



Pile Dynamics, Inc.  
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## Technical Specifications

# Cross-Hole Analyzer (CHAMP-XV) Specifications

## Main Unit

### Physical

#### Size

320 x 250 x 68 mm (12.6 x 9.8 x 2.7 in)

#### Weight

5 kg (11 lbs.)

#### Display

26.4 cm (10.4 in) sunlight readable touch screen display, resolution 1024 X 768

#### Operating temperature range

0° to 40°C (32° to 104°F)

#### Power

4-hour continuous data collection with internal 12V battery, or 100 – 240 VAC power supply

#### Charging Time

6-hours maximum

### Electronic

Computer with 60 GB SSD internal drive and 4 external USB ports

12-bit analog to digital (A/D) converter

#### Sampling rate

500 kHz, 1 MHz and 2 MHz; user selectable (equivalent measuring accuracy 2 $\mu$ s, 1 $\mu$ s and 0.5 $\mu$ s)

#### Scan rate

32 scans/seconds

#### Record size

250, 500 and 1000 points, user selectable





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User adjustable gain, trigger level and transmit power level

### Other

Windows® 7 OS

Operates in English or SI Units

Furnished with CHA-W software

Full one-year warranty

Technical manual provided in PDF form on a USB drive

### Probes

#### Physical

##### Size

215 mm length x 25 mm diameter (8.46 in length x .984 in diameter)

##### Element

Ceramic

##### Housing

Nickel plated brass

Independent depth encoder for each probe

Maximum measuring distance (probe separation): 3 m (9.84 ft)

### Electronic

##### Receiver

Tuned to 45 KHz nominal

##### Transmitter frequency (nominal)

45 KHz

##### Transmitter voltage

200, 400, 600 or 800 Volts; user selectable



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## Cables

### Cable material

Heavy duty polyurethane outer jacket

### Cable length

60, 100 or 150 m (196, 328, 492 ft)

Cables spooled over tripod (standard) or with optional Motorized Probe Deployment System, only with the 60 m cables (196 ft)



## Motorized Probe Deployment System

### Main Unit

#### Size

(2) 380 x 480 x 405 mm spools (14.96 x 18.89 x 15.94 in)

#### Weight

11.3 Kg each (24.91 lbs.)

Includes 60 m (196 ft) cable detachable from spool

Includes depth encoder for each probe, attached to frame

### Motor Control Unit

#### Size

240 x 160 x 90 mm (9.44 x 6.29 x 3.54 in)

#### Weight

1.6 Kg

Powered by either external battery (8-hour duration), 12VDC car battery, or 100 – 240 VAC with 12 VDC converter

Fast charger to recharge the external battery in 4 hours

### Variable Probe Pull Rate

0.150 to 0.915 m/sec (low, medium, high speed selection)

Resettable circuit breaker motor protection



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### **Operating temperature range**

0° to 40°C (32° to 104°F)

### **Storage temperature range**

-10° to 65°C (14° to 149°F)

### **Other**

Includes pulley for placement at the tube

Includes roller guide for routing cable through re-enforcement rebar cage or over casing