

62. Heavy Duty Power Switch

UFO Doctor, Feb. 26th, 2013

1. Introduction to the Problem

Mama Duck and all her Baby Ducks will be transported in a container from a laboratory storage location to the presentation site, e.g. a recreation area at a lake.

- During transportation the power should remain switched off, also if the ducks are packed very close into a non perfect container.
- At the presentation site the power should be switched on in a short time. The power should remain switched on, also after manipulation (e.g. launching the ducks)

2. Solution

- The presented heavy duty switch fulfills these requirements:
- Visible (LED) and tactile power Lock-In and Lock-Out, activation pulling force 5N
- Max current 3A, resistance < 40mOhm with 2x90mm cables

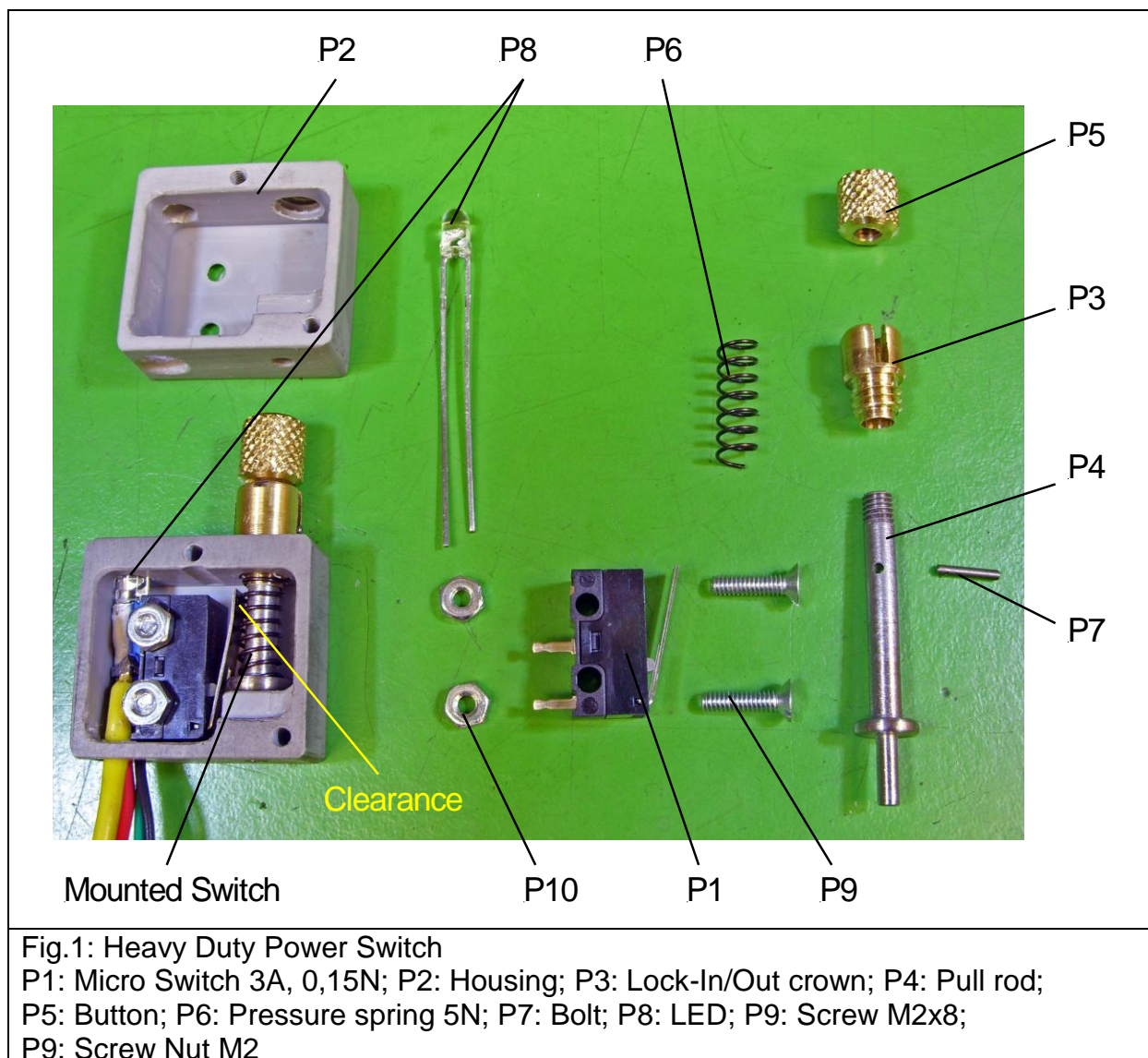
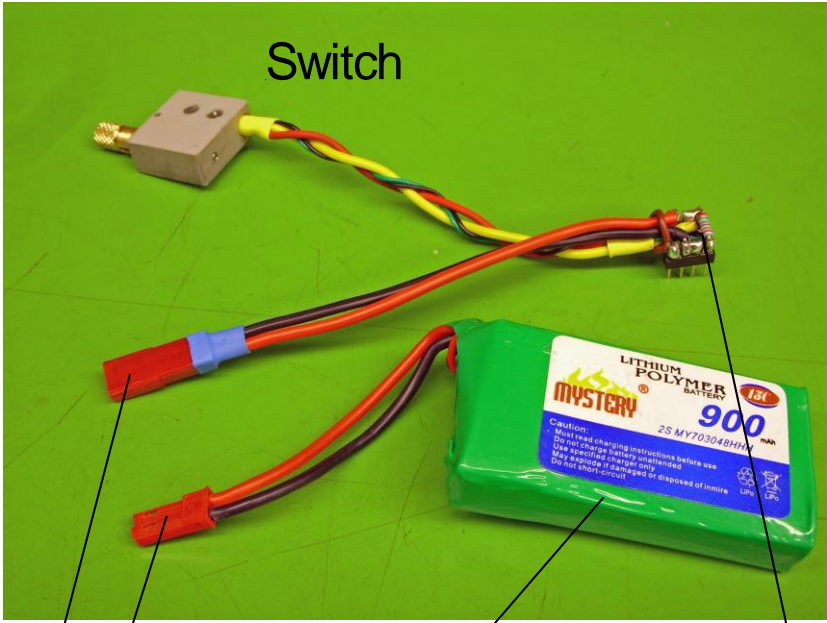
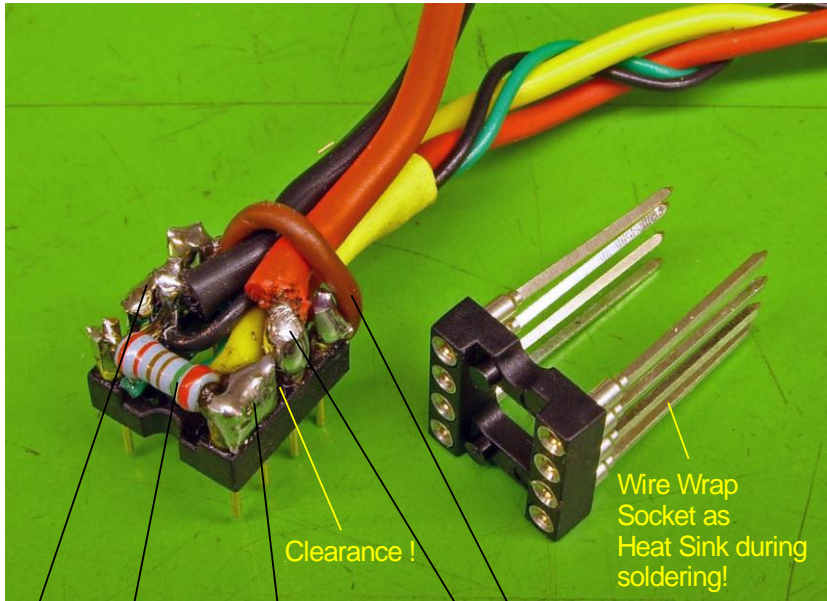


Fig.1: Heavy Duty Power Switch

P1: Micro Switch 3A, 0,15N; P2: Housing; P3: Lock-In/Out crown; P4: Pull rod;
P5: Button; P6: Pressure spring 5N; P7: Bolt; P8: LED; P9: Screw M2x8;
P9: Screw Nut M2

3. Switch with cables, connectors and plug

 <p>Switch</p> <p>Lipo Connectors</p> <p>Lipo 2-Cells 0.9Ah</p> <p>DIL 8 Plug</p>	<p>Fig. 2:</p> <p>Switch with cables, connectors and plug</p>
 <p>Gnd</p> <p>LED Sup</p> <p>Vcc</p> <p>+In Lipo</p> <p>Cable anchorage</p> <p>Clearance !</p> <p>Wire Wrap Socket as Heat Sink during soldering!</p>	<p>Fig. 3: Plug</p> <p>Cables soldered at DIL 8 Pin component carrier</p> <p>2 contacts Vcc 2 contacts Gnd 2 LED Supply</p> <p>Should be soldered when plugged into a Wire Wrap Socket!</p>

4. Drawing

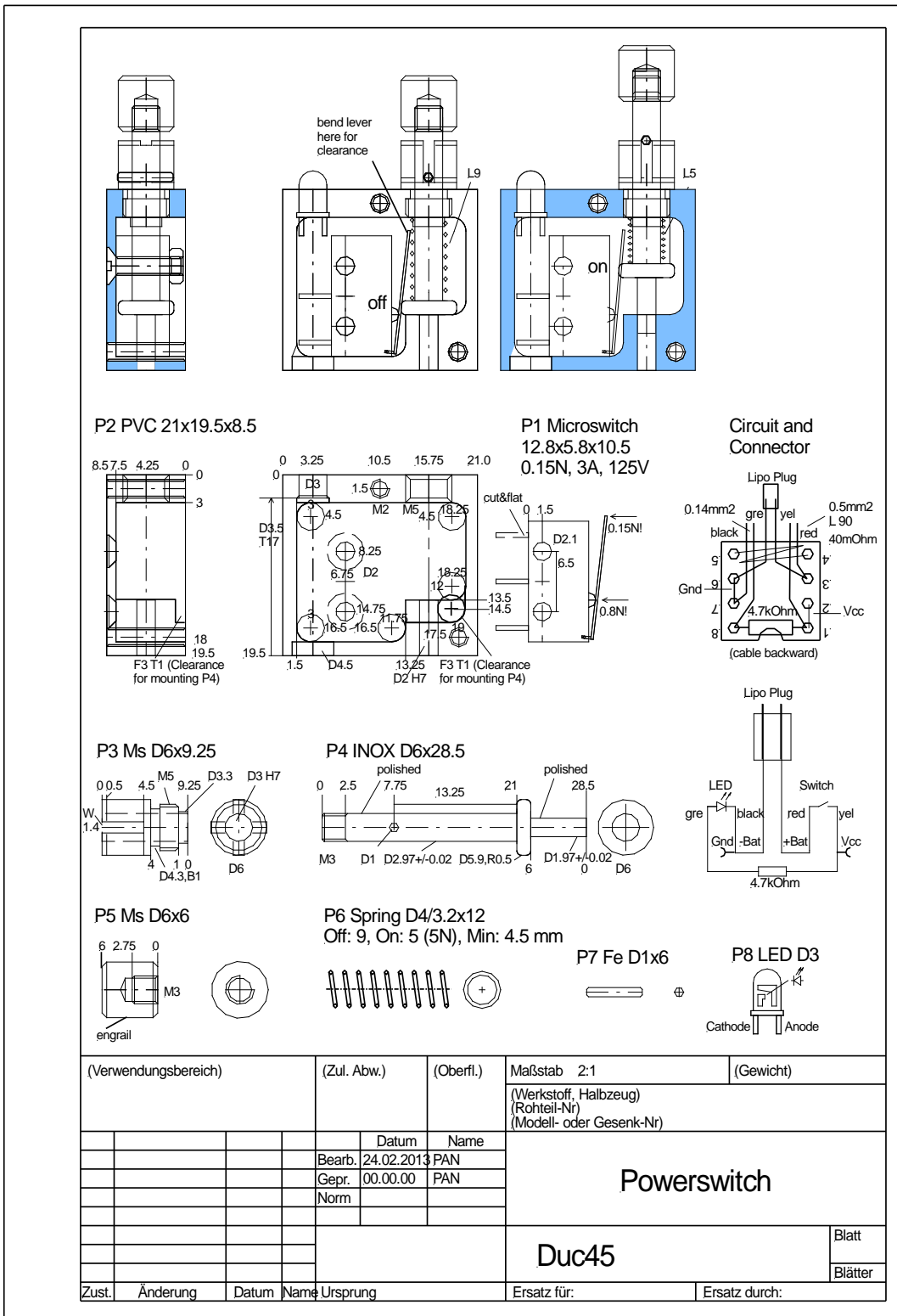


Fig. 4: Overview and details