S Gauge Trains That Do More

S-Trax
#3 Switches

PLEASE READ BEFORE USE AND SAVE

www.mthsgaugetrains.com

Operating Instructions

All Remote Control Switches – are shipped from the factory with the keyed plug (end with 4 pins, see Fig 1A) inside the switch is located in the outer position (Fig 2A). This allows for easy installation of the ribbon wire extension from the controller. For permanent layouts, the customer has the option of removing the base under the switch plug and moving the socket (end with 4 openings, see Fig. 1B) to the 2nd position (Figure 2B). When the extension is plugged into the socket located in the 2nd position, the hole in the side of the roadbed can be covered with the ballast plate (included) and screwed onto the roadbed. This configuration allows the wires to be hidden in an opening in the layout table and then connected to the illuminated switch controller.

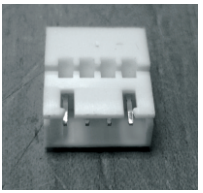

Fig 1A. Plug

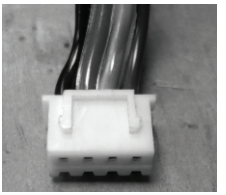

Fig 1B. Socket

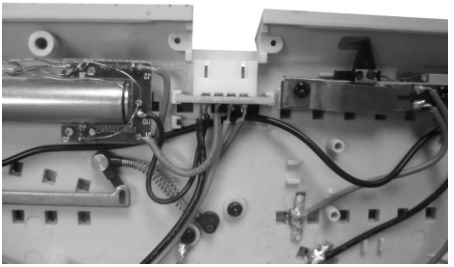

Fig 2A. Outer Position

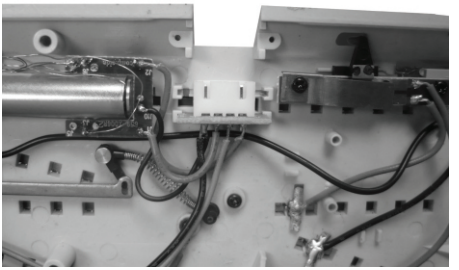

Fig 2B. Inner Position

Transformer Connection

The controller can be connected to any AC power source, 12 to 18 volts. Connect the yellow wire to the 15 volt (or 18 volts can be used) post and the black wire to the base (or "U") post. With this hook-up the switch and controller lights are always lighted and you know at all times which way the switch is set. DC power supplies are not recommended as the coil is not as powerful and the controller lights may not operate.

Installing Feeder Wires

A steady supply of current is needed to operate trains on your pike. The feeder wires may be attached anywhere in the SINGLE line of track between the two switches. Feeder wires should be placed on the tails of the rail joiners (not located on the switch, but on the underside of each straight and curved section, see Fig. 3). Just slide the crimped wire tabbed connector (35-1017) on to the tail of the rail joiners. You can remove the knock-out (on the inside slope of the ballast near the railjoiner, Fig 3) with a cutter or small file, or drill a hole into your sub-roadbed and push the wire underneath your layout, or just let the roadbed sit on the wires.

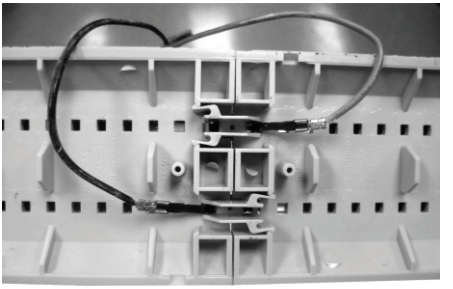

Fig 3. Feeder Wires & Knockouts

Fig 4. Extension plug & socket

Connecting the Switch to a Track Section

Once you have decided on the configuration of the track on your layout, begin assembling the switch by placing the separate sections of track flat on a table and join the mating ends together, pushing the rails into the rail joiners as far as they will go. Do not twist, bend or squeeze.

Ribbon Wire Extensions

You can extend the distance that the switch controller is located from the switch by use of the 35-1020 ribbon wire 40" extension. Remove the socket from the switch and connect it to the white plug of the ribbon wire extension (see Fig 4). The colors of the ribbon wire must match with each other. Multiple extensions can be used to increase the distance that the switch controller is from the switch. **Remember** that the black socket on the ribbon wire that comes with the remote switch is the only one that can be plugged into the switch controller.

Conventional Control Block Operations

Users who wish to operate two or more trains, in conventional mode, on the same layout at the same time will need to establish isolated "blocks" of track by electrically isolating the sidings from the mainline. To accomplish this, you will need to move the slide lever opposite the frog away from the switch stand (see Fig 5A)

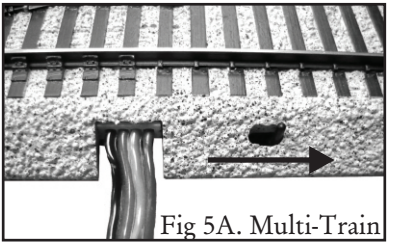

Fig 5A. Multi-Train

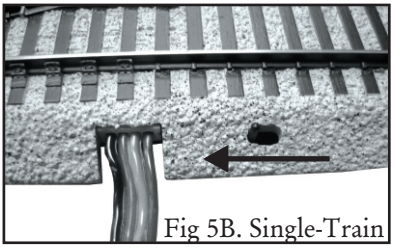

Fig 5B. Single-Train

With the slide lever in this position (Fig 5A), both the siding and the mainline beyond the frog will be isolated. To power the mainline you will need to add a jumper (red) from the mainline inside rail to the siding outer rail of the same polarity. To power the siding, connect the single yellow wire from the siding inside rail to either of the tabs on a single pole toggle switch (available at your local hardware store).

Connect the black single wire from the mainline outer rail to the other tab on the toggle switch. If the straight track is the mainline, see Fig. 6A, if the curved rail is to be the mainline, see Fig. 6B.

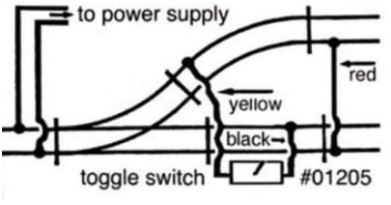

Fig 6A. Straight Mainline

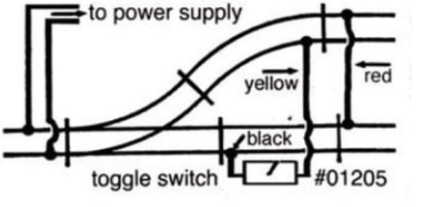

Fig 6B. Curved Mainline

Fig 6C shows how to use two toggles in order to control whether either of the two tracks is powered.

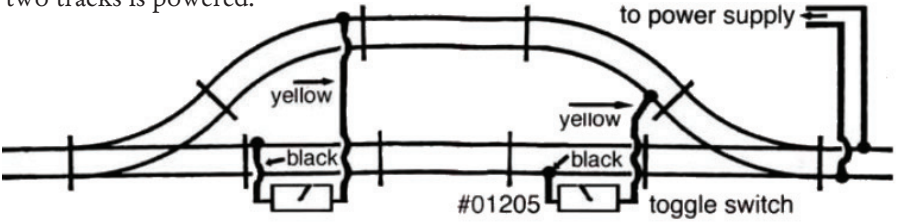

Fig 6C. Passing siding with both blocks controlled

Use with Code 110 Wheels & KD Couplers

Although code 110 wheels can operate through our #3 switches, due to the tight radius of this switch, body mounted KD style couplers can be a problem on cars longer than a 40' boxcar. If you do operate on the #3 switches with code 110 wheels and KD style couplers, like the prototype rail operations speed restrictions are a must to prevent derailments.

Important Things to Remember

With remote switches, use the controller to throw the points, do not throw with the manual lever unless the points do not close properly; then use the manual lever to throw points all the way over. BEST PERFORMANCE will be obtained if older (non-all wheel pickup engines) trains are run through switches at a moderate rate.

Conventional Control of Two Switches (Remote Switches Only)

The controller can accommodate 2 sets of ribbon wires. This allows one controller to operate two switches at the same time. This feature is excellent to use with passing sidings (Fig 7) and cross overs.

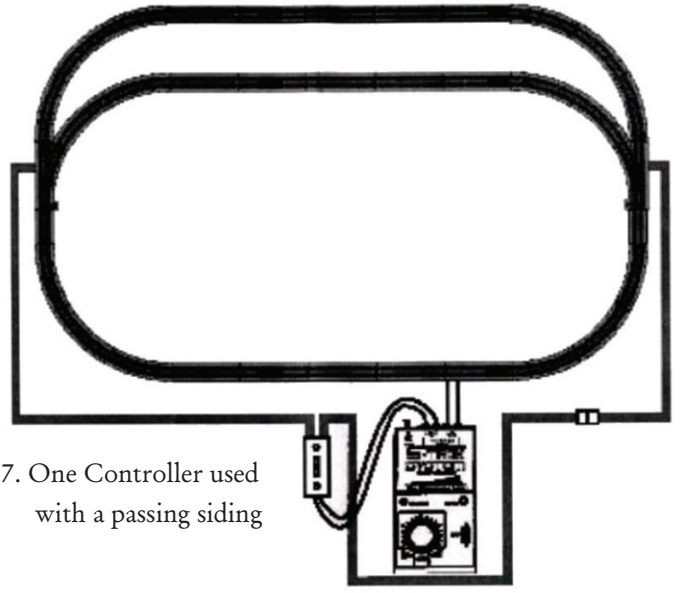

Fig 7. One Controller used with a passing siding

1. From Instruction for assembling and operating American Flyer 3/16" scale trains and equipment. New Haven, Conn 1947

Changing Light Bulb

To access the switch stand lamp, remove the 2 screws on the bottom of the switch and then remove the cover (Fig 8A). Replacement Lamps are available from the M.T.H. Parts Department order online: www.mthtrains.com, Email: Parts@mth-railking.com, Fax: 410-423-0009, Phone: 410-381-2580, Mail: 7020 Columbia Gateway Drive, Columbia , MD 21046-1532.

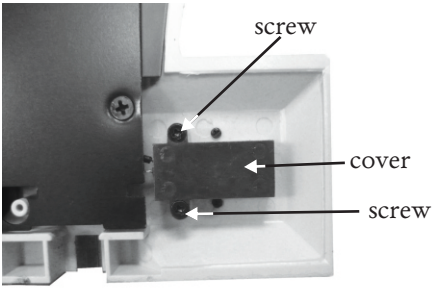

Fig 8A. Cover or switch stand lamp

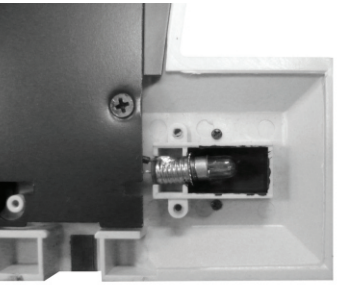
Fig 8B. Location for switch stand lamp

Restrictions

Our #3 remote open frog switches are intended for use with most manufacturers' American Flyer compatible S Gauge wheels and classic A.C. Gilbert American Flyer trains.

As with all switches, wheel sets that are gauged too narrow or too wide may not operate correctly through the switch. Wheels that are not square to the axle or tires that are not attached to the wheel may also have difficulty passing through the frog.

Service & Warranty Information

How to Get Service Under the Terms of the Limited One-Year Warranty

When you suspect an item is defective, please check the operator's manual for standard operation and trouble-shooting techniques that may correct the problem. Additional information may be found on the M.T.H. Website. Should you still require service, follow the instructions below to obtain warranty service.
First, e-mail, write, call or fax a M.T.H. Authorized Service Center (ASC) in your area to obtain Repair Authorization. You can find the list of ASCs on the M.T.H. Website, www.mthtrains.com. Authorized Service Centers are required to make warranty repairs on items sold only from that store; all other repairs may-- or may not be done at the store's own discretion. If you did not purchase the item directly from the ASC, you will need to select a National Authorized Service Center (NASC). These centers are compensated by M.T.H. to perform warranty service for any customer whose repair qualifies for warranty service. A list of NASC retailers can be located on the M.T.H. Website or by calling 410-381-2580. Should the warranty no longer apply, you may choose either an ASC or NASC retailer to service your M.T.H. Product. A reasonable service fee will be charged.

CAUTION: Make sure the product is packed in its original factory packaging including its foam and plastic wrapping material to prevent damage to the merchandise. There is no need to return the entire set if only one of the components is in need of repair unless otherwise instructed by the Service Center. The shipment must be prepaid and we recommend that it be insured. A cover letter including your name, address, daytime phone number, e-mail address (if available), Return Authorization number (if required by the service center, a copy of your sales receipt and a full description of the problem must be included to facilitate the repairs. Please include the description regardless of whether you discussed the problem with a service technician when contacting the Service Center for your Return Authorization.

Please make sure you have followed the instructions carefully before returning any merchandise for service. Authorized M.T.H. Service Centers are independently owned and operated and are not agents or representatives of M.T.H. Electric Trains. M.T.H. assumes no responsibility, financial or otherwise, for material left in their possession, or work done, by privately owned M.T.H. Authorized Service Centers.

If you need assistance at any time email MTH Service at service@mth-railking.com, or call 410 381-2580.

Limited One-Year Warranty

All M.T.H. products purchased from an M.T.H. Authorized Retailer are covered by this warranty provided the product was manufactured within five years of the date of purchase. This warranty is for the original purchaser and is non-transferable.

See our website **www.mthtrains.com** to identify an M.T.H. Authorized Retailer near you.

M.T.H. products may be registered online in advance of warranty work at **www.mthtrains.com/warranty**. The original sales receipt and the conditions below must be met regardless of whether the product is registered on the M.T.H. website in order to obtain warranty service.

M.T.H. products manufactured within five years from the date of purchase are warrantied for one year against defects in material or workmanship, excluding wear items such as light bulbs, pick-up rollers, batteries, smoke unit wicks, and traction tires. We will repair, replace, or credit (at our option) the defective part without charge for the parts or labor if the following conditions are met: (1) the item is returned to an M.T.H. Authorized Service Center* (ASC) or M.T.H. National Authorized Service Center (NASC) or M.T.H. Electric Trains Service Department, (2) was manufactured within the previous five years and (3) was purchased within one year of the original date of purchase from an M.T.H. Authorized Retailer. Products manufactured after the five year cutoff from the date of purchase are not covered under any warranty by M.T.H. Electric Trains. The manufacture date of an item can be verified on the item's detail page “shipping date field” on the M.T.H. website (www.mthtrains.com). This warranty does not cover damages caused by improper care, handling, or use. Transportation costs incurred by the customer are not covered under this warranty.

Items sent for repair must be accompanied by a return authorization number, a description of the problem, and a **copy of the original sales receipt from an M.T.H. Authorized Retailer**, which gives the date of purchase. If you are sending this product to an Authorized Service Center, contact that Center for their return authorization.

This warranty gives you specific legal rights, and you may have other rights that vary from state to state. Specific questions regarding the warranty may be forwarded to M.T.H. Directly.

* Authorized Service Centers (ASC) are only obligated to provide warranty service for any consumer who has purchased the specific M.T.H. item from them that requires service work.

Service Department:
M.T.H. Electric Trains
7020 Columbia Gateway Drive
Columbia MD 21046-1532