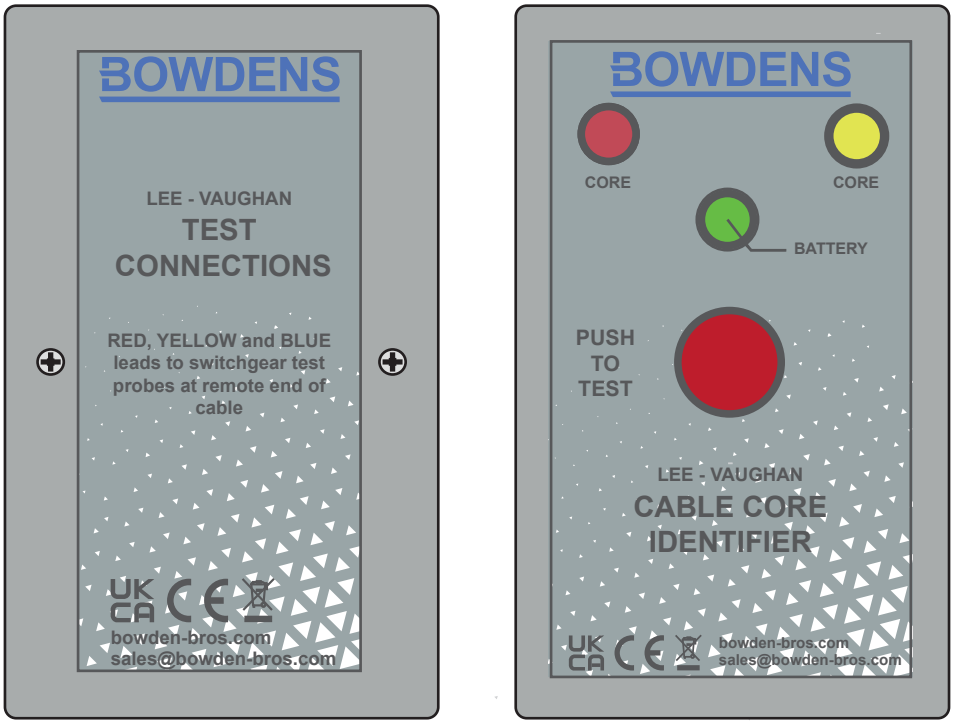
BOWDENS

CABLE CORE IDENTIFIER



FOR CORRECTLY IDENTIFYING THE PHASE ROTATION

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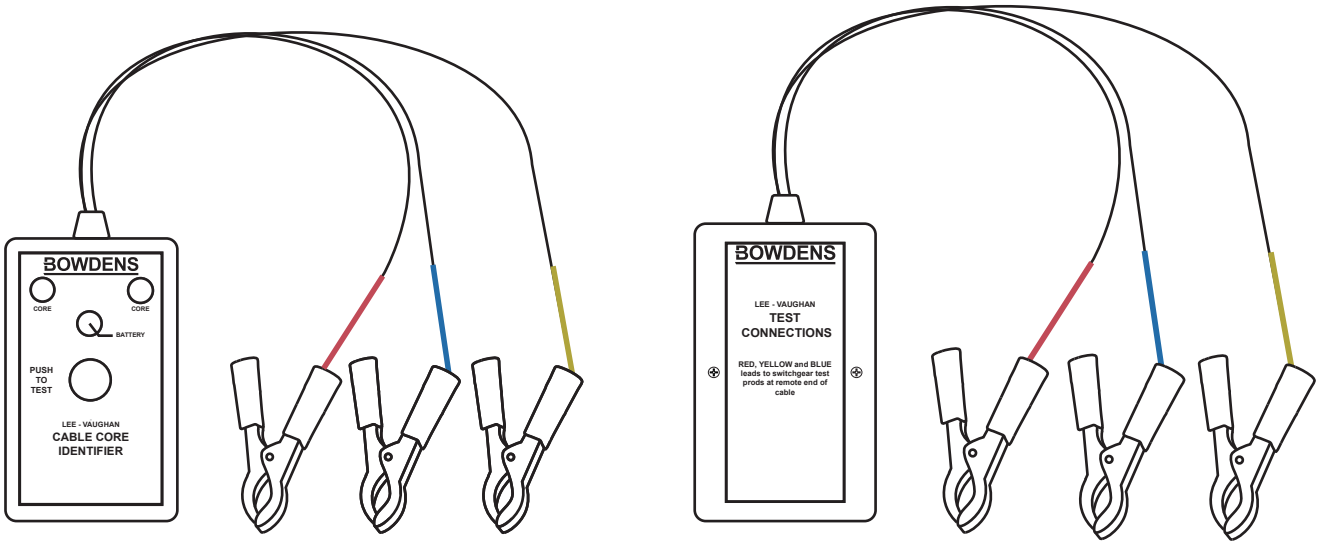
1.0 OVERVIEW

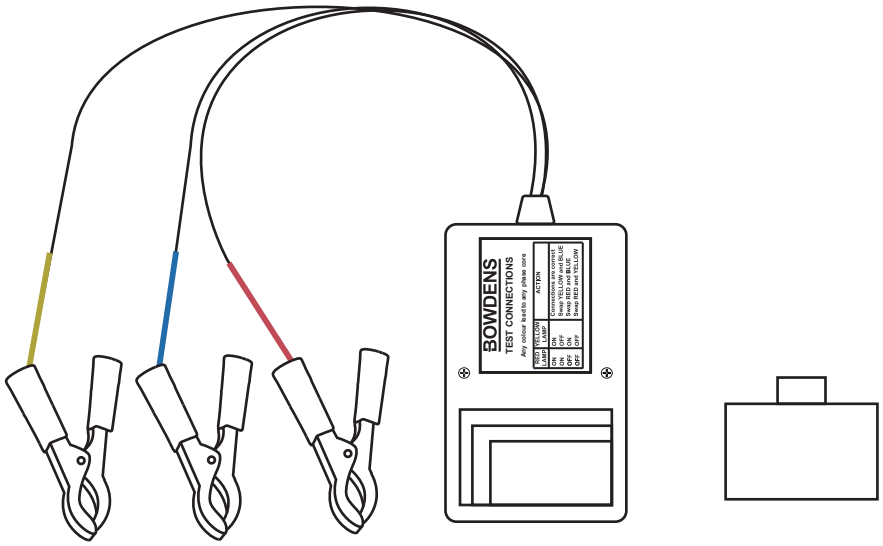
There are many methods adopted by engineers to check HV cable phasing prior to jointing, but Bowdens offer this simple instrument which gives a high degree of reliability. The Cable Core Identifier (CCI) comprises of a Transmitter and a Receiver. The Transmitter has three coloured LEDs for identification purposes, is powered by a PP3 battery and has the instructions for the correct phase rotation printed on the label. The receiver requires no power. Each has three phase coloured leads to connect to each end of the cable under test. The Transmitter is then used to find the correct rotation of the phases using the LEDs and instructions as described below. The unit is compact and easy to use with a simple LED Traffic light system to identify correct cores. It is of robust construction and protected by a carry case. The Cable Core Identifier has a healthy battery test lamp and is an inexpensive tool.

2.0 OPERATION

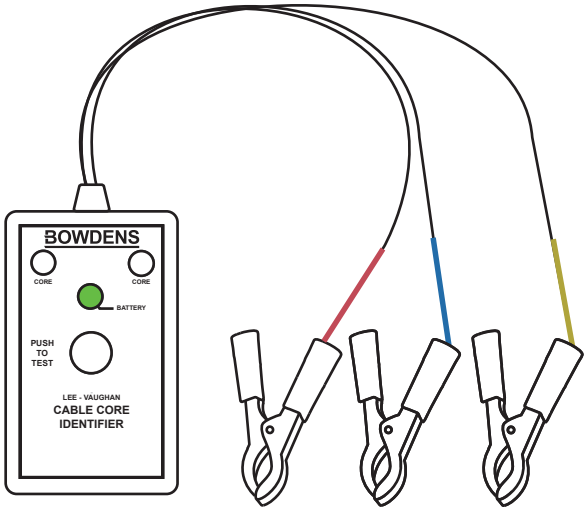
The Cable Core Identifier consists of a Transmitter with PP3 battery (supplied), Receiver and comes in a handy soft case.



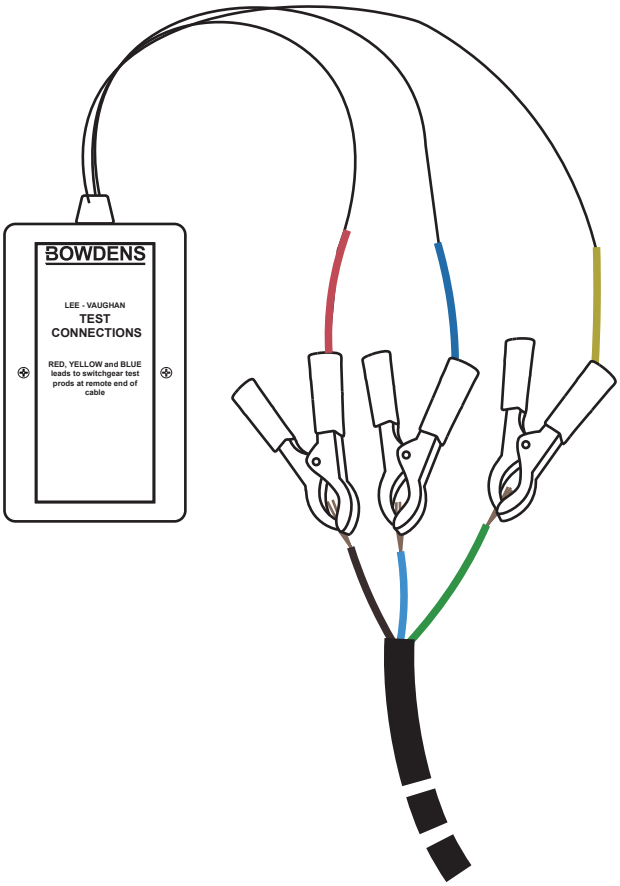
Remove Transmitter battery cover and battery. Remove battery terminal cover and connect PP3 battery. Replace battery cover.



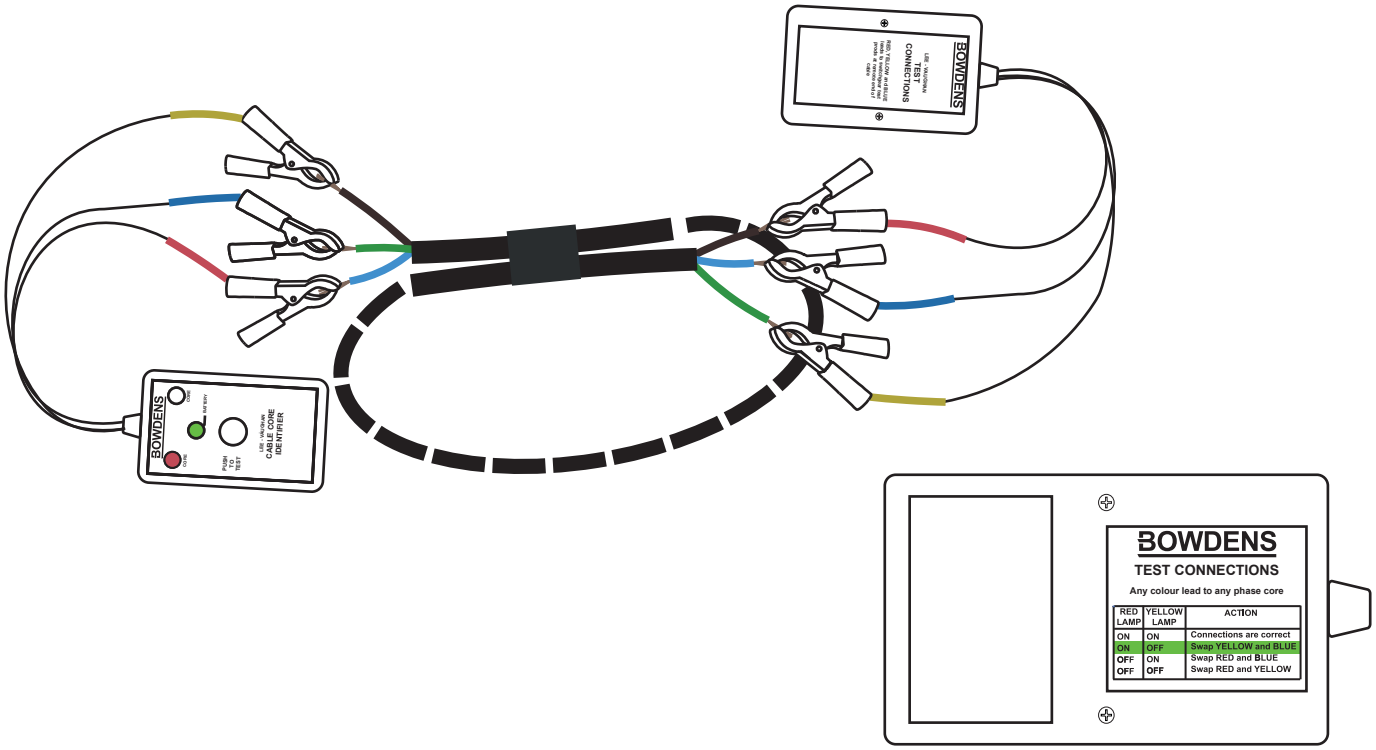
Push button on transmitter to carry out battery test. If green LED does not light, change the battery but only with an industrial capacity Alkaline PP3.



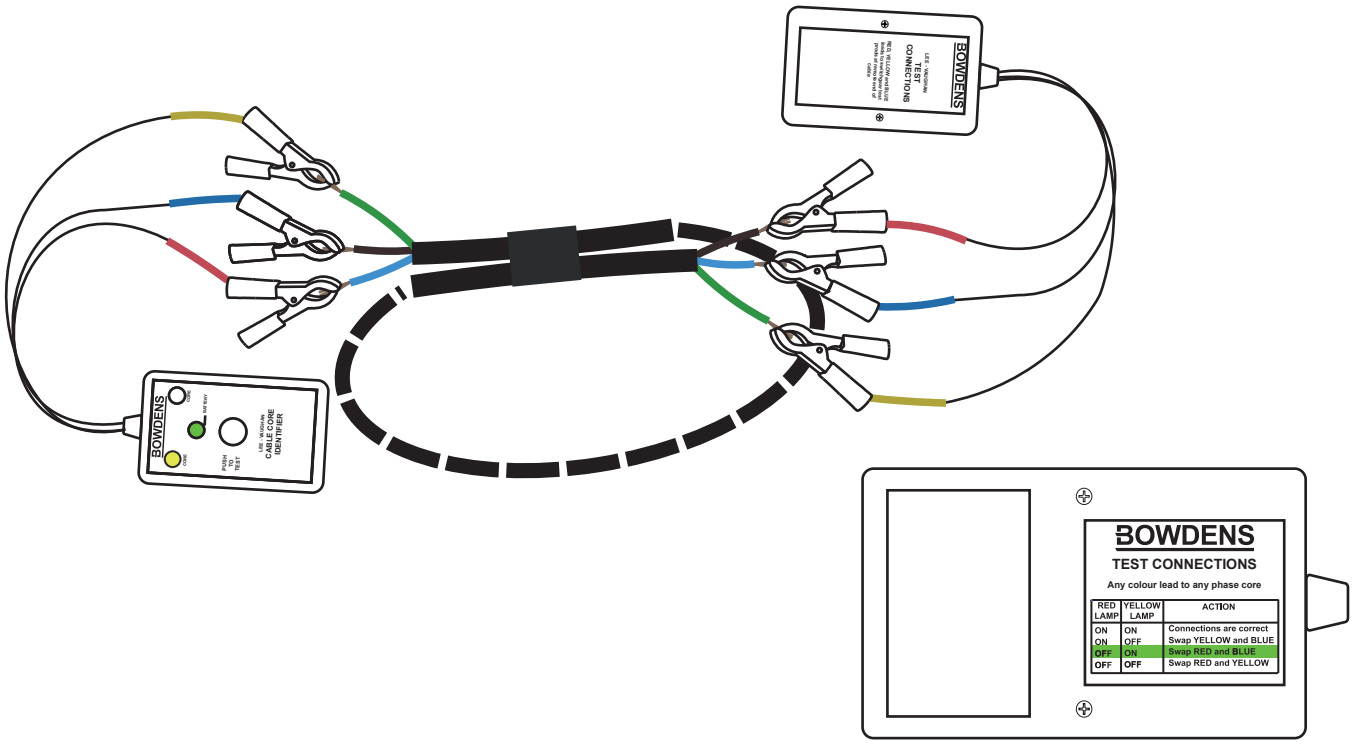
Connect the receiver leads to the switchgear prods or the connected cable end. If the colours do not match make a note of the relationship between the lead colours and the cable core colours.



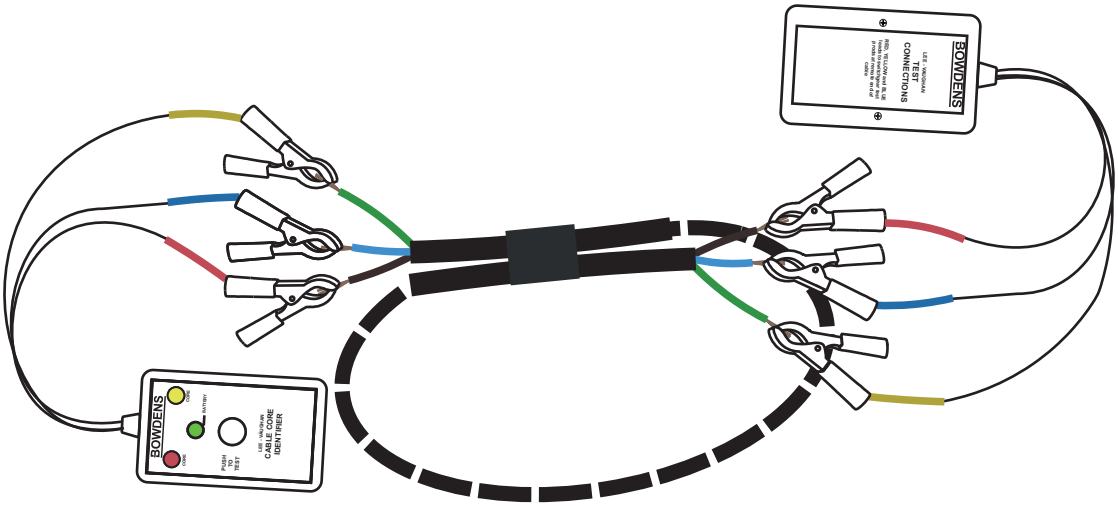
Connect the leads at the remote end in any order. Push the button on the Transmitter. In this example the red LED is on. The yellow LED is off. The green LED always lights. Now follow the instructions on the back of the Transmitter.



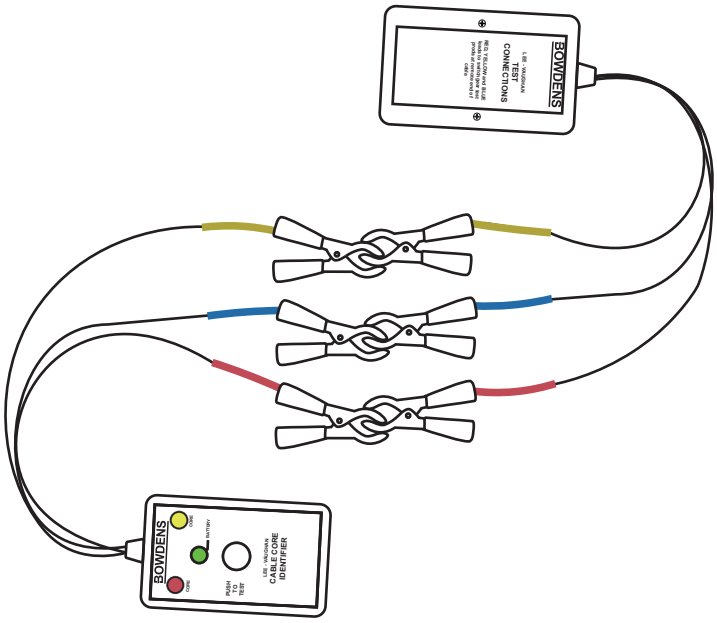
The instructions have told us to swap the yellow and blue leads. Press the button again and the red LED is off, the yellow LED is on. Refer to the instructions again.



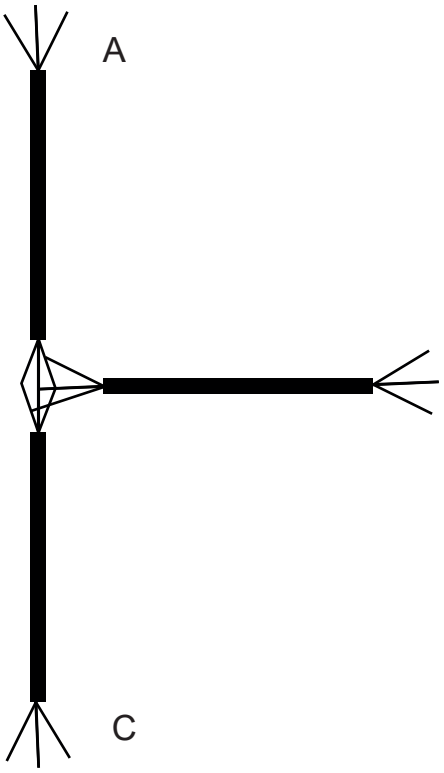
The instructions tell us to swap the red and blue leads. Press the button and both the red LED and the yellow LED are lit. This means the phase rotation is now correct.



To test the CCI, connect the leads together and check the LED response.



Note: Care must be taken if parallel circuits exist which may not be obvious from the test points. A cross between two phases on one of the parallel cables will not be identified, unless the circuits are tested individually.



If the phases are correctly connected at both A & B then phase identification at C is valid using a receiver at either (not both) A and B.

If the phasing is correct at A but incorrect at B then you will not be able to correctly identify phases at C.

If you disconnect at B using a receiving at A, identification of correct phasing is possible at both B and C.

3.0 SPECIFICATION

Transmitter & Receiver ABS boxes:	Each 58 x 96 x 23 mm
Flexible leads:	Black 1000V PVC with colour coded PVC sleeve each 40 cms long.
Battery:	Essential to use 'Industrial' Alkaline PP3 9V battery in transmitter only.
Range:	200 ohm loop resistance.

WARNING: THE CABLE UNDER TEST MUST BE DEAD AND FULLY DISCHARGED

DO NOT CONNECT THE CCI TO A CABLE THAT HAS NOT BEEN FULLY DISCHARGED. DAMAGE WILL BE CAUSED AND IS NOT COVERED UNDER OUR WARRANTY.

ONLY USE AN INDUSTRIAL ALKALINE PP3 BATTERY OF THE TYPE SUPPLIED WITH THE INSTRUMENT.