/boot-dos-from-usb/

I have personally successfully done this, but the above is not my website, so... ***caveat utilitor !***

BACK UP YOUR THUMB DRIVE before proceeding! **Formatting will destroy all data!**

MD5 checksum for rufus.exe should be 1898b82816a2524e79d2ef23a4adc29d

2) Download the ready-to-run PWM_GEN executable app[1] to the root of the thumb drive. Rename it PWMGEN.EXE (FreeDOS supports only 8.3 filename length).

3) Plug the thumb drive into the bootable USB port[2] in your laptop and reboot the laptop. Press the hotkey for boot menu or BIOS setup in order to boot from USB drive.

4) When you get the C: prompt, that should be FreeDOS talking to you from the root of the USB drive. Type "ver" to show the OS version, just to be sure[3].

5) Type PWMGEN to run the PWM signal generator app. It should detect your machine's CPU frequency automagically and start running.

6) At this point, the RTS and DTR pins of the COM1 RS232 serial port should be cycling at the pulse width and frequency shown on your laptop's screen. **Do <u>not</u> connect the RTS voltage directly to the Vic (or Jag) photocoupler input! Doing so may damage the photocoupler LED.** Hook an oscilloscope up to pin7 (RTS) and pin5 (ground). Set the scope vertical range for +/-12 volts. Set the horizontal range for 15 milliseconds to see the waveform on the screen, with a bit of room to spare.

7) If the waveform looks good, make a cable as described in the "RTS signal conditioning" attachment at http://www.chiefdelphi.com/media/papers/2702. You're ready to command a Victor or a Jaguar... but if using the diode circuit **be sure not to reverse the polarity of the PWM signal going to the Vic or Jag.**

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1 download it from http://www.chiefdelphi.com/media/papers/2702

2 If you need more detail, PM me. On some laptops, only one of the USB ports is bootable. check your owner manual, or experiment.

3 version 0.84-pre2