

4D
pop·up

**User Guide
v1.4**

Don't forget to consult the accompanying videos to this user guide.

These can be found under the '4D tutorials' thumbnail on your iPad's home screen.

What is an immersive learning space?

[Imagine a place that could be anything you want it to be...](#)

A 4D Immersive Space is a creative learning space which facilitates flexible and experiential approaches to education.

Our immersive spaces are created through LED lighting, giant projection and surround sound; the three elements change at the touch of a button to instantly transform the teaching environment.

Using our unique software and simple touchscreen controls, users can instantly change the mood, atmosphere and location of the room. It's easy to upload your own sounds, videos and pictures to create your own environments.

About 4D pop up

[An instant immersive space with endless possibilities...](#)

4D pop up is a unique product that is changing the way young people learn.

A complete package of Wireless LED Lighting, large scale projection and a Bose sound system are all triggered from the iPad to create any scenario imaginable inside the self inflating pod.

Our powerful yet intuitive software is preloaded with content so you can get Creative from the minute you open the box. You can upload your own pictures, videos and sounds in seconds to create your own immersive experiences.

This mobile solution takes less than 15 minutes for 1 person to set up and requires no tools or techies. It's completely modular so you can add more options over time...you can even join 2 pods together to accommodate up to 40 young people!

About this user guide

[Familiarising yourself with your new tool for immersive learning...](#)

This user guide has been designed to help you set up all the main elements of your 4D pop up: the inflatable pod; the 4D create software; and the two flight cases containing all of the technical components that make your pop up come to life.

It contains practical information on how to use your 4D pop up, FAQs and product information, as well as tips for safe use and storage.

Delving deeper

[Creative training to help you get the most out of your pop up...](#)

4D pop ups are designed to be a creative tool for you to use in you're teaching and learning.

We know that you want your spaces to inspire and excite the young people that you work with. We want to do the same with you!

In addition to the practical information provided in this user guide, 4D Creative also offer a range of training packages to help our network of schools make the most of their immersive spaces. Our training is designed to leave you wanting to dive into the space and use it to the limits of its possibilities with confidence and creativity.

Your feedback matters!

[Help us to continue developing your immersive space](#)

As recipients of a 4D Group pop up, you are embarking on an exciting and explorative journey with us that lies at the forefront of innovation in the classroom.

Here at 4D Group we have spent over 2 year's developing our 4D pop up product to ensure that what you receive is to the highest quality and specification.

In order to ensure that this product really transcends the boundaries of normal learning environments, we need to know how you use it! We want to listen to your thoughts on what works, what doesn't, and how you would like to see the product develop as it grows.

We hope that you will be happy to contribute to this development process and we will be in contact with you soon to look at how we might learn from you and your team.

If you have any questions or need further details, please do not hesitate to get in touch:

T: 0844 414 2595

E: support@4dimmersive.com

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Don't forget your videos!

We have also created a range of video user guides that are designed as an accompaniment to this written user guide.

These can be found on your iPad desktop.

There are 14 videos in total:

1. Setting up the tech
2. Setting up the pop up
3. Combining the tech & pop up
4. Screens
5. Launching the software & positioning the projectors
6. Introduction to 4D Create
7. Adding your own content
8. Making a theme
9. Making a timeline
10. Switches
11. Packing away the tech
12. Folding the inflatable
13. Packing away & charging the tech
14. Troubleshooting

These videos are designed as accompaniment to this written user guide. They allow you to gain a visual understanding of how your 4D pop up is set up and used.

If you have any further questions then please contact the 4D Group team on 0844 414 2595 or by emailing support@4dimmersive.com

What's in the box?

4D pop up

Everything you need for your 4D pop up is packed into four separate components.

2nd Flightcase

This flightcase contains your second projector.



Projection Screens

Contains your two projection screens encased in protective foam.

Inflatable Pod

A durable structure that self-inflates to form an instant immersive space.

Main Flight case

A robust "plug and play" box that safely houses all of the technical kit.

Inflatable Front Panel

The front section, door and black out projector hole inserts are stored in this secondary bag for lightweight transportation.

Inflatable pod

Your inflatable pod is an indoor structure that provides the physical walls and ceiling for your immersive space in a very portable and unique way.

Main Structure



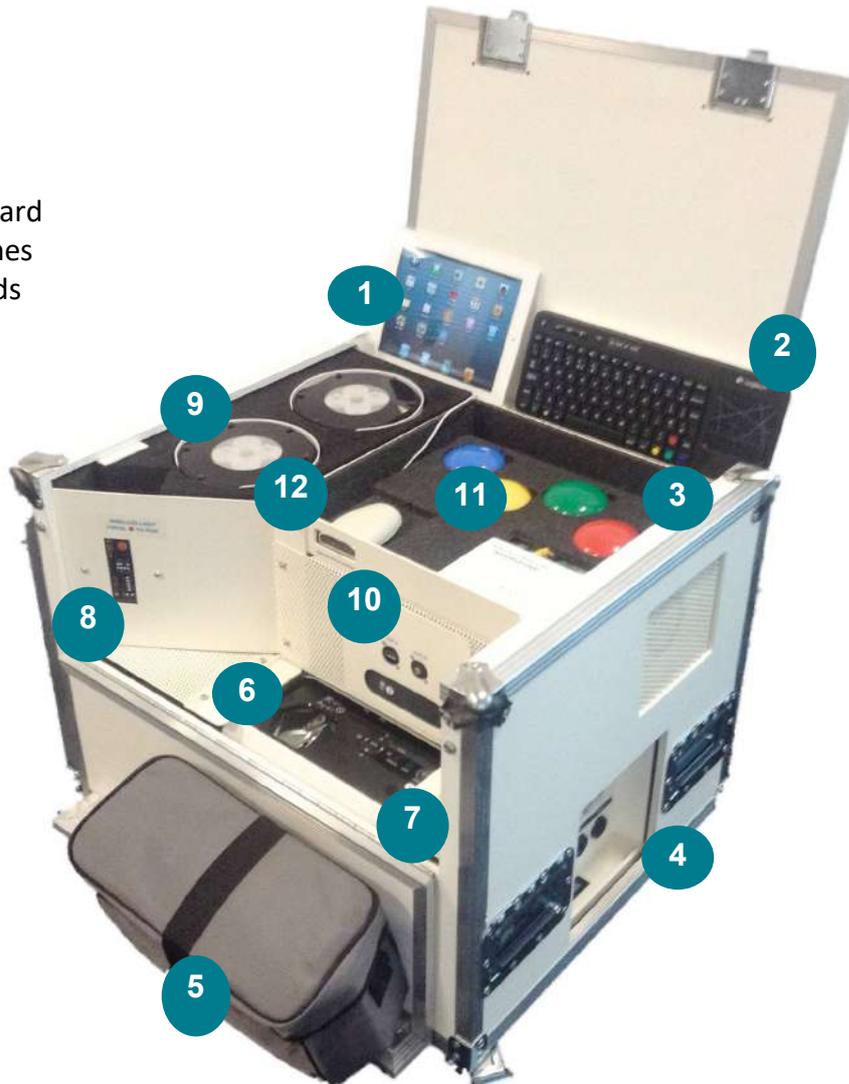
Projector hole inserts
(should you want to use the
pod without projection)

Front panel
and door



Main Flight Case

- 1 iPad control
- 2 Wireless keyboard
- 3 Wireless switches
- 4 Sockets for leads



- 5 Storage for wires and cables
- 6 1st projector
- 7 Volume control
- 8 Wireless light switch control
- 9 Wireless lights & charging pads x2
- 10 PC control
- 11 Wireless router
- 11 Wireless switch receiver

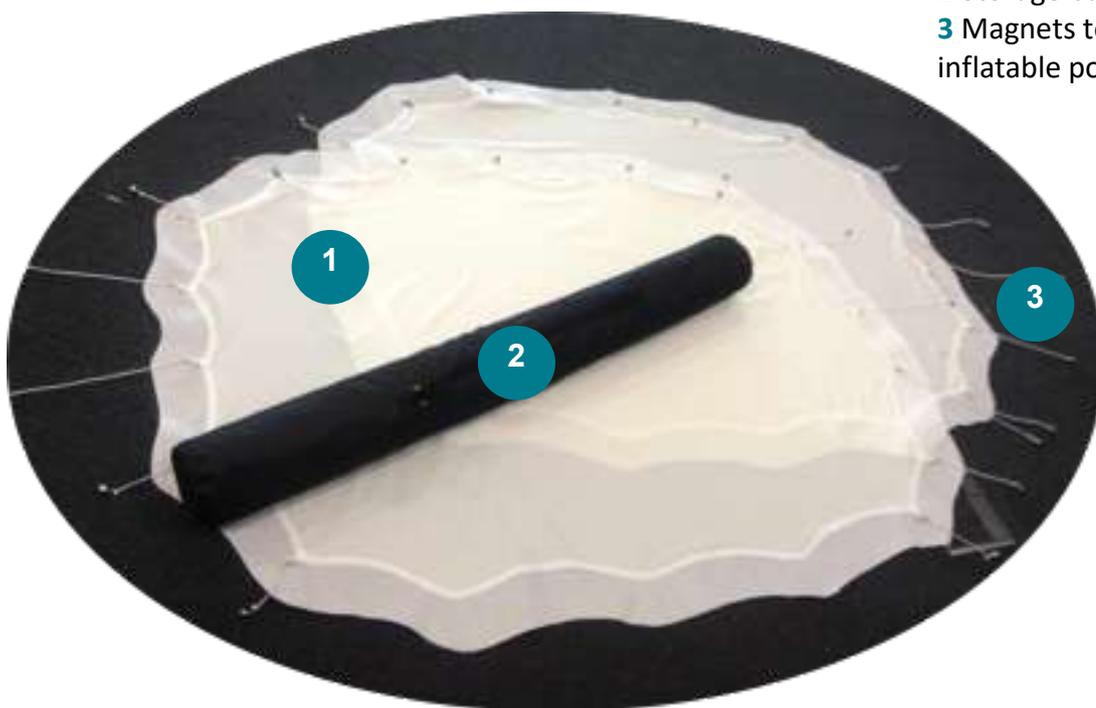
Small Flight Case



1 2nd Short throw projector

2 Upper lid

Screens



1 Screens x 2

2 Storage bag

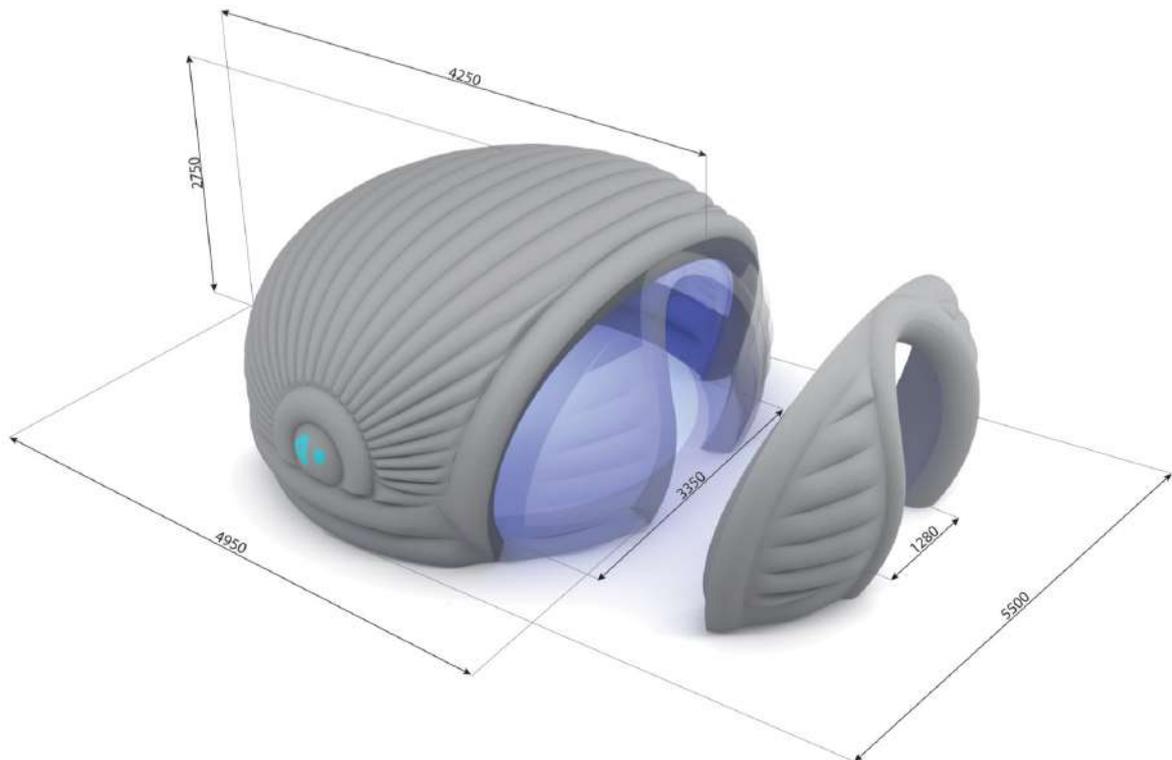
3 Magnets to attach screens to inflatable pod

Before you get started

Check the space is big enough to inflate your pop up

Inflated - the Pod measures 5000 x 5500 x 2600 mm

Inflatable Pop Up



Check you have everything

To set up your 4D pop up first ensure that you have:

- Access to 1x 13 amp plug socket
- Fully charged the iPad
- Fully charged the lights (see page 30 on how to do this)
- A room that is at least 7m wide, 6 m deep and 3 m high.

You will need the following:

1x large flight case



1x small flight case



2x projection screens in carry case



All sections of your inflatable pod (see p9)



2x fans with connected power leads



1x power connector for flight case



1x power connector for 2nd projector



1x HDMI cable for 2nd projector



Top Tip!

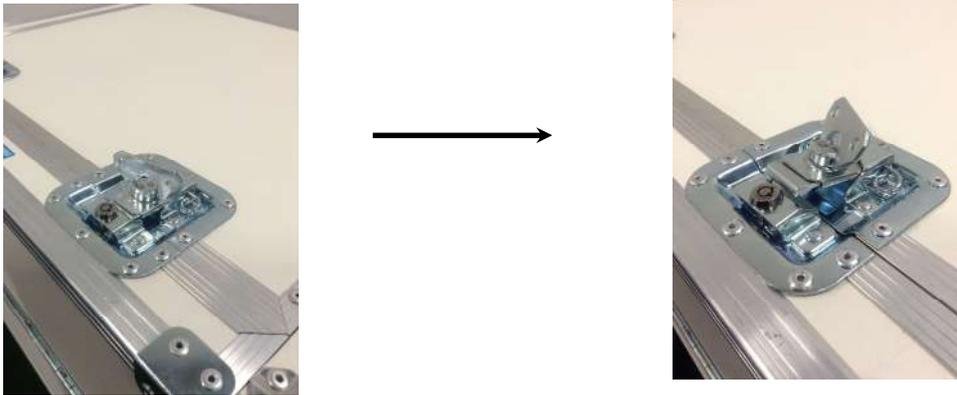
Ensure iPad and wireless lights are fully charged before you start.

You can check your wireless lights by turning them on and checking the battery power bar. If they are not full charged, refer to page 29.

Setting up your pop up

We envisage it should take you around 15 minutes to inflate and set up your 4D pop up once you have done it a few times. However, we recommend a set up time of around 30 minutes the first few times you do this on your own.

1. Open the lid on the large flightcase. Lift the catches on the top of the flightcase up and twist anti-clockwise to open.



2. Open the second projector carry case. Remove the top of the outer case and place aside.



3. Pull the inflatables and fans out of the bag and lay the main body out silver side up, roughly in the position that you want it to be. The two 'pop up' branded tags (one on either side of the pod) will help you to position it.



4. Roughly position the main and second flight case into position at the back of the pop up to align with the corresponding spaces. Standing behind the Pod, the larger of the two flight case should be positioned in the space to your right.
5. Close the 3 zips that run along the base of the inflatable (two at the sides, one at the back), then seal the velcro over the zips securely.



Top Tip!

Zip from end to end so that you can find them easily again.

6. Locate the two square fan inserts; these are on the back of the pop up. Insert the fans into the inflatable with the air tubes facing sideways, making sure the Velcro is sealed securely.



Top Tip!

Use fan holes as a guide for positioning of the pop up

7. Connect fans to flightcase, ensuring first that the mains cable is **not** plugged in. Use the longer fan power connector for those furthest away from the main flightcase.



Top Tip!

Cables should go in and twist to connect. You should hear a click.

- Remove cables from flightcase and use these to connect the second projector to the flight case using 1x power lead and 1x HDMI cable.

Main Flight case



2nd Flightcase



- Ensure the power trip switch is switched on, then plug the flightcase to the mains electric. Fans should come on and the pop up will start to inflate. After 2 to 3 minutes the pop up should be inflated and holding its structure and buoyancy.

Top Tip!

To help your pop up inflate, ensure the fans can draw in air and remain upright, and that the dimmer switch on fan cables is turned to max for quickest inflation.

- If you'd like to work without the front section attached, please refer to p20 for further details.
- Remove wireless keyboard, iPad, wireless switches and lights from flightcase whilst pop up inflates.
- Remove projection screens from carry case and connect to magnets on the internal wall of the pop up. Follow colour coded guide on back of screens. Ensure you support the screens whilst hanging. The screen with Yellow & Blue tags goes on the Left of the pod, the Green & Red on the Right.



Top Tip!

Fixing the top magnets in first makes it much easier. Magnets will repel if put in wrong position.

Top Tip!

Use the tension clips to adjust the length of the magnet elastic if needed.



13. Switch on the projectors in the main flight case and the second flightcase (these will be marked with a "1" sticker on your flight cases). The blue light will flash rapidly whilst the lamp warms up. When this light turns solid, the projector is ready to go.



14. Tap once to activate the round grey and black BOSE volume (marked "2") control. Touch to change light from orange (standby) to green (on).



15. Switch on PC (marked '3'). The projectors will start to load up Microsoft Windows. After a while the screens will turn black; this means 4D create software is loaded.

16. Position lights inside your pop up and then switch on.



Top Tip!

For the best lighting impact tilt the head of each LED light to approx. 45 degrees and shine onto each side of the pop up wall.



17. Turn the iPad on and load the 4D create app. Your PC will automatically load 4D create.

Top Tip!

Ensure you are connected to the correct wireless network on your iPad by checking the Settings tab. You need to be on the '4Dpopup...' network. Select this and enter the password **password1234** if not already connected.

18. Choose theme '4D Bookcase' to position the projection. Sound, lights and projection will turn on.



19. Manually align projection with the screens by moving the flight cases into position and check the position of the lights. This is easiest to do from inside the inflatable pod, so you can see the image moving as you move the flightcase forwards or back. Test the volume of the sound system by using the BOSE control. Adjust your lights using the bulb button on your iPad (see page 23).

Top Tip!

How you position your images is up to you. We like avoiding straight edge projection to achieve an overlap effect – but how you do it is up to you!

And another Top Tip!

You might also want to consider projecting onto the inflatable structure itself without using the screens. This is a great way to create a very different atmosphere and some themes lend themselves incredibly well to this - Try "4D Drifting through Space," "4D Coding" and "4D Bubbles," or "4D Underwater".



20. If looking to work without the front section attached, proceed to instruction 21.

If you want to keep your front section attached, you're now ready to go!

21. Unzip the doorway if required.



22. There are two zips on the front section, one on the inside and one on the outside. Unzip the outer first, leaving the inner zip intact.



23. Begin to unzip the inner zip on the right hand side of the pop up. You will notice that the vent hole that was velcroed to the front panel will start to open.



24. Simply fold down the attached velcro panel on the main structure to close down the air-vent, ensuring the main structure remains inflated.
25. Continue to unzip the inner zip and repeat the air vent process again on the Left hand side. Ensure velcro is secured tightly to avoid deflation.

You're now ready to go!

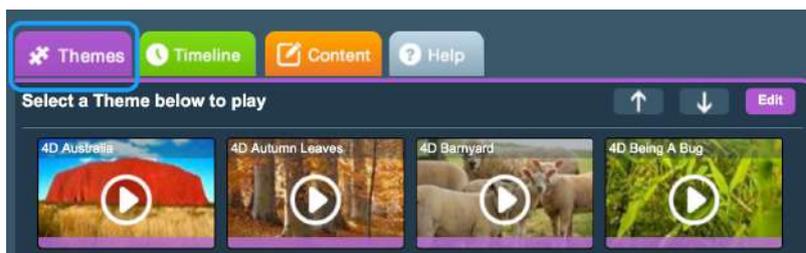
Setting up 4D create

An overview

Once you have switched on the flightcase and launched the App on the iPad (See instruction 17 above) your 4D pop up begins to come to life. This is how your software will look when you have loaded it.



The purple Tab is the THEMES page. To play a THEME simply touch the play button on the relevant thumbnail, which will trigger a preset mixture of PROJECTION, LIGHTS and SOUND. This is what we call CONTENT.



Top Tip!

Press and breathe! The THEMES take a moment to load and have built in fades. Don't be tempted to continuously click the theme in order to speed up the process as this will only confuse it! Press the play button again to pause.

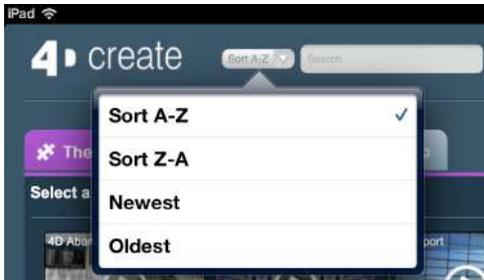
There are inbuilt fades as you move from one theme to another so that you can experience the content in powerful and exciting ways, without the interruption of jarring jolts between them.

Your 4D create library includes numerous themes. To scroll through your library, simply use your finger to slide down the scrollbar on the right.

This method also works in the SOUND, PROJECTION and LIGHTS library found in the CONTENT tabs.

Organising your content

At the top of the screen next to the 4D create logo and you will see Sort options. These will rearrange the Themes in a particular order. Sort A - Z is the default sorting option.



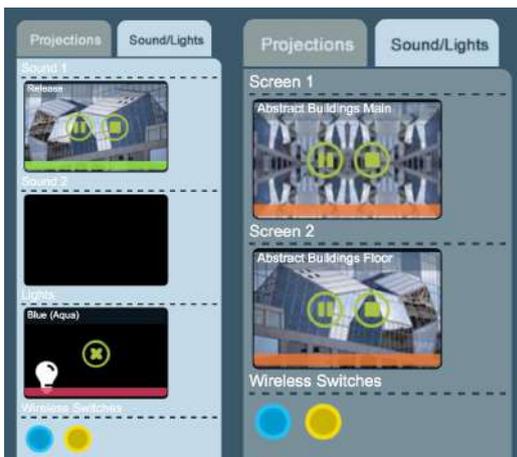
Sort A - Z	Sorts the themes in alphabetical order
Sort Z - A	Sorts the themes in reverse alphabetical order
Newest	Brings the themes that were most recently created to the top of the Theme window
Oldest	Brings the themes that were first created to the top of the Theme window

This method also works in the SOUND, PROJECTION, LIGHTS and TIMELINE library tabs.

To search for a theme or tag (a keyword that you can attribute to your content to group different themes together) type your search word into the the Search bar, next to the sort options.

The Stage Area - How to see what's in your theme or playing 'live'

To the right of the screen is the Stage area. This area shows you the different components of the content that is currently playing.



There are two tabs to choose from:

Projections	Shows you which Image or Video is playing on which projection screen.
Sound/Lights	Shows you the two Sound Stages and a Lighting Stage.

For example:

If you press the play icon for the Theme 4D Abstract Buildings, it will trigger:

Within the Projections Tab The image Abstract Buildings Main on Screen 1
The image Abstract Buildings Main on Screen 2

Within the Sound/Lights Tab The piece of Music, *4DRelease*
The lighting state, *Blue (Aqua)*

Controlling your theme

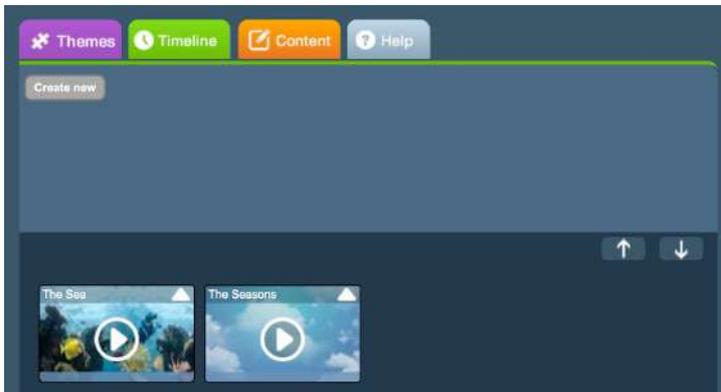
At the top of the 4D create screen there is a row panel of icons that give you additional control of 4D create.



- Pause** Press this and playback of Sound & Video will Pause.
- Press again and playback of Sound & Video will resume.
- Stop** Press this once and playback of Sound & Video will Pause.
- Press again and all Content will unload from the Stage.
- Video and Images will clear from the screens, sound will stop and the lights will fade.
- There will be no content showing on the Stage area.
- Speaker** Tap the speaker icon and this will bring up the master volume controller.
- Drag the slider to the bottom and this will activate the Mute Option, the icon will change to a red crossed out image. To un-mute tap the mute icon again, which will bring back the volume slide. Raise the slider back to the required level.
- Lightbulb** The lightbulb image allows you set the brightness of the lighting.
- Tap the lightbulb icon to bring up the slider, which will change the level of intensity of your lighting.
- Import Media** Tap the import icon to import a video/sound or image. Before you do so, ensure that your storage device (i.e., External HD or USB stick) is connected to the flight case. Refer to page 25 'Creating New Content' for further details.

Timeline

The green Timeline Tab brings up the Timeline menu.



A Timeline is a selection of themes that are programmed to automatically change after a certain period of time.

To create a new Timeline:

- Press the Create New icon.
- Add the Themes that you want in the Timeline by pressing the + sign.
- Set the playback time for each theme via the drop-down on each thumbnail within the timeline
- You can change the position of the Theme in the Timeline with the left and right arrow on each Theme.
- You can remove a Theme from a Timeline by pressing the X button in the top right of the Theme
- Title the Theme and click save.

To Edit an Existing Timeline:

- Play the Theme.
- Press the Edit button.
- Adjust the position, timing number of Themes as required and as with creating a new Timeline.
- Title the adjusted Timeline and Save.

To Play a Timeline:

- To play a Timeline, press play on the thumbnail.
- To pause and un pause a Timeline, press the thumbnail again.
- The Theme will move onto the next one when the timer has completed, you can see countdown to the above of the last visible Theme on the Timeline playing.
- Alternatively, you can trigger the next theme with the iPad, wireless switches or wireless keyboard. You can skip forward to the next theme or back to the previous theme by pressing the Red and Green, forward/backward icons and/or the corresponding switches.

Content

The Content tab opens up a choice of 3 content libraries:

- Projections** Select this to see all the Images & Videos stored within 4D create
- Sounds** Select this to see all the Music, Soundscapes & Sound Effects stored within 4D create.
- Lights** A list of lighting states, colours and moods that we use to build our Themes.



You can choose any of these libraries to access every piece of content saved. That includes content we have added and content you have added.

In each of the libraries:

- Press play on a content item to activate it.
- Drag and drop an item into the stage area that you want it to play in. There are multiple playback areas for projections and sounds.
- Edit a content item by highlighting it and pressing the edit button:
 - This will allow you to make changes to playback, volume, names and fade times as required
 - You can update a content item and the changes will be made to that version or press Save As and a new copy of that Content item will be made.
- The fade in and fade out times of individual pieces of content can be adjusted.
- For Video and Sound Content:
 - The individual items can be adjusted to playback just the once, looped, timed or played continuously. Continuously is the default setting.

Creating new content

The most powerful function in 4D create is the ability it gives you to add your own content. If you can get your picture, video or sound onto a USB stick you can probably get it into a content library!

To add new Image, Video or Sound Content:

- Ensure you are in the Content tab on 4Dcreate.
- Upload your content onto a USB stick.
- Plug the USB stick into the main flight case, choose what time of file you are uploading (e.g.. video or image) and press Add on the software.
- Find and select the required file and click Import, adjusting the name accordingly if needed.

- You should see an import progress bar at the top of your screen. It will take a few moments for the content to upload, longer for larger sized content.
- Once uploaded, you can easily search for your new content on the software by clicking 'sort newest' on the search options.

The process is exactly the same for videos and sounds — just make sure you are in the correct content tab before pressing Add.

Creating new themes

You can easily make themes to be added to the theme library. Either by using content already loaded or digital content that you have added yourself.

- Choose the Images, Videos, Sounds and Lights that you want to have combined into a Theme.
- Drag and drop the content item to the chosen area of the stage on the right hand side (ie. Projection, Sound and Lights).
- Click Save Theme
- Give The Theme a title.
- You will be able to find the Theme in the Theme library by searching for it by the title, by a tag or by adjusting the display to Sort Newest.
- Simply press Play and you are away!

All of your content can then be adjusted, updated or deleted. Select a Theme and highlight it. Press the Edit button and make the changes. To change individual pieces of content, you will need to be in relevant content tab. You can now build a huge range of Themes and add them to your Timelines.

Top Tip!

You can drag and drop content items into the different areas of the stage.

Wireless Switches

As you have seen with the Timelines, the switches that you have add an extra and exciting level of control to 4D create. The Red & Green Switches are fixed within Timelines; Red to go back, and Green to go forward. The Yellow & Blue are free to be added to different content areas on the stage:

Drag a switch to a Video or Sound Content element on the Stage Area and it will pause and un pause that content in playback.

Add a switch to the second sound in the stage area to trigger an additional piece of Music or Sound Effect.

To remove a switch from the stage, tap it on the screen and it will jump down to the bottom of the screen.

You can also use the Wireless Keyboard to trigger the switches. The arrow keys on the keyboard are colour coded to replicate the switches.

Top Tip!

Have the Switch hidden to have the greatest effect. An old book with carved out spaces for the switches gives the impression of Magic!

Help Tab

Press this tab to find links to a growing list of guides, tips, how-to's and helpful hints.

Packing away your 4D pop up

1. Turn off the theme you're using by pressing Stop on the Stage Area. Then press the 'X'. This will stop all of the projection, lights and sound.
2. Turn off the LED lights using the small round button on the front panel of the lights. Remove the lights and place outside the Pop Up.
3. Turn off the PC by pressing the power button once. This will safely shut Windows down. Please ensure that you don't press and hold the power button as this will immediately cut off the power to the PC and may not shut down the PC correctly.
4. Next turn off the sound by tapping the silver circle on the Bose sound system.
5. Power down the projectors by pressing the on/off button twice. As each projector shuts down, the light around their on switch will flash. You need to wait until this flashing has slowed down before disconnecting them from the power source.
6. Ensure the wireless keyboard is switched off to avoid wasting the battery life.
7. Remove all the tech and flightcase outside of the inflatable, ensuring there is enough room around the pod for deflation.
8. Take down the screens and lay out flat outside the inflatable.
9. Remove front panel of the inflatable if not required for next session.
10. Disconnect the second projector from the main flightcase and turn off main flightcase at wall (ensure all equipment is powered down).
11. Remove the fan cables from the main flightcase, allowing the inflatable to deflate.
12. To make the deflation process quicker, unvelcro and unzip the three panels on the base of the inflatable and remove the fans from their fan holes.
13. As Pop UP deflates, place iPad, keyboard, wireless switches and lights back into flightcase
14. Connect iPad and lights to their charge points — see section below on how to do this.
15. Remove all power leads from the main flightcase and place back inside the flightcase bag and close lid

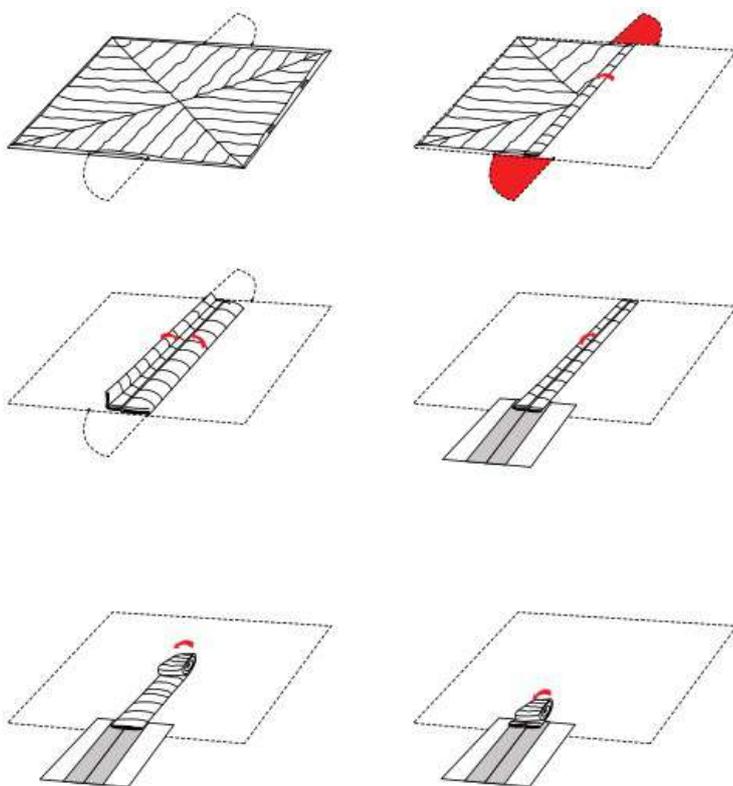
Top Tip!

To keep your cables in good condition, loop loosely.

16. Once the pop up has deflated, fold inflatable up and place back into carry case ensure you have all sections of inflatable (refer to checklist).
17. To pack the structure away:

- Move all fans away from the structure if you have not already done so.
- Open all velcro flaps and air release zips.
- Fold structure on itself into a long roll.
- Make sure all zips are on one end of the folded structure so that the air will escape easily once you start rolling it up.
- Start rolling the structure as tightly as possible.
- Make sure the rolled up structure will fit the size of the storage bag; if it is too wide, start again.
- Pack the structure away into the bag.

See



example below:

Top Tip!

Fold up silver side down to avoid the inside of your pop up getting dirty.

18. Once you have packed your inflatable into its bag, place the fans on top and close the drawstring.

Top Tip!

To ensure your pop up is ready for use next time, ensure your lights and iPads are left to charge if necessary (see instructions on how to do this below).

19. To pack away the screens:

- Unroll the screen storage bag and lay the screens inside folding the edges under the flaps.
- Roll this up carefully, starting from the padded end, and velcro closed.

Charging your equipment

To

1.



that is integrated into the main flight case.

2. Ensure the flightcase remains plugged into your electricity supply whilst charging.

To charge your Wireless Lights

1. On the left hand side of your flightcase there is a charging and storage dock for your lights.
2. Ensure that your light is switched off (using the power button on the unit). Now lower it into the charging base and rotate until it clicks into place.

3. When your lights are connected to the charger, the LED light above the power button will turn RED or



AMBER. This will indicate that the unit is charging.

4. Once your lights are fully charged, the LED above the power button will turn GREEN.
5. Ensure the flightcase remains plugged into your electricity supply whilst charging.

Top Tip!

When you turn your light unit on, look for the small battery icon on the light's display panel to see how much battery you have left.



Technical Overview

Switching the system on and off (Basic)

When you switch the PC on it automatically loads the software

When you're done just press the power button on the PC once and it will shut windows down correctly.

ALWAYS shut the PC down properly first before unplugging the flight case. If you do not shut the PC down correctly it may cause damage

Connecting the PC to the internet (Basic)

1. Ensure your ethernet cable is plugged into the school network
2. On the side of the Main Flightcase there is a network port labelled Ethernet.
3. Plug the cable into the Ethernet network port.
4. On the side of the route the internet symbol will light up.
5. Providing the school's network configuration is correct, you will now have access to the school's network and internet access on the PC and iPad.
6. If you experience any problems in establishing the connection, we recommend you speak to your IT Manager.

To access the Windows desktop (Advanced)

Every time you switch on the main flightcase the PC will automatically log in to windows as a standard user and then auto load the "4D engine" (the brains behind the 4D pop up). Standard users have very limited options within Windows to ensure no crucial settings are changed.

1. To access the Windows desktop on the PC you will need to use the wireless keyboard.
2. Press the 'Windows' button on the wireless keyboard and the task bar appears on your projection screen.

Top Tip!

If you cannot see all of the task bar then move the main flightcase closer to the projection screen to bring everything into view.

3. Click on the rectangle on the task bar to view the desktop permanently.
4. Once you have finished making any changes, click the rectangle again to return to 4D create.
5. Use the start menu to SWITCH USER or LOG OFF.
6. Every time you restart the PC in the main flightcase it will automatically start Windows and the 4D engine.

Windows updates (Advanced)

Due to the nature of our software, Windows Updates are strictly prohibited on the PC as this can cause faults with the running of the system.

If asked to enable Windows updates by the PC please refrain from doing so. This will not impact on the security of the PC.

Creating a back-up (Basic)

Any content uploaded onto the system is automatically saved on the PC. If you would like to create back-ups of your content, we recommend you save the same piece of media onto a removable piece of data storage.

Software updates (Advanced)

4D Creative will contact you when a new version of the software is available, with instructions on how to update your system. Please ensure we have a valid email address for you on our system so we can notify you when a new software update is available. Please contact us if you have any questions.

Windows Logins (Advanced)

There are 2 logins for Microsoft Windows on the PC:

Standard User This is the default login for all users and doesn't require a password

Administrator This account will be used by 4D Creative only to manage the PC and updates if requires.

Using and Pairing the Wireless Switches (Basic)

1. Check that the wireless switch is on the right mode. This will be explained on the base of each switch (e.g.. Set mode to 'D').
2. To change the setting simply press the 'M' button to scroll through the various modes.
3. If your wireless switches are still not responding you may need to repair them to the main flightcase.
4. Press the 'Pair' button on the Wireless Switch Receiver on the main flightcase control panel. This will begin to flash slowly.
5. Now press the pair button on the wireless switch within 10 seconds.
6. The LED light on the Receiver will continue to flash for a short time while it negotiates with the wireless switch. Once complete, the LED will light steadily for 5 seconds to indicate success. The wireless switch is now ready to use.
7. Once you have completed this for each switch, the wireless switches should be ready to use. If you are experiencing any problems please refer to our troubleshooting guide.

Replacing your Projector Lamps (Advanced)

NOTE: The following instructions and images have been extracted from the Ricoh PJ WX4130n Projector Manual.

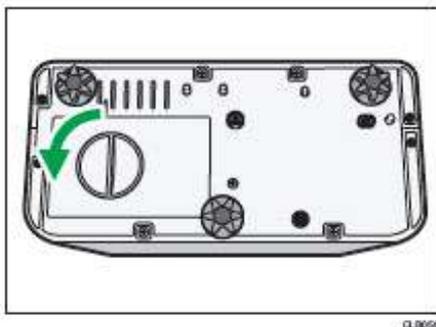
Lamp High-pressure mercury lamp (Standard mode: 225 W, Eco mode: 170 W)

1. When the lamp is due for replacement, the message "The lamp is reaching the end of its life. Please change it." is displayed. Change the lamp as instructed. Furthermore, if the lamp is used for an extended period of time, the image may darken or the lamp may burn out. If this happens, replace the lamp with a new one.
2. Before replacing the lamp, turn off the power and wait at least one hour to allow the product to cool completely. If it is not completely cool, you may burn or injure yourself due to the inside of the product and lamp unit being hot. If you replace the lamp without unplugging the power cord from the power outlet, electric shock or explosion may occur
3. Be careful when handling the used lamp so that it doesn't break, as this may cause injury.
4. Be sure to always use a dedicated replacement lamp that is new when replacing the lamp. If you use a lamp that is not dedicated, it may result in an explosion and injury.

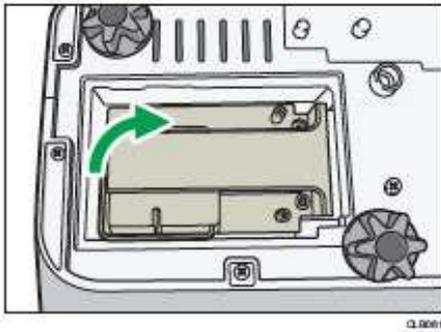
Important Warning ⚠

The lamp is a glass product. Do not touch the glass surface with bare hands, hit it forcefully, or damage it. This projector's lamp contains trace amounts of environmentally harmful inorganic mercury. Be careful not to break used lamps, and dispose of them in accordance with local regulations or contact your sales representative or service representative.

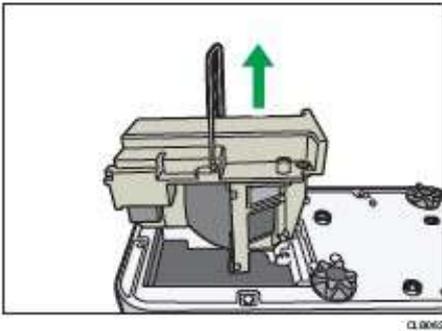
5. When [Lamp Power] in [Default Settings] is specified as [Standard], replace the lamp after approximately 3,000 hours. When the setting is [Eco], replace it after approximately 4,000 hours. This may differ, however, depending on how the lamp is used.
6. Turn over the projector and place it on a flat surface so that you can see the bottom of the projector.
7. Turn the knob counterclockwise, and then open the lamp cover.



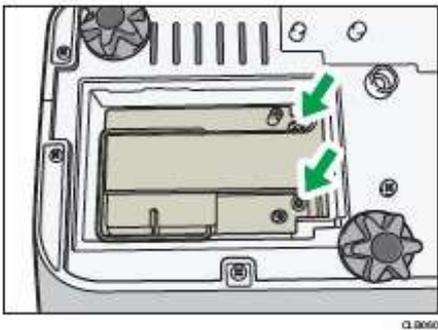
8. Raise the metal handle.



9. Hold the handle, and then pull the lamp unit out of the projector.



10. Insert a new lamp unit.



11. Make sure that the small projections inside the projector are inserted into the holes of the lamp unit properly.
12. Close the lamp cover. Correctly install the outer lamp cover. Incorrect installation may prevent the lamp or projector from turning on.
13. Reset the lamp time.

Changing the Projector Settings (Advanced)

NOTE: The following instructions and images have been extracted from the Ricoh PJ WX4130n Projector Manual.

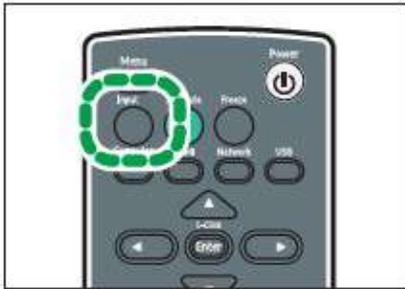
The 4D Pop Up uses rear projection. This means that the projectors must display the image correctly for it to point in the direction of the projection screens attached to the Pop Up structure... To check the correct

setting on the projectors choose the menu option on the projector. Option 3 is Projection Mode - It needs to be set to "rear".

1. Select the item to be changed using the up and down arrow buttons.
2. [To settings] is displayed on the right, the item has a submenu. Press the [Enter] button to display the submenu screen.
3. Press the [Enter] button.
4. If [Execute] is displayed to the right of the item you select, the function is executed in this step.
5. Change the settings: The method for changing the settings depends on the item.
6. Adjusting the values: Change the value using the Left and Right Arrow buttons, and then press the [Enter] button.

Selecting an Input Signal

1. Turn on the equipment that is connected to the projector. To project the image of a video player, press the play button on the video player.
2. Press the [Input] button.



3. The input signal is detected automatically and the image is projected. The input signal changes each time the [Input] button is pressed.

Note

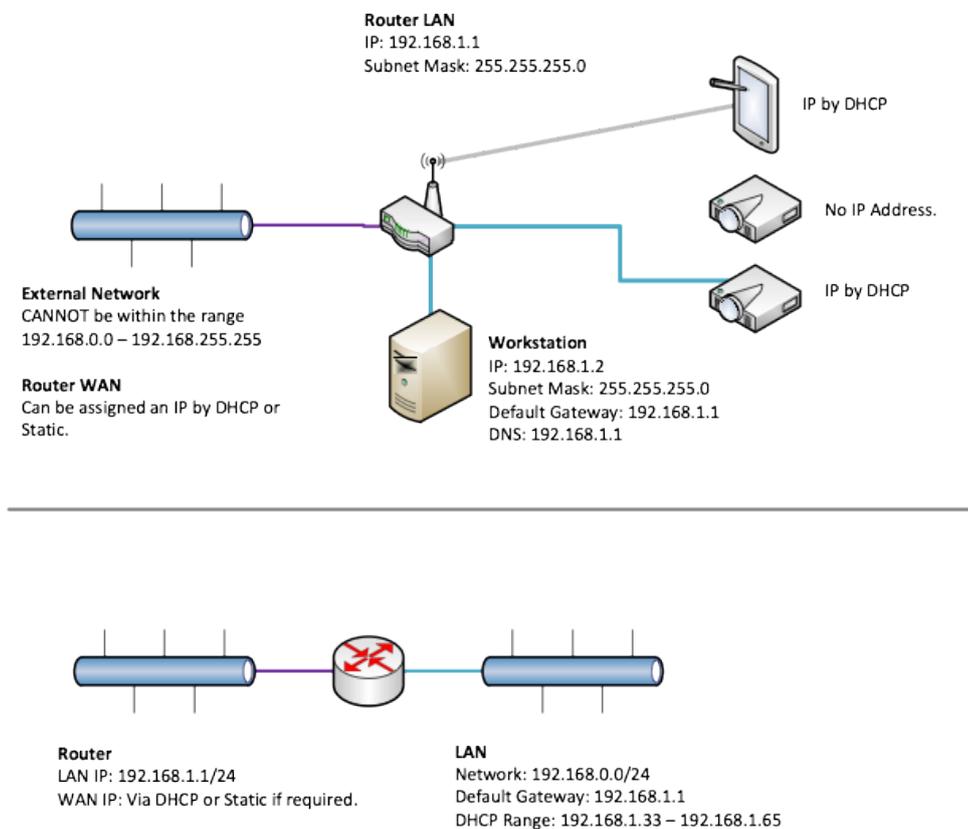
- In step 2, the input signal selection screen appears if [Off] is specified for [Auto Input Search] in [Default Settings]. Select a signal that is compatible with the equipment that is connected.
- You can also select the input signal directly with the [Computer], [HDMI], [Network], or [USB] button on the remote control.
- The standby screen for the network input is displayed if the signal is lost or there is no signal being input from the connected equipment.
- Check that the equipment is turned on and that it is properly connected to the projector. If the project does not support the input signal, a "Unsupported signal" message is displayed.

Using the iPad

In order to keep this manual to a manageable size, we have assumed a general knowledge of iPad operation. Full iPad support is available from the apple website: <http://www.apple.com/uk/support/ipad/>. Or download the PDF manual here: http://manuals.info.apple.com/en/ipad_user_guide.pdf

An overview of how the iPad controls the 4D pop up system

Ok, so we don't want to get too "techie" on you but it's useful that you understand how the way the components of the 4D pop up talk to each other. Imagine that the iPad is set up as a remote control to the main flightcase. All of the content (pictures, videos and sounds etc) on the system are stored on the PC inside the main flightcase. The iPad communicates with the PC in the main flightcase via a local wireless network. The router in the top of your flightcase controls this wireless network. Each time you open the 4D app on the iPad it asks the PC to stream the entire content library so that you can select and control the



projections, lights and sounds.

Connecting the iPad to the flightcase using wifi

- Ensure flightcase is switched on.
- On the iPad choose SETTINGS>Wifi.
- Ensure the networked named "4D pop up 0XX" is selected (XX is the unique product number of your pop up).
- Enter the password "password1234" (all lower case).

Our popup network consist of a router and a simple network in the 192.168.0.0-192.168.255.255 range. If the existing school network uses this IP Address range then please get in touch with 4D Support so we can reconfigure the router to use another IP Address range that will then allow the 4D network to connect to the schools for internet access.

Note: The router is set to work with DHCP (Dynamic Host Configuration Protocol) but we can configure the router to use a static IP Address If required.

Charging the iPad

- There is a built in charger cable inside the main flightcase.
- Charging takes approximately 4 hours from empty.
- The main flightcase must be plugged in and switched for iPad to charge.

Opening the 4D create app on the iPad

- Just tap the “4D” logo on the iPad to open the app.
- Remember that the PC in the flightcase must be switched on and the iPad must be connected to the “4D pop up” wireless network in order for the app to load.

Quitting the app on the iPad

- To quit 4D create on your iPad simply touch the button with the square symbol.

Installing other apps on your iPad

You can install other apps on the iPad and use it independently of the system. You will need to connect the iPad to your local wireless network and then log in to the Apple App Store with an iTunes account to purchase these apps.

Safety Advice

INDOOR USE ONLY Please NEVER attempt to use the product outside as it is not designed to tolerate winds or rain. It is dangerous to use this product in any kind of outdoor (or partially outdoor) environment.

Keep away from hot stuff Ensure that the inflatable pod and flight cases are kept well away from heat sources (such as hot lights, radiators etc).

Its heavy so don't lift it on your own The main flightcase is heavy (approximately 40 kg). It has wheels to make it easy for one person to move around. If you need to pick it up it must be lifted by 2 people who have suitable manual handling experience.

Don't leave young children unattended in the pod.

Evacuation advice In the event of a power cut the structure will start to deflate. The LED lights are battery powered so will remain on. As the structure is lightweight then it can be lifted up by 2 adults simply and easily to allow quick and efficient evacuation in power cut.

Only plug in the fans once they are Velcroed into the inflatable pod. The Fans have fast moving parts that could be a dangerous to young children if switched on whilst not velcroed inside the structure.

Do not cover or block the airflow grilles on the main flightcase. There's a lot of clever equipment inside the box that needs to stay cool in order to function correctly. If these grilles are blocked, components could overheat and malfunction.

Ensure the un-inflated pod does not block the air intake grill on the fans as it inflates. Over a prolonged period this could cause damage to the fans and reduce the lifespan of your product — plus if the grille is blocked — the pod won't inflate!

NEVER run a "flash test" with a PAT (Portable Appliance Tester) on any of the 4D system. This will damage the PC and other electronic equipment and will invalidate your warranty.

NEVER remove the cover on main flightcase. There are live electrical parts inside which could be dangerous. Removing this cover, unless specifically instructed to do so by 4D Creative will invalidate your warranty.

Visually check the system for signs of damage before each use.

It is dangerous to handle the power cord plug with wet hands.

Do not place any power cords or cables in a way that might cause someone to trip and fall.

When disconnecting the power cord from the wall outlet, always pull the plug, not the cord. Pulling the cord can damage the power cord. Use of damaged power cords could result in fire or electric shock.

Do not look into the projector's projection window or vent when the product is on. The bright light may damage your eyes. Be especially careful in an environment with children.

Do not block the projection light when it is on. If you do so, the part that is blocking the projection light may get quite hot and deform, deteriorate or cause a burn or fire. The reflected light may make the projection window hot and cause a product failure. To temporarily suspend projection, select the mute function. To suspend longer, turn off the product.

RCBO electrical safety device

Your 4D pop up is protected by an electrical safety cut out device fitted to the main flightcase. If this device activates:

- Immediately stop using the system, switch off at the mains and unplug it.
- Check all connections and cables for any signs of damage or loose connection.
- Once you are satisfied there are no visible signs of damage reset the RCBO (the main power cable MUST be unplugged for safety).
- Plug the main power cable back in and switch on.
- If the unit cuts out again please contact 4D Creative immediately for advice.

Inflatable pod

Your inflatable pod is constructed from Fire Retardant rip stop fabric.

Portable Appliance Testing (PAT)

In order to ensure that your 4D pop up falls in line with the requirements of your council and/or insurers, we recommend you visit the Health & Safety Executive website page regarding PAT testing <http://www.hse.gov.uk/electricity/faq-portable-appliance-testing.htm>

User serviceable parts

The only user serviceable parts of the 4D pop up system are:

- Replacement projector lamps.
- Replacement batteries for wireless switches.
- Replacement batteries for wireless keyboard.
- Replacement magnets and attaching cords on projection screens.

The product MUST NOT be dismantled, repaired, or modified unless otherwise advised in writing by 4D Creative. Such actions will immediately void all warranties.

Product Specifications

Primary flightcase	approx. 40kgs (2 person lift)
Inflatable pod and fans	approx. 25kgs (2 person lift)
Secondary single projector flightcase	approx. 12kgs
Screens and storage tube	approx. 5kgs

Cleaning your pop up

IPad, LED lights, wireless keyboard and wireless switches Clean with a micro-fibre soft cloth. Do not use any abrasives or chemical cleaning products as this may damage or scratch the screen

Projection Screens Dirt and marks can be easily cleaned from the PVC screens using a damp cloth and a mild cleaning detergent (such as washing up liquid)

Inflatable Pod and storage Bag Most dirt can be wiped off the structure using a damp cloth and mild detergent. Make sure the pod is completely dry before you pack it back in the storage bag. Do not use any harsh abrasives on the inflatable structure as this may cause damage to the structure and will invalidate your warranty.

Projector lenses Wipe any finger marks or dust off the lens using a clean, dry micro-fibre cloth. Do not use cleaning products or abrasives

Flight cases (external) Ensure that the flight cases are switched off and unplugged first. Use a damp cloth and mild detergent.

Flight cases (internal) Ensure that the flight cases are switched off and unplugged first. Clean with a micro-fibre soft cloth. Do not use any abrasives or chemical cleaning products as this may damage or scratch the product.

FAQs

Can I just use the tech equipment without the inflatable?	Absolutely! We've designed 4D pop up to be flexible. The only limit is your imagination (and of course some due care and attention to health and safety!) You could build a giant den...
Does the system have to be connected to the Internet?	No, your 4D pop up is designed for standalone use. Although the iPad uses a wireless signal to communicate with the main flightcase it does not require an internet connection for this.
How do I connect my system to the internet?	Plug an ethernet cable into the ethernet port, which is located above the power plug. Ensure that the ethernet cable is also plugged into a router/network with internet.
Can I connect my 4D pop up to another network wirelessly?	No, as the pop up runs its own wireless network to communicate between the iPad and the PC it is not possible to connect to another wireless network. If you want to connect the system to another network you can use the wired ethernet point (see setup section above).
Can I get internet on the iPad whilst connected to 4D pop up?	Yes, providing the router in the main flightcase has a working internet connection (this will be via an ethernet cable to your school network) and the iPad is connected to the 4D wireless network.
Can I use the iPad separately to the 4D pop up?	Yes, just use it like a normal iPad. If you want to connect to the internet you'll need to know the password for your school/home/office local wireless network. Remember to switch back to the "4D pop up" wireless network when you want to use the iPad with the 4D pop up
Can I install other apps on the iPad?	Yes, just treat it as an ordinary iPad. If you want to buy apps using an existing iTunes account then simply log in.
Should I get the unit PAT tested?	In order to ensure that your 4D pop up falls in line with the requirements of your council and/or insurers, we recommend you visit the Health & Safety Executive website page regarding PAT testing http://www.hse.gov.uk/electricity/faq-portable-appliance-testing.htm

Troubleshooting

Your 4D pop up has gone through a process of development, build and testing in order to offer you the easiest and most user-friendly immersive space possible. Inevitably, however, there may be times when you need support with your system. Below are four of the most common troubleshooting tests that you can carry out to get your system back up and running.

Troubleshoot Test 1: NO PROJECTION / BLUE SCREEN

Before you start this test go to Themes on your iPad and play Happy Tomatoes. Check that the pictures of tomatoes are loaded onto the Left Screen and Right Screen boxes in the Stage Area on 4D create.

1. Is everything switched on?	<p>This includes:</p> <p>PC in Main Flightcase (switch will light up when turned on).</p> <p>Both projectors (a solid blue light around the 'power' button indicates it's on).</p> <p>HDMI cables are properly connected.</p> <p>If NO switch everything on and try again.</p> <p>If YES proceed to Test 2.</p>
2. Are the projectors pointing the right way?	<p>Check that the 'To Screen' sticker on the projectors is pointing towards the screen and that the projectors are behind the screen.</p> <p>Check there is nothing obstructing or covering the projectors.</p>
3. Does the projector display the menu when you push the 'menu' button on each projector?	<p>If YES this means the projectors are working fine.</p> <p>If NO this may suggest that there is a fault with the projector. Please contact 4D Group for support.</p>
4. When you press the 'input' button on each projector is the input set to HDMI? (This is displayed at the top right of the screen?)	<p>If NO then press input button to cycle through to HDMI. Once selected the screen will go blank or play a theme if one is selected.</p> <p>If YES go to test 5.</p>
5. Is the projector powered up and cabled correctly?	<p>If NO ensure it is on and correctly plugged in.</p> <p>If YES it may be that the PC hasn't recognised the 2nd projector. Switch the PC off and back on again and this should resolve the problem.</p> <p>If you are still experiencing issues proceed to test 6.</p>

6. When you switch the PC on does Windows load onto one of the projection screens?

If YES the problem lies within your 4D create software. Please contact 4D Group

Troubleshoot Test 2: NO LIGHTS

Before you start this test, ensure that the software is loaded and that the projectors are on. Play “4D Aquarium” theme and check that the “deep blue” lights are loaded onto the stage area in the iPad app. Keep this running for the rest of the test.

1. Are the lights charged and switched on?

If NO the lights may need charging. See page 29 for details on how to do this.

If YES proceed to test 2.

2. Is the lighting brightness slider in the iPad app on maximum?

If NO ensure the slider is up to maximum (at the top of the line)

If YES proceed to test 3.

3. Go to one of the wireless lights. Is the WDMX box LED light on steadily next to the display panel?

If the light is not on then these lights are not “paired” to the transmitter in the flightcase. See page 32 to pair them.

If YES proceed to test 4.

4. Go to the wireless light and touch the keypad to bring up the LED display. Does the LED display read “DMX A DDR:001”?

It should appear as below:

If NO the settings on the lights are incorrect. Please see for details on changing the DMX address back to 001.

If YES proceed to test 5.

5. Are the LEDs lit up on the display panel of the wireless lighting transmitter in the flightcase (this is no.7 on the Main Flightcase diagram on p10) ?

It should appear as below:

If NO lights are on at all the power may have failed to the transmitter box. Please contact 4D Group. If the TX light is not on please also contact 4D Group.

If YES proceed to test 6.

6. Shut the PC down and restart it. When the software loads can you hear a loud 'beep' from the flightcase?

If NO there may be a problem with part of your lighting system. Please contact 4D Group.

If YES your lights should be working fine. Please contact 4D Group if you are continuing to experience problems.

Troubleshoot Test 3: NO SOUND

Before you start this test go to Themes and play "4D Happy Tomatoes". Check that "4D Happy Tomatoes" is playing in the stage area of the iPad app. This means that you are sure the software is playing.

1. Is the BOSE volume control (labelled 2 on your flightcase) in the flightcase switched on (Green Light with volume turned up (control twisted clockwise)?

If NO adjust accordingly. Tapping the volume control once turns the system from 'standby' (orange) to 'on' (green).

If there is no light on the volume control check that the flightcase is switched on and plugged in.

If YES proceed to test 2.

2. Is the volume slider on the iPad app turned up?

Please refer to image above of lighting slider.

If NO adjust accordingly. Some tracks are quieter than others so may not be heard as clearly on a lower volume setting. Turn the volume slider up full for this test.

If YES proceed to test 3.

3. Is the volume muted in Windows? To perform this action open up the Windows control panel (see p33 for instructions on how to do this).

If YES adjust the Windows volume accordingly.

If NO your sound system should be functioning correctly. Try switching off the whole system and restarting it. Please contact 4D Group if you are continuing to experience issues.

Troubleshoot Test 4: WIRELESS SWITCHES NOT WORKING

1. Have the switches gone to sleep? If YES try pressing the switch twice. If the switches have been inactive for a while you must press them once to wake them up, the second time you press them they will work.

If NO proceed to test 2.

2. Can the desired set up be replicated using the coloured arrow keys on the wireless keyboard? Try using the coloured arrow keys on the wireless keyboard. These are set up to replicate the wireless switches.

If YES - if these work but the switches don't it's likely that there's a problem with the switch or the way it is set up. Proceed to test 3.

If NO proceed to test 4.

3. Is the battery fully charged? Check the battery is not dead by turning the switch over and pushing the P button with a pen or pencil once. If the LED panel lights up then the battery is fine.

If NO please replace the batteries in your switches.

If YES proceed to test 4.

4. Is the PC on and software running? The RED and GREEN switches only work in TIMELINE. The Yellow and Blue switches only work when you drag and drop them to an area on the stage (i.e. a video that is playing or a music track)

5. Are the switches paired? If NO see p32 for instructions on how to pair the switches to the receiver.

If YES proceed to test 6.

6. Is the switch set to the correct mode?

Turn the switch over and press the 'M' button once with a pen or pencil. The LED panel should display the same letter or number as the sticker on the bottom of the switch.

If NO please see Page 32 for further instructions.

If YES your wireless switches should be functioning correctly. Please contact 4D Group if you are continuing to experience problems.

Below are some additional troubleshooting areas should they arise.

Inflatable pod

Pod won't inflate fully

Check the zips and any connecting flaps are fully closed and Velcroed, that the fan is securely fastened, running at full power, and has not been blocked. Ensure that the fan is running on full and that there are no rips or tears in the structure.

Fan not working

Check power is on at the socket to the flightcase and that standby light is on the projector.

Check fan is fully plugged in and attached to flightcase.

Check "in-line" dimmer switch is turned up full.

Check for any signs of damage to the cable, plug or fan itself.

If you find any signs of damage do not use and contact 4D Group for advice on repair or replacement.

Projection

Projection back to front

Projector should be set to REAR projection mode, use MENU button on projector to reset. Go to Menu / Default Settings / Projection Mode / Rear.

If you're unable to see the menu clearly pull the projector closer to you so the menu comes into view.

No projection on either or both projectors

Please refer to Troubleshooting Test 1.

Projection windows don't fill the whole screen or are the wrong way round

Press the power button on the PC to safely shut it down and restart the system. When the software reloads it should recall the correct settings.

Projections are showing a Blue Screen

Please refer to Troubleshooting Test 1.

For more detailed information about the pop up projectors please consult the Ricoh projector user manual.

iPad

iPad won't load or is failing to connect

Check the PC in the main flightcase is switched on. All of the data is streamed to the iPad for the main PC via the router. Both of these must be switched on for the iPad App to load. Check that the iPad is connected to the right wireless network.

Software

Error messages

If you are unsure what an error message that you have received means please contact 4D Group.

Timelines keep skipping backwards or forwards

Check that none of the arrow keys on the wireless keyboard or any of the wireless switches are being pressed — these operate the timeline so if they get stuck then can cause this to happen.

Wireless Switches

Unit not functioning when used with USB receiver.

Units are not Paired-follow procedure in Pairing section. Battery flat — replace

Unit not functioning when used with stand-alone receiver

Units are not Paired-follow procedure in Pairing section. Battery flat — replace

Unit works erratically or intermittently

Battery flat — replace.
Out of range — move SWITCH 75 closer to receiver.
Interference-place both SWITCH 75 and receiver unit away from sources of interference.

Units will not Pair-LED is extinguished after 30 seconds

Battery flat — replace.
Ensure SWITCH 75 is close to receiver (e.g. 1 metre/1 yard) while pairing



We hope you have found this User Guide useful.

Remember, you can also refer to the Video User Guides on your iPad as an accompaniment to this guide.

Enjoy exploring immersive learning using your 4D pop up!

Keep in touch!

Tel 0844 414 2595

Email support@4dimmersive.com