

# IP Matrix/KBD Digital

VJD-8000 | VJD-7513 | VJD-7523 | VDJ 7533



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# 1 Use latest software

Before operating the device for the first time, make sure that you install the latest applicable release of your software version. For consistent functionality, compatibility, performance, and security, regularly update the software throughout the operational life of the device. Follow the instructions in the product documentation regarding software updates.

The following links provide more information:

- General information: <https://www.boschsecurity.com/xc/en/support/product-security/>
- Security advisories, that is a list of identified vulnerabilities and proposed solutions: <https://www.boschsecurity.com/xc/en/support/product-security/security-advisories.html>

Bosch assumes no liability whatsoever for any damage caused by operating its products with outdated software components.

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## 2 Introduction

### 2.1 About the manual

This manual describes how to use the keyboard with the IP Matrix application.

### 2.2 Conventions in this manual

The symbols and notations that follow are used to draw attention to special situations:

**Notice!**

This symbol indicates special features and provides tips and information for easier, more convenient use of the software.

Terms that you can find in the program, such as menu options, commands or text in the user interface, are written in **bold**.

### 2.3 Additional documentation

**Notice!****Read and follow the instructions in the hardware documentation**

While setting up the hardware for IP Matrix, read and follow the instructions of the hardware documentation. The documentation contains important safety messages. It is mandatory to read and understand the safety messages prior to installation of the hardware.

**More information**

Find more information, software downloads, and documentation at: [www.boschsecurity.com](http://www.boschsecurity.com) and the respective product page.

## 3 Requirements

A prerequisite for using the keyboard is that the required hardware for an IP Matrix system is available and configured appropriately.

### Requirements for installed software

The Configuration Manager 7.74 program or later is required.

### Requirements for operational purpose

Make sure the following requirements are fulfilled:

- 1 to 4 ready-to-use VIDEOJET decoders with firmware 10.30 or later connected to a surveillance network (fully installed and ready for operation)
- 1 to 4 KBD-UXF or KBD-Digital keyboards (fully installed and ready for operation)
- 1 to 8 (16) displays with appropriate interface connections or adapters  
**Note:** Up to 2 displays per decoder can be connected to VJD-8000 and VJD-7513, and up to four displays to VJD-7523 and VJD-7533.
- Fixed or moving cameras connected to the surveillance network
- A PC with Configuration Manager program installed and connected to the surveillance network (only for configuration purposes)



### Notice!

Prior to operation, the IP Matrix application must be configured using the Configuration Manager program.

### IP Matrix configuration

The IP Matrix application can be configured using the Configuration Manager 7.74 program or later.

For detailed configuration steps, refer to the IP Matrix configuration manual available on the online product catalog.

## 4 Restrictions

Observe the following restrictions when using a IP Matrix system:

- The decoder dynamically adapts its performance to high loads by skipping frames, which can cause juddering in the video stream.
- Playback is only possible from local recordings, not from recordings managed by VRM.
- A long i-frame distance leads to less exact navigation in playback mode and lower performance in playback backwards mode.

## 5 Operation

After configuring the IP Matrix application using a PC with the Configuration Manager program, the IP Matrix application operates as a stand-alone CCTV surveillance system. All operations are carried out using the attached keyboard.

### 5.1 Keyboard layout



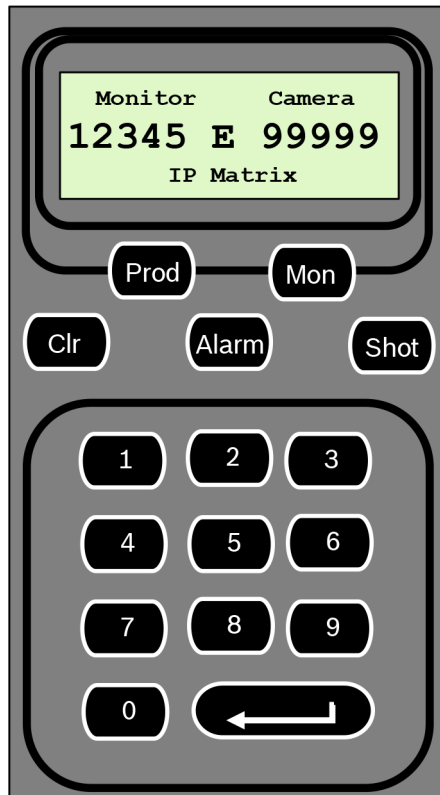
<b>1</b>	Softkey display with soft key description (mode dependent)	<b>2</b>	Softkeys
<b>3</b>	Keypad section: numeric keys	<b>4</b>	Keypad section: function keys
<b>5</b>	Keypad section: status display	<b>6</b>	Joystick Use to pan or tilt a PTZ device. Use to move the field of view in a digitally zoomed viewing pane
<b>7</b>	Rotatable knob Use to control the zoom function of a device or the built-in digital zoom factor.	<b>8</b>	Focus Press to adjust the Focus respectively.
<b>9</b>	Iris Press to adjust the Iris respectively.		

The following graphic illustrates the different groups of keys on the keyboard.



## 5.2 Softkey description

### 5.2.1 Softkey mapping keypad section



#### Function keys

**Prod** - Selects the keyboard operation mode

- ▶ Press the key to select the operation mode of the keyboard.

**Mon** - Connects a specific camera to a monitor

- ▶ Press the key to connect a specific camera to a specific monitor.

**Clr** - Clear - cancels a function

- ▶ Press the key to cancel a function.

**Alarm**

Not used

**Shot**

#### To save a preposition:

1. Move the camera view to the intended position and press the key quickly three times to save a preposition.
2. When the display indicates the saving mode, enter the preposition number using the number keys.
3. Click **enter**.

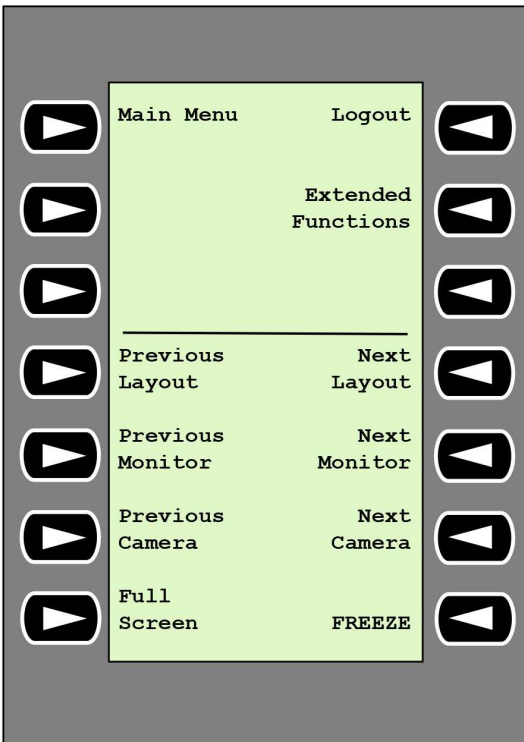
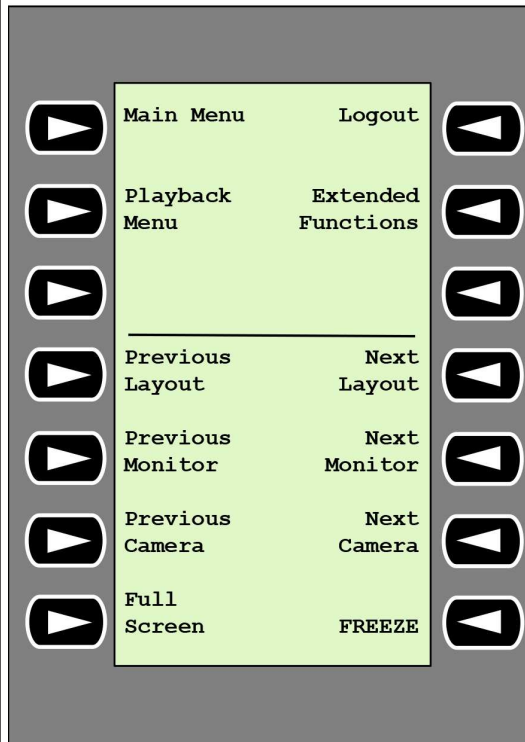
#### To call a preposition:

1. Press the key once to call a saved preposition on a PTZ camera.
2. Enter the preposition number using the number keys.
3. Click **enter**.

**1 ... 0** Number keys

- ▶ Use to select favorite views, sequences, prepositions, or single devices.

## 5.2.2 Softkey mapping main menu

Main menu without playback permission	Main menu with playback permission
 <p>The main menu without playback permission is displayed on a grey background. It features a central green menu box with the following options: Main Menu, Logout, Extended Functions, Previous Layout, Next Layout, Previous Monitor, Next Monitor, Previous Camera, Next Camera, Full Screen, and FREEZE. Navigation arrows are present on the left and right sides of the menu box.</p>	 <p>The main menu with playback permission is displayed on a grey background. It features a central green menu box with the following options: Main Menu, Logout, Playback Menu, Extended Functions, Previous Layout, Next Layout, Previous Monitor, Next Monitor, Previous Camera, Next Camera, Full Screen, and FREEZE. Navigation arrows are present on the left and right sides of the menu box.</p>

**Logout** - Locks/unlocks the keyboard

- ▶ Press the key to lock or unlock the keyboard.

**Extended Functions** - Displays the extended functions menu

- ▶ Press the key to display the extended functions menu.

**Playback Menu** - Displays the playback functions

- ▶ Press the key to display the playback functions.

**Note:** Only available with playback permission

**Previous Layout** - Switches to previous layout with less monitors

- ▶ Press the key to decrease the number of monitors on the current display.

**Note:** This key provides a round-trip function. The last layout starts again, if the first layout is reached.

**Next Layout** - Switches to next layout with less monitors

- ▶ Press the key to increase the number of monitors on the current display.

**Note:** This key provides a round-trip function. The first layout starts again, if the last layout is reached.

**Previous Monitor** - Selects the previous monitor

- ▶ Press the key to select the previous monitor.

**Next Monitor** - Selects the next monitor

- ▶ Press the key to select the previous monitor.

**Previous Camera** - Displays previous camera

- ▶ Press the key to display the previous camera on the selected monitor.

**Next Camera** - Displays next camera

- ▶ Press the key to display the next camera on the selected monitor.

**Full Screen** - Turns full-screen of currently selected monitor on/off

- ▶ Press the key to turn full-screen on or off.

**Freeze** - Freezes video on monitors on/off

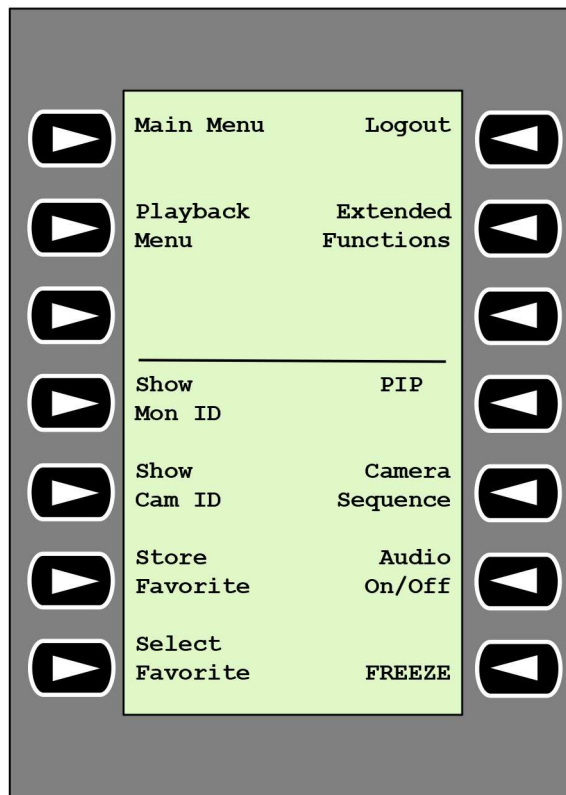
In live mode:

- ▶ Press the key to freeze/unfreeze the video on all monitors.

**Note:** Selecting another layout, camera or monitor also unfreezes the video.

### 5.2.3

#### Softkey mapping extended functions



**Show Mon ID** - Displays the monitor numbers and decoder IP addresses

- ▶ Press the key to display the monitor numbers and decoder IP addresses as overlay on the monitors.

**PIP** - Turns full-screen with picture-in-picture on/off

- ▶ Press the key to turn full-screen with picture-in-picture on or off.

**Show Cam ID** - Displays the camera numbers and camera IP addresses

- ▶ Press this key to display the camera numbers and camera IP addresses as overlay on the monitors.

**Camera Sequence** - Loads a camera sequence

- ▶ Press the key, enter a valid sequence number (1 to 32), then click **OK**.

**Note:** Blinking indicates that the input of a number is required.

**Store Favorites** - Saves up to 9 favorites.

- ▶ Press the key, enter the number using the number keys, then click **OK**.

**Note:** The layouts and camera connections on all displays are saved.

**Audio On/Off** - Turns audio on/off

- ▶ Press the key to turn audio on/off. This applies only to the monitor in the top left of the screen.

**Select Favorite** - Calls-up favorites. Maximum 9 favorites are available.

- ▶ Press the key, enter the number using the number keys, then click **OK**.  
**Note:** The layouts and camera connections on all displays are re-established.

**Freeze** - Freeze video on monitors on/off (live mode) or Pause (playback mode)

In live mode:

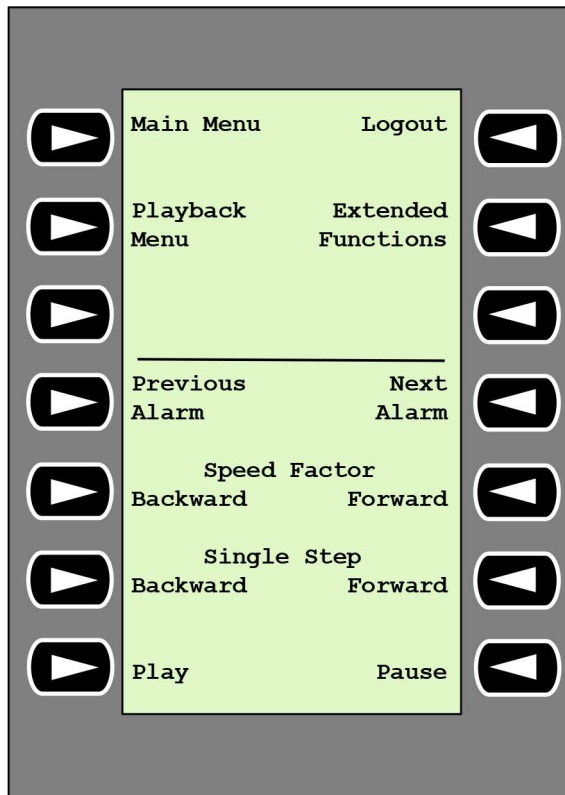
- ▶ Press the key to freeze/unfreeze the video on all monitors.

**Note:** Selecting another layout, camera or monitor also unfreezes the video.

## 5.2.4

### Softkey mapping playback menu

The playback menu is only available if a playback permission for the decoder is defined in the Configuration Manager program.



**Previous Alarm** - Displays previous alarm

- ▶ Press the key to display the previous alarm with current playback speed.

**Next Alarm** - Displays next alarm

- ▶ Press the key to display the next alarm with current playback speed.

**Speed Factor Backward** - Adjusts the playback speed factor to the previous factor.

- ▶ Press the key to decrease the playback speed factor.

**Speed Factor Forward** - Adjusts the playback speed factor to the next factor in a logarithmic sequence.

- ▶ Press the key to increase the playback speed factor.

**Single Step Backward** - Displays previous frame of current playback.

- ▶ Press the key to display the previous frame of the current playback.

**Single Step Forward** - Displays next frame of current playback.

- ▶ Press the key to display the next frame of the current playback.

**Play** - Starts playback

- ▶ Press the key to start the playback with normal speed.

**Pause** - Pauses playback in playback mode

- ▶ Press the key to pause the playback on the selected monitor.

## 5.3 Keyboard operations

### 5.3.1 Connecting a camera to a monitor

To connect a camera to a monitor:

1. Press the **Mon** key.
2. Enter the number of the monitor you want to connect by using the number keys.
3. Press the ENTER key.
4. Enter the number of the camera that should be connected with the monitor.
5. Press the ENTER key.

To connect a camera to an already selected a monitor:

1. Enter the number of the camera that should be connected with the monitor.
2. Press the ENTER key.

### 5.3.2 Selecting a monitor

To select a monitor:

1. Press the **Mon** key.
2. Enter the monitor number.
3. Press the ENTER key.

or

- ▶ In the **Main Menu**, press the **Next Monitor** or **Previous Monitor** key to select the monitor.

### 5.3.3 Controlling playback speed factor

To control the playback speed factor

- ▶ In playback mode:

Press the **Speed Factor Forward** or **Speed Factor Backward** key to move fast forward or fast backward with different speeds.

Depending on how often you press the keys, the following speed factors are available:

$\frac{1}{4}$ ,  $\frac{1}{2}$ , 1, 2, 4, 8 and 16

Or

- ▶ In playback pause mode:

Press the **Single Step Forward** or **Single Step Backward** keys for single step forward or single stop backward.

### 5.3.4 Controlling PTZ cameras

To control pan and tilt of cameras:

- ▶ Use the keyboard's joystick to control the axis of a PTZ camera.

To control zoom function:

- ▶ Turn the joystick control knob to zoom in or out. If the camera does not offer an optical zoom, a digital zoom will be simulated.

### 5.3.5 Locking/unlocking the keyboard

To lock the keyboard:

- ▶ Press the **Logout** key.

To unlock the keyboard:

1. Press the **Logout** key.
2. Enter the IP Matrix passcode.

3. Press the Enter key.

## 6 Troubleshooting

For general appearance check the **Advanced** tab settings of each decoder.

Issue	Solution
Cannot access cameras.	Check the general password. All cameras must use this password as a common user password.
In a multi-decoder setup: Settings in the Configuration Manager program do not affect the IP Matrix application.	Only settings on the master decoder affect the IP Matrix application. Select the master decoder and try again.
The selected monitor is not highlighted.	Check the distance between cameos. Increase the distance if necessary.
No connections after restarting the decoder.	Enable reconnect on restart or call a favorite.
Not all monitors can be populated with video connections.	Check the number of decoders that defines the maximum possible connections on one decoder device. Or Your layout may provide more monitors than allowed by the maximum monitors per display.



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