

Profi-Control

Locomotive Driver Desk

Manual



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1. General Description

1.1 Operation Overview

With the Profi-Control the model railway enthusiast can steer his train true to prototype. The Profi-Control offers you a number of levers and hand wheels that are also found on the driver desk of diesel and electric locos from Era III. Now you can control your model locomotive of any gauge with the master switch, speed step switch and brake lever, just like the driver of a real train. At all times, the three controls on the Profi-Control give you information on the train speed, the current motor speed step and the pressure in the main air line of the train. When accelerating or braking the Profi-Control simulates the inertial mass of the train and accelerates or brakes gently according to the selected operating mode.

So that driving with the Profi-Control is even more fun it is equipped with a Driver's Safety Device (DSD or dead man's switch). This monitoring device which is also found in the prototype, consists of a push button which the Profi-loco driver must activate at least once every 30s. If this does not happen the driver is firstly warned by a flashing light and later reminded by the horn. If the driver still fails to activate the device it brings the train to a stop by activating the emergency brake.

In addition to the control elements, which are also found in the prototypes, there are over 9 toggle switches operating the digital special functions, light and F1 to F8. The built in emergency stop switch provides a locomotive specific emergency stop via the control centre.

1.2 Operating Modes

The Profi-Control can operate in different modes. The dispatch mode can be used with any digital controller that is fitted with a LocoNet interface. The control panel can take over a control centre readied address by the simple press of a button. It can the control a locomotive and its special functions.

The extended mode can only be used in conjunction with an Intellibox from Uhlenbrock or TwinCenter from Fleischmann. Then each Profi-Control can control up to eight different locomotives. All special functions of the individual decoders can be activated. The addresses can be easily transferred to the control panel from the control centre. The individual locomotives are selected with the function keys F1 to F8.

The Profi-Control can be used on DC layouts in combination with one or more Power 2 boosters and will control up to eight analog track sections each with one analog locomotive. The track section is selected with function keys F1 to F8.

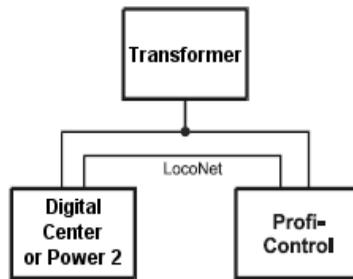
1.3 Memory Function

The Profi-Control stores all locomotive addresses that it is currently controlling. If it is switched off or disconnected from the LocoNet, all locomotives can be controlled again when it is reconnected and turned back on.

1.4 Connection

The Profi-Control is connected to the central controller via its built-in LocoNet interface connector and can control digitized locomotives of all gauges. It can be with an Intellibox (65000), DAISY system (64000), TwinCenter from Fleischmann or Chief from Digitrax.

In analog operations the Profi-Control is connected via one or more



Power 2 (63200) units and controls one analog locomotive per track section. A maximum of 8 tracks sections can be controlled per device, which in turn is connected by its own Power 2. The various track sections are selected using F1 to F8.

The Profi-Control has two identical LocoNet sockets on the back. The device is connected to the digital centre using these or in analog system to a Power 2.

The LocoNet connectors are keyed and can therefore not be plugged into the socket incorrectly.

Device	Connect Profi-Control to
Intellibox/TwinCenter	LocoNet T socket
DAISY system	LocoNet socket
Digitrax	LocoNet socket
Power 2	LocoNet socket

The 14-16V AC transformer is connected to the Profi-Control using the 3-way connector pin 1 and 3. The power load is approx. 150mA.

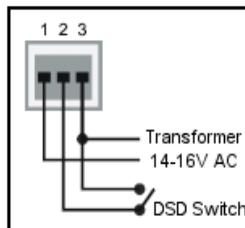


Figure 1.41
Pin out of 3-way connector

The connector's pins 2 and 3 can be connected to an external key switch, e.g. a foot switch to operate the DSD.

1.5 Control Surface

The control elements for controlling the locomotive in the Profi-Control correspond to those of a diesel or electric locomotive.

Description of the elements



Figure 1.51
The control elements
of the Profi-Control

- ① Master switch
- ② Speed step switch with hand wheel
- ③ Brake Lever
- ④ Tachometer
- ⑤ Speed step indicator
- ⑥ Pressure indicator for main air hose
- ⑦ DSD Switch with DSD control lamp
- ⑧ Toggle switches for special functions
- ⑨ Emergency stop switch

1. Master switch

If the lever is placed to the top position “V”, the control panel is switched on and the locomotive drives forwards.

If the lever is placed to the bottom position “R”, the control panel is switched on and the locomotive drives in reverse.

If the lever is placed to the middle position “0”, the locomotive is turned off and all indicators and operation functions on the control panel are turned off.

2. Speed Step switch with Hand Wheel

The motor's speed step (the motor voltage) can be selected with this hand wheel as.

3. Brake lever

This lever represents main brake valve for braking the locomotive. The lever can be set to 6 different positions.

In the top position the brake is completely off. The brake pressure in the main air hose is about 5 bar. If the lever moves down the brake engages more and more. With each step the pressure reduces more. If the lever is in the bottom position the brake is fully engaged and the brake pressure falls to zero. This setting corresponds to an emergency brake.

4. Tachometer

Indicates the locomotives speed in km/h.

5. Speed Step Indicator

This indicator shows position of the speed step switch (2).

6. Air Pressure Indicator

This instrument shows the air pressure of the main air line in bar.

7. DSD

The Driver's Safety Device, "DSD", serves to monitor the train driver and prevent accidents from runaway locomotives.

8. Function Switches

When the master switch (1) is in the "V" or "R" position, the digital locomotive's special functions light and F1 to F8 can be activated.

Figure 1.52
Toggle switch
position



9. Emergency Switch

The currently controlled locomotive can be stopped at anytime without start/brake inertia using the emergency stop switch. The digital power to the layout is therefore not switched off.

1.6 Technical Data

As many Profi-Controls as desired can be connected in dispatch mode to all DCC centers that have a LocoNet interface.

In expanded mode a maximum of 8 Profi-Controls can be connected to an Intellibox or a TwinCenter. Additionally, as many Profi-Controls as desired can be connected in dispatch mode.

A Profi-Control presents a load of 150mA to the transformer.

Basic Setting

The ex-factory settings of a Profi-Control are dispatch mode and locomotive address 1, so when the driving desk is installed on any LocoNet centre it will control the locomotive with address 1.

On an analog layout the control panel together with a Power 2 will control track section 1.

Additional settings are:

DSD active

DSD horn switched on

Brake inertia: large

Accelerations inertia: large

LocoNet ID = 0054

NOTE Because the control elements of the Profi-Control are finished in tool steel as in the prototype, it is possible that humidity may tarnish the levers and hand wheel. The discoloration can be removed with a light application of a polishing cloth.

2. Operation

In the factory setting, the Profi-Control controls the digital locomotive address in dispatch mode. That functions with every digital centre with a LocoNet interface. In analog mode, when connected with a Power 2 the Profi-Control controls track section 1.

The acceleration/brake inertia of the Profi-Control controlled digital locomotive should be set to maximum value, using the acceleration and brake commands from the Profi-Control. For the same reason, in analog operation, the acceleration/brake inertia of the Power 2 should be set to minimum with the F4-key,

2.1 Starting a Locomotive from a Stand-still

- *Move the master switch (1) to the desired travel direction: To the top for forwards, to the bottom for reverse.*
- *Release the brake by moving the brake lever (3) to the top position*
- *With the hand wheel (2) set the desired motor speed step. On the Profi-Control, the selected speed step is the locomotive speed after the acceleration phase.*

The locomotive now accelerates to set speed set.

2.2 Bringing a Locomotive to a Stand-still

- *Set the speed step control (2) to "0"*
- *The locomotive continues gradually reducing its speed using the friction of the train.*
- *Slowly engage the brake by moving the brake lever (3) down step-by-step. By controlling the strength of the brake, by tightening or releasing it, the exact stopping position can be controlled.*

When the locomotive has stopped, the master switch (1) can be set back to the centre position and the panel is switched off.

2.3 Taking control of a running locomotive

This situation does not occur in real life but for model railways it must be anticipated. If a locomotive is selected that happens to be running the Profi-Control will assume control of that locomotive.

How it's done:

- *Set the speed step control (2) to "zero"*
- *Set the brake lever (3) right to the top, brake off*
- *Set the master switch (1) to the direction corresponding to that of the locomotive.*

Now the locomotive's speed can be increased or decreased as described above.

ATTENTION If the master switch is placed into the wrong position a warning signal will sound and the locomotive cannot be controlled. The switch position must be corrected.

If a locomotive is running and the master switch is set to “0” the selected locomotive can no longer be controlled by the Profi-Controller. The train inertia simulated by the Profi-Control is switched off. The locomotive will however retain its present speed.

2.4 Driver's Safety Device

As in the prototype, the Profi-Control has a Driver's Safety device, DSD. On the Profi-Control the DSD is made up of a key switch, a blue warning lamp and a horn.

The DSD activates an emergency brake after a preset time if it is not regularly operated, in order to prevent accidents by runaway locomotives.

The DSD switch must be pressed by the locomotive driver at least every 30s. If this does not happen the blue warning lamp will light-up after 30s. If the visual warning is ignored after a further 15s an audible warning horn will sound. Both warnings can be cancelled by pressing the DSD switch. If this does not happen within 10s the emergency brake is applied.

After the emergency brake has been activated, driving can only be resumed if the master switch has been set to “0” first and then to the desired direction.

A foot control can be connected to the Profi-Control as the DSD switch. This external switch must be a ‘close when pressed’ type. It is connected to pins 2 and 3 on the 3-way connector (see Figure 1.41)

The device can be programmed so the horn is replaced by a blinking warning lamp or the DSD function can be turned off completely.

2.5 Function Keys

If the control panel is on, i.e. the master switch (1) is in either the “V” or “R” position, the function keys (8) for the special functions of the controlled locomotive can be switched.

In analog operation, the function key can switch the special functions of the Power 2, e.g. Start/Stop inertia, a shunting gear or a higher operating frequency for Faulhaber motors. (Description is in the Power 2 Manual)

2.6 Emergency stop switch

The currently controlled locomotive can always be instantly stopped with the emergency stop switch, i.e. without inertia control and without switching off the digital power to the layout.

After the emergency brake has been activated driving can only be resumed if the master switch has been set to “0” first and then to the desired direction.

2.7 Locomotive selection in dispatch mode

In dispatch mode the Profi-Control can be used with any LocoNet equipped control centre. A free address from a LocoNet controller can be taken by the Profi-Control by pressing the light-key. From then on no other locomotive can be controlled simultaneously.

In the factory setting the Profi-Control is in dispatch mode and after connecting it to the digital controller it controls locomotive address 1.

2.7.1 Preparation of the locomotive address on the controller

To control a locomotive with the driving desk it must first be prepared by the control centre.

With Intellibox and TwinCenter:

- Press the [lok#]-key for the selected locomotive
- Clear the address with the [C]-key
- For a consist address enter the desired digit and clear it with the [C]-key
- Press the [lok#]-key again

With Digitrax DT10

- For the selected address press the [sel/set]-key
- Then press the [mode/disp]-key

The manual for the corresponding other controller describes how to store the locomotive address in the dispatch memory.

2.7.2 Accepting the address at the Profi-Control

After the locomotive address is readied by the control center, the Profi-Control can take over.

How it's done:

- Set the master switch to "0" position.
- Press the emergency stop button. The DSD lamp blinks.
- Turn on the light and special functions F1-F8 off.
- Confirm the selected address with the emergency switch.

Now the locomotive is prepared by the control center and can be controlled.

NOTE If no address can be transferred because the control center's dispatch memory is empty you will hear the warning tone. Subsequently the DSD lamp indicates that no address has been obtained (long-on and short-off time).

The selection mode can be left without selecting a locomotive by simply pressing the DSD key.

The Profi-Control stores all addresses it is currently controlling. If it is turned off or disconnected from the LocoNet all respective locomotives will be available when it is reconnected.

2.8 Locomotive selection when connecting to Intellibox

The Profi-Control can control up to 8 different locomotives that have been made available by the Intellibox. Before a locomotive can be selected with the Profi-Control's F1-F8 keys the address must be made available by the Intellibox.

2.8.1 How does the Intellibox recognize the Profi-Control?

When the Profi-Control is connected to the Intellibox LocoNet for the first time, then the centre assigns two hand control numbers to the internal hexadecimal identification number of the Profi-Control. The control centre can transfer locomotive addresses to the Profi-Control under these numbers.

The first Profi-Control that is connected to the Intellibox is automatically assigned the numbers 1 and 2. Subsequent Profi-Controls are assigned the next two numbers up to 16. The lower hand control number is used to assign locomotive addresses to function keys F1 to F4 and the higher number to assign locomotive addresses function keys F5 to F8.

If no FRED hand controllers are used on the Intellibox it recognizes the Profi-Control as two FRED's with numbers 1 and 2. This results in the following combinations:

*Table 2.8.11
Assignment of Intellibox
FRED numbers to
Function keys of
the Profi-Control*

Hand control number in the Intellibox	FRED1 f1	FRED1 f2	FRED1 f3	FRED1 f4	FRED2 f1	FRED2 f2	FRED2 f3	FRED2 f4
Memory address for Profi-Control function key	F1	F2	F3	F4	F5	F6	F7	F8

If there happens to be FRED controllers connected to the Intellibox, the Profi-Control be assigned the next highest hand control number. If for example, the Intellibox FRED hand control numbers 1 and 2 are in use the Profi-Control will be assigned numbers 3 and 4. Correspondingly FRED numbers 1 and 3 in Table 2.8.11 must be replaced with 3 and 4.

If a number of Profi-Controls are used on the Intellibox, they must all have different LocoNet identification numbers (LNID's), so that the Intellibox can identify the individual Profi-Controls. (See the next chapter)

NOTE The hand control number is assigned by the Intellibox. On another Intellibox depending on circumstances the same Profi-Control will have a different number as it most likely will not have been entered into the buffer memory in the same order.

Displaying and deleting of LNID's in the Intellibox

The hand control numbers are permanently stored in the Intellibox. They cannot be overwritten. In order to remove a number from the Intellibox memory it must be explicitly deleted. (See below)

Displaying the assignment table

In the Intellibox Basic Settings/Hand contr. menu the table of entered hand controls can be viewed but not altered.

Procedure:

- Press the [menu]-key
- Press the [mode]-key
- Scroll down to "Hand contr." with the [↓]-key
- Then with the [→]-key

FRED	f	LADR	LNID
.1	2	75	0054

The lower row displays one after the other the hand control number, the internal ID of the connected hand control or Profi-Control, the state of the function key and the locomotive address which was assigned to this key.

- The cursor can be moved left and right with the [←] and [→] keys respectively. The entries under "FRED" and "f" can be deleted with the [C]-key and overwritten with the numeric keys. The corresponding locomotive address will then be shown under "LAdr".
- The [menu]-key will take you back to normal running mode.

Deleting the Hand control number

If a Profi-Control is not to be used any longer the entry can be removed from the table in the "Basic Settings/Hand contr." menu.

Procedure:

- Press the [menu]-key
- Press the [mode]-key
- Scroll down to "Hand contr." with the [↓]-key
- Then with the [→]-key

FRED	f	LADR	LNID
.1	2	75	-

- Delete the entry under "FRED" using the [C]-key
- Enter the desired hand control number
- Move the cursor to the "LNID" column with the [→]-key
- Using the [C]-key delete the item from the Intellibox memory
- Delete 2 hand control numbers in the same manner
- The [menu]-key will take you back to normal running mode.

When the entry is deleted and the selected FRED is no longer assigned, it can only be reassigned by connecting a new FRED or Profi-Control to the Intellibox LocoNet. The Intellibox always assigns the lowest available FRED number. If, for example, FRED numbers 1 and 3 are assigned because number 2 was deleted, the next Profi-Control to be plugged in will be assigned the numbers 2 and 4.

TIP If a number of controls are used it is advisable to place a small sticker with the operating number on each device.

Changing the Hand control number

If the installed hand controllers or Profi-Controls are to be assigned new numbers all entries in the FRED table must be erased first. After that all the hand controls can be inserted in the desired order.

Because the Intellibox assigns the numbers automatically they can only be numbered in sequence.

2.8.2 Assigning the Locomotive address with the Intellibox

In extended mode, the locomotive addresses for the Profi-Control's individual loco selection keys are assigned from the Intellibox, using the following procedure:

- Press the [lok#]-key
- Press the [mode]-key

The middle part of the display will show the following entry:

```
m 12|FRED|m 36
  0 ↑|15f1| 0 ↑
```

The top of the centre display indicates that the Intellibox is in FRED input mode. Just below that is the number of the FRED (two digits) and the designated function key (f1 to f4). See also Table 2.8.11.

The cursor is under the right hand digit.

All entries can be erased with the [C]-key and re-assigned with the numeric keys.

Using the numeric keys enter the FRED number (1-16 at digits 1 and 2) and function key (1-4 at digit 4) for which a locomotive address is to be assigned, as in Table 2.8.11.

- Press the [←]-key to confirm the entry
- If the selected function key already has a locomotive address assigned to it this will be shown on the lower line:

```
m 12|Ladr|m 36
  0 ↑|.45| 0 ↑
```

This address can be changed with the numeric keys or completely erased with [C]-key.

- The [menu]-key will take you back to normal running mode.

2.8.3 Locomotive selection on the Profi-Control

If one or more function keys F1 to F8 on the Intellibox are assigned a locomotive address then one of the prepared locomotives can be selected on the Profi-Control.

Procedure:

- Set the master switch to the "0" position.
- Press the emergency stop key. The DSD lamp will blink.

- *Turn the Lights off and select the desired locomotive, by activating one of the special functions F1 to F8.*
- *Select the locomotive address by pressing the emergency brake. The DSD lamp turns off.*

ATTENTION If a number of special functions are switched on during the locomotive selection the DSD will continue to blink. No locomotive will be assigned. Please turn on only one switch F1 to F8 and press the emergency brake again.

Now the locomotive which was previously prepared by the Intellibox can be controlled.

If no locomotive address can be accepted because the selection function key (F1 to F8) did not have an associated locomotive address a warning tone will sound and the DSD lamp will change blinking pattern (long on and short off) to indicate that the Profi-Control has no selected address.

You can exit the selection mode without selecting a locomotive by pressing the DSD key.

The Profi-Control stores all locomotive addresses that it is currently controlling. If it is switched off or disconnected from the LocoNet, all locomotives can be controlled again when it is reconnected and turned back on.

2.9 Locomotive selection when connected to a DAISY-System

Together with the DAISY-System the Profi-Control can control up to 4 different locomotives that have been prepared by the DAISY-System. Before the Profi-Control can select a locomotive a function key F1 to F4 the DAISY-System's locomotive memories 1-4 must have locomotive addresses assigned to them. The locomotive memories 1 to 4 on the DAISY-System are indicated by one, two, three or four decimal points in the display. Only the locomotive addresses entered here can be controlled by the Profi-Control. If function keys F5 to F8 are selected on the Profi-Control then they will also control addresses that are in locomotive memories 1 to 4 in the DAISY-System.

2.9.1 Preparing loco addresses on the DAISY hand controller

The assignment of a locomotive address on the DAISY hand control of a DAISY-System is done as follows:

- *Press the [lok#]-key. The display indicates the locomotive memories that contain locomotive addresses.*
- *Select a locomotive memory 1 to 4 by turning the control knob. The locomotive memory is indicated by the lit decimal point. The other decimal points do not light up.*
- *Press the [lok#]-key for 2 seconds until the indicator blinks.*
- *By turning the control knob select the desired address.*

If the desired address does not appear in the list:

- Press the [lok#]-key for 2 seconds until the display changes from speed step indication to displaying locomotive addresses in all locomotive memories.
- By turning the control knob select one of the locomotive memories 1 to 4. The locomotive memory is indicated by the lit decimal point. The other decimal points do not light up.
- Press the [lok#]-key for 2 seconds until the indicator blinks.
- By turning the control knob select the desired address.

2.9.2 Locomotive selection on the Profi-Control

If one or more function keys F1 to F4 on the DAISY-System are assigned a locomotive address then one of the prepared locomotives can be selected on the Profi-Control.

Procedure:

- Set the master switch to the "0" position.
- Press the emergency stop key. The DSD lamp will blink.
- Turn the Lights off and select the desired locomotive, by activating one of the special functions F1 to F4.
- Select the locomotive address by pressing the emergency brake. The DSD lamp turns off.

ATTENTION

If any special functions are switched on during the locomotive selection the DSD lamp will continue to blink. No locomotive will be assigned. Please turn on only one switch F1 to F4 and press the emergency break again.

Now the locomotive which was previously prepared by the Intellibox can be controlled.

If no locomotive address can be accepted because the selection function key (F1 to F4) did not have an associated locomotive address a warning tone will sound and the DSD lamp will change its blinking pattern (long on and short off) to indicate that the Profi-Control has no selected address.

You can exit the selection mode without selecting a locomotive by pressing the DSD key.

The Profi-Control stores all locomotive addresses that it is currently controlling. If it is switched off or disconnected from the LocoNet, all locomotives can be controlled again when it is reconnected and turned back on.

2.10 Locomotive selection when connected to a Twin-Center

The Profi-Control can control up to 8 different locomotives that have been made available by the Twin-Center. Before a locomotive can be selected with the Profi-Control's F1-F8 keys the address must be made available by the Twin-Center.

2.10.1 How does the Twin-Center recognize the Profi-Control?

In order to use the extended selection mode on a Twin-Center it must first be prepared for this.

The Twin-Center recognizes the Profi-Control as 2 Twin-Boxes. By default the Twin-Boxes are assigned as numbers 1 and 2. These identification numbers can be changed via the LocoNet ID of the Profi-Control (See the chapter “Selection of LocoNet ID”).

A maximum of two Profi-Controls can be connected to a Twin-Center. These must have different ID’s.

The Function keys F1 to F8 of Profi-Control 1 and 2 are identified by the Twin-Center as follows:

*Table 2.10.11
Mapping of
Twin-Centers Hand
control numbers to the
Twin-Box numbers
i.e. Function keys of
the Profi-Control*

Function keys 1. Profi-Control	F1	F2	F3	F4	F5	F6	F7	F8
Hand control number	1	2	3	4	5	6	7	8
Twin-Box number of Twin-Centers	TB1 Port A	TB1 Port B	TB1 Port C	TB1 Port D	TB2 Port A	TB2 Port B	TB2 Port C	TB2 Port D

Function keys 2. Profi-Control	F1	F2	F3	F4	F5	F6	F7	F8
Hand control number	9	10	11	12	13	14	15	16
Twin-Box number of Twin-Centers	TB3 Port A	TB3 Port B	TB3 Port C	TB3 Port D	TB4 Port A	TB4 Port B	TB4 Port C	TB4 Port D

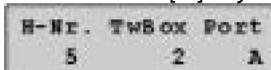
Unique hand control numbers must now be assigned in the Twin-Center’s Basic Settings menu. Later these numbers will be used to assist in assigning locomotive addresses to the Profi-Control’s function keys. Valid hand control numbers are 1-16.

2.10.2 Assigning hand control numbers

The assignment of hand control number and Twin-box numbers as described in Chapter 2.10.1 is done in the Basic Settings menu under Hand control.

If for instance hand control 5 is to be assigned to the F5-key of the first Profi-Control the Twin-Center must be setup as follows:

- Press the [menu]-key
- Press the [mode]-key
- Scroll down to “Hand contr.” with the [↓]-key
- Then with the [→]-key
- Scroll down to “Hand contr.No.” with the [↓]-key
- Then with the [→]-key



- In the “H-No” column enter the desired hand control number (here 5)
- In the “TwBox” column enter the value from Table 2.10.11 (here 2)

- In the "Port" column as in Table 2.10.11 enter the Port number that is to be used for switching (here the letter A for F5-key)
- Press the [←]-key to confirm the entry

2.10.3 Assigning the loco address in the Twin-Center

A function key on the Profi-Control is assigned with a locomotive address from the Twin-Center by assigning a locomotive address to a key that corresponds to the hand control in Table 2.10.11.

Procedure:

- Press the [menu]-key
- Press the [mode]-key

In the middle part of the display it will show the following:

The screenshot shows a two-line display. The top line contains 'f 12|H-Nr|f 36' and the bottom line contains '0 ↑|...5| 0 ↑'. The cursor is positioned at the end of the bottom line.

The middle top of the display shows that the centre is in hand controller input mode. On the lower line is the hand control number. The cursor is located on the bottom line right most digit. The [C]-key can be used to erase the entry subsequently overwritten with the new value,

- Press the [←]-key to confirm the entry.
- If the selected function key has a locomotive address assigned the display will appear as follows:

The screenshot shows a two-line display. The top line contains 'f 12|Laddr|f 36' and the bottom line contains '0 ↑|...45| 0 ↑'. The cursor is positioned at the end of the bottom line.

The [C]-key can be used to erase the entry subsequently replaced overwritten with the new value,

- Press the [←]-key to confirm the entry.

2.10.4 Locomotive selection on the Profi-Control

If one or more function keys F1 to F8 on the Twin-Center are assigned a locomotive address then one of the prepared locomotives can be selected on the Profi-Control.

Procedure:

- Set the master switch to the "0" position.
- Press the emergency stop key. The DSD lamp will blink.
- Turn the Lights off and select the desired locomotive, by activating one of the special functions F1 to F8.
- Select the locomotive address by pressing the emergency brake. The DSD lamp turns off.

ATTENTION

If any special functions are switched on during the locomotive selection the DSD lamp will continue to blink. No locomotive will be assigned. Please turn on only one switch F1 to F8 and press the emergency brake again.

Now the locomotive which was previously prepared by the Twin-Center can be controlled.

If no locomotive address can be accepted because the selection function key (F1 to F8) did not have an associated locomotive address a warning tone will sound and the DSD lamp will change blinking pattern (long on and short off) to indicate that the Profi-Control has no selected address.

You can exit the selection mode without selecting a locomotive by pressing the DSD key.

The Profi-Control stores all locomotive addresses that it is currently controlling. If it is switched off or disconnected from the LocoNet, all locomotives can be controlled again when it is reconnected and turned back on.

2.11 Selection of Track in Analog System with Power 2

If the Profi-Control is used to control DC analog locomotives with one or more Power 2 then function keys F1 to F8 can control the power circuit of a connected Power 2.

Procedure:

- *Set the master switch to the "0" position.*
- *Press the emergency stop key. The DSD lamp will blink.*
- *Turn the lights off and select the desired locomotive, by activating one of the special functions F1 to F8.*
- *Select the locomotive address by pressing the emergency brake. The DSD lamp turns off.*

ATTENTION If any special functions are switched on during the locomotive selection the DSD lamp will continue to blink. No locomotive will be assigned. Please turn on only one switch F1 to F8 and press the emergency brake again.

The locomotive on the selected track section can now be controlled.

A warning tone will sound and the DSD lamp will blink (long on and short off) if no track section has been assigned.

You can exit the selection mode without selecting a locomotive by pressing the DSD key.

Instructions for connecting the Power 2 to the layout and numbering of the track section refer to the Power 2 Manual.

3. Device Settings

3.1 Configuration of DSD and Start/Stop Inertia

The DSD and start/stop inertia in the Profi-Controls be setup with special function keys F1 to F8.

The following apply:

Switch Setting	Selection
F1 off	DSD inactive
F1 on*	DSD active
F2 off	DSD with lamp only
F2 on*	DSD with lamp and horn
F3 + F4 off	Brake inertia unchanged
F3 on	Small brake inertia
F4 on*	Large brake inertia
F3 + F4 on	Entry mode cannot be ended
F5 – F8 off	Start inertia unchanged
F5 on	Smallest start inertia
F6 on	Small start inertia
F7 on*	Large start inertia
F8 on	Largest start inertia
More then 1 switch F5 – F8 on	Entry mode cannot be ended

Table 3.11
Setting of the
Profi-Control
Function keys

Factory default settings are marked with *.

Procedure:

- Set master switch to “0”
- Set brake lever to the top position (brake released)
- Activate DSD-key and emergency stop key.
The horn sounds and the DSD lamp blinks slowly.
- Set the special function keys for the desired setting on and/or off.
- Confirm the selection of the track circuit with the emergency stop key. *The DSD lamp extinguishes.*

ATTENTION If more than one special function key is switched on for Start/Stop inertia the DSD lamp will blink and the setting will not be accepted. Please turn only one switch on for each setting and press the emergency stop key again.

The configuration can be cancelled without changing any settings by pressing the DSD key.

3.2 Selecting LocoNet-ID

Up to 8 Profi-Controls can be connected to an Intellibox. So that the Intellibox can distinguish between the individual panels, each Profi-Control must have a LocoNet identification number (LNID) assigned to it. (See the chapter “Setting a LocoNet ID).

The extended mode for hand controls is available in the Intellibox from software version 1.2. It was developed to permit four locomotives to be controlled with one FRED.

The Profi-Control uses these function just like the FRED. As the panel can steer 8 locomotives and not just 4, the Intellibox will assign two types of FRED hand controls.

In extended mode the Intellibox can handle up to 16 hand control numbers. Additional hand controllers (FRED, Profi-Control) can be connected in dispatch mode.

In selection mode one of 8 preconfigured LocoNet-ID's can be selected with the function key.

Intellibox

The LocoNet-ID's (which can be read in the Intellibox "Basic Settings" menu "Hand contr.") are:

Table 3.21
Selection of
Profi-Control
LocoNet-ID's when
connected to an
Intellibox

Key set in selection mode	F1 *)	F2	F3	F4	F5	F6	F7	F8
ID for F1-F4	0054	0254	0454	0654	0854	0A54	0C54	0E54
ID for F5-F8	0154	0354	0554	0754	0954	0B54	0D54	0F54

Twin-Center

When connecting to a Twin-Center, the special function key allows the following Twin-Box numbers to be selected:

Table 3.22
Selection of
Twin-Box number
when connected to a
Twin-Center

Key set in selection mode	F1 *)	F2	F3	F4	F5	F6	F7	F8
Twin-Box number for F1-F4	1	3	5	7	9	11	13	15
Twin-Box number for F5-F8	2	4	6	8	10	12	14	16

Setting Procedure

- Set master switch to "0" position
- Set the brake lever to the bottom (brake fully engaged)
- Press the DSD and emergency brake keys. The horn will sound twice and the DSD lamp will give short blinks with long pauses.
- Switch on a special function key F1 to F8
- Confirm the setting by pressing the emergency stop key
The DSD lamp turns off.

ATTENTION

If any special functions are switched on during the locomotive selection the DSD will continue to blink. No locomotive will be assigned. Please turn on only one switch F1 to F8 and press the emergency brake again.

The configuration can be cancelled without changing any settings by pressing the DSD key.

3.3 Analog Operation with Power 2

The special function keys permit the selection of the following power circuits when one or more Power 2 are connected:

Table 3.31
Selection of
Power circuits in
Analog operation

Key set in selection mode	F1 *)	F2	F3	F4	F5	F6	F7	F8
Selected power circuit for F1-F8	1-8	9-16	17-24	25-32	33-40	41-48	49-56	57-64

Setting Procedure

- Set master switch to “0” position
- Set the brake lever to the bottom (brake fully engaged)
- Press the DSD and emergency brake keys. The horn will sound twice and the DSD lamp will give short blinks with long pauses.
- Switch on a special function key F1 to F8
- Confirm the setting by pressing the emergency stop key
The DSD lamp turns off.

ATTENTION

If any special functions are switched on during the locomotive selection the DSD will continue to blink. No locomotive will be assigned. Please turn on only one switch F1 to F8 and press the emergency brake again.

The configuration can be cancelled without changing any settings by pressing the DSD key.

3.4 Resetting a Profi-Control to Factory default

Should the Profi-Control need to be set back to factory defaults (See Chapter “Technical Data”) all function keys must be switched off (down position) and master switch set to “0”. Then, while holding the emergency stop key, connect the Profi-Control to the LocoNet.

Factory default settings are indicated by *)

HOTLINE

If you don't know what to do about a problem

We are available

Mon-Tue-Thu-Fri 14:00-16:00

Wednesdays 16:00-18:00

0 20 45-858327