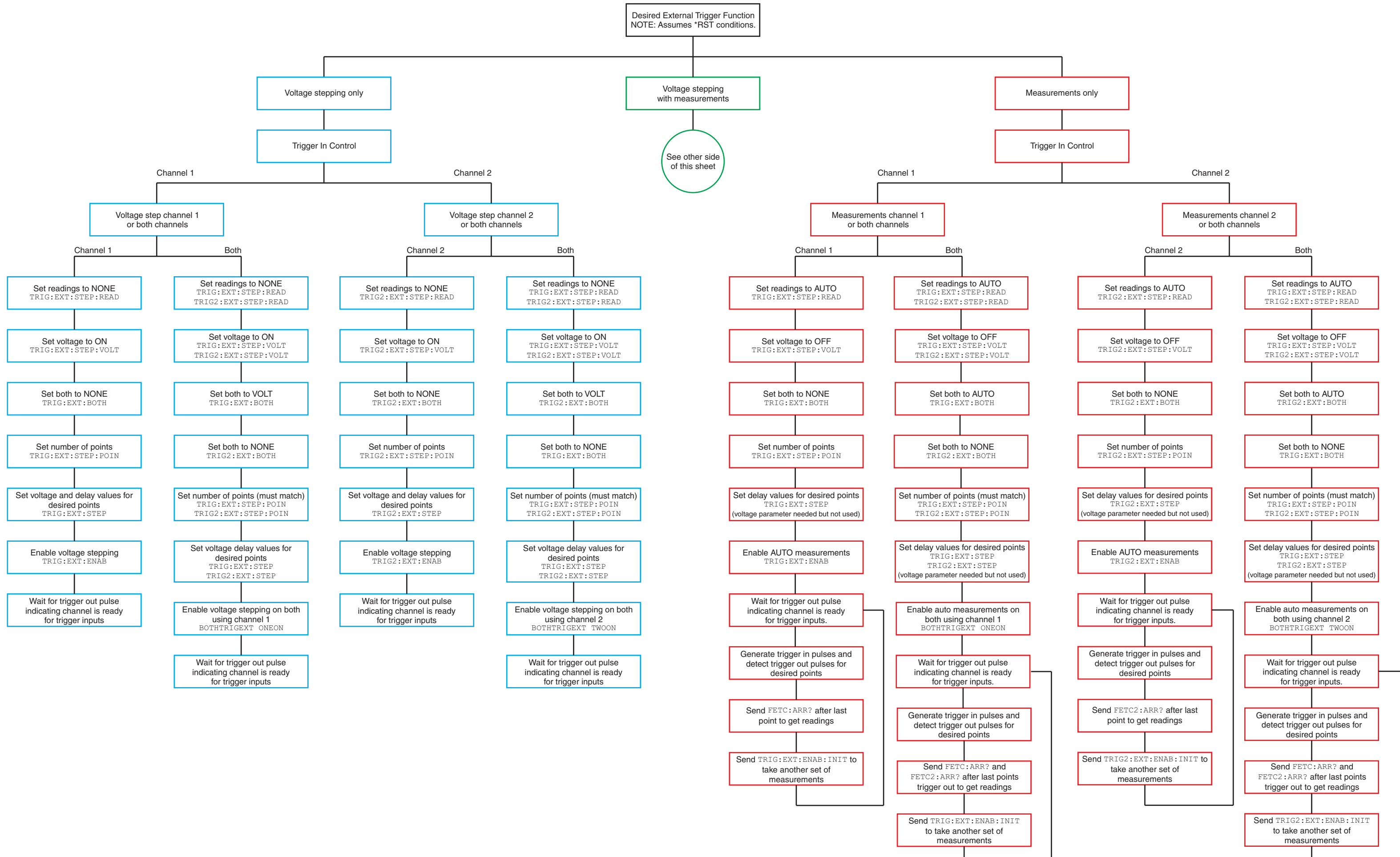


Model 2306-VS External Trigger Functionality Flowchart



From other side of this sheet

Trigger In Control

Channel 1

Channel 1 and Channel 2

Channel 2

Taking synchronized pulse current or auto measurements

Taking synchronized pulse current or auto measurements

Which trigger in is controlling voltage stepping?

Synchronized

Auto

Synchronized

Auto

Channel 1

Channel 2

Set function to PCUR
SENS:FUNC 'PCUR'

Set function to measure
SENS:FUNC

Set function to PCUR
SENS2:FUNC 'PCUR'

Set function to measure
SENS2:FUNC

Set function to measure
SENS:FUNC
SENS2:FUNC

Set function to measure
SENS:FUNC
SENS2:FUNC

Set other PCUR settings: trigger level, integration time, mode, delay etc. (see Pulse Current Section in Instruction Manual)

Set function settings like integration time (refer to section 2 or 3 in the Instruction Manual depending on function measuring)

Set other PCUR settings: trigger level, integration time, mode, delay etc. (see Pulse Current Section in the Instruction Manual)

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Set function settings like integration time (refer to section 2 or 3 in the Instruction Manual depending on function measuring)

Set readings to SYNC
TRIG:EXT:STEP:READ

Set readings to AUTO
TRIG:EXT:STEP:READ

Set readings to SYNC
TRIG2:EXT:STEP:READ

Set readings to AUTO
TRIG2:EXT:STEP:READ

Set readings to NONE
TRIG:EXT:STEP:READ

Set readings to AUTO
TRIG:EXT:STEP:READ

Set voltage to ON
TRIG:EXT:STEP:VOLT

Set voltage to ON
TRIG:EXT:STEP:VOLT

Set voltage to ON
TRIG2:EXT:STEP:VOLT

Set voltage to ON
TRIG2:EXT:STEP:VOLT

Set readings to AUTO
TRIG2:EXT:STEP:READ

Set readings to NONE
TRIG2:EXT:STEP:READ

Set both to NONE
TRIG:EXT:BOTH

Set both to NONE
TRIG:EXT:BOTH

Set both to NONE
TRIG2:EXT:BOTH

Set both to NONE
TRIG2:EXT:BOTH

Set voltage to ON
TRIG:EXT:STEP:VOLT

Set voltage to OFF
TRIG:EXT:STEP:VOLT

Set number of points
TRIG:EXT:STEP:POIN

Set number of points
TRIG:EXT:STEP:POIN

Set number of points
TRIG2:EXT:STEP:POIN

Set number of points
TRIG2:EXT:STEP:POIN

Set voltage to OFF
TRIG2:EXT:STEP:VOLT

Set voltage to ON
TRIG2:EXT:STEP:VOLT

Set voltage and delay values for desired points. Delay elapses after voltage steps.
TRIG:EXT:STEP

Set voltage and delay values for desired points. Delay elapses after voltage steps.
TRIG:EXT:STEP

Set voltage and delay values for desired points. Delay elapses after voltage steps.
TRIG2:EXT:STEP

Set voltage and delay values for desired points. Delay elapses after voltage steps.
TRIG2:EXT:STEP

Set both to VOLT
TRIG:EXT:BOTH

Set both to AUTO
TRIG:EXT:BOTH

Enable voltage stepping with SYNC measurements
TRIG:EXT:ENAB

Enable voltage stepping with AUTO measurements
TRIG:EXT:ENAB

Enable voltage stepping with SYNC measurements
TRIG2:EXT:ENAB

Enable voltage stepping with AUTO measurements
TRIG2:EXT:ENAB

Set both to AUTO
TRIG2:EXT:BOTH

Set both to VOLT
TRIG2:EXT:BOTH

Wait for trigger out pulse indicating channel is ready for trigger inputs.

Wait for trigger out pulse indicating channel is ready for trigger inputs.

Wait for trigger out pulse indicating channel is ready for trigger inputs.

Wait for trigger out pulse indicating channel is ready for trigger inputs.

Set number of points to voltage step on each channel
TRIG:EXT:STEP:POIN

Wait for trigger out pulses indicating channels are ready for trigger inputs

Set number of points to auto measure on each channel
TRIG:EXT:STEP:POIN

Wait for trigger out pulses indicating channels are ready for trigger inputs

Generate trigger in pulses and detect trigger out pulses for desired points

Generate trigger in pulses and detect trigger out pulses for desired points

Generate trigger in pulses and detect trigger out pulses for desired points

Generate trigger in pulses and detect trigger out pulses for desired points

Set number of points to auto measure on each channel
TRIG2:EXT:STEP:POIN

Generate trigger in pulses and detect trigger out pulses for desired points

Set number of points to voltage step on each channel
TRIG2:EXT:STEP:POIN

Generate trigger in pulses and detect trigger out pulses for desired points on each channel

Send FETC:ARR? after last point to get readings

Send FETC:ARR? after last point to get readings

Send FETC2:ARR? after last point to get readings

Send FETC2:ARR? after last point to get readings

Set voltage and delay values for desired points. Channel 1 delays affect voltage stepping while channel 2 delays affect auto measurements.
TRIG:EXT:STEP
TRIG2:EXT:STEP

Send FETC:ARR? and FETC2:ARR? after last point's trigger out on channel 2 to get readings

Set voltage and delay values for desired points. Channel 1 delays affect auto measurements while channel 2 delays affect voltage stepping.
TRIG:EXT:STEP
TRIG2:EXT:STEP

Send FETC:ARR? and FETC2:ARR? after last point's trigger out on channel 1 to get readings

Send TRIG:EXT:ENAB:INIT to take another set of measurements

Send TRIG:EXT:ENAB:INIT to take another set of measurements

Send TRIG2:EXT:ENAB:INIT to take another set of measurements

Send TRIG2:EXT:ENAB:INIT to take another set of measurements

Enable voltage stepping on channel 1 and auto measuring on channel 2
BOTHTRIGEXT BOTHON

Send TRIG2:EXT:ENAB:INIT to take another set of measurements. Channel 1 will step voltages as long as trigger in pulses are detected.

Enable auto measuring on channel 1 and voltage stepping on channel 2
BOTHTRIGEXT BOTHON

Send TRIG:EXT:ENAB:INIT to take another set of measurements. Channel 2 will step voltages as long as trigger in pulses are detected.