

Contents

SECTION 1 – Instruments of the Pit

Mallet Keyboards and Timpani	10
Marimba	11
Vibraphone	13
Xylophone	16
Glockenspiel	17
Crotales	19
Chimes	20
Timpani	22
Drums, Cymbals, and Gongs	25
Concert Bass Drum	25
Toms	28
Snare Drums	29
Impact Drums	31
Roto Toms	31
Suspended Cymbals	32
Hand Cymbals	37
Tam Tam	42
Various Other Gongs	43
Accessory Percussion Instruments (listed alphabetically)	44-56
Special Effects (listed alphabetically)	57-62
World Percussion Instruments	63
Hand Drums	
Congas	63
Bongos	65
Doumbec and Djembe	65
Other World Percussion Instruments	
Talking Drum	66
Timbales	66
Maracas	66
Güiro	68
Caixixi	68
Claves	68
Cuica	69
Steel Drums	69
Samba Whistle	69
Shekere	70
Surdo	70
Agogo Bells	70
Electronics	71
Microphones	71
Speakers	72
Power Supply	72
Mixing Board	73
Sound Modules/Samplers	73
MIDI Controllers	74
Monitors	75
Cables	75
Example diagram for cable connections	77
The Pit Setup	
The keyboard “choir” setup	78
Antiphonal setups	79
Wood vs. metal setups	80
Timpani-in-the-middle setup	81
Multi-percussion “pod” style setups	82
Mallet Selection	83

Instrument Care and Maintenance	87
“Pit Maintenance Box”	87
Covers, cases, and bags	88
Polish and Oil	90
Battling Mother Nature	90
Keyboard Maintenance	91
More tips for happy keyboards	92
Timpani head care: Changing and clearing	93
Transport tips for pit members and pit crew	95
A quick guide for the volunteer pit crew	96

SECTION 2 – Keyboard and Timpani Technique

Keyboard Technique	
Stance/body position/posture	98
Basic 2-mallet grip	100
Wrist Motion	101
Playing Zones	103
4-mallet grips and techniques	104
Burton grip and technique	104
Stevens grip and technique	106
“Touch”	109
Timpani Technique	
Body position/posture	110
Basic timpani grip	111
The timpani stroke	112
Singing and ear training	114
Tuning and Pedaling	115

SECTION 3 - Exercises

Important concepts	117
Natural phrasing	118
Fake Expression	119
Practice Suggestions	120
Singles	121
Sixteenth Note Scales No. 1 & 2	122
Accent Exercises and Stick Control Exercises	124
16th Note Accent to Tap	124
Stick Control	125
Yak-scents	126
Summertime...	127
Octave Jumps	128
Arpeggios	129
Inverted Arpeggios	130
Modular Four Mallet Exercises	132
Vertical Stroke Variations	133
Independent Stroke Variations	134
Alternating Stroke Variations	136
Lateral Stroke Variations	137
Block Chord Accents	138
4-Mallet Rotation	141
About 4-mallet Permutations	144
Interval Control	145
Four Mallet Arpeggios (1 & 2)	146
Shifting	147
One-Handed Octaves	148

Contents continued...

About 4-mallet Permutations	144
Interval Control	145
Four Mallet Arpeggios (1 & 2)	146
Shifting	147
One-Handed Octaves	148
Two-Handed Scales	149
Four-Mallet Roll Concepts and Exercises	150
Traditional Rolls	150
Lateral (Ripple) Rolls	150
Independent Rolls	152
Combination Rolls	154
Guatemalan Rolls	155
Roll Speed Exercises/Chorales	156
Building Chops Away From the Keyboard	158
Timpani Exercises	
Chromatic Pedaling	160
5-Note	161
Timpani Scales	161
Timpani Roll Variations (“Singles”)	162
Articulate Variations (“16th Scales No. 1”)	164
SECTION 4 – Rehearsing the Pit	
Warm-up Concepts	168
Using the Metronome	171
Evaluating the Exercises	172
Rehearsing the Show	172
Standing in front of the pit	173
Standing behind the pit	173
Standing in the press box	174
Getting clues in the pit	176
Performing	178
SECTION 5 – Arranging and Scoring for the Pit	
Notation Concepts	180
Laying out the score	181
Detailing your score	183
Formulating your ideas	185
Musical Functions of the front ensemble score	188
To support existing material or accompany	188
To add melodic voice or counterpoint	189
To provide impact	190
To provide effect or color	192
Composing	194
Comping	194
Composing Countermelodies	196
Composing Runs	199
Harp Effects	201
Orchestration Concepts	204
Writing harmonic mallet lines	204
Using the instrument’s best range	205
Overwriting	206
Considering how setup will affect overall sound	210
Antiphonal effects	214
Metal to wood effects	216
BASIC THEORY APPENDIX	219