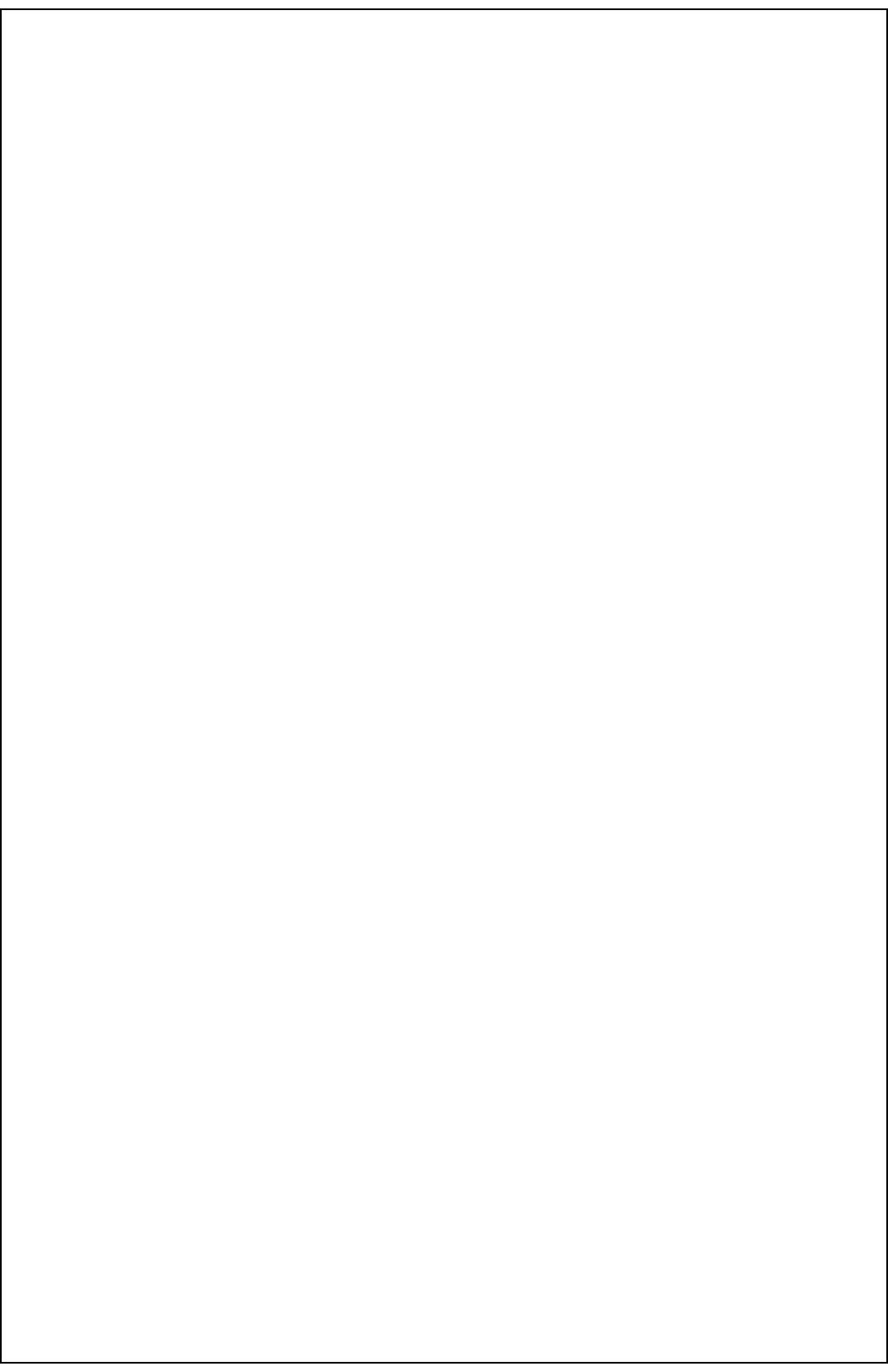


®

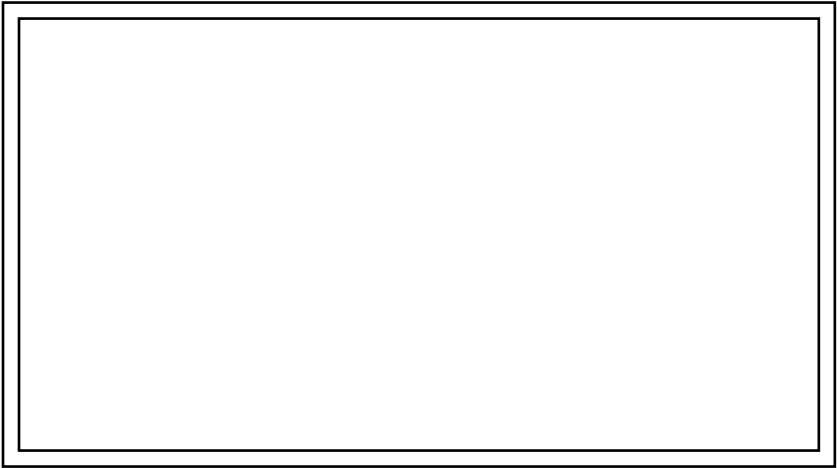


Superformance Mk III Owner's Manual

Third Edition



Authorized Dealer



Superformance Chassis Number: _____

Model: _____

Color: _____

Stripes: _____

Purchased by: _____

Purchase Date: _____

Superformance® Mk III Owners Manual Third Edition

Superformance® is a registered trademark of Superformance LLC.

This document is copyright © 2009-2011 by Michael H. Stenhouse. Do not reproduce by any means including electronically without specific written permission on a case by case basis.

Portions of this document have been obtained from other sources by permission and remain the property of those sources.

Michael H. Stenhouse, Ph.D.
Second Strike LLC, the Superformance Owners Group
Davidson NC 28036-4600
www.SecondStrike.com

Version 2010.37

CONGRATULATIONS!

Lance Stander of Superformance LLC and Jimmy Price of Hi-Tech Automotive would like to extend their thanks and congratulate you on your purchase of the Superformance Mk III.

The Superformance Mk III is the only Shelby licensed product in the industry. You now own a piece of one of the great accomplishments in automotive hi-performance history. With your decision to purchase our Mk III, you now own the finest product in the industry.

We wish to thank Mike Stenhouse, (Second Strike – the Superformance Owners Group and SCORE – the Superformance Owners Registry), Randall Thomas (SCOF – the Superformance Owners Forum), the Superformance Dealers and the Superformance Owners for all their support through the years. They have created a network that provides owners with valuable information, historical perspective, and social interaction.

On behalf of the entire Superformance and Hi-Tech family we thank you for your purchase of our Superformance Mk III. You are now about to create your own memories and enjoy the history, beauty, and performance for many years to come.

Lance Stander
Superformance LLC

Jimmy Price
Hi-Tech Automotive

INTRODUCTION

The Third Edition of Superformance Mk III Owners Manual has been created by and for Mk III enthusiasts who working together build, sell, service, own, and drive these magnificent machines.

Superformance provides the rolling chassis that is the core of these machines. The owners add their own engine, transmission, options, and customizations to create their own personal machines tailored to their individual vision.

In order to be of greater use to you the owner, this manual contains information, suggestions, and recommendations far beyond the equipment provided by Superformance. It is up to each owner to evaluate the information, suggestions, and recommendations contained in this manual and to make his/her own determination if they are applicable to his/her situation. The use of such information, suggestions and recommendations is entirely the responsibility of the individual owner. Any questions should be directed to your Superformance dealer.

Photographs of many different cars are included in this manual, some with optional equipment and some with owner installed equipment.

ACKNOWLEDGEMENTS

This manual is dedicated to the memory of Bob Olthoff, legendary Cobra driver and respected Superformance dealer, and to his wife Baby Olthoff, a great friend of many Superformance owners.

Many thanks to the members of the Editorial Committee for this manual who contributed their time, effort, and considerable knowledge to this project.

Craig Aylsworth	SP 1265
Hal Copple	SP 672
Blas Costagli	SP 760
Mike Evangelo	Technical Advisor
Dan Mroz	SP 1689
Dennis Olthoff	Olthoff Racing Inc.
Gary Osborne	SP 569
Lance Stander	Superformance LLC
Randall Thomas	SP 455, SP 1002
Jim Vander Wal	SP 1855
Bill Wells	SP 156

Mike Stenhouse SP 218
Author and Editor-in-Chief
Second Strike LLC

ADDITIONAL INFORMATION

There are additional sources of technical documentation, historical documentation, maintenance procedures, service parts, upgrade parts, vendor supplied information, and changes and updates. Changes to the list are frequent. Please refer to the Technical section of the Second Strike website for the current list.

Go to www.SecondStrike.com and click on the Technical Section.

TABLE OF CONTENTS

Congratulations!	iii
Introduction	iv
Acknowledgements	v
Additional Information	v
Table of Contents	vi
List of Figures	xv
List of Engineering Changes	xviii
List of Owner Provided Information	xix
Specifications	1
General Specifications	1
Models	2
Chassis	2
Body	2
Fittings	3
Front Suspension	3
Rear Suspension	3
Steering	3
Pedal Box	3
Exhaust System	3
Instrumentation and Controls	3
Interior	4
Top	4
Cooling	4
Fuel System	4
Dimensions	6
Superformance Equipment Options	7
Major Component Variations	9
Engine	9
Transmission	9
Differential	10

Wheels.....	11
Standard 15" Wheels.....	12
Optional 17" Wheels.....	12
Tires.....	12
Recommended 15" Tire Sizes.....	12
Recommended 17" Tire Sizes.....	12
Brakes.....	13
Ford Brakes.....	13
Wilwood Brakes.....	13
Parking Brake.....	14
Coil Over Shocks.....	14
Anti-Sway Bars.....	15
Windscreen and Cowl Height.....	15
Seats.....	16
10 th Anniversary Edition.....	16
Identifying Engineering Changes.....	16
Individual Specifications.....	17
Engine.....	17
Transmission.....	17
Differential.....	18
Wheels.....	18
Tires.....	18
Brakes.....	18
Shocks.....	18
Anti-Sway Bars.....	18
Windscreen.....	18
Seats.....	18
Chassis Identification.....	19
Mk III Chassis Number.....	19
Mk III Car Number.....	20
VIN - Vehicle Identification Number.....	20
Operation.....	21
Dashboard Layout.....	21
Variations.....	21
Mk III SC Style Dashboard, Original Version.....	22
Mk III SC Style Dashboard, New Version.....	23
Mk III Roadster Style Dashboard, Original Version.....	24
Mk III Roadster Style Dashboard, New Version.....	25
Instrumentation.....	26
Tachometer / Rev Counter (1).....	26
Speedometer (2).....	26
Odometer Reset (3).....	27
Oil Temperature Gauge (4).....	27

Water Temperature Gauge (5).....	27
Ammeter or Voltmeter (6).....	28
Fuel Gauge (7).....	28
Oil Pressure Gauge (8).....	29
Warning Lights and Buzzers	29
Alternator Warning Light (9).....	29
Hi-Beam Pilot Light (10).....	30
Indicator Repeater Light (11).....	30
Brake Fluid Warning Buzzer (12).....	30
Switchgear and Controls	30
Ignition (13).....	30
Windscreen Washer (14).....	31
Automatic Radiator Fans (15).....	31
Manual Radiator Fan or Electric Fuel Pump (16).....	31
Dashboard Dimmer (17).....	32
Windscreen Wiper (18).....	32
Headlights and Running Lights (19).....	33
Turn Signals (20).....	33
Horn / Hooter (21).....	33
Cigar Lighter Receptacle (22).....	33
Heating and Ventilation.....	34
Heater Temperature (23).....	34
Blower Fan (24).....	34
Heater and De-Mister (25).....	34
Fresh Air Vents (26, 27).....	34
Vehicle Entry, Access, and Operation.....	35
Keys.....	35
Hood / Bonnet.....	36
Trunk / Boot.....	37
Monza Gas Cap and Locking Gas Cap.....	38
Fuel Octane Requirement.....	38
Doors.....	39
Entry/Exit - Side Exhausts.....	40
Seat Adjustment.....	40
Seat Belts.....	41
Tonneau Cover.....	43
Soft Top Styles.....	45
Soft Top Fasteners.....	46
Dot Fasteners.....	46
Tenax Fasteners.....	46
One Window Soft Top.....	47
Procedure for Fitting the Soft Top.....	47
Removing the Soft Top.....	49
Folding the Soft Top.....	50
Storing the Soft Top and Side Windows.....	51

Three Window Soft Top.....	52
Standard Procedure for Fitting the Soft Top.....	52
Alternate Procedure for Fitting the Soft Top.....	57
Rolling Down the Rear Window.....	57
Removing the Soft Top.....	58
Folding the Soft Top.....	58
Storing the Soft Top and Side Windows.....	62
Side Windows.....	63
Fitting.....	63
Removing and Storing.....	63
Closing Doors with Side Windows Installed.....	63
Opening Doors with Side Windows Installed.....	64
Optional Hard Top.....	65
Hardtop Installation.....	65
Side Window Extension Fitment.....	69
Closing and Opening the Doors.....	70
Hardtop Removal.....	70
Hardtop Storage.....	70

Maintenance71

Routine Checkup and Service71

Routine Maintenance Schedule.....	71
Initial Startup, 100 Miles, and 500 miles.....	72
Monthly.....	72
Every 6 months or 5,000 miles.....	72
Every 12 months or 10,000 miles.....	72
Longer Term Maintenance.....	73
Recommended Fluids and Change Intervals.....	74
Engine Oil.....	74
Checking Engine Oil.....	74
Filling Engine Oil.....	75
Oil Usage Notes.....	75
Transmission Fluid.....	75
Differential Fluid.....	76
Brake Fluid – Adding, Bleeding, and Replacing.....	76
Clutch Fluid – Adding, Bleeding, and Replacing.....	77
Engine Coolant.....	78
Spark Plugs and Change Interval.....	78
Ball Joints.....	78
Suspension Bushings.....	79
Battery.....	79
Battery Cables and Connections Check.....	80
Replacement Light Bulbs.....	80
Exhaust System Check.....	81
Water Pump.....	81
Wheel Bearings.....	81
Service Log.....	82

Service Part Numbers	83
Alignment and Adjustments	84
Shock Damping Adjustment	84
Tire Pressures	84
Ride Height Adjustment	84
Wheel Alignment Specifications	85
Throttle Linkage Adjustment	86
Clutch Adjustment	87
Wheels and Tires	89
Wheel Variations and Interchangeability	89
Wheel Variations	89
Wheel Components	90
Wheel Type Identification	91
Primary Differences	93
Interchangeability	96
Purchasing Another Set of Wheels	97
Wheel Removal and Reinstallation	98
Drive Pins	100
Tips for Removing a Stuck Spinner	101
Jack Points	103
Tire Rotation	104
Flat Tire	104
Representative Available Replacement Tires	105
15" Tires	105
17" Tires	107
Tire Ratings	108
Tire Load Index	108
Tire Speed Rating	108
Windscreen and Cowl Height	109
Washing and Waxing	111
In General	111
Exterior	112
Washing	112
Waxing	113
Dry Wash / Between Wax Detailing	113
Ceramic Coated Side Pipes	113
Windscreen	114
Sun Visors, Wind Wings, Side Screens	114
Wheels	114
Tires	114
Interior	115
Leather and Vinyl	115
Carpets	115
Drying the Interior	115

Special Events Preparation.....116

Driving School and High Speed Events116

Routine Maintenance..... 116
Roll Bars..... 116
Seat Belts..... 116
Mirrors..... 117
Tires..... 117
Wheels..... 118
Safety Wire..... 118
Anti-Sway Bar..... 119
Battery..... 119
Battery Cut Off Switch..... 119
Brakes..... 120
Brake Lights..... 120
Brake Fluid Ratings and Recommendations 120
Engine Oil..... 121
Fuel Levels..... 121
Locking Gas Cap..... 121
Fluid Levels..... 122
Fluid Leaks..... 122
Steering and Wheel Bearings 122
Windscreen..... 122
Exhaust System 122
Radiator Overflow Catch Can 122
Throttle Return Spring..... 123
Fire Extinguisher 123
Helmet..... 123
Eye and Ear Protection 123
Trunk and Cockpit..... 123
Numbers 124
Tools and Spares 124
Top and Tonneau Cover..... 124
Body and Windscreen Protection 124
Warm Up..... 125
Oil Pressure on the Track 125

Road Trips126

Routine Maintenance..... 126
Tools and Spares 126
 Tool Kit 126
 Tool and Spares Kit 127
Car Cover 128
Packing..... 129

Electrical System 130

Wiring Diagrams Up To 1040 131

Electrical Installation Information..... 131

- Distributor..... 131
- Gearbox 131
- Alternator..... 131

Relays, Flasher, Fuses 132

Wire Color Coding 133

Wiring Harness Diagrams 134

- Drawing 1 of 8 - Front Loom..... 135
- Drawing 2 of 8 - Front Loom..... 136
- Drawing 3 of 8 - Dashboard Loom 137
- Drawing 4 of 8 - Dashboard Loom 138
- Drawing 5 of 8 - Dashboard Loom 139
- Drawing 6 of 8 - Rear Loop..... 140
- Drawing 7 of 8 - Alternator Wires..... 141
- Drawing 8 of 8 - Electronic Ignition..... 142

Wiring Diagrams 1041 to 1899..... 143

Central Electrical Tray 144

- Central Electrical Tray Components..... 144

Fuse Box..... 145

- No 5 Fuse Box – Version A..... 145
- No 5 Fuse Box – Version B 146
- No 6 Fuse Box – Version A..... 147
- No 6 Fuse Box – Version B 148

Wiring Harness..... 149

Harness Layout Description 150

Harness Information 152

- 1. Front Loom Earth 152
- 2a. L/H Headlight Plug (on Front Loom)..... 152
- 2b. Headlight Plug (on L/H Headlight)..... 152
- 3a. R/H Headlight Plug (on Loom)..... 153
- 3b. R/H Headlight Plug (on Headlight)..... 153
- 4a. L/H Front Indicator Plug (on Loom)..... 153
- 4b. L/H Front Indicator Plug (on Lamp)..... 153
- 5a. R/H Front Indicator Plug (on Loom)..... 154
- 5b. R/H Front Indicator Plug (on Lamp)..... 154
- 6. L/H Radiator Fan Terminals (On Radiator Fan) 154
- 7. R/H Radiator Fan Terminals (On Radiator Fan)..... 154
- 8. Hooter Terminals (In Left Front Wheel Arch)..... 154
- 9. Voltage Regulator Plug (On Front Loom) 155
- 10. Ballast Resistor Terminals (6mm Eye Rings)..... 155
- 11. Ignition Coil (Solder Joints)..... 155
- 12. L/H Side Indicator 155
- 13. R/H Side Indicator 156
- 14. Brake Fluid Level Terminals 156
- 15. Distributor Plug on Loom 156

16. Alternator Terminals (Eye Rings).....	156
17. Solenoid Terminals - 5mm Eye Rings	157
18. Reverse Switch - on Gear Box.....	157
19. Neutral Safety Plug.....	157
20. Multi-Pin Plug - Fuse Box to Front Harness.....	158
21. Power Supply in Fuse Box - 5 mm Eye Ring Terminal.....	159
22a. Ignition Module Plugs (on Fuse Box Loom).....	159
22b. Ignition Module Plugs (on Module).....	159
23a. Ignition Module Plugs (on Fuse Box Loom).....	160
23b. Ignition Module Plugs (on Module).....	160
24. Multi-Pin Plug - Fuse Box to Dashboard.....	161
25a. Rear Loom to Fuse Box (in Fuse Box).....	162
25b. Fuse Box to Rear Loom (in Fuse Box).....	162
26a. Rear Loom to Fuse Box (in Fuse Box Loom).....	162
26b. Fuse Box to Rear Loom.....	163
27a. Number Plate Plug (on Rear Loom in Boot).....	163
27b. Number Plate Plug (on Light in Boot).....	163
28. Hard Top Interior Lamp Plug (In Boot by Roll Bar).....	163
29. Rear Loom Earth.....	163
30. L/H Rear Indicator Terminals - Spade Connectors.....	164
31. R/H Rear Indicator Terminals - Spade Connectors.....	164
32. L/H Tail Light Terminals - Spade Connectors.....	164
33. R/H Tail Light Terminals - Spade Connectors.....	164
34. Reverse Light Terminals - Spade Connectors.....	164
35. Electric Fuel Pump Plug on Rear Loom.....	165
36. Fuel Tank Sender Terminals.....	165
37. Seat Belt Buzzer.....	165
38. Radiator Thermo Switch Terminals.....	165
39. Wiper Harness to Wiper Motor Connectors - Sealed to Motor.....	166
40. Wiper Harness Plug to Fuse Box Harness.....	166
41. Fuse Box Loom Plug to Wiper Motor Harness.....	167
42. Heater Box Plug Connector into Dash Loom.....	167
43. Dash Loom Plug to Heater Box Plug.....	167
44. Indicator Stalk to Fuse Box.....	168
45. Fuse Box Plug to Indicator.....	168
Wiring Diagrams 1900 On	169
Central Electrical Tray	171
Central Electrical Tray Harness Routing.....	172
Instrument Panel Harness.....	173
Front Harness.....	173
Rear Harness.....	174
CKT01 Low Brake Fluid Buzzer Circuit.....	175
CKT02 Turn Signal, Blower Motor Circuit.....	176
CKT03 Sidelight, Meter Lighting Circuit.....	177
CKT04 Headlight Circuit.....	178
CKT05 Horn Circuit, Brake Lights.....	179
CKT06 Radiator Fan Circuit.....	180
CKT07 Alternator Warning Light Circuit.....	181

CKT08 Ignition Coil Supply, Starter Circuit.....	182
CKT09 Ignition Module Circuit.....	183
CKT10 Wiper Motor, Reverse Light Circuit.....	184
CKT11 Fuel Level Circuit.....	185
CKT12 Fuel Pump Circuit	186
CKT13 Seat Belt Buzzer Circuit (Australia).....	187
Ignition Circuit	188
28 Pin Dash Connector (Instrument Panel Harness)	189
28 Pin Bulkhead Connector (Front Harness).....	190
Index	191
Appendices.....	198
Appendix A: ZF IRS Differential	199
Fluids.....	200
Part Numbers.....	200
Appendix B: Instrument Panel Harness 1900 On	201

LIST OF FIGURES

[Figure 1 - Superformance Mk III]	1
[Figure 2 – Superformance Mk III Chassis, Front View]	5
[Figure 3 – Superformance Mk III Chassis, Rear View]	5
[Figure 4 – Typical 4, 5, and 6-speed Shift Patterns].....	9
[Figure 5 – Superformance Chassis Number].....	19
[Figure 6 – Hood Latches]	36
[Figure 7 – Trunk Handle]	37
[Figure 8 – Gas Cap].....	38
[Figure 9 – Door Latch]	39
[Figure 10 – Caution. Hot Exhaust Below Door Sill].....	40
[Figure 11 – Raise Hook].....	41
[Figure 12 – Insert Eye]	41
[Figure 13 - Latch]	41
[Figure 14 – Five Point Harness]	42
[Figure 15 – Tonneau Cover].....	43
[Figure 16 – Tonneau Cover, Driver’s Side Open].....	43
[Figure 17 – Folded and Ready To Stow Behind Seats].....	44
[Figure 18 – Tonneau Cover, Both Sides Open].....	44
[Figure 19 – Install Top Bows]	47
[Figure 20 – Slip Pins in Rails into Slot in Windscreen Frame].....	47
[Figure 21 – Catch on Windscreen Post]	48
[Figure 22 – Clip Dot Fasteners around the Cockpit]	48
[Figure 23 – Spread Top Bows].....	49
[Figure 24 – Fold Window Over Top].....	50
[Figure 25 – Fold Sides Over].....	50
[Figure 26 – Fold Front Section Over window].....	51
[Figure 27 – Fold in Half]	51
[Figure 28 – Install Bows]	52
[Figure 29 – Locate Pin]	53
[Figure 30 – Lock Over Center Clip].....	53
[Figure 31 – Connect Tenax Fastener].....	54
[Figure 32 – Connect Dot Fasteners]	55
[Figure 33 – Tension the Top]	55
[Figure 34 – Secure Bows with Velcro].....	56
[Figure 35 – Roll Seal].....	56
[Figure 36 – Lay Out Soft Top]	58
[Figure 37 – First Fold].....	59
[Figure 38 – Second Fold]	60

[Figure 39 – Third Fold]	61
[Figure 40 – Fourth Fold].....	61
[Figure 41 – Storage of Soft Top and Bows]	62
[Figure 42 – Storage of Side Windows].....	62
[Figure 43 – Fit Side Window]	63
[Figure 44 – Optional Superformance Hard Top].....	65
[Figure 45 – Lower Hardtop Onto Vehicle].....	65
[Figure 46 – Rest Sealing Rubber On Body]	66
[Figure 47 – Check Front Sealing Rubber].....	66
[Figure 48 – Attach Over Center Clips].....	67
[Figure 49 – Cam Lock Bracket]	67
[Figure 50 – Insert Cam Lock Through Body]	68
[Figure 51 – Secure Cam Lock].....	68
[Figure 52 – Fit Side Window Extension]	69
[Figure 53 – Filling Brake Master Cylinder]	76
[Figure 54 – Clutch Master Cylinder].....	77
[Figure 55 – Battery Box in Trunk]	79
[Figure 56 – AVO Shock Adjustment Knob]	84
[Figure 57 – Throttle Linkage].....	86
[Figure 58 – Wheel Cover for Early Stamped Steel Wheel].....	89
[Figure 59 – Knock-Off Wheel Adapter].....	90
[Figure 60 – Trigo Wheel Identification]]	91
[Figure 61 – WAW Wheel Identification]].....	91
[Figure 62 – WAW1 Rear Wheel ID Measurement – 5 1/4”]	92
[Figure 63 – WAW2 Rear Wheel ID Measurement – 4 3/4”]	92
[Figure 64 – Wheel Dimensions].....	93
[Figure 65 – 4” Adapter and 4.5” Adapter].....	94
[Figure 66 – Trigo (left) and WAW2 (right) Spinners]	95
[Figure 67 – WAW1 Spinner Showing Step]	95
[Figure 68 – 6 Point and 12 Point Drive Pins].....	96
[Figure 69 – Right Side Front And Rear Wheel Spinners]	98
[Figure 70 – The Left Side Front And Rear Wheel Spinners]	98
[Figure 71 –Drive Pin Holes in Rim Center]	99
[Figure 72 – Trigo Drive Pin Alignment Ring]	100
[Figure 73 – Jacking Points on Frame]	103
[Figure 74 – Quick Lift Jack Points].....	104
[Figure 75 – Measuring Windscreen Center Height].....	109
[Figure 76 – Windscreen with Tie Rod]	110
[Figure 77 – Post 2000 DOT Date Code]	117
[Figure 78 – Pre 2000 DOT Date Code].....	117

[Figure 79 – Safety Wire, Right Side] 118
[Figure 80 – Tool Kit Tucked Behind Driver’s Seat] 127
[Figure 81 – Tools and Spare Kit, Car Cover Stowed in Trunk] 128
[Figure 82 – A Well Packed Trunk]..... 129
[Figure A1 – Rear of ZF IRS Differential] 199

LIST OF ENGINEERING CHANGES

The following list includes only engineering changes referenced in this manual. Car numbers are approximate as described in *Identifying Engineering Changes*, page 16.

<u>Car</u>	<u>Brief Description of EC</u>	<u>Refer to Page</u>
150	Change from steel to Trigo wheels	11
150	Change ball joints	78
300	Change seat structure	16
680	Change from Ford to Wilwood brakes.....	13
800	Change from Trigo to WAW1 wheels	11, 89
800	Add locking gas cap.....	121
980	Change from AVO to Bilstein shocks.....	14, 84
1041	Change wiring diagram.....	130, 131, 143, 169
1200	Change to larger rear sway bar	15, 119
1200	Change from WAW1 to WAW2 wheels.....	11, 89
1200	Change windscreen and cowl height.....	15, 109
1500	Change parking brake	14
1500	Change soft top	45
1664	Change to sealed beam headlight.....	80
1900	Change dash layout.....	21
1900	Change wiring diagram.....	130, 131, 143, 169
2068	Change from Ford to BTR differential	10, 76
2068	Add Ford modular DOHC 4V as supported engine.....	9
2100	Change windscreen	15, 109
2680	Change from Wilwood to Wilwood/PBR brakes.....	13
2680	Change parking brake	14
2750	Change from Wilwood/PBR to Wilwood brakes.....	13
2977	Change from BTR to ZF differential	199

LIST OF OWNER PROVIDED INFORMATION

The Mk III Owner's Manual provides places to record and keep information that is specific to your car. Completing the information is the owner's responsibility. The information can be provided by your Superformance dealer and your engine builder/installer.

<u>Item</u>	<u>Refer to Page</u>
Vehicle and owner information.....	i
Superformance equipment options.....	7
Individual engine and drive train specifications	17
Dashboard layout	21
Minimum, maximum, break-in engine speeds.....	26
Oil temperature	27
Water temperature.....	28
Fuel gauge calibration.....	29
Oil pressure	29
Keys	35
Fuel octane requirement.....	38
Engine oil.....	74
Transmission fluid	75
Spark plugs.....	78
Service log	82
Service part numbers.....	83