

REAL WORLD INTERFACES

TR-808 Four Level Accent Mods

Robin Whittle 3 March 2019 www.firstpr.com.au/rwi/tr-808/

© Robin Whittle 2015 to 2019. *TR-808* is a trademark of the Roland Corporation.

The TR-808's drum circuits are triggered by pulses which start at 0 volts, rise to a certain voltage for 1 millisecond, and then fall to 0 volts again.

The **4 Level Accent Mods** enable normal operation of the Accent system (a 5 volt trigger pulse on non-accented notes with a 5 to 14 volt trigger pulse for accented notes) and a new mode of operation. In the new mode, the trigger voltage for triggering all the activated drum sounds on the current beat comes from one of four pots. One of these will be selected on each beat depending on whether the Accent and the Cowbell is programmed. Each such selection is signalled by a flash of the LED below the knob.

White	ACC & CB
Blue	ACC
Yellow	CB
Red	

While playing a pattern, one of these LEDs flashes for every 1/16th note, and the setting of the corresponding pot determines the trigger voltage for all drums which are programmed on that beat. The range is between about 2 volts (fully anti-clockwise, about 8 o'clock) and 14 volts (fully clockwise, about 4 o'clock). The ~2 volt level is adjusted so it just triggers the drum sounds. (This mod also changes some internal circuitry to make the Cymbal and HiHat circuits have the same threshold of about 2 volts. Normally, they require about 4.5 volts before they will make a sound.)

While the internal sequencer is playing a pattern (or being switched between patterns with the 32 Bank Memory System), the dynamics of the pattern can be completely altered by turning the four knobs.

The **toggleswitch** selects between normal and 4 Level Accent mode. **The blue and yellow pushbuttons** over-ride the Instrument Select switch so the buttons and LEDs work with the Accent and Cowbell respectively, rather than whatever drum channel the Instrument Select switch selects. This makes it easier to program the desired Accent-Cowbell combination on any of the 16 beats.

These 4 Level Accent mods are identical to what I installed in the early 1980s, except that I am now using slightly smaller knobs with metal-shaft pots. The earlier pots were not as robust as I would like.

The Cowbell Trigger Out signal is unaffected by these mods.

The Hand Clap Trigger Out circuit works normally except that if the trigger voltage is close to the low end of the range, with the knob (whichever of the four is selected for the current beat) close to the anti-clockwise position, then there will be no trigger pulse. In principle this could be fixed, but it involves extra complexity and I think this somewhat anomalous loss of trigger pulse may be more musically useful than if it appeared for all trigger levels

Document history

- 2015-09-19 New document, derived from the text at the website.
- 2019-03-03 Added note about HCP Trigger Out pulse disappearing at low trigger voltage levels.