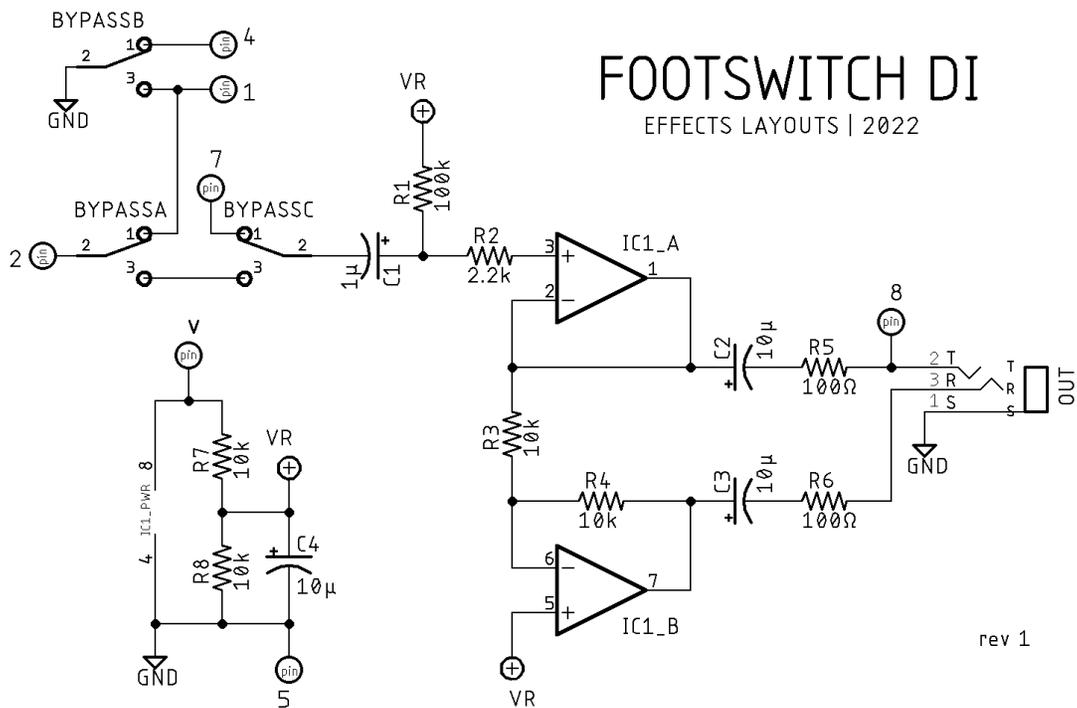


# footswitch DI

## DESCRIPTION

The FOOTSWITCH DI is an add on specifically designed for the SUNNBEAM v2 project. It is an active direct injection circuit for balanced output using either a TRS or XLR jack.

## SCHEMATIC



## BOM

### Resistors

|    |      |
|----|------|
| R1 | 100k |
| R2 | 2.2k |
| R3 | 10k  |
| R4 | 10k  |
| R5 | 100Ω |
| R6 | 100Ω |
| R7 | 10k  |
| R8 | 10k  |

### Capacitors

|    |     |
|----|-----|
| C1 | 1μ  |
| C2 | 10μ |
| C3 | 10μ |
| C4 | 10μ |

### Semiconductor

|     |       |
|-----|-------|
| IC1 | TL072 |
|-----|-------|

### Electromechanical

|        |                 |
|--------|-----------------|
| BYPASS | 3PDT footswitch |
| OUT    | TRS/XLR jack    |

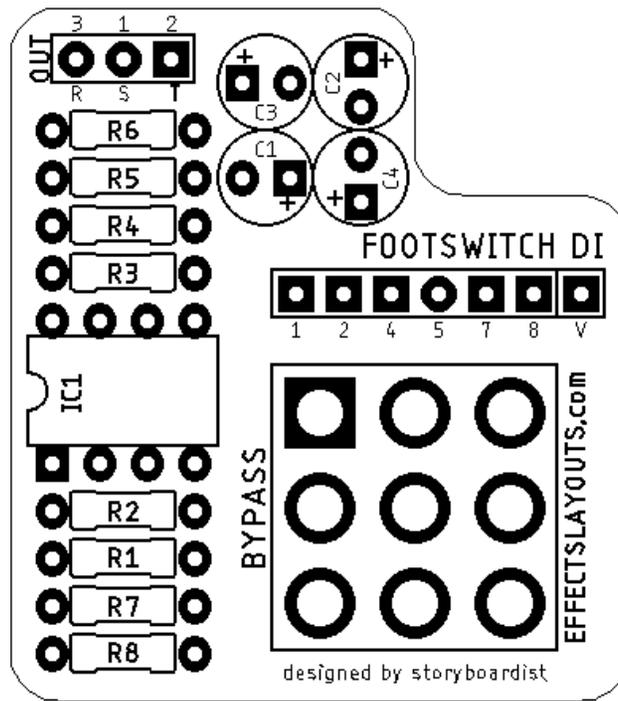
## Notes

Connect the labeled pads to the corresponding pads on the SUNNBEAM v2 board, either by header pin, ribbon cable, or hookup wire. The V pad connects +15v from the SUNNBEAM v2 board, and pads 1-8 connect to the 3PDT for bypass, with the DI circuitry between the output of the footswitch and the output jack. If you're building this in a 125B, ignore the out mono jack pads on the SUNNBEAM v2 board and use the TRS pads on the DI board, connect them to the corresponding lugs of a TRS jack. If building in something larger to have both mono and balanced out, the out mono jack pads on the SUNNBEAM v2 board will provide buffered mono output.

## SHOPPING LIST

| Part   | Type (suggested)            | Quantity |
|--------|-----------------------------|----------|
| 100Ω   | ¼ watt metal or carbon film | 2        |
| 2.2k   | ¼ watt metal or carbon film | 1        |
| 10k    | ¼ watt metal or carbon film | 4        |
| 100k   | ¼ watt metal or carbon film | 1        |
| 1μ     | Electrolytic (25v+)         | 1        |
| 10μ    | Electrolytic (25v+)         | 3        |
| TL072  | Dual opamp                  | 1        |
| Bypass | 3PDT footswitch             | 1        |
| Out    | TRS/XLR jack                | 1        |

## LAYOUT



Note: C1 is notated backwards on the silk screen. Rotate 180° if using a polarized cap.