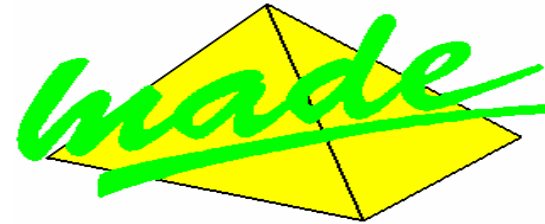
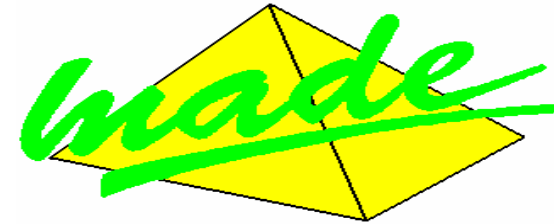


NADIR by



NADIR is used to identify (strictly speaking – pre-identify) a live 230/400V. cable, and one or more of the cores in it. It eliminates the risk of inadvertently opening an 11kV cable.

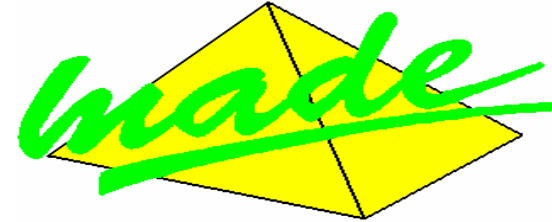
NADIR by



- **Principle :**

The system consists of a “transmitter” which is connected as close as possible *downstream* of the point of interest, for example at a link box or in a customer’s premises. This “transmitter” draws a complex current signal down the feeder from the substation, and a receiver is then used to identify the cable and the core(s) required by locating this signal.

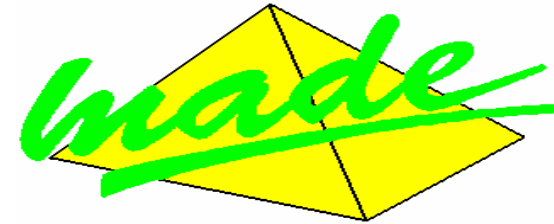
NADIR by



- **PERFORMANCE :**

- The receiver can be used anywhere between the transmitter and the Low Voltage source (normally the supplying sub-station).
- The discrimination between cables is normally of an order of magnitude($10 - 1$).
- The discrimination between cores using the Madeflex transducer is normally two orders of magnitude ($100 - 1$).

NADIR by



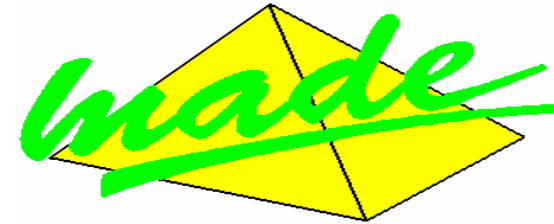
- Installing the **TRANSMITTER**

Transmitter is really not the correct name, since it does not transmit, but draws a current signal. This signal is of complex form and cannot be reproduced by any other source.

With the Transmitter switch in the OFF position, plug the connecting cable into the socket in the transmitter face and connect the two crocodile clips between two cores (400V) or between one core and neutral (230V). The transmitter will automatically detect the type of connection, and set itself accordingly. When power is present, the appropriate light will illuminate. Moving the power switch to ON will start transmission and the “Transmitting” light will flash.

The transmitter can be left operating continuously, with the lid closed if required.

NADIR by

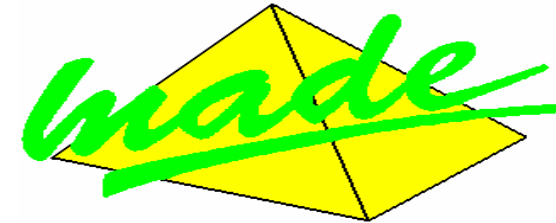


Connection type -

If possible, connect the transmitter between two cores (Phase-to-Phase) as this eliminates any possibility of signal propagation over the cable screens via the neutral connection. However, if only one phase is accessible, for example at a customer connection, (cable provided) NADIR will work correctly in all normal circumstances when connected Phase-to-Neutral.

If an internal fault is shown by the “Fault” light, recycle the transmitter. If the fault persists, contact NIS, MADE-SARL or A. T. M. S.

NADIR by

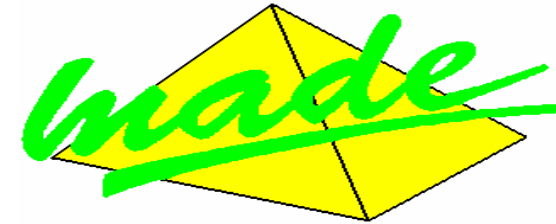


- Typical transmitter Installation



Distributor **A. T. M. S.** 07717763510

NADIR by

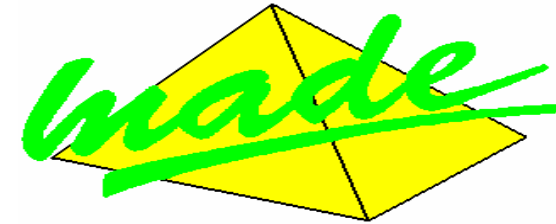


- Phase to Phase

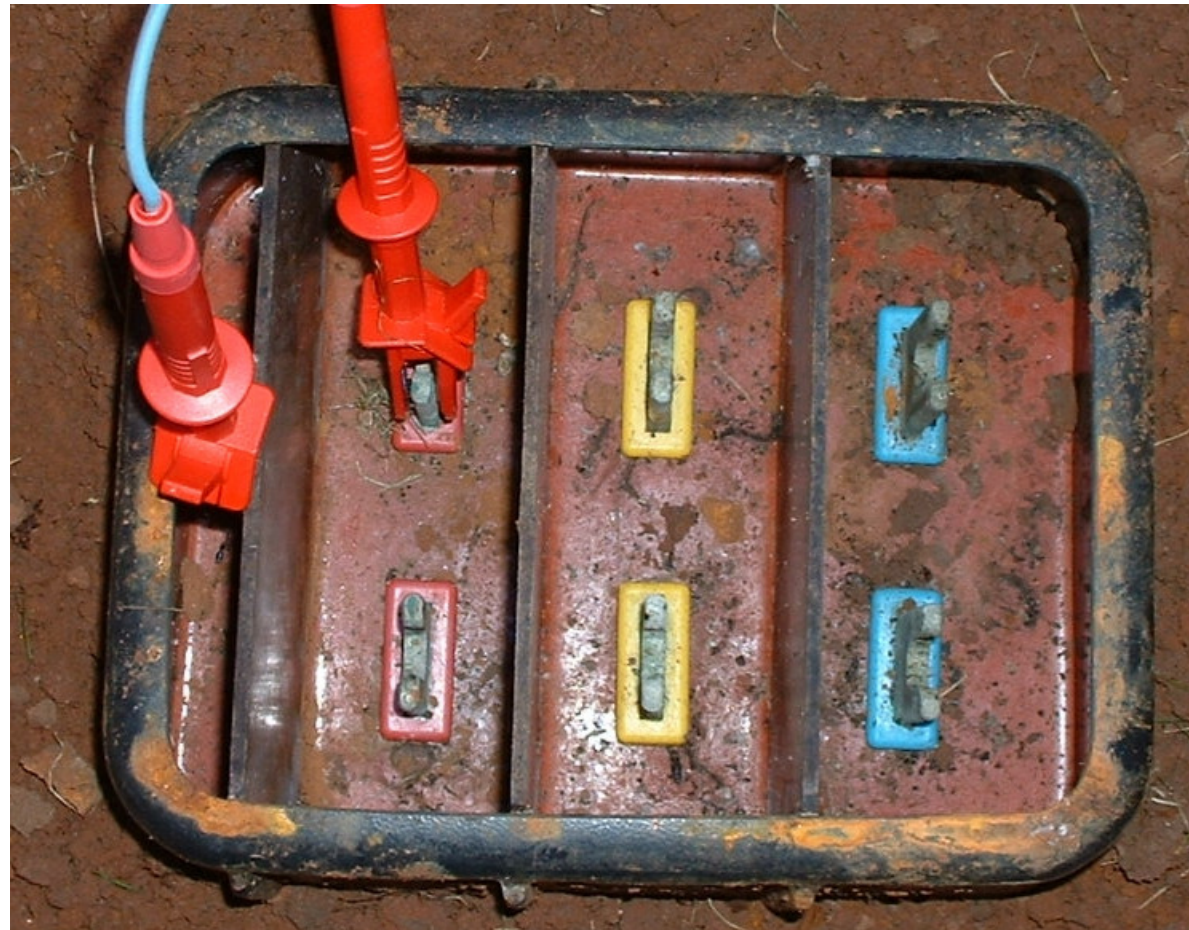


Distributor **A. T. M. S.** 07717763510

NADIR by

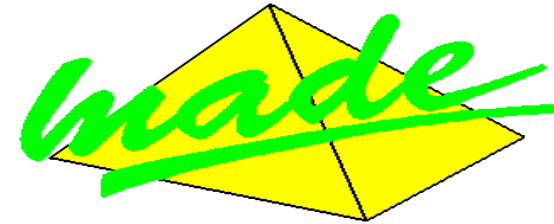


Phase to
Neutral



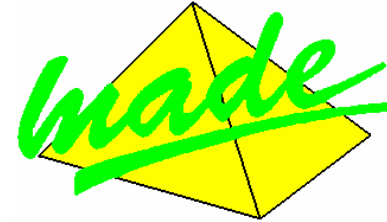
Distributor **A. T. M. S.** 07717763510

NADIR by

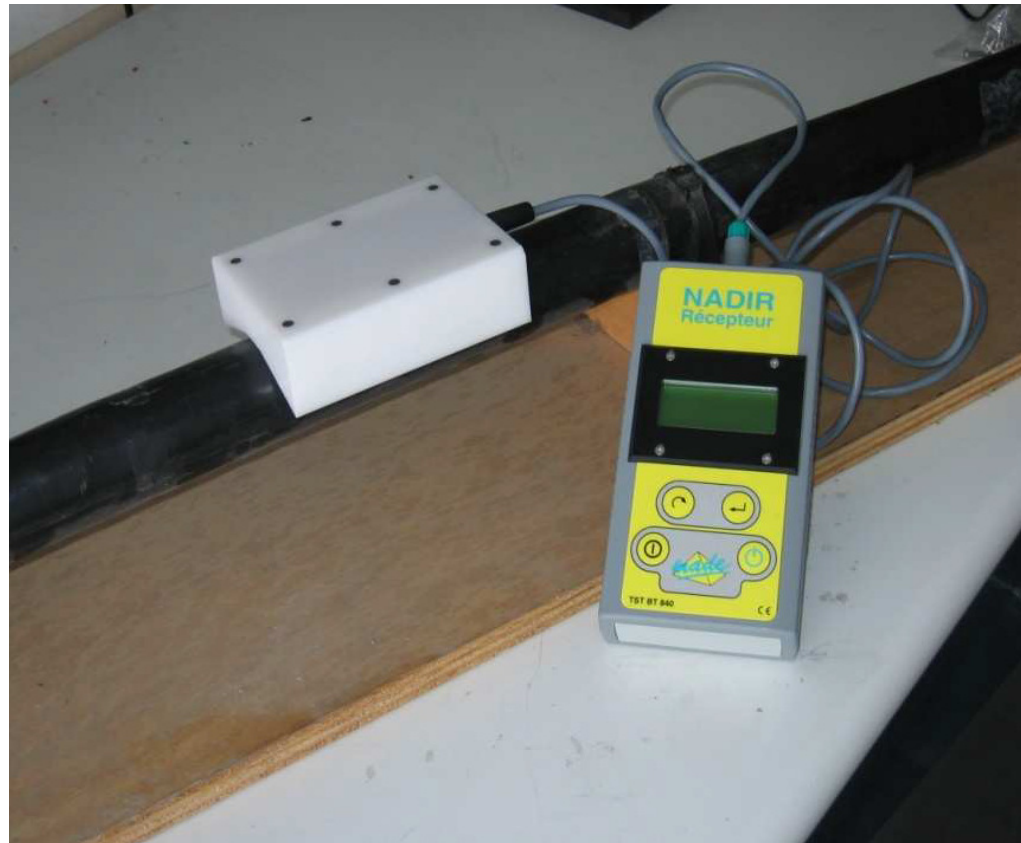


- The hand-held receiver incorporates a cable-locating transducer in its back cover. In addition, it has a choice of two remote transducers. The “trough” shaped one with the handle is for cable identification and the flexible Rogowski Coil (MADE flex) is for identifying the core(s).

NADIR by

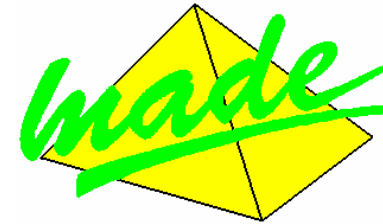


- Identifying a cable



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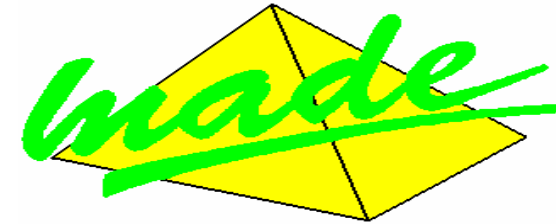


- Identifying a cable with the internal transducer

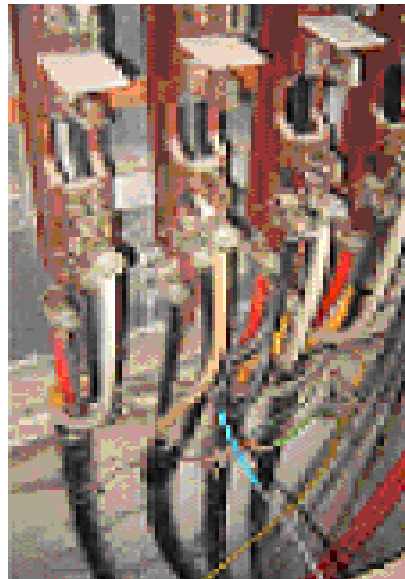


Distributor **A. T. M. S.** 07717763510

NADIR by

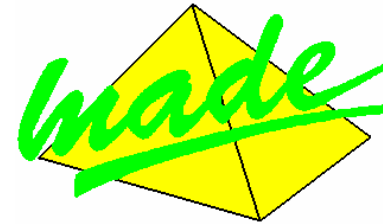


- Identifying a core with the Madeflex loop



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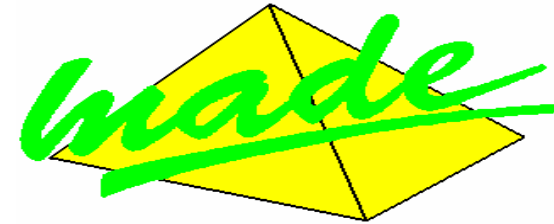


- The **RECEIVER**
- Pressing « ON » enters the Hand-held menu via the manufacturer information screen.



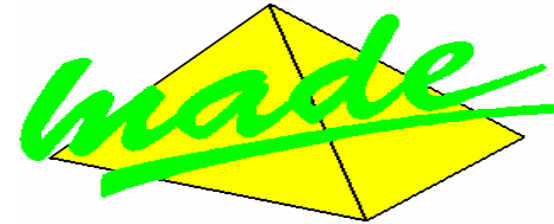
This menu is used for setting :-

NADIR by



- Configuration Menu
- SCREEN LIGHTING
- Press SCROLL for the Configuration screen.
- To turn on the screen lighting, enter the configuration screen with VALID (the little arrow reverses), and press SCROLL once to bring the little arrow opposite the word Lighting. Press VALID once to reverse the arrow, and SCROLL once to turn on the lighting. Press VALID once to turn the arrow back, and SCROLL twice to return it to the top. Press VALID once again in order to use SCROLL to leave the Configuration screen.
- MEMO MAX
 - This item displays the largest reading in a sequence as well as the current reading. It is a useful aid and is activated in the same way as turning on the lighting.

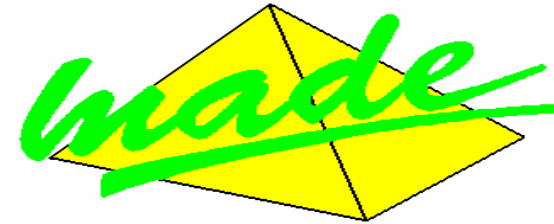
NADIR by



- SEARCH

- In this continuous measurement mode the bargraph indicates the level of signal found
- - The signal percentage is updated every 2 seconds on the display.
- - the buzzer increases in intensity in line with the display

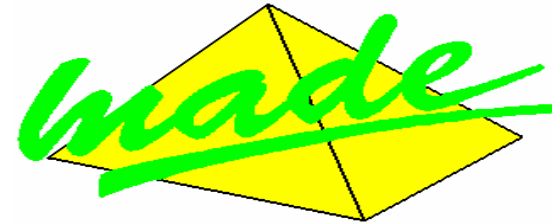
NADIR by



- **IDENTIFICATION**

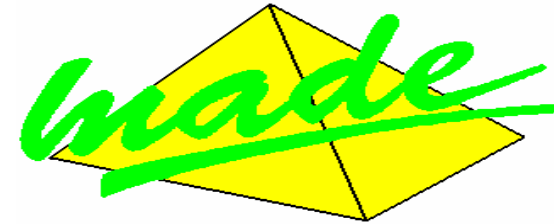
- This mode uses a measurement process using sophisticated algorithms which integrates over 5 seconds.
- The value obtained is displayed and held on the screen, together with the highest value in the sequence if “Memo-Max” is selected
- Pressing Scroll twice will repeat the process, leaving the same maximum displayed. To start a new measurement sequence press Valid twice which will re-start identification with the maximum value re-set to zero.

NADIR by



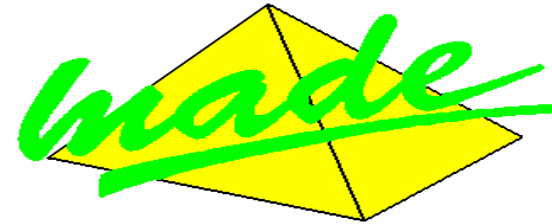
- CORE IDENTIFICATION
- - Connect the « MADE-FLEX » (Rogowski coil) transducer. The hand-held detects the transducer automatically
- Note : Close the « MADE-FLEX » transducer loop around only the Core on which the measurement is required,
- or only the Neutral of the feeder.

NADIR by



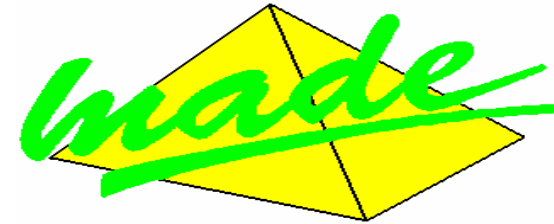
- Even if identification of the core (or phase) is not required, it provides a good confirmation of the identification of the cable, as the signal will only be found on the core or cores to which the transmitter has been connected, and none will be found on the same phases in other cables. The identification of the core/phase is performed exactly as for cable identification, using either or both of the “SEARCH” and “IDENTIFICATION” modes. Since the cable screen is not included in the measurement, the identification is perfectly unambiguous. If the transmitter is connected Phase-to-Phase, there will be signal on those two cores and none on the third core, enabling identification of the core and confirmation of the cable identification. If the transmitter is connected Phase-to-Neutral, only that core will have signal, as will the neutral, again enabling identification of the core and confirmation of the cable identification.

NADIR by



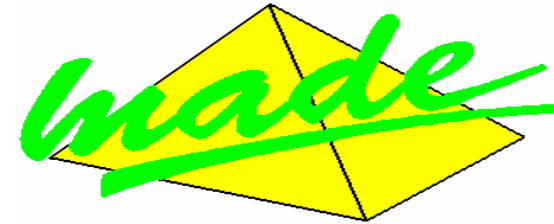
- To use with the « cable pre-identification transducer»
 - Connect this transducer
 - Start the menu
 - Place the transducer on the cables
- To use with the integral transducer
 - Do not connect a transducer to the receiver
 - Place the back of the receiver on the cable

NADIR by



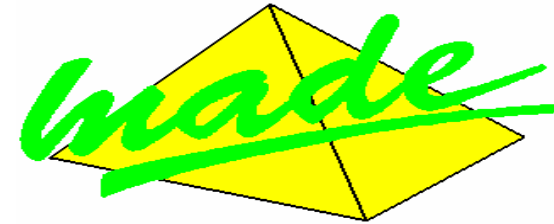
- **Receiver menu**
- On turn-on, the screen displays the manufacturer information.
- To move to the configuration screen press « SCROLL ». The default configuration is shown.
- To enter this screen press « VALID » (the arrow changes direction) and then « SCROLL » to move to the line to be modified.

NADIR by



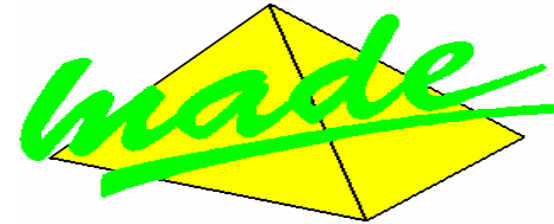
- Press « VALID » to enter the line (the arrow changes direction) then « SCROLL » to change the line, and « VALID » to hold this value and continue.
- When the parameters are set as required, return to the top of the screen and click « VALID » to memorise the configuration. This memorisation will be confirmed by a screen message.

NADIR by



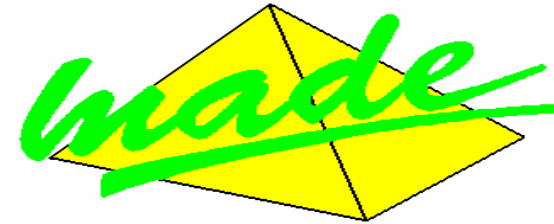
- From the configuration screen, press « SCROLL » to move to the SEARCH screen.
- To use the SEARCH function, press « VALID » to start measurement. The measurement process will run continuously and the screen shows the level of signal found. The receiver or the cable detection transducer can be moved along or around the cables to find the highest signal.
- To stop the measurement, press « VALID » again.

NADIR by



- Press « SCROLL » to proceed to the IDENTIFICATON screen.
- Press « VALID » to enter the screen and to start the detection. The measurement takes 5 seconds and the signal level found is held on the screen, together with the the previous highest value if MEMO MAX is activated.
- To start a new measurement, press « VALID ».

NADIR by



- Pressing « SCROLL » moves to the Battery Charge screen which shows the percentage charge of the receiver battery. This reading will only be correct if the receiver is *disconnected* from the charger and charging cable.
- Battery life is 5 hours in normal use.
- Below 20%, the receiver will shut off.
- The receiver is re-charged from the charger incorporated in the transmitter, which is in turn connected to the mains.