

# DIGISLOWER

## 2-CH PROGRAMMABLE-RATE SERVO SLOWER

### INTRODUCTION

Thank you for your purchasing a DigiSlower servo slower. Using a state-of-the-art microcontroller with advanced software algorithms, DigiSlower allows you to program the rate at which the servo traverses its travel range. DigiSlower limits the traverse rate of the servo so the servo never moves faster than the speed programmed during setup. In addition, DigiSlower allows you to program the servo gain (maximum servo travel) from between 1% and 120% of normal (connected directly to the receiver) servo movement.

### FEATURES

- Traverse rate programmable with a resolution of 200 steps!
- Servo throw programmable from 1% to 120% of normal throw.
- Settings stored in microcontroller (retained during power-off).
- Extremely compact and light-weight.

### TECHNICAL INFORMATION

<b>Output Signal</b>	Centre $\pm$ 0 to 0.6ms (programmable)
<b>Operating Voltage</b>	2.7 V to 6.0 V
<b>Operating Temperature</b>	-20°C to 80°C
<b>Current Consumption</b>	4.0 mA
<b>Weight</b>	4.5 g
<b>Size</b>	16 x 10 x 8 mm
<b>Rate of Travel</b>	Programmable from 2s – 20s
<b>Rate of Travel Resolution</b>	0.2 s

**NOTE:** Supplying more than 6 volts to the servo slower could cause permanent damage. Please only use 4 cell battery packs.

### CONNECTIONS

The figure on the right illustrates how servos should be connected to DigiSlower. Note the programming pins to the left of the servo connectors. These pins should have the jumper across them during programming.

DigiSlower is connected to the receiver as servos would normally be. Either one or both channels may be used. If only a single channel is being used, be careful to get the unused servo lead out of the way of moving parts (servos or motors).



## PROGRAMMING/SETUP

Programming DigiSlower is done in 2 phases. PHASE 1 allows you to set up the amount of travel you require from 1% to 120% of normal (connected directly to the receiver) servo movement. PHASE 2 allows you to set up the rate (speed) at which the servo traverses its travel range. Before you begin the setup procedure, make sure your transmitter is on with the trims centred and your receiver is off with the programming jumper inserted across the programming pins.

**NOTE:** DigiSlower may be used for controlling 1 or 2 servos. If you are only using 1 channel, please make sure the 'spare' connector is out of the way of all moving parts.

### PHASE 1:

1. Turn on your receiver.
2. Use your sticks to set the maximum throw you require. If you hold your stick up (or down) the servo will stop moving at 120% of normal movement. If you are using 2 channels, make sure you set up the maximum throw for both channels – both servos should be at the maximum required position before continuing.
3. With the power to the transmitter and receiver remaining on, remove the programming jumper. The servos will begin traversing their travel range.

### PHASE 2:

4. With the servos traversing back and forth, use your sticks to increase or decrease the traverse speed as required. Moving your stick one way will increase the speed and moving it the other way will decrease the speed. Make sure you have set up the required speed for both channels if you are using 2 channels.
5. Once you have set the desired traverse speed, keeping power to the transmitter and receiver on, insert the programming jumper onto the programming pins.
6. Power off the receiver.
7. Remove the programming jumper.

➤ You are now set up and DigiSlower will have stored your settings to memory.

**NOTE:** This procedure may be done at any time when you wish to modify the traverse range or traverse speed.

## FINAL CHECK

Turn on your receiver and transmitter and move your stick from one extreme to the other. Make sure the servo for each channel you have set up moves to the programmed maximum position and that it moves at the programmed traverse rate. If it does not, run through the PROGRAMMING procedure again.

**Attention:** DigiSlower is not 100% compatible with PCM receivers. Only 1 channel may be used when used with PCM systems.

## WARRANTY

FirmTronics guarantees this product to be free from defects in materials and workmanship for a period of 90 days from the original date of purchase, verified by a sales receipt. This warranty does not cover incorrect application, incorrect installation, components worn by use, reversed voltage, improper voltage, tampering, misuse or shipping. Our warranty liability shall be limited to repairing the unit to our original specifications and in no case shall liability exceed the original cost of the product. By the act of installing or operating this product, the user accepts all resulting liability. We reserve the right to modify the provisions of this warranty at any time without notice.