

Be a Digital Professional!

Set-Up of TrainController™ 7.0 and 8.0 Gold for the TurnTable-Decoder TT-DEC with Fleischmann or Märklin Turntable with 48 track connections

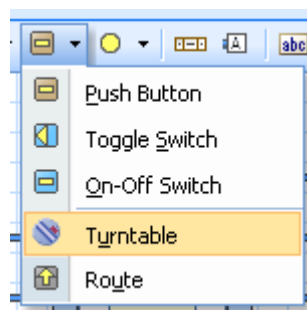
As first step please connect your Fleischmann or Märklin turntable to the TurnTable-Decoder “TT-DEC” as described within the manual for the TurnTable-Decoder.

Following switch-on your digital layout and start TrainController™. All details within this article are related to TrainController™ version 7.0 and 8.0 **Gold**. Regarding deviations to the program versions **Silver** and **Bronze** please read the relative information at <https://www.freiwald.com>. This article will describe the set-up and the programming of the track connections in relation to the TurnTable-Decoder “TT-DEC”. Further information for the program operation and to the automatic turntable control can be read at the TrainController™ manual and the program-help option.

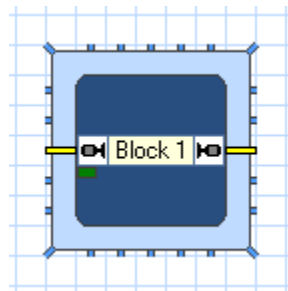
■ General Information


ACTIVATING THE TURNTABLE AT THE PROGRAM

Activating a turntable is not required within TrainController™. Instead just insert a turntable symbol at the required position at the Switchboard:

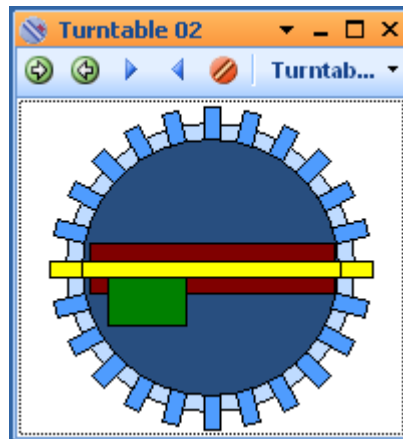


The following symbol will appear in the switchboard:



All further adjustment shall be carried out at the option “Properties” of the turntable – to be called up with the command “Properties” at the command bar () or by clicking with the right mouse key onto the turntable symbol.

TrainController™ offers a separate window for the direct control of the turntable:



DETERMINE THE DECODER ADDRESS RANGE

The TurnTable-Decoder “*TT-DEC*” is compatible to the commands of the Märklin-turntable decoder 7686. It does not matter if you actually want to control a Märklin or a Fleischmann turntable.

It is also not required to indicate the data format (Märklin-Motorola or DCC) which your digital central unit actually uses to control the TurnTable-Decoder. During the programming process (described below) the “*TT-DEC*” will identify the data format.

Similar as the Märklin turntable decoder 7686 uses the TurnTable-Decoder TT-DEC two address ranges: the number 14 indicates the address range 209 till 224 and the number 15 for the range 225 till 240. Only by a total occupation of a turntable with 48 track connections will be actually all addresses within the selected address section required.

At TrainController™ you define now within the properties of the turntable the basic address (= first address of the section): the section 14 indicates the basic address 209 and the section 15 the basic address 225. All further addresses will be initiated by TrainController™.

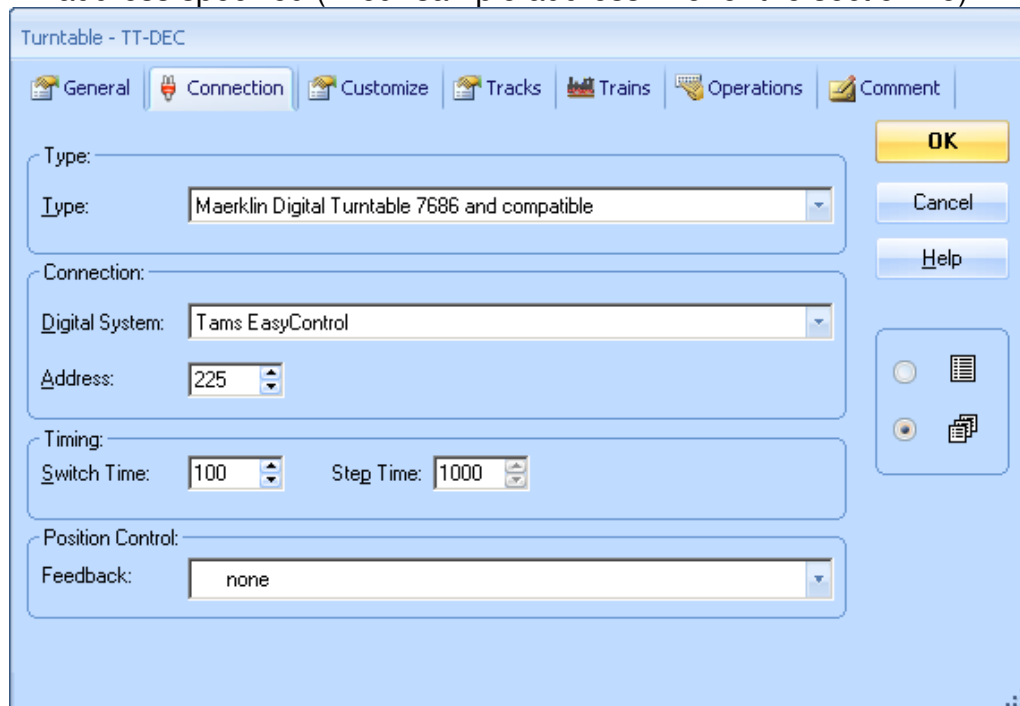
If you use a multi protocol-digital central unit which is able to send several data protocol formats you have to assure that all addresses within the selected address range will have the same data format namely Märklin-Motorola or DCC.

■ special attention!

For the further procedures within this description we will use the address section 15 and therefore the basic address 225.

The properties of the turntable shall now be configured at TrainController™ as follows:

- As type select at the register “Connection”: *Maerklin Digital Turntable 7686 and compatible*.
- For the digital system shall be the system specified to which the turntable has been connected. Under address shall be the required basic address specified (in our sample address 225 for the section 15).



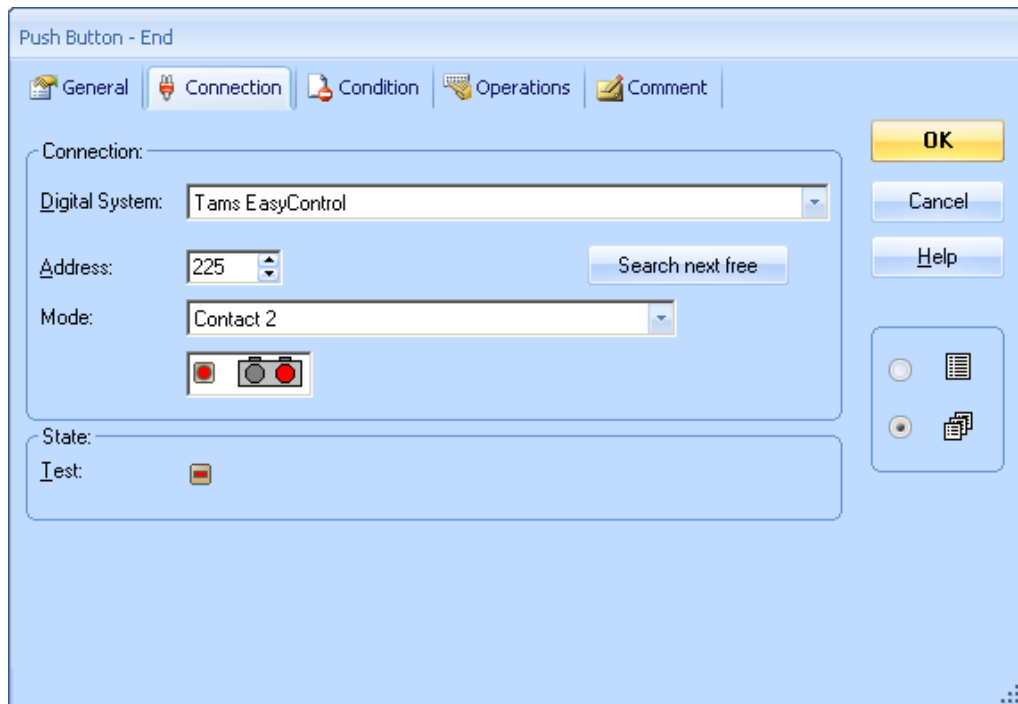
The inputs will be confirmed by clicking onto OK. Now can be the basic address transmitted to the “TT-DEC”.

PROGRAMMING THE TURNTABLE-DECODER “TT-DEC” VIA TRAINCONTROLLER™

The TurnTable-Decoder “TT-DEC” can be either programmed via the digital central unit by using the corresponding commands or as much more comfortable via TrainController™. For this option have to be eight push buttons created at the Switchboard.

	End
	Input
	Clear
	Turn
	Step Right
	Step Left
	Turn Right
	Turn Left

The properties of this push buttons will be established in accordance to the programming- and control table of the TT-DEC manual.
Below the example for the push button for >End<:



At the field “*Address*” shall be the respective address from the table registered. Under “*Mode*” shall be specified if green (= switch contact 1) or red (= switch contact 2) shall be switched. Related to the digital central unit used you will find eventually different terms: e.g. by using the Tams EasyControl green will be = f1 and red = f2.




PROGRAMMING THE BASIC-ADDRESS AND DATA FORMAT

Connect the TurnTable-Decoder “*TT-DEC*” with the digital layout and with your turntable as described within the manual of the “*TT-DEC*”.

Programming process:

1. Switch-on the TurnTable-Decoder “*TT-DEC*”.
2. Depress shortly 1-times the key S1. This key is located at the right side of the “*TT-DEC*” heat sink. Now the yellow LED will flash.
3. Click several times onto the button Turn Right or Turn Left at the Switchboard of TrainController™ until the yellow LED will switch off. This process initiates that the “*TT-DEC*” will be correct programmed to the required digital format (Märklin-Motorola or DCC) and the address range (14 or 15).

ADJUSTING TURNING SPEED AND CYCLE FREQUENCY

Now proceed in accordance to the “*TT-DEC*“-operation instruction for the adjustment of the turning speed of the turntable bridge and the cycle frequency. For this adjustment use the switch button >Turn< ( Turn) and >Turn Direction< ( Turn Right or  Turn Left), as described within the operation instruction.

RECORDING AND PROGRAMMING TRACK CONNECTIONS

At the next step all track connections of your turntable used at the turntable decoder and at TrainController™ have to be specified.

The track connections have to be separated into active and passive connections:

Active track connections are connected to the rail system of the layout. Locomotives can drive in and out on active track connections.

Passive track connections are indicating tracks which can be connected by turning the bridge into the required position but the track is not connected to the layout rail system. On some layout will be only a short piece of rail on a passive track connection. Locomotives can not drive in and out via a passive track connection. Nevertheless are passive track connections important for the control because it is required to turn the bridge to that position if required.




Please consider that all active and all passive track connections are important for the control of the turntable. For the TurnTable-Decoder is it insignificant if a particular track connection is connected to the layout or not. But if required has the decoder to be able to turn the bridge housing as well to a passive track connection if a locomotive has to leave the bridge on the opposite direction (on an active connection).






Therefore: all *active* and all *passive* track connections have to be programmed on the TurnTable-Decoder. For the decoder it does not matter if a track controlled track will be a dead-end track or not.

But at the Switchboard symbols only active track connections will be shown.

PROGRAMMING TRACK CONNECTIONS AT THE TT-DEC

Programming process:

1. Depress 2-times shortly the key S1 of the TurnTable-Decoder “*TT-DEC*“. Now the green LED will flash.
2. Click now onto the push button >Input< ( Input). The red LED will switch-off shortly and the turntable bridge will turn eventually to the last programmed reference track.
3. Turn the bridge with the push buttons >Step< ( Step Right or  Step Left) onto the track 1 (reference track).

4. Click now onto the button >Clear< ( Clear) (the red LED will switch-off shortly) and then onto >Input< ( Input) for storing the reference position.
5. Turn now the turntable bridge clockwise to the next required track connection by several times depressing the switch button >Step< ( Step Right). Attend eventually to the opposite track connection.
6. Store now this track connection with the command >Input< ( Input). The red LED will shortly switch off.
7. Adjust all further track connections accordingly.
8. If you programmed all track connections please click onto the push button >End< ( End). The turntable bridge will turn automatically into the reference position. If the turntable bridge will not return to the defined reference track you have to repeat the programming process.

CAPTURE OF TRACK CONNECTIONS WITH TRAINCONTROLLER™

Open the properties of the turntable. The required adjustments can now be done at the register >Tracks< (see the image shown on the next page).

With the following options you can define the track connections of your turntable. At first please select the relative track connection at the turntable shown on the left side by clicking with the left mouse button or moving the turntable with the arrow buttons. The actual selected track will be colored indicated. Now select one of the following options:

Activate: Use this option if the currently selected track connection is active (the selected track is electrical connected to the layout).

Deactivate: Use this option if the currently selected track connection is not active (the selected track connection is not electrical connected to the layout but the opposite is active). Such passive connections will be shown as short stub symbol. It is not possible to deactivate both opposite track connections. Although passive connections have no electrical contact to the layout is it possible to turn the bridge into those contact position. The turntable track symbols within the Switchboard do not display passive connections. Nevertheless will be the control of passive connections within the system considered.

Delete: Use this option if neither the currently selected nor the opposite track connection is active.

The following commands are valid for the indication of the turntable symbols in the Switchboard:

Add: this option is available only if a track exit will be selected within the turntable symbol on the right side of the dialog.

Use this option for adding a selected track connection to the symbol.

Remove: this option is available only if a track exit will be selected within the turntable symbol on the right side of the dialog.

Use this option for removing a selected track connection from the symbol.

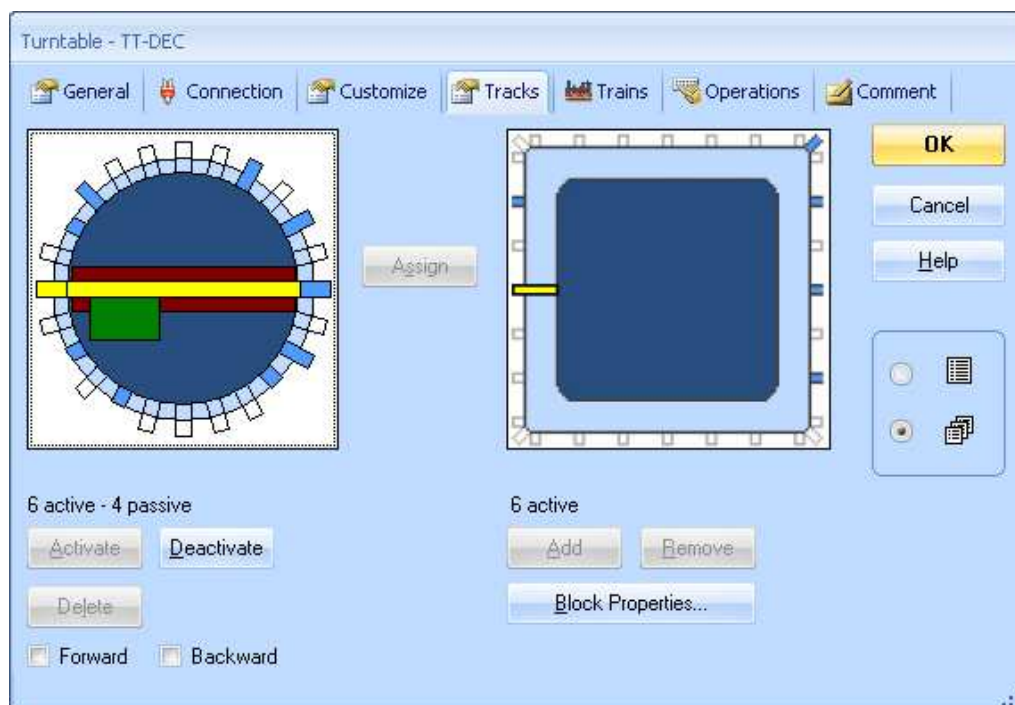
Assign: This is an important option, which is used to synchronize the tracks of the physical turntable represented on the left side of the dialog with the tracks of the turntable symbol on the right side of the dialog. This assignment is possible only if the quantity of *active* track connections are equal on both images. In order to save space in the Switchboard, the turntable symbol displays only active turntable tracks. For this reason only the number of active tracks in the left symbol are taken into account for synchronization, while passive tracks are not.

To perform the synchronization ensure first that the number of the active track connection equals in both windows.

For the synchronization select now a track connection at the left window and a track connection at the right window that shall be mapped to each other. Then press *Assign*.

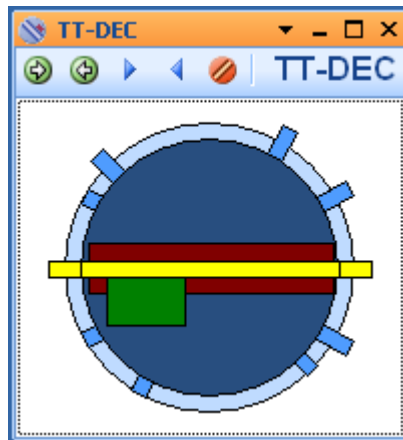
Starting with the respective selected track connections all active track connections of the left window will be in clockwise direction assigned to the matching track connections of the right side.

The result could be as shown below:



FUNCTIONAL TEST

You can test the function of the turntable at any time. Just open the window for the turntable respectively get into the foreground.



By activating one of the two switch buttons “Step“ (▶ or ◀) you can now turn the bridge from track connection to track connection.

It is as well possible to select directly a track connection by mouse click: With the right mouse button the selected track connection will turn clockwise and with the left mouse button the track connection will turn anti-clockwise.

CHANGE OF POLARITY BY FLEISCHMANN-TURNTABLES

If the bridge of a Fleischmann-turntable will turn by 180 degree it will come to a short circuit in case the polarity of the selected bridge rails will not be adapted to the requirement.





The TurnTable-Decoder “*TT-DEC*” is able to change the polarity of the turntable bridge track if it will be combined with a permanent power switch unit “*DSU*”.

As described within the manual of the “*TT-DEC*” is it possible to create a parting line. For the control with TrainController™ is the parting line not required.

SYNCHRONIZING REFERENCE TRACK

If the image of the turntable bridge position on the PC-screen will not correspond to the actual turntable bridge position it is possible to perform a synchronization.

Synchronization process:

1. Depress 1-times shortly the key S1. The yellow LED will flash.
2. Turn the turntable bridge with one of the two switch buttons “Step” ( Step Right or  Step Left) onto the reference track (start track). The position of the turntable bridge on the PC screen does no matter.
3. Click with the mouse button onto the track connection 0 (start track). The turntable symbol on the screen will now correspond to the actual turntable bridge.
4. Depress now the switch button “Drehrichtung” (turning direction) ( Turn Right or  Turn Left). The synchronizing will now be completed. The yellow LED will switch off.

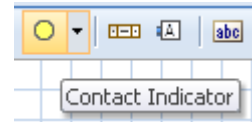
POSITION FEEDBACK REPORT

The TT-DEC offers via a feedback-sensor the possibility to indicate the arriving of the turntable-bridge at the required position. For this option has the related output of the TT-DEC connected to an input of a feedback module.

Wiring samples can be found on the Web Site at the section: "Sample Connections". At the TrainController™ can be a contact sensor implemented at any control post at any position.

- Contact Indicator Position Bridge

At the features of this feedback module you have to enter the relevant address of the feedback module under the register *Connection*.



At the features of the turntable you have now to enter as well on the register *Connection* at *Position Control* exactly this contact sensor.

Turntable - TT-DEC

General Connection Customize Tracks Operations Comment

Type: Maerklin Digital Turntable 7686 and compatible

Connection: Digital System: 1: Tams EasyControl

Address: 225

Timing: Switch Time: 100 Step Time: 1000

Position Control: Feedback: ● Contact Indicator Position Bridge

OK Cancel Help

Function hints: If the bridge turns the contact sensor will switched to OFF. If the bridge stops there will by a continuous occupancy report. If this sensor will be switched to ON during the movement of the bridge the TrainController™ follows that the bridge has arrived at the indicated position.

FURTHER INFORMATION

Additional information about the operation of the TurnTable-Decoder “*TT-DEC*” is available within the operation manual of the unit and on our Web-Site at the section “Downloads” for downloading.

Colored wiring sample plans are additionally available at the section “Sample Connection”.

Further information regarding the program TrainController™ is available on the Web-Site of Freiwald Software and detailed information for a comfortable implementation of your turntable via the “*TT-DEC*” with automatic sequences at the manual to the program.

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