TABLE OF CONTENTS

Ţ	SAFEIY		4 FUEL	
	INTRODUCTION	1-1	INTRODUCTION	4-
	CLEANING, WAXING, & POLISHING		GENERAL CARBURETION	,
	CONTROLLING CORROSION	1-1	INFORMATION	4
	PROPELLERS	1-2	TROUBLESHOOTING	4-
	FUEL SYSTEM	1-7	"Sour" Fuel	4-0
	LOADING	1-9	Leaded Gasoline & Gasohol	4-6
	HORSEPOWER	1-10	Removing Fuel From System	4-7
	FLOTATION	1-10	Fuel Pump Test	4-9
	EMERGENCY EQUIPMENT	1-12	Fuel Line Test	4-1
	COMPASS	1-14		4-12
	STEERING	1-16	Rough Engine Idle Excessive Fuel Consumption	4-12
	ANCHORS	1-16		
	MISCELLANEOUS EQUIPMENT	1-17	Engine Surge	4-13
	BOATING ACCIDENT REPORTS	1-17	CARBURETOR IDENTIFICATION	4-13
		1-17	CARRIDETOR HALL GIRE DOWN	
	NAVIGATION	1-10	CARBURETOR "A" - SIDE BOWL	
_	TUBLIS		AND BACK DRAG	4-14
Z	TUNING		Removal & Disassembling	4-14
	BITD OBLICTION	2.1	Cleaning & Inspecting	4-16
	INTRODUCTION	2-1	Assembling & Installation	4-20
	TUNE-UP SEQUENCE	2-2	Adjustments	4-24
	COMPRESSION CHECK	2-3		
	SPARK PLUG INSPECTION	2-3	CARBURETOR "B" V6 POWERHEAD	DS
	IGNITION SYSTEM	2-4	DUAL FLOAT CENTER BOWL	4-25
	TIMING AND SYNCHRONIZING	2-5	Removal & Disassembling	4-25
	CARBURETOR ADJUSTMENT	2-7	Cleaning & Inspecting	4-27
	FUEL PUMPS	2-9	Assembling & Installation	4-29
	CRANKING MOTOR		<u>-</u>	
	AND SOLENOID	2-10	CARBURETOR "C" - CENTER	
	INTERNAL WIRING HARNESS	2-11	SQUARE BOWL	4-33
	WATER PUMP CHECK	2-12	Removal & Disassembling	4-33
	PROPELLER	2-13	Cleaning & Inspecting	4-37
	LOWER UNIT	2-15	Assembling & Installation	4-37
	BOAT TESTING	2-16	В	
			FUEL PUMP	4-42
3	MAINTENANCE		Theory of Operation	4-42
			Pump Pressure Check	4-43
	INTRODUCTION	3-1	Pump Removal	4_44
	OUTBOARD SERIAL NUMBERS	3-2	Cleaning & Inspecting	4-45
	LUBRICATION - COMPLETE UNIT	3-2	Assembling	4-45
	PRE-SEASON PREPARATION	3-6	1.550111511116	, -, ,
	FIBERGLASS HULLS	3-10	ELECTRONIC FUEL	
	BELOW WATERLINE SERVICE	3-10		4-47
	SUBMERGED ENGINE SERVICE	3-11	, ,	4-47
	PROPELLER SERVICE	3-13		4-47
	POWER TRIM/TILT	3-15	,	4-55
	INSIDE THE BOAT	3-16	Homneshooting Eld	マーノノ
	LOWER UNIT	3-16	EFI MAINTENANCE	11. 22
				4-62
	WINTER STORAGE	3-18	Removing Fuel from System	4-63

4 FUEL (Continued)		Assembling ELECTRONIC "BLACK BOX"	5-37
SERVICING EFI	4-64	MODULES	5-38
Intake Manifold & Injectors	4-64	Operation	5-39
Cleaning & Inspecting	4-70	Troubleshooting	5-39
Assembling & Installation	4-70		
Fuel Filter Service	4-75	6 TIMING AND SYNCHRONIZING	
Fuel Pressure Regulator			
& Vapor Separator Service	4-77	INTRODUCTION & PREPARATION	6-1
Throttle Sensor Service	4-81	IGNITION TIMING AND	-
OIL INJECTION SYSTEM	4-83	CARB SYNCHRONIZATION	6-3
"Auto Blend" System	4-84	ELECTRONIC IDLE STABILIZER AT	
Description	4-84	SPARK ADVANCE MODULES	6-6
Troubleshooting	4-85	MODEL 900 - 1965	• •
Storing the System	4-88	MODEL 950 - 1966	
Prep. for Use	4-88	MODEL 100 - 1965	
Advanced Oil Injection	4-89	MODEL 1100 - 1966	6-7
Description	4-89		0-7
Operation	4-92	MODEL 950SS - 1966	
Filling System	4-93	MODEL 1100SS - 1966	6-9
Purging Air	4-93		
Oil Pump Adjustment	4-94	MODEL 950SS & 1100SS - 1967	6-10
Troubleshooting	4-94		
Servicing	4-94	MODEL 1000SS - 1968-69	6-12
		MODEL 1250SS - 1968-69	6-14
5 IGNITION		MODEL 1150 - 1970-73	
		MODEL 1350 - 1970-71	
INTRODUCTION	5-1	MODEL 1400 - 1972	
SPARK PLUG EVALUATION	5-2	MODEL 1500 - Early 1973	6-16
POLARITY CHECK	5-4		
WIRING HARNESS	5-5	MODEL 1150 - 1974 S/N 3761035	
		MODEL 1500 - Late 1973-74	
TYPE I SYSTEM - DISTRIBUTOR		S/N 3628318 to 3752840	6-17
WITH POINTS			
Description	5-5	MODEL 900 - 1978-79	
Troubleshooting	5-7	MODEL 1150 - 1975-79	
Servicing	5-10	MODEL 140 - 1979	
Removal	5-10	MODEL 1500 - 1975-77	
Distributor Disassembly	5-11	MODEL 1500XS - 1978	
Cleaning & Inspecting	5-14	(UNITS WITH DISTRIBUTOR)	6-19
Distributor Assembling	5-14	(0.1110 11111 0101111201010)	• • •
Installation	5-19	MODEL 90 - 1980 & ON	
TYPE II SYSTEM - DISTRIBUTOR	J. 17	MODEL 115 - 1980 & ON	
CD - POINTLESS		MODEL 140 - 1980 & ON	
Description	5-20	(UNITS WITHOUT DISTRIBUTOR)	6-21
Troubleshooting	5-22	(0.1110 , 1111001 210111201011)	
Servicing	5-23	MODEL 1750 V6 - 1976-77	6-24
Distributor Removal	5-24	MOBBE 1750 to 1570 tt	· 2.
Cleaning & Inspecting	5-25	MODEL 1750 V6 - 1978 ONLY	
Distributor Assembling	5-25	MODEL 175 V6 - 1979-81	6-27
TYPE III SYSTEM - CD	J - 4J		V 21
COIL PER CYLINDER		MODEL 1500 & 150 V6	
Description	5-28	S/N 5203428 AND BELOW	
Troubleshooting	5-29	MODEL 2000 & 200 V6	
Servicing	5-35	S/N 5363917 AND BELOW	6-31
oci ArctuR	ノーフノ	STA STOSTIT MAD DEFOM	0-71

MODEL 200 S/N 6073192 & ABOV		8 POWERHEAD	
MODEL 225 ALL	6-34	CHAPTER ORGANIZATION	8-1
MODEL-135 S/N A907777 & ABOV	VE	GENERAL POWERHEAD	0-1
MODEL 150 S/N 5203429 & Al		INFORMATION	8-1
MODEL 200 S/N 5363918	SOVE	ACC CAMPATAGE	0 .
TO 6073191		L6 POWERHEAD	
MODEL 175 S/N 6618751		Removal and Disassembling	8-5
& ABOVE	6-37	Cleaning and Inspecting	8-11
		Thermostat Service	8-11
MODEL 250, 275, 300		Reed Block Service	8-12
AND 3.4 LITRE	6-40	Crankshaft Service	8-13
V6 POWERHEADS		End Cap Bearings	8-14
WITH EFI	6-43	Connecting Rod Service	8-14
		Piston Service	8-16
T FI FOTDICAL		Honing Procedures	8-20
7 ELECTRICAL		Cylinder Block Service	8-21
MITTO ODLICTION	7-1	Assembling & Installation	8-21
INTRODUCTION	7-1 7-1	L6 With Oil Injection	8-37
BATTERIES	7-1		
CALICES AND HODNS	7-7	V6 POWERHEAD	
GAUGES AND HORNS	7-7 7-8	Removal and Disassembling	8-35
Temperature Gauges	7-8 7-8	Crankshaft Disassembling	8-40
Warning Lights	7-8 7-9	Piston Disassembling	8-42
Fuel Gauges Tachometer	7-11	End Cap Disassembling	8-43
Horns	7-11	Cleaning and Inspecting	8-46
ELECTRICAL SYSTEM	7-12	Thermostat Service	8-46
General Information	7-12	Reed Block Service	8-47
CHARGING CIRCUIT SERVICE	7-13	Crankshaft Service	8-48
Troubleshooting	7-14	End Cap Bearings	8-48
Rectifier Removal	7-15	Connecting Rod Service	8-48
Rectifier Installation	7-17	Piston Service	8-50
STATOR SERVICE	7-17	Cylinder Block Service	8-51
Removal	7-18	Honing Procedures	8-52 8-55
Installation	7-18	Assembling Piston & Rod	8-58
CHOKE CIRCUIT AND		Crankshaft Installation	8-61
ENRICHENER SYSTEM	7-19	Crankcase Cover	8-67
CRANKING MOTOR CIRCUIT	7-20	Powerhead Build-up	8-71
Description & Operation	7-20	1 Owellie ad Dalid-up	0-7 1
Troubleshooting	7-21		
Removal	7-25		
Disassembling - Pinion Gear			
with Rubber Cushion	7-26		
Assembling	7-26	9 LOWER UNIT	
Disassembling - Pinion Gear			
with Snap Ring or Nut	7-27	DESCRIPTION	9-1
Assembling	7-28	CHAPTER COVERAGE	9-1
Disassembling - Pinion Gear		TROUBLESHOOTING	9-5
with Top Spring	7-29	LOWER UNIT REMOVAL	0.0
Assembling	7-30	ALL UNITS	9-6
CRANKING MOTOR REPAIR	7-30	Propeller Removal	9-7
Disassembling	7-31	WATER BILLIR CERUICE	
Testing Parts	7-32	WATER PUMP SERVICE	
Cleaning & Inspecting	7-34	Removal and Disassembling	9-9
Assembling a Bosch	7-39	High Pressure Type Pump	9-10
Assembling a Delco Remy	7-39	High Volume Type Pump	7-10

9	LOWER UNIT (Continued)		SERVICING E-Z SHIFT	
	SERVICING CAM-SHIFT TYPE I		MODELS SINCE ABOUT 1979	9-53
	UNITS MATCHED WITH EARLY	,	Special Words Removal	フーノン
	L6 AND V6 POWERHEADS			9-53
	TO ABOUT 1979	9-12	Bearing Carrier	9-55
	Removal	9-12	Propeller Shaft	
		7-12	Driveshaft & Bearing	9-56
	Bearing Carrier and	9-13	Separate Forward Gear	9.60
	Propeller Shaft	9-13 9-14	from Bearing	9-60
	Driveshaft & Bearing		Disassembling	9-60
	Forward Gear & Bearing Disassembling	9-16	Driveshaft	7-60
	9	9-17	Separate Reverse Gear	9-61
	Bearing Carrier Propeller Shaft	9-18	from Bearing Carrier	7-01
	Driveshaft	9-18	Assembling & Installation	9-61
	Assembling	7-10	Lower Driveshaft Bearing	9-61
	Lower Driveshaft Bearing	9-23	Bearing Carrier Forward Gear & Bearing	9-64
	Shift Shaft	9-23		9-65
	Bearing Carrier	9-24	Forward Bearing Race	9-66
	Forward Gear & Bearing	9-24 9-25	Propeller Shaft Driveshaft	9-71
	Forward Bearing Race	9-26		J-/ 1
	Driveshaft	9 - 27	Shimming Pinion Coor Donth	9-75
	Shimming & Backlash	J= 21	Pinion Gear Depth Forward Gear Backlash	9-76
	Pinion Gear Depth	9-29		9-78
	Forward Gear Backlash	9-30	Alpha Drive	7-70
	Assembling & Installation	7-30		
	Bearing Carrier	9-33	WATER PUMP ASSEMBLING AND	
	Reverse Gear Backlash	9-34	INSTALLATION	9-81
	Meverse dear Dacklasii	7 24	High Pressure Type Pump	9-81
	SERVICING CAM-SHIFT TYPE II		Shimming (Certain Units)	9-81
	UNITS MATCHED WITH LATE		High Volume Type Pump	9-85
	MODEL L6 POWERHEADS FROM ABOUT 1980		riigh voidine Type Fump	7-67
			CLEANING AND INSPECTING	
	AND 150XR4 V6 POWERHEAD	9-35	ALL UNITS	9-86
	AND DOXK4 VO FOWERHEAD	<i>7</i> − <i>JJ</i>		>-00
	Removal and Disassembling		LOWER UNIT INSTALLATION	
	Bearing Carrier	9-36	Filling Lower Unit	9-88
	Propeller Shaft	9-37	Assembling & Installation	9-89
	Shift Shaft	9-38	Propeller Installation	9-93
	Pinion Gear	9-39		
	Driveshaft	9-39		
	Forward Gear	9-40	10 TRIM/TILT	
	Pinion Gear Bearing Race	9-41		
	Forward Bearing Race	9-41	INTRODUCTION	10-1
	Driveshaft Bearing	9-41	CHAPTER ORGANIZATION	10-2
	Assembling and Installation		MECHANICAL TILT PIN	10-2
	Driveshaft Bearing	9-44		
	Pinion Gear Bearing Race	9-45	SYSTEM "A"	
	Forward Bearing Race	9-45	TWO TRIM/TILT CYLINDERS	
	Shift Shaft	9-46	Description and Operation	10-3
	Forward Gear	9-46	Special Instructions	10 - 5
	Driveshaft	9-47	Bleeding System "A"	10-6
	Pinion Gear	9-47	Troubleshooting	10-7
	Propeller Shaft	9-48	Cleaning and Inspecting	10-9
	Bearing Carrier	9-49	System "A" Service	10-12
	Pinion Gear Depth	9-50	Pump Service	10-14
	Forward Gear Backlash	9-51	Electric Motor Service	10-17

SYSTEM "B"		CARBURETOR JET SIZE/ELEVATION	N
TWO TRIM CYLINDERS		CHARTS	A-13
ONE TILT CYLINDER		PISTON AND CYLINDER SPECS.	A-19
Description and Operation	10-21	REED STOP OPENING	A-20
Bleeding System "B"	10-22	LOWER UNIT OIL CAPACITY	
Flushing	10-23	AND GEAR CHART	A-21
Troubleshooting	10-24		A-22
System "B" Service	10-31	TORQUE VALUE SPECIFICATIONS	
Preliminary Tasks	10-31		
Removal	10-33	WIRE IDENTIFICATION DWGS.	
Component Service	10-34	L6 Models 900, 950, 1000	
Manual Release Valve	10-34		A-24
	10-35		M-24
Oil Reservoir Cover		L6 Models 950, 1000, 1100,	A 25
Trim Cylinder	10-35		A-25
Tilt Cylinder	10-36	L6 Models 1150, 1350, 1400	
Electric Motor	10-36		A-26
Cleaning and Inspecting	10-37	L6 Models 900, 1150,	
Assembling & Installation	10-38		A-27
		L6 Models 90, 115,	
SYSTEM "C"		and 140 1979 only	A-28
ONE TRIM/TILT CYLINDER		V6 Models S/N 4301235	
Description and Operation	10-53	to 5129480	A-29
Bleeding System "C"	10-54	V6 Models 150, 175 & 200	
Troubleshooting	10-54		A-30
System "C" Service	10-55	.,	
Pump Removal & Service	10-55	V6 Models 150, 175, & 200	
Cylinder Service	10-55	S/N 5363919 to 5464484	A-32
Cylinder Service	10	V6 Models 150, 175, & 200	
			A-34
11 REMOTE CONTROLS		The state of the s	
11 REMOTE CONTROLS		V6 Model 225 S/N 5615282	A-36
	11-1	V6 Model 225 S/N 5615282 and higher	A-36 A-38
INTRODUCTION	11-1	V6 Model 225 S/N 5615282 and higher V6 Models with 74 ⁰ block	A-36 A-38
INTRODUCTION STEERING SYSTEMS	11-1	V6 Model 225 S/N 5615282 and higher V6 Models with 74 ⁰ block L6 Models 90, 115, &	A-38
INTRODUCTION STEERING SYSTEMS DIRECTIONAL INDICATOR	11-1 11-2	V6 Model 225 S/N 5615282 and higher A V6 Models with 74 ⁰ block A L6 Models 90, 115, & 140 1980-89	
INTRODUCTION STEERING SYSTEMS DIRECTIONAL INDICATOR ROTARY STEERING SERVICE	11-1 11-2 11-5	V6 Model 225 S/N 5615282 and higher V6 Models with 74° block L6 Models 90, 115, & 140 1980-89 V6 Models 135, 150, and 175	A-38 A-40
INTRODUCTION STEERING SYSTEMS DIRECTIONAL INDICATOR ROTARY STEERING SERVICE Disassembling	11-1 11-2 11-5 11-5	V6 Model 225 S/N 5615282 and higher V6 Models with 74° block L6 Models 90, 115, & 140 1980-89 V6 Models 135, 150, and 175 S/N C100861 & higher	A-38
INTRODUCTION STEERING SYSTEMS DIRECTIONAL INDICATOR ROTARY STEERING SERVICE Disassembling Cleaning & Inspecting	11-1 11-2 11-5 11-5 11-5	V6 Model 225 S/N 5615282 and higher V6 Models with 74° block L6 Models 90, 115, & 140 1980-89 V6 Models 135, 150, and 175 S/N C100861 & higher V6 Model 150XR4	A-38 A-40 A-41
INTRODUCTION STEERING SYSTEMS DIRECTIONAL INDICATOR ROTARY STEERING SERVICE Disassembling	11-1 11-2 11-5 11-5	V6 Model 225 S/N 5615282 and higher V6 Models with 74° block L6 Models 90, 115, & 140 1980-89 V6 Models 135, 150, and 175 S/N C100861 & higher V6 Model 150XR4 with 40-amp stator	A-38 A-40
INTRODUCTION STEERING SYSTEMS DIRECTIONAL INDICATOR ROTARY STEERING SERVICE Disassembling Cleaning & Inspecting Assembling	11-1 11-2 11-5 11-5 11-5 11-6	V6 Model 225 S/N 5615282 and higher V6 Models with 74° block L6 Models 90, 115, & 140 1980-89 V6 Models 135, 150, and 175 S/N C100861 & higher V6 Model 150XR4 with 40-amp stator V6 Model 200 WITHOUT EFI	A-38 A-40 A-41 A-42
INTRODUCTION STEERING SYSTEMS DIRECTIONAL INDICATOR ROTARY STEERING SERVICE Disassembling Cleaning & Inspecting Assembling	11-1 11-2 11-5 11-5 11-5 11-6	V6 Model 225 S/N 5615282 and higher V6 Models with 74° block L6 Models 90, 115, & 140 1980-89 V6 Models 135, 150, and 175 S/N C100861 & higher V6 Model 150XR4 with 40-amp stator V6 Model 200 WITHOUT EFI S/N C100861 & higher	A-38 A-40 A-41 A-42 A-43
INTRODUCTION STEERING SYSTEMS DIRECTIONAL INDICATOR ROTARY STEERING SERVICE Disassembling Cleaning & Inspecting Assembling STANDARD RIDE GUIDE KIT CUSTOM RIDE GUIDE KITS	11-1 11-2 11-5 11-5 11-5 11-6	V6 Model 225 S/N 5615282 and higher V6 Models with 74° block L6 Models 90, 115, & 140 1980-89 V6 Models 135, 150, and 175 S/N C100861 & higher V6 Model 150XR4 with 40-amp stator V6 Model 200 WITHOUT EFI S/N C100861 & higher V6 Model 220 XRi WITH EFI	A-38 A-40 A-41 A-42 A-43 A-44
INTRODUCTION STEERING SYSTEMS DIRECTIONAL INDICATOR ROTARY STEERING SERVICE Disassembling Cleaning & Inspecting Assembling STANDARD RIDE GUIDE KIT CUSTOM RIDE GUIDE KITS MERCONTROL PANEL	11-1 11-2 11-5 11-5 11-5 11-6	V6 Model 225 S/N 5615282 and higher V6 Models with 74° block L6 Models 90, 115, & 140 1980-89 V6 Models 135, 150, and 175 S/N C100861 & higher V6 Model 150XR4 with 40-amp stator V6 Model 200 WITHOUT EFI S/N C100861 & higher V6 Model 220 XRi WITH EFI V6 Model 200 XRi WITH EFI	A-38 A-40 A-41 A-42 A-43
INTRODUCTION STEERING SYSTEMS DIRECTIONAL INDICATOR ROTARY STEERING SERVICE Disassembling Cleaning & Inspecting Assembling STANDARD RIDE GUIDE KIT CUSTOM RIDE GUIDE KITS	11-1 11-2 11-5 11-5 11-5 11-6	V6 Model 225 S/N 5615282 and higher V6 Models with 74° block L6 Models 90, 115, & 140 1980-89 V6 Models 135, 150, and 175 S/N C100861 & higher V6 Model 150XR4 with 40-amp stator V6 Model 200 WITHOUT EFI S/N C100861 & higher V6 Model 220 XRi WITH EFI	A-38 A-40 A-41 A-42 A-43 A-44
INTRODUCTION STEERING SYSTEMS DIRECTIONAL INDICATOR ROTARY STEERING SERVICE Disassembling Cleaning & Inspecting Assembling STANDARD RIDE GUIDE KIT CUSTOM RIDE GUIDE KITS MERCONTROL PANEL	11-1 11-2 11-5 11-5 11-5 11-6 11-8 11-8	V6 Model 225 S/N 5615282 and higher V6 Models with 74° block L6 Models 90, 115, & 140 1980-89 V6 Models 135, 150, and 175 S/N C100861 & higher V6 Model 150XR4 with 40-amp stator V6 Model 200 WITHOUT EFI S/N C100861 & higher V6 Model 220 XRi WITH EFI V6 Model 200 XRi WITH EFI Early V6 remote control WITH	A-38 A-40 A-41 A-42 A-43 A-44
INTRODUCTION STEERING SYSTEMS DIRECTIONAL INDICATOR ROTARY STEERING SERVICE Disassembling Cleaning & Inspecting Assembling STANDARD RIDE GUIDE KIT CUSTOM RIDE GUIDE KITS MERCONTROL PANEL EARLY MODEL	11-1 11-2 11-5 11-5 11-5 11-6 11-8 11-8	V6 Model 225 S/N 5615282 and higher V6 Models with 74° block L6 Models 90, 115, & 140 1980-89 V6 Models 135, 150, and 175 S/N C100861 & higher V6 Model 150XR4 with 40-amp stator V6 Model 200 WITHOUT EFI S/N C100861 & higher V6 Model 220 XRi WITH EFI V6 Model 200 XRi WITH EFI Early V6 remote control WITH	A-38 A-40 A-41 A-42 A-43 A-44 A-45
INTRODUCTION STEERING SYSTEMS DIRECTIONAL INDICATOR ROTARY STEERING SERVICE Disassembling Cleaning & Inspecting Assembling STANDARD RIDE GUIDE KIT CUSTOM RIDE GUIDE KITS MERCONTROL PANEL EARLY MODEL Disassembling	11-1 11-2 11-5 11-5 11-5 11-6 11-8 11-8	V6 Model 225 S/N 5615282 and higher V6 Models with 74° block L6 Models 90, 115, & 140 1980-89 V6 Models 135, 150, and 175 S/N C100861 & higher V6 Model 150XR4 with 40-amp stator V6 Model 200 WITHOUT EFI S/N C100861 & higher V6 Model 220 XRi WITH EFI V6 Model 200 XRi WITH EFI Early V6 remote control WITH temperature horn Early remote control WITH	A-38 A-40 A-41 A-42 A-43 A-44 A-45
INTRODUCTION STEERING SYSTEMS DIRECTIONAL INDICATOR ROTARY STEERING SERVICE Disassembling Cleaning & Inspecting Assembling STANDARD RIDE GUIDE KIT CUSTOM RIDE GUIDE KITS MERCONTROL PANEL EARLY MODEL Disassembling	11-1 11-2 11-5 11-5 11-5 11-6 11-8 11-8	V6 Model 225 S/N 5615282 and higher V6 Models with 74° block L6 Models 90, 115, & 140 1980-89 V6 Models 135, 150, and 175 S/N C100861 & higher V6 Model 150XR4 with 40-amp stator V6 Model 200 WITHOUT EFI S/N C100861 & higher V6 Model 220 XRi WITH EFI V6 Model 220 XRi WITH EFI Early V6 remote control WITH temperature horn Early remote control WITH power trim/tilt	A-38 A-40 A-41 A-42 A-43 A-44 A-45 A-46 A-47
INTRODUCTION STEERING SYSTEMS DIRECTIONAL INDICATOR ROTARY STEERING SERVICE Disassembling Cleaning & Inspecting Assembling STANDARD RIDE GUIDE KIT CUSTOM RIDE GUIDE KITS MERCONTROL PANEL EARLY MODEL Disassembling Assembling COMMANDER CONTROL BOX	11-1 11-2 11-5 11-5 11-5 11-6 11-8 11-8 11-9 11-9 11-12	V6 Model 225 S/N 5615282 and higher V6 Models with 74° block L6 Models 90, 115, & 140 1980-89 V6 Models 135, 150, and 175 S/N C100861 & higher V6 Model 150XR4 with 40-amp stator V6 Model 200 WITHOUT EFI S/N C100861 & higher V6 Model 220 XRi WITH EFI V6 Model 220 XRi WITH EFI Early V6 remote control WITH temperature horn Early remote control WITH power trim/tilt "Commander" side mount controls	A-38 A-40 A-41 A-42 A-43 A-44 A-45 A-46 A-47
INTRODUCTION STEERING SYSTEMS DIRECTIONAL INDICATOR ROTARY STEERING SERVICE Disassembling Cleaning & Inspecting Assembling STANDARD RIDE GUIDE KIT CUSTOM RIDE GUIDE KITS MERCONTROL PANEL EARLY MODEL Disassembling Assembling COMMANDER CONTROL BOX Removal & Disassembling	11-1 11-2 11-5 11-5 11-5 11-6 11-8 11-8 11-9 11-9 11-12	and higher V6 Models with 74° block L6 Models 90, 115, & 140 1980-89 V6 Models 135, 150, and 175 S/N C100861 & higher V6 Model 150XR4 with 40-amp stator V6 Model 200 WITHOUT EFI S/N C100861 & higher V6 Model 220 XRi WITH EFI V6 Model 220 XRi WITH EFI Early V6 remote control WITH temperature horn Early remote control WITH power trim/tilt "Commander" side mount controls WITHOUT power trim	A-38 A-40 A-41 A-42 A-43 A-44 A-45 A-46 A-47 s A-48
INTRODUCTION STEERING SYSTEMS DIRECTIONAL INDICATOR ROTARY STEERING SERVICE Disassembling Cleaning & Inspecting Assembling STANDARD RIDE GUIDE KIT CUSTOM RIDE GUIDE KITS MERCONTROL PANEL EARLY MODEL Disassembling Assembling Assembling COMMANDER CONTROL BOX Removal & Disassembling Cleaning & Inspecting	11-1 11-2 11-5 11-5 11-5 11-6 11-8 11-8 11-9 11-9 11-12	and higher V6 Models with 74° block L6 Models 90, 115, & 140 1980-89 V6 Models 135, 150, and 175 S/N C100861 & higher V6 Model 150XR4 with 40-amp stator V6 Model 200 WITHOUT EFI S/N C100861 & higher V6 Model 220 XRi WITH EFI V6 Model 220 XRi WITH EFI Early V6 remote control WITH temperature horn Early remote control WITH power trim/tilt "Commander" side mount controls WITHOUT power trim "Commander" side mount controls	A-38 A-40 A-41 A-42 A-43 A-44 A-45 A-46 A-47 s A-48
INTRODUCTION STEERING SYSTEMS DIRECTIONAL INDICATOR ROTARY STEERING SERVICE Disassembling Cleaning & Inspecting Assembling STANDARD RIDE GUIDE KIT CUSTOM RIDE GUIDE KITS MERCONTROL PANEL EARLY MODEL Disassembling Assembling COMMANDER CONTROL BOX Removal & Disassembling Cleaning & Inspecting Assembling & Installation	11-1 11-2 11-5 11-5 11-5 11-6 11-8 11-8 11-9 11-9 11-12	No Model 225 S/N 5615282 and higher V6 Models with 74° block L6 Models 90, 115, & 140 1980-89 V6 Models 135, 150, and 175 S/N C100861 & higher V6 Model 150XR4 with 40-amp stator V6 Model 200 WITHOUT EFI S/N C100861 & higher V6 Model 220 XRi WITH EFI V6 Model 220 XRi WITH EFI Early V6 remote control WITH temperature horn Early remote control WITH power trim/tilt "Commander" side mount controls WITHOUT power trim "Commander" side mount controls WITH power trim/tilt	A-38 A-40 A-41 A-42 A-43 A-45 A-45 A-46 A-47 s
INTRODUCTION STEERING SYSTEMS DIRECTIONAL INDICATOR ROTARY STEERING SERVICE Disassembling Cleaning & Inspecting Assembling STANDARD RIDE GUIDE KIT CUSTOM RIDE GUIDE KITS MERCONTROL PANEL EARLY MODEL Disassembling Assembling Assembling COMMANDER CONTROL BOX Removal & Disassembling Cleaning & Inspecting	11-1 11-2 11-5 11-5 11-5 11-6 11-8 11-8 11-9 11-9 11-12	and higher V6 Models with 74° block L6 Models 90, 115, & 140 1980-89 V6 Models 135, 150, and 175 S/N C100861 & higher V6 Model 150XR4 with 40-amp stator V6 Model 200 WITHOUT EFI S/N C100861 & higher V6 Model 220 XRi WITH EFI V6 Model 220 XRi WITH EFI Early V6 remote control WITH temperature horn Early remote control WITH power trim/tilt "Commander" side mount controls WITHOUT power trim "Commander" side mount controls WITH power trim/tilt and WITHOUT warning horn	A-38 A-40 A-41 A-42 A-43 A-44 A-45 A-46 A-47 s A-48 s A-49
INTRODUCTION STEERING SYSTEMS DIRECTIONAL INDICATOR ROTARY STEERING SERVICE Disassembling Cleaning & Inspecting Assembling STANDARD RIDE GUIDE KIT CUSTOM RIDE GUIDE KITS MERCONTROL PANEL EARLY MODEL Disassembling Assembling COMMANDER CONTROL BOX Removal & Disassembling Cleaning & Inspecting Assembling & Installation CABLE ADJUSTMENTS	11-1 11-2 11-5 11-5 11-5 11-6 11-8 11-8 11-9 11-9 11-12	and higher V6 Models with 74° block L6 Models 90, 115, & 140 1980-89 V6 Models 135, 150, and 175 S/N C100861 & higher V6 Model 150XR4 with 40-amp stator V6 Model 200 WITHOUT EFI S/N C100861 & higher V6 Model 200 XRi WITH EFI V6 Model 220 XRi WITH EFI V6 Model 200 XRi WITH EFI Early V6 remote control WITH temperature horn Early remote control WITH power trim/tilt "Commander" side mount controls WITHOUT power trim "Commander" side mount controls WITH power trim/tilt and WITHOUT warning horn "Commander" side mount controls	A-38 A-40 A-41 A-42 A-43 A-44 A-45 A-46 A-47 s A-48 s A-49
INTRODUCTION STEERING SYSTEMS DIRECTIONAL INDICATOR ROTARY STEERING SERVICE Disassembling Cleaning & Inspecting Assembling STANDARD RIDE GUIDE KIT CUSTOM RIDE GUIDE KITS MERCONTROL PANEL EARLY MODEL Disassembling Assembling COMMANDER CONTROL BOX Removal & Disassembling Cleaning & Inspecting Assembling & Installation	11-1 11-2 11-5 11-5 11-5 11-6 11-8 11-8 11-9 11-9 11-12	and higher V6 Models with 74° block L6 Models 90, 115, & 140 1980-89 V6 Models 135, 150, and 175 S/N C100861 & higher V6 Model 150XR4 with 40-amp stator V6 Model 200 WITHOUT EFI S/N C100861 & higher V6 Model 200 XRi WITH EFI V6 Model 220 XRi WITH EFI V6 Model 200 XRi WITH EFI Early V6 remote control WITH temperature horn Early remote control WITH power trim/tilt "Commander" side mount controls WITHOUT power trim "Commander" side mount controls WITH power trim/tilt and WITHOUT warning horn "Commander" side mount controls WITH warning horn	A-38 A-40 A-41 A-42 A-43 A-44 A-45 A-46 A-47 s A-48 s A-49 s
INTRODUCTION STEERING SYSTEMS DIRECTIONAL INDICATOR ROTARY STEERING SERVICE Disassembling Cleaning & Inspecting Assembling STANDARD RIDE GUIDE KIT CUSTOM RIDE GUIDE KITS MERCONTROL PANEL EARLY MODEL Disassembling Assembling Assembling COMMANDER CONTROL BOX Removal & Disassembling Cleaning & Inspecting Assembling & Installation CABLE ADJUSTMENTS	11-1 11-2 11-5 11-5 11-5 11-6 11-8 11-8 11-9 11-12 11-12	and higher V6 Models with 74° block L6 Models 90, 115, & 140 1980-89 V6 Models 135, 150, and 175 S/N C100861 & higher V6 Model 150XR4 with 40-amp stator V6 Model 200 WITHOUT EFI S/N C100861 & higher V6 Model 200 XRi WITH EFI V6 Model 220 XRi WITH EFI Early V6 remote control WITH temperature horn Early remote control WITH power trim/tilt "Commander" side mount controls WITHOUT power trim "Commander" side mount controls WITH power trim/tilt and WITHOUT warning horn "Commander" side mount controls WITH warning horn to 1989	A-38 A-40 A-41 A-42 A-43 A-44 A-45 A-46 A-47 s A-48 s A-49 s
INTRODUCTION STEERING SYSTEMS DIRECTIONAL INDICATOR ROTARY STEERING SERVICE Disassembling Cleaning & Inspecting Assembling STANDARD RIDE GUIDE KIT CUSTOM RIDE GUIDE KITS MERCONTROL PANEL EARLY MODEL Disassembling Assembling COMMANDER CONTROL BOX Removal & Disassembling Cleaning & Inspecting Assembling & Installation CABLE ADJUSTMENTS APPENDIX METRIC CONVERSION CHART	11-1 11-2 11-5 11-5 11-5 11-6 11-8 11-8 11-9 11-9 11-12	and higher V6 Models with 74° block L6 Models 90, 115, & 140 1980-89 V6 Models 135, 150, and 175 S/N C100861 & higher V6 Model 150XR4 with 40-amp stator V6 Model 200 WITHOUT EFI S/N C100861 & higher V6 Model 200 XRi WITH EFI V6 Model 200 XRi WITH EFI Early V6 remote control WITH temperature horn Early remote control WITH power trim/tilt "Commander" side mount controls WITHOUT power trim "Commander" side mount controls WITH power trim/tilt and WITHOUT warning horn to 1989 "Commander" side mount controls WITH warning horn to 1989 "Commander" side mount controls	A-38 A-40 A-41 A-42 A-43 A-44 A-45 A-46 A-47 s A-48 s A-49 s
INTRODUCTION STEERING SYSTEMS DIRECTIONAL INDICATOR ROTARY STEERING SERVICE Disassembling Cleaning & Inspecting Assembling STANDARD RIDE GUIDE KIT CUSTOM RIDE GUIDE KITS MERCONTROL PANEL EARLY MODEL Disassembling Assembling Assembling COMMANDER CONTROL BOX Removal & Disassembling Cleaning & Inspecting Assembling & Installation CABLE ADJUSTMENTS	11-1 11-2 11-5 11-5 11-5 11-6 11-8 11-8 11-9 11-9 11-12 11-13 11-20 11-22 11-31	No Model 225 S/N 5615282 and higher V6 Models with 74° block L6 Models 90, 115, & 140 1980-89 V6 Models 135, 150, and 175 S/N C100861 & higher V6 Model 150XR4 with 40-amp stator V6 Model 200 WITHOUT EFI S/N C100861 & higher V6 Model 220 XRi WITH EFI V6 Model 220 XRi WITH EFI Early V6 remote control WITH temperature horn Early remote control WITH power trim/tilt "Commander" side mount controls WITHOUT power trim "Commander" side mount controls WITH power trim/tilt and WITHOUT warning horn "Commander" side mount controls WITH warning horn to 1989 "Commander" side mount controls WITH warning horn	A-38 A-40 A-41 A-42 A-43 A-44 A-45 A-46 A-47 s A-48 s A-49 s

×

WIRE IDENTIFICATION (Continued)		Type "A" power trim/tilt system — two trim/tilt cylinders — with OLD style	
"Commander" side mount controls		single solenoid	A-62
WITH trim indicator gauge		Type "A" power trim/tilt	
and trim sender	A-52	system two trim/tilt	
Panel mount control	A-53	cylinders with NEW style	
Tachometer WITHOUT adjustal	ole	single solenoid	A-63
dial, trim indicator gauge,		Type "A" power trim/tilt	
and alarm horn	A-54	system two trim/tilt	
Tachometer WITH adjustable di	ial,	cylinders with DUAL	
trim indicator gauge and	•	solenoids	A-64
temperature gauge - Mode	1	Type "B" power trim/tilt	
200 & 220 WITH EFI only	A-55	system two trim cylinders	
Instrument panel - single outb	oard	and one tilt cylinder	A-65
installation using "Commar		Type "C" power trim/tilt	
2000 remote control	A-56	system WITHOUT fuse	
Visual warning system		single cylinder	
installation	A-57	pump mounted in boat	A-66
Oil level gauge installation	A-58	Type "C" power trim/tilt	
Dual outboard synchronizer		system — WITH fuse	
system	A-59	single cylinder pump	
Dual outboard instrument	- • • •	mounted in boat	A-67

A-60

A-61

setup for PORT outboard unit

outboard unit

Dual outboard instrument

setup for STARBOARD

A-68

A-69

Type "C" power trim/tilt system WITH fuse --

1990 and on

Trim indicator gauge and alarm horn