

## Projector Components



### Caution!

High voltage and strong UV radiation is present in these projectors!

To prevent personal injury, electrical shock, exposure to UV radiation and fire hazard, always refer to the "Safety" chapter in any DP2K Installation Manual.



B Series

C Series



- 1 Touch Panel** — Used for controlling, set-up and projector maintenance (e.g., resetting the lamp run-time when a new lamp is installed).
- 2 Touch Panel Connector** — Provides power and communication for the Touch Panel.  
**Important:** To avoid connector damage, align the pins before you connect the cable.
- 3 Exhaust Output** — Removes heat from lamp house. Must be connected to external extraction system.  
**Important:** The extraction system must be running. A flexible duct must be installed.
- 4 Automated Motorized Lens** — Automatically adjusts the image between screen formats when a macro is selected. Always remove the lens cap prior to use.
- 5 Input Module** — Used for communication, GPIO, and alternative content connections to the projector.

- 6 Keypad** — Used to switch lamp and dower on or off. Also used for macro selection, lens adjustments and selection of test patterns.
- 7 Mains Power Switch (B Series)** — Powers the projector head off, but the LPS units remain on.  
**Important:** Use caution. Voltage is still present in the B series LPS when the Mains Switch is off.
- 8 Mains Power Switch (C Series)** — Powers projector on and off. Shuts off all electrical connections.  
**Important:** For all projectors, the lamp must be cooled down for 10 minutes before switching off.
- 9 Status Light** —
  - Green = System OK
  - Yellow = Warning
  - Red = Error condition
  - Blue = Maintenance notification

**BARCO**

Visibly yours

Projector Features

Macro Buttons

Used to configure the projector for each show. Each button is linked to a list of commands (called a "Macro") as defined in the Communicator software.

Lamp ★

Press once to turn the lamp on. Press once to turn the lamp off.  
**ON = Green**    **OFF = Red**

Dowser Control ★

Press once to open the dowser. Press once to close the dowser.  
**OPEN = Green**    **CLOSED = Red**

Test Pattern ★

Press to enable and cycle through 4 test patterns. To return to normal operations, press a fifth time, or select a macro. Note that the button turns green when boot-up is complete.

Lens Adjustment ★

Positions the image on screen. Used for manual override.

Focus ★

Adjusts primary image focus.

Dallas Key Receiver

This security feature must be used if the projector's light engine compartment is opened, or if any boards are removed.

Zoom ★

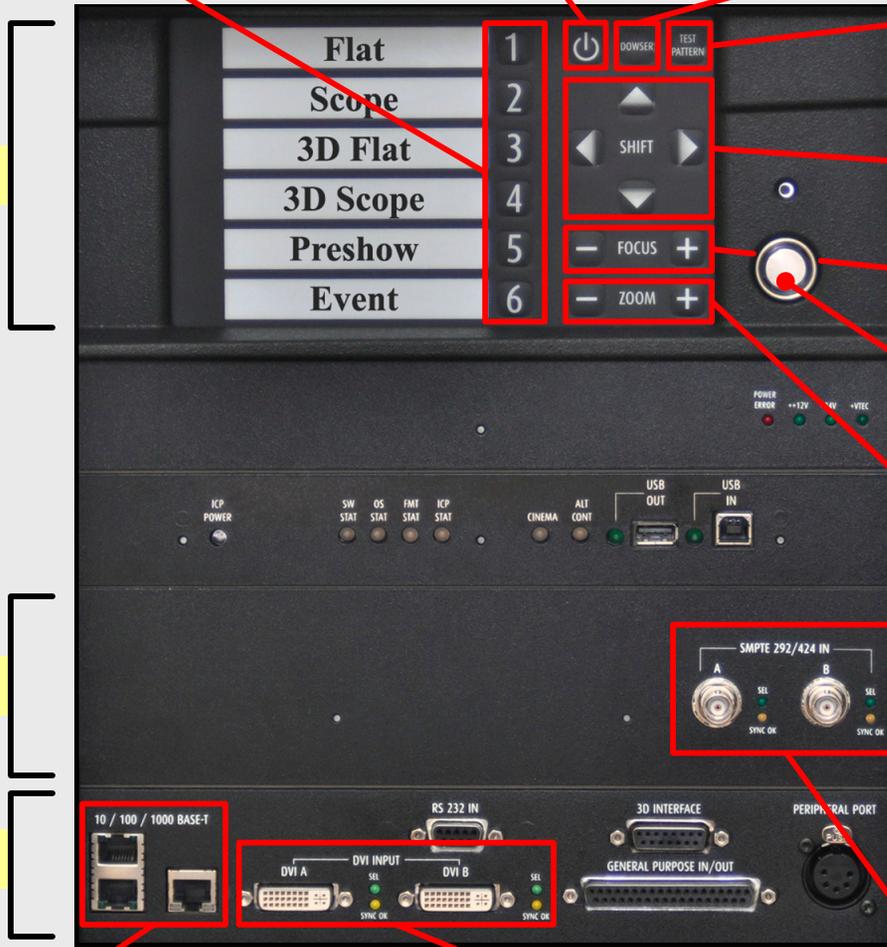
Increases or decreases image size.

**Important** ★  
 These features are not typically used for normal operations. The video server sends commands to the projector to control these functions.

Keypad

HD-SDI Module

Input Module



Ethernet

Used for communication from projector to server and theater management system. Also used for laptop connection, for upgrades and running Communicator.

DVI-D (Digital) Inputs

Accepts data signals from alternative content devices. LEDs indicate sync status, and if input is selected.

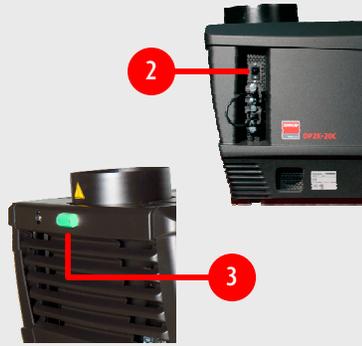
SMPTE 292/424 BNC Inputs

Accepts an encrypted content data stream from the server. LEDs indicate sync status, and if the input is selected.

General Procedures

Power Up

- 1 Ensure that the extraction system is on, and the flexible duct is installed.
- 2 Switch on the **Mains Power**. Allow up to one minute for the projector to finish the boot-up sequence. Boot-up is complete when the **Test Pattern** button turns green.
- 3 If the projector's **Status Light** turns red, yellow or blue, refer to the **Troubleshooting** section in this guide.
- 4 Remove the lens cap (if applicable).



Power Down

- 1 If the lamp is on, press the **Lamp** button and allow the lamp to cool for 10 minutes prior to electrical power down.



**Important** Damage will result if you do not allow the lamp to cool down!

- 2 After the 10 minute cool down period, switch off the projector's **Mains Power**.



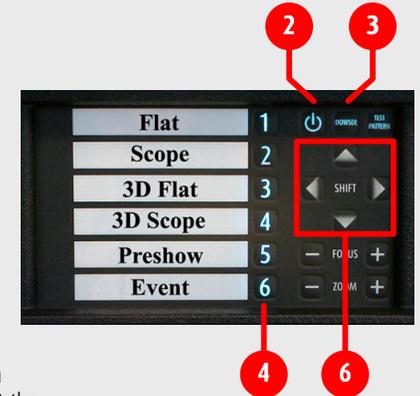
System Reboot Sequence

- 1 If the lamp is on, press the **Lamp** button and allow the lamp to cool for 1 minute.
- 2 Switch off the **Mains Power**.
- 3 After 30 seconds, turn **Mains Power** on, and allow 1 minute for the system to boot, until **Test Pattern** button turns green.
- 4 Continue with normal projector operations as required.



Playing a Movie Controlled by the Server

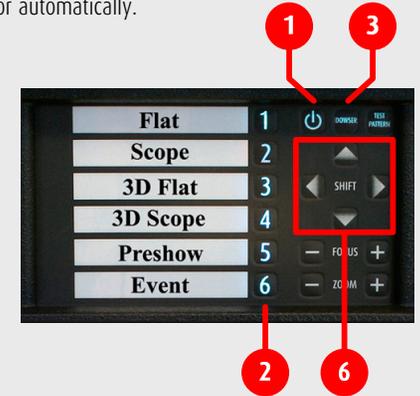
- 1 Play the movie from the server.
- 2 Check if the **Lamp** button turns green.
- 3 Check if the **Dowser** button turns green.
- 4 Check that the appropriate **Macro** is selected.
- 5 Check the image on screen for proper alignment and color.
- 6 **Optional:** If the image is not aligned with the screen masking, use the **Lens Adjustment Buttons** to correct the image on screen. Be sure to notify the theater technician.



Playing a Movie Manually

During normal operations, the server should start the projector automatically. If it does not start automatically, use the following steps.

- 1 Press the **Lamp** button. Check if the button turns green.
- 2 Select the appropriate **Macro** for the next show. Allow a moment for the lens to move into position, and the electronic "masking" files to be loaded.
- 3 Press the **Dowser** button if required.
- 4 Play the movie from the server.
- 5 Check the image on screen for the proper alignment and color.
- 6 **Optional:** If the image is not aligned with the screen masking, use the **Lens Adjustment Buttons** to correct the image on screen. Be sure to notify the theater technician.



Maintenance Procedures

Optical System Maintenance

- 1 When needed, clean the **Lens** with a damp lens cloth, using distilled water. Do not use tap water or alcohol.
- 2 When needed, clean the **Port Window**.
- 3 Replace the lamp when the maximum lamp runtime is reached and the **Status Light** turns blue, or when the projector's light output falls below optimum requirements.
- 4 For full details on all maintenance activities, refer to the **Maintenance Guide**.



Cleaning the Exterior of the Projector

- 1 Switch off the projector, and unplug the projector from the mains power net.
- 2 Clean the projector's outside housing with a damp cloth. Stubborn stains may be removed with a cloth that is lightly dampened with a mild detergent solution.



Cleaning the Intakes and Filters

- 1 Turn the projector off.
- 2 Remove the projector's front and left side covers.
- 3 Vacuum clean all air intakes, and vacuum clean the LPS main air intake on the bottom of the projector.
- 4 Slide the **Main Filter** out. Use a vacuum cleaner, or clean gently with water (see note below). Re-install the filter when complete.
- 5 Slide the **Heat Exchanger Filter** out. Use a vacuum cleaner, or clean gently with water (see note below). Re-install the filter when complete.
- 6 Slide the **Cold Mirror Filter** out.
  - 6a Location on C Series.
  - 6b Location on B Series.
 Use a vacuum cleaner, or clean gently with water (see note below). Re-install the filter when complete.
- 7 Re-install all covers, and turn the projector back on.

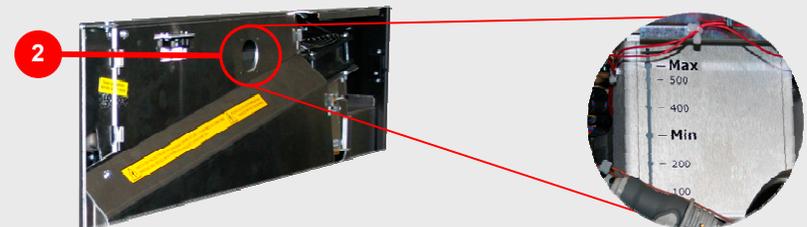


**Note** If water is used, ensure that the filter is dry before re-installing.

Checking the Cooling Liquid Level

All Series 2 projectors (except the DP2K-12C) are liquid cooled. It is important to check the liquid level every 3 months. In the reservoir, the liquid level must be between the **Min** and **Max** labels. A significant drop in level indicates a major leak in the cooling system, which will require immediate attention.

- 1 Remove the side cover on the light processor side of the projector.
- 2 Look through the small window in the security cover, and check the liquid level in the reservoir.
  - If the level is between **Min** and **Max**, no action is needed.
  - If the level is lower than **Min**, contact the theater's technician immediately. He will need to start the refill procedure and check for leaks in the cooling system.

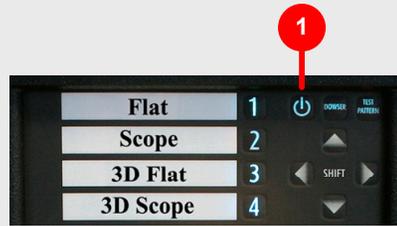


**Note:** If you cannot see the fluid level, remove the projector's top cover and shine a flashlight on the reservoir filler cap while looking through the small window.

Troubleshooting

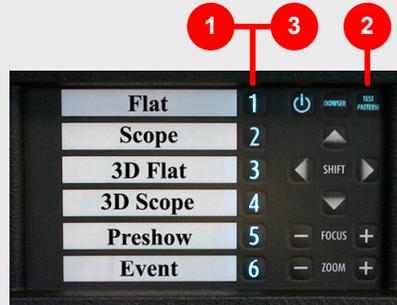
**Problem: The lamp does not strike**

- 1 Press the **Lamp** button. Between each strike attempt, allow 10 seconds (if lamp is cold) or 1 minute (if lamp is hot).
- 2 If after the third attempt the lamp does not strike, check the **Touch Panel** for errors, then contact the theater's technician.



**Problem: Content is distorted or not playing with the correct color**

- 1 Reselect the proper **Macro Button** on the projector for the current movie.
- 2 Use the **Test Pattern Button** to select color bars. Check that red, green and blue can all be seen.
- 3 Reselect the proper **Macro Button** again, for the current movie.
- 4 Restart the projector and server, and try to re-play the movie. Let the lamp cool down for at least 1 minute prior to restarting.



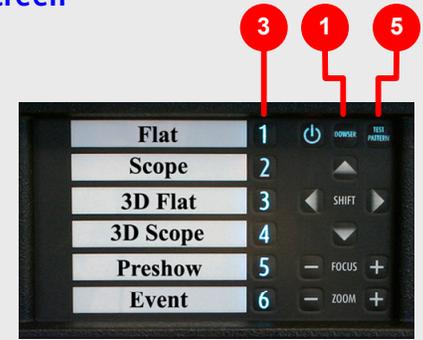
**Problem: The projector Status Light is solid red, yellow or blue**

-  **Red** = Error condition. Restart the projector. If the status light turns green, problem is resolved. Check the **Touch Panel** for "red" marked error messages. If you find an error, report it to the theater technician.
-  **Yellow** = Warning. Check the **Touch Panel** for "yellow" marked warning messages and take action accordingly.
-  **Blue** = Maintenance notification. Check the **Touch Panel** for "blue" marked messages and perform the suggested maintenance.



**Problem: There is no image on the screen**

- 1 Check to see if the **Lamp** is on and the **Dowser** is open.
- 2 Check that the **Lens Cap** is removed.
- 3 Verify that the correct **Macro** is selected.
- 4 Verify that the server is playing.
- 5 Verify the operation of the projector with a **Test Pattern**.
- 6 Check all video connections from the server. Try playing different content.



- 7 Restart projector and server. Try to play the movie again. Let the projector lamp cool down for at least one minute prior to restarting.

**Problem: The image appears dim**

- 1 On the Touch Panel, select the **Control Tab** and press the **"Service"** button.
- 2 Check the **"Current Light Output"** reading. If the light output does not indicate at least 11 FL, contact the theater technician



**Problem: The projector indicates an overheating error**

- 1 Check the booth's ambient temperature, which must fall between:
  - 50 - 95 degrees Fahrenheit
  - 10 - 35 degrees Celsius
- 2 Check that the extraction system is operating.
- 3 Check that the filters are clean.
- 4 Contact the theater technician.

