Blue Point Engineering

Servo Check Operating Manual

Test and calibrate hobbyist "Radio Control" type servos.

- Manual and Automatic Modes
- Variable speed 90^0 sweep facility
- Stand alone servo sweep facility for animations
- 0 and 90^0 calibration marks (1ms and 2ms pulse widths)
- Calibration marker every 15^0

Connections

Battery- 4.8 to 6V DC only- middle connection +ve, either side connection negative. Incorrect polarity will damage the servo-tester
Servo- Standard servo connectors with the centre connector +ve and edge signal and ground connections.

Operation

Connect a suitable battery and servo to the servo tester.

Manual Mode

The tester generates a standard servo pulse stream. The width of the pulses varies between 1.0msecs and 2.0 msecs depending on the position of the potentiometer. Turning the potentiometer fully to either end of its travel will cause the LED to light indicating that either a 1.0 or 2.0 pulse width which should correspond with a servo angle of either 0 or 90 degrees.
Additionally, as the potentiometer is turned, the LED will light at positions corresponding to 15^0, 30^0, 45^0, 60^0 and 75^0, thereby providing a field calibration facility.

Automatic Mode

This mode will demonstrate a smooth action servo. The output pulse stream to the servo gradually increases from 1.0 to 2.0 msecs at a speed depending on the setting of the potentiometer. At the end of the sweep the servo traverses to the start point.

For advanced users, the end-points of the sweep in automatic mode are adjustable to make the module suitable as a stand alone animatronic servo controller.
To use this facility, proceed as follows:
Carefully remove the foam from the back of the pcb and locate the 2 thin tracks which are marked with an X. Cut the the tracks at the X mark.
Using a 10k linear potentiometer, solder the centre slider connection to the hole marked #1. Solder the end contacts of the potentiometer into the + and – marked holes.
Repeat for a second potentiometer but this time using the hole marked #2.
The setting of the potentiometer will now determine the swept angle. The thumbwheel potentiometer will determine the sweep speed.