

# PTC-2

## Cable ID and Phase Tracer

■ **Ideal for identifying individual phases** of 3-phase direct buried or conduit installed cable. The PTC-2 is designed to positively identify the cable phases in a location where many cables come together, as in a manhole. These types of cable are used in power circuits, feeders and distribution networks. The device will also identify the individual phases in a three-phase power cable.

The PTC-2 has three major components: a pulse transmitter, a pulse detector (phase tracer) and a pick up coil. For best results the cable should be disconnected from any load impedance with the three-phase conductors tied together and grounded at the far end. However, the device will operate satisfactorily while still connected to low impedance loads.

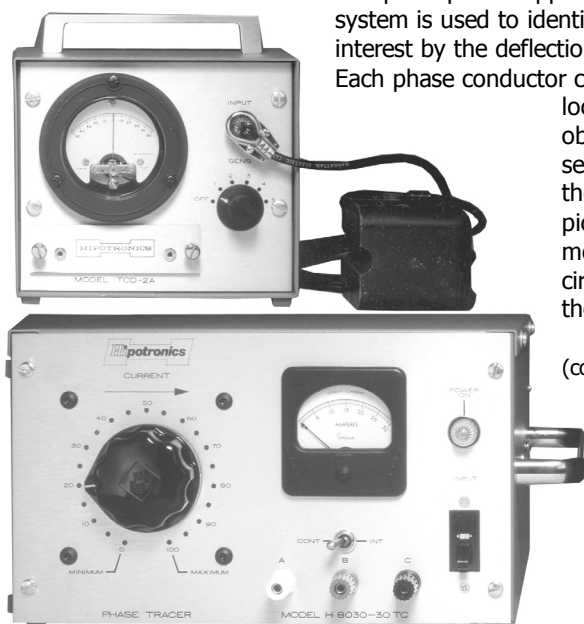
### How it works

The **pulse transmitter** produces rectangular wave shape pulses 830 ms wide (see waveshape on back). A sequence of these pulses is available at three output terminals, labeled PHASE "A", PHASE "B" and PHASE "C". At the "A" phase output, one pulse is produced approximately every four seconds. At the "B" phase output, two pulses are produced approximately every four seconds synchronized with "A" phase so that the sum of "A" and "B" phase pulses are collected on "C" phase and returned to the transmitter. This sequence is transmitted repetitively.

The pick-up coil supplied with the system is used to identify the cable of interest by the deflection of the meter. Each phase conductor can be

located by observing the selective pulses of the meter as the pick-up coil is moved around the circumference of the cable.

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## Features

### Transmitter

- ☑ **Continuously adjustable** output current
- ☑ **Low operating voltage**
- ☑ Output ammeter
- ☑ **Input circuit breaker** switch with "ON" pilot light

### Detector

- ☑ **High gain**, transistor amplifier circuit
- ☑ **Sensitive pickup coil**
- ☑ **Rotary switch with "OFF"** plus five sensitivity levels
- ☑ **50 division meter** indicating relative strength of signal

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## Benefits

**Effective Identification** - device can be used on shielded cable, unshielded cable and lead-jacketed cable

**Complete, compact and portable** - for simple and quick use in the field

**Simple Operation** - with a minimal amount of user training testing can begin

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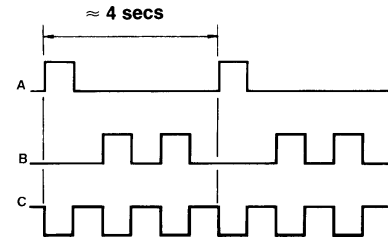
## Applications

These devices are generally used by:

- ➔ Electrical Utilities
- ➔ Test Companies
- ➔ Petrochemical Facilities
- ➔ Facility Maintenance

## How it works (continued)

The single pulse ("A" Phase), dual pulse ("B" Phase) sequence is transmitted repetitively under normal conditions. An intermittent mode is also included so that the "A" Phase (single pulse) is transmitted for one minute, and then the "B" Phase signal (dual pulse) is transmitted. This gives the operator a longer period of time to identify the signals and is very useful when tracing long lengths of cables or working in electrically noisy environments.



## Technical Specifications

### General

Input	120 Volts, 60 Hz OR 220 Volts, 50 Hz (15 Amps, Single Phase)		
Output	0 V – 30 V at 30 Amps		
Pulse Shape	Square wave; width -- 830 milliseconds		
Repetition Rate "Continuous"	1, 2 and 3 pulses every 5 seconds, in A, B, and C phase respectively		(see figure above)
Repetition Rate "Intermittent"	A-phase output - 12 pulses per minute with 2 pulse every 5 seconds		
(For pulsing through long lengths of cable or to differentiate from stray pickups. See figure above)	B-phase output - 24 pulses per minute with 2 pulses every 5 seconds		
	C-phase output - reciprocal of A and B in return leg		

### Weights and Dimensions (W x H x D, net weight, ship weight)

H8030-30TC	12" x 7.5" x 12.25" (305 x 191 x 311 mm)	41 lbs (18.6 kg)	52 lbs (23.6 kg)
TCD-2	6.75" x 6" x 3.5" (171 x 152 x 89 mm)	4 lbs (1.82 kg)	8 lbs (3.6 kg)
Pick Up Coil	2.5" x 2.75 x 2.5" (64 x 70 x 64 mm)	1.75 (.8 kg)	4 lbs (1.8 kg)

## Scope of Supply

- Qty. 1 PTC2 with transmitter, pulse detector and pick-up coil
- Qty. 1 8030-LS, phase tracer test leads
- Qty. 1 Calibration Certificate
- Qty. 1 User's Manual

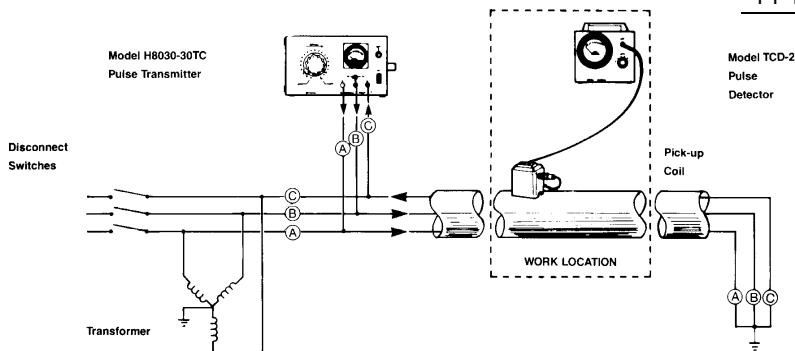
## Ordering Information

### System

Cable ID and Phase Tracer	<b>PTC2-A or PTC2-B</b>
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### Accessories

Phase Tracer, transmitter only, 30 V / 3A (incl. 8030-LS)	<b>8030TC</b>
Phase Tracer, detector only	<b>TCD2A</b>
Phase Tracer, transmitter only 12 V / 30 A (incl. 8030-LS)	<b>8012TC</b>
PT Test Leads, 6 ft (1.8 m), 3 conductors	<b>8030-LS</b>



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