

MÄRKLIN CLUB—North America

HOTTRAKS

Fall 1991

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HOTTRAKS is the official quarterly publication of the Märklin Club, P.O. Box 51559, New Berlin, WI 53151-0559

The Winner is.....



"Germany To North America" Wins 1991 Club Car Design Contest

Design Shows Symbolism

Detlev Koch (Märklin Club member #8171) of Berlin, Germany is this year's winner of the Club Car Design Contest. His design, shown above, shows a freight train with cars featuring the flags of the U.S., Canada, Germany, and Europe with the Märklin Club car connecting Göppingen Germany with North America. The judges not only awarded first place to Detlev on the basis of his original design, but also on the symbolism of closer North American ties to a united Germany. Detlev will receive the grand prize of \$250 in cash.

As with last year's winner, Detlev's design becomes the **official** 1991 Märklin Club Car. See the box to the right for details on how to purchase this car.

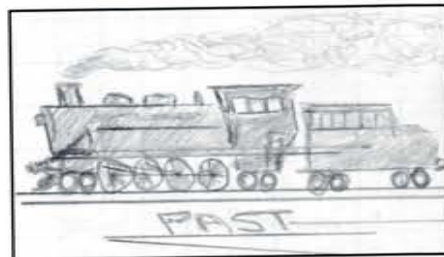
We thank everyone who participated in this year's Club Car Design Contest. Many extremely diverse designs were sent in this year, making the judging extremely difficult. The new car will be available for purchase in November.

Second Place



"Tracking the Environment", submitted by Karl Mueller (#6453) of Woodbridge, VA was awarded the second place prize. Karl will receive \$75 in cash, and his dealer will receive \$75 in Märklin products.

Third Place



"Past, Present and Future" submitted by Joseph Wright (#10070) of Philadelphia, PA was awarded third place. Joseph will also receive \$75 in cash, and his dealer will receive \$75 in Märklin products.

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In This Issue

Märklin Magazin

You can now subscribe to Märklin Magazin through the Depot. See page 2.

Riley O'Connor

Riley talks about putting realism into your layout with railroad industries. See page 4.

Carl Weaver's Column

Carl shows you how to photograph your layout with a home made pin-hole lens camera! See page 6.

From The Factory

Märklin to open a new plant in Sonneberg, Germany. See page 5.

New Procedure To Purchase Your 1991 Club Car

The new 1991 Club Car will be available for purchase in November. At that time we will send to you a "voucher" which you can use to order the 1991 Märklin Club Car. Just take the voucher to your dealer, he will order the car from Märklin, Inc. and notify you when it arrives. (Detailed instructions will be printed on the voucher.)

We will be using this "voucher" system on a select number of "Members Only" items - beginning with the 1991 Club Car. Redemption of your voucher will be through your authorized North American Märklin dealer. (North American Club members who live outside the U.S. and Canada will continue to purchase their cars directly from the Depot.) Additional information concerning this program will appear in the November issue of *HotTraks*.

Märklin Magazin Subscriptions Now Available Through The Märklin Club

Over the last couple of years we have had numerous requests for information from Märklin Club members on *Märklin Magazin* subscriptions. This German language magazine, which is published six times per year by Märklin is a terrific source for information on Märklin layouts, trains, collectibles, and history.

We are pleased to announce that subscriptions to *Märklin Magazin* will now be available through the Märklin Club! The subscription price is \$42.00 per year for six issues. An order form has been included in this issue of the Depot enclosed with your *HotTraks* copy. To help you become familiar with *Märklin Magazin* we will send you a back copy of

the magazine for only \$2.00, (which includes shipping.) Or, we will include a free copy, if you place an order for any items in the Fall '91 Depot. Again, please refer to the Depot order form for details.

Please note that *Märklin Magazin* is a German language publication. From time to time we will select articles of general interest from the magazine and publish them in English in future issues of *HotTraks*. For this issue we have published on page 3, a translation of an article that appeared in the June/July '91 issue of *Märklin Magazin* on Märklin reed switches and magnets. We hope you enjoy it! Please note that there will be no set schedule when these articles will appear.



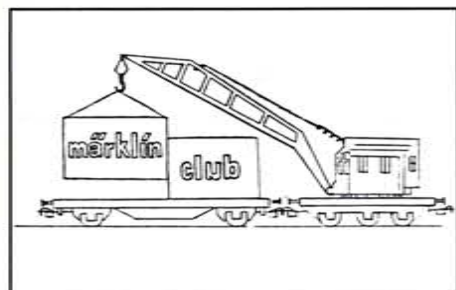
(From page 1.)

Detlev Koch is 1991 Märklin Club Car Design Winner Fourth Place



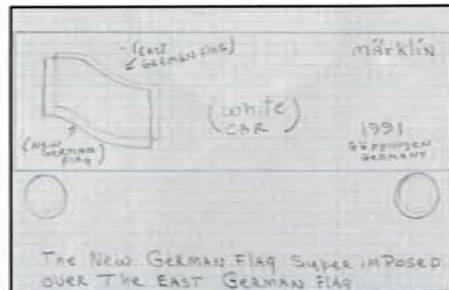
"Märklin Club 1991", submitted by William G. Fuchs, Jr. (#10609) of Arlington, VA was awarded the fourth place prize. William will receive \$75 in cash, and his dealer will receive \$75 in Märklin products.

Fifth Place



"Märklin Club", submitted by Michael Piazzola (#9088) of Palm Bay, FL was awarded the fifth place prize. Michael will receive \$75 in cash, and his dealer will receive \$75 in Märklin products.

Sixth Place



"The New Germany", submitted by Richard Pike (#1818) of Cape Coral, FL was awarded the sixth place prize. Richard will receive \$75 in cash, and his dealer will receive \$75 in Märklin products.

Start Working on Your Designs For 1991. See Details in Next Issue of HotTraks.

\$25 Depot Gift Certificate For Sharing Your Model Railroading Expertise!

Send Your best ideas and/or questions to:
Club Member's Corner
c/o The Märklin Club
P.O. Box 51559
New Berlin, WI 53151-0559

Club Services

Track Planning

A track planning layout service is now available to North American club members through Dr. Tom Catherall. Prices vary with the complexity of the layout. For complete costs and details refer to the Spring '91 issue of *HotTraks* or write to Dr. Tom Catherall, 2410 S. State, Springville, Utah 84663.

Märklin Digital Club (SIG)

As a Member of the Märklin Digital Special Interest Group (SIG), you'll receive a bi-monthly newsletter dedicated solely to Märklin Digital. Each newsletter is filled with in-depth articles, computer programming tips, and technical expertise. The newsletter is edited by Dr. Tom Catherall, our Digital Consultant. As a member you'll have access to an exclusive Digital hotline. Contact the Märklin Club for more information.

Sure Contact

The New Märklin-Reed Switches and Magnets

Reed switches, also called SRK (German abbreviation for inert gas-tube-contacts) are often the ideal solution for a variety of control tasks when used with model train tracks. They are small, have wiring independent from the track current, and give the option of selective operation by certain rolling stock. These are some of the advantages that make these reed switches very popular, especially when applied to model train operation.

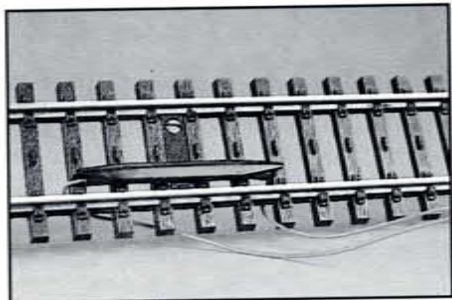
But, since handling and installation require some experience and careful installation, many model train fans still had not been able to really make friends with these little glass elements. These reservations are no longer valid when it comes to Märklin-Reed contacts and the respective magnets. The following article gives some hints on how to use them.

The article "Dampf für SRK's = (steam for SRK's) on pages 12-15 of MM 4/90 previously introduced SRK-specific applications. It mainly addressed the solving of the problem of a limited contact load with model train circuit contacts. In that article we especially considered solving this problem in connection with SRK applications, though the limit of one, at the most of two, magnet drives per outlet was, in principle, meant for all contact feeds in our model train tracks. For that reason we introduced a simple construction idea for a Triac power switch. Its four parts per unit can even be constructed by non-electricians with some soldering experience. We also indicated the possibility of cascading. This is a combination of several circuit units. This should almost be unnecessary because of the high circuit capacity of each single unit. But it allows, for example, the independent individual operation of several solenoid powered accessories from the control panel, though with a circuit track several relay modules work simultaneously, if necessary. Such advantages can also efficiently be utilized in the application

of the new Märklin-Reed contacts.

Now let us talk about the Märklin Reed contacts 7555, as well as the Märklin magnets 7556, 7557 and 7558. Besides the actual SRK precision switch, the 7555 pack contains explicit instructions with many examples for installation and wiring that we do want to repeat here. Included is a small plastic piece meant for installation in K-tracks so that the mounting cross-piece is not pulled into the gap between ties when it is screwed in place. This brings us to the track systems: Märklin-Reed switches are suited for any Märklin HO-track, as well as, with minor adjustments, for most two rail HO tracks.

Certainly, many Märklin 1 fans will also learn to appreciate the inconspicuous design of Märklin-Reed switches, even if a shim might be necessary for installation. Mini-club fans can use it, too, by cutting of the short end of the connector/terminal and installing the switch flush with the ties.



Good luck and glass...

Experienced SRK users are well aware of the particular problems in installing the reed switches. As safe as the contact may work once operating, the installation of these fragile elements always requires great caution. Often the bending of the connector pins causes many SRK's to be "killed" because the glass element splinters at the soldering spots. The installation of the reed switches is not often an easy task. In addition, you may have to cut a notch into several adjacent ties. As for the metal track, an SRK glued to the em-

bankment part is almost the only suitable solution. And you should, if possible, provide a cardboard or plastic strip between the glass element and the metal body. This will keep the metal from becoming magnetized. The glass tube of many SRK's that are improperly installed, can get in the way of the wheels and/or the pick-up shoe. Smaller reed switches are not very powerful. Even after a model train enthusiast has finally overcome these hurdles and has successfully installed the reed switch, the wheels of a railed locomotive engine or car still can shatter the dream of reliable operation quickly. In addition to purchasing a replacement you now have to face the tedious reinstallation of the part.

Installation without problems

Märklin-Reed switches are totally different: First of all, this is an element with especially small dimensions, but nevertheless a comparatively high contact capacity. Secondly, the actual glass element rests well protected in an inconspicuous plastic case with mounting connector. Soldering of connectors onto the SRK pins is not necessary since the contacts already have two standard 50 cm connection wires. You will find the mounting plate very practical. The tabs on both sides can be clamped under the rails. They effectively hold the contact element in place when you want to test the optimal position during a test run. This way the model train enthusiast can determine deceleration and switch areas with each and every vehicle of his own fleet. When corrections are needed, the position of the contacts can be changed in all Märklin HO-track systems with a few alterations. Once you find the right position, you screw the tabs on with a track screw in the hole provided. (The illustrations give suggestions for wiring.) With K-track, the gap between the ties and the rail allow space for the wires, unless you want to run them under the track through drilled holes.

(Continued on page 8)

Railroad Industries

Our models of railroads are what we make of them. For some of us, the mere running of trains is enough. Others want more; more interesting operations and more realism. To me, the model railroad should look like something real, a slice of life. Interesting layouts not only feature the trains themselves, but also convey a sense of purpose for those trains. If the passing trains have a reason for their operation, then the model scene is more realistic. So, rather than having the trains simply chase their tails, have them pick up and deliver cars to industries on your railroad.

We are fortunate to have a large number of building kits to choose from. Certainly the Faller factory in both HO and Z scales is quite useful. With some minor adaptation, this factory can represent many different manufacturers. Other structures are more specific, including several breweries in HO scale. Kibri makes a nice coal yard in HO, and there are several different oil related industries in both HO and Z. In any case, these businesses are served by the railroad, and specific equipment serves certain industries. For many industries the box car is perfect, since it can carry many different products. Other industries need special cars.

The brewery, for instance, takes in car loads of grain, hops, sugar, yeast, and chemicals. In turn, it produces beer which is packaged in bottles and kegs. Breweries are usually built near a reliable source of water, but all other materials must be brought in. The grain would be delivered in a covered hopper in most cases, but a small brewery might get its grain in individual sacks. A box car would deliver those sacks, along with the other necessary ingredients and products such as empty bottles and paper labels. Of course, there are a wide variety of beer cars available to transport the finished brew to consumers.

Mines and quarries ship out loads of minerals, but also do get some deliveries.

For underground mines, wood used for tunnel support would be delivered. Also, mineral producers get deliveries of new machinery and spare parts (such as wire cable) for older machinery. Again, the box car serves for many of those deliveries, while mine timbers would come on an open car. The coal or stone produced would leave in open hoppers.

Steel plants get shipments of iron ore, coal, and sand, along with necessary replacement machinery and supplies. They produce steel which is shipped out in gondola cars and special covered cars (such as #4693 in HO and #8635 in Z). These covered steel cars carry rolls of sheet steel, which are delivered to other plants. In turn, the steel is stamped into automobile bodies, appliance parts, and such. The steel factory also has trains which operate only inside the plant.

These trains move carloads of finished steel products into position for pick up by the main line railroad. They also move cars of hot metal from the furnaces which melt the minerals into steel to the rolling house, where the steel is formed into the finished product. The Primex "Steel Set" (#2704) has a typical Henschel industrial diesel and hot metal cars. These cars are filled with molten metal, then transported to other areas of the plant for pouring and manufacturing into the final steel product.

Many other factories use metal products. Locomotive works must shape and roll steel. They make castings and weld pieces to make fabrications, which are joined together to make the finished locomotives. The covered metal carrying cars also carry lighter metals such as aluminum and titanium, making deliveries to aircraft factories. In turn, special cars are used to transport aircraft sub-assemblies such as wings to other aircraft plants.

Construction related industries also use railroad service. Concrete plants bring in loads of raw materials in both covered and open hoppers. Rock and sand are not affected by weather, so are shipped in open hoppers. Cement is affected by moisture, so it is brought in by covered hopper (silo-wagon), such as #4761 or #8666. These materials are stored at the concrete plant in bins until

they are mixed with water and loaded into concrete trucks for delivery. Some big construction projects will have their own concrete plant at the site, with a special railroad siding to deliver the raw materials. Once the project is completed, the concrete plant is disassembled and moved to a new site. Again, railroads can do the job.

Lumber yards also receive shipments by rail, with sheet rock and plywood being delivered in closed cars such as #4633 and #8623. Such loads may also be shipped covered with a tarp, such as #4475 or #8665. Box cars may bring hardware such as nails, door hinges, and the like. From the lumber yard, deliveries are made by truck and the yard will usually have railroad tracks and trucks sharing the same areas. In many cases, the rails are flush with the pavement of the yard.

Some railroad customers will have their own locomotive, rather than pay the railroad for switching cars. At smaller plants, the "switching" is done with a front-end loader or with a stationary car puller. The car puller is powered by a motor connected by gears to a large spool. A cable is connected to the freight cars, then wrapped around the spool. A plant employee pulls on the cable, which makes it tighter around the turning spool, and draws the cars toward the puller. If the worker releases the cable, then the spool turns without pulling the cars. Such facilities are built on level ground so that the cars are easy to control. Once moved, the car's handbrakes are set to prevent unintentional movement.

Your railroad's customers do not necessarily need a siding. In earlier days, the German Federal Railway would load a car onto a special trailer, haul it by truck to the shipper's location, and set the car directly onto the pavement. With the advent of intermodal transport, many shipments travel by container. The container itself may travel by train, ship, airplane or truck. Transfer from one mode to the other is quick and efficient.

So, there are lots of possibilities for realistic operation on your railroad. Car switching lists can be made up using either a simple computer program or note cards and paper clips. Trains would pick

up and drop off cars, and then continue to their next destination. With some planning, one of your railroad's industries could serve others. Some layout designs incorporate switching challenges, where the train crew must plan its moves. Certainly there will be times when you just want to watch trains, while there will be others when you want a mental challenge. Your railroad can offer you both.

From The Factory

Märklin To Open New Plant In Sonneberg, Germany

Gebr. Marklin & Cie. GmbH has plans to set up a branch plant in Sonneberg, Germany. This former East German city is located 6 miles north of Coburg. Sonneberg is characterized as a toy and model train manufacturing region with a large, skilled work force.

The entire production for HO scale cars is scheduled to take place in this new plant beginning in the first part of 1992. Approximately 250 to 300 workers will be employed in the new plant by the end of 1992.

After completing the production facility in Sonneberg, Marklin is planning additional investment at the main plant in Goppingen. The goal is to adapt the assembly of model railroad locomotives to future market demands.

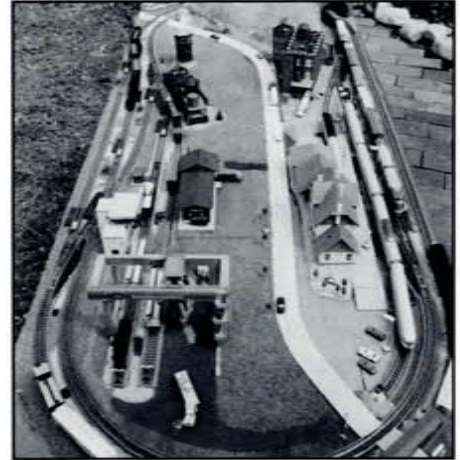
In addition, the high standards for diecast production of precision metal models is being developed further. The Marklin strategy of giving greater emphasis to the traditional raw material of metal has found a specially positive reaction in the last few years.

The investments by Marklin in the next three years will be concentrated on new production facilities and the development of new products.

"Coffee Table" Z-Gauge Layout Shows Diversity

by Joseph D. Orach #0412 Windsor, CT

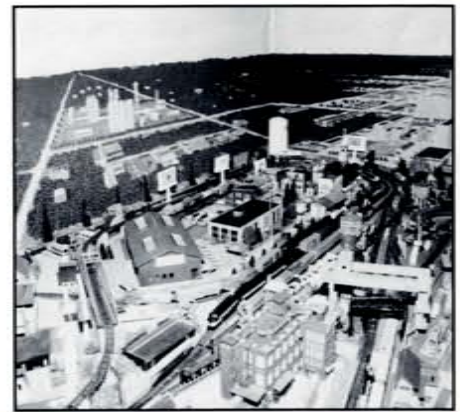
My Märklin Z-Gauge layout has been designed to act as a coffee table (cover has been removed for photo.) The scenery on the layout is not of any specific time period, as I enjoy operating many of the diverse models Märklin produces. I have finished the structures, and am currently working on the details, including the barbed wire fence (x-N scale) and the Railex brass castings. Another part of the layout that is not visible in the daylight is the use of fiber optics for lights above doorways, flashing roof lights and automobile headlights.



DOD Railway is focus of Z-Gauge American Layout

by Chester H. Jordan #7005 Baton Rouge, LA

The DOD Railway is a 30" x 60" Z-Gauge American Layout. I have not made any effort to achieve historical accuracy, but the rolling stock would best fit into the 1950's. Everything except the track and turntable is constructed on 1/8' acrylic sheet. It can be, and often is, changed. Nothing is thrown away - just stored. Locomotives include the 8864, 8816, 8807, 8808, 8803, 8862, and two 8860s. There are 18 remote turnouts, one double slip remote, turntable, 3-stall roundhouse and a 1-stall enginehouse.



How About You?

Showcase Your Layout in *HotTraks!*

Send a black and white photograph of your layout, along with a brief essay (100 words or less) which describes your layout. Tell us what era your layout represents, which Märklin trains you run on it, and anything else of interest you would like to share. **We especially need you to send us information on your HO layouts.** If your layout is featured, you

will receive a \$25 Gift Certificate which can be applied to any gift featured in the Märklin Depot. Get going now! Send your black and white layout photos, along with your layout description to:

HotTraks Layout Showcase
c/o The Märklin Club
P.O. Box 51559
New Berlin, WI 53151-0559

Layout Photography With a Home Made Pinhole Lens

by Carl Weaver

Contributing Editor

(Carl Weaver is a charter member of the Märklin Club and a respected author of several articles and books on model railroading including "Greenberg's Layout Building Handbook for Operators of Märklin HO Trains.")

Photographing your layout does not have to be difficult and can be fun, especially when you see the results of pinhole photography. The best layout pictures are taken at eye level, but lower camera angles have to contend with a greater relative separation of objects in the scene. Most camera lenses are not capable of providing the depth of field needed to keep all the objects in the picture in focus. An easily made pinhole lens attached to your 35mm camera can produce pictures that look like you are at ground level using a scale camera.



Pinhole photo of model town

Gathering Supplies

You will need your 35mm camera. You will also need a locking cable release to control the shutter without shaking the camera and a watch with a sweep second hand to time long exposures.

Locate a body cap that fits your brand of camera. You probably had a cap on the body of the camera when you bought it, because the lens for a 35mm camera usually comes in a separate package. This cap covers the lens mount when the lens is off. If you can't find your original one, you can buy one at a camera store. You will mount the pinhole to this cap.

Next, find a hobby or craft store that sells very thin sheet aluminum, silver, or brass that is .010 inch thick or less. The thinner the metal, the better the results will be. You only need a circular piece one inch in diameter, so it should not cost very much. If you can't find thin metal to buy, then cut out the side of a soda can which is usually made from .010" aluminum. To make it thinner, place it on an anvil (flat part of a vise) and hit it once with a hammer. Cut out the resulting round mark made by the hammer head. This is the piece of metal into which you will put a pinhole.

Find a piece of thin, black cloth tape. This tape will hold the piece of metal with the pinhole in it to the body cap.

Find a small, round clear lens (glass is best, plastic is okay) from a look through toy or a broken microscope that is about 3/8- to 1/2-inch in diameter and has one side flat and the other side slightly convex. Some craft stores sell these items as decorative pieces. Make

sure it's round and clear. This lens will be placed over the pinhole on the outside of the body cap to help gather light.

Get a small piece of fine emery cloth.

You will need a 1/4-inch drill bit and hand drill (an electric drill is okay if it is variable speed).

Borrow or buy a .010" drill bit to make an aperture in the metal. If your metal is very thin, you can use a very sharp, thin sewing needle and gauge the hole with a piece of .010" or .011" wire. You can also drill a .020" hole, but it reduces the f-stop of the lens.

Buy or borrow a pin vise with a small collet to hold the small drill bit or needle.

Building the Pinhole Lens

The first step is to mark the exact center on the inside of the body cap by using a ruler and scribing two lines at right angles to each other. Make sure that you make the line long, because you will use them as reference marks to center the pinhole later.

Next, drill a 1/4-inch hole in the exact center of the cap. Use the emery cloth to smooth off the burrs. Clean off all the dust. Place the piece of thin metal on a flat wooden block and drill or press the aperture. If you make the aperture with a pin, use the point to make a small hole at first, gauge it with wire, then enlarge the hole by inserting the needle further. (Use the emery cloth to carefully remove any burrs.) Remove the dust.

Cut a piece of tape into a one inch circle. Then cut a 1/4" hole in the center of the tape.

Place the tape on the metal with the

Figure 1. Exposure Time vs. F-Stop

f-stops	Exposure Times										
	1/1000th	1/500th	1/250th	1/125th	1/60th	1/30th	1/15th	1/8th	1/4th	1/2 sec.	
f2				1/1000th	1/500th	1/250th	1/125th	1/60th	1/30th	1/15th	1/8th
f2.8			1/1000th	1/500th	1/250th	1/125th	1/60th	1/30th	1/15th	1/8th	1/4th
f5.6		1/1000th	1/500th	1/250th	1/125th	1/60th	1/30th	1/15th	1/8th	1/4th	1/2 sec.
f8	1/1000th	1/500th	1/250th	1/125th	1/60th	1/30th	1/15th	1/8th	1/4th	1/2 sec.	1 sec.
f11	1/500th	1/250th	1/125th	1/60th	1/30th	1/15th	1/8th	1/4th	1/2 sec.	1 sec.	2 sec.
f16	1/250th	1/125th	1/60th	1/30th	1/15th	1/8th	1/4th	1/2 sec.	1 sec.	2 sec.	4 sec.
f22	1/125th	1/60th	1/30th	1/15th	1/8th	1/4th	1/2 sec.	1 sec.	2 sec.	4 sec.	8 sec.
f90	1/8th	1/4th	1/2 sec.	1 sec.	2 sec.	4 sec.	8 sec.	16 sec.	32 sec.	1m4sec.	2m8sec.
f180	1/2 sec.	1 sec.	2 sec.	4 sec.	8 sec.	16 sec.	32 sec.	1m4sec.	2m8sec.	4m16sec.	

aperture centered in the hole.

Placed the tape with the metal and aperture stuck to it in on the back (next to the camera body) of the lens cap. Center the aperture by aligning it with the marks you scribed earlier. Exact placement is best, but you can be about one millimeter off with little effect. If the metal with the aperture is shiny, you can darken the inside exposed part with chemical blackener to reduce light flare.

Glue the light gathering lens on the front of the lens cap over the 1/4-inch hole. Be careful to keep the glue on the edges of the lens and not contaminate the center portion.

Selecting Film

You may use any high speed black and white or color film. I like to use Ektar 400, a fine grain film for color prints. I have had good luck using Type B high speed Ektachrome for color slides and Tri-X for black and white prints. Plan on experimenting with a roll or two of film before getting serious.

Preparing to Take Pictures

Measure the focal length of the new lens. This is the distance between the focal plane symbol (\emptyset) on the top of your camera and the piece of metal with the aperture in it. If you get stuck, use 1 and 13/16-inches, which is 1.1825 and the approximate value for most popular 35mm cameras. Divide this number by the size of the pinhole (.01 to get an f-stop of about f180 or .02 to get an f-stop of about f90).

The internal light meter in the camera won't work with the low light levels involved, so use a hand-held meter or put your normal lens on your camera and take a light meter reading.

Enter the chart in Figure 1 and find the block that has the exposure time equivalent to the f-stop you found with the meter. Look down to the row with the f-stop of your pinhole lens and read the exposure time for the picture you are about to take.

Taking Picture

Now replace the lens with the pinhole bodycap. Attach your cable release to the camera.

Set your camera on manual. Automatic mode won't work. Set the shutter speed equal to the exposure time you found on the chart. If the speed is not on your camera, set the shutter speed on B and use your watch to time the shutter.

Set up some auxiliary lighting. I have had good results with room lighting, especially fluorescents.

Put the camera right on the layout about two to three inches from the subject. This will produce a picture that is taken about 10 scale feet off the ground. Everything from about one inch from the lens to infinity will be in focus. Be careful not to include things in the background that you don't want to see in the photo such as lights, pictures on the walls, ceilings, and windows.

You will not be able to see anything through the eyepiece of the camera because of the low light levels involved, so just point the camera toward your

scene. If you like, you can cover the eyepiece opening to prevent light from leaking in.

Cock the camera and press the cable release. Lock the cable release and use your watch to time long exposures.

You will have to experiment and practice with a couple rolls of film before you get perfect exposures. But I am confident that you will be pleased with your initial results.

Have fun with your pinhole lens and you will find a new aspect to your hobby.



Pinhole view of Märklin locomotives

Exclusiv

'91 Exclusiv Special Line Products

A special Märklin dealer association has been established in Germany. The new program is termed the Märklin-Händler-Initiative program. Participating dealers pay annual dues to belong to the association. The main feature of the "MHI" program is a cooperation with Märklin to manufacture special "one-time" product runs, which are available only to their member dealers and to Märklin subsidiary companies, including the U.S. These items are packaged with a special logo titled "Exclusiv" and are not cataloged. Contact your local authorized Märklin dealer to obtain the products listed below. Please note that there are limited product quantities, and not all dealers will carry these products.

Gauge	Item No.	Description	Delivery
HO	3528	Electric Locomotive E 91 Five-Star	June '91
HO	3628	Electric Locomotive E 91 Märklin Digital	June '91
HO	3828	Electric Locomotive E 91 HAMO Digital	June '91
HO	3802	Heavy Freight Locomotive HAMO Digital	Feb. '91
HO	3829	Locomotive E 91/191 HAMO Digital	Feb. '91
HO	2666A	Junkers Transport Train Märklin Digital	Feb. '91
HO	3582	German Class 221 Diesel 5 Star	Aug. '91
HO	3682	German Class 221 Diesel Digital	Aug. '91
HO	3882	German Class 221 Diesel Hamo/Digital	Aug. '91
Z	1079	DO-X Seaplane Construction	Oct. '91
Z	8135	"Dompfeil" Train Set	May '91
1	5508	Freight Locomotive G8 Royal Prussian	May '91
1	5832	Flat Car loaded with marine diesel motor	April '91
1	5843	Box Car "Sarotti"	April '91
1	5846	Box Car "Steiff"	April '91
1	5803	Dornier Freight Car Set	Feb. '91

With the metal track we use existing openings in the embankment. Only the ALPHA (2000) track requires a 1 mm hole on one side for wiring. The embankment material may be drilled, but it can also be punched with a center punch, nail, etc. without any problem.

K-track fans who embed their tracks in loose ballast should only begin to do so after the installation of the Märklin-Reed switches. This way the mounting tabs and case edge can be camouflaged somewhat. Secondly, in case of previous placement of track ballast, the gravel could get on top of the tie level and also between the ties and thus make the installation of the contact element more difficult.

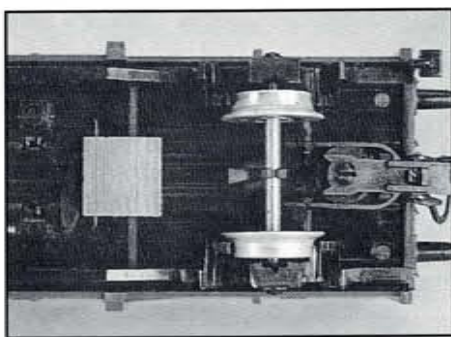
Make the turn

The Märklin instructions exclude the installation of reed switches in curved track pieces. One should not totally accept this limitation right away. For a tight radius and vehicles with a long rigid wheel base (e.g. various steam engines or electric engine BR 104) this might be true because wheel flanges or the pick up shoe could hit the contact case. Other vehicles and a wider radius track seem to have virtually no problems. If in doubt, one should still experiment. In any case, installing the unit on the outer tracks is always recommended, for here the radius is wider.

Small and strong as an ox

For the operation of an SRK, a magnet is required. Its field brings together both contacts in the inert gas filled glass tube. Märklin provides three different size magnets for various applications with truly impressive power. If you place them on a metal tray you may have a difficult time getting them off again.

The smallest in the series, the 7556, measures only 5 x 10 x 1.7 mm and is



appropriate for the use in Z-vehicles. With HO it is mainly designed for digital systems for feed-back via a decoder s88, since this only requires a very short impulse duration. With faster vehicles it is possible that this small magnet may not supply the necessary circuit duration to activate the reed switches. When in doubt, experiment to see if it will work. A stronger magnetic field and therefore a longer duration is also created when two magnets are placed end to end. The 7556 pack contains 6 magnets.

Where there is enough ground clearance, you should normally pick the 7557 magnet (3-piece pack). It measures 7 x 13 x 2.5mm. Z-fanatics who want more reliability will welcome the fact that it fits under the bottom of the cars of many mini-club vehicles. With magnets of this size, the speed factor has almost no negative effect on the reliability.

A real Hercules in magnet power is the 7558 magnet (2 pieces per pack). Its measurements of 10 x 10 x 3 mm allow an inconspicuous placement in most cases. One will prefer this model when there are greater distances to the SRK to be bridged. We should mention for example, cars with high frames. They are usually not seen and thus offer themselves also to more powerful magnets. Thanks to its power, the 7558 magnet opens up still more possibilities: You could glue it to the inside wall of a car and the respective SRK into a telephone booth, a tunnel entrance arch, or a high

voltage power-line pole.

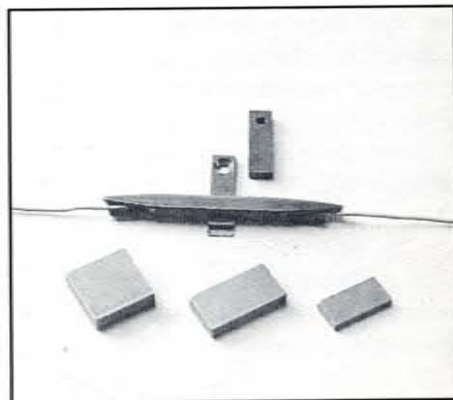
In the case of all cases

The packs contain a strip of adhesive foam for the installation of the magnets. You can cut off pieces as needed. In the floors of many Märklin cars you will find metal weights; with these the magnets don't need the adhesive foam to stick to the car bottoms. If you need to glue, be

sure to remove any oil or grease from the glue surfaces with a cotton swab that has been saturated with a cleaner. Though the instructions do not refer to this, this step is highly recommended since the oil on gears and axles often leaves a thin oil film on the underside and attempts to glue the magnets could fail.

The Märklin instructions also only recommend one magnet per switch, though it would nominally be capable of a higher circuit output. Principally, two solenoids could be activated simultaneously if they have relatively low operation resistance. Be careful when operating turnouts and signals that you don't overload the circuit. But since this can happen any time, especially during construction, the authors of the instruction pamphlet advise against multiple connections; for even the strong Märklin-Reed switch can fail if overloaded.

The person who wants more power can use the Triac circuit amplifier according to the suggestions in the 4/90 issue that we already mentioned. The new Märklin-Reed switch and magnets make SRK applications a great deal simpler for model train enthusiasts. On top of that they offer optimal safety of operation with their strong casings. Therefore these little "elfs" are certainly the first choice for the many tasks in the control of your layout.



HOT TRAKS

märklin
CLUB

The Märklin Club is dedicated solely to serving the special interests of the Märklin enthusiast. Our goal is to help you get the most from your Märklin trains and model railroading. We want to make a fun hobby fascinating for you.

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