

## Train Control Systems (TCS) KAT14 & KAT16 Decoders !

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When the DCC-ready Bowser San Francisco F-line PCC cars were introduced to HO scale trolley modelers, TCS responded with the M4T decoder. When the SEPTA PCC cars with their Subway lights and the Beacons were introduced later, TCS responded with the T6XT.

The M4T was a plug-in decoder that required no further action of the part of the user unless the car was a TTC (Toronto) PCC requiring one wire to be soldered to the circuit board to enable the TTC Advance light to work. The T6XT decoder was still a plug-in but required soldering two wires to the circuit board to enable both the Subway light and the Emergency Beacon that were installed on SEPTA PCC cars to operate. Everyone seemed to be satisfied with the operation of both the TCS M4T and T6XT decoders.

Of course, operation from overhead wire is a problem even in the DC arena but in DCC strange things happen including cars going into reverse when dirty wire is encountered. TCS came up with the Keep-Alive™ capability which allowed operation to continue during brief power losses. This unexpectedly also permitted much slower, smoother operation under wire. The SCTC has placed these cars under wire without cleaning our test track overhead (unused for weeks) and they have performed without hesitation of any type.

The new units are the KAT14P-1inch for most of the Bowser PCC cars. 1inch refers to the length of the 8-pin plug harness that should be shipped with the decoder for the Bowser PCC. These are intended for the same cars formerly using the M4T. For the Bowser Philadelphia PCC cars with two operational roof lights, the decoder would be the KAT16P-1inch. The same installation procedures used with the M4T and the T6XT apply here except that this decoder is a little larger and will fit after some preparation and coaxing. We reported more details about installation of these decoders in our August issue.

TCS is now using a computer chip with much more capability allowing the user to select which program is desired. The user selected the program by setting CV8 to the appropriate number.

Since DecoderPro does not allow writing into CV8, users will have to use their DCC Control System. Please remember that CV8 is a factory reset CV and the value entered will NOT read back. Only the manufacturers code will show, which in the case of TCS is normally 153. One must test the car in operation to verify the acceptance of the CV value.

Specifically, in the current line of TCS decoders, setting CV8 equal to 11, would get the user the normal PCC stop/brake light operation as present in the traditional, as-built PCC cars. By setting CV8 equal to 12, the user should not only get the stop/brake lights along with the tail lights used on the San Francisco F-line cars.

The reason for this article is a problem discovered with some of the decoders in setting CV8 equal to 12. In some of the early KAT14/16 decoders, when we attempted to set CV8 equal to 12, the car would not respond. We found that our Digitrax Zephyr Xtra had somehow readdressed to car to 12 but we still had no taillights. We use both the Digitrax Zephyr (DCS50) and the Digitrax Zephyr Xtra (DCS51) DCC equipment on our test tracks and have experienced peculiarities with the Digitrax Zephyrs previously, so we

## Next Release of Bowser PCC cars on their way to you!

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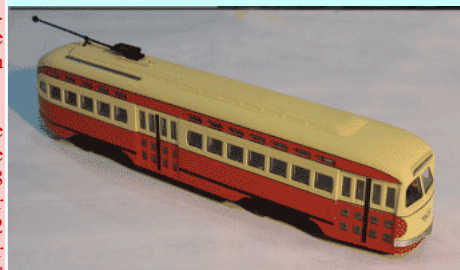
Pre-production samples of the next seven Bowser PCC cars arrived at the Custom Traxx facility for test and evaluation. They tested both the San Francisco Muni 1058 and Birmingham Electric versions using a new TCS KAT14 and an older T6XT that we had on hand. Both cars ran flawlessly and are shown in the next photo on a Southern California Traction Club (SCTC) module currently under development.



Muni 1058, shown above equipped with the TCS KAT14, ran on our test track which had not been used in weeks without any cleaning at all and continued to run under overhead wire power without a single stall at the slowest imaginable speeds for hours. This performance far surpasses anything we have experienced operating in the DC mode. It is almost unbelievable. Cars that are coming include a re-run of San Francisco Muni 1050 in the "wings" scheme, Boston, Shaker Heights, Philadelphia 1948 and Pittsburgh All will be available with Soundtraxx-Tsunami sound. We are able to get a peek at some of the pre-production models of the next series of models due in November 2012 at the Trolleyville Booth. They were on display at the Great Train Expo in Costa Mesa during the weekend of September 8-9, 2012.



Philadelphia 1948 Pre-Production Sample



Pittsburgh Pre-Production Sample

initially could not determine whether this was due to the decoder or the Digitrax Zephyr, so we contacted TCS and we discovered what could be the source of our problem

Since the Muni PCC cars, 1050 (San Francisco Muni 1950) and 1058 (San Francisco Chicago) will be being re-introduced before the end of the year, we thought it appropriate to relate the corrective procedure to all readers should this problem arise.

TCS and Custom Traxx recommends the following:

Whatever Bowser PCC car in which the KAT14/16 is installed, first set CV8 equal to 11 to ensure that the brake/stop lights work. When testing the car, be sure to activate Button 3 to turn on the brake lights. Run the car and then activate button 6 to stop the car and turn on the brake lights. The brake lights should operate in both forward and reverse. Repeat the CV8 equal to 11 procedure at least one more time if the car does not work.

Assuming that the first step works, go ahead and set CV8 equal to 12. If this works and you get the taillights. All is fine. If you do not get tail lights but have brake lights and the car still runs, change CV61 to 137 and the tail lights should appear. If the car does not run, perform a complete factory reset by setting CV8 equal to 2, then set CV8 equal to 11 and then set CV 61 to 137. This should work. Then you can readdress the car as you originally desired.

These problems should be corrected in later production runs of the KAT14/16 decoders. But for now, we love the KAT series. Put the pole up, wait for the unit to charge up and go. Cars equipped with these decoders are our wire cleaners. We take a Muni PCC, put both poles on the wire (*turning the front pole around of course*) and run it around the layout and all the dirty wire problems are gone. In fact, we never see them, they just sort of disappear.

One last point with TCS. Before the ready-to-Run trolleys were available, we approached TCS about making a decoder, with the stop function and the brake-light feature. They were always ready to do something with their technology. Once you can get their attention with a rational business-like approach, they are willing to develop special decoders for you. These can cost you some but they are worth it. We collaborated with them for a KAT series decoder for the double ended PCC with both stop/brake lights, taillights and headlights at each end and reversible. They should work great in our San Francisco Torpedo models. We were sent a test decoder in Mid-September and will be installing this in one of our cars shortly. They need to talk to John Forsyth or Jordan for technical ideas. They are always our "Go-To" guys.

Look for the new KAM series decoders. These are same as the current KAT series except they will eliminate the JST plug, thus making the entire KAM series decoder smaller and a little easier to fit into the Bowser PCC. They will shortly be available from Custom Traxx.

## Southern California Traction Club Makes 100th Public Appearance!

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After appearing in Southern California, Northern California and Nevada since 1997, the Southern California Traction Club (SCTC) celebrated their 100th public appearances at the Orange County Fairgrounds at the Great Train Expo in Costa Mesa, CA. Starting with a five-module display in April 1997, the club display has grown over the years to the current 26 module display that is 16' by 26', which includes an operating subway and a DCC operated city streetcar line.



Birmingham Pre-Production Sample



Boston Pre-Production Sample



Shaker Heights Pre-Production Sample

A sample of the Muni "wings" 1050 was not available for inspection. But it is planned to be similar to the first run except that the car will have windshield wipers, simulated resilient resilient wheels, B-2 truck sideframes and black trolley catchers. A few of the samples had some minor problems which were identified and should be corrected on the production vehicles. All powered cars will have windshield wipers, B-2 truck sideframes and simulated super resilient wheels.

Also, we have learned that these cars are on their way from the manufacturer and should be on your dealers shelves in November. We also learned that next release of Bowser trolleys may **NOT** be a PCC car.

## We really want to hear from you!

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Recent events in the traction modeling hobby have not been encouraging. The number of modelers willing to paint and letter models seems to be on the decline. With all of this in mind, we want to hear from those of you who read Trolleyville regularly. What do you want to see in the Trolleyville Times? What type of news do you like? Are prototype articles appealing? With the suspension of the beloved Trolley Talk magazine, all of these questions are relevant.

Suggest we focus on the recent group of ready-to-run trolleys that have been released during the past three years. do you have a trick or helpful hint to improve their operation?

Right now, Custom Traxx and the Southern California Traction Club (SCTC) are getting ready to test a specially designed Train Control Systems (TCS) KAT26 decoder that has been designed for a double end PCC car. This will be tested in a model of one of the San Francisco "Torpedo" streetcars and will have the brake and taillights.

If you have comments, suggestions and even complaints, [please let us know.](#)



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