SmartFrog V6 manual

Thank you for choosing SmartFrog V6 as your layout turnout frog power routing control system.

We believe the SmartFrog V6 will be maybe the best choice for you will make for your layout.

Since ANE Model Co SmartSwitch™ system has been released, many modellers have also asked us whether we will provide any further products.

We have taken all of these questions and comments on board and decided to completely redesign the SmartFrog and now we have a completely electronic unit to direct the power to the Frog as well as now having the ability of being compatible with the SmartSwitch™ system, but, now these units can also be used autonomously to power your frogs.

After launching the first version SmartSwitch™, we gathered all opinions and feedback to refine our future products. Thus, the newest SmartSwitch™ V4 and the advanced SmartFrog V6 are also improved and launched one by one. SmartFrog keep the original features and also add a new automatically controlling function in DCC control. This new function could provide frog polarity change automatically. Now, let us introduce the newest functions and install steps of SmartFrog V6 in the following:

Features of SmartFrog V6

The small size makes it suitable for use on any scale layout including G Scale.

1. In DCC control, SmartFrog V6 can operate independently without connect to SmartSwitch.
2. Process the turnout frog power routing automatically with SmartSwitch V4™.
3. Dual LED outputs are automatically switched by the SmartFrog V6.
4. Connect the LED directly without the addition of any resistors.
5. SmartFrog V6 also features the latest component design and will accept 4A power supply.

Special Features :

In this new version SmartFrog V6, we are pleasure to announce that we have added a new function. Auto Switch turnout position In DCC control when the frog polarity change from trailing side. It will detect the frog polarity and help to change SmartSwitch turnout position. It can avoid train derailment happen.
Standards of SmartFrog V6:
1. Power input DC 12V, AC 16V, DCC 18V
2. Acceptable for DC, AC and DCC power
3. Max current 4A for any scale layout
4. Frog polarity change automatically in DCC control.

Installation of SmartFrog V6
1. Every single SmartFrog V6 applies to each specific turnout frog. We must advise that each SmartFrog V6 board must NOT be connected to more than ONE frog, or permanent damage will occur and make void any claim or replacement SmartFrog V6. ANE MODEL has the right to refuse your request for exchanging goods and maintenance of SmartFrog V6.
2. SmartFrog V6 has 9 screw terminals. Each Screw terminal connects with different function outputs.

Explanations of instalment with SmartFrog V6™ are as follows.
- Track+, Track- are connected the left and right track of the layout. CHECK THE FROG Track- AND Track+ with a multi-meter to make sure that the polarity matches all nearby turnouts (points) and any faults can be corrected by changing the wiring from the – to + on the SmartFrog V6.
- Connect Frog to turnout frog
- Connect LED1, LED2 to the negative pole of LED
- Connect COM+ to the positive pole of LED
- IN is connected toggle switch one pin.
- Connect GND to toggle switch another pin.
- Out is control SmartSwitch™ V4 SWITCH 1 or SWITCH 2 terminal 1 to 4 pin. It depend on which servo that you want to control. V5 will control your turnout position and avoid your loco derailment.
- You also need to connect GND to SmartSwitch™ V4 SWITCH 1 or SWITCH 2 terminal Ground output.
- If you found the opposites between the electrode of Frog and the situations, please change the line of Track+ and Track -. 
SmartSwitch V4 connect and control SmartFrog V6 wiring (AUTO control mode under DCC control)

When you use auto control mode in DCC control, you can check your control panel LED and turnout position (LED) to make sure your turnout position. SmartFrog V6 will keep the right position until you change toggle switch again. You should to change your toggle switch twice when you want to change turnout position in next time.

SmartFrog V6 connect turnout Frog individually.

**Attention!!**

Before your install and turn on SmartFrog V6 power, please make sure all wire connect are correct and turnout on the SmartFrog V6 power first. And turn on your train controller later. It can avoid SmartFrog V5 component burned.

Limited to DC Controller Features, Auto switch turnout position function will not working well in DC control environment. We recommend that you carefully to install SmartFrog V5 in DCC control will be better for this special function.

In DCC control, Auto Switch function perfectly within the following conditions of operation. Locomotive running current over 400mA and track voltage higher than 2.5V.

**Warranty & Repair Information**

At ANE Model we value our customers. Customer satisfaction is our number one goal. This is why every control board has been tried and tested thoroughly. ANE Model will also replace any control board free within 90 days of purchase should there be any problems. See our website
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