INDEX

A

AC adapters, 53
accessories, collecting of, 193-199
adhesive. See LOCA (liquid optically
clear adhesive)

B

baby powder, 34, 83, 85
backlights, 14
colored backlight installation, 137
Game Boy Advance (GBA) mod,
158-173
Game Boy Color (GBC) mod, 116-117
Game Boy DMG mod
backlight preparation, 82-84
bivert (hex inversion) module
installation, 78-81
case removal, 72-73
polarizer, removal of, 74-77
reassembling the case, 86-88
screen removal, 73
Game Boy Pocket mod, 146-156
light panels, 101
Newton rings, 85
Pokemon Mini mod, 214-225
soldering resistors, 38
tools for, 70
troubleshooting, 89, 155, 172, 225
Bandai, 25
Barcode Boy, 195
batteries
AC adapters, 53
contacts, replacement of, 50
corrosion, silicon pads and, 44
corrosion in battery compartment, 49
5V boost, 156
Game Pak repairs, 53-55
long time storage, 49
Pokemon Mini, 223
power LED, changing of, 134-136
battery doors, 123
Beam Gun, 20
bivert module, 78-81, 137
Game Boy Pocket, 151-152
blade (boxcutter), 32
foil and polarizer removal, 75-76
bootleg game cartridges, 190-192
box art, 188, 200-211
boxcutter (blade), 32, 75-76
bricks, 61
brightness, 156
buttons
  cleaning sticky buttons, 43
customization, 122
Game Boy Advance (GBA), 170, 171
Pokemon Mini, 221, 222
troubleshooting, 115

C

Camera, Game Boy, 196
capacitor, 84, 86, 223
cartridges. See game cartridges (carts)
case. See shells
circuit board
  bivert module installation, 151-153

Index 233
circuit board (continued)
  buttons, cleaning of, 43
  5V boost installation, 156
  Game Boy Advance (GBA), 162, 169, 171
  Game Boy Color (GBC), 102-103, 110
  Game Boy Pocket, 146-147
  game cartridges, 191
  Pokemon Mini, 217, 222-223
  removing from case, 72-73
cleaning techniques, 40
  battery compartment corrosion, 49
  buttons, sticky, 43
  corrosion, 47-49
  game cartridges, 192
  screen, glue removal, 76-77
  screens, 51, 52
  shells, 42
  silicon pads, 43-44
  speakers, 45
  yellowing, 51, 224
cleaning tools, 33
  clear carts, 186
  cold solder, 37
collectibles
  accessories, 193-199
  box and label art, 188
  cleaning cartridges, 192
  Game Boy publications, 182-183
  games, types and
     recommendations, 186-187
  shopping for in Japan, 206-211
  spotting fakes, 190-192
  storage of, 189
  terminology, 184
  tips for, 185
  variants and box art, 200-211
color carts, 186
color code key, Game Boy Color (GBC), 98
colors, light panels, 100-101
compressed air, 34
contacts, batteries, 50
contrast knob, 89, 155
corrosion
  cleaning techniques, 34, 47-49, 61
  headphone jack, 115
  silicon pads, 44
cotton swabs, 33
custom consoles, 121-137
  battery doors, 123
  buttons, 122
  colored backlights, 137
  power LED, color change, 134-136
  product labels, 126
  screen lens, 124-125
  shells, 123
  shells, painting of, 127-133
dead consoles, 61
display quality, troubleshooting, 89, 115, 155, 172, 225. See also screens
Displex, 42, 224
DMG. See Game Boy
Donkey Kong, 19-20
D-pad, 19-20
Duran, Sean, 174-177
electrical tape, 31, 38
emulators, 15
Famicom, 20
fanny pack, 199
5V boost, 156
flickering, 156
flush cutter, 32
flux pen (flux), 31
  soldering, basic technique, 36
foil, reflective, 74
frontlight panels, 100
Game Boy Pocket, 148-149
Pokemon Mini, 218-219
removal of, 74-76
Frankenstein Game Boys, 15
frontlights, 14
Game Boy Advance (GBA), 26
Game Boy Color (GBC) mod
  LCD screen, 99
  light panels, front and back, 100-101
  LOCA, application to LCD, 104-109
  shell, closing of, 111-112
spidering, 113-114
tools for, 96
troubleshooting, 115
wiring the screen, 110
light panels, 100
soldering resistors, 38
spidering, 113-114
Funny Playing, IPS screen mod, 173

G

Game Boy
costs for, 61
DMG-02 and DMG-03, 15
  buttons, 122
  power LED, changing of, 134-136
Frankenstein Game Boy, 15
history of, 16-28
mods for
  basic types of mods, 14-15
  market for sales, 11-12
  new options and resources, 228-232
  sources for materials, 13, 228-232
tools for, 30-35
use of this book, 12-15
original box art, 200-201
original specs (1989), 71
sales and software data, 22
Game Boy Advance (GBA), 26, 160
backlight mod
  aftermarket backlit LCD, 162-163
  LCD screen installation, 168-170
  reassembly, 171
  shell, opening of, 163-165
  shell, trimming of, 166-167
tools for, 158
troubleshooting, 172
game cartridges, 186
IPS screen mod, 173
original box, 204
original box art, 205
original specs, 159
Game Boy Advance (GBA) SP, 205
Game Boy Camera, 196
Game Boy Cases, 198
Game Boy Color (GBC), 24
  backlight mods, 116-117
cartridges and color code key, 98
frontlight mod
  infrared panel, seating of, 111
  LCD screen, 99
  light panels, front and back, 100-101
  LOCA, application to LCD, 104-109
  power switch, seating of, 111
  shell, closing of, 111-112
  shell, opening of, 102-103
spidering, 113-114
tools for, 96
troubleshooting, 115
wiring the screen, 110
games for, 186
original box, 203
original specs, 97
Game Boy graveyards, 64
Game Boy Light, 24
Game Boy Micro, 160
Game Boy Perfect Catalogue, 182-183
Game Boy Pocket, 23
backlight mod
backlight preparation, 150
bivert board installation, 151-152
5V boost, 156
LCD preparation, 148-149
light panel soldering, 153
shell, closing of, 154
shell, opening of, 146-147
tools for, 144
troubleshooting, 155
original box, 202
original specs, 145
Game Boy Pocket Sonar, 195
Game Boy Printer, 197
Game Boy World, 182-183
game cartridges (carts)
batteries, save and clock functions, 54-55
cleaning of, 192
eyearly product design ideas, 17-18, 21
Game Boy Advance (GBA), 162, 169
Game Boy Camera, 196
Game Boy Color (GBC), 98
Pokemon Mini, 206, 214, 222, 224
spotting fakes, 190-192
storage of, 189
types of, 186
The Game Console, 183
Game Pak
repair of, 54-55
types of, 186
Game & Watch, 19, 20, 22
GameCube, 195
gaming publications, 182-183
glass screen lens, 124-125

glue. See LOCA (liquid optically clear adhesive)
grey carts, 186
ground wire
bivert chip, 87
5V boost installation, 156
GND (ground) pad, LED backlight, 81
LED backlight mod, 81
light panels, front and back, 100-101, 106
Pokemon Mini, 223
troubleshooting, 89, 115, 155, 225

H

haptic features, 186
headphone jack
cleaning of, 48
troubleshooting, 115
headphones, 194
hex inversion module, installation of, 78-81
horizontal screen lines, 60
hydrogen peroxide, 51

I

infrared panel, Game Boy Color (GBC), 111
IPS screen mod, 173
isopropyl (rubbing) alcohol, 33, 42
Iwata, Satoru, 27

J

Japan, hunt for Pokemon Mini, 206-211

K

Kid Icarus, 20
KOTO, 23, 25

L

label art, 188
Lateral Thinking with Withered Technology, 18, 214

LCDs
- cracked LCDs, 63
  - Game Boy Advance (GBA), 158-173
  - Game Boy Color (GBC), 99
  - Game Boy Pocket, 23, 148-156
  - LOCA, application of, 104-109
  - Pokemon Mini, 218-225
- reflective background, 74
- screen burn, 62
- screen cancer, 62
- screen repairs, horizontal lines, 60
- screen repairs, vertical lines, 56-59
- screen replacement mods, 14

LED filter, 170

LEDs. See also backlights; frontlights
- factory reflective screens, 70
  - front and back light panels, 100-101
  - positive and negative poles, 135-136
  - power LED, changing color, 134-136
  - resistors, power flow and shorts, 38
- light panels, 100-101, 150. See also backlights; frontlights
  - soldering of, 153
  - spidering, 113-114

link cable, headphones, 194

LOCA (liquid optically clear adhesive), 35
- application of frontlight panel to LCD, 106-109
- curing time, 109
- sources and tips for use, 104-106

magnetic screw dish, 35

Mario series, 20

Meet a Modder
- Jaqueline Ruther, 90-93
- Owen Liza Winter, 138-141
- Sean Duran, 174-177

Metroid, 20

microfiber cloth, 33

Microvision, 17, 21

Miyamoto, Shigeru, 17, 20

needle-nose pliers, 32

NES consoles, 20, 122, 187, 205

Newton rings, 85

Nintendo, history of Game Boy, 16-28

Nintendo 64, 195

Nintendo D-pad, 19-20

Nintendo DS, 27

OEM (Original Equipment Manufacturer)
- Game Boy, original specs, 71
- Game Boy Advance (GBA), original specs, 159
- Game Boy Color (GBC), original specs, 97
- Game Boy Pocket, original specs, 145
- Pokemon Mini, original specs, 215

screen lens, 124

shells, 42, 123

Okada, Satoru, 17-18, 20, 21, 22, 24, 26

painted shells, 127-133

parts
- Game Boy graveyards, 64
- sources for, 40, 228-232

PCB (printed circuit board)
- bivert module installation, 151-153
- buttons, cleaning of, 43
- 5V boost installation, 156
- Game Boy Advance (GBA), 162, 169, 171 (continues)
PCB (printed circuit board) (continued)
  Game Boy Color (GBC), 102-103, 110
  Game Boy Pocket, 146-147
  game cartridges, 191
  Pokemon Mini, 217, 222-223
  removing from case, 72-73
Phillips-head screwdriver, 32
picture quality, troubleshooting, 89, 115, 155, 172, 225. See also screens
pins
  bivert (hex inversion) module
    installation, 79-81
  Game Boy Advance (GBA), DAI, 169
  Game Boy Advance (GBA), ribbon cable adapter versions, 162, 164, 172
  Game Boy Pocket, light panel mod, 153
  soldering and short circuits, 80
plastic screen lens, 124-125
pliers, needle-nose, 32
Pokemon Mini, 206-211, 214
backlight screen mod
  preparing the backlight, 220-221
  preparing the screen, 219
  shell, opening of, 216-218
  soldering the backlight, 222-223
  tools for, 214
  troubleshooting, 225
original specs, 215
polarizer
  bivert (hex inversion) module
    installation, 78-81
  Game Boy Pocket, 148-149, 150
  Newton rings, 85
  Pokemon Mini, 220
  removal of, 74-77
  replacement of, 83-84
  screen burn, 62
  troubleshooting, 89, 155, 225
power supply. See also batteries
  AC adapters, 53
  5V boost, 156
Game Pak repairs, 53-55
  Pokemon Mini, 223-224
power switch, Game Boy Color (GBC), 111
Printer, Game Boy, 197
product label, 126
publications for gaming, 182-183
R
Raspberry Pi mods, 15
reflector, Game Boy Pocket, 144, 148-149
reparis
  dead consoles, 61
  Game Pak, 54-55
  LCD, cracked, 63
  salvaged parts, 64
  screen burn, 62
  screen cancer, 62
  screens, scratches, 52
  screens, vertical lines, 56-59
resistors, soldering of, 38
Retrobright, 51, 224
ribbon cable, 72, 73, 74, 87
  Game Boy Advance (GBA), 162, 164, 168
  Game Boy Color (GBC), 103
  Game Boy Pocket, 144, 146-147, 148-149
  Pokemon Mini, 217, 219, 222-223
torn cable, 89
rubbing (isopropyl) alcohol, 33, 42
rumble features, 186
Ruther, Jaqueline, 90-93
S
safety
  knife or blade use, 75, 77
  soldering irons, 31
  salvaged parts, 64
screens. See also backlights; frontlights
basic mods, 14
cleaning screens, 52
Game Boy Advance (GBA), 158
lens, adhering to screen, 52, 88
lens, custom, 124-125
removal from shell, 103
repairs
  cracked LCDs, 63
  horizontal lines, 60
  screen burn, 62
  screen cancer, 62
  vertical screen lines, 56-59, 89
replacement mods, 14
scratches, 52, 224
spidering, frontlight panels, 113-114
screwdriver
  Phillips-head, 32
  security screwdriver, Game Pak repairs, 54-55
  Y-tip security, 32
screws
  Game Boy Advance (GBA), 163-164
  Game Boy Color (GBC), 102
  Game Boy DMG, 72-73
  Game Boy Pocket, 146-147
  Pokemon Mini, 216
  tightening of, 86
shells
  cleaning of, 42
  collectibles, 198
  Game Boy Advance (GBA), 163-165
  Game Boy Color (GBC), 102-103
  Game Boy DMG, 72-73, 86-88
  Game Boy Pocket, 145, 146-147
  painting of, 127-133
  Pokemon Mini, 216-218
  product label, 126
  replacement shells, 42, 123
  yellowing of, 51, 224
silicon pads, 43-44, 115, 122, 170
solder, 31, 80
solder sucker, 31, 37, 80
soldering iron, 31, 33
  chisel tip, 80
  cleaning of, 37
  as heat source, screen repairs, 57-59
  tinning the iron, 36
soldering techniques
  basic technique, 36-37
  bivert module installation, 151-153
  cold solder, 37
  5V boost installation, 156
  Game Boy Advance (GBA), 169
  Game Pak repairs, 54-55
  LED backlight mod, 79-81, 89, 150
  light panel soldering, 153
  Pokemon Mini, backlight, 222-223
  resistors, 38
  solder bridge, 37
  speakers, changing of, 46
  troubleshooting, 172, 225
  volume knob, 48
speakers
  cleaning of, 43, 45
  removal from case, 73
  replacing, 46
  troubleshooting, 89, 115, 155, 172, 225
spidering, frontlight panels, 113-114
steel wool, 33
storage systems for games, 189
Super Game Boy adapter, 195

T

Team Shikamaru, 20
terminology, collectibles, 184
tools for modding
  baby powder, 34
  blade/boxcutter, 32
  cleaning tools, 33
  compressed air, 34
  cotton swabs, 33
  electrical tape, 31

(continues)
tools for modding (continued)
flush cutter, 32
flux pen (flux), 31
LOCA (liquid optically clear adhesive), 35
magnetic screw dish, 35
needle-nose pliers, 32
screwdriver, Phillips-head, 32
screwdriver, Y-tip security, 32
solder and soldering iron, 31
solder sucker, 31
sources, 30
steel wool, 33
UV lamp, 35
vinegar, 34
WD-40, 34

troubleshooting
Game Boy Advance (GBA), 172
Game Boy Color (GBC), 115
Game Boy DMG, 89
Game Boy Pocket, 155
Pokemon Mini, 225
screen flickering or brightness, 156

U

Ultra Hand, 16
UV lamp, 35

V

VCC, backlight mod, 79-81
vertical screen lines, repair of, 56-59
vinegar, 34, 48, 49
Virtual Boy, 23
volume knob, cleaning of, 48

W

WD-40, 34, 48
Winter, Owen Liza, 138-141
WonderSwan, 25

Y

Yamauchi, Hiroshi, 16
Yokoi, Gunpei, 16-28
Y-tip security screwdriver, 32

Z

Zapper, 20