

TWIN-CENTER – FLEISCHMANN DCC/FMZ CONTROL SYSTEM

Distributed by All Aboard Modellbahn, P O Box 388, Mittagong NSW 2575.

In AMRM 247 (August 2004) I reviewed the Fleischmann LOK-BOSS entry level DCC system. While reviewing that system, and drawing attention to its basic simplicity, I mentioned TWIN TECHNIK, the Fleischmann multi-train control system that is compatible with both their proprietary FMZ digital system and the ubiquitous NMRA DCC standard. At the heart of this multi-format system is the TWIN-CENTER, and I have now had the opportunity to extensively use and review one of these units.

With the TWIN-CENTER comes a fully-fledged DCC system that can stand comparison in features and performance with most advanced DCC systems on the market today. Added to this, it has a full range of capabilities with the Fleischmann FMZ system, and the two different systems work together seamlessly with the TWIN-CENTER. If used as a DCC system alone, the FMZ capabilities can be either ignored or switched out completely in the Basic Settings for the unit. Under normal circumstances, both FMZ and DCC signals are fed to the track simultaneously, and even a multi-loco consist can include both types of decoder. Fleischmann decoders are known as TWIN decoders, and they can respond to either FMZ or DCC signals. However, Fleischmann are now making decoders and some of their locos available in pure DCC format, although FMZ items are still currently available. For those who have invested in FMZ over the years, with the TWIN-CENTER they have a system that will ensure their FMZ equipment will never be out of date. This backwards-compatibility is the whole rationale of TWIN-TECHNIK, and the market towards which it is firmly pointed.

However, my review of the TWIN-CENTER is as a DCC system alone, especially as that is where the growth of the market is going. I tested a TWIN-CENTER (6802) with a transformer (6811) and a LOK-BOSS unit (6865) connected by a LocoNet cable (6887). See the illustration above. With these I used a Fleischmann 2-8-2 loco with DCC sound decoder (74131), plus some of my own locos with various DCC decoders. Every one of the locos performed impeccably with the TWIN-CENTER, and the sound from the Fleischmann steam loco was some of the best I have heard. The LOK-BOSS controller was the same as that tested in my earlier review but, connected to the TWIN-CENTER via the LocoNet cable, it became an additional controller for up to four locos assigned by the TWIN-CENTER.

The TWIN-CENTER itself is a grey plastic box with an 18cm by 12cm footprint. All cabling is attached at the rear. The unit has a central keypad from which all assignments, programming and setup functions are carried out. Above this is a two-line illuminated LCD display, and on each side is a controller knob (identical to that on the LOK-BOSS). These two controllers can be used as forward/centre-off/reverse, or as conventional control knobs with reversing by pushing the knob in. Buttons are provided to switch loco lights on and off, and control up to eight other functions (f1-f8). All other functions of the unit are set through a hierarchical menu system that is logical and easy to use. A comprehensive instruction manual in both German and English covers all aspects of setting up and using the TWIN-CENTER, and is set out in a “And here is how to do it ...” format. The unit can be used as is, straight out of the box, but for a DCC-only layout I would recommend going through the Basic Settings menu to switch out FMZ functions. The TWIN-CENTER has its own inbuilt booster and has a maximum power output of 75VA (or a little over 6A at 12vDC). The setup I tested with the 6811 transformer has a maximum power output of 45VA, which is ample for most small layouts. However, with the bigger 6812 transformer, the full 75VA can be achieved. For a very large layout, either a TWIN-BOOSTER (6807) or a DCC booster can be connected to the TWIN-CENTER. Two plugs are provided with the unit, the larger one to connect the input from the transformer, the output to the track, and the output to a separate programming track. The smaller plug is for connecting a DCC booster.

So what can this unit do? Apart from the full range of FMZ capabilities, as a DCC system it can directly programme both two and four digit addresses (ie. up to 9,999 addresses), can assign virtual four digit addresses to locos or accessories that have only two digit address decoders, can use all programming modes, including programming on the main, uses basic and advanced consisting for up to four locos in a consist, 14/28/128 speed steps, control of stationary decoders for setting of points, signals and other accessories, allows programming by a computer, and allows update by software. In fact, the unit I tested has been updated to software v1.100 to add the capability for programming and using the new Fleischmann TRAIN-NAVIGATION automatic control system. Owners of the TWIN-CENTER purchased before November 2004 should contact All Aboard Modellbahn to arrange a free software update of their unit.

There are some neat things it can do as well. The programming track can be set to “automatic,” meaning that it is electrically part of the layout during normal operation, but switches automatically as a programming track in programming mode. While it must be isolated electrically from the rest of the layout, any siding, in a loco depot for example, can become the programming track. Also, my review of the LOK-BOSS unit pointed up the limitation that it can only control loco addresses 1 to 4. As part of a starter set this is fine, but there will come the time when the owner wants to expand his or her system. Here is where the humble LOK-BOSS comes into

its own. If it is connected to the TWIN-CENTER via the LocoNet cable (6887), and NOT to its own power supply, it can be addressed in the TWIN-CENTER menu system as a TWIN-BOX, where it will be assigned the number 1 by default, and each of its four loco address as controllers a to d. (The TWIN-BOX is another piece of Fleischmann equipment designed to connect FMZ hand controllers to the TWIN-CENTER. It is not used in this situation). Now, again using the menu system on the TWIN-CENTER, four locos using any 2 or 4 digit address can be assigned to the four "controllers" of the LOK-BOSS. Thus the LOK-BOSS becomes a hand-held controller for any of the four locos assigned to it.

This is an excellent piece of equipment that does everything that is claimed for it. I found it easy to use, once I got to know the menu system, and had no problems controlling and programming a variety of locos and decoders with it. Furthermore, I have no criticisms of the TWIN-CENTER, only praise for it. However, bear in mind that it is a multi-system unit, designed specifically for Fleischmann trains, doing a superb job of melding the proprietary FMZ system with state-of-the-art DCC. Thus there is a cost-sensitive complexity that DCC-only layouts do not necessarily need. Also, the latest sound decoders use up to 20 different functions, whereas the TWIN-CENTER can use only eight – but honestly, who is going to be using all 20 functions when driving a loco on their layout? Also, while most DCC systems nowadays allow one DC-only loco to be controlled, this unit can only do so in FMZ mode. These are considerations for a potential purchaser, but the Fleischmann TWIN-CENTER has my unreserved commendation as an excellent DCC/FMZ system which I heartily recommend.

Current Models (March2006)

6802 TWIN-CENTER
6811 Transformer 45VA
6865 LOK-BOSS
6887 LocoNet cable
74131 DB class 041 loco (with DCC sound decoder)

Phil Knife