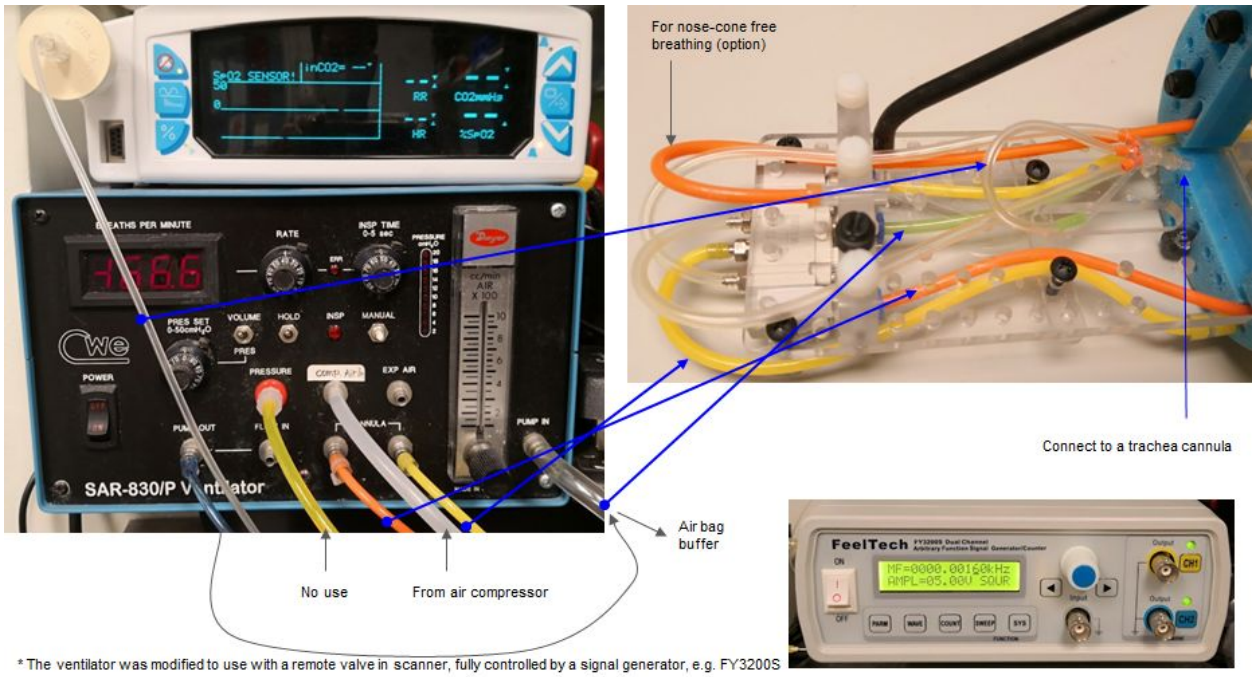
Phase-lock fMRI scan to artificial ventilation setup quick guide for FY3200S

(Version: w202103, Wenju@Keilholz MIND Lab)

1. Set master channel frequency (MF) , press CH1 button to select (keep the sideward LED indicator on).
    a. MF=0000.00160kHz (1.6Hz for TR=1.25s scan every other breath; 1.5Hz for TR=2s scan every third breath)(press PARM button to switch pages)
    b. AMPL=05.00V (amplitude=5v)
    c. SQUR (square wave)
    d. Offs=2.5V (offset=2.5v)
    e. DUTY=99.9% (99.9% 5v baseline and 0.1% 0v pulse to meet Bruker trigger requirement of high-low pulse triggering)
    f. Phase=000' (no phase shift)
2. Lock slave channel to master channel: press SYS button to the page of Freq CH1=Ch2? select OK by pressing the blue turnable button.Set slave channel frequency (SF) , press CH2 button to select (keep the sideward LED indicator on). MF=0000.00160kHz, AMPL=05.00V SQUR, Offs=2.5V, DUTY=70.0%, Phase=000'
3. Save frequency, press SYS button to the page *SAVE P_ON FREQ, press the blue turnable button.Turn the blue button to the page SAVE configurati Following, press the blue button to save the setup. (the saved parameters will be default when power up)
4. Ch2 used to control the ventilator, adjusting DUTY (select and turn blue turnable button) to change respiration/inspiration ratio in need. (70% meets the most situations in rats)
5. Ch1 used to trigger a scan.(connect to scanner trigger-in cable)



* The ventilator was modified to use with a remote valve in scanner, fully controlled by a signal generator, e.g. FY3200S