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1 Before you start

Thank you for choosing the KODAK DP850 ULTRA projector

The KODAK DP850 ULTRA will display high brightness images with vivid colors, even under normal light conditions.

Thanks to the unique KODAK Graphical User Interface, the KODAK DP850 ULTRA offers true plug and play operation from remote control, which by the way also can control your computer.

1.1 Color coding for ease of use

All connectors, plugs and buttons on the product are colored to make the connection and use as easy and intuitive as possible. The following colors are used:

- ◆ Computer gray (PC) /black (MAC)
- ◆ TV/channel purple
- ◆ Video (Composite) yellow
- ◆ S-video dark blue
- Stand by red
- ◆ Auto setup green
- ◆ Audio red/white







1.2 Accessories

Please take a few minutes to make sure that your KODAK DP850 ULTRA contains all the necessary parts:

1.2.1 Computer accessories for external PC/MAC

- Computer cable Enhanced Video Connector (EVC), male at both ends, 3 m/9.8 ft.
- ◆ Cable for PC / MAC audio (Stereo jack, 0.3m/1 ft.)
- ◆ PC adapter
- ◆ RS-232 mouse cable for PC
- ◆ PS/2 mouse cable for PC
- ◆ MAC adapter
- ◆ Apple Desktop Bus (ADB) mouse cable for MAC

1.2.2 Video accessories

- ◆ Super-video cable
- ◆ Composite video cable
- Audio cable

1.2.3 Other cables/accessories

- ◆ Dual soft bag
- ◆ Power cable, 4m/12 ft.
- Remote control including batteries (type AAA/LR03

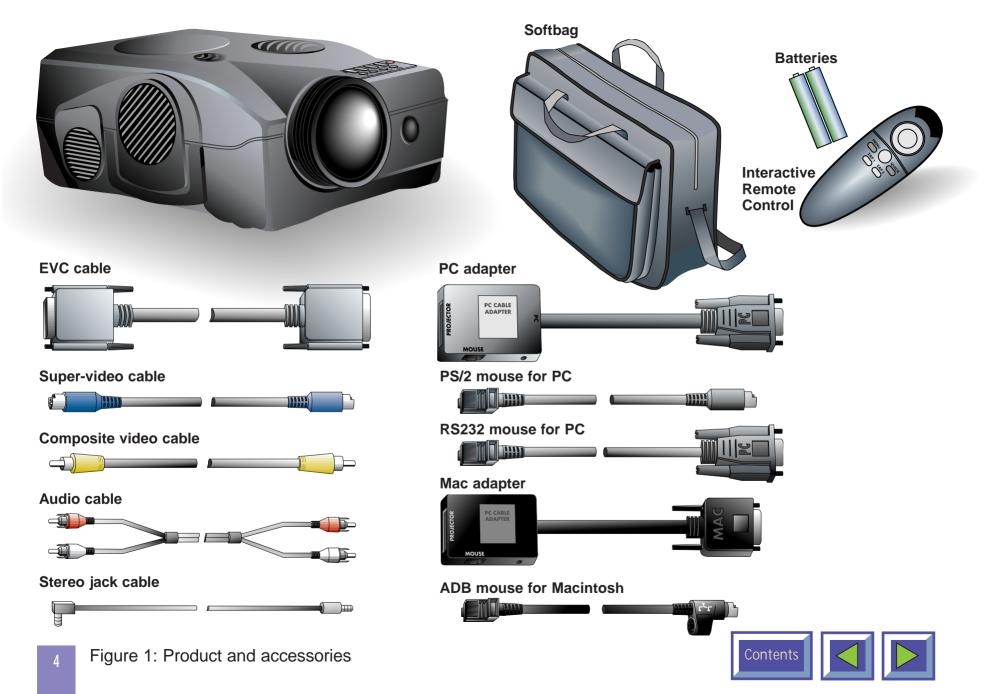
1.2.4 Optional cables and accessories

- ◆ EVC cable, 10-15m
- Ceiling mount kit









1.3 Insert batteries in the remote control

Figure 2 shows the remote control with the battery lid removed. Slide off the battery lid and insert the batteries with the + and - poles correct. Slide the battery lid back on again.

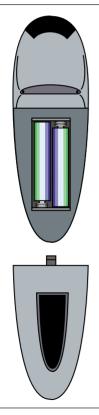


Figure 2: Inserting batteries in remote control

2. Important information

The warranty card or copy of invoice is your proof of purchase. Please make sure that the warranty card is returned in order to get the warranty service you are entitled to.

Failure to return the warranty card may void your warranty.

NOTE!

Please use caution when transporting the unit.

WARNING!

Tampering with or opening the KODAK DP850 ULTRA can be dangerous. For replacement of the lamp, see the instructions support with the replacement lamp. Leave maintenance to authorized KODAK service personnel. Please contact your local dealer with any service or maintenance questions you may have.







3. Connecting a computer to the KODAK DP850 ULTRA

The procedure for connecting a computer to the KODAK DP850 ULTRA is the same for all types of computers.

- **1.** Make sure the computer, monitor and KODAK DP850 ULTRA are switched off.
- 2. Identify the RGB out connector on the back of your computer (where you connect a monitor to the computer).
- **3.** Connect the computer to the KODAK DP850 ULTRA using the EVC cable and the adapter for the computer you are using. See figures 3 and 4.
- **4.** If you have a desktop computer and want to display the image on your computer monitor, connect the cable from your monitor to the adapter. See figure 5 and 6.

- 5. If you want to use the remote control to control your computer, connect the correct mouse cable from the computer to the adapter box. See figures 7 and 8. When your computer is connected to the KODAK DP850 ULTRA with the EVC cable (with EVC connector on the computer), the remote mouse control will automatically function as a regular mouse on your PC or MAC.
- **6.** If you want to use sound with your computer, connect the stereo jack cable to the computer audio connection and to the PC or MAC adapter box.
- 7. Turn on the KODAK DP850 ULTRA and then the computer. The computer image should now be projected from the KODAK DP850 ULTRA and the remote control should now work as a regular mouse. If the computer's image is not displayed simultaneously on the monitor, or the mouse is not working, see the section 'What do I do if'.







Connecting to a laptop, notebook

Connecting to an Apple PowerBook

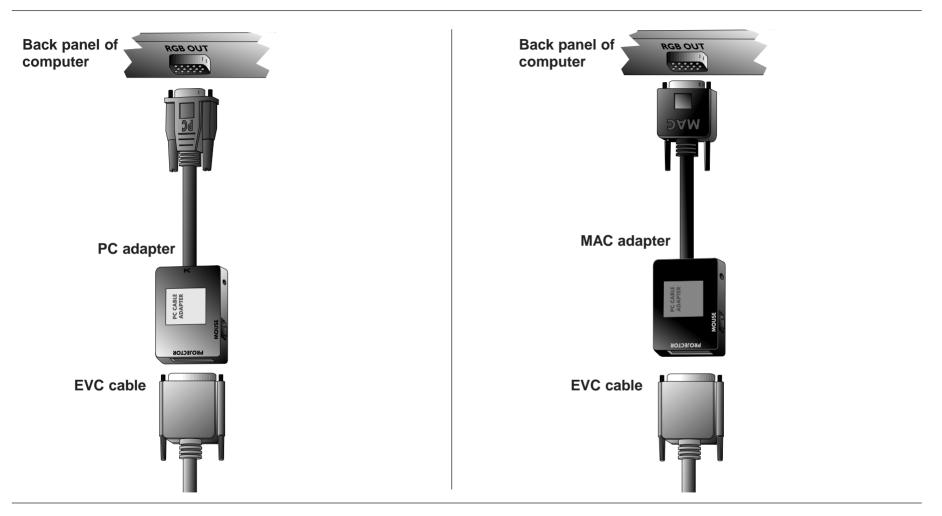


Figure 3: Connecting to a laptop, notebook

Figure 4: Connecting to an Apple PowerBook

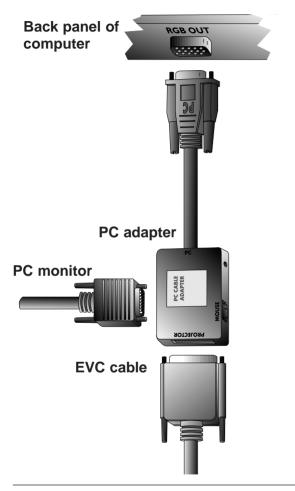






Connecting to a desktop PC with standard RGB

Connecting to an Apple Macintosh desktop computer



Back panel of RGB OUT computer **MAC** adapter **PC** monitor **EVC** cable

Figure 5: Connecting to a desktop PC with standard RGB

Figure 6: Connecting to an Apple Macintosh desktop computer

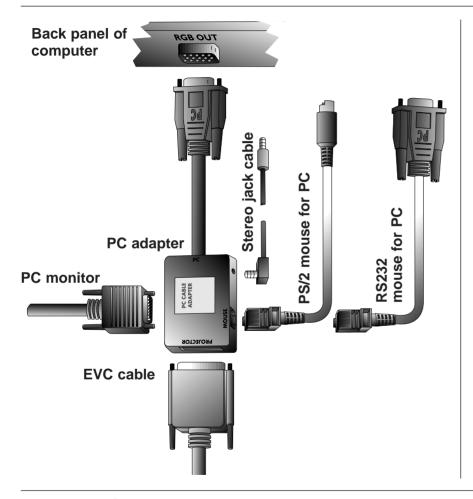






Connecting the mouse cable and stereo jack (PC)

Connecting the mouse cable and stereo jack (MAC)



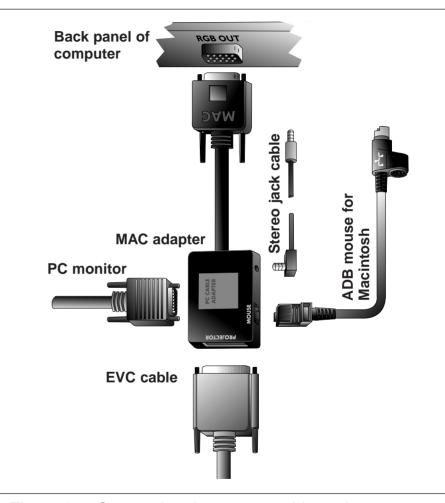


Figure 7: Connecting the mouse cable and stereo jack (PC)

Figure 8: Connecting the mouse cable and stereo jack (MAC)







4. Connecting a video source to the KODAK DP850 ULTRA

The procedure for connecting a video source to the KODAK DP850 ULTRA is the same for S-video and Composite video

SECAM, PAL N and PAL M modes are manually selected by pressing the "Green Button". If the right format is not found the first time, press again. The video format is stored separately for each connector.

- Make sure that the video source and the KODAK DP850 ULTRA are switched off.
- Connect the video cable from the Video out connector of the video source to the correct video connector on the KODAK DP850 ULTRA plug panel.
- 3. Connect the audio cable from the Audio out connectors of the video source to the Audio in connectors on the KODAK DP850 ULTRA. Connect the red plug to the red connector, and the other plug to the white connector. Red is the right stereo channel.

- **4.** When all the connections are done and verified, switch on the video source and the KODAK DP850 ULTRA.
- 5. The KODAK DP850 ULTRA will now automatically display the pictures from the video source. If not, see the section 'What do I do if'.



Figure 9: Connecting to video sources







4.1 Using external speakers

In order to use external speakers with the KODAK DP850 ULTRA you need an amplifier. Connect the amplifier to the audio out on the KODAK DP850 ULTRA.

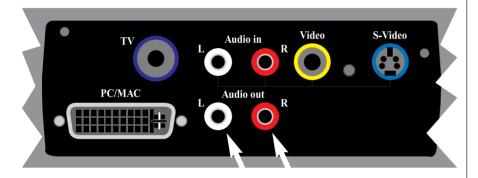


Figure 10: Using external speakers

When external speakers are connected, these can be turned on or off from the KODAK DP850 ULTRA. To control the internal speakers, see section on Adjust audio settings, section 7.3.3.







5. Connecting a TV- source to the KODAK DP850 ULTRA

A TV-tuner is optional for the KODAK DP850 ULTRA

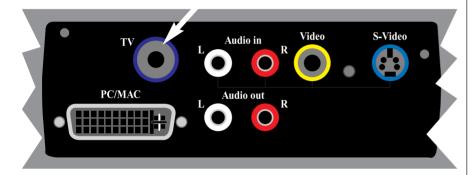


Figure 11: Connecting to TV- source

NOTE! Requires TV tuner to be installed.

In order to use the KODAK DP850 ULTRA as a TV output; connect the TV antenna to the TV connector on the KODAK DP850 ULTRA plug panel.

The KODAK DP850 ULTRA behaves just like a normal TV. See the menus section 7.2.6 on how to adjust the TV settings.

There are basically three ways of receiving the TV signals to the KODAK DP850 ULTRA:

- Antenna (Terrestrial)
- ◆ Cable
- Set-up box for satellite

These three work differently and it is important to consider the options of each when adjusting the KODAK DP850 ULTRA settings.

Antenna

When you adjust your TV to signals from an antenna you must store each channel in a different program. . The same is true for the KODAK DP850 ULTRA TV-tuner. When connected to an antenna you assign the different channels to the programs in the Television Setup Menu. Then you use the Up and Down arrows in the menu, remote control or the channel up/down button on the control panel to switch between channels.







Cable

When you are connected to a cable system you have two options. If you have a cable decoder you set your TV to the channel for the cable, and then you use the remote control for the decoder to switch between channels. If you do not have a decoder you simply set your TV up just like you would with an antenna. This is also the same with the KODAK DP850 ULTRA. You must scroll the channel name in the TV Setup menu until you find the correct channel for your cable system. When this channel has been assigned to one of the program numbers you simply select this program and use the remote control or control panel to switch between channels.

Satellite

This works like the cable decoder meaning that you select the channel that reads the signals from the atellite dish. Then you use the remote control of the decoder to switch between channels.







6. Using the KODAK DP850 ULTRA

6.1 Different program modes for the KODAK DP850 ULTRA

KODAK DP850 ULTRA has different modes of operation:

- Stand-by mode
- Normal mode
- Quick mode
- Menu mode
- Pointer mode
- ◆ Blank mode

Stand-by mode

In stand-by mode the projector is turned off and can be turned on by using defined keys, see section 6.3

Normal mode

In normal mode a picture will be shown on the screen. The mouse will function as a normal PC/MAC mouse.

Quick mode

Quick mode is used with the interactive remote control (quick key). You assign functionality for the quick key on the remote control in the quick menu (see section 7.2.5). When clicking on the Quick key you will be able to switch between all the functions you have selected in this menu.

Menu mode

In menu mode the menu system is activated and you use the mouse pad and the mouse buttons on the remote control to navigate in the menu.

Pointer mode

In pointer mode you can move a pointer cursor on the screen by using the mouse function.

Blank mode

In blank mode the screen is blanked out (black).







6.2 KODAK Remote control

The KODAK Remote control has two purposes:

- To access the Main Menu and control the various image adjustments and utility functions of the KODAK DP850 ULTRA
- 2. To allow remote control of your computer

Pointing it towards the projection screen operates the remote control. An infra red beam bounces from the screen to an infrared receiver on the KODAK DP850 ULTRA.

NOTE!

Make sure nothing is blocking the IR receiver in front of projector located beside the lens, as this will prevent the communication between the remote control and the KODAK DP850 ULTRA.

To ensure smooth operation, the combined distance from the remote control to the screen and back to the projector should not exceed 10 meters (33 ft). If the distance via the screen is longer, you should point the remote control directly towards the IR receiver.



Figure 12: KODAK remote control

The remote control works with Macintosh and with Microsoft Windows, for interactive distance control of your computer. A unique pressure-sensing pad on the remote makes it very easy to control the computer and to perform the exact same operations as you would with a normal mouse.







The Remote control is very easy to operate. It has only six keys in addition to the pressure sensing mouse pad. **The six keys are:**

Key underneath the control

Left mouse key

Small gray key

Interrupt/break an action (right mouse key)

Menu

The menu key gives access to the KODAK menu control functions. To move within the various menu functions, position the arrow cursor by pressing the sensitive mouse pad and click with the left mouse button which is located underneath the remote control.

If you are in menu mode and press the menu key you will return to normal mode

Zap

The two zap keys can be programmed to perform an assigned function. To assign a function to the zap keys, select the Zap icon from the menu. The zap keys can be programmed to do the same function e.g. volume up/down. See section 7.2.5 for further explanations of the zap menu.

Quick

When pressing the Quick key you can switch between all selected functions for the Quick key. See section 7.2.4 for how to select functions for the Quick key.

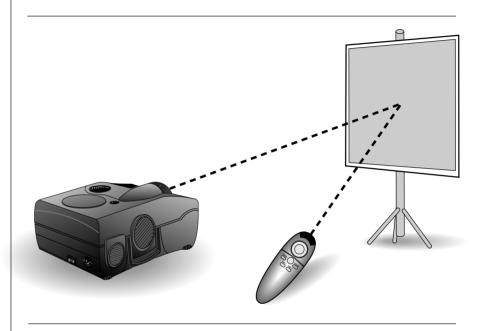


Figure 13: The remote mouse communicates with the KODAK DP850 ULTRA projector via the projection screen







6.3 Using the touch panel on the KODAK DP850 ULTRA



Figure 14: The keys on the touch panel on the KODAK DP850 ULTRA projector

The touch panel gives you direct access to the most important functions of the KODAK DP850 ULTRA. It is very handy to use when the remote control has low batteries, or you simply have forgotten to bring it with you. The key functions are as follows:

Source

The KODAK DP850 ULTRA has direct keys for four sources:

Functionality	Text/colo
◆ Computer (PC/MAC)	(PC)
◆ TV	(TV)
◆ Composite video	(V)
◆ S-video	(S-V)

The TV source button will only work when a TV-tuner is installed.







Volume (+/-)

The Volume key is used to control the sound level when the KODAK DP850 ULTRA is connected to an audio source.

Channel

Click on the arrows left/right to switch between pre-programmed TV channels when TV is selected as source.

Focus

Press the Focus key to focus the projected image after zooming to the correct size.

Zoom

Press the Zoom key to zoom the projected image to the desired size.

Stand by

The stand by key will set the KODAK DP850 ULTRA in stand by mode. The lamp will turn off, and the fans will run for a little while cooling the projector before stopping. To return to normal mode, press the Stand by key once more, or press the Menu key on the remote control.

Automatic set-up

The automatic set-up key will set up the projector with optimal settings for the connected source. If you want to do manual adjustments you can do this by using the menus (see section 7).

Note!

You can not access the screen menu system without the remote control.







6.4 Adjusting the height and angle of the KODAK DP850 ULTRA

You can adjust the height and angle of the KODAK DP850 ULTRA by adjusting the four small feet underneath the product.

NOTE!

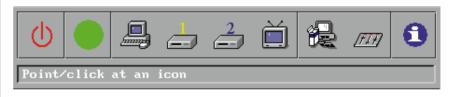
The KODAK DP850 ULTRA should never be left with an angle of more than 15 degrees over a longer period of time. This will shorten the lifetime of the lamp.

7. Using the menus

7.1 The menu system



Main menu.



Menu with video and TV tuner option installed.







7.1.1 Main menu

The main menu is divided into two parts:

- ◆ Icons
- ◆ Help text

Icons

The icons illustrate a function and are grouped into groups with similar functionality. Clicking an icon activates it. Some icons have a direct function and some will activate a second level menu.

Help text

By moving the cursor over the icons the text area will give a short description of the icon.

Stand by



This function sets the projector in stand-by mode

Auto set-up



Auto set-up will do automatic set-up of the projector:

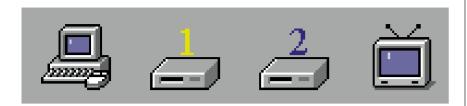
- Horizontal and vertical position
- ◆ Sampling clock
- ◆ Phase
- Chooses between available video formats and NTSC/PAL auto detection







Source



You can connect four different sources to the KODAK DP850 ULTRA; one computer source, two video sources and one TV tuner (optional).

You select the source you want to use by clicking on the icon representing the source. Use the pressuresensing pad on the remote mouse to move the mouse pointer to an icon and click the button (left mouse) underneath the remote mouse.

Set-up menu



In this menu you set up the projector with settings that will not be changed often, e.g. language, mouse system or picture orientation.

Control panel



In this menu you can make adjustments for picture and sound.

Removing the main menu

To remove the menu system, press the MENU key on the Interactive Remote control. You can also remove the menu by clicking the right mouse button (on the top of the remote control). The right mouse button will also function as cancel when in the menus.

The menu will disappear in 40 seconds.







7.2 Set-up menu

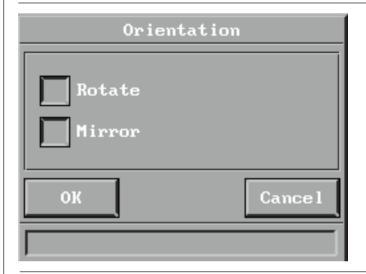


Set-up menu

In the set-up menu the following sub-menus are available:

- ◆ Picture orientation
- ◆ Language
- ◆ Mouse system
- Quick key assignment
- ◆ ZAP keys assignment

7.2.1 Picture orientation



Picture orientation

The picture orientation menu is used for rotating and mirroring the picture.

Normal

Normal is used when the projector is standing on a table projecting a picture on a screen.

Mirror

Mirror is used when the projector is projecting the picture from the back of the screen







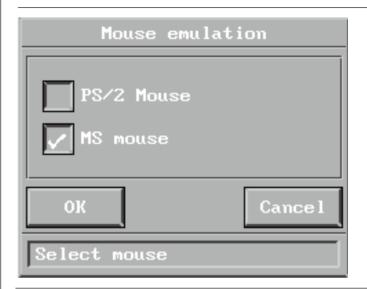
Rotate

Rotate is used when the projector is ceiling mounted and projecting image from the front.

Rotate and mirror

Rotate and mirror is used when the projector is ceiling mounted and projects the picture from the back of the screen.

7.2.2 Mouse system



Mouse system selection

USB and mouse for MAC will be selected automatically when the mouse cable is connected. If your PC uses RS232 mouse, you must choose MS Serial Mouse in this menu. If your PC uses PS/2 mouse, you must choose PS/2 in the menu. Selected system will be active until another system is chosen. When shipped the KODAK DP850 ULTRA is set up to PS/2.







7.2.3 Language



Language selection

This menu allows you to choose between six different menu languages: English, French, German, Italian, Spanish and Norwegian.

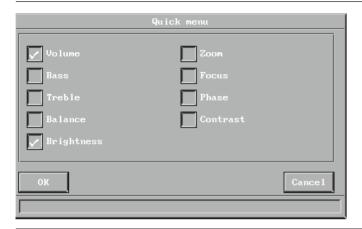
Click in the box next to the language you want to use. Click on the OK button. The window will disappear, and the selected language will be used in the main menu and in all other menus.







7.2.4 Quick menu



Quick menu settings

In the quick menu you can assign functionality for the quick key on the remote control. When clicking on the quick key you will be able to switch between all the functions you have selected in this menu. In this example, the first time you click on the quick key you will activate the volume function. A volume bar will be displayed at the bottom of the projected image where you can adjust the volume up and down. You adjust the bar by either pressing the pressure-sensing pad right or left or you may use one of the two zap keys on the remote control. To accept the adjustment, and terminate the quick mennues click on the left mouse button. To get back to the original volume, click on the right mouse button.

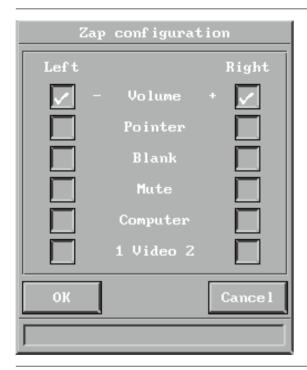
The next click on the quick key will accept the volume adjustment and activate the brightness function and a brightness bar will be shown at the bottom of the page. When you have gone through all assigned functions the menu will disappear.







7.2.5 Zap menu



Zap menu

The Zap menu is used to assign functions to the zap keys on the remote control.

The menu consists of two columns of buttons where the left column assigns the functions to the left key and the right column assigns the functions to the right key.

Volume (+/-)

Controls the sound of active source.

TV channel

Controls the pre programmed TV channel assignments. If a TV tuner is installed and selected as source you can select TV channel by using the zap keys.

Pointer

You can activate the pointer function in the projector. One click activates the pointer and the next click deactivates it.

Blank

Activates blank mode by pressing the Zap key. First click will activate Blank mode and second click will deactivate it.

Mute

Turns the sound off. First click will turn off the sound and second click will turn it on.

Computer

Selects Computer as source.

Video

Selects video sources. Both Zap keys can be programmed to select Video (video input 1 or 2).

Tuner

Select TV-tuner as source.







7.2.6 Television programs



This menu is only displayed if the TV tuner is installed and TV tuner is selected as source. The television program menu is then activated by pressing the "television program" icon

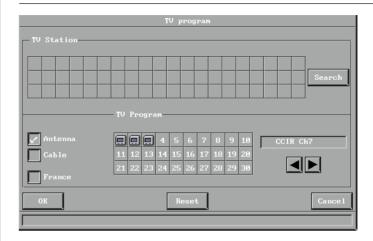
The TV setup menu is divided in two parts:

- Automatic TV station
- ◆ Program

Automatic TV station search

This function selects all TV stations with a signal (maximum 60 stations). These will be symbolized with a TV icon.

Programming new channels



There are 30 channels that can be preprogrammed.

By selecting the Search button the system will scan through all available TV channels. A TV icon will symbolize all channels found.

When assigning a Channel to a Program:

- **1.** Select a channel in the automatic search menu by clicking on the TV icon symbolising the wanted TV station.
- 2. The TV channel will be activated.
- **3.** Select the program you want to place this channel on.
- **4.** TV icon will appear on this program choice.

To search for channels manually, use the arrow keys at the bottom right.







7.2.7 Product information



Product information

Click on the product information icon in order to get information about the product and company.



Press the main menu button again to exit this screen

7.3 Control panel menu



Control panel menu

In the control panel you have access to menus for adjusting picture and audio settings.

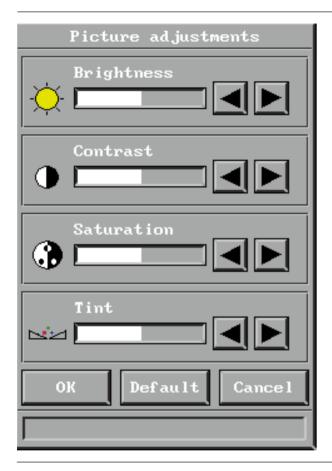
The icons "Picture positioning" and "Synchronization Adjustments" are only visible if PC source is active.







7.3.1 Picture control



Picture control

Select the picture control menu for adjusting brightness, saturation and tint. When PC is selected as source, only brightness will be available.

When PAL/SECAM video is selected brightness, contrast and saturation will be available. All options will be available for NTSC video.

Select OK to save your changes and exit, or select Cancel to exit without saving your changes.

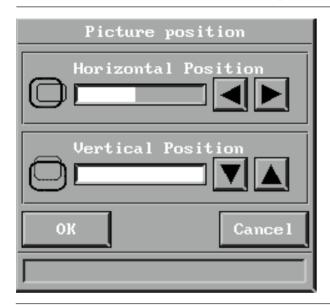
Selecting Default restores factory settings.







7.3.2 Picture positioning

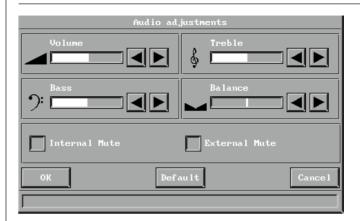


Picture positioning

Adjust vertical and horizontal position of the picture on the screen with the two sliders.

Select OK to save your changes and exit, or select Cancel to exit without saving your changes.

7.3.3 Audio control



Audio control

Select this function when you have connected an audio signal to the 'Audio in' on the KODAK DP850 ULTRA connectors (or through the EVC cable). Use the four sliders to adjust volume, bass, treble and balance until you have a satisfying sound.

Select Internal Mute to mute the internal speakers. Select External Mute to mute the external audio output.

Select OK to save your changes and exit, or select Cancel to exit without saving your changes.

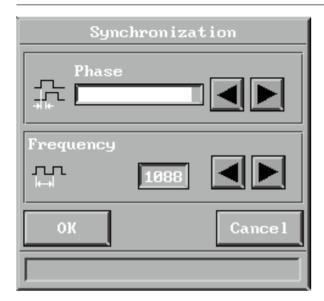
Selecting Default restores factory settings.







7.3.4 Synchronization Adjustments



Synchronization Adjustments

It is possible to adjust the synchronization in Computer mode by adjusting the Phase and the Frequency. The synchronization will be set by the automatic set-up function. Manual sync adjustments should typically not be required.

7.3.5 Color manager



Color tone settings

The color manager is designed to give you maximum performance from your KODAK DP850 ULTRA projector, independent of ambient light conditions.

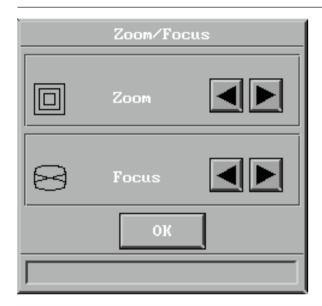
In the color manager menu you can choose between four pre-defined Color settings.







7.3.6 Zoom/Focus adjustments



Zoom and focus adjustments

In this menu you can adjust the Zoom and Focus of the KODAK DP850 ULTRA by clicking on the up and down arrows in the menu. When you have adjusted the image to your satisfaction, click on the OK button to exit and save your new settings.

8. Maintenance

All maintenance should be done by KODAK authorized service personnel. Contact your KODAK dealer for maintenance.

The KODAK DP850 ULTRA lamp is designed to give you 2000 hours performance. In the unlikely event that you should have to chenge the lamp, you will find complete instruction on how to replace the lamp included in the spare lamp kit.







9. What do I do if (Trouble shooting)

No image appears on the screen

Possible causes and remedies:

- The KODAK DP850 ULTRA is left in Standby mode. If the product is in standby mode, there will be a red light next to the stand-by button. Press the stand-by button or the Menu key on the remote cotrol.
- 2. The lamp does not function. Check the light on the control panel. If the light is orange, the lamp does not function. Contact your KODAK dealer.
- **3.** The product is set in 'blank mode'. Press the zap keys on the remote control.
- **4.** The brightness is turned on too low. Adjust brightness until a satisfactory image is achieved.
- 5. The power save or screen save on the PC is turned on. Turn off the power save and screen save on the PC.
- **6.** The image is displayed on the laptop screen and not the projector. Activate the external port on the laptop by pressing the required key combination on your computer.

7. The KODAK DP850 ULTRA is not connected to electricity. Check that the power cable is connected to the KODAK DP850 ULTRA and the wall outlet.

No source signal is detected (the KODAK Welcome Picture appears)

Possible causes and remedies:

- **1.** The computer has not been switched on. Turn on the computer.
- **2.** The cables are not properly connected. Check all cable connections.
- **3.** For Notebooks: The external RGB port may need to be manually activated. Please consult the notebook-operating manual for how to operate.







The image is not good (noise)

Possible causes and remedies:

- 1. The automatic image set-up is not activated. Run auto set-up by pressing the green button on the touch panel or run auto set-up from the menu.
- **2.** The synchronization on the PC is not set optimally.

There is poor response from the Interactive Remote Control

Possible causes and remedies:

- Check that nothing is blocking the IR receiver at the front of the KODAK DP850 ULTRA.
- **2.** Make sure the remote is pointed towards the screen.
- **3.** Make sure there is no more than 10m/33ft in distance to the projector.
- **4.** Batteries might be low. Change batteries in the remote control.
- **5.** Electromagnetic or optic noise may influence the remote control.
 - Turn off sharp fluorescent tubes, mobile phones etc that are near the projector.

No Image Appears

Possible causes and remedies:

- 1. The KODAK DP850 ULTRA has not been switched on. Check the ON/OFF switch at the back.
- 2. There is no electricity in the power outlet in the wall. Check that there is power in the power outlet. NOTE! When all connections to electricity are OK, there will be a green light at the control panel.







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