

AMP DATAVISION Keyboard Info Sheet

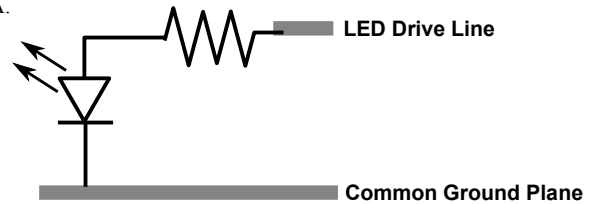
Information 100% reverse engineered by
 Dr. Orion Lawlor, lawlor@alaska.edu
 Version 2012-02-11
 No contact with any manufacturer.
 My apologies for any errors!

Part is labelled
 DATAVISION P.N. 12075
 AMP Keyboard Technologies, Inc.
 U.S. Patent 3860771
 Sold 2012-02 for \$1.49 by
 Electronic Goldmine, part G17927

Typical LED Layout

Each LED line connects to the + side of one LED via an onboard 400 ohm resistor. They operate on 1.5 to 5Vdc, under 10mA. The top green LED has a 1Kohm resistor, and draws 7mA at 12Vdc (less at 5Vdc).

Several boards have bad red LEDs, which conduct but do not light up.



Typical Keypad Key Layout

Each key connects one row line, one column line, and the common ground plane. All connections are normally open, and all three make contact when key is pressed. Contact resistance is around 20 ohms, so current rating is likely milliamps.

Actual depth order is unknown; the order drawn here is likely incorrect.

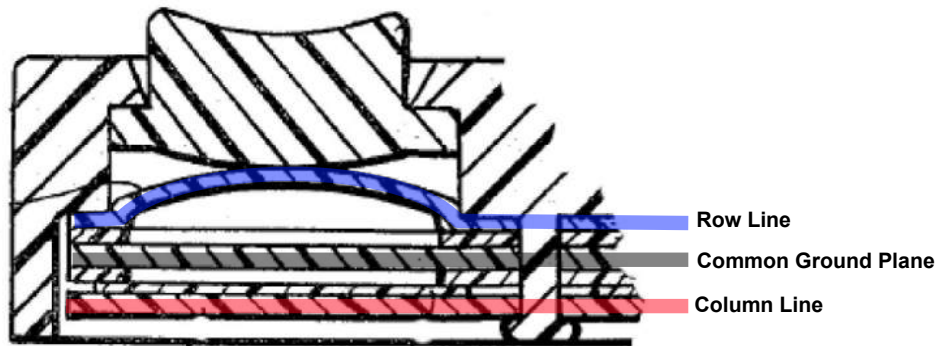
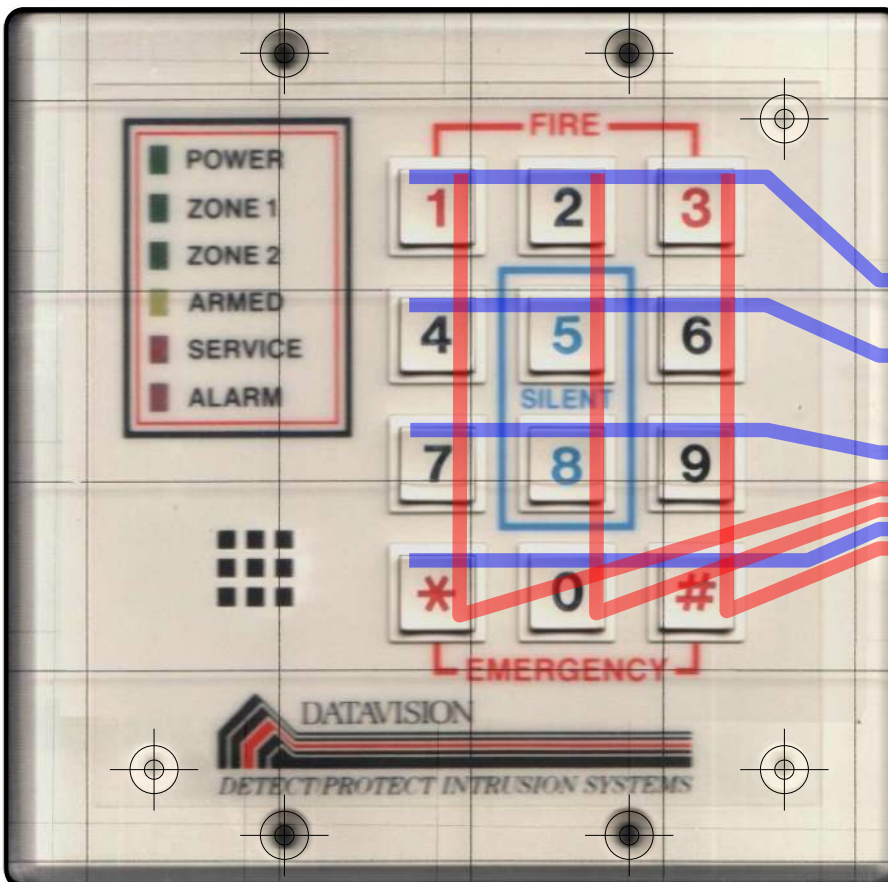


Figure from U.S. Patent 3860771, Keyboard Switch Assembly

Mechanical and Electrical Connections



Plastic header strip is at 0.1" pin spacing, 16 pins. It connects nicely to a pressure-type connector, like the old ISA slot female connector, using a 0.050" nonconductive spacer.

Green Header Pinout

- LG1: Top green LED, via 1K resistor
- KR7: Keypad top row (123)
- LG2: Middle green LED, via 400ohm
- LG3: Bottom green LED, via 400ohm
- LY1: Yellow LED, via 400 ohm
- KR6: Keypad middle row (456)
- LR1: Top red LED, via 400 ohm
- LR2: Bottom red LED, via 400 ohm
- not connected?
- not connected?
- KR5: Keypad bottom row (789)
- GND: Ground for keypad and LEDs
- KC4: Keypad left column (147*)
- KC3: Keypad center column (2580)
- KR2: Keypad symbol row (*0#)
- KC1: Keypad right column (369#)

Scale box:
 should be exactly
 1 inch (25.4mm)
 in both directions

Typical microcontroller hookup:
 Drive all 6 LED lines directly from digital output pins.
 Keypad t 7 digital input pins with weak pull-up resistor.
 Scan keypad pins for row and column going to ground.