



MerCruiser 4.5L - 250HP V6 Alpha-Bravo

ACCESSORIES & RIGGING GUIDE



CONTROLS & RIGGING

MECHANICAL REMOTE CONTROLS, TRIM & TRAILER SWITCH and LANYARDS

NOTE: Either MerCruiser OR Outboard mechanical remote controls can be used, however there are a few things to consider:

If MerCruiser mechanical remote control is used, a separate trim harness is required

If Outboard mechanical remote control is used, the trim can be routed through the 14 pin data cable - no additional trim harness is required

The Trim & Trailer functions on the mechanical remote control have been merged on the 4.5L. The "Trailer" stage of the trim switch on the MerCruiser mechanical control has no function. Above 3000 RPM, the 4.5L will trim when the trim switch is pressed until the drive reaches the calibrated limit. Under 3000 RPM, the drive will continue to trim until it reaches the trailer limit or physical trim stop

The MerCruiser 4.5L can utilize the "break switched ignition" or "short e-stop to ground" type of lanyard

ANALOG and SMARTCRAFT GAUGES

Note: For mechanical applications, analog gauge harnesses with 14-Pin mechanical helm harnesses can be used. SmartCraft gauges can be used with either mechanical or DTS applications. If analog gauges are to be used with DTS engines, a cost-effective harness can be used (instead of an AGI).

DTS Engine - Analog Gauge Harness (Routed from engine to dash)	15' Harness	8M0095716
	20' Harness	8M0095826
	25' Harness	8M0095827
	30' Harness	8M0095828

AXIUS JOYSTICK PILOTING

4.5L Axius Kits are specific to this engine package and cannot be mixed with legacy Axius kits. (Differentiated by a brightly colored dot on the Box, CCM and TVM)	4.5L Axius Basic Single Helm	8M0096507
	4.5L Axius Premier Single Helm	8M0096508
	4.5L Axius Premier Dual Helm	8M0096509

MAINTENANCE, SERVICE & ACCESSORIES

MAINTENANCE & SERVICE

Spark Plugs	NGK BPR5EFS (Gap at 0.50in.)	8M0095454	Replace every 300 hrs or every 3 years
Crankcase Oil	Mercury 25W40 Synthetic Blend Oil - 4.5 Qts	8M0086227	Replace every 100 hrs or once per year
Oil Filter	Mercury Replacement Oil Filter	866340Q03	Replace every 100 hrs or once per year
PCV Valve		8M2017060	Inspect every 100 hrs or once per year and replace as needed
Serpentine Belt	Alpha - Raw Water Cooled	8M0087881	Inspect every 100 hrs or once per year and replace as needed
Serpentine Belt	Bravo - Raw Water Cooled	8M0074767	Inspect every 100 hrs or once per year and replace as needed
Serpentine Belt	Alpha & Bravo - Fresh Water Cooled	8M0088876	Inspect every 100 hrs or once per year and replace as needed

MerCruiser 4.5L (250-hp) V6 Alpha & Bravo

MAINTENANCE & SERVICE (continued)

Gear Lube - High Performance	Alpha Gearcase - 1892 ml (64 oz.) Bravo One Gearcase - 2736 ml (9205 oz.) Bravo Two Gearcase - 3209 ml (108.5 oz.) Bravo Three (Side Pickup) - 2972 ml (100.5 oz.) Bravo Three (Dual Water Pickup) - 2972 ml (100.5 oz.)	858064QB1	Replace every 100 hrs or once per year
Propshaft and Fitting Grease	3.5 oz. Cartridge & Gun	74057Q5	Grease at 100 hrs or once per year
Engine Coupler Grease	14 oz. Cartridge	8M0071841	Grease at 100 hrs or once per year. (Note : If operated at idle for extended periods of time, grease every 50 hrs or 2 months)
Corrosion Guard	Inhibits Corrosion on Lower Unit & Trim System	802878Q55	As required
Power Trim & Steering Fluid		858075QB1	As required
Exhaust Flapper Valve		807166A1	Inspect every 300 hrs or every 3 years and replace as needed
Water Pump Impeller Kit	Alpha Sterndrive	43026Q06	Replace every 300 hrs or every 3 years
Seawater Pump Impeller Kit	Bravo & Alpha equipped with Fresh Water Cooling	862232A2	Replace every 300 hrs or every 3 years
Water Separating Fuel Filter	Replacement Element	8M0060041	Inspect every 100 hrs or once per year and replace as needed
Fuel Filter Removal/Installation Tool		896661	
Engine Flush Kit		8M0089505	

ACCESSORIES

Exhaust Riser Kit

8M0094680 - 2 in (51 mm)
8M0094681 - 4 in (102 mm)
8M0094682 - 6 in (152 mm) *shown*



Exhaust Intermediate Elbow

879288A35 - 2 in (51 mm)
879288A36 - 4 in (102 mm)
879288A37 - 6 in (152 mm) *shown*



Exhaust Riser Supplemental Hose Kit

8M0096701 - 6 in (102 mm) - RWC
8M0089504 - 6 in (102 mm) - FWC

Required with 6 inch Risers

Hot Water Heater Fitting Kit

8M0095698



MerCruiser 4.5L (250-hp) V6 Alpha

PROPELLERS

WOT: 4800-5200 * Right Hand Rotation Standard (Left Hand Available) * Gear Ratio 1.62:1 * High Altitude (5,000+ ft.) 1.81:1

Diameter (inches)	Pitch (inches)	Blades	Material	Approx. Gross Boat Wgt. (lbs.)	Approx. Boat Length (ft.)	Speed Range (mph)	Propeller Description	Right Hand Propeller Part Number	Left Hand Propeller Part Number
16.00	11	3	Alum	9000+	29+	1-26	Black Max	78112A45	N/A
16.00	12	3	Alum	7200-10800	27+	21-30	Black Max	16436A45	N/A
16.00	13	3	Alum	6500-8900	26-29	25-33	Black Max	78114A45	N/A
16.00	14	3	Alum	5700-7500	25-28	29-37	Black Max	16438A45	N/A
15.25	15	3	Alum	5200-6500	24-27	33-40	Black Max	78116A45	N/A
16.00	16	3	Alum	4800-5900	23-26	36-43	Black Max	16440A45	N/A
15.00	17	3	Alum	4500-5200	23-25	40-46	Black Max	832828A45	N/A
14.50	19	3	Alum	3900-4500	22-24	46-52	Black Max	832830A45	N/A
14.25	21	3	Alum	3400-3900	20-23	52-58	Black Max	832832A45	N/A
14.00	23	3	Alum	3100-3400	20-21	58-64	Black Max	832834A45	N/A
16.00	11	3	Steel	9000+	29+	1-26	Enertia	8M0070079	8M0070077
15.60	13	3	Steel	6500-8900	26-29	25-33	Enertia	8M0070074	8M0070076
15.30	14	3	Steel	5700-7500	25-28	29-37	Enertia	898988A46	8M0079504
15.00	15	3	Steel	5200-6500	24-27	33-40	Enertia	898990A46	898991A46
14.75	16	3	Steel	4800-5900	23-26	36-43	Enertia	898992A46	N/A
14.50	17	3	Steel	4500-5200	23-25	40-46	Enertia	898994A46	898995A46
14.25	18	3	Steel	4200-4800	22-24	43-49	Enertia	898996A46	N/A
14.00	19	3	Steel	3900-4500	22-24	46-52	Enertia	898998A46	898999A46
13.75	20	3	Steel	3700-4200	21-23	49-55	Enertia	899000A46	N/A
13.62	21	3	Steel	3400-3900	20-23	52-58	Enertia	899002A46	899003A46
13.50	22	3	Steel	3300-3700	20-22	55-61	Enertia	899202A46	N/A
13.50	17	5	Steel	4500-5200	23-25	40-46	HighFive	821154A46	N/A
13.25	19	5	Steel	3900-4500	22-24	46-52	HighFive	815758A46	N/A
13.25	21	5	Steel	3400-3900	20-23	52-58	HighFive	815760A46	N/A
13.25	23	5	Steel	3100-3400	20-21	58-64	HighFive	815762A46	N/A
14.00	17	4	Alum	4500-5200	23-25	40-46	SpitFire	8M0084494	N/A
14.00	19	4	Alum	3900-4500	22-24	46-52	SpitFire	8M0084495	N/A
14.00	21	4	Alum	3400-3900	20-23	52-58	SpitFire	8M0084496	N/A
14.00	23	4	Alum	3100-3400	20-21	58-64	SpitFire	8M0084497	N/A
14.62	17	3	Steel	4500-5200	23-25	40-46	Tempest Plus	8M8026790	N/A
14.62	19	3	Steel	3900-4500	22-24	46-52	Tempest Plus	825860A47	825861A47
14.62	21	3	Steel	3400-3900	20-23	52-58	Tempest Plus	825862A47	825863A47
14.62	22	3	Steel	3300-3700	20-22	55-61	Tempest Plus	8M8026820	N/A
14.62	23	3	Steel	3100-3400	20-21	58-64	Tempest Plus	825864A47	825865A47
14.50	17	3	Steel	4500-5200	23-25	40-46	Vengeance	16314A46	16315A46
14.00	19	3	Steel	3900-4500	22-24	46-52	Vengeance	16316A46	16317A46
13.75	21	3	Steel	3400-3900	20-23	52-58	Vengeance	16318A46	16319A46
13.50	23	3	Steel	3100-3400	20-21	58-64	Vengeance	16320A46	16321A46
14.00	19	4	Steel	3900-4500	22-24	46-52	VenSura	825900A48	825901A48
14.00	21	4	Steel	3400-3900	20-23	52-58	VenSura	825902A48	825903A48
14.00	23	4	Steel	3100-3400	20-21	58-64	VenSura	825906A48	825907A48



MerCruiser 4.5L (250-hp) V6 Bravo I

PROPELLERS

WOT: 4800-5200 * Right Hand Rotation Standard (Left Hand Available) * Gear Ratio 1.65:1

Diameter (inches)	Pitch (inches)	Blades	Material	Approx. Gross Boat Wgt. (lbs.)	Approx. Boat Length (ft.)	Speed Range (mph)	Propeller Description	Right Hand Propeller Part Number	Left Hand Propeller Part Number
16.00	12	3	Alum	7200-10800	27+	21-30	Black Max	16436A45	N/A
16.00	13	3	Alum	6500-8900	26-29	25-33	Black Max	78114A45	N/A
16.00	14	3	Alum	5700-7500	25-28	29-37	Black Max	16438A45	N/A
16.00	16	3	Alum	4800-5900	23-26	36-43	Black Max	16440A45	N/A
15.25	15	3	Alum	5200-6500	24-27	33-40	Black Max	78116A45	N/A
16.00	19	3	Steel	3900-4500	22-24	46-52	Enertia ECO	8M0040400	8M0040401
16.00	21	3	Steel	3400-3900	20-23	52-58	Enertia ECO	8M0040402	8M0040403
16.00	23	3	Steel	3100-3400	20-21	58-64	Enertia ECO	8M0040404	8M0040405
16.00	11	3	Steel	9000+	29+	1-26	Enertia	8M0070079	8M0070077
15.60	13	3	Steel	6500-8900	26-29	25-33	Enertia	8M0070074	8M0070076
15.30	14	3	Steel	5700-7500	25-28	29-37	Enertia	898988A46	8M0079504
15.00	15	3	Steel	5200-6500	24-27	33-40	Enertia	898990A46	898991A46
14.75	16	3	Steel	4800-5900	23-26	36-43	Enertia	898992A46	N/A
14.50	17	3	Steel	4500-5200	23-25	40-46	Enertia	898994A46	898995A46
14.25	18	3	Steel	4200-4800	22-24	43-49	Enertia	898996A46	N/A
14.00	19	3	Steel	3900-4500	22-24	46-52	Enertia	898998A46	898999A46
13.75	20	3	Steel	3700-4200	21-23	49-55	Enertia	899000A46	N/A
13.62	21	3	Steel	3400-3900	20-23	52-58	Enertia	899002A46	899003A46
13.50	22	3	Steel	3300-3700	20-22	55-61	Enertia	899202A46	N/A
13.50	17	5	Steel	4500-5200	23-25	40-46	HighFive	821154A46	N/A
13.25	19	5	Steel	3900-4500	22-24	46-52	HighFive	815758A46	N/A
13.25	21	5	Steel	3400-3900	20-23	52-58	HighFive	815760A46	N/A
13.25	23	5	Steel	3100-3400	20-21	58-64	HighFive	815762A46	N/A
16.00	13	3	Steel	6500-8900	26-29	25-33	Mirage Plus	826072A46	N/A
15.75	15	3	Steel	5200-6500	24-27	33-40	Mirage Plus	19838A46	19841A46
15.50	17	3	Steel	4500-5200	23-25	40-46	Mirage Plus	18278A46	90159A46
15.38	18	3	Steel	4200-4800	22-24	43-49	Mirage Plus	889620A46	889619A46
15.25	19	3	Steel	3900-4500	22-24	46-52	Mirage Plus	13700A46	13701A46
14.75	21	3	Steel	3400-3900	20-23	52-58	Mirage Plus	13702A46	13703A46
14.62	23	3	Steel	3100-3400	20-21	58-64	Mirage Plus	13704A46	13705A46
14.50	25	3	Steel	Up to 3000	19-21	63-70	Mirage Plus	13706A46	13707A46
14.62	15	4	Steel	5200-6500	24-27	33-40	Revolution4	857022A46	8M0064449
14.62	17	4	Steel	4500-5200	23-25	40-46	Revolution4	857024A46	857025A46
14.62	17	3	Steel	4500-5200	23-25	40-46	Tempest Plus	8M8026790	N/A
14.62	19	3	Steel	3900-4500	22-24	46-52	Tempest Plus	825860A47	825861A47
14.62	21	3	Steel	3400-3900	20-23	52-58	Tempest Plus	825862A47	825863A47
14.62	22	3	Steel	3300-3700	20-22	55-61	Tempest Plus	8M8026820	N/A
14.62	23	3	Steel	3100-3400	20-21	58-64	Tempest Plus	825864A47	825865A47
14.62	24	3	Steel	2900-3300	19-21	61-67	Tempest Plus	825872A47	N/A
14.62	25	3	Steel	Up to 3000	19-21	63-70	Tempest Plus	825866A47	N/A
14.50	17	3	Steel	4500-5200	23-25	40-46	Vengeance	16314A46	16315A46
14.00	19	3	Steel	3900-4500	22-24	46-52	Vengeance	16316A46	16317A46
13.75	21	3	Steel	3400-3900	20-23	52-58	Vengeance	16318A46	16319A46
13.50	23	3	Steel	3100-3400	20-21	58-64	Vengeance	16320A46	16321A46
14.00	19	4	Steel	3900-4500	22-24	46-52	VenSura	825900A48	825901A48
14.00	21	4	Steel	3400-3900	20-23	52-58	VenSura	825902A48	825903A48
14.00	23	4	Steel	3100-3400	20-21	58-64	VenSura	825906A48	825907A48

MerCruiser 4.5L (250-hp) V6 Bravo II

PROPELLERS

WOT: 4800-5200 * Right Hand Rotation Standard (Left Hand Available) * Gear Ratio 2.20:1

Diameter (inches)	Pitch (inches)	Blades	Material	Approx. Gross Boat Wgt. (lbs.)	Approx. Boat Length (ft.)	Speed Range (mph)	Propeller Description	Right Hand Propeller Part Number	Left Hand Propeller Part Number
20.00	11	3	Alum	15000+	House/Work	1-16	Bravo Two	18606A40	18607A40
19.50	13	3	Alum	10800-20300	30-36	12-28	Bravo Two	18608A40	18609A40
19.25	15	3	Alum	8100-12900	28-32	18-27	Bravo Two	18610A40	18611A40
18.75	17	3	Alum	6700-9800	26-30	23-32	Bravo Two	18612A40	18613A40
18.25	19	3	Alum	5700-7500	25-28	29-37	Bravo Two	18614A40	18615A40
19.75	19	3	Alum	5700-7500	25-28	29-37	Bravo Two	77898A40	N/A
17.75	21	3	Alum	5100-6300	24-26	34-41	Bravo Two	18616A40	18617A40
19.50	21	3	Alum	5100-6300	24-26	34-41	Bravo Two	77900A40	N/A
17.50	23	3	Alum	4500-5400	23-25	39-46	Bravo Two	18618A40	18619A40
17.25	25	3	Alum	4100-4700	22-24	44-50	Bravo Two	18620A40	18621A40
20.00	11	3	Steel	15000+	House/Work	1-16	Bravo Two	18606A6	18607A 6
19.50	13	3	Steel	10800-20300	30-36	12-21	Bravo Two	18608A6	18609A 6
19.25	15	3	Steel	8100-12900	28-32	18-27	Bravo Two	18610A6	18611A 6
18.75	17	3	Steel	6700-9800	26-30	23-32	Bravo Two	18612A6	18613A 6
18.25	19	3	Steel	5700-7500	25-28	29-37	Bravo Two	18614A6	18615A 6
17.75	21	3	Steel	5100-6300	24-26	34-41	Bravo Two	18616A6	18617A 6
19.50	22.5	3	Steel	4500-5400	23-25	39-46	Bravo Two	897550A06	N/A
17.50	23	3	Steel	4500-5400	23-25	39-46	Bravo Two	18618A6	18619A 6
17.25	25	3	Steel	4100-4700	22-24	44-50	Bravo Two	18620A6	18621A 6



Bravo II

When you need enhanced mid- to top-end performance, the three-blade Bravo Two propellers step up to the plate. A large blade area provides maximum thrust and their beefy design gives excellent maneuverability and better holding in turns.



MerCruiser 4.5L (250-hp) V6 Bravo III

PROPELLERS

WOT: 4800-5200 * Gear Ratio 2.20:1 * High Altitude (5,000+ ft.) 2.43:1

Diameter (inches)	Pitch (inches)	Blades	Material	Approx. Gross Boat Wgt. (lbs.)	Approx. Boat Length (ft.)	Speed Range (mph)	Propeller Description	Front Propeller Part Number	Rear Propeller Part Number
16.00	19	4	SS Matte	5700-7500	25-28	29-37	Bravo Three	8M8022340	
14.40	19	3	SS Matte	5700-7500	25-28	29-37	Bravo Three		8M8022350
16.00	20	4	SS Matte	5400-6700	24-27	32-39	Bravo Three	8M8022360	
14.40	20	3	SS Matte	5400-6700	24-27	32-39	Bravo Three		8M8022370
15.90	21	4	SS Matte	5100-6300	24-26	34-41	Bravo Three	8M8022380	
14.30	21	3	SS Matte	5100-6300	24-26	34-41	Bravo Three		8M8022390
15.75	22.5	4	SS Matte	4600-5500	23-25	38-45	Bravo Three	8M8022400	
14.25	22.5	3	SS Matte	4600-5500	23-25	38-45	Bravo Three		8M8022410
15.50	24	4	SS Matte	4300-5000	22-25	42-48	Bravo Three	8M8022420	
14.00	24	3	SS Matte	4300-5000	22-25	42-48	Bravo Three		8M8022430
15.25	26	4	SS Matte	3800-4400	21-23	47-53	Bravo Three	8M8022440	
13.75	26	3	SS Matte	3800-4400	21-23	47-53	Bravo Three		8M8022450
15.00	28	4	SS Matte	3500-4000	21-23	51-57	Bravo Three	8M8022460	
13.50	28	3	SS Matte	3500-4000	21-23	51-57	Bravo Three		8M8022470
16.00	19	4	SS High Polish	5700-7500	25-28	29-37	Bravo Three	8M8022349	
14.40	19	3	SS High Polish	5700-7500	25-28	29-37	Bravo Three		8M8022359
16.00	20	4	SS High Polish	5400-6700	24-27	32-39	Bravo Three	8M8022369	
14.40	20	3	SS High Polish	5400-6700	24-27	32-39	Bravo Three		8M8022379
15.90	21	4	SS High Polish	5100-6300	24-26	34-41	Bravo Three	8M8022389	
14.30	21	3	SS High Polish	5100-6300	24-26	34-41	Bravo Three		8M8022399
15.75	22.5	4	SS High Polish	4600-5500	23-25	38-45	Bravo Three	8M8022409	
14.25	22.5	3	SS High Polish	4600-5500	23-25	38-45	Bravo Three		8M8022419
15.50	24	4	SS High Polish	4300-5000	22-25	42-48	Bravo Three	8M8022429	
14.00	24	3	SS High Polish	4300-5000	22-25	42-48	Bravo Three		8M8022439
15.25	26	4	SS High Polish	3800-4400	21-23	47-53	Bravo Three	8M8022449	
13.75	26	3	SS High Polish	3800-4400	21-23	47-53	Bravo Three		8M8022459
15.00	28	4	SS High Polish	3500-4000	21-23	51-57	Bravo Three	8M8022469	
13.50	28	3	SS High Polish	3500-4000	21-23	51-57	Bravo Three		8M8022479



Bravo III

This amazing twin-propeller, contra-rotating system is standard equipment on Bravo Three drives. A large diameter four-blade front propeller coupled with a smaller diameter, three-blade rear propeller provide unbelievable acceleration, straight tracking, fuel economy and precise handling around the dock.





Enertia Propeller

Improves top speed and acceleration on center consoles, high-horsepower pontoons and sterndrive runabouts.



Vengeance Propeller

All-purpose stainless steel propeller offers improved performance and durability over aluminum propellers.



SpitFire Propeller

Mercury's state-of-the-art aluminum propeller provides 3-blade speed with 4-blade holding and acceleration.



Black Max Propeller

The combination of performance, durability, and value makes the Black Max the perfect complement to outboard and sterndrive applications.



HighFive Propeller

Whether using for tow sports or boating in rough water, the 5-blade design provides superior holding and holeshot in all water conditions.



Enertia ECO Propeller

The innovative propeller is specifically designed for optimal fuel economy and performance at engine cruise rpm ranges.



Mirage Plus Propeller

Large-diameter high-output blade geometry provides outstanding acceleration and top speed across a wide variety of applications.



Revolution4 Propeller

An outstanding match for outboard-powered, center consoles, and sterndrive-powered deck or sport boats. Aggressive 4-blade design provides outstanding holeshot.



Tempest Plus Propeller

An aggressive 3-blade design provides outstanding lift and top speed in high-horsepower outboard and sterndrive applications.



VenSura Propeller

The 4-blade design delivers better acceleration and holding than a 3-blade propeller. Provides strong bow lift – even in rough seas.

