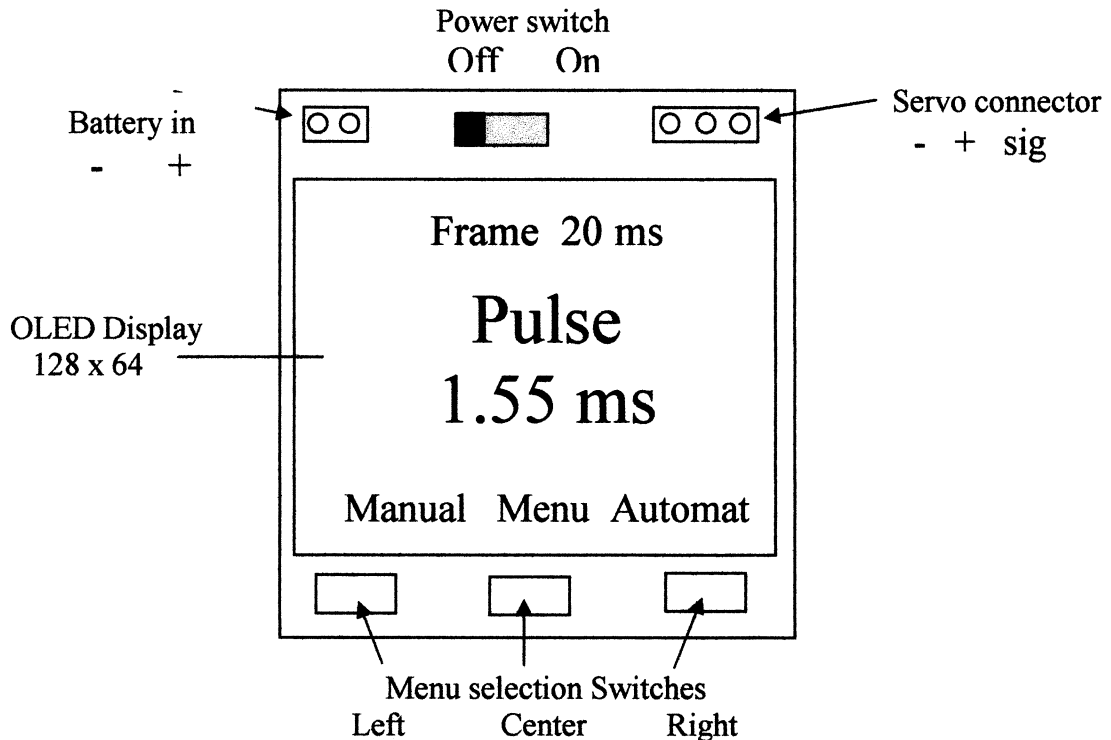


ServoPal

ServoPal can test, exercise and analyze your servos as follows,

1. Manual or Automatic mode
2. Manual mode: set the servo Pulse from as low as 0.5ms (programmable) to as high as 2.5ms (programmable) in 10us increments. The Frame rate is fixed in Manual mode to 20ms.
3. Automatic mode: exercise the servo in full travel mode from 9.99 second end-to-end travel, to 50ms end-to-end travel. The servo speed can be determined this way.

ServoPal diagram



ServoPal Set up

Connect a servo at the servo connector. Plug in a power source (Single Lipo, 3-4 NiMH or 3-4NiCd cells, or 2-3 alkaline cells) and turn the power switch on.

The power on screen shows,

ServoPal

Manual Limit Automatic

Manual Operation

If you select Manual (pressing the Left switch), you'll get the next message

Frame = 20 ms
Pulse
1.50 ms
Incr Menu Decr

Incr will increase the pulsewidth and *Decr* will decrease the pulsewidth by 10us. If you keep the *Incr* or *Decr* push button pressed, the change will become faster. Menu will always bring you back to the previous Menu.

Limit Option

If you select Limit, you'll get to the next screen,

Min Pulse = 0.95
Incr Menu Decr

Incr will increase the Min Pulsewidth and *Decr* will decrease it. When you get to the desired point, hit Menu which moves you to the next screen,

Max Pulse = 2.15
Incr Menu Decr

Incr will increase the Max Pulsewidth and *Decr* will decrease it. When you get to the desired point, hit Menu which brings you back to the main Menu.

Before you see the main Menu, all the current parameters (Min Pulse, Max Pulse, Manual mode pulsewidth, and Automatic mode parameters) will be saved in non-volatile memory so next time you power the ServoPal on, those parameters will be in effect. Therefore, when you want to save all current parameters, make sure you come to this point.

Automatic Operation

As soon as you select *Automatic* operation, the screen changes as follows,

End to End Travel
1.75 s
Incr Menu Decr

You can increase the servo travel speed (decrease travel time), to the point the servo cannot reach the ends. At that point you have the maximum servo speed.

You can decrease the servo travel time to very low speeds, up to 9.99 second end-to-end travel and you can increase the servo speed to 0.05 second (50ms) end-to-end-travel, which is actually impossible to be met by any standard servo. Above 0.30 s speeds, servo moves smoothly but below that (0.29s – 0.05s), the servo movements are fast and abrupt.

Menu will always bring you back to the previous Menu.