

# US-454M

## Multi-Channel Eddy Current

The US-454M is a four (4) channel, variable frequency eddy current instrument with discreet settings for each channel.

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

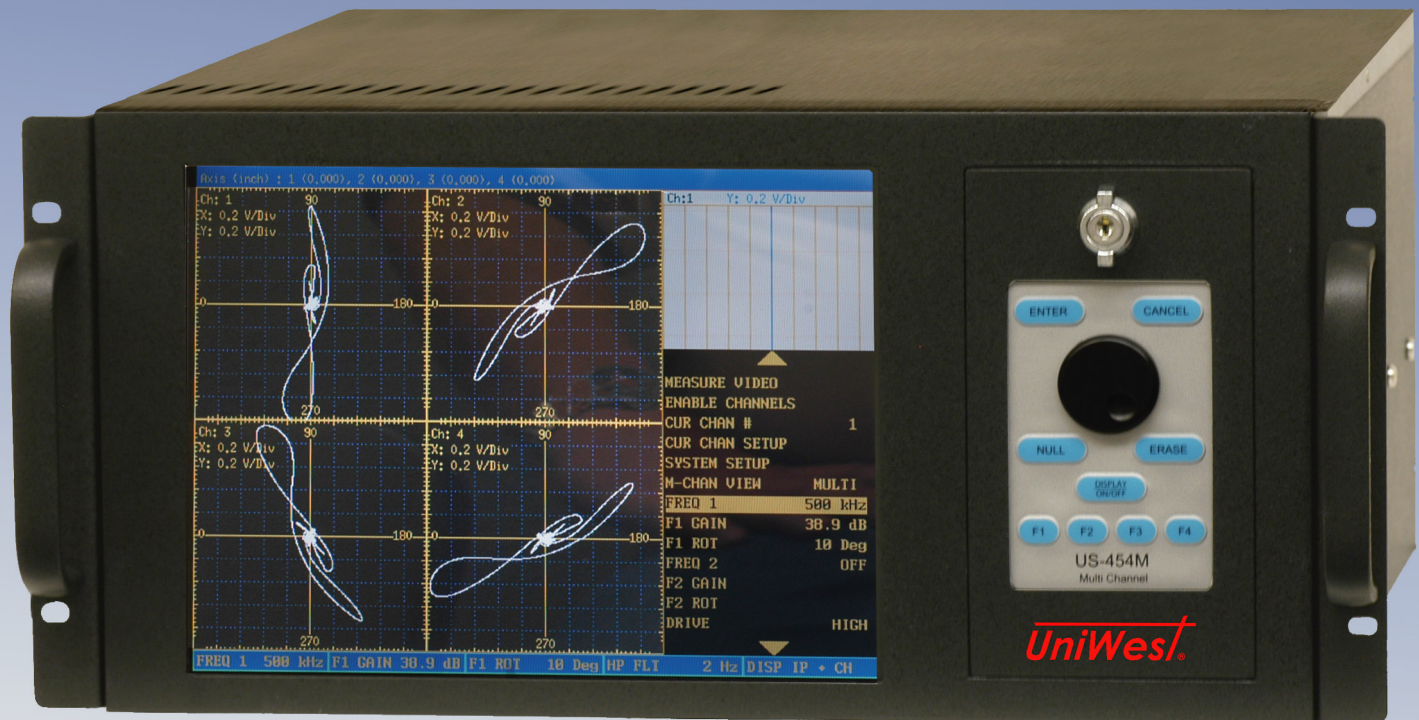
The internal memory can store up to 100 programmable test set-ups for fast and easy inspections. A compact flash card is used to store test results including eddy current display, strip chart and instrument

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. All four channels can be displayed at the same time.

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.



**UniWest**<sup>®</sup>

# US-454M Technical Specifications

## Operation

- Operate and display from 1 to 4 channels in selectable  frequencies:
- Four channel/variable frequency each channel
- Encoder knob for scrolling through menu
- Enter, cancel, null, erase 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

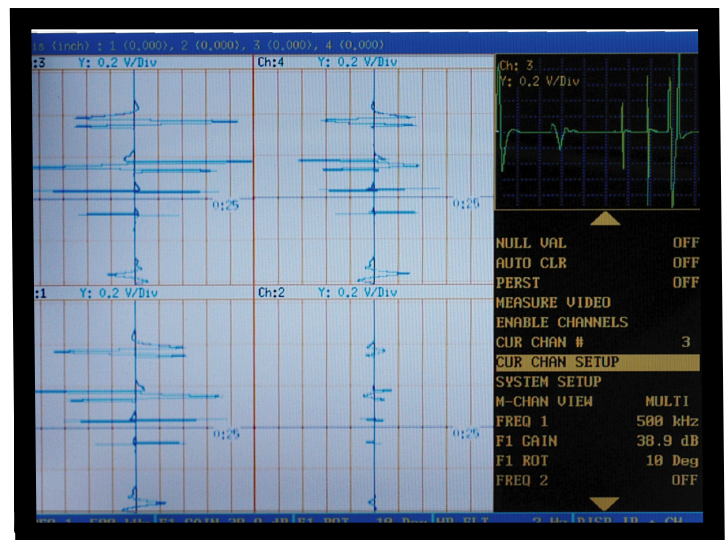
- 110/220 VAC

## 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.