

REVIEW HO

Is the Uncoupler Car the solution for realistic yard switching?

Review and Photos by John Sipple

HO DCC-controlled Uncoupler Car, Double ended 40-foot boxcar, MSRP: \$74.95

Single ended 40-foot boxcar, MSRP: \$54.95

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Phone: "We run a web-based business. Phone consultations are available after submitting a brief e-mail of your question or concern."

www.dccuncoupling.com

REALLY, O-gauge trains have had coupling and uncoupling going back more than a half century. Of course, lots of things about these solutions weren't exactly to scale or per prototype, but it can be said they were built for fun, not accuracy. The status for HO has not been so simple.

Kadee Quality Products gave us a coupler that worked, at least in the coupling end of things. Uncoupling in all scales has been the devil in the details. Two principle methods have been developed: the first is the uncoupling location and the second has been the uncoupling coupler.

Uncoupling ramps and magnets have been the basis of uncoupling locations. The challenge for us operators has been to identify the right locations on our layouts for the uncoupling equipment. Preferably, it would be straight and level track, and we often would want to locate the ramp or magnet at the head of a yard. Magnetic uncoupling allows the operator to re-engage the couplers without actually coupling them, allowing placement of the car in a location without ramp or magnet.

I've seen layouts with enviable everything, from scenery to structures to track work and great placement of uncoupling magnets. However, many modelers feel the uncoupling location is antithetical to pro-



We begin to suspect, as we peek through the door, that this humble Athearn WP boxcar is something more than what it seems. That's the charm of the Uncoupler Car. It doesn't show what it really is if you leave the doors shut!

totypical operation. That brings us back to cars with couplers that do the job instead. And that introduces all sorts of issues.

Looking for an uncoupler that works

In the real world of trains, we see a brakeman as he walks down to the place where a car needs to be uncoupled and closes the angle cocks on both cars. Then he steps out to the engineer's side of the train, lifts the cut bar, and signals the engine to pull forward. Because the cut bar is lifting the coupler's pin, the knuckle swings open and the coupling parts until the airhose separates with a bang.

So the ideal thing for a model railroader to have would be a coupler that could be remotely uncoupled virtually anywhere on the layout. Okay, but that will involve some sort of mechanism built onto the car that will operate the coupler for you. Like brakemen, uncoupling robotics aren't free. If you did a complete fifty-car train to hang behind your *'Big Boy'*, you'd have to buy a hundred remote uncouplers. A guy would have to be rolling in disposable income to afford that kind of arrangement.

So what goes into uncoupling robotics? First of all, it would require something to do what an uncoupler magnet does: pull back the uncoupler head. This means something has to be attached to the pin or the head that doesn't interfere with normal operations, straight or curved track, and magnetic operation, should that be needed. This means something flexible like a piece of string. No, not the butcher shop string, but good, hi-tensile string.

The actual mechanism will be fairly sizeable, putting it up inside the car. Since our cars generally roll around empty, that's not a bad thing. The other end of the string will be tied to a lever and the other

end of that will be attached to a servo or an electromechanical relay, something to convert electricity into motion. Application of power to our actuator will cause it to retract, pulling the lever which draws back the string. This pulls the head back and open, causing an uncoupling to take place. The actuator will be held open until a "close" command is sent to it. However, if the power is cut and then restored, the coupler will close at power off and reopen when power is restored. If you have the coupler closed at power off, no change will be made in it from on to off to on again.

Okay, now we've got our actuator, lever, and pull string. Now we need to apply the electricity on the track to our actuator. This requires command and control. The command must come from a handheld device and the control comes from an on-board device that both receives commands and converts them into switched polarity and power moments. To get all that; we'll install a decoder.

This is no ordinary motor decoder. Instead, it is a special decoder from Digitrax that uses F3 and F4. Its address can be set to the same as the locomotive or perhaps something else. When you press F3 under that address, the coupler on one end opens. Press it again and it closes. That means track power and the need to receive commands via the rails, so the trucks must have power pickups. Press F4 and it operates the coupler at the other end, if both ends have robotic couplers. If you are using the same address as a sound locomotive, you may also hear a coupler sound with each F3 or F4 press.

Enter the Uncoupler Car

System Five-O has followed the recipe set forth above and has ended up with a pretty tidy car. Our sample has uncoupling gear in both ends, so let's review some



This underside view of the "B" end (note the brake wheel) is the string attached to the coupler head and passing through a guideway. A closer look at the truck reveals wires going up inside, split axle wheels, and brass side wipers between the bearings and the wheels. A light amount of oil benefits this contact.

scenarios for a single uncoupler car on a small layout. First, you can tie one end to a switcher and then spot one or two cars here or there about your layout. If you have the basic 4x8 sheet of plywood layout, this can get you out of having to either run around the layout or make long, hard reaches to uncouple a car from the engine. By having a boxcar working as a sort of idler that goes everywhere with the engine, you enable your choice of locomotive without needing to perform modifications on it.

Our sample arrived, ready to work, complete inside a standard Athearn Blue Box kit car that was already assembled. Yeah, I know, Athearn is out of the Blue Box kit business, but there are other choices for this type of car, and there are tons of unsold Blue Box kits around.

System Five-O will also install their mechanisms into cars with appropriate fittings. Contact them with the car you propose to provide and there is a discount for providing the donor car.

One of the heavy uses for a dual uncoupler car would be on a point-to-point layout. At destination A, the locomotive pulls out with the uncoupler boxcar right behind. This train could, conceivably, pick up cars along the way. At the destination B, the loco and the uncoupler car cut off the train, go past the switch, and back onto a siding. At this point, the uncoupler car is ahead of the engine, and so a second siding is needed to run the engine around the uncoupler car, tie on, and then run over to pick up the other end of the train. If you have a second uncoupler-equipped car, you may perform some more ornate switching. A guy could stay busy for hours.

So does it work?

Matter of fact, yes, it does. However, there are some issues of which you should be aware. First, because it must pick up power from the rails, this requires good track-to-wheel contact, and it also wants solid wheel-to-wiper connection. The car comes with a small bottle of light oil to aid in that goal. Our sample uses a Digitrax TF4 Quad function decoder. I install the shell so that Function 3 triggers the "A" end while Function 4 works the "B" end with the brake wheel. I found that when running with just the car, activating the coupler at the loco end will cause it to drop off.


Unless you have the shell of the car off

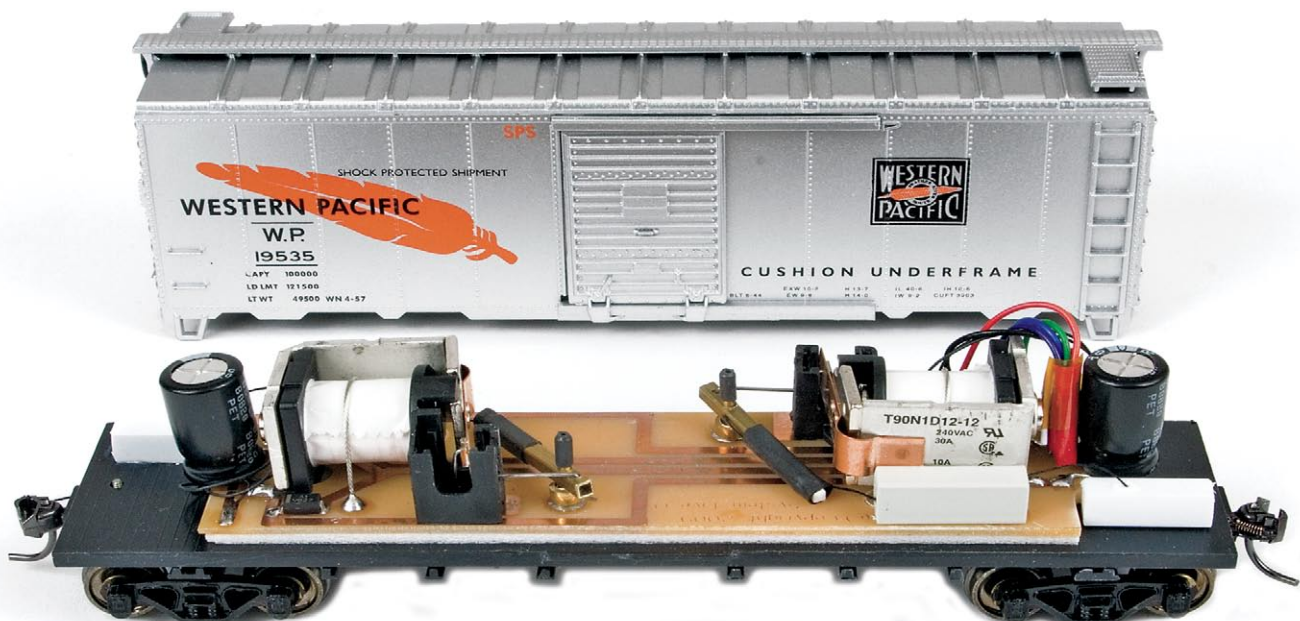
to where you can watch the works, the operation is otherwise relatively silent and the movement of the coupler is small. This is a scale coupler, so it doesn't take much to swing the head open. But that leads to another issue.

Most magnetic-operated HO-scale couplers operate with the understanding that the magnet will be pulling open both couplers. One coupler is basically half a solution that is usually good enough. At times, due to relative positions of cars, the retracted coupler head will snag the unretracted head and the uncoupling will fail. You can bump the cars around and try to get them apart. And as with all magnetic uncoupling, slack helps the entire process.

I found that I had to develop some loco operating skills in order to get consistent results. I also have to remember to "close" the coupler after I pull clear so that it will pick up the next car. I could leave the coupler open and push the car into position by a business and back away, leaving it behind. I would then close that coupler.

It works!

The design concept is licensed from Kadee Quality Products, which adds value to the product. It may be a sort of Rube Goldberg kind of thing, but it has worked for me, consistently, over-and-over. It lets me play with cars to my heart's content. I can put it on my heavy, forty-car train and let it uncouple the road power when I'm done with it. Visit the System Five-O website and you can see several switching scenarios, plus all their sales options. 



Remove the shell and the truth is revealed. Each end has its own large mechanism to activate the small Kadee couplers at each end. Notice next to the block capacitor on the right end is the orange Digitrax TF4 decoder that tends to the magic.