



This circuit functions by applying a small 150kHz AC voltage to the electrolytic capacitor being tested. The AC resistance of the cap is measured by an expanded scale A/C ohm meter circuit. Caps can be tested live in circuit (not recommended). The maximum AC voltage applied across the test cap is 250mv pp. This will not turn on any solid state devices. Caps tend to measure either full scale (good), or no deflection (esr > 75 ohms... bad).

| Cap  | Good   | ESR |
|------|--------|-----|
| 0.1  | 10     |     |
| 1.0  | 1      |     |
| 10   | 0.1    |     |
| 100  | 0.01   |     |
| 470  | 0.002  |     |
| 1000 | 0.001  |     |
| 4700 | 0.0002 |     |

Polarity of test leads does not matter.  
 The input will survive 400vdc (C5 rating).  
 Meter Powered by 4 Nicads

Capacitor Checker Measures Equivalent Series Resistance (ESR)  
 (c)2005 Lawrence P. Glaister VE7IT, Nanoose Bay BC, Canada

|                                |            |
|--------------------------------|------------|
| TITLE: esr-meter               |            |
| Document Number: esr-meter.sch | REV: B     |
| Date: 10/28/18 7:08 PM         | Sheet: 1/1 |