

US-454M Multi-Channel Eddy Current



The US-454M is a multi-channel eddy current instrument that can be configured as follows:

- Single channel/ four frequency
- Two channel/two frequency each channel
- Four channel/single frequency each channel

A user friendly encoder knob makes it easy to scroll through menus and select correct parameters. Other controls include cancel, enter, null, clear and display. Four programmable function keys make it easy to set up repetitive inspection parameters such as gain, frequency, rotation and filters.

The internal memory can store up to 100 programmable test set-ups for fast and easy inspections. A compact flash card is used to store

test results including eddy current display, strip chart and instrument settings. Full color reports can be printed from an external computer for accurate and professional documentation.

A large, full color LCD flat panel display is easy to see. The display includes impedance plane XY, oscilloscope X,Y or X&Y and strip chart.

Gate alarms include rectangular, elliptical, high and low bar with audio and voltage outputs. Each channel has its own alarm to stop or sort rejected parts on multiple lines.

The US-454M will fit standard 19" rack mount cabinets.

US-454M Technical Specifications

Operation

- Operate and display from 1 to 4 channels in selectable frequencies:

- Single channel/four frequency
- Two channel/two frequency each channel
- Four channel/single frequency each channel

- Encoder knob for scrolling through menu
- Enter, cancel, null, clear and display controls
- Four programmable function keys (F1-F4)

Display

- 12" diagonal color LCD, flat panel screen
- Selectable X/Y impedance plane display, O-scope X,Y or X&Y
- Selectable display mode including eddy current and strip chart. One channel or up to four channels.
- Sensitivity scaling of 0.2, 0.5, 1.0, 2.0, 5.0 volts per division
- O-scope sweep speed of 10 ms/div to 1ms/div
- Auto clear of 0-10 seconds in 1-second increments
- Variable persistence of 0-10 seconds
- Electronic null < 2 seconds above 1 KHz probe frequency
- Rotation (phase) is 0-359 degrees in 1-degree increments

Frequency

- Range from 10Hz to 10MHz
- 2, 4 and 7.0 V output adjustable on each channel with output impedance of 10 ohms

Gain

- 0-99.9dB in 0.1 dB steps

Sensitivity

- 200 V/ohm maximum

Filter

- Variable band pass, low and high pass in X & Y axis
- Filters adjustable in 1Hz increments from 0 to 1KHz

Probe Types

- Absolute, differential, reflection and differential reflection

Data Storage

- Programmable test setups: Internal memory will store up to 100 test setups for easy retrieval.
- Data storage: Dependent on capacity of compact flash memory card

Gate/Alarm

- Rectangular, elliptical, high and low bar with + or - audio and voltage outputs
- Internal audio alarm

- TTL and open collector outputs for driving programmable Logic Controller (PLC) relays and external audio and visual devices.

Documentation

- Printers include Hewlett Packard via the parallel port
- Selected menus and header can be printed in full color from an external computer
- Print screen allows printing of the current display and settings

Input/Output data

- RS-232 serial port for remote control
- Parallel, USB, Ethernet and RGB video out
- Analog: 16 bit A/D and D/A conversion @ +/- 10V
- Probe connections via four 8 pin Burndy

External Encoder Inputs

- 4 external 2 phase encoder inputs allow position information to be synchronized to the eddy current signals

Power

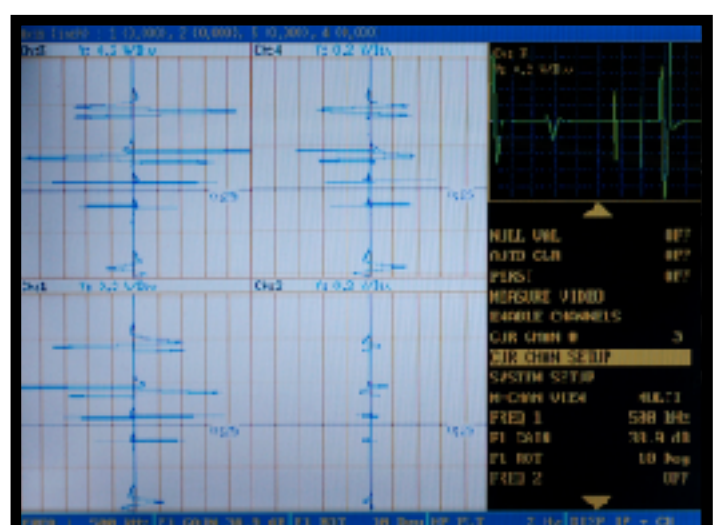
- 110/220 VAC

General

- Dimensions: 17" wide x 8.7" high x 18.5" deep
- Weight: 57 lbs
- Operating temperature: 32 to 158 F (0-70C)
- Storage temperature: -4 to 158 F (-20-70C)

Additional features

- The eddy current impedance plane display and the X&Y strip chart recording can be displayed simultaneously on the color LCD display.
- Configured for 19" standard, climate controlled and/or dust free rack mount cabinet.



Screen shows four channel single frequency strip chart mode.