

# Index

## Symbols

4K Still Image Playback menu item 111  
24p/60p Output menu item 142  
35mm-equivalent zoom range 10, 123

## A

Access lamp 11, 102  
Access Point Settings menu item 169, 178  
Adobe Premiere Elements software 20  
Adobe Premiere Pro software 20  
Advanced Sports Shooting scene type setting 32  
AF Illuminator menu item 61, 90  
AF Illuminator/Self-timer Lamp 10, 89  
controlling operation of 61  
Airplane Mode menu item 168, 178  
Anker 40-watt desktop USB charger 189  
Anti Motion Blur scene type setting 34–35  
compared to Hand-held Twilight setting 35  
Aperture  
range of available settings 23, 25, 30  
effect of focal length on 26  
Aperture Priority exposure mode for movies 154  
Aperture Priority mode 24–26  
Apple Computer devices and software  
playing movies with 195  
Application List menu item 173–174  
Application Management app 180  
Application menu 173–174, 180–181  
Area Setting menu item 145  
Aspect Ratio menu item 45–46  
incompatibility with other settings 46  
relationship to Image Size menu item 43–44  
relationship to zoom range 125  
Atomos Shogun video recorder 192  
Audio Signals menu item 136  
Autoflash setting 12, 52  
Auto ISO setting  
setting minimum and maximum values for 62–63  
using with Manual exposure mode 29, 64, 194  
for movies 156  
Auto Object Framing menu item 32, 83–84  
incompatibility with other settings 84  
Auto Review menu item 19, 118–119  
deleting an image in Auto Review 119  
Auto Slow Shutter menu item 84, 157–158  
works only when Auto ISO is in effect 158  
AVCHD format for movies 151

## B

Battery  
charging 3–4  
indicator light 4  
time for full charge 4  
when camera connected to computer 4  
generic replacement 188  
Sony NP-BX1 3, 188  
Battery charger  
generic external charger 188  
Sony AC-UB10C 4, 189  
Sony AC-UUD12 189  
Sony BC-TRX external charger 188  
using as external power source 3  
Battery/memory card compartment 102  
Beach scene type setting 35  
Beauty Effect menu item 113  
Bit rates of video formats 153  
Black and white  
shooting in 73  
for street photography 185  
Blinking highlights in playback mode  
indicating overexposure 106  
Blurred background  
how to achieve 25  
using long zoom range 183  
Bokeh 25, 183  
Bounce flash 88, 195  
Bracket Order menu item 51–52  
Bracket Settings menu item 51–52  
Brightness setting for Photo Creativity 14

## C

Calendar display of images 19, 104, 108  
Camera apps 180  
Cases for HX80 and HX90V cameras  
Eagle Creek Waist Pack 188  
Lowepro Inverse 110 AW Waist Pack 188  
Lowepro Rezo 110 AW 187–188  
MegaGear leather case 187  
Sony LCJ-HWA 187  
Center button 10, 97  
assigning a function to 131–132  
Standard setting for 60–61, 97, 132  
using to activate focus tracking 97  
using to adjust location of Flexible Spot focus frame 60, 97  
using to determine reason for setting conflict 194  
using to magnify focus area 58, 80, 97  
using to play a panorama at larger size 97  
using to play a video 97, 164  
using to return enlarged image to normal size 97, 104  
Center Button menu item 131–132  
using Standard setting 132  
Center Lock-on AF menu item 81  
incompatibility with other settings 81  
Center option for Focus Area 59–60

- distinguishing focus frame from Spot metering circle 65
  - Center option for Metering Mode 64–65
  - Clean HDMI signal output 143, 186
  - Clear Image Zoom 123, 124–125
    - incompatibility with other settings 125
  - Clipping of highlights 105
  - Clipping of shadow areas 105
  - Color temperature 65
    - using to set white balance 66
  - Compression of JPEG images 46
  - Continuous AF setting 56, 195
    - limited availability of 56
  - Continuous shooting option 17, 48, 194
    - incompatibility with other settings 48
    - selecting speed of 48
  - Contrast
    - adjusting 71–72
  - Control ring 9, 90–91
    - assigning functions to 90, 130–131
    - icon on display screen 130
    - speeding up zoom operation 133
    - Standard option for settings 90, 131
    - using during movie recording 162
    - using to adjust exposure compensation 29, 99
    - using to adjust manual focus 91
    - using to select panorama direction 38, 46
    - using to select scene type setting 31, 84
    - using to set aperture 25, 28
    - using to set shutter speed 27
    - using to zoom the lens 88, 133
  - Control Ring option of Custom Key Settings menu item 90
  - Control wheel 10, 96
    - icon on display screen 96
    - using to control both aperture and shutter speed 96
    - using to move to other enlarged images 104
    - using to select scene setting 31, 84, 96
    - using to set aperture 96
    - using to set panorama direction 38, 46, 96
    - using to set shutter speed 96
  - Creative Style comparison chart 72
  - Creative Style menu item 71–73
    - adjusting contrast, saturation, and sharpness 71–72, 195
    - comparison of settings to Scene mode settings 73
    - incompatibility with other settings 72
  - CTRL for HDMI menu item 143
  - Custom Key Settings menu item 90, 97, 129–133
    - list of items that can be assigned to a button 131
    - list of items that can be controlled during movie recording 162
  - Custom menu 114–134
  - Custom white balance
    - how to set 66–67
- D**
- Date
    - recording permanently on image 128
  - Date and Time
    - setting with Setup menu 7–8, 144–145
  - Date Format menu option 7, 144
  - Date/Time Setup menu item 7, 144
  - Day for night movie recording 156
  - Daylight Savings Time adjustment 7, 144
  - Delete Confirmation menu item 139
  - Delete menu item 107
  - Deleting images or videos 95, 106, 107
  - Demo Mode menu item 141
  - Depth of field
    - relationship to aperture setting 24
  - Digital Zoom 123, 124–125
    - incompatibility with other settings 125
  - Dimmed menu items 43
  - Diopter adjustment lever 88–89
  - Display button 97
    - using to cycle through display screens 19
  - Display Button menu item 89, 119–121
  - Display MAC Address menu item 179
  - Display Media Information menu item 147–148
  - Display Quality menu item 140
  - Display Rotation menu item 109
  - Display screens
    - playback mode 105–106
    - shooting mode
      - selecting with Display button menu item 119–121
  - DLNA streaming media server 177
  - DMF (direct manual focus) 56, 91, 195
    - requirement to hold shutter button down halfway with MF Assist 57, 91, 115, 195
  - Down button 98–99
    - assigning a function to 133
    - using to activate Photo Creativity options 98
    - using to adjust exposure compensation 98–99
    - using to adjust volume for movies 99, 136
    - using to switch functions of Control wheel 27, 98
  - Download Application option 132
  - DPOF (Digital Print Order Format) printing 112
  - Drive Mode 13, 47–51
    - basic procedure for using 17–18
  - DRO/Auto HDR menu item 68–71
    - incompatibility with other settings 71
  - DRO bracketing 51
    - incompatibility with other settings 50
- E**
- Edit Device Name menu item 179
  - Electronic viewfinder 9, 88–89
    - adjusting brightness of 89, 135
    - adjusting color temperature 135
    - does not function during Wi-Fi remote control operation 89
    - pulling into position for use 11, 88
    - setting camera to power off when EVF closed 89, 141
    - setting information display screens for 89
    - switching between EVF and LCD screen 89, 126

- turning on camera by popping up EVF 88
- Enlarge Image menu item 111
- Enlarging images with zoom lever 19, 104
- Expand Flexible Spot setting for Focus Area 60
- Exposure bracketing
  - continuous 49–50
  - incompatibility with other settings 50
  - order of bracketed exposures 50
    - changing 50, 51–52
    - single 50
  - using exposure compensation with 50
  - using flash with 50
  - using self-timer with 51
- Exposure compensation 98–99
  - limited adjustment range for movies 62, 161
  - using with iSweep Panorama mode 38
  - using with Manual exposure mode 29, 61
- Exposure Compensation menu item 29, 61–62
- Exposure Settings Guide menu item 122
- External audio recorder
  - Tascam DR-100MkII 192
- External flash
  - LumoPro LP180 190
  - using with HX80 or HX90V camera 191
  - Yongnuo YN560-IV 191
- Eye-Fi card
  - setting upload options for 138
- Eye sensor 10, 89

## F

- Face Detection On menu item 82
- Face Detection On (Registered Faces) menu item 81–82, 127
- Face Registration menu item 127
- Fadeout
  - in-camera effect for movies 154–155
- Fade to white
  - in-camera effect for movies 154–155
- File Format menu option 18, 47, 151
- File Number menu item 146
- Fill-flash setting 16, 52–53
- Final Cut Express software 20
- Final Cut Pro software 20
- Finder Color Temperature menu item 135
- Finder/Monitor menu item 89, 126
- Finder switch 10, 88, 101
- Fireworks scene type setting 36
- Firmware
  - checking for updates 148
  - displaying version 148
- Flash
  - basic procedure for using 16–17
  - incompatibility with other settings 16
- Flash Compensation menu item 54–55
  - incompatibility with other settings 55
- Flash Mode menu 12, 16, 52–54, 88
- Flash Off setting 16, 52

- Flash pop-up switch 9, 88
- Flash unit 9, 88
  - cannot be used until manually popped up 9, 16, 98
  - moving for bounce flash 88
  - using diffuser with 195
- Flattening effect of long zoom shot 182
- Flexible Spot option for Focus Area 60–61
- Focus Area menu item 59–61
- Focus frame
  - changing size and location of 60–61, 194
- Focusing on off-center subject 56, 60
- Focus Magnification Time menu item 58–57, 80, 115–116
- Focus Magnifier menu item 58, 79–80
  - assigning to a control button 80
  - compared to MF Assist option 58, 80, 115
  - using for recording movies 80, 164
- Focus Mode menu item 55, 90
- Folder Name menu item 147
- Format item on Setup menu 7, 145
- For Viewfinder display screen 93, 119, 120
- Function button 10, 92–94
  - using during movie recording 161–162
  - using to activate Send to Smartphone option 10, 94
- Function for VF Close menu item 11, 89, 101, 141
- Function menu 90, 92–93
  - assigning options to 92, 128–129
  - using to adjust settings 92–93
- Function Menu Settings menu item 92, 128–129

## G

- Genaray LED light 192
- Gourmet scene type setting 35
- GPS Area Adjustment menu item 137
- GPS assist data
  - using 137
- GPS Auto Correction menu item 137
- GPS logo on HX90V 11
- GPS Log Recording menu item 137–138
- GPS On/Off menu item 136
- GPS Settings menu item 136–138
- Grid Line menu item 116

## H

- Hand-held Twilight scene type setting 34
  - compared to Anti Motion Blur setting 34
- HDMI cable
  - using to connect camera to HDTV 186
- HDMI Information Display menu item 142, 186
- HDMI port 11, 102
- HDMI Resolution menu item 142
- HDMI Settings menu item 141–143
- HDR (high dynamic range) photography 68, 69–70
- HDR setting in camera 69–70, 195
- Help system 95, 194
- High ISO Noise Reduction menu item 81
  - incompatibility with other settings 81

High Sensitivity scene type setting 36–37  
 compared to Anti Motion Blur and Hand-held Twilight settings 36

Histogram  
 activating in shooting mode 106, 120  
 playback mode 105–106

## I

Icon for menu items for still images or movies 43

Illustrations

controls on back of camera 9  
 controls on top of camera 9, 87  
 Electronic viewfinder 89  
 items on bottom of camera 11, 102  
 items on front of camera 10, 89  
 items on left side of camera 10, 101  
 port on right side of camera 10, 101  
 tilting LCD screen 100

Image blur from long zoom shots 183

Image Index menu item 108–109

Image size

relationship to aspect ratio 43–44

Image Size menu item 43–44

iMovie software 20, 151, 166

In-Camera Guide/Delete button 10, 94–96

assigning function to 133  
 using for In-Camera Guide option 95  
 using to call up help screens 10  
 using to delete images or videos 10, 95, 106, 139  
 using to reset Photo Creativity settings 95

In-Camera Guide option 95, 132, 194

Index screen of images 19, 103–104, 108–109

Intelligent Auto Mode 21–22

settings unavailable with 21

Interlaced video formats 151

ISO 62–64

basic procedure for setting 28, 62–63  
 MFNR setting 63  
 incompatibility with other settings 64  
 range of available settings 62  
 setting minimum and maximum values for Auto ISO 62–63

ISO Auto Minimum and Maximum settings 62

Isolating effect of long zoom shot 182

iSweep Panorama mode 37–39

incompatibility with other settings 37

## J

JPEG images 46

## K

Kelvin units of color temperature 65

Key icon for protected image 111

## L

Landscape scene type setting 33

Language

selecting on Setup menu 8, 144

Large focus frame 125

indicating focusing difficulty or non-optical zoom 59

LCD screen

ability to tilt up or 180 degrees forward 100–101, 127

adjusting brightness of 135

in general 100

setting information display screens for 119–121

switching between LCD screen and EVF 126

Left button

assigning a function to 132

using to activate Drive Mode 100

Lens

focal length range of 10, 123, 181

focusing distance for closeup shots 185

using the superzoom capability of 181–184

Level display screen 120

Locations of still images and videos on memory card 166

Locking focus 56

## M

Macro photography 184–185

Manfrotto BeFree tripods 193

Manual exposure mode 27–30

using for HDR photography 30, 70

Manual Exposure mode for movies 155–156

Manual focus 57

focusing aids 57–58

using for macro shots 185

Marker Display menu item 117, 159

Marker Settings menu item 117–118

Memory cards

capacity for storing images and videos 6

cards suitable for use with XAVC S HD video format 150

Eye-Fi cards 6

formatting in camera 7, 145

inserting into camera 6

micro-SD cards 5

operating camera without card 4, 126

SD, SDHC, and SDXC cards 5

Sony Memory Stick cards 5

inserting into camera 7

special requirements for XAVC S HD video format 5, 150, 151

types of 4–6

Memory menu item 40, 85

Memory Recall menu item 85

Memory Recall mode 39–40, 85, 194

Menu button 10, 91

using to return enlarged image to normal size 91

Menu items

dimmed because of conflicting settings 42

preceded by icons: Stills, Movies 42

Menu system

navigating through 41–42

Metering Mode menu item 64–65  
 incompatibility with other settings 65

MF Assist menu item 57, 91, 115  
 compared to Focus Magnifier option 58, 80, 115  
 not available for movies 164  
 using with DMF 91, 115

MFNR (Multi Frame Noise Reduction) setting 63

Micref Level menu item 84, 158

Microphone, built-in 9

M.M. icon for metered manual value 28

Mode dial 9, 87  
 effect of position on movie recording 158–160

Mode Dial Guide menu option 11, 30–31, 85, 139

Monitor Brightness menu item 135

Mophie PowerStation XL portable USB power supply 189

Motion Interval Adjustment menu item 111–112, 166

Motion Shot feature for movie playback 165–166

Movie button 10, 91  
 limiting operation to Movie mode 87, 91, 134, 159

Movie Button menu item 87, 91, 134, 159

Movie (exposure mode selection) menu item 84, 153–156

MOVIE option for assignment to control button 132, 134

Movie position on Mode dial  
 reasons for using 159

Movies  
 adjusting playback volume 135–136  
 editing 166  
 recording  
 basic procedure 17–18, 163  
 functions that work from control buttons during video recording 162  
 time limits 150

MP4 format for movies 18, 151

Multi option for Metering Mode 64–65

Multi port 10, 101  
 uses of 10, 101

My Best Portrait camera app 180

## N

New Folder menu item 146–147

NFC area on left side of camera 11, 101, 173, 177

NFC (near field communication) protocol 11, 101, 177  
 using to connect camera to Android device 172–173

Night Portrait scene type setting 34

Night Scene scene type setting 33

NO CARD warning message 4, 126

Not Set option for assignment to control button 97, 132

NTSC/PAL Selector menu item 140–141  
 effect on Record Setting menu option 140

## O

One-touch NFC menu item 175, 177–178

Optical slave flash 191

Optical zoom 123

Overlay icon  
 indicator of burst of shots in Superior Auto mode 23

## P

Panorama Direction menu item 37–38, 46

Panorama Size menu item 37–38, 46

Panoramas, playback 39, 97

Panoramas, shooting 38–39

Peaking Color menu item 58, 122

Peaking Level menu item 58, 121–122  
 using with DMF 58, 121, 122  
 using with MF Assist 122

Pearstone 4.2-inch articulating arm 192

Pet scene type setting 35

Photo Creativity feature 13–16  
 combining multiple settings 15  
 not available during movie recording 163  
 resetting to default values 16

Photomatix software 30

PictBridge printer 112

Picture Effect comparison charts 74

Picture Effect menu item 73–79  
 HDR Painting setting 77–78  
 High Contrast Monochrome setting 77  
 using for street photography 185

Illustration setting 79  
 incompatibility with other settings 73, 79

Miniature Effect setting 78

Off setting 74

Partial Color setting 76–77  
 adjusting range of colors recognized 76–77

Pop Color setting 75

Posterization setting 75

Retro Photo setting 76

Rich-tone Monochrome setting 78

Soft Focus setting 77

Soft High-key setting 76

Toy Camera setting 74–75  
 using for movies 79, 161

Watercolor setting 79

Picture Effect setting for Photo Creativity feature 15, 79

Playback  
 movies  
 basic procedure 19–20, 164–165  
 still images  
 basic procedures 19, 103

Playback button 10, 91  
 using to turn on camera 10, 91, 106, 195

Playback menu 106–113

PlayMemories Camera Apps app 180

PlayMemories Home software 20, 166  
 where to download 3, 168

PlayMemories Mobile app 171–176

Pole aerial photography 101, 176

Portrait scene type setting 32

Power button 9, 88

Power Save Start Time menu item 140

Printing images directly to printer 112

Program Auto exposure mode for Movies 154



Program mode 23–24  
 Program Shift feature 23–24  
   not available for movie recording 163  
 Progressive video formats 151  
 Protect menu item 111

## Q

QR code  
   scanning with phone 174  
 Quality menu item 46  
 Quick Navi system 90, 93–94, 121  
 QuickTime software 151

## R

Rear Sync flash setting 53–54  
 Record Setting menu item 47, 151–153  
 Recover Image Database menu item 147  
 Red Eye Reduction menu item 55  
 Release Without Card menu item 4, 126  
 Remote control devices 10  
   Sony RM-SPR1 wired remote 190  
   Sony RMT-VP1K infrared remote 190  
   Sony RM-VPR1 wired remote 190  
   Vello ShutterBoss II intervalometer 190  
 Reset Network Settings menu item 179  
 Resetting camera settings 148  
 Resolution of images 43  
 Right button  
   assigning a function to 133  
   using to activate Flash Mode menu 88, 97–98  
 Rotate menu item 110

## S

Saturation  
   adjusting 71–72  
 Scene mode 30–37  
   incompatibility with other settings 30  
   methods of selecting a scene type 30–31  
 Scene recognition feature 21  
   requires face detection to be on to recognize faces 22  
   using for macro shots 184  
 Scene Selection menu item 31, 84  
 Sekonic C-700 color meter 66  
 Select REC Folder menu item 146  
 Self-portrait Timer menu item 100, 127  
 Self-timer 49, 195  
   basic procedure for using 17, 49  
   incompatibility with other settings 49  
   using for closeup photography 49  
   using with exposure bracketing 51  
 Self-timer (Continuous) 49  
   using to take multiple shots 49  
 Self-timer During Bracket menu option 51  
 Send to Computer menu item 168–170, 176  
 Send to Smartphone menu item 10, 171, 176  
   activating with Function button 94  
 Setting Reset menu item 148–149  
 Setup menu 134–149  
 Sharpness  
   adjusting 71–72  
 Shooting menu  
   in general 42  
   navigating through 42  
 Shooting modes  
   list of 21  
 Shooting Tip List menu item 85  
   summoning with In-Camera Guide button 85, 95  
 Shutter Priority exposure mode for movies 155  
 Shutter Priority mode 26–27  
 Shutter release button 9, 87  
 Shutter speed  
   range of available settings 23, 26, 30  
   range of available settings for movies 155  
 Single shooting setting for Drive Mode 47  
 Single-shot AF setting 55–56, 195  
 Slide Show menu option 109–110  
   incompatibility with other settings 109  
 Slow Sync flash setting 34, 52–53  
 Smart Remote Control app 174, 175  
 Smart Remote Embedded app 174  
 Smart Zoom 123  
 Smile/Face Detection menu item 81–82  
   incompatibility with other settings 82  
 Smile Shutter menu item 82  
 Snow scene type setting 36  
 Soft Skin Effect menu item 82  
   requirement to have Face Detection turned on 82  
 Soft Skin scene type setting 36  
 Sony HX80 and HX90V cameras  
   differences between 1  
   general features of 1  
   items supplied with in box 3  
 Sony HX90 camera  
   same as HX90V but without GPS 1  
 Speaker 102  
 Specify Printing menu item 112  
 Spot option for Metering Mode 64–65  
 SSID/PW Reset menu item 179  
 SteadyShot (Movies) menu item 84, 156–157  
   cropping of video image with 156  
 Step-by-step guides  
   connecting with NFC 172–173  
   sending images to a computer 168–170  
   sending images to a smartphone 170–171  
   taking pictures in Auto mode 11  
   using smartphone as remote control for camera 173–175  
 Step Zoom option 88, 133–134  
   not available for movies 133, 164  
 Street photography 185–186  
   extracting still frames from HD video for 185  
 Sunset scene type setting 33  
 Superior Auto mode 22–23  
   difference from Intelligent Auto mode 22

Sweep Panorama mode. See iSweep Panorama mode

## T

### Tables

- behavior of camera for video recording in various modes 160
- functions of Control ring with Standard setting 131
- maximum zoom range at various image sizes 125
- number of images that fit on 16 GB memory card 44
- Shooting menu items that can be adjusted during video recording 160
- suggested control assignments for movie recording 163
- suggested settings for Auto Mode still images 12
- suggested settings for movies in Intelligent Auto mode 18
- suggested settings for panoramas 38
- suggested Shooting menu settings for recording movies in Movie mode 163
- Television set, playing images and videos on 185
- Tile Menu menu option 41, 138–139
- Time-lapse photography 195
- Time zone
  - selecting 145
- Tripod socket 102
- Tv notation for shutter speed 27

## U

- Upload Settings menu item 138
- USB Connection menu item 143, 168
  - using MTP option for downloading camera apps 143
- USB LUN Setting menu item 143
- USB Power Supply menu item 144
- Use GPS Assist Date menu item 137

## V

- Version menu item 148
- VGA setting for Image Size 44
  - available only with 4:3 aspect ratio 44
- Viewfinder Brightness menu item 89, 135
- View Mode menu item 19, 108
- View on TV menu item 177
- Vividness setting for Photo Creativity feature 15
- Volume setting for movies
  - changing 20, 135–136
- Volume Settings menu item 135–136

## W

- WD TV Live media player 177
- White balance bracketing 50–51
  - changing order of exposures 51, 52
  - incompatibility with other settings 50
- White balance comparison chart 67–68
- White Balance menu item 65–68
  - adjusting setting with color axes 67, 195
  - incompatibility with other settings 67
- Wide option for Focus Area 59

- Wi-Fi menu 176–179
- Wi-Fi router
  - using to send images to computer from camera 169
- Wind Noise Reduction menu item 84, 158
- Windows Movie Maker software 20, 151–153, 166
- WPS button on router 169, 178
- WPS Push menu item 169, 178
- Write Date menu item 128

## X

- XAVC S HD format for movies 151
  - editing with computer 20

## Z

- Zebra menu item 114–115
- Zoom Function on Ring menu item 123, 133–134, 164
- Zoom lever 9, 87–88
  - adjusting speed of zooming 88, 122–123
  - using to display index screen 19, 88
  - using to enlarge images 19, 88
  - using to zoom in and out when shooting 13, 87
- Zoom Setting menu item 123–125
  - incompatibility with other settings 125
- Zoom Speed menu item 122–123