Ingenium
Canada's Museums of Science and Innovation
Musées des sciences et de l'innovation du Canada

Hugh Le Caine's 1945-1948 Electronic Sackbut(t)

Based on a circuit trace by John Leimseider (National Music Center) - 2015
Redrawn by Ezra J. Teboul - february-may 2025
This version saved May 23rd 2025, 12:01 pm
It is a draft. Please email eteboul@ingeniumcanada.org with suggestions for corrections.

how many filter stages in original?

each resistor 3M3

Notes:
* Missing, but there are broken wires to terminals of switch. There was a 1uF cap loose in the case.

timbre control

output is here
in schematic drawn
in sackbut frame

oscillator

footpedal pot: 1M

dividers

octave switch

Glide Switch

harmonics

attack

double check which harmonic goes to which quadrant of the joystick

Joystick

power supply

heater supplies not shown for clarity

both caps 10uF 450V

unclear which PS each B+ is from, here i assumed all were from PS2

keyboard control
all diodes 1N34

what is the sensor?

triode in oscillator section acts as
50 mA current source on sensitivity knob

Note: A goes to Or/Blk wire under keyboard running to p. 7.1
B goes to pin 5 of connector on power supply PS1
Three more octave tuning pots not shown

keyboard

is this really connected to the high voltage rail?

what are these rails?

Accel contact