

# FELBERPASS V2



**OEBB SIGNAL GUIDE**

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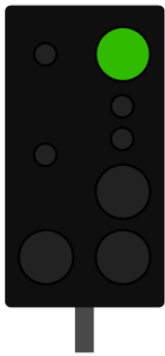


Please check if you have the latest version of the ÖBB-signals installed. You can always find the newest version on [railworks-austria.at](http://railworks-austria.at) and [rail-sim.de](http://rail-sim.de).

## 1 MAIN SIGNALS

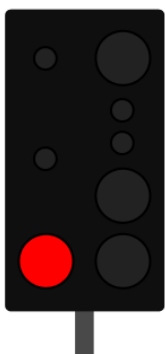
A main signal shows if the next block of the track is free. They also can show maximum permitted speeds for junctions. This speed is valid for the whole junction area.

### 1.1 MAIN SIGNAL "FREE"



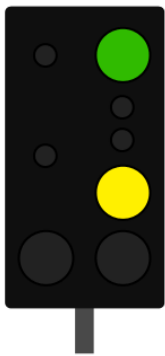
If the next block is free the signal is showing a single green light. This signal means that you are free to drive on with maximum permitted speed, if no other speed limited is indicated.

### 1.2 MAIN SIGNAL "STOP"



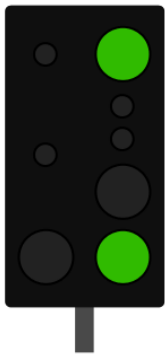
When a single red light is shown on the signal it means "Stop". You have to come to a full stop in front of the signal. If the red light fails, there is a red and white sign on the signal post which also means "Stop".

### **1.3 MAIN SIGNAL "FREE WITH 40 KM/H"**



When the main signal shows a green and yellow light above each other it means "free with 40 km/h". Most of the time you will see this signal when changing tracks over a junction. You are free to drive on with a top speed of 40 km/h, unless there is another speed indicator.

### **1.4 MAIN SIGNAL "FREE WITH 60 KM/H"**

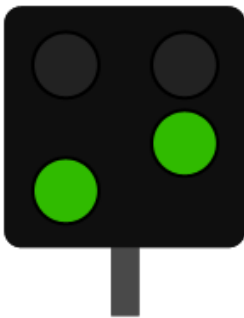


Two green lights above each other mean you are free to pass the signal with a top speed of 60 km/h, unless there is another speed indicator.

## 2 WARNING SIGNALS

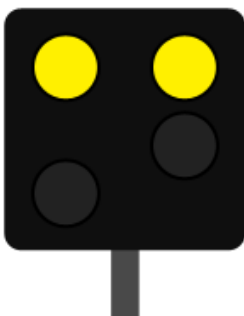
Warning Signals indicate which state the next main signal is in. If there is a warning signal together with a main signal it will show no lights when the main signal is red. Warning signals may also indicate a protection signal. If a protection signal is following, there is a white border around the warning signal.

### 2.1 WARNING SIGNAL "MAIN SIGNAL FREE"



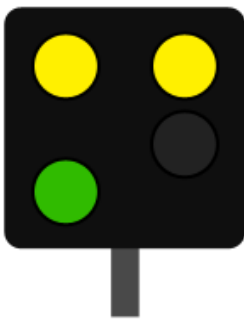
The signal shows two green lights, going up from the bottom left to the right. This means the next main signal shows "free".

### 2.2 WARNING SIGNAL "ATTENTION"



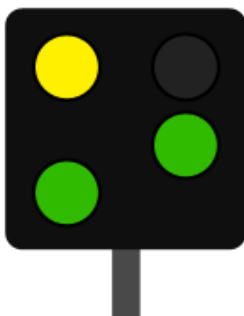
The signal shows two yellow lights straight next to each other. The next main signal will be red.

### **2.3 WARNING SIGNAL "MAIN SIGNAL FREE WITH 40 KM/H"**



The signal shows two yellow lights next to each other and one green light in the bottom left corner. This means the next main signal will be showing "Free with 40 km/h". It may be coupled with a different speed indicator, then the speed limit of the extra indicator is valid.

### **2.4 WARNING SIGNAL "MAIN SIGNAL FREE WITH 60 KM/H"**

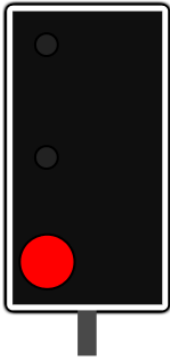


The signal shows two green lights going up from the bottom left corner to the right and a yellow light in the top left corner. The next main signal will be showing "Free with 60 km/h", unless there is another speed indicator.

## 3 PROTECTION SIGNALS

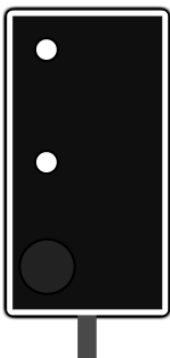
Protection signals show if the train may proceed to the next block of track. They are used for example in stations, to allow diversion of a longer platform for more than one train at a platform.

### 3.1 PROTECTION SIGNAL "STOP"



The signal shows a red light on a white bordered shield. You have to stop in front of the signal. If the red light fails the white and red sign on the signalpost also means stop.

### 3.2 PROTECTION SIGNAL "PROCEED"



The signal shows two white lights above each other on a white bordered shield. You may continue to the next signal.

## 4 ADDITIONAL SIGNALS

Additional signals extend the meaning of any other signal they are placed on.

### 4.1 SPEED LIMIT INDICATOR



The signal shows a white number. The number means the maximum permitted speed beyond this point, multiplied by ten (8 = 80 km/h).

Usually these are placed above the signal.

Speed indicators on a main signal are announced when the change of speed is greater than 10 km/h. An increase of speed can be announced at the previous warning signal. The speed indicator always overwrites the speed limit given by the signal itself!

### 4.2 SPEED LIMIT ANNOUNCER



The signal shows a glowing yellow number. The maximum permitted speed on the next signal is the value of the indicator, multiplied by ten (8 = 80 km/h)

The announcer is usually mounted below warning signals and above main signals.



## 4.3 IMITATION / REMINDER SIGNALS

Imitation or Reminder signals are used when the next main signal cannot be seen, for example it is blocked by obstacles behind a curve or when there is a platform between two main signals. Then the reminder signal can be useful to show the traindriver if the next main signal has changed its status while the train stands at the station.

### 4.3.1 "Main Signal shows stop"



Main Signal "stop"

### 4.3.2 "Main Signal Free"



Main Signal "free"

### 4.3.3 "Main Signal Free with restriction"



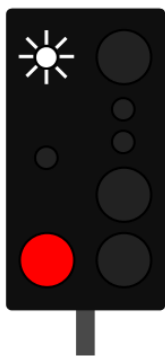
It is not indicated if the next main signal shows "free with 40 km/h" or "free with 60 km/h". In fact the reminder signal cannot indicate any deviating speeds.

#### 4.4 DISTANCE MARKERS



Distance markers are signs with one or more black stripes, going up to the right. With decreasing distance to the next signal there are less stripes on the sign. Usually three of those signs are set up in front of any warning signal at 250 meters, 175 meters and 100 meters.

#### 4.5 SUBSTITUTE SIGNAL



The substitute signal is a white blinking light and is used when a main signal cannot be set to free. It allows passing of this signal with a top speed of 40 km/h. This speed has to be maintained on following junctions. If there are no junctions behind the signal at least the locomotive has to pass the signal with 40 km/h, because the train driver has to acknowledge "Befehl 40".

#### 4.6 IDENTIFICATION MARK

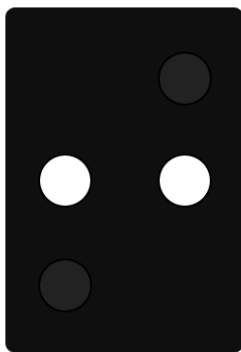


This highly reflective sign is placed on the last three overhead wire masts in front of any signal. If there is no overhead wire on the tracks, they are placed just next to the tracks. On signal bridges they may also be placed right next to the signal on the bridge.

## 5 SHUNTING SIGNALS

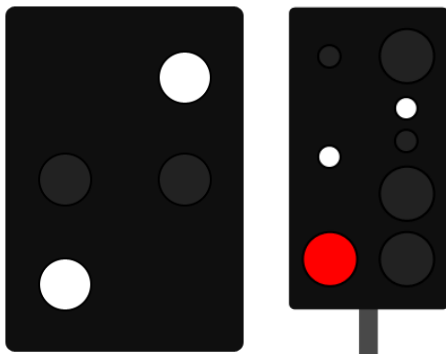
In Austria they are called "Verschubsignal".

### 5.1 "STOP SHUNTING"



The "stop" signal of a main signal also means stop to any shunting.

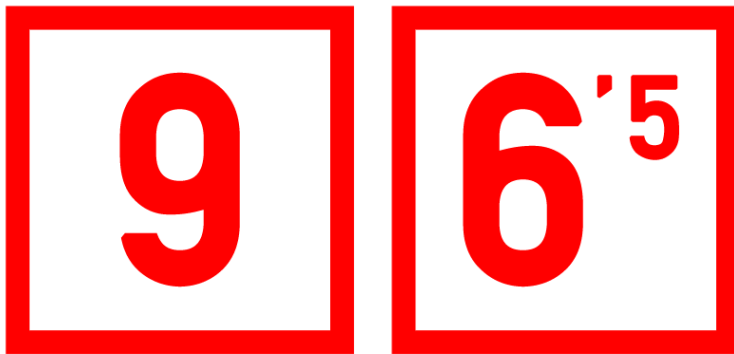
### 5.2 "SHUNTING ALLOWED"



Both signals are only valid for shunting operations, not for normal trains!

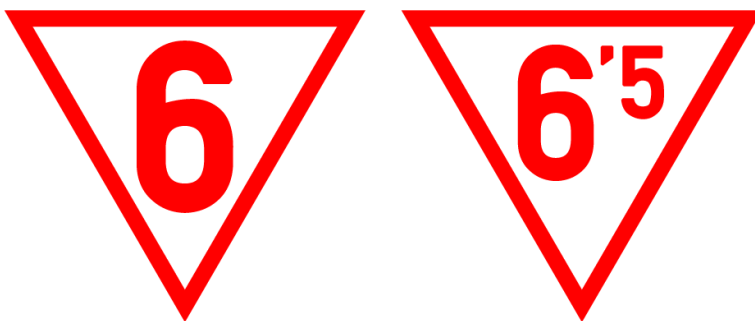
## 6 OTHER SIGNALS

### 6.1 SPEED SIGNS



Speed signs show the maximum permitted speed in  $\frac{1}{10}$  of its value. Up to 95 km/h it can be increased in steps of 5 km/h, above that only in 10 km/h steps.

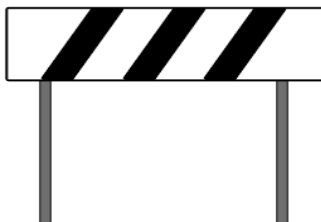
### 6.2 SPEED CHANGE WARNING SIGN



The triangle shaped sign indicates a change of speed ahead of the train. The new speed limit is only valid from the point of the square sign above.

This sign is only placed when the change of speed is more than 20%.

### 6.3 STOPPING POINT SIGN

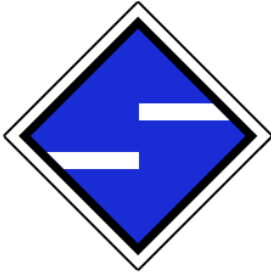


This sign announces a station. It is only placed where the local circumstances require it, e.g. the station is behind a curve. The sign is always placed 700 meters in front of the platform, at line speeds of 100 km/h the distance can be extended to 1.000 meters.

# 7 OVERHEAD WIRE SIGNS

## 7.1 PANTOGRAPH SIGNS

### 7.1.1 "Announcement lower pantograph"



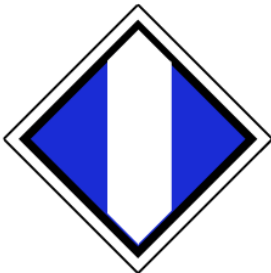
The sign "Announcement lower pantograph" is placed 300 meters in front of the sign "lower pantograph".

### 7.1.2 "Lower Pantograph"



The sign "lower pantograph" usually is placed 30 meters in front of the area which should be driven through with lowered pantograph.

### 7.1.3 "Pantograph up"



The sign to raise the pantograph again is usually placed 30 meters behind the area of track where it has to be lowered.

### 7.1.4 "Stop for vehicles with raised pantograph"



From the point of the sign onwards it is forbidden to drive with a raised pantograph.