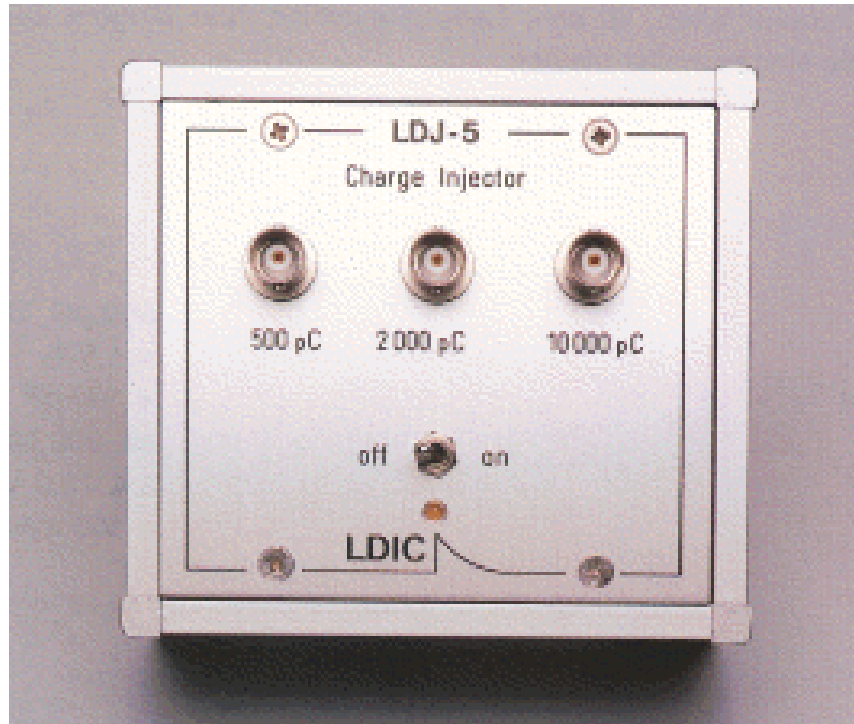


# CHARGE INJECTOR

## LDJ-5



The CHARGE INJECTOR LDJ-5 was developed especially with respect to on-site PD diagnosis tests, using the DIFFERENTIAL LEMKE PROBE LDP-5. It generates pulse charges up to 10000 pC. The main purpose is the simulation of heavy PD activities, which may be typical for large generators, transformers and cable sealing ends. Such high values are not reached by common PD calibrators.

The CHARGE INJECTOR LDJ-5 may also be used as a classical calibrator according to IEC 60270 or VDE 0343 by supplying the charge into the terminals of the test object. For this purpose 3 BNC-jacks with calibrating charges of 500, 2.000 and 10.000 pC are available. For lower magnitudes the calibrator LDC-5 is recommended.

Furthermore, high values are useful for evaluation of the distribution of the radiated electromagnetic field in the surroundings of PD sources with respect to PD fault location. As well known, the field distribution is strongly influenced by the construction and especially by the metallic parts of the test object.

In this context the "inverse" application shall be mentioned. If the inner terminal of the BNC-jack 10.000 pC is connected to the test object, the injector housing works as a charge radiator. In this way, for instance, the signal radiation behaviour may be examined without the disturbing influence of the calibration leads.

In this respect it has to be mentioned, that in this application only relative measurements are possible, i.e. there exists no any quantitative relation between the radiated signals and the for the output given pC values.

## Putting into operation

In order to put the LDJ-5 into operation, first two LR6-batteries have to be installed at the bottom of the device. After that the power switch has to be switched to the position "on" for about 20 seconds. Then the LDJ-5 is generating charge pulses, even if the device is switched off. After that the operating time is more than 10 minutes. If a longer time for charge generation is desired, then the LDJ-5 can be switched on again for 20 seconds. Of course, the device can be left switched on for a longer time, but with reducing the life time of the internal battery.

## Specification

Calibrating charges	500 pC, 2.000 pC, 10.000 pC
Error of the rated values	$< \pm 5 \%$
Internal calibrating capacitor	$< 100 \text{ pF}$
Pulse repetition rate	200 Hz , approx.
Powering voltage	2.4 - 3.0 V (2x Mignon, LR6)
Mean current consumption	$< 100 \text{ mA}$