# experia

# multisensory for everyone

Sensory Surface Manuals

Installation

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User Guide

# Sensory Surface installation & Commissioning Manual

# Installation Guide

### Parts

1	х	PC
1	х	Wireless Keyboard
1	х	Video Projector
1	х	Projector Bracket
1	х	Camera with Infrared lens fitted)
1	х	Camera PSU
1	х	Card Reader
1	х	Blank Cards
1	х	USB Video Capture device
1	х	Vision Amplifier
1	х	Pair Speakers (3wall or ceiling)
1	х	VGA Cable (10mtr is standard)
1	х	Camera Power/Video Cable
1	х	3.5mm to 3.5mm stereo cable 5mtr
1	х	Video Feed Adapter male BNC to make RCA

NOTES. Ensure all cables are hidden either in ceiling void or surface mount trunking. Once all the hardware is fitted and connected, please follow the commissioning instruction to calibrate and test the system.

- 1. Decide location of projector, ensuring that there is suitable fixing in the ceiling and the image is not going to cross onto any obstructions. This can be ceiling or wall mounted depending on room layout. It is advisable to hold the projector in position while powered up while decided exact location. NB, Power will be needed at the video projector position.
- 2. Fit Video projector bracket.
- 3. Fit Video projector to the bracket.
- 4. Fit Camera, the best location is centrally over the projected image, but can be wall mouted directly below the projector if system is to be fitted on a wall.
- 5. Run the VGA cable from the video projector to the PC location.
- 6. Run the Video feed camera cable from camera position to the PC location NB, the cable has to be feed the correct way round. Connect the Cable to the camera, video & power.



Video Power Cable Camera End



Vid/power Cable PC End – inc adapter and USB Capture

- 7. Run speaker cables from speaker locations to PC location.
- 8. Mount and wire speakers
- 9. Mount amplifier back box at desired location near the PC location. NB knock out break outs. Where required. It is easier to fit the card reader next to the amplifier, with the cable running through the amplifier back box. To do this follow step 10.
- 10. Remove the 2 small black cross head screws on the underside of the card reader. Carefully prise open the side with the cable exit. Cut the small cable tie and carefully unplug the cable. This can now be fed through walls and the amplifier back box. Then care fully re-assemble the card reader.



- 11. Run the speakers to the amplifier back box
- 12. Run the Amplifier PSU cable to the amplifier back box
- 13. Use one half of the 3.5mm stereo (cut it in half), run the cut end to the amplifier box, with the 3.5mm jack at the PC location.
- 14. Wire the following connections to the amplifier, picture for reference



- a. Speakers to OUT1 & OUT2
- b. Connect PSU cable, if you have shortened ensure that the polarity is correct.
- c. Connect the 3.5mm cable to the input 2 connector.



- 15. Carefully fit amplifier to back box with the supplied screws.
- 16. Now fit the computer connecting the following cables
  - a. VGA from projector to the VGA on PC
  - b. 3.5mm stereo jack from amplifier to the green speaker connection on rear of PC
  - c. USB capture device to the USB port on rear of PC. MB must be fitted to the USB socket next to the network (RJ45) socket.
  - d. Connect the Video feed from the camera to the USB capture device using the BNC adapter.
  - e. Connect the Camera PSU to the Video / power feed from the camera
  - f. Connect the card reader to the RS232 (9 way D) on the PC
  - g. Connect to the mains, the PC, Camera PSU, and Amplifier.
  - h. Connect the video projector in the mains supply.

# Commissioning and Calibration

- Set the video projection image on the follow. You need to get a large image as possible, while avoid projecting on to near objects or wall. The image must be 'square' and straight with any walls. To adjust use the keystone function. The image also need to be the correct way round. Normally you would be facing the projector, the orientation is adjusted using the set up function and selecting the projector position option. Once the image is adjusted, ensure all projector postion screws are tightened fully on the projector bracket.
- 2. Next adjust the camera. Assuming the PC is running and the software started, press the escape key on the keyboard to exit the scene and get to the Scheduler window. Click on the red X in the bottom right to exit the software and go to the desktop. Select the CCV icon in the taskbar then press the space bar, you should now see the CCV software window, showing a large image of what the camera can see. Remove the dome from the camera and turn the lens so the image in line with the floor projection. So when you move your foot in from the centre left, you will see it on the image on floor from the same direction. You will also need to make sure that camera is pointed to the centre of the image. Refit the glass dome to the camera. Close the CCV software completely by click the red X in the top right and follow the steps below to calibrate.

## Calibration

- 1. NOTE CCV software must be closed completely
- 2. Start the sensory surface software.
- 3. Press escape to go to the scheduler window.
- 4. Enter password. This is the 2 date digit reversed, followed the 2 month digits reversed. Eg today is 23/09 so password would be 3290. Note on older systems the password is 1234.
- 5. Click camera start
- 6. Place a reflector on each of the yellow squares (x6) at the edge of the screen.
- 7. Click start calibration.
- 8. A red square will appear on the bottom left of the image, click on the reflector image inside the black box, bottom left
- 9. The red dot will move to the next yellow square, repeat to the corresponding image. NOTE, you are clicking on the video image .
- 10. When all six points are done click save
- 11. Click exit
- 12. Click back
- 13. Press windows key
- 14. Select CCV software from the start menu.
- 15. Minimise the CCV window
- 16. Click Back
- 17. Test the system.

# Fault Finding

System does not respond when walking on projected image, but does when using the mouse Check

- a. Are the LED's around the camera lens glowing red, (this glow is very faint) ? If not, is the power connected to the camera
- b. Is the CCV software running in the background and is minimised ? Press the windows key, is CCV (blue icon) in the task bar.

NOTE if the system works only after starting CCV, check the steps below to ensure the auto start function is set

Open C:\Program Files (x86)\Sensory\Settings.ini

You will find an entry in this file that reads [Camera] AutoStart=False

Change this so that it reads [Camera] AutoStart=True

Save the file

Ensure that CCV is closed

Start the sensory software, this should launch CCV on startup in mini mode(Small window in top right hand side that disappears after about a second)

c. If you cannot see your self in the CCV image ?
 Check the USB capture device is connected to the USB port next to the network connector (RJ45)

If you have checked the above and still find that the floor system still does not react to users, please check that all the options within the CCV software is set as the screenshot below.

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d. If you get a quick flash of the CCV software between scenes, then the CCV software is running in maximum view. Folow these steps
 Press the windows key
 Click the CCV icon in the taskbar (blue icon)
 Press spacebar to minimise the window
 Click sensory surface icon in the taskbar