Tektronix 576 Curve Tracer

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Setting up the curve tracer for work

- 1. Before powering the curve tracer on (important!):
 - a) turn the Variable Collector Supply [A3] knob maximally counterclockwise;
 - b) set the Max Peak Volts [A1] to 15;
 - c) set the Max Peak Power [A1] switch to 0.1,

To change the *Max Peak Power* setting, the A1 knob should first be slightly pulled, then turned and released.

d) set a minimum <u>current</u> step of the step generator: set Step/Offset Amplitude [B2] to .05 μA,

Warning! The *Step/Offset Amplitude* knob has two operating modes: a current one (μ A, mA) and a voltage one (V). The appropriate one should be used, according to the driving quantity of the device under test. An invalid mode will destroy the transistor!

- e) set the Left-Off-Right [D2] switch to Off.
- 2. Power the curve tracer on by setting *Power* [A2] to On.
- 3. Check the following settings (important!):
 - the *Polarity* [A4] switch set to +,
 - the *Mode* [A5] switch set to *Norm*,
 - the *Current Limit* knob (light gray inside *Number of Steps [B1]*) set to 20 mA,
 - the Offset [B4] buttons: Zero depressed, others released,
 - the *Step Mult* .1X [B5] button released,
 - the Steps [B6] button depressed,
 - the Step/Offset Polarity Invert [B7] button released,
 - the *Step Family [B8]* buttons: *On* released (to release the *On* button, press the *Off* button),
 - the *Rate [B9]* buttons: *Norm* depressed,
 - the dark gray *↑ Position* [*C2*] and *↔ Position* [*C3*] knobs in their middle positions,
 - the light gray *Display Offset [C4]* knob in its middle position,
 - the *Display Invert [C5]* button released.
- 4. Set:
 - the Y-axis scale for the collector current to 1 mA/div: *Vertical Current/Div* set to <u>*Collector*</u> (not *Emitter*) 1 <u>mA</u>,
 - the X-axis variable to the collector-emitter voltage and the X-axis scale to 1 V/div: *Horizontal Volts/Div* set to <u>Collector</u> (not Base) 1.
- 5. Adjust:
 - a) the light spot intensity using the *Intensity* knob and its focus using the *Focus* knob (both knobs are found in the top left corner of the C controls group);

Too high a spot intensity causes the display to burn up whereas too low one will decrease readability of recorded images. During measurements, this intensity should be constantly adjusted to the number and dimensions of curves.

b) side displays intensity to one similar to the spot intensity, using the *Readout Illum* knob (this knob is found in the top left corner of A controls group).