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# TEST EQUIPMENT CATALOG

VOV

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#### Wire and Valve Locators

#### Pro900 Advanced Digital Cable and Wire/Valve Locator

- Tracks Outdoor Lighting Wires, Cable and Tele Two Listening Options: External Speaker or
- phone Lines, Irrigation Wiring and AC Power Lines Stereo Headset Three Modes of Connection: Direct Connect, 
   Null or Peak Reception Modes
- Inductive Clamp, and Inductive Antenna
- Adjustable Power Levels Dual Frequencies in Direct Connect Mode
- Our Highest Powered Transmitter Ever
- · Advanced AC Noise Rejection for Faster and
- More Accurate Tracking
- Backlit Digital Display
- · Sealed Membrane Switch Technology
- · Includes Transmitter, Receiver, Inductive Clamp,
- Stereo Headset, Ground Stake, Leads, Transformer

The Pro900 Advanced Underground Locator features include three connection methods, digital displays, and the ability to power the transmitter through an

AC outlet or with batteries. The traditional direct connection mode offers two frequency options, allowing the user to adapt to different wire depths and distances. Connecting via the inductive clamp is simple and safe, and the user doesn't have to deactivate a system in order to trace the wire. The broadcast mode applies a tracking signal wirelessly, allowing the user to quickly locate hidden wires and cables. The Pro900 has two listening options; an external speaker, or a convenient and durable stereo headset. In addition, the Pro900 has improved range, perfect AC noise rejection, and intuitive controls. The Pro900 is truly our most advanced and most versatile locator.

#### **Pro800D Hi-Power Wire and Valve Locator**

- Direct Wire Connection or Broadcast Non-Contact Mode
- Improved AC Noise Rejection
- High Power Output
- Low Battery Indicator LED
- Null or Peak Reception
- · Headset and Ground Stake Included

Power Output: Batteries Transmitter Frequency:

Voltage Protection:

Transmitter 5 lbs. / Wand 3 lbs. 900v P-P / 6 variable settings 8 "D" Cell for Transmitter 1 9v NEDA 1604 for Wand 2 kHz and 175 kHz in Broadcast Mode. 110 VAC / 200 VDC

The Pro800D will accurately track irrigation wires, find missing valves, and detect major damage to vulnerable underground cables. It offers all of the features you would expect from a premium wire and valve locator: adjustable transmitter power for optimal performance, a long, lightweight receiving wand for easy tracking, and a rugged custom case. Additionally, the Pro800D has enhanced AC noise and interference rejection, high power output, and an inductive mode which puts a tracing tone on a cable without physically connecting to the target cable. By using this mode, it is unnecessary to disconnect target cables. Finally, the receiving wand incorporates membrane switch controls, the option of peak or null reception, and both an external speaker and headset jack. Truly, the Pro800D is one of the premium wire and valve locators on the market today.

## **Pro700 Underground Wire and Sprinkler Valve Locator**

- · Locates Wires, Valves, and Breaks
- AC Noise Elimination Circuit
- · Extra Long 27 inch Wand
- Detachable Connecting Cordset
- External Speaker or Headset Reception
- · Large Analog Strength Meter on Transmitter and Receiver
- User Selectable Power Output and Reception Levels

Weight Power Output: **Output Frequency:** Batteries: Kit Includes:

Transmitter 5 lbs. / Wand 3 lbs. 750v P-P / 5 variable settings 2 kHz 8 "D" Cell for Transmitter 1 9v NEDA 1604 for Wand Headset, Ground Stake

The Pro700 Wire and Valve Locator incorporates a powerful transmitter and sensitive receiver to track irrigation wires, find missing valves, and detect serious damage to vulnerable underground cabling. The Pro700 transmits an easy to follow tracing signal that is tracked by the extended length receiver. The Pro700 builds on the success of the original Pro600 model. This provides a clearer, cleaner sound. The Pro700 also has enlarged analog meters for easy viewing of power levels, and a simple battery check button to test the condition of batteries in the transmitter and receiver.



#### **Pro300 Residential Wire and Valve Locator**

- · Locates Wires and Valves
- Ground Circuit Strength LED
- Detachable Swinging Antenna
- Receiver Volume Control
- Uses Standard 2 kHz Null Tracking Signal
- Ground Stake Included
- Transmitter Automatic Off Switch
- Range 600 ft., Depth up to 4 ft.

Weight: Power Output: Output Frequency: Batteries:

Transmitter 3 lbs. / Wand 1 lb. 350v P-P 2 kHz 8 "C" Cells for Transmitter 1 9v NEDA 1604 for Receiver

The Pro300 Residential Wire and Valve Locator is a value packed tool for contractors working with shorter wiring like residential sprinklers or invisible fences. The Pro300 consists of a transmitter and receiver combination just like its big brother, the Pro700, but uses a smaller power output to match smaller jobs. The 2 kHz frequency, null tracking, signal, and setup are exactly the same as the Pro700. Designed to keep within budget, the pricing is small as well.



Weight: Tracking Range Depth:

Distance:

Distance<sup>-</sup>

Tracking Signals

Signal Output:

Power Source:

10 lbs. with case

5.000 feet with direct connection

Frequency One: 2 kHz direct connect

Frequency Two: 33 kHz direct connect

900 V peak with no load / 1 W maximum

Receiver: One (1) 9 V (6LR61) NEDA 1604

Transmitter: External AC or Eight (8) 'D' Cells

Unlimited with broadcast mode and leapfrogging

Frequency Three: 175 kHz via clamp or internal broad-

8 feet

cast antenna







#### **Pro65 Plastic Pipe Locating Accessory**

- Trace Plastic Pipe as Small as 1/2 inch Diameter
- · Use any Locator Frequency for Tracking
- Use 33kHz for Sonde (Tip) Activation
- · Bend Radius of 2 inches
- No Electronic Parts

The Pro65 Plastic Pipe Tracking Aid is a patented miniature locating accessory for tracking non-wired plastic pipe. Simply connect the locator to one post and the other lead to ground, insert the Pro65 into a plastic pipe through a sprinkler head or any opening, energize, and track. Blockages are simple to locate by wither tracking until the sound stops or using the 33kHz Sonde method to only detect the end of the Pro65 and where it is blocked. The Pro65 reaches 65 feet and can turn 90 bends with little difficulty. Weighing less than 3 pounds, it is rugged and tough enough for the irrigation world.

#### **Cable Locators**

#### Pro400 Handheld Graphical TDR Cable Fault Finder

- Lowest Cost Full Specification Professional Graphical TDR
  Rugged hand held design weighs less than 12 oz.
- 5 Measurement Ranges up to 20,000 ft.
- 25. 50, 75 & 100 ohms Selectable Cable Impedance

12 oz. Weight Batteries 4 x AA cells Ranges @ Vp=70%: 45, 90, 160, 360, 750, 1500, 3000, 6000, 10k feet and 20k feet Range Selection: Manual range control Approximately 1% of range Resolution: Min. 3 pixel return at 5.700 ft. Sensitivity:

· Built in Tone Generator for Wire Tracing and Identification • Backlit display screen · Water and Dust Proof to IP54 Carrying case and test leads The Pro400 is a professional Time Domain Reflectometer and Toner designed to detect and locate faults on copper cables up to a distance of 20,000 ft. Advanced signal processing techniques enable the Pro400 to find opens, short circuits, splices, taps, water ingress and other more elusive impedance mismatches. A built in tone generator also provides a tone for wire tracing and identification. Selectable cable impedance matching, along with variable velocity factor, enable the Pro400 to be used to test all communication cables, including twisted pair and coaxial, with graphical results and fault distances displayed on a dot matrix LCD. The Pro400 is especially well suited to testing 2-wire irrigation control cables. The TDR/Toner is housed in a

· Inductive Clamp Included Custom Molded Case

#### Pro871C Underground Cable Locator with Inductive Clamp

tough, ruggedized ABS plastic case, water and dust proof to IP54, and supplied complete with test leads and a protective tool-belt holster.

- · Audible (Speaker or Headset) or Visual Reception Indicators
- · Low Battery Power Indicator
- · Membrane receiver control panel • Null or Peak Reception Options with Volume Control
- Range 4000 ft., Depth up to 8 ft.

Weight 8 lbs Power Requirements: Transmitter Frequency: Passive Detection Mode: Transmitter Power: Voltage Protection: Kit Includes:

Transmitter - (8) D batteries; Receiver - (1) 9V battery 2 kHz, 33 kHz, and 175 kHz 50/60 Hz 200 mW into 1 Kohm 110VAC/200VDC Headset, Ground Stake

The Pro871C Underground Cable Locator is the perfect choice for general cable locating and tracing. No other locator has this many features at this price. The Pro871C uses the traditional high and low frequencies to direct connect to a cable. Additionally, however, the Pro871C uses an inductive antenna mode and an inductive clamp mode to allow tracing without the bother of actually connecting to the cable. Finally, the Pro871C wand is equipped with a passive 50/60Hz detection capability to track live electrical service without having to connect to that service. It even offers the choice to track the cables using the null or peak methods. The Pro871C saves tremendous time and energy for anyone trying to locate cables. With 5 different methods to use, common wires like electrical, lighting, dog fence, cable TV, etc., are easily located and marked. There has never been a better value in cable locating.



#### Pro290 Mini Underground Wire Locator

- · Locates Underground Wires
- Finds Broken Wires
- · Ground Circuit Strength LED · Detachable Swinging Antenna

Weight: Power Output: Output Frequency: Batteries Kit Includes:

Transmitter 3 lbs. / Receiver 1 lb. 12 volt p-p 33 kHz 8 "C" Cells for Transmitter; 9 volt NEDA 1604 for Receiver Ground Stake

The unique Pro290 Landscape Lighting Wire Locator is a new tool for contractors working with landscape lighting or invisible fences. The Pro290 consists of a transmitter and receiver and uses a limited power output to match sensitive landscape lighting bulbs. The Pro290 uses an easy to track 33khz frequency, and sets up in less than a minute. Simply connect the Pro290 to the wire to be tracked and to the ground stake in dirt, get a good ground indication, and track the beeps with the hand held receiver.



# Instructional videos available on our website: www.armadatech.com and on the Armadatech Youtube Channel ...



Pro50

Pro50K

#### **Multi-Function Irrigation Testers**

### Pro50 Digital AC/DC Solenoid Activator with Multimeter / Pro50K Kit

- · Works with all low voltage solenoids, AC or DC
- · Chatter or Activate Solenoids
- · Built in Digital Multimeter for Wire and Solenoid Testing
- Sends Tracing Tone
- Kit Includes Pro210F Filter Probe and Carry Case

Weight: Power Source: Power Output: Toner: Pro210F:

Pro50: <1 lb. / Pro50K: <2 lb. Pro50: (4) AA Batteries / Pro210F - (4) AA Batteries 24v to Activate/Chatter 1kHz, 8 mW AC Filtered Reception

The new Pro50 Digital Irrigation Tester and Multimeter is the very latest in irrigation troubleshooting technology. Gone are the antiquated LED dumb lights that are pre-programmed for static response. Digital allows for flexibility to work with all AC, DC, and specialty lightning resistant solenoids. The built in digital multimeter allows complete sprinkler system diagnosis and testing. In addition, chattering solenoids for locating purposes is now possible for all low voltage models, including the DC latching and high resistance models designed to protect against voltage surges. The Pro50 does it all and does it digitally with modern controls and display. The Pro50K Kit adds the tough, advanced filter probe Pro210F and the zippered carry case to the set. It doesn't get any more modern or versatile than the Pro50.

#### Pro48 Multi-Function Irrigation System Tester / Pro48K Kit

- · Chatters Solenoids
- · Activates and Holds Solenoids Open
- Generates 1 kHz Tracing Tone
- Checks Clock 24v Power Output
- Tests for Open or Shorted Wiring
- Kit Includes Pro210F Filter Probe and Carry Case
- Pro210F Functions and Features:
- Amplifies Tone Signal to Identify Wire
- AC Noise Rejection
- LED Headlight
- · Volume Control and Headset jack
- 250+ Hours of Battery Life
- Weight: Power Source: Power Output: Tone Source: Receiver Modes: Power output for chatter mode:

Pro48: 1 lb. / Pro48K: 2 lb. Pro48: (2) 9v / Pro210F - (4) AA Batteries 24 VDC on Activate/Chatter 1kHz. 8 mW Broadband or AC Rejection

Inrush current >200 mA (1000 ft. loop) nominal Power output for holding: Holding current >100 mA

The Pro48 performs a series of critical tests to troubleshoot irrigation systems. It can check solenoid performance by using either the activation or chatter modes. The chatter mode is also effective in finding lost or buried solenoids. Irrigation clocks are tested for proper 24v transmission with a simple LED power check. The Pro48 can also perform a basic continuity test to identify open or short wiring. The Pro48K kit includes the Pro48, the Pro210F Advanced Tone Probe, and the Pro21 carrying case. In addition to the functions of the Pro48 by itself, wiring can be verified and tagged with the built-in tone generator. The Pro210F amplifies the toning signal. Made from thick plastic, the highly visible Pro48 and Pro210F are designed for rugged use in the field.

#### Ground Fault Locator

Weight:

Batteries:

Kit Includes:

Power Output:

#### **GFL3000 Ground Fault Locator**

- Locates Buried Ground Faults
- Dual Power Capability (Hi/Lo)
- Audible 'On' Beeper Battery Power Indicator
- Custom Molded Case
- · Rechargeable Battery (Includes Battery and Charger)

The GFL3000 Ground Fault Locator is a new low cost fault finder for contractors and maintenance personnel. Incorporating dual power output, the GFL3000 pinpoints ground faults where electrical voltage is being lost to ground. The GFL3000 transmits a powerful charge that is tracked by the GFL3000 receiver. By going in the direction of the analog needle kicks on the receiver, the exact spot of the fault can be found. The GFL3000 offers features not previously available at this price point. The GFL3000 has both high and low power capability. This allows the user to select the resistance level of the fault they wish to pursue. The built in power meter displays remaining battery life.

#### Multimeters

#### **Pro95 Advanced True RMS Milliamp Clamp Meter**

- True RMS
- High AC Current Sensitivity (down to 5 microamps)
- High Resistance Range (Up to 600,000 ohms)
- · Also measures VAC and VDC

Weight Current<sup>-</sup> Max Voltage Max Resistance 1 lb. 5 Microamps to 60 A 600 VAC or VDC 600.000 ohms

Transmitter 8 lbs. / A-Frame 3 lbs.

Ground Stake, AC Battery Charger

12 volt rechargeable Transmitter, 24+ hours

1 9v NEDA 1604 for A-Frame, 200+ Hours

3200 VDC or 2400 VDC

The Pro95 Advanced Milliamp Clamp Multimeter is an improvement on our popular Pro93 Multimeter. It as a must-have tool for troubleshooting 2-wire or decoder irrigation systems. It has a ten-fold increase in current clamp sensitivity, along with increased resistance measurement up to 600,000 ohms. These improvements give the Pro95 enhanced fault-finding capabilities and make it useful in a broader range of applications than the Pro93.











#### **Multimeters continued**



#### Pro30 General Purpose Digital Multimeter

- · Simple Operation
- Case included
- · Measures AC, DC, Resistance and amps · Leads Wrap around the Meter for Convenient Storage

Weight: 0.3 lbs Current: Voltage: Resistance:

200 mA DC 500 VAC / 500 VDC 0 - 2 megohms

The Pro30 Digital Multimeter is perfect for sprinkler troubleshooting applications. The Pro30 has the basic functionality needed to diagnose field wiring, solenoid and clock problems. Checking wires for loop resistance or opens is simple as is proper voltage supply to and from the clock. Includes a handy irrigation user tip card.

#### **Pro40 True RMS Digital Multimeter**

- Auto-ranging Volt-Ohms-Amps Meter
- TRMS accuracy Measures up to 600 volts, 10 amperes and 60 Megohms
- · Rugged protective jacket
- Large back lighted LCD display
- · Detachable premium cord set for field flexibility
- · Full IEC 61010 and CE safety tested to Cat III 600 volts
- · Bonus measurement of capacitance, frequency, duty cycle and diode function
- · Uses two (2) AAA batteries (not included)

The Pro40 Digital Multimeter is a premium tool for maintaining electrical systems whether low-voltage irrigation and lighting, or main AC power wiring. Fully industry specified and safety rated, the Pro40 has internal fuses for easy maintenance if it is mis-connected. Not only does it make most any electrical measurement you might need, but it has a "sniffer" non-contact voltage (NCV) detector built in. An LED flashlight rounds out the practical features of the Pro40.

Weight:

Weight:

Current:

Voltage:

Resistance:

#### Pro12 Wide-Range Non-Contact Voltage Detector

- · Check outlets and insulated cables for power voltage before handling them or
- using them
- · Fully insulated for safety. IEC 61010 rated and CE compliant
- · Two range settings allow the detection of low and high voltages like 12 volts AC
- and 120 volts AC in a single unit
- · Audible and visual indicators
- · Backlighted LCD display and headlight
- · Uses two (2) AAA batteries (not included)

The Pro12 Non-contact Voltage Sensor (NCV) gives users a safe, fast way to check for power in electrical systems whether low-voltage irrigation and lighting, or main AC power wiring. Fully industry specified and safety rated, the Pro12 uses both visual and audible indicators for certainty. An LED headlight rounds out the practical safety features of the Pro12.



#### **Pro90 Automatic Clamp Multimeter**

- · One-button Automatic Operation
- · Auto-Sensing, Auto-Ranging
- Battery Level Indicator Auto Backlit Digital Screen
- Solid Design
- Auto Shutoff
- CAT III Rated
- · Battery and Case Included

Weight: Current: Voltage: Resistance:

1 lb. 0.6 to 600 Amps AC 750 VAC and 1000 VDC 0 - 10 kilohms

The Pro90 Automatic Multimeter is one the most advanced clamp multimeters on the market. Completely automatic, the Pro90 has only one button for on/off operation. With Auto-Sensing, the Pro90 automatically detects and displays AC, DC, or ohms without selection by the operator. The Pro90's auto-ranging means no selection of measurement ranges is needed either. The integral amperage clamp measures AC amps down to .9 amps by simply clamping to an active cable. The Pro90 is simply the easiest multimeter to use.

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0-60 megohms

Less than 1 lb.

Less than 1 lb.

10 amps AC/DC

600 VAC / 600 VDC

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#### **Tone and Probe**

#### Pro220A Advanced AC Filtered CATV Tone and Probe Kit

Weight:

**Output Frequency** 

Probe Modes:

- The Pro210F AC Filtered Tone Probe includes: The Pro110A CATV Tone Generator · AA Battery Power (4) for 250+ Hours of Operation
- Bright Automatic LED Headlight/Flashlight Single-button control with a comfortable.
- tactile feel
- · AC Noise Filter Reduction design allows use in high interference areas
- Headset lack
- includes: LED Transmit On Light. Short circuit test with visible and audible indicators
- Male or Female Coax F. RI11 or
- hours of operation.
- Self-piercing Telco Clips

Alligator Clip Connection AA Battery Power (4) for 250+

1 lh

1 kHz

Broadband or AC Rejection



The Pro220A Advanced AC Filtered Tone and Probe Kit is designed to help contractors easily identify the termination point of any wire. The Pro220A is uniquely designed to bring advanced AC filtering combined with F connectorization and AA battery power specifically for CATV users. The Pro220A still maintains the Telco features that you have come to expect, but these added features make the Pro220A unique in the CATV world.

#### **Pro220K Advanced AC Filtered Tone and Filter Probe Kit**

- · AC Noise Rejection Filter Probe
- LED Probe Headlight
- AA Battery Power
- Volume Control
- Headset Jack
- · Continuity Test

Weight Output Frequency: Probe Modes

Less than 1 lh 1 kHz Analog Broadband or AC Rejection

The Pro220K Advanced Tone and Filter Probe kit is designed to identify the termination point of a wire or cable. The Pro110 Tone Generator transmits a 1kHz analog tracing tone, while the Pro210F probe uses either broadband or AC rejection modes to identify the desired cable at the opposite end. Upgraded features include headset jack for noisy areas, LED headlight for poorly lit environments, AA batteries for extra long life of over 250+ hours of use. Other features include low battery light, continuity check, and volume control.

## OUR PROMISE TO YOU

Armada Technologies is a family business; privately held, privately run. Because of that, our good name is on the line with every product we ship. We will never be perfect in everything we do, but we promise to try, and we promise the following:

Use will strive to provide technical support that includes experts available by direct telephone line or email who can answer questions quickly, and offer training videos to whomever wishes to use them.

Twelve month warranty from the date of purchase.

Use will service our products promptly. We guarantee 3-day in-house repairs or it's free.

Use will offer the best prices on comparable products.



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