

## I. Standard Configuration for Cable Fault Location Equipment Solutions

### 1. D43B Handcart Intelligent Cable Fault Location System Combinations



D43B Intelligent Cable Fault Locator System    DD4 Cable Fault Pinpointer  
D4000B Cable Fault Location TDR

### 2. D43E Handcart Intelligent Cable Fault Location System Combinations



D43E Intelligent Cable Fault Locator System    DD4 Cable Fault Pinpointer  
D4000B Cable Fault Location TDR

### 3. D31 Handcart Lightweight Cable Fault Location System Combinations



D31 Lightweight Cable Fault Location Surge Wave Generator  
D4000B Cable Fault Location TDR  
DR1 Multiple Pulse Processing Unit

### 4. DE1 Portable Cable Fault Testing System Combinations



DE1 Multifunction Integrated High-Voltage Generator  
DMC Lightweight Dry-Type Pulse Capacitor 35KV/4μF/15KA  
DR1 Multiple Pulse Processing Unit



DD3 Cable Fault Pinpointer



D4000B Cable Fault Location TDR



DD3 Cable Fault Pinpointer

II. Performance Comparison of Cable Fault Location Solutions

		D43B Kit	D43E Kit	D31 Kit	DE1 Kit
1	High-Voltage Equipment Integration	Fully Integrated	Fully Integrated	Partially Integrated	Independent
2	Operation Mode	Electric Control	Electric Control	Electric Control	Manual Control
3	Test Method	Low-voltage pulse MIM(Multiple Pulse Sampling) ICM(Current sampling)/THUMP DCM(DC sampling) DC(DC Output)/BURN DCP(Step Output)	Low-voltage pulse MIM ICM/THUMP DCM DC/ BURN DCP	Low-voltage pulse MIM ICM/THUMP DCM DC/ BURN	Low-voltage pulse MIM ICM/THUMP DCM DC/ BURN
4	Multiple Pulse Arc Stabilization Method	High-voltage inductive arc stabilization	High-voltage inductive arc stabilization	High-voltage resistive arc stabilization	High-voltage resistive arc stabilization
5	Maximum Voltage	40KV	40KV	32kV	32kV
6	Capacitance Range	3 positions (4 positions optional)	Single-position	Single-stage	Single-stage
7	High-voltage surge wave energy	8/16/32KV, 2048J (Optional 4KV, 1104J)	32kV, 2048J	32kV, 2048J	32kV, 2048J
8	Surge Wave Output Control	Electric Control	Electric Control	Electric Control	Adaptive

9	High-voltage output	High-voltage coaxial cable	High-voltage coaxial cable	High-voltage coaxial cable	High-voltage cable
10	Low-voltage pulse maximum voltage	200V	200V	200V	200V
11	Safety and Protection	Zero Voltage Position Protection Automatic Residual Voltage Discharge High-voltage limit Ground Voltage Monitoring Ground Resistance Monitoring High-Temperature Protection	Zero Voltage Position Protection Automatic Residual Voltage Discharge High Pressure Limit Ground Voltage Monitoring Ground Resistance Monitoring High Temperature Protection	Zero Voltage Position Protection Automatic Residual Voltage Discharge High Pressure Limit	Zero Voltage Position Protection Manual Residual Voltage Discharge High-voltage limit
12	Pinpointer Noise Reduction Effect	Excellent	Excellent	Good	Good

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## III. Features and Selection of Cable Fault Location Equipment Solutions

Combination and Matching	Applicable Voltage Ratings for Faulty Cables <sup>1</sup>	Recommended Operator Skill Level
<b>D43B Handcart Intelligent Cable Fault Location System Combination Package <sup>2</sup></b>	Primarily tests various faults in low-, medium-, and high-voltage power cables	For entry-level operators and above
<b>D43E Handcart Intelligent Cable Fault Locator System Package <sup>2</sup></b>	Primarily tests faults in medium- and high-voltage power cables, while also covering low-voltage power cables faults	For entry-level operators and above
<b>D31 Handcart Lightweight Cable Fault Locator System Package <sup>2, 3</sup></b>	Primarily tests faults in medium- and high-voltage power cables, while also covering low-voltage power cable faults	For intermediate operators and above
<b>DE1 Portable Cable Fault Testing System Kit <sup>2</sup></b>	Primarily tests faults in medium- and high-voltage power cables, while also covering low-voltage power cables faults	For senior operators and above

<sup>1</sup> Power cable voltage classification: Low-voltage cable,  $U \leq 1\text{kV}$ ; Medium-voltage cable,  $1\text{kV} < U \leq 35\text{kV}$ ; High-voltage cable,  $35\text{kV} < U \leq 230\text{kV}$

<sup>2</sup>The above combination package is the standard configuration. Components can be replaced as needed, or additional equipment such as high-voltage bridges for cable fault testing, cable path locators, cable identification instruments, and step-voltage method cable fault locators can be added to enhance cable fault testing methods.

<sup>3</sup>For primarily testing faults in low- and medium-voltage power cables, the D21 handcart-type lightweight cable fault locator system can be used as a complementary configuration.

