

Contents

Introduction	iv-ix
1. The system	1
Spherical images — 360°	2
Rectilinear images — 120°	2
2. Checklists	3
Equipment	3
Shooting setup	3
Shooting	3
3. Equipment	4
Assembly	4
Folder and file numbers	4
Camera power setting	4
4. Shooting setup	5
Lens selection	5
Vertical alignment	5
Media	6
Battery checks	6
5. Shooting	7
Horizon level	7
CC-1 Controller — Black/Red	7
Camera mode — Manual	7
Focus mode — AF/MF	7
Exposure	8
Aperture and shutter speed	8
Histograms	8
White balance — WB	9
QUICK Menu	9
360° Panorama	10
120° Panorama	10
6. Changing camera batteries and SDHC media	11
Remove the left camera mount	11
Rotate both cameras 90°	11
Remove/replace batteries and SDHC cards	11
Reassemble the camera unit	11
Check alignment	12
7. Changing lenses — 20mm and 75mm	13
Adjusting camera unit position	13
Adjusting Field of View (FOV)	14
8. Load and adjust images	15
Load and organize image files — Adobe Bridge	15
Adjust exposure and balance — Adobe Lightroom	16

9. Create panoramas – PTGui PR	18
Workflow	18
Create two copies of the stitching software	18
Load images	19
Align images	19
Add or adjust control points if needed	19
Edit and match both panoramas	20
Adjust numerical transforms	21
Create projections	23
Select image resolution	23
Test spherical projection	24
10. Adjust final images – Photo Shop	25
Exposure matching	25
Color balance and saturation	25
Shadow/Highlight matching	26
Sharpening	26
Stereoscopic test	26
11. VR display	28
12. Initial camera setup	29
MAIN Menu setup	29
QUICK Menu setup	29
Folder number setup	29
13. Initial GigaPan setup – Menu settings	31
Move camera	31
Field of view — FOV	31
Time / picture — 2.0 sec	31
Picture order — Row-Down	31
Aspect ratio — 1:1	31
Picture overlap – 25%	31
14. Initial GigaPan setup – Mechanical settings	32
Camera position – up/down	32
Camera position – back/forth	32
15. Initial camera bracket assembly setup	33
16. Advanced options	36
HDR bracketing	36
RAW image processing	36
Appendix	37
1. Acquisition of stereo panoramas for display in VR environments	38
1. Introduction	38
2. Acquisition method	40
3. Spherical imaging	43
4. Rectangular imaging	45
5. VR display method	47
6. Conclusions	49
2. Equipment list	53