

# Through Walls, Floors and Ceilings

# LOCAT & DETEC

*Cable Detectors*



No more time-consuming and expensive searches : it is now easy to detect cables, breaks and short-circuits ...

- accurate location, without disturbing the installation
- remote audible and visual detection
- whether the circuit is live or not
- complies with IEC standards - **CE** mark

**CHAUVIN  
ARNOUX**

# For live installations : LOCAT 110 and LOCAT 220

Cable and fault detector on any live electrical installation

## Method

### The Transmitter

The **LOCAT E 110** or **LOCAT E 220**, when connected to the circuit being verified, uses a pulsating current with a specific frequency of 3.5 kHz. Given its low power consumption, the transmitter can be connected between one phase of the circuit and the earth, without tripping the classical R.C.D. ( $\leq 30$  mA).

*NB : With the LOCAT E 110 the mains power may be replaced by a 9 V battery or batteries, for example, to check an installation not yet connected to the mains.*

### The Receiver

The **LOCAT R** (only one model), which is sensitive only to the electro-magnetic field created by the specific current of the transmitter, provides a dual audible and visual signal (row of LEDs), in direct proportion to the distance between it and the wire sought.

*NB. The electrical installation must not be screened, such as cables going through metal tubes for example.*

## Electrical Specifications

### LOCAT E 110 Transmitter

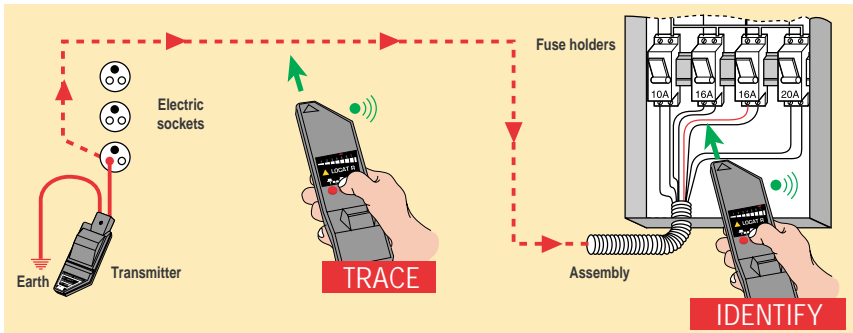
- Power : 9 ... 140 V $\sim$
- Average consumption : 5 mA
- Peak consumption : 250 mA (for 10 ms)
- Frequency : 0...60 Hz
- Fuse 0,1 A HPC
- Safety terminals :  $\varnothing$  4 mm

### LOCAT E 220 Transmitter

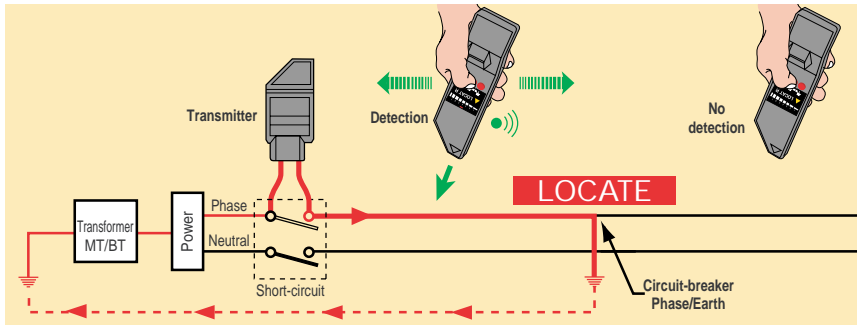
- Power : 180 ... 300 V...  
180 ... 440 V $\sim$
- Other specifications same as LOCAT E 110

### LOCAT R Receiver

- Power : 1 x 9 V alkaline battery
- Typical consumption : 20 mA



**1** Tracing a wire carrying power to a given socket through walls, and identification of the corresponding circuit-breaker. The installation is LIVE.



**2** Precise locating of a short-circuit (phase/earth for example). The transmitter is connected, on the phase side, to the terminals of the differential circuit-breaker.

## Ingenious and v

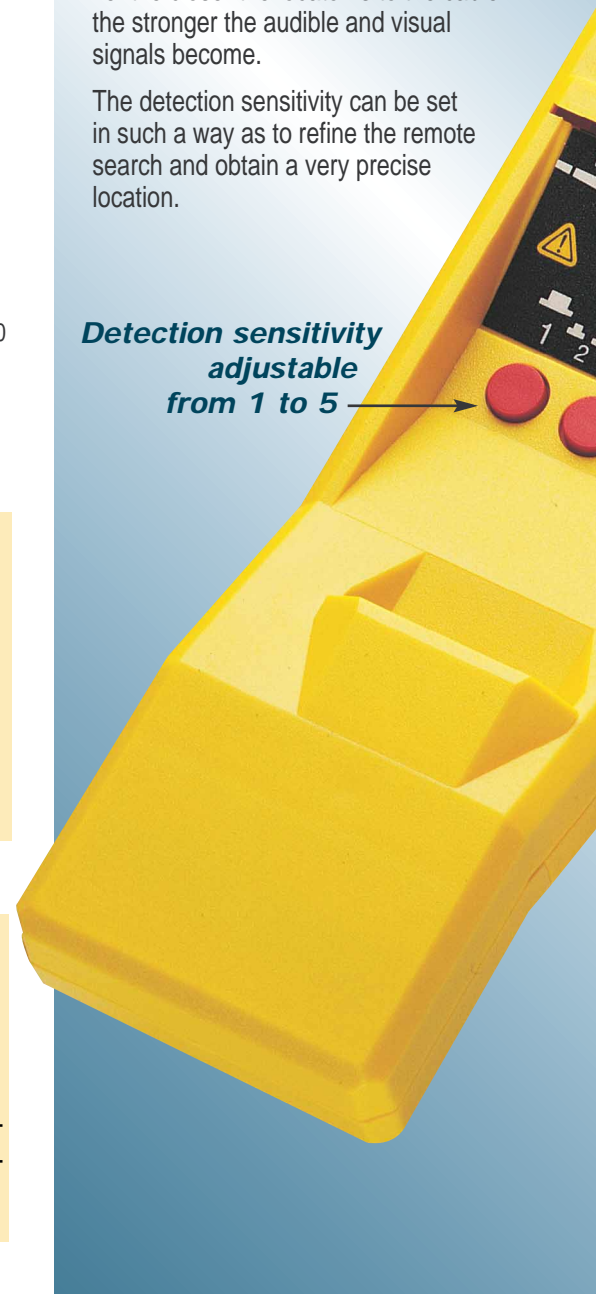
These three cable detectors are used in very similar ways. Once the transmitter is connected (see respective diagrams opposite), the receiver acts like a homing device.

Their strong point is that detection is remote (up to 1 metre) and penetrates walls, floors and ceilings (up to 50 cm thick).

The dual detection signal is proportional to the distance from the wire sought, i.e. the closer the locator is to the cable the stronger the audible and visual signals become.

The detection sensitivity can be set in such a way as to refine the remote search and obtain a very precise location.

Detection sensitivity adjustable from 1 to 5



very easy to use



variable intensity audible alarm

Visual detection: LEDs - 1 (min.) to 7 (max.)

A thousand and one applications

For example :

- Locating the start of a circuit,
- Tracing a cable through the whole length of its run,
- Identifying one cable from many in an assembly or a trough **1**
- Locating a short-circuit **2**
- Discovering a short-circuit **3**
- Identifying defective fuses which need replacing,
- Tracing earth circuits,
- Updating plans and diagrams.

## For non-live installations : DETEC 220

Cable and break detector for non-live electrical installations

### Method

#### ■ The Transmitter

The **DETEC E 220** connects to an auxiliary power supply (from 7 V to 250 V $\bar{~}$ ). It generates a pulsating voltage at a specific frequency of 3.5 kHz. This voltage is injected into the circuit to be checked via the injection lead.

*NB : The pulsating voltage is not dangerous for the user*

#### ■ The Receiver

The **DETEC R**, which is sensitive only to the electro-magnetic field created by the specific current of the transmitter, provides a dual audible and visual signal (row of LEDs), proportionate to the distance between it and the wire being sought.

*NB. The electrical installation must not be screened, such as cables going through metal tubes for example.*

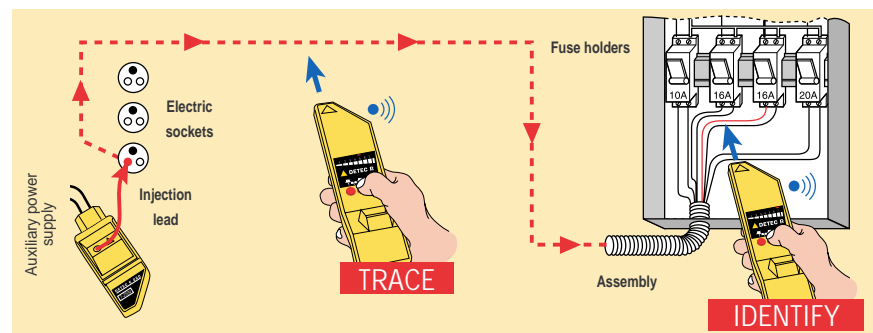
### Electrical Specifications

#### DETEC E 220 Transmitter

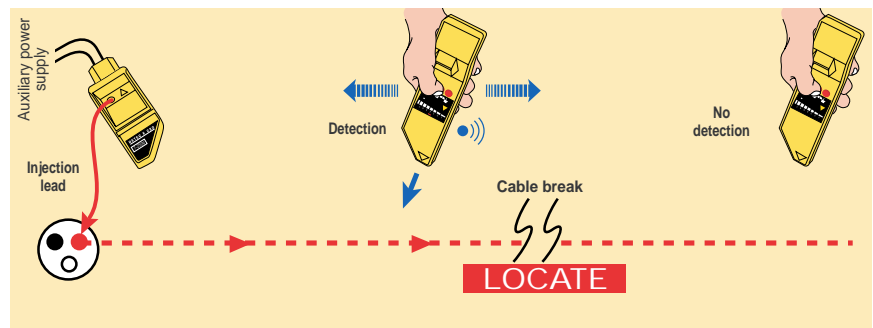
- Auxiliary Power : 7 ... 250 V $\bar{~}$
- Frequency : 0 ... 600 Hz
- Average consumption : 16 mA
- Peak consumption : 50 mA (for 10 ms)
- Fuse 0,315 A HPC
- Safety terminals :  $\varnothing$  4 mm

#### DETEC R Receiver

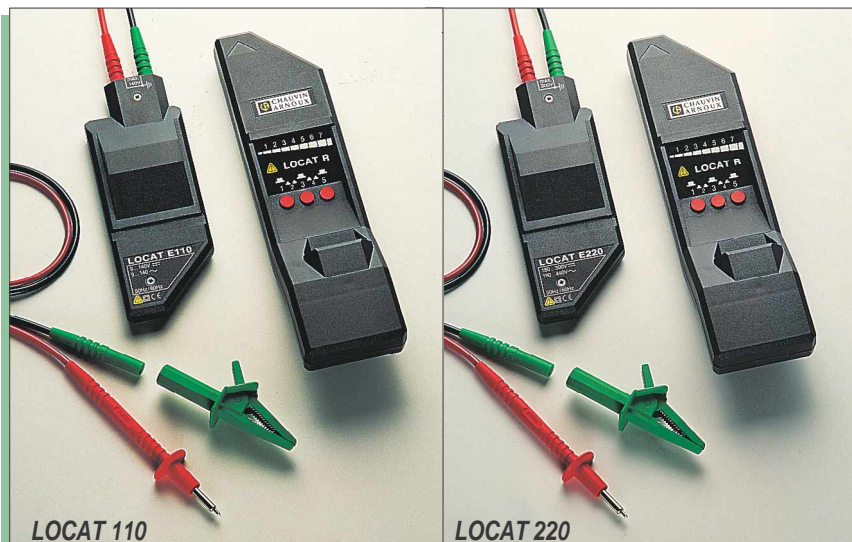
- Power : 1 x 9 V alkaline battery
- Typical consumption : 20 mA



- 1** Tracing a wire carrying power to a given socket, through a wall, and identification of the corresponding circuit-breaker. The installation is OFF.



- 3** Precise location of a break in a circuit : dual detection signal stops. The installation is OFF.



**LOCAT 110**  
 Supplied with 2 leads (f 4 mm x 1.50m) and green safety crocodile clip.  
 - 1 red lead (no 250B) male safety end and tip  
 - 1 black lead (no. 249A) green male safety ends.

**LOCAT 220**



**DETEC 220**  
 Supplied with 3 leads (f 4 mm x 1.50m) and blue safety crocodile clip.  
 - 1 black lead (no. 250A) male safety end and tip  
 - 1 red lead (no 250B) male safety end and tip  
 - 1 black lead (no. 249B) blue male safety ends.

## Complies with European standards

Electromagnetic compatibility (EMC)  
 (to NF EN 55 081-1 and NF EN 55082-1)

**Transmission** : class B (to NF EN 55 014 and NF EN 55022)

### Immunity

- Electrostatic discharges (to IEC 801-2) :  
Level 3 (8 kV - aptitude B)
- Electric fields (to IEC 801-3) : Level 2 (3 V/m - aptitude A)
- Rapid electric transients (to IEC 804-4) :  
Level 2 (1 kV - aptitude B)

### Electric Safety

- Dual insulation - class II (to IEC 348)
- Dielectric resistance : 4 kV (to IEC 348)
- Electric shocks : resistance 5 kV, 2 joules (to IEC 801-5)

### Specifications of the Casing

- Material : unbreakable polycarbonate
- Shatter strength : 1 metre (to IEC 68-2-32)
- Self-extinguishing qualities : Vo (to UL 94)
- Degree of impermeability (to IEC 529) : IP 10 for receivers  
IP 40 for transmitters
- Climatic conditions : temperature range from 0°C to + 50°C  
relative humidity to 70% RH
- Dimensions and weight (complete assembly) : 215 x 55 x 45mm - 250 g



**Extremely practical :**  
*the transmitter slots into the receiver  
 and the whole assembly clips onto the  
 belt (the same applies to the LOCATs)*

### To order

	Code No
■ <b>LOCAT 110</b> .....	<b>P01.1416.21</b>
Complete assembly comprising a LOCAT R receiver, LOCAT E 110 transmitter, set of wires no. 250B/249A, crocodile clip, 9 V alkaline battery and operating instructions	
■ <b>LOCAT 220</b> .....	<b>P01.1416.22</b>
Complete assembly comprising a LOCAT R receiver, LOCAT E 220 transmitter, set of wires no. 250B/249A, crocodile clip, 9 V alkaline battery and operating instructions	
<b>Accessories and Spares</b>	
• LOCAT R (Receiver only) .....	P01.1416.23
• LOCAT E 110 (Transmitter only) .....	P01.1416.24
• LOCAT E 220 (Transmitter only) .....	P01.1416.25
• Set of wires no. 250B/249A .....	P01.2950.35
• Fuses 0.1 A HPC FF - 380 V - 5 x 20 mm (set of 10) .....	P01.2975.14
• Case no 10 (32x25x5,5 cm) .....	P01.2980.04
■ <b>DETEC 220</b> .....	<b>P01.1413.21</b>
Complete assembly comprising a DETEC R receiver, DETEC E 220 transmitter, set of wires no. 250A/250B/249B, crocodile clip, 9 V alkaline battery and operating instructions	
<b>Accessories and Spares</b>	
• DETEC R (Receiver only) .....	P01.1413.22
• DETEC E 220 (Transmitter only) .....	P01.1413.23
• Set of wires no. 250A/250B/249B .....	P01.2950.34
• Fuses 0.315 A HPC FF - 380V - 5 x 20 mm (set of 10) .....	P01.2970.14
• Case no 10 (32x25x5,5 cm) .....	P01.1413.21
■ <b>Lot DETEC 220 + LOCAT 220</b> (photo 1st page) .....	<b>P01.1869.21</b>
Delivered complete in their carriage case	

### Your distributor

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