

# Signalbox

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This article is exclusively about how the interlockings are operated in LOTUS. Here only the facts are explained, which are already implemented. Backgrounds about this complex of topics are deliberately excluded here.

## 1 Overview

At the moment only the interlocking type Gauge plan pushbutton interlocking is available.

To open a signal box on the map, the player must be authorized to open the control center. In the header of

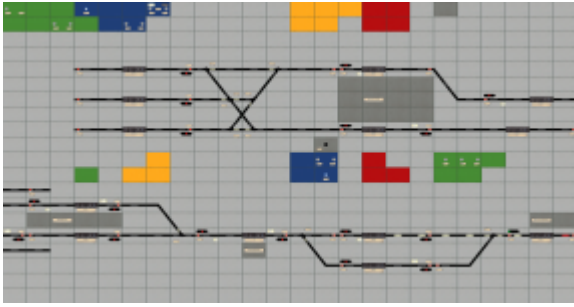


the control center there is the button . The following is a selection of all signal boxes that belong to this map. It is quite possible to list several interlockings here that were created for different control districts.

## 2 Gauge plan pushbutton interlocking

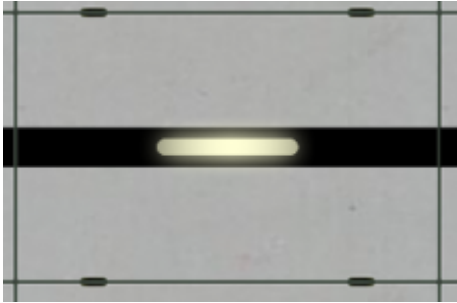
### 2.1 Concept

The control table consists of many so-called table fields, with which the track plan of the control district is visually "puzzled together". Many of the table fields have keys with which various commands can be executed. In addition, the current situation is shown on the basis of numerous displays.



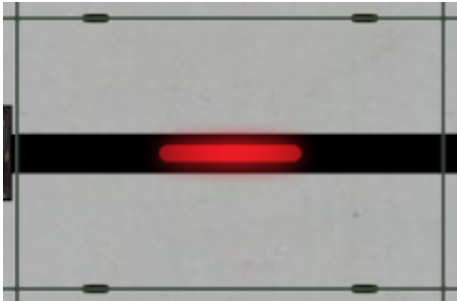
## 2.2 Displays/Table field types

### 2.2.1 Weißausleuchtung ("White light")



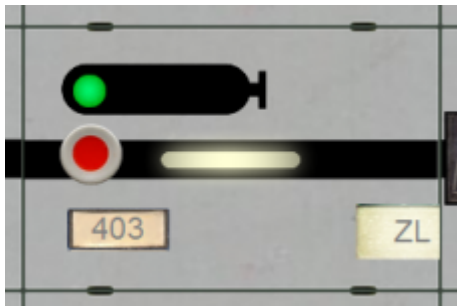
A currently active route leads over this route section. All route sections that are displayed in this way are "ready" for a trip to take place over them. At the same time, this means that no "hostile" route can be activated for this route section.

### 2.2.2 Rotausleuchtung ("Red light")



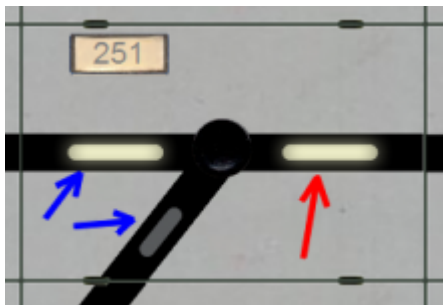
If a table field is illuminated in red, this means that there is a vehicle somewhere on this section of the track - possibly only partially.

### 2.2.3 Signal



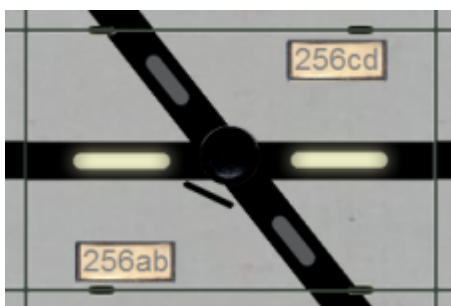
This is the simplest variant of a signal display: The signal itself is displayed, there is a start/destination button (will be very important later!) as well as a light indicator for "train steering" on the tabletop. By the way, signal terms for train movements are always displayed with a green light only, no matter if a simple green (Hp1) or e.g. a green and a yellow light is lit at the signal (Hp2).

#### 2.2.4 Switch



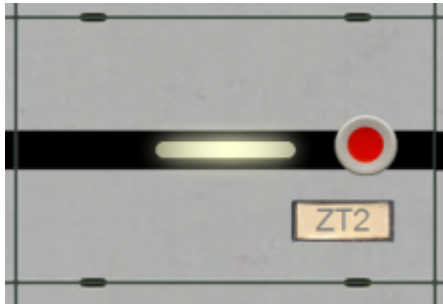
This is what the table field looks like for a simple switch. The meaning of the individual white lines is important: The two with the blue arrow show in which direction the switch is laid. They are always lit, even if no route is laid over them. The line with the red arrow, on the other hand, only lights up white when a route is laid over the switch. The switchkey is somewhat dimly visible.

#### 2.2.5 Crossing switch



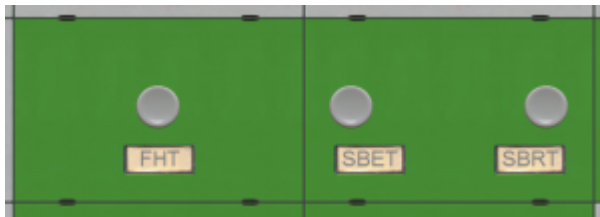
The crossing table panel has - in case of a (single or double) crossing switch - one or two thin dashes next to the switch key, indicating which curved travel paths are available in addition to the crossing one.

### 2.2.6 Destination button



This is a table field with a destination button. We'll find out what it's for later.

### 2.2.7 Group buttons



Group buttons are not located "inside" the track plan, so to speak, but at the "edge" and are almost always highlighted in color. The color indicates to which category the button(s) belong: Green = routes, Red = signals, Blue = switches, Yellow = level crossings, Gray = "other".

If there are several group keys of the same type on the control table, then they all lead to the same action. As long as the group key has the same label, it does not matter which one is used to perform a certain action.

## 2.3 Currently possible actions

The following actions are currently possible in the LOTUS interlocking:

### 2.3.1 Disable or enable AI dispatcher

In normal operation, especially when no player is operating a signal box, these are manned by AI dispatchers - otherwise all signals (apart from those with train control or similar) would remain red! If you as a player no longer want to just watch, but want to be active yourself and don't want an AI dispatcher to interfere, you can deactivate it at the bottom of the window (and reactivate it later).

### 2.3.2 Lay routes

In order to "set a signal to green", a route must be laid depending on where the train is to be able to travel. Thus, this is one of the most important actions:

- "Simultaneously" the red keys on the field of the start signal (in front of which the train is standing or towards which the train is moving) and the destination signal or - if there is no signal there - the corresponding destination key are pressed. "Simultaneously" means pressing and holding the shift key on the keyboard and then clicking the said keys on the signal box one after the other. If you have made a mistake, then you simply release the shift key briefly, whereupon all previously clicked keys

are released.

- If the selected route is "stored" (i.e. there is a logical connection between the pressed keys) and it does not contradict an already inserted route or would lead over occupied tracks, the following procedure begins:
- All switches are set appropriately
- The route is "fixed", i.e. all affected switches can no longer be switched, the white illumination becomes visible and no conflicting route can now be defined.
- All affected level crossings close and may need to be cleared by the dispatcher.
- When all this is completed, the signal changes to "Run".
- If the train rolls over a white illumination, then this and the signal changes to red. When the train then moves on, the table field becomes dark again. This section is therefore no longer blocked. As soon as all white fields belonging to the route have become red and then dark, the route is completely dissolved and contradictory routes can be laid again.

In reality, the individual processes take a certain amount of time - of course, this is also to be realized in LOTUS.

### 2.3.3 Resolve route manually

It may happen that a route is to be closed before a train runs over it, e.g. because it is supposed to run in a different direction or wait for a long time. In this case, the **route auxiliary key FHT** is pressed first and then the start signal and the destination signal or destination key (as when setting a route). This is a safety-critical action!

### 2.3.4 Switch a switch

Switches can also be set independently of routes (but of course only if no route passes over them). To do this, simply press the **switch group key WGT** together with the switch key.

If it is a crossing switch, the side to be set must first be selected before the actual setting process. This is done with the **crossing switch key KWT**, which is simply pressed alone, whereupon the indicator lights on the group key field indicate the changed side:



### 2.3.5 Train control/self-positioning mode switch on/off

Even if the AI dispatcher has been deactivated, there are signals at which a route is nevertheless taken automatically when a train approaches. Depending on the more precise function, this is referred to as train control or self-setting mode. In order to activate or deactivate this automatic mode, the relevant signal key must be pressed together with the group key **self-positioning mode reset key SBRT** or **self-positioning mode on key SBET**. The indicator lamp "ZL" on the signal shows whether the automatic control is switched on or off.

[hl=2][/hl]