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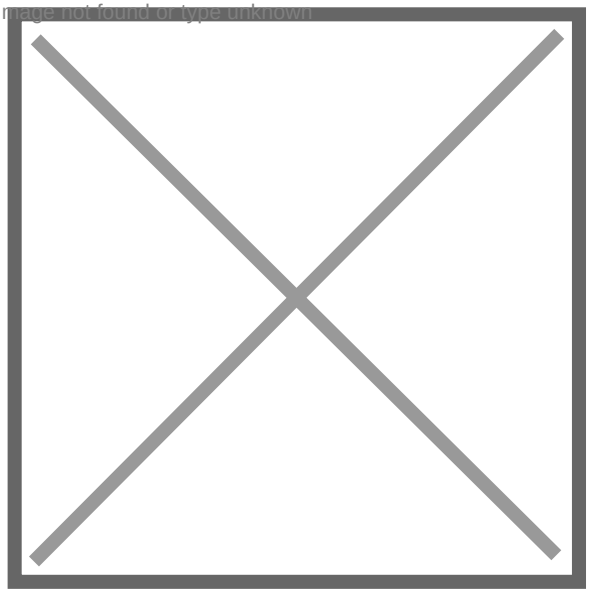
Product Name :

Capacitor (Charging and Discharging)

Product Code :

SCL-231/036

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Description :

Capacitor (Charging and Discharging) (Product Code: SCL-231/036) is a capacitor experiment set used to show how a capacitor charges and discharges through a resistor in school andcollege physics practicals. It pairs a 1000 µF capacitor with 10 k? and 100 k? resistors and a0–20 V DC, 1 A power supply, so students can compare a fast and a slow RC curve with themultimeter. The set is made by **Jain Scientific Equipments Pvt Ltd (ScienceLab)**, an OEMmanufacturer, at its own factory in Ambala, India.

Specifications

Parameter	Detail
Power supply	0–20 V DC, 1 A
Capacitor	Electronic capacitor, 1000 µF
Resistors	10 k? and 100 k? (listed as 10K and 100K)
Measurement	Multimeter
Circuit board	Outlet board
Connecting wires	6 pairs, red and black
Teaching aid	Capacitor demonstration table for charging and discharging
Product code	SCL-231/036
Manufacturer	Jain Scientific Equipments Pvt Ltd (ScienceLab) — OEM
Country of origin	India (made in Ambala, Haryana)

What Is the Capacitor Charging and Discharging Set Used For?

Students build a series circuit of the power supply, one resistor and the 1000 µF capacitor on the outlet board, then read the capacitor voltage with the multimeter at regular time intervals while it charges. Disconnecting the supply and letting the capacitor empty through the same resistor gives the discharge curve. Both curves are exponential, and their pace is set by the time constant ? = RC.

With the listed parts, RC works out to about 10 seconds for the 10 k? resistor and about 100 seconds for the 100 k? resistor, which is slow enough to time by hand. This makes the set a practical electricity experiment kit for school labs: the class can see that a tenfold larger resistance gives a tenfold slower curve. Keep the supply below the voltage marked on the capacitor, observe any polarity markings, and discharge the capacitor through a resistor before handling it.

What to Specify When Ordering

- Number of sets required, one per student group.
- Whether you also need a timing device, as none is itemised in the set.
-

OEM

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