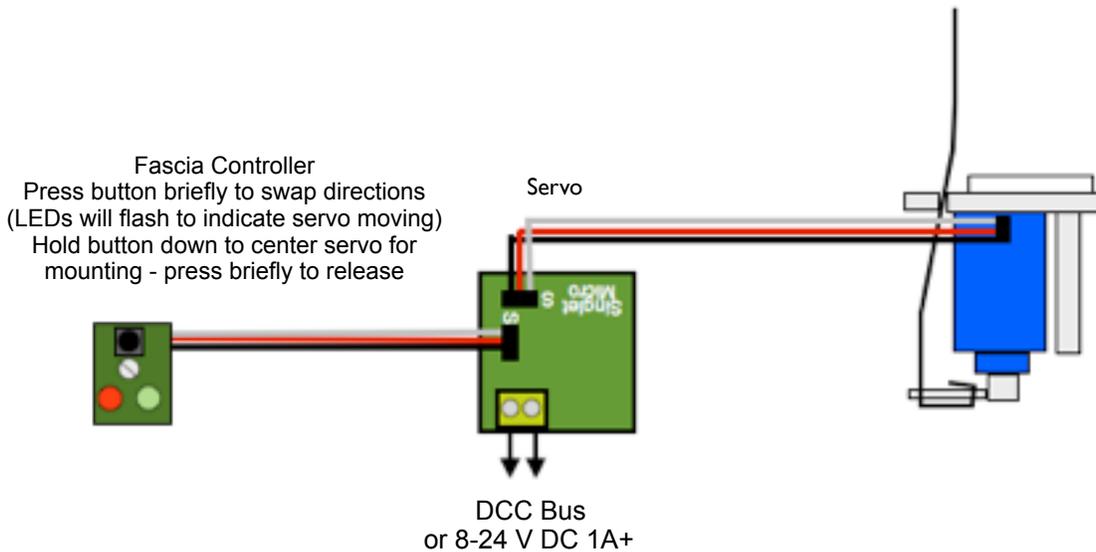


Overview - The Micro Singlet Servo Decoder is a DCC accessory decoder for throwing turnouts using R/C servos. It can be used with DC power if desired. Manual control can be done with a fascia controller. It is possible to use two fascia controllers if control is needed at two points - both sides of a module for example. It is also possible to control two servos at once to power a crossover with a single control or DCC address.



Installation

Note: It is best to mount the servo while powered up and with the fascia controller attached in order to center it properly.

Attach Power. Attach to your DCC bus. (If you are installing more than a few singlets, you may want to use a separate booster and bus for your accessories to preserve power for your trains.) To use DC Power attach an 8-24 V filtered and regulated DC supply. AC will not work. Poorly regulated DC will not work. An old "DC Powerpack" will not work. Under normal loads the board should use about 50 mA (0.02 Amps) at idle and 300 mA when driving. *Caution: Damage may occur if a hot DCC wire touches the board.*



For multiple boards, wire the boards in parallel as in the diagram. Connect the servo and fascia controller as illustrated above.

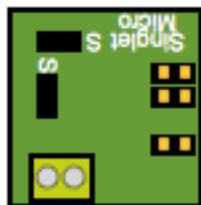
Center the servo by holding down the fascia controller button until the servo moves to the center. Release the button. The servo will stay in the center position until the fascia controller button is pushed again.

Button and LED Indicators - Fascia Controllers

Fascia controllers can be used for manual operation of the Micro Singlet. The controllers use the same



Jumper Options



Throw - Put ON to halve servo throw
LSwap - Put ON to Swap LEDs on Controller
Address - Put ON to teach DCC Address next Acc/Switch command address will be memorized
remove jumper when done. LEDs will flash to indicate teaching mode

-  Jumper OFF = Jumper on one or no pins
-  Jumper ON = Jumper on both pins

cables as servos. Connect the cable to the Controller plug such that the white/signal wire is near the S. To change the position of a servo press the button briefly. The LEDs flash while the servo is driving between positions.



Cable Extensions - If the wire is too short to reach the mounting position, servo extension cables in various lengths are available from Tam Valley Depot or at your local R/C hobby shop. Alternatively you can splice in extra lengths of wire.

Y Extensions - Two fascia controllers can be



connected to the can be show the

same port with a "Y" cable. Three controllers connected with two Ys. If two controllers are on a Y then both will same indication and, if either button is pushed, the turnout will switch.

DCC Control

There are no CVs to set on the unit. The only DCC parameter to be set is the address which is done by teaching the unit while the **Address** jumper is on (see below). There is never any need to connect the unit to the programming track or to use "Ops mode/Programming on the Main" nor will the unit respond to these commands.

Teaching the DCC Address

To teach/set the DCC address, power the unit from the DCC bus.

Once the DCC is connected you can check the connection by issuing a switch *throw* command at address 1 - the factory default address. If the unit does not respond it may already be thrown so try the close command.

To set a new DCC address, place the jumper across the two **Address** pins to put the Micro Singlet in learning mode. The fascia controller LEDs will flash to indicate it is ready. Issue an accessory command exactly as you would to throw a turnout.

If the turnout is thrown, issue a *throw* command and, if it is closed, issue a *close* command. The decoder uses the command to set the sense of throw/close. This makes it easy to reverse throw/close if you need to. The decoder will store the address and the throw/close sense and stop flashing the fascia controller to indicate it has been successfully programmed. **Be sure to remove the jumper when finished programming.** It can be stored on a single pin.

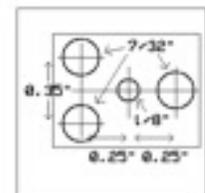
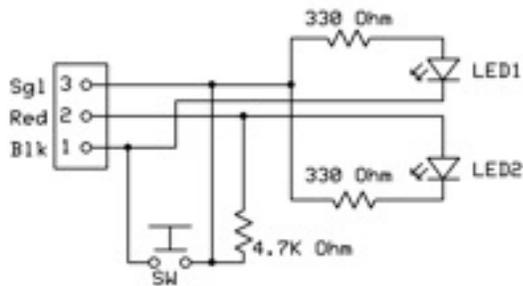
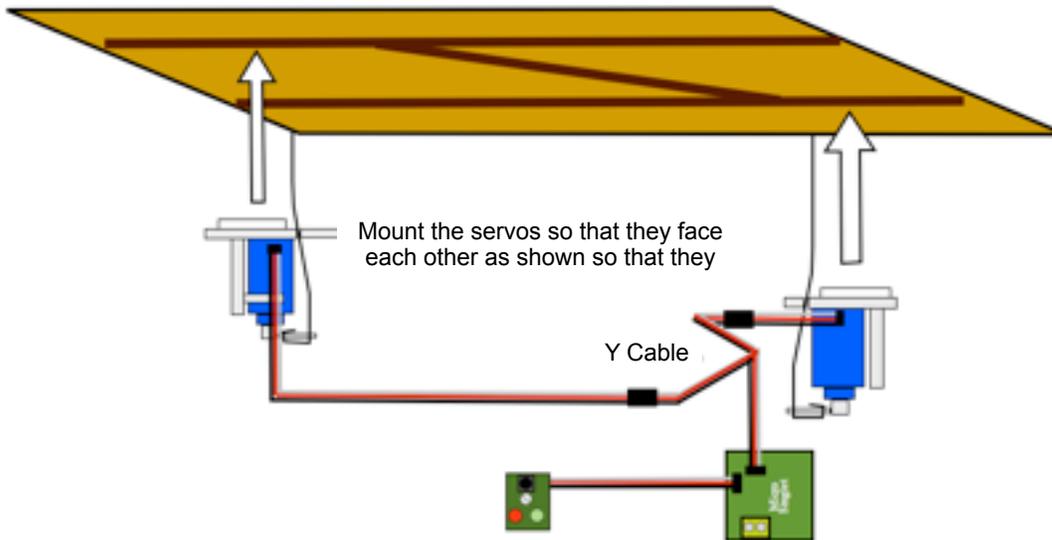
Reset the DCC Address

If you forget the address, you can set it back to 1 by putting on the jumper and then turning the power off and on.

More Help

If you need more help or have any suggestions/ comments please email dmcree@tamvalleyrr.com. Also see our website at www.tamvalleydepot.com

Using a single board to control two servos for a Crossover (requires a Y cable)



Fascia Controller Schematic for Single Color LEDs. 4.7K resistor is optional but will increase noise rejection. The switch is a NO (normally open) pushbutton type.

You may also want to use these precision laser-cut fascia controller mounts. They fit in to a 1 3/8" hole which can be drilled with a hole saw or a Forstner bit.

Fascia Controller Drilling Template

(Tip: you can also use one of these as a drilling template)