SETTING & SCANNING example for DUKANE 20 kHz welding converter (2 kW) SHORT REMINDER FOR BEGGINERS



-Install all necessary LabView software (read our manual).

-Activate MPIwelding.exe

-Select proper Serial port (Rescan). Verify that connection to your PC is activated.

-Set output capacitor to minimum (5nF) before scanning

-Set Time, Peak power, Energy to "0"

-Set Nominal power to what correspond to hardware (here 2000W)

-Select frequency Range, or MIN and MAX frequency & MAX span.

-If Auto frequency range is used, span is automatically selected to be 1 kHz

-Always stop the generator before changing "Output capacitor"

-Do not forget to activate blue button "Write" after every modification



-Set all values to « 0 » minimum before scanning

-Do not forget to activate blue button "Write" after every modification



-Scanning diagram (after scanning). In this case we do not see series resonance, but after we add booster/sonotrode... we will be able to see series resonance.
-Select Phase set point in the middle linearity area of white curve (here 2 V looks OK), and go to the first TAB (parameters) and set selected Phase.
-Do not forget to activate blue button "Write" after every modification

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-Operating situation after scanning: First TAB (parameters).

-Increase output capacitor gradually, as long automatic amplitude and phase regulation is operating correctly.

-For first Start select Amplitude to 20%, later increase... First Start will repeat and verify Scanning and if everything is OK, generator will stop without generating error message. Second Start (green button) will activate converter.

-In case if/when adding/changing booster/sonotrode/converter, repeat scanning

-Later follow manual. Set operating mode (Time, Peak power, Energy...).

-Always stop the generator before changing "Output capacitor"

-Do not forget to activate blue button "Write" after every modification