

Questionnaire for Cable Testing and Fault Locating

High Voltage, Inc. is making a renewed effort to serve your applications for cable fault locating and cable testing. HVI produces several of the top products available for these two areas. For example, our unique model VT33, a Very Low Frequency (VLF) AC Hipot-Thumper combination, is ideally suited for URD cable systems. This model provides a 0-33 kVac @ 0.1 Hz VLF output for testing cables after installation or repair, a 13 kVdc @ 860 joule thumper output, and a built-in TDR interconnect filter. HVI also offers several other thumper models: 0-5/10/20 kV @ 1000 joules and 0-9/18/36 kV @ 1600 or 3200 joules.

To best help you and to help us fine tune our line to meet your needs, we ask you to please answer the following questions. The answers you provide will help us to better serve you and the industry. Cable fault locating should never be about just buying a thumper. Rather, it should be approached with both testing and fault locating in mind, the different product technologies needed, and how best to combine these technologies and products into an integrated system designed to maximize the effectiveness of these instruments while minimizing the size, weight, cost, and portability of the system. HVI does this very well.

Thank you for your consideration of High Voltage, Inc. and for your time with this questionnaire. If you have any questions, please contact us at marketing@hvinc.com.

* Required

Present Hardware and Methods Used

1. Do you now have a cable fault locator, or thumper? *

Mark only one oval.

- Yes
- No

2. If yes, what brand is it? Model number? How old?

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3. What is the thumper voltage output?

Mark only one oval.

- 5 - 10 kV
- 11 - 15 kV
- 16 - 20 kV
- 21 - 30 kV
- 31+ kV

4. What is the thumper joules rating?

Mark only one oval.

- 0 - 500
- 501 - 1000
- 1001 - 2000
- 2001 - 3000
- 3001+

5. Does it have a variable hipot output to test or burn the cable?

Mark only one oval.

- Yes
- No

6. If yes, what is the mA current rating?

Mark only one oval.

- 1 - 20
- 21 - 50
- 51 - 100
- 101 - 200
- 201 - 400
- 401+

7. Do you use the variable hipot for DC testing the cable?

Mark only one oval.

- Yes
- No

8. Do you use a TDR/radar to find the distance to the fault? If yes, what brand

Mark only one oval.

- No TDR/Radar
- Brand? _____

9. What kind of listening, or pinpointing, device do you use?

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10. **Do you ever use the small suitcase thumpers, or Sectionalizers? ***

Mark only one oval.

- Yes
- No

11. **If yes, do you find they have enough power to find all your faults?**

Mark only one oval.

- Yes
- No

12. **If the mini-thumper can't do the job, do you have a bigger thumper to use?**

Mark only one oval.

- Yes
- No

13. **Are you happy with your present situation?**

Mark only one oval.

- Yes
- No

Cable System Facts

14. **What are the voltage ratings of your system?**

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15. **How many miles of underground cable is in your system?**

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16. **How much of it is direct buried?**

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17. **How old is the system? What are your oldest cables still operating?**

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18. What kind of insulation is mostly used?

Check all that apply.

- PILC
- HMW
- EPR
- XLPE
- TR-XLPE
- Other:

19. Do you have any unjacketed cables?

Mark only one oval.

- Yes
- No

20. Do you inject, or rejuvenate, cables to extend their life?

Mark only one oval.

- Yes
- No

Fault History

21. How many faults a year, or a month, do you have?

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22. Are most faults in accessories or in the insulation?

Mark only one oval.

- Accessories
- Insulation

23. Do you find your faults in an acceptable time frame?

Mark only one oval.

- Yes
- No

24. Are you considering changes to your equipment and/or methods?

Mark only one oval.

- Yes
- No

25. What kind of cable testing do you do?

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26. What kind of product is used?

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27. Is your present method acceptable to you?

Mark only one oval.

- Yes
- No

28. When you install new cable, do you perform acceptance testing to make sure the installation was not flawed?

Mark only one oval.

- Yes - DC hipot
- Yes - hot stick adapter
- Yes - insulation resistance
- Yes - VLF AC withstand
- No

29. After a repair is made, what is done to verify the integrity of the cable, and the adjacent cables, before re-energizing?

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New Area of Testing – Concentric Neutral Corrosion Testing

Do you have problems resulting from corroded neutrals, like system voltage instability, stray currents in unwanted or dangerous places, return currents not returning, fault relay coordination disrupted, fault currents jumping to other underground utilities or to homes, etc?

30. Do you wish you had a way to measure your neutrals' integrity?

Mark only one oval.

- Yes
- No

Thumper Specification Questionnaire – What Would Your Ideal

System Have?

31. **Maximum voltage output?**

32. **Several output voltage taps?**

Mark only one oval.

Yes

No

33. **A Burn Mode to burn faults?**

Mark only one oval.

Yes

No

34. **Joule/energy rating?**

35. **DC hipot output for cable testing?**

Mark only one oval.

Yes

No

36. **AC VLF high voltage output for cable testing?**

Mark only one oval.

Yes

No

37. **Battery operation?**

Mark only one oval.

Yes

No

38. **TDR/radar operation?**

Mark only one oval.

Yes

No

39. **Built in TDR or remote?**

Mark only one oval.

Built in

Remote

40. Types of fault location?

Check all that apply.

- Arc reflection
- Current pulse
- Voltage decay
- Other

41. Packaging requirements?

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42. Standalone or built in?

Check all that apply.

- Portable thumper
- Built into a van

43. Is there anything else we haven't covered that you want to share about your company's cable testing and fault locating needs?

Mark only one oval.

- Option 1

44. If you would like an HVI product specialist to contact you for further discussion, please include your preferred method of contact below.

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