## Arc Chaser

21st Century Dual Mode TDR for Testing and Monitoring Energized and Unenergized Cables

# **Quick Start Guide**

The Arc Chaser Dual Mode TDR is capable of finding faults (Opens, Shorts, **Arc Faults**) on fully energized cables up to 600 Volts. Arc Chaser can monitor live cables for **intermittent** conditions, capturing these "events", and reporting where and when they occur. Using advanced Spread Spectrum Time Domain Reflectometry (SSTDR), Arc Chaser is capable of accuracy to fault of better than 1%.



#### AC120



Revison 08/19/13

www.T3Innovation.com

### Interface





BNC Male to F Female



Dual Banana to BNC Female



T3 Leader Cable 5ft 600V CAT III



Flanged Crocodile Clips: red and black 600V CAT III

## **Fault Location**

Fault Location mode will identify a cable fault as "short" or "open" and provide a length measurement to the fault. This menu is also useful in determining cable characteristics such as VOP and Test Frequency.



- Power the Arc Chaser on by pressing Power Button
- Select Fault Location icon
- Connect the Arc Chaser to the cable (via leader cable or dual banana plug to BNC female adapter)
- Select Test Setup icon to configure the Fault Location cable test
  - Leader Settings: select Leader or No Leader (Leader should be used unless dual banana plug to BNC female adapter is being used.)
  - Cable Type: Select either Twisted Pair/Coax or Other
  - VOP: Three options to select cable VOP (Custom VOP, Cable Type, Discover VOP)

Note: Only select one of the three options:

- If you know the cables VOP, select Custom VOP and enter the VOP.
- If you do not know the VOP, but do know the cable type select Cable Type and pick the cable type then press Select icon.

#### Fault Location (Cont'd)

 If the VOP or Cable Type is not known, select **Discover** VOP and enter the known length of the cable you are testing. This will give you your VOP for this cable.

Note: VOP values can vary among cable types, lots, and manufacturers. In most cases, these differences are minor and may be disregarded.

- Select Save icon
- Press the **Test Button V** to perform a test Note: Select **Graph View** to view waveform

## Live Intermittent Fault Detection (Live IFD):

Live IFD mode can monitor live cables for intermittent conditions, capturing these "events", and reporting where and when they occur.

- Power the Arc Chaser on by pressing the Power Button <a>[</a></a>.
- Select Live IFD icon.
- Connect the Arc Chaser to the cable (via leader cable or dual banana plug to BNC female adapter).
- Select **Test Setup** icon to configure the Live IFD cable test.
- Test Setup: Auto Frequency
  - Leader Settings: select Leader or No Leader (Leader should be used unless dual banana plug to BNC female adapter is being used.)
  - Cable Type: Select either Twisted Pair/Coax or Other
  - Test Frequency: Two options to select test frequency (Estimated Test Length or choose one of 5 preset Frequencies on the right hand side of screen).
  - If you do not know which of the five preset frequencies to use, select Estimated Test Length icon to enter the approximate length of the cable to determine test frequency. Note: Running a Fault Location test will help to obtain the most accurate test frequency.
- Test Setup: VOP
  - VOP: Two options to select cable VOP (Custom VOP, Cable Type)

Note: Only select one of the two options:

- If you know the cables VOP, select Custom VOP icon and enter the VOP.
- If you do not know the VOP, but do know the cable type select Cable Type icon and pick the cable type, then press Select icon.

Note: If you do not know the cable type or the cable type is not in the listing, go to back to the Home screen 🕥 select Fault Location>Test Setup>Discover VOP to determine your cables VOP.

- Select Save icon.
- Press the **Start** icon or the **Test Button W** to begin and stop a test.
- When your test is complete, select **Stop** icon.



#### Live Intermittent Fault Detection (Live IFD) Continued:



### Tone

Tone Generation mode is used to trace cable runs and locate faults by sound.

- Power the Arc Chaser on by pressing the Power Button
- Select Tone icon
- Connect the Arc Chaser to the cable (via leader cable or dual banana plug to BNC female adapter)
- Select one of the four tone cadences in the Tone Selection box:
  - Low High Melody #1 Melody #2
- Select Start icon to send the tone
- Use a tone probe (refer to accessories) alongside the cable or at the end of the cable to hear an audible tone
- Select Stop icon to stop the tone generator

## System Settings

System Settings is for management of Arc Chaser system settings.

- Power the Arc Chaser on by pressing the **Power Button** .
- Select the System Settings icon or System Settings Button 🕑 to enter the Arc Chaser settings
- Press the System Settings button 2 to access additional settings

## **File Manager**

File Manager mode is for management of saved test results.

- Power the Arc Chaser on by pressing the Power Button
- Select the File Manager icon
- Fault location files will be displayed first. To view IFD files, select **Show IFD** icon
- Select the Up or Down icons to scroll through the file list
- The files can be renamed or deleted by selecting the **Rename** or **Delete** icon

## USB

USB mode is for transferring results from Arc Chaser to a computer for record keeping and printing.

- Power the unit on by pressing the **Power** Button <a>[</a></a></t>
- Connect Arc Chaser to your computer by using the included micro USB cable
- Select USB icon
- A dialog window will appear on your computer (if a dialog window does not appear, open **Computer** then double click on the **Removable drive**)
- Double click on the Reports folder
- Double click in either the Live IFD or Fault Location folder
- Right click on the desired files and copy them to a folder in your computer

Note: Saving test results to your computer can be done either by using your micro USB cable or SD card. See the Arc Chaser instruction manual for specific instructions.\*

## **Arc Chaser Kit**

Part Number
AC120

## Optional Accessories



For complete Arc Chaser user manual, technical information and customer support, please visit www.t3innovation.com or send an email to support@t3innovation.com.

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