Single / Three Phase
Cable and Phasing
Identification System

# EZ-Cable ID


**Can identify single and three phase cables**

**Avoid Live Cable Cut Ins!**

HV Diagnostics INC.

# EZ-Cable ID

## Cable and Phase Identification

## *Product Design / Description*

*Which cable is correct?*

The EZ-Cable ID test instrument allows electrical testing personnel to accurately and effectively identify either one or three cables or cores anywhere along the length of the cable in one identification process. This can be done on both energized and de-energized cables for both single phase and three phase networks. In addition to identifying the correct cable and phase, the resultant current and frequency in a cable can also be measured by the instrument.
The instrument consists of 4 main items: A receiver (RX), transmitter (TX), pickup sensor/s and inductive clamp/s (see options), all housed in a rugged, injection molded carrying case.

The instrument is extremely easy to use in both day and night time environments and can be powered by either the internal battery, AC mains or from an auxiliary 12V DC supply. The receiver is battery operated, has a backlit LCD display, housed in a rugged rubber holster and has a flexible pickup coil to easily wrap around cables.

*EZ-Cable ID xi3 shown above*

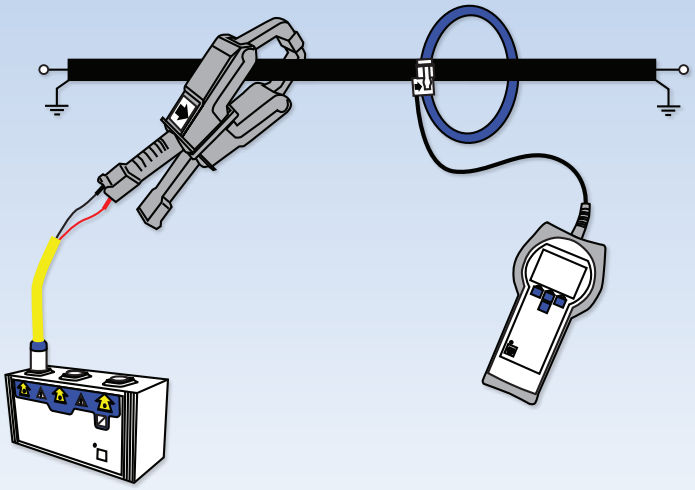
Correct identification of a cable is often required for many types of applications. These include the “cutting in” of a new transformer or switch into an existing cable, correct identification of cables in a trench, manhole, or cable tray, before spiking/cutting – the list goes on. The EZ-Cable ID unit offers enhanced identification of energized cables, even those carrying high load currents that often cause other ID units on the market to malfunction.

The EZ-Cable ID transmitter injects a special coded pulse sequence into one to three cables. The characteristics of these injected pulses are determined by the cable system that it is connected to. The verification process is then used to automatically establish and record these reference injected signals at the known reference location on the cable. The identification process then correctly identifies or rejects the cables at the unknown point along the cable, by comparing the detected signals to those obtained during the verification process.

***Safety Precaution:***
***Always treat cables as potentially engergized.***

## Important Features

- Extremely simple, menu operated, automated backlit user interface.
- Simultaneous single and multi-phase identification of both energized and de-energized circuits (see options). There is no need to repeatedly go back and recalibrate the instrument after a single cable is identified.
- 3 cables can be identified in one action.
- Can be used on single and multicore cables.
- Non-volatile memory to store parameters.
- Load current and frequency measurement.
- Excellent noise immunity when identifying cables carrying high load current.
- Flexible pickup coil for tight congested cable locations.
- Handheld pickup coil “PUC” to ID and phase 3 conductor/ network type cables
- Powered by integrated battery or external ac mains.
- Correct phasing and identification of a three phase cable system, without having to remove any safety grounds on the cable.
- Prevention of user inadvertently changing gain / sensitivity settings to cause a possible wrong ID of a cable.
- Sophisticated algorithm assures accuracy during identifying process.
- Connection error notification – instrument notifies operator if a poor connection hookup is present.
- Can be used on LV, MV and transmission cable systems.
- Identification of cables through multiple transformers.
- Rugged transport case includes an internal cable pouch to neatly house alligator clips, test leads, power cords, etc.



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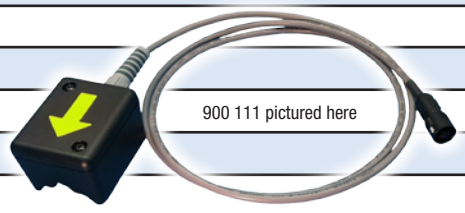
# TECHNICAL DATA FOR THE EZ-CABLE ID UNIT

| Transmitter | Description |
|---|---|
| Input Supply Voltage | Integrated Battery: 12V SLA (Sealed Lead Acid), 2.9Ahr<br>AC Shore Power: 85 ~ 264VAC, 47~440HZ / 120-370VDC<br>Auxiliary DC: 12V DC auto type supply [9.6~15V DC reverse protected] |
| Output Pulse Voltage | 125V peak |
| Output Pulse Cycling | Single Phase ~2 Seconds, Multi-Phase ~5 Seconds |
| Output Pulse Current | 100A max. Actual current dependent on loop impedance |
| Power Consumption | 21W |
| Battery Status | LED indication: Full (Green), Medium (Amber), Low (Red), Critical (Blinking Red) |
| Battery Life | 7 hrs (Single Phase) |
| Charging Time | 4.5 hrs |
| Pulse Indication | LED and audio for each channel with status indication |
| Environmental Protection | IP52 |
| Operating Temperature | -10 ~ 55°C / 14 ~130°F |
| Dimensions | 240 x 120 x 90 mm / 9.4” x 4.7” x 3.5” |
| Weight | 2.1 kg / 4.6 lbs |

| Receiver | Description |
|---|---|
| Input Supply Voltage | 4 AA Batteries (6.0V nominal), Alkaline or rechargeable |
| Power Frequency Current | 0 ~ 500A (50/60 Hz) +/- 10% at reading, Resolution: 0.1A |
| Sensitivity | Direct/Indirect: <1000 Ohms or 0.1 Amps |
| Memory | Non-volatile storage of ID parameters |
| Display | 128 x 64 pixel, monochrome |
| Battery Life | 16 hrs |
| Environmental Protection | IP62 |
| Operating Temperature | -10 ~ 55°C / 14 ~130°F |
| Signal Detection Sensor | Flexible pickup coil, ID: 180mm/7.0” (CAT III 1000V) |
| Dimensions | 240 x 120 x 55mm/ 9.4” x 4.7” x 2.2” |
| Weight | 0.7kg / 1.6 lbs |

# ORDERING INFORMATION

| Part Number | Description |
|---|---|
| 900 001 | **EZ-Cable IDx:** Three Phase Cable ID and Cable Phasing unit for de-energized cables. Consists of Transmitter, Receiver, rugged transport case, AC Power Lead, Auto 12V Lead, Three Phase Direct Test Leads (2m / 6.5ft) with alligator clips. Weight: 20 lbs, 9.1 kg |
| 900 002 | **EZ-Cable IDxi:** As above plus can be used on single phase energized cables; includes 1 inductive clamp-on CT. Weight: 23 lbs, 10.4 kg |
| 900 003 | **EZ-Cable IDxi3:** As above plus can be used on three phase energized cables; includes 2 inductive clamp-on CTs. Weight: 28 lbs, 12.7 kg |
| **Optional Items** | |
| 900 010 | Inductive clamp-on CT; ID:70mm / 2.75” ; Weight: 2.6 lbs, 1.2 kg (CAT III 600V) |
| 900 111 | Handheld Pickup Sensor for Rx (“PUC”) |
| 900 030 | Extension Cable for Rx Sensors (2.5m/8ft) |
| 900 031 | L1 and L2 Extension Cables for Tx (15m/50Ft) |


900 111 pictured here

**Note:** Due to continuous development, the information detailed in this document may change without notice.

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