DIY Oscilloscope Kit Instruction Manual

Part 1: Kit Contents

This kit includes all the components you need to assemble your own functional oscilloscope. Before you begin, please check that you have all the parts listed below.

Packing List:

- All parts of the shell oscilloscope
- Analog board chip components (these have been pre-welded and tested)
- BNC fish clip probe
- Assembly instructions (this guide)

Part 2: Assembly Instructions

Follow these steps to assemble your oscilloscope. The analog board's chip components are already pre-welded and tested, which simplifies the process.

Step 1: Unboxing and Component Identification

- Carefully unbox all the components.
- Lay out the main parts, including the oscilloscope shell, the pre-welded circuit board, and the front panel.

Step 2: Install the Circuit Board

- Take the main circuit board and carefully place it inside the bottom half of the oscilloscope shell.
- Ensure the buttons and screen align with the openings on the front panel.

Step 3: Secure the Enclosure

- Place the top half of the shell over the circuit board.
- Use the provided screws to secure the two halves of the shell together.

Step 4: Attach the Probe

- Connect the BNC fish clip probe to the BNC connector on top of the assembled oscilloscope.
- Ensure it's a tight and secure connection.

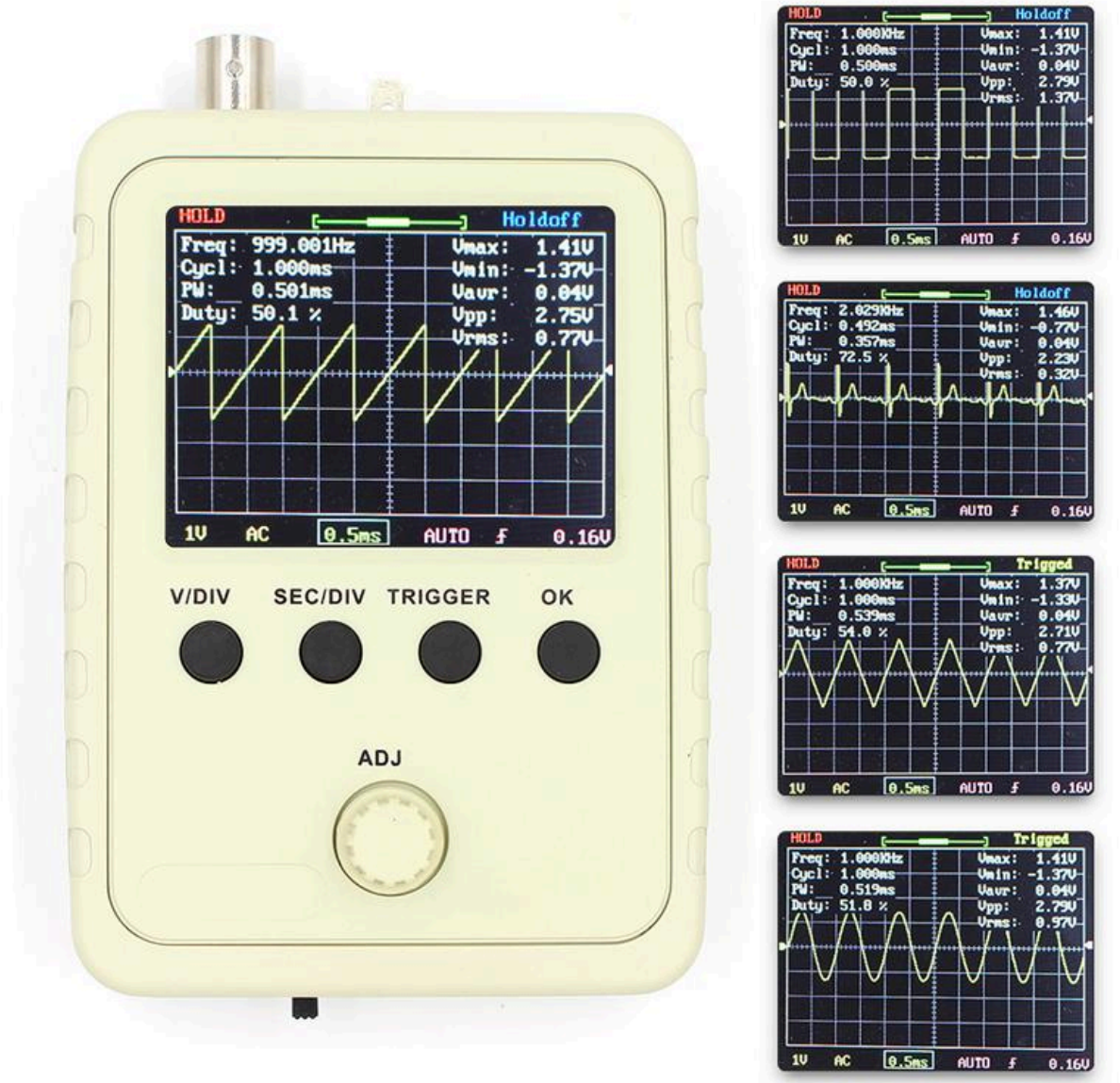
Part 3: Powering On and Operation

Power Supply: The shell oscilloscope requires a 9V DC power supply. Do not exceed 10V, as this may burn the machine. A power supply is

not included in the kit, and you will need to provide one yourself with a current of more than 200mA.

Key Features and Functions:

- **V/DIV & SEC/DIV:** These controls adjust the vertical voltage and horizontal time scale, respectively.
- **Trigger:** The trigger function allows you to stabilize the waveform display.
- **HOLD:** You can freeze the waveform display at any time using the HOLD function.
- **Display:** The oscilloscope can digitally display key waveform parameters such as frequency, period, pulse width, and more.



Important Note: The analog board's chip components are pre-welded, which means you don't need to do any soldering for those parts. The assembly is primarily mechanical.