

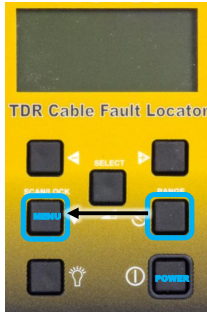


# APPLICATION NOTE

January 2017

## QUICK START GUIDE FOR THE Pro400 TDR

Getting to the Menu list.



Turn the unit on by pressing the Power button.

Select the List Menu by pressing Range and Scan together.

In the list use the down arrow ▼ key to move down the menu and ◀ and ▶ keys to select from the choices.



- Select TDR (rather than tone trace)
- Select %Vc (Vp as a percent of light speed)
- Pick a likely Vp from the chart (e.g., 67)
- Select Main 25Ω (solid power wire) or T/P 100Ω
- Select Feet (rather than meters)
- Choose a battery-saver shutdown time.
- Exit the Menu by hitting the Range button.

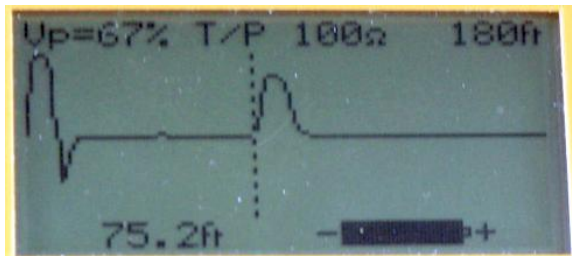
Launching a scan.



Connect the TDR to a test cable at least 6 feet long, open at one end.

Launch a TDR pulse scan by pressing the Scan/Lock key.

To cause continuous scanning briefly press and hold the Scan key.

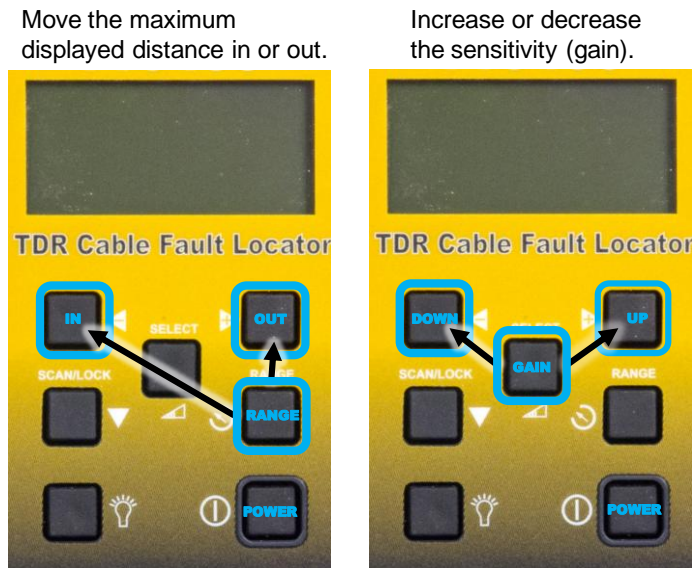


Adjust the range scale to something close to the cable length. This shows a 75-foot cable and a 180-foot range. When testing to determine the Vp it is best to use at least 250 feet of cable for accuracy. Observe the upward blip of an open circuit representing the end of the cable.

## QUICK START GUIDE FOR THE Pro400 TDR (continued)

If the distance cursor is not reading correctly adjust the Vp in the list menu until the distance matches the known cable length. The final Vp is the one you should use for this cable type in the future.

To adjust the range scale and change the sensitivity use the ◀ and ▶ keys together with the Range or Select buttons as shown below.



Refer to the *Pro400 TDR Cable Fault Locator Operating Instruction Manual* for more detail.





# APPLICATION NOTE

## Cable Correction Factor Table (VoP or VP) for TDRs For reference only

Armada Technologies LLC

<u>Straight</u>	<u>Coiled</u>	<u>Buried</u>	<u>Conduit</u>	<u>Range</u>	<u>Nominal</u>	CABLE TYPE	<u>Impedance</u> <u>Setting</u>
					85	Coax Cable - Trunk	75
					83	Coax Cable - RG6/U Triple or Quad Shield	75
				78 - 82	82	Coax Cable - RG6/U Dual Shield	75
63	72				66	Coax Cable - RG59/U	75
					67	Cat 5 UTP	100
	72				70	16 gauge Speaker Wire	25
				63 - 75	66	12/2 with Gnd Romex	25
				55 - 60	59	14/2 NM	25
					58	24 AWG Loose Pair	100
	62					4 Conductor Telephone Wire	100
				70 - 84	77	8 to 16 AWG THHN in Conduit	25
	73					Decoder Cable - ID1	25
	60		57			Decoder Cable - MAXI	25

This sample trace shows a 2-wire decoder at the end of a 100-foot piece of ID1 control cable. There is a splice at about 75 feet.

A decoder echo has a small upward blip with a deep trailing blip.

