FLEISCHMANN

The model railway for experts

PROFI-BOSS 686601

DCC Digital Controller

GB Operating Instructions

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What can the PROFI-BOSS do?

Single handed operation – walk around control
"talking" menus and indicators
run digital locos within dcc standards
switch points, uncouplers, signals via receiver modules
Decoder programming and read-out!
Extendable using the LocoNet
More power using larger transformer
More power using booster
Updates possible (using the TWIN Center)
Suitable for any DCC-locomotive

Abbreviations used:
PB = PROFI-BOSS,
MA = Electrically operated accessory

LocoNet® is a registered trademark

1. Advice on Use and Warning

(GB)

Safety instructions

- ➜ The PROFI-BOSS is not suitable for use by children under three years of age.
- ➜ The PROFI-BOSS may only be used in conjunction with the plug-in mains transformer provided, or with the FLEISCHMANN DIGITAL CONTROL transformer 6811 (connection to output SEC 1, black and yellow clips). Never connect the 240 volt mains power directly to the track (danger of death).
- ➜ Under no circumstances must the mains transformer or controller come into contact with water! The housing must never be opened! The mains cable must not be shortened or cut off!
- ➜ Before undertaking any electrical work on the model railway layout, always pull out the mains plug from the socket first!
- ➜ Make sure there are no loose cables from the controller, mains cable or connecting wires to prevent any danger of tripping up.
- ➜ The mains transformer is not a toy and is only designed to provide power to your model railway. Please inspect the equipment on a regular basis, to make sure that there has been no damge to the housing, plug or cables. If any damage is discovered, do not use the article until repaired by an authorised dealer.

(D) **Warnhinweise**

- ➜ Der PROFI-BOSS ist nicht für Kinder unter drei Jahren geeignet.
- ➜ Der PROFI-BOSS darf nur mit dem mitgelieferten Steckernetzteil oder dem FLEISCHMANN-DIGITAL CONTROL Trafo 6811 (Anschluss an Ausgang SEC I, schwarze und gelbe Klemme) betrieben werden. Schließen Sie auf keinen Fall die Gleise direkt an das 230-V-Stromnetz an (Lebensgefahr)!
- ➜ Netzteil und Fahrregler dürfen unter keinen Umständen mit Wasser in Berührung kommen! Gehäuse dürfen in keinem Fall geöffnet werden! Netzkabel dürfen nicht gekürzt oder abgeschnitten werden!
- ➜ Vor elektrischen Arbeiten an der Modellbahnanlage sollten Sie immer den Netzstecker ziehen!

➜ Achten Sie beim Betrieb auf lose liegende Fahrregler-, Netzteil- und Anschlusskabel (Stolpergefahr).

➜ Netzteile sind kein Spielzeug und dienen nur zur Stromversorgung Ihrer Modellbahn. Bitte prüfen Sie diese Geräte regelmäßig auf mögliche Schäden an Gehäuse, Steckern oder Kabeln und ziehen Sie diese bei Beschädigungen aus dem Verkehr bzw. lassen Sie diese fachgerecht reparieren.

Ⓕ **Avertissements**

➜ Le PROFI-BOSS n'est pas adapté aux enfants de moins de trois ans.

➜ Le PROFI-BOSS pourrait être seulement utilisé conjointement avec le adaptateur secteur 6710 fourni, ou avec le FLEISCHMANN transformateur DIGITAL CONTROL 6811 (la connexion pour sortir SEC 1, les bornes de noir et jaune). Ne connectez en aucun cas les composants ou rails directement au secteur 230 V (danger de mort) !

➜ Le PROFI-BOSS et son alimentation électrique (par ex. adaptateur secteur 6710) ne peuvent entrer en contact avec l'eau ! N'ouvrir en aucun cas leur boîtier ! Ne pas coupez le câble de l'adaptateur secteur.

➜ Pendant l'utilisation de votre réseau, veillez aux fils du régleur, de l'adaptateur secteur et aux câbles de connexion (risque de trébuchement).

Ⓝⓛ Waarschuwingsaanwijzingen

➜ De PROFI-BOSS is niet geschikt voor kinderen onder drie jaar.

➜ De PROFI-BOSS mag uitsluitend met de meegeleverde netstroom adapter of met de FLEISCHMANN-DIGITAL CONTROL trafo 6811 (aansluiting aan uitgang SEC 1, zwarte en gele klemmen) worden gebruikt. Verbind in geen geval de rails met het 230 volt stroomnet (levensgevaarlijk)!

➜ Adapter en rijregelaar mogen onder geen beding met water in aanraking komen! De behuizing mag nooit worden geopend. Stroomkabels mogen niet worden ingekort of afgesneden!

➜ Let bij het in gebruik nemen op los liggende rijregelaars, adapters en aansluitdraden (struikel gevaar).

➜ Netstroom adapters zijn geen speelgoed en dienen uitsluitend voor de stroomtoevoer van uw modelspoorweg. Controleer deze apparaten a.u.b. regelmatig op mogelijke schade aan behuizing, stekkers of draden en koppel deze in geval van beschadiging onmiddellijk los. Laat dergelijk apparaten vakkundig repareren.

Ⓘ Avvertenze

➜ Il PROFI-BOSS non è adatto a bambini d'età inferiore a 3 anni.

➜ è consentito utilizzare Il PROFI-BOSS solo con l'alimentatore fornito in dotazione oppure con il trasformatore FLEISCHMANN-DIGITAL CONTROL 6811 (collegamento all'uscita SEC I, morsetti nero e giallo). Non collegate in alcun caso i binari direttamente alla rete elettrica a 220V (pericolo di morte)!

➜ L'alimentatore ed il regolatore di marcia non devono in nessun caso venire in contatto con l'acqua! Non è consentito aprire le scatole degli apparecchi! Non è consentito accorciare o tagliare i cavi di alimentazione!

➜ Durante l'uso fare attenzione a regolatore di marcia, alimentatore e cavi di collegamento (pericolo d'inciampare).

➜ Gli alimentatori non sono giocattoli e servono all'alimentazione elettrica del vostro impianto ferromodellistico. Per favore controllate regolarmente gli apparecchi per verificare eventuali danno alle scatole, ai connettori o ai cavi e, nel caso ci siano danni, rimuoveteli subito dall'uso e fateli riparare a norme.

Instruction advice

- ➜ We have designed this instruction manual so that any user who wants to get started straight away can be up and running within the first few steps. More extensive information about the PROFI-BOSS can be found in the following chapters.
- ➜ This high-value product is designed solely for use indoors.
- ➜ In order to ensure trouble-free operation, the trackwork and vehicles should be cleaned regularly.
- ➜ PROFI-BOSS is protected against short circuit.
- ➜ Using the plug-in mains transformer delivered with the Start Sets, you will be able to run 2 or 3 locos in digital DCC-format, whilst with the transformer 6811 (in conjunction with the connecting cable 386865) up to 4 locos can

Fig.1

be run simultaneously.

- ➜ If desired, the round connecting cable can be inserted into the central slot down the rear of the hand controller.

2. Getting Started

2.1 Equipment and Functions

In this chapter, you will discover how the PROFI-BOSS **(in short PB)** operates, and how much it will do.

PB (= PROFI-BOSS) is suitable for operation with any digital layout.

The **operational features** are (fig. 1):

Red control knob (=regulator): rotate to the right, rotate to the left, press to select from the menu

Keyboard with 16 keys. **First row:** Loco-key to select locos and home-key return from other menus to operational mode.

Triangular key ”Upwards” (=arrow upwards) to access the display menu

Triangular key ”Downwards” (=arrow downwards) to access the display menu

”Menu” key, to acess the display menu, usage as shown by display indicator

Numerical keys 0-9, to input numbers or letters, carry out commands

C-key, to cancel erroneous input commands

”alt” key, switching between menu levels of similar functions

(Display see page 8)

The **indicator elements** (Display) are:
Pictograms, text and numbers on the PB-display (fig. 2):

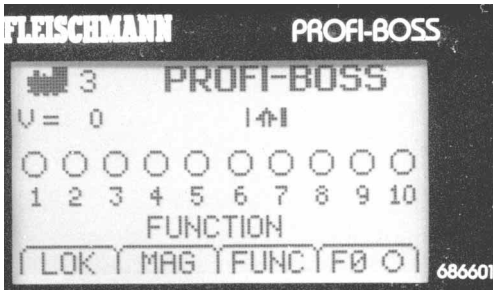


Fig.2 PROFI-BOSS Start display

As desired, you can alter the contrast, brightness and menu language (pre-set in German). See additional chapter for instructions ("Expert knowledge").

Menus available to select are shown on the lower border of the display (in Fig. 2: **LOK, MAG, FUNC** and **F0**). According to the various display menus, the functions of the 4 uppermost row of keys varies depending on the display.
By pressing the corresponding keys, the menu commands can be carried out. You can access the display by rotating the red control knob and/or the relevant key on the keyboard.
The PB is childishly simple to operate.

2.2 Connecting up and Off you Go
Now let's connect up the PROFI-BOSS!

For everyone who does not yet want to go deeper, but wants to get going straight away, the quick entry instructions are set out here (steps 1-6).

If you just want to use the PB to run the loco in your start set, for example, and want to start running it straight away, then proceed as follows:

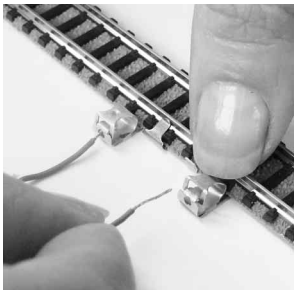
1. Connect up the PB using the **cable set** included. Simply insert the **rectangular** western plug into the central socket A of the PB.
2. Set up the track layout as described on the packaging, clipping the **track feed clips** onto the track (alternatively, you may have a feed track with two wires in the set). (see the instruction leaflet).
3. Connect the two "free" cables of the PB cable set **(violet/grey wires)** with the track feed clips (alternatively, the track feed wires).
4. Using the **plug-in transformer** provided, (or alternatively the suitable transformer 6811 and accompanying connecting cable 38 6865) insert the plug into the **round socket.**
5. The display of the **PB will now light up.** Place the loco on the track, and as soon as you **turn the red knob** the train will set off.
By turning the knob in the oposite direction, the loco will run the other way.
6. Emergency Stop: press the red knob.

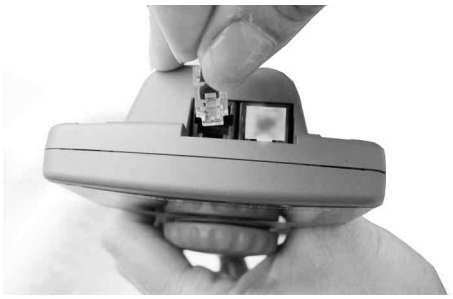
Off we go!

3. The Operations

3.1 Connection to the 6811

Using the cable set provided, the **PROFI-BOSS 686601 (PB)** is connected up to the (plug-in mains transformer 6710 in the start set). This transformer has a limited electrical power output. Using the cable connector **38 6865**, the PB can be connected to a transformer **6811** (16.5v connection) so that more power can be provided to the track. (This would be the standard connection method when using the PB as one individual controller). This will allow more available power to the track. The round plug is joined to the





transformer and the two separate wires (grey and violet) are joined to the track.
The rectangular western plug is then inserted into the central (smaller) socket on the rear of the PB (not into the side socket alongside which is closed with blocking piece).
If desired, the round connecting cable can be inserted into the central slot down the rear of the hand controller.

Alternative connection possibilities are shown in the additional chapter!

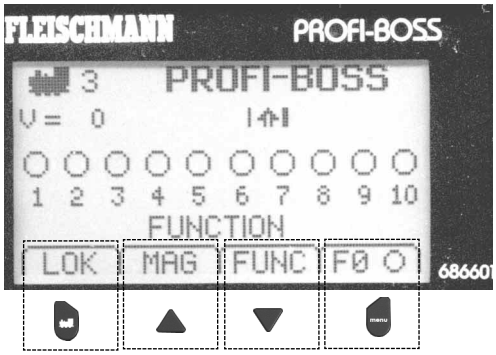
3.2 Once you're up and running

Once you have taken the PB out of the start set and, without first examining its full potential, wish to get going straight away, then you have already found out enough in the "Basic Knowledge" chapter.
However, we will now show you step by step, how to use all the other functions of the PB you are holding in your hand.

- you will learn how to switch points and other electrical accessories
- you will learn how alter the settings of your loco
- you will learn how to run several locos simultaneously
- you will get to know the data bank in the PROFI-BOSS
- you will learn about extending it, LocoNet and lots more operating options

Generally speaking, you will find that the functions of the PROFI-BOSS can be carried out **parallel to the running operations**, i.e. the loco will always be under control (”online“) whichever function you wish to operate. As necessary, by pressing the ”Lok“ key, the rotating control knob will always be the speed controller! It also will not be necessary to interupt the running operations or put the vehicle onto a special ”programming“ track. See *”expert knowledge“* later.

We will begin with the loco settings, starting with the loco settings, beginning with the **loco address 3** (= ”house number“, standard on DCC). The screen below is what will be shown in the display when switching your PB on:



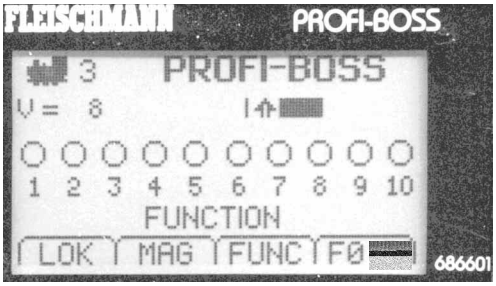
3.3 The Display

The indicated menu points shown on the lower edge of the display (here: LOK, **MAG, FUNC** and **F0**) are always accessed by using the keys in the top row of the keyboard.

First we will show you
how to switch the loco lights on and off, and alter the inertia settings for acceleration and braking, top speed, loco address, loco indication, etc.
The **light** on your loco can be turned on or off at any time by simply pressing one key:

➔ Press the key (= F0)

In the Display, the ”sun“ is shining in the area alongside FO and the loco light is on.
If you wish to turn the light off, then press the key F0 once again.



Now we will try and see if the loco will run.

➔ Turn the red knob in a clockwise direction

The display will indicate right (= forwards) with an ”arrow pointing upwards“ (= forwards) together with a black block section which will become wider indicating the speed as you turn the knob further. In addition, the speed will also be displayed **numerically:**
V = 8 corresponds to speed step 8, which when running at 28 speed steps setting is a medium speed.

The loco will continue to run at the speed selected until you increase the speed by turning the knob further round, or go slower if you turn the knob in the opposite direction. Once you have come to a halt, (v = 0) then there must be a pause of at least 0.5 of a second when you wish to change direction (the engine driver will need to turn his head around too).
If you turn the red knob now in the opposite direction, the loco will run backwards. In the display, the speed block will now be shown to the left of the arrow symbol, which will now itself be pointing downwards.
Information about the number of speed steps can be found in the chapter *"Expert Knowledge"*.

3.4 EMERGENCY STOP

You have now mastered the art of **running** the loco. If however, the situation occurs when you need to stop **immediately**, then you have two possibilities:

1st Possibility

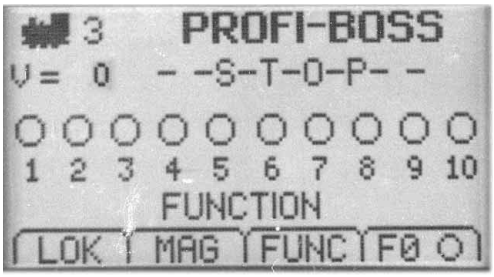
➔ **press the red knob once** **1 x**

The **loco with its address shown in the display** (3) will stop immediately (v=0). This is known as an *"individual loco emergency stop"*.
By **turning** the knob , the loco will start up again.
The whole layout and all other locos will retain power. Only the loco shown in the dispay will come to a halt.

2nd Possibility

➔ **press the red knob twice** **2 x**

The **power to the whole layout will now be**



cut off, the speed of the loco shown in the display will go to v=0.
In the display "**--S-T-O-P--**" will appear.
This is known as a *"complete emergency stop"*.
By **pressing** the red knob **twice**, 2 x , the power to the layout will be turned on again. Turn the knob and the loco last shown will start to run again.

How to run several locos at once can be found in the later chapter marked *"Expert Knowledge".*

After learning about the running, we will turn our attention to switching operations, in the menu marked **MAGNET**, (for electrically operated accessories). Now you will find out how to **change the points and signals.**

4. Switching electrically operated accessories

First, we should give you a little more relevant information:
The digital control commands sends several types of commands through the track at the same time, but directs them to the specific, individual address of the decoder of the article.

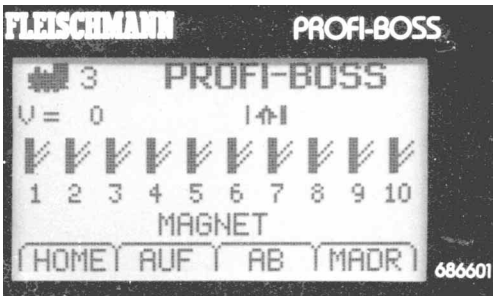
The points and uncouplers from the start set are delivered as manually operated.
These must be converted to **electrical operation** by clipping on the **electro-magnetic motor. Point motors and uncoupler motors** do not have their own decoder, and must be connected into an **electrical accessory receiver module, article no. 6852.**
(Alternative connection possibilites are shown in the later chapter marked *"Expert Knowledge"*).
Once these are installed on your layout, (conections for points, uncouplers to the receiver module are shown in the relevant, accompanying instruction leaflet) then they can be controlled using the PROFI-BOSS.

Please Note: The PROFI-BOSS allows functions to be operated **parallel to the running operations.** This means that the trains will not need to be stopped in order to change points or other electrical accessories, or loco functions, etc.
At any time, you can **return to the running operations** by using the as a home key, **i.e. to turn the lights on/off. The control knob is always available to alter the speed.**
Further information can be found in the later chapter marked *"Expert Knowledge".*

First of all we will find out how to **switch the points.**
We will use an example 2 points and 2 uncouplers (= contents of a start set).

We will use an electrical receiver module 6852 (=not contained in the start set) which has 4 output connection ready for use. Once we have connected them up according to their instruction leaflets, we are ready to opeate them using the PROFI-BOSS.

➔ **Press** the key in order to access the **MAG** menu.

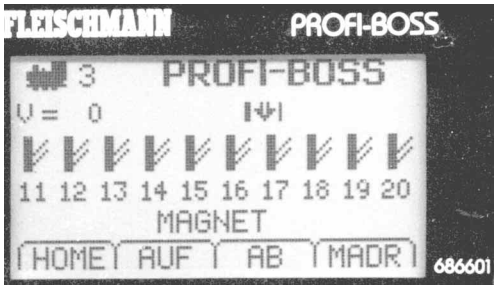


The display will show 10 symbolic points, numbered **1** to **10**, of which the solid, vertical track section shows the straight on setting.
In adition the display is showing **MAGNET**, to indicate magnetically operated accessories. Underneath, there are still **4 menus** for selection.

Using the key (=HOME) you can get back to operational mode.

Using the key (=upwards) you can select the next batch of ten points, numbered 11 -20.

If you press yet again, you will get the next batch of ten each time you press.



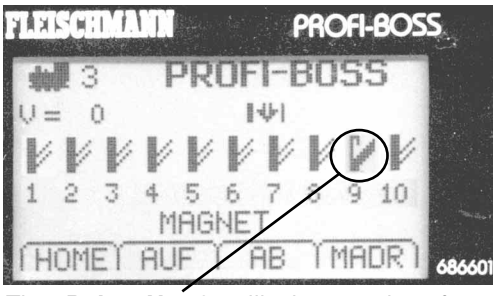
With the ▼ key (=downwards) you can go back down each batch of ten to the (previous) point batch, here numbers 1 - 10.

Using the (=MADR) you will access the "**mag**netically operated article **add**ress".

Info: The electrical accessory receiver module 6852 has the **address "3"** preset as the factory setting. At the same time, its 4 outputs recognise the magnetic article addresses internally as **9** to **12**. (How to alter the addresses of the receiver modules is shown in the later chapter marked *"Expert Knowledge"*).
As we have connected the points onto outputs 1 and 2, and the uncouplers onto 3 and 4, then the points will be shown in the display as **Nr. 9** and **Nr.10**.
Inputting one point number via the keyboard will show at a glance the actual positional setting of this point (straight or curved).

For point numbers *higher than 10*: Using the keyboard, just press the "single number", i.e. for 11, the "1", for 37 the "7" and so on.

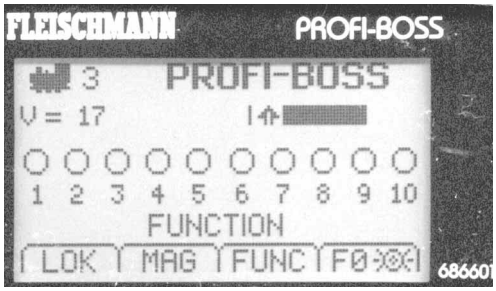
Press the key number **9**



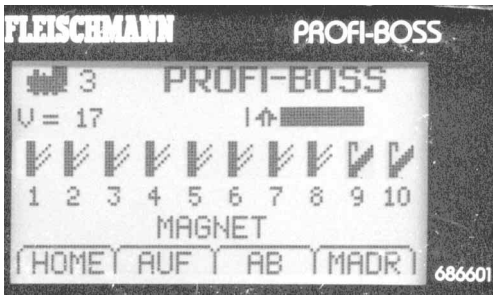
The **Point Nr. 9** will then spring from "straight" to "curved". Pressing the number 9 again will set the point back to "straight" again.
You can use the same procedure for all the other points. Simply put in the point number (1-0) in via the keyboard and the relevant point will be changed in the display.

Important: In order to *change* points with numbers other than 9 -12, the MA decoder 6852 must be reprogrammed. You can find out how this is done in the later chapter *"Expert Knowledge"*.

We will now show you just one example (without a real layout) as **a practice**.
On a large layout, let us assume that if a loco with address 3 (we will show you how to alter the address in *"Expert Knowledge"*) is running forwards at speed level 17, and the points 9, 10, 11 and 15 need to be set to "curved".

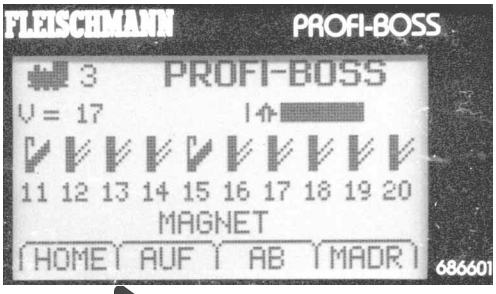


Using the ▲ key, to access the **MAG** menu, the first 10 points are displayed. Now press the keys **9** and **0** in order to set the points Nr. 9 and Nr. 10 to **"curved"**.

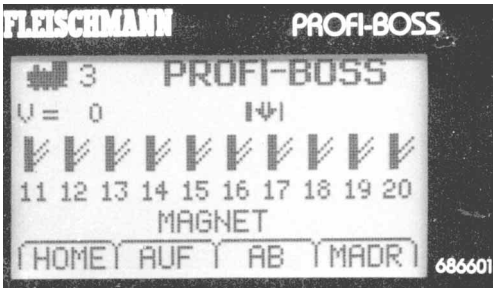


Press the ▲ upwards key again to show the points 11 to 20.
Now press **1** for point nr. 1**1** and **5** for point 1**5**.

This is how the display will look:



Press the ■ key HOME and we can return to operational mode.
The PROFI-BOSS is intelligent. It will remember the accessory menu last displayed. When calling up the MAGNET menu again, it will automatically display the points **11 to 20** and not the points 1 – 10!



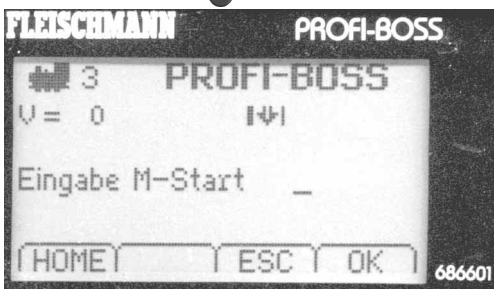
This makes it easy to change things back again very quickly, or to continue working for example on a function command. Up to **2000** electrical accessory modules can be connected into the system. (In the display though, only 5 points will be displayed for number greater than 101). Further information can be found under *"Expert Knowledge"*.

There is **another way to address the electrical accessory directly** by putting in its address. Call up the **MAGNET** menu once more.

➔ **Press** the key ▲ **MAG**

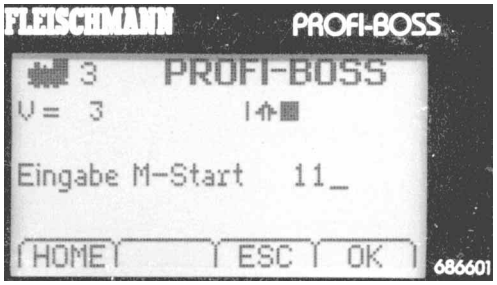
The display will show the relevant **MAGNET** menu.

➔ **Press** the key menu **MADR**



The display will now show a **new** menu, in which we have taken as our example the electrically operated accessory number "**11**". (This could be point 11, signal 11 or uncoupler 11). Behind the "**Input M-Start**", the display wil be waiting for you to put in a number.

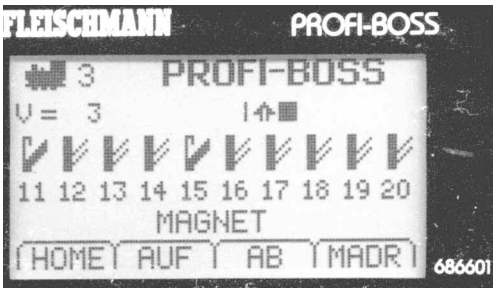
➔ **Press** the number **1** twice



➔ **Press** the key menu **OK**

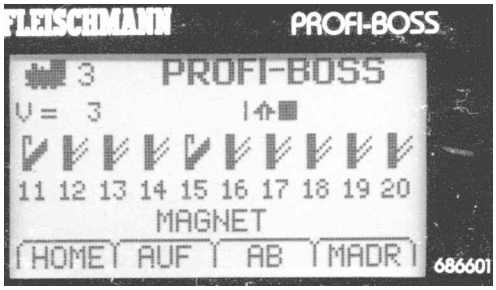
The display will **automatically indicate** the **accessory group** which contains the **article address "11".**

This is especially useful for relatively high numbers so that you do not have to keep on scrolling upwards with the key to get to the desired group.

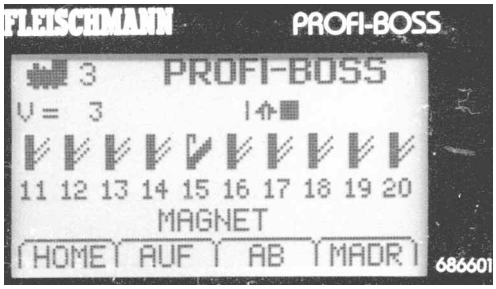


You will remember of course, that the point numbers 11 and 15 had been previously set to "curved". This will now appear again in the display. Suppose we now wish to set the point **11** to "straight".

➔ **Press** the key **1**



In the display, the point number **11** will switch from ”curved“ to ”straight“.



As previously mentioned, if you remain in the **MAGNET** menu, you can continue to control any of the electromagnetic articles like signals, uncouplers and similar items using your PROFI-BOSS.
So now you can see that nothing stands in your way to extend your layout.
(Tips on controlling larger layouts can be found under *”Expert Knowledge“* and *”Additional“*).

Naturally, you will still be curious to find out how to run several locos all at the same time. We have already built into the PROFI-BOSS several useful functions which we can now explain to you.

5. Selecting Locos from the List

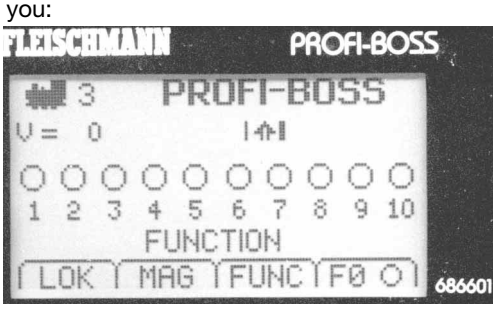
Inside the PROFI-BOSS we have already installed a *databank* with capabilities and functions of several locos from our range.

This will save you a lot of time (once you have altered the addresses) in extensive programming so that you can use the loco straight away.

If a loco has this address and a second loco already on the layout has this address as well (for example, the standard address 3), then both will run together! Which of course, we do not want. One of these locos must be given another address. This is described under *”Expert Knowledge“*.

Let us suppose, for example, that you wish to use your PROFI-BOSS to run a **steam engine of class 76 with sound**, selecting it as an example from your PROFI-BOSS.

The **start screen** will by now be familiar to you:



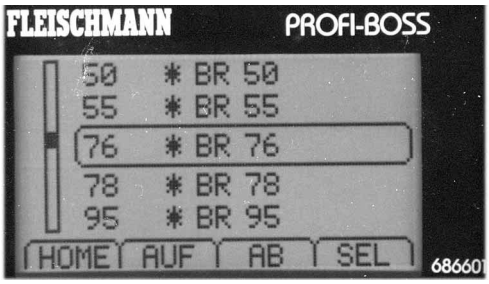
If you are in another menu, then you can always return to the operational mode by pressing the HOME key !

➜ **Press** the key **LOK for about 1 second**

The library of loco addresses (= databank) together with the class designation will appear. We are looking for the class - BR 76. We can scroll up or down through the library list by either using the **UP** ▲ or **DOWN** ▼ keys, or by simply rotating the control knob left or right.

➜ **Turn** the red control knob clockwise until the line **"76 * BR 76"**

** is the indication of the FLEISCHMANN databank*



is highlighted by the surrounding frame.

This example shows the called up FLEISCHMANN-databank as *pre-installed* in the PROFI-BOSS, with the small star between the address number and the class indicator.

You will find further information about the databank and loco list under *"Expert Knowledge"*.

But let's now return to our example:

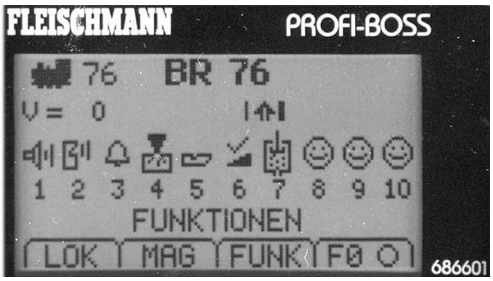
➜ **Confirm** your selection by pressing **SEL** key.

The **class 76 (Sound loco), along with all its pre-programmed capabilities** will appear in the operational menu.

Just as an example, we will **turn off** the factory setting for the **inertia F6** until we have gained a little more operational expertise.

In the display, you will find **F6** shown as a "ramp" with a "tick" = on, above the number "6".

➜ **Press** the key "**6**"



The tick over the pictogram symbol "ramp" will now change to a "cross" = off.
(pressing the key "6" again will switch the inertia back on again).

Press the function you desire on the keyboard (i. e. for F3 the key "3") and again it will be switched on- or off!

You can do this with any of the loco functions F1 – F20 because the display will inform you of the current setting of any of them.

If your loco has more than10 functions available, then by using the **”alt“** key, the extra functions F11 – F20 will be displayed.

Using the ”alt“ key again will return to the functions F1 – F10.

For functions greater than F20 (in preparation), however, you will have to access the functions via the **”FUNC“** key, input the **F**(unction) **number** and the **ON/OFF** keys. (You can of course, already do this with F1 – F20, but it is not so convenient).

In the following chapters, **EXPERT KNOWLEDGE**, we will delve deeper into the functions of the PROFI-BOSS.

You will learn lots more about *changing addresses,* individual *loco settings, favourite points, my databank*, in short, all the setting variations which the PROFI-BOSS offers.

You have already found out how to select the *menu points*, change between menu levels, in short, the operation and we shall be utilising this knowledge in the following sequences.

We have set out a table on the following pages which shows ALL of the possible settings of the PROFI-BOSS.

Changing between menu levels is **only possible** when the lower level menu is **also shown in the display.**

If you wish to select a loco that is not already stored in the FLEISCHMANN-databank, simply type in the address and confirm it with the **”SEL“** key. Now you’ve got this loco on the control knob (and in the display).

Expert Knowledge

6. Settings

You will find below the setting possibilities, which we will explain later.

1. Level	*2. Level*	*3. Level*	*1. alt-level*	*2. alt-level*	*3. alt-level*
Locomotive	Loco address	Value ”X“	Loco databank	Loco name/address	
	CV direct input	CV number			Loco name/address
	Speed steps	CV value			address name
	Acceleration inertia	”function“		loco selection	”loco lists“
	Breaking inertia	CV value „X“		function symbols	function symbol F1
	Minimum speed				<symbol>
	Medium speed			erase	erase
	Maximum speed				recalculate
	Trim forwards				
	Trim backwards				
Program On Main	Loco-nr. (current)	”Loco lists“			
	CV direct input	CV number ”X“			
	Acceleration inertia	CV value ”X“			
	Breaking inertia	”function“			
	Minimum speed	CV value ”X“			
	Medium speed				
	Maximum speed				
	Trim forwards				
	Trim backwards				
Magnet	Magnetic article		Favourits	Favourit 1 „X“	
	CV direct input	CV number ”X“		...	Favourit value
	Decoder address ”X“	CV value ”X“			
	Output 1 ”X“	Output number =		...	
	Output 2	Impulse/value		Favourit 10 „X“	
	Output 3				
	Output 4				

The section shaded in grey can be accessed via the ”alt“ key!

1. Level	*2. Level*	*3. Level*
PROFI-BOSS	**Version**	**-**
	Speed steps	**128**
		28
		14
	Start loco number	**loco selection**
	DataBase 123	**numerical**
		Alpha
	Contrast	**Contrast**
	Brightness	**Brightness**
	German	**French**
		Italian
		English
		German
		Dutch
		Swedish
	Master	**Master**
		Slave
	RESET works settings	

You can access the **”settings“** menu by pressing and holding the **”C“** key and then pressing the **”alt“** key.

Important:

In order to ensure that the PROFI-BOSS **stores your alterations,** you must confirm the input with **”OK“** or **”PROG“** (according to the menu display).

Beginning with the 1st (menu) level, together with the adjoining lower level, we will now describe all the settings which you can access from the PROFI-BOSS.

1. 1. Level/1. Main menu: locomotive

1. 1. lower menu: loco address

In the **Loco address** menu, you can change the loco address to one of your choice. Place the loco which you wish to change the address (i.e. the standard address 3) on the track. If several locos are already on the track, then take all the others which you do not wish to change off of the track.

If this is not possible, then simply select the menu **”program on main“** and follow the advice under this menu point.

Another alternative for changing the address is to place the loco on an isolated section, a so-called ”programming track“ and then change the address using the menu ”locomotive/loco address“.

The remainder of the layout where the other locos are, must be isolated from the PROFI-BOSS (i. e. with a switch).

Tip: If you wish to change a loco address, and don't already know its current address, then it is also possible to use the PROFI-BOSS to read the address first by putting it up in the display (not in program on main).

Purely as an example, we'll start off with a loco with the standard address 3, that you wish to change to "55", because it is a class 55.

➔ **Press** the **C** and **alt,** for menu **settings**

The menu "settings" will be displayed

➔ **Select locomotive**

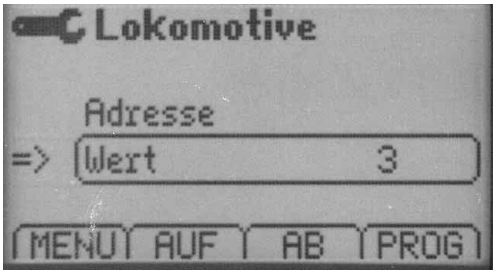
➔ **Press** to confirm

The **menu address** will be displayed

➔ **Press** to confirm

The PROFI-BOSS will now search through to read out the address of the decoder of your loco. This will be shown by the two question marks alongside the **"value"**.

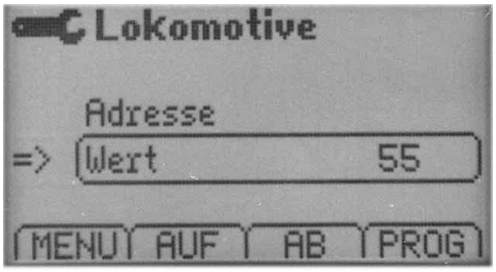
If the read out procedure (as with all FLEISCHMANN DCC-decoders) has been successful, then **the number** of the **current loco address** will be displayed instead of the question marks, here **"03"**.



Tip: If the search was not successful, then **"error"** will be displayed.

You can now put in the address 55 by

➔ typing in the number **55 behind the value.**



In order to ensure that this address has been transmitted to the loco, then you must confirm the **PROG** (=programming) command.

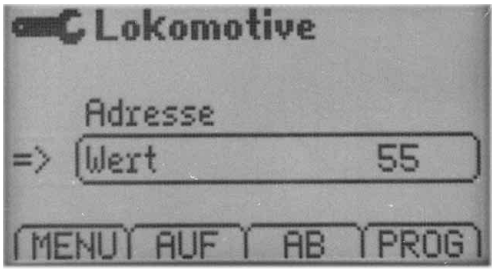
➔ Press the "**PROG**" key

After a short time, the loco will now have the address **55**.

Using this routine, you have now learned how to set values on the PROFI-BOSS.

At this point, we would like to advise you of several operational mechanisms which we do not need to explain more explicitly.

We will use this display screen as an example.



➔ Using **MENU,** you can usually return to the previous menu level.

➔ Using the **UP** and **DOWN** keys you can change the selection frame and thereby the object which you wish to change (here: select between **Address** and **Value**).

➔ With the **PROG** key the setting of the loco will be stored.

The PROFI-BOSS offer you the possibility to set up a databank which contains only your personal locos.

This databank is titled **"my databank"** and is empty when the PROFI-BOSS is delivered. Using the following example, you will see how it can be filled up.

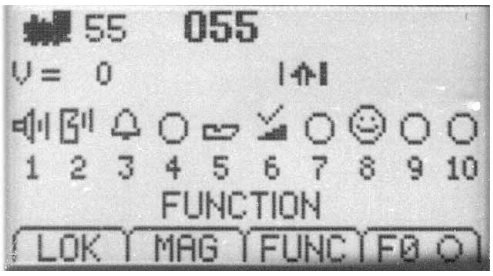
➔ Return to the **running menu**

➔ **Press "LOK**" for at least 1 second

You have now reached the **FLEISCHMANN loco databank** recogniseable by the small * in front of the loco description. (If you have a list without stars, then you have a "used" PROFI-BOSS in your hand. In which case, change to the FLEISCHMANN databank by pressing the "alt" key).

➔ **Select "55 * 055**" and press „**SEL**"

The display will now change to running operation where your loco **"55"** with all its characteristics and functions will now be displayed.



➔ Press the "**C +alt**".

Now you have reached the menu **"settings"**.

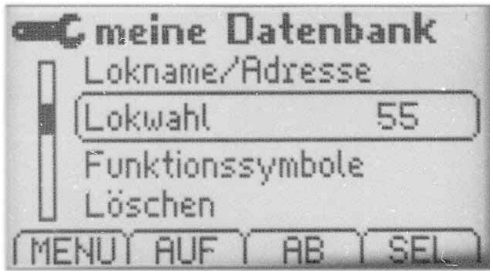
➔ **Select ”locomotive“**.

➔ **Press ”SEL“**.

You have now reached the lower menu ”address“.

➔ **Press** ”**alt**“.

Now you have opened the menu **”my databank“.**



Alongside **”loco choice“** the curent loco allocated to the control knob will be displayed, here **”55“**.

This will be the first entry into your (personal) **”my databank“.**

Come out of the the databank now by pressing **”menu“** to return to the running mode. If you have some more locos to change address or put into **”my databank“** then simply repeat this procedure again.

Advice: Now you have a second databank with the name **”my databank“** alongside the **FLEISCHMANN databank** (* databank). You can switch back and forth between these two dadatbanks using the **”alt“** key.

The FLEISCHMANN-databank cannot be altered. ”My databank“ can be extended by adding more locos or deleting others.

In the menu **”Loco name/address“** you can alter the **name** and the **address** of your loco. You can switch between **name** and **address** using the **”alt“** key. Just as you do when using your mobile phone, you can type in the names by pressing the keys marked with two strips. This location can be moved by ”<“ and ”>“.

We are now leaving the ”my databank“ section which can be filled up with **100 entries** if required.

Referring to the table on pages 30/31, we can now look at some additional menu points (❖).

In the 1. level/main menu **locomotive**, you will find additional sub-menus:

❖ Menu **CV-direct input**:
Here you can set the CV value (value area 0-255) for every CV number (area from 1-1024).
Input via the keyboard or the 
Switch between the **CV number** and **CV value** with ▼▲.
Confirm the input with **PROG.**

❖ Menu **acceleration inertia**:
Here you can set the value for the acceleration inertia of your loco (value area 0-255).
Input via the keyboard or the 

❖ Menu **braking inertia**:
Here you can set the value for the slow-down inertia of your loco (value area 0-255).
Input via the keyboard or the 

❖ Menu **minimum speed**:
Here you can set the value for the minimum speed of your loco (value area 0-255).
Input via the keyboard or the 

❖ Menu **medium speed**:
Here you can set the value for the medium speed of your loco (value area 0-255).
Input via the keyboard or the 

Expert Knowledge

❖ Menu **maximum speed**:
Here you can set the value for the maximum speed of your loco (value area 0-255).
Input via the keyboard or the 

❖ Menu **trim forwards**:
Here you can set the value for the trim forwards (=individual suitable speed) of your loco (value area 0-255).
Input via the keyboard or the 

❖ Menu **trim backwards**:
Here you can set the value for the trim backwards (=individual suitable speed) of your loco (value area 0-255).
Input via the keyboard or the 

❖ Menu **speed steps**:
Here you can select between 28/128 speed steps or 14 speed steps.
Selection via the 

Referring to the table on pages 30/31, we can now look at some additional menu points (❖).

1. Level / 2. Main menu: Program on main

In the 1st level you will find the main menu **Program on Main** (in short: **POM**)

Using the menu ”Program on Main“, the basic difference to the main menu ”locomotive“ is that you are now able to reprogram individual locos, of which you must know their individual address **during the running operations.**

However, a read-out of the decoder settings is not possible with this method!

Unlike in the main menu ”locomotive“, for **POM**, **the address of the loco to be programmed** will appear in the display in the 2nd display column. Otherwise the sub menus are very similar to that as described in the main menu ”locomotive“.
We will now show you the differences. The sub menus are:

❖ Menu **CV-direct input:**
Here you can set the CV value (value area 0-255) for every CV number (area from 1-1024).
Input via the keyboard or the 
Switch between **CV number** and **CV value** with ▼▲
Confirm the input with **PROG.**

❖ Menu **Loco Number**:
Unlike the main menu ”locomotive“, the **address of the loco which we wish to talk to will be shown.** In the sub menu you will find the **FLEISCHMANN loco databank**, later also your own personal

databank **”my databank“** (switchable with the ”**alt**“ key).
In these **lists (=loco databanks)** where the locos have been stored according to their addresses, you can select any one of them for reprogramming. With the **”SEL“** you will come back to the 2nd level and the new selected address will be displayed.

All other menus in Program on Main have the same setting possibilities as described under the main menu ”locomotive“.

Referring back to the table on pages 30/31, we can examine the additional menu points (❖)

1. Level/3. Main menu: Magnet
In the 1st level, you wil find the main menu **”Magnet“** for electro-magnetically operated accessories (in short: **MA**)

Here you can set the FLEISCHMANN accessory decoder 6852 in order to set the decoder outputs according to the points which are connected to them.

Unlike the main menu ”locomotive“, for **”Magnetic articles“** displayed in the 2nd column, the **decoder to be programmed will be displayed.**

The sub menus for **Magnetic articles** are:

❖ Menu **CV-direct input**:

Here you can set the CV value (value area 0-255) for every CV number (area from 1-1024).

Input via the keyboard or the

Switch between the **CV number** and **CV value** with ▼▲

Confirm the input with **PROG.**

❖ Menu **Decoder Address**:

The addresses of FLEISCHMANN MA accessory decoders cannot be read out!

Instead, the current address of the decoder will be displayed with **"----**". If you try to read it out, then you will only get the message "error" displayed.
Therefore, *put in* the decoder address via the keyboard or by using the

Confirm the input with **PROG.**

Now the MA decoder will have this address.

For example:
MA decoder address 6 will receive addresses **21 – 24** for the outputs 1 – 4.

❖ Menu **output 1** to **output 4**:

Here you can set the individual **duration of the impulse** (impulses are 1 = 0.05 seconds, up to 254 = 12.7 seconds).

Input the steps **1-254** via the keyboard or the

The choice between **impulse duration** and **output** output can be switched using the keys ▼▲

Confirm the selection of the impulse duration with **PROG.**
In this menu point, by pressing the **alt** key, it is also possible to choose for each output of the MA decoder, whether it should work as a continual operation (for colour light signals, for example, or as a blink operation, for level crossing lights, or simply as an impulse to switch point motors.

On each layout, it is often the case that certain points/ magnetic articles are used "more often" than others. Therefore, we have built into the PB a useful function which makes it possible for you to choose and store 10 of your most used MA, which we shall call **"favourites"** so that you can call them up easily.

Whilst in the menu **"magnet article"**, press the **alt** key and the menu "favourites" will appear.

Using the **SEL**, select the desired favourite entry which you wish to have.

By turning the  or by using the ▼▲ keys, or by simply inputing via the keyboard, enter the value = magnetic article output number from 1 -99.
MA from 100 to 2000 cannot be used as favourites.

For example: If the point number 17 on your layout is used a lot, so it ought to be saved as a favourite.

- ➔ Go to the menu **favourites**
- ➔ Go to the **favourites 1 1** in the menu
- ➔ Press **SEL**
- ➔ Input **17**
- ➔ Press **PROG**.

Point number 17 is now favourite number 1.

Back in running mode, you will only need to press the "alt" key to display your favourites. (you can already handle the accessing of various other menus).

This will give you a great advantage if you are dealing with higher point numbers so that you don't need to keep searching through menus to find the numbers.

Referring back to the table on pages 30/31, we can examine the additional menu points (v).

1. Level/4. Main menu: PROFI-BOSS
In the 1st level, find the main menu **PROFI-BOSS**.
Here you can adjust the **settings of the PROFI-BOSS controller**, read out the **software version** and several more items which we can now go into a little further.

- ❖ Menu **Database 123**
  Here you can decide whether to store your databank in the PROFI-BOSS either numerically or alphabetically.
  Simultaneously, the entry capacity of the databank will be given in percent.
  Alter with **SEL** and  or ▼▲
  Confirm the input with **PROG.**

- ❖ Menu **Version x.x.xx**
  Here you see the software version of your PB displayed (important to know in case of questions, updates, etc.).

- ❖ Menu **Speed Steps**
  Here you see the number of speed steps which has been set in the PB. Ex-works: 28. Possible speed steps are: 128, 28, 14.
  Alter with **SEL** and  or ▼▲
  Confirm the input with **PROG.**

- ❖ Menu **Start loco number**
  Here you set which loco (address) will be first shown in the running menu when starting off. Works setting is 3.

If you press **SEL**, the PB will display your loco databank. From this list you can select your start loco address = start loco number. The new start loco will immediately be displayed.

You can alter the display capabilities of your PROFI-BOSS to your own personal design if you want to, changing the contrast, brightness and menu language.

❖ Menu **Settings/Contrast/Language**.

By accessing the desired menus, you can alter the **contrast, brightness** or **language** by rotating and pressing the  or similarly using the ▼ ▲ keys. Confirming by pressing **PROG** will alter the previous setting.

Setting the contrast:

➔ **Turning** the control knob anticlockwise, the contrast will become stronger. Turning it in the opposite direction will make it weaker.

Setting the brightness:

➔ **Turning** the control knob anticlockwise will give more brighter display, the opposite direction will make it darker.

Setting the language (= Sprache):

➔ By rotating the control knob, you can select from the following languages: **German, English, Italian, French, Dutch, or Swedish.** Press the control knob once, if you have found the right one.

❖ Menu **MASTER**
If you intend to use the PROFI-BOSS in conjunction with other PBs, here you set which of them will be the master PB. (see **additional** for further information). If it is to be the master, then the other slaves connected to it using the LocoNet cable, will search for the master controller and use its databank.

❖ Menu **Reset**
ATTENTION !!! 

Using this menu, **you will erase all of your personal settings which you have carried out,** and return all the settings back to the factory settings.

Please consider very carefully whether this reset step is really necessary.
You can't go back once you've done it!

7. Additional

Here you will find all sorts of handy bits of information concerning your PROFI-BOSS.

ANOTHER IMPORTANT PIECE OF ADVICE ABOUT THE EMERGENCY STOP:

If you have activated the emergency stop by pressing the control knob twice, then the loco actually under control at that time will be stopped (V=0). On restarting the layout again, all of the other locos will start to run at their last speed setting and direction. If you don't want this to happen, then using the following trick, you can keep them all at a standstill

until you are ready for them to start again.
Press the Lok key for at least 1 second. The loco databank will appear (if it's not the right one, then switch by using the "alt" key).
Select the loco which you wish to keep stopped and returnto the running mode. This loco can be set to speed 0 as well! If necessary, repeat the procedure for the other locos on the layout.

RUNNING WITH SEVERAL LOCOS AT THE SAME TIME

Of course, you will want to run several locos with different addresses at the same time on your layout. Simply follow these instructions:

- ➔ Select the first loco and set its desired speed, lights on, etc. to get the loco running.
- ➔ Then select the next loco and set its speed, lights, etc.

Only the loco last selected will remain under direct control whilst all the others will continue to run around the layout at their ast given speed and direction until you "call them up again" on the PROFI-BOSS.

HOW CAN I ACCESS THE MA-ACCESSORY DECODER ADDRESSES 1 AND 2?

You must reprogram the addresses of the MA accessory decoder, because we have set the address of the MA accessory receiver 6852 to be the standard address 3.

- ➔ Go to Menu
  Settings/Magnet/Decoder Address
- ➔ Put in the desired address (1, 2, ...) and store in the MA module with **PROG**.

The PB will automatically generate the required MA output numbers.
(MA 1: 1 to 4, MA 2: 5 to 8, ...)

USING THE PROFI-BOSS WITH LOCONET CONNECTIONS

Running the PROFI-BOSS in conjunction with the **TWIN-CENTER**

If you are already the owner of a FLEISCHMANN TWIN CENTER controller, then the PROFI-BOSS can be connected into it to be used as a slave controller. The PB track connection will not be required and must be disconnected or switched off.

Using a LocoNet cable, plug in the PB into the TWIN CENTER. Insert the LocoNet cable into the rear, socket on the PB and the other end into the LocoNet T socket of the TWIN CENTER. (You might find that the PB socket has a cover plate over the socket which can be removed with the aid of tweezers).

The PB will automatically switch once the connection has been made, and you will discover that the small **loco symbol** in the display is **no longer black**, but is now **white**. The PB has recognised that it is now working as a slave controller to the TWIN CENTER and turned off its power to the track.

Just as you have already learnt you can still control and switch all locos and points as before.

As well as this, you can call up all of the point routes already stored in the TWIN CENTER from the PB. In the TWIN CENTER there are three groups, each with 16 routes, which are already stored in the PB as point addresses 2001 – 2016, 2017 – 2023 and 2033 – 2048. Call up these numbers as normal as point addresses. They will not be displayed as point symbols, but will appear as routes R1 to R48. Set the point routes as you have already learnt via the keyboard of the PB.

Running two or more PROFI-BOSSES

Naturally, you can link up (”daisy chain“) several PBs together using the LocoNet cable and run them all at once. It is important to note here though, that each PB must be provided with power from its own transformer, **BUT** there can be **only one active power connection to the track.** It is therefore important to take note of the following sequence instructions before switching on:

First connect the PB to one transformer, which will be the one to provide power to the track.

Join up this PB with the second PB using the LocoNet cable, which will be operating as a slave to the first PB. Unlike operating with the TWIN CENTER, this second PB will not automatically be switched on. This will only happen once the second PB has been connected to its own transformer. You will recognise this because the small loco symbol on the second PB will be shown in **white**.

This also indicates that the power output to the track is switched off from this second PB.

Now you can use both PBs to control your locos and points on your layout. Loco programming or databank settings will not be possible on the second PB.

A loco databank can be held in each PB. Thus, you could store all your shunting locos in one of them and all the main line locos in the other. In running mode, though the loco databank cannot be altered on the slave unit.

If however, you both wish to share the same loco databank, then this is also possible without needing to type all your loco data in all over again:

In the setting area of each PB, you will find the entry **”Master“**. This means that this PB has its own databank available. Change this entry to **”Slave“** on the second PB and then turn the euipment off and on again. On switching on, the second PB search via the LocoNet cable and copy the databank.

Please watch out, though, because any previously stored databank in the slave PB will be overwritten!

WHAT ARE CVS (CONFIGURATION VARIABLE)?

According to the NMRA regulations, all DCC-decoders contain information and settings which can be used to run model railways. This information is stored in so called **CVs** (CV = configuration variable) and can be altered according to the desired usage. There are CVs which contain only single pieces of information (so called ”Byte“) although there are others which contain 8 pieces of information (Bits). For FLEISCHMANN, the Bits are numbered from 0 to 7. You will need to know this information for programming.

EXTENDING THE CONNECTIONS

You can extend the track connecting wires of the PB, but please bear in mind that you may reduce the power output of the equipment.

CAPACITY OF THE PROFI-BOSS

A maximum of 16 locos on the layout can be controlled by commands. If a 17th loco is

placed on the layout, the PB itself will automatically decide which loco can no longer be commanded. This loco will only receive its commands when called up again.

SOUND FUNCTION SYMBOLS

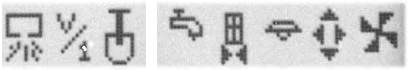
Here is a list of the available sound functions from the PB. You can allocate these symbols function numbers **F1 – F20** according to your choice (see instruction leaflet of the loco).

Using the **"my databank"** you will find the menu **"Function Symbols"** .

Please Note: First of all you must give the loco a new address. In the running menu, you will then see the loco with "neutral" function symbols. These must be filled in with the relevant sound symbols (see below).

Neutral Signal | Shrill whistle | Sound | Inertia | Announcement | Bell | Air-pump | Water-pump | Injector

Compressor | Sand | Pantograph up | Pantograph down | Valve | Brakes off | Coupling | Steam generator | Heating | Doors open



Cylinder blast | Shunting gear | Coal shoveling | Water filling | Doors close | Lighting | Air pressure | Fan

Attention!
Make sure your loco has 28 speed steps adjusted. Otherwise there will be problems with the illumination.

Technical data

Address area **Number of loco functions** **of which direct**	1-9999 32768 F0-F10, F11-F20
Max. Power output	1,8 A (according to transformer, i.e. with 6811)
Programming and read out	parts in clear text, vehicles and magnetic articles
PC connection	via Interface from Uhlenbrock
Connection of Booster 6807	using Booster cable 38686601
Connection to TWIN-CENTER	via Loconet Master/Slave
Display	white rear illuminated, full graphic TFT display
Data Format	DCC
Favourite Points	number: 10, with alt key accessible in point menu
Setting modes	using C+alt, 4 main menus
Direct CV programming	possible, writing and reading, up to CV 1024
Program on Main	possible
Loco Databank	2 databanks, each with capacity for 100 locos
LocoNet connection	already available, with cover plate
Reset to factory settings	available
Points	up to 2,000 can be switched
Point routes	available from the TWIN-CENTER
Menu Controls	via 4 intelligent menu function keys

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