

# AROSC Comp Code, Appendix C

## Alfa Time Trial and Race Classification

It is the responsibility of all drivers to have their cars classified. All drivers must have their classification form on file and up to date with the Director of Alfa Classification in order to be scored. Contact the Director of Alfa Classification for any updates and a current classification form.

Classification is based on a point system. Each Alfa model in its stock configuration has a point value (Base Model Points). The Base Model Points are adjusted by adding points for performance modifications (Modification Points). In some cases, points are subtracted for non-performance options, i.e., an automatic transmission. If a model, modification and/or cam(s) is not covered in the following tables, submit details to the Director of Alfa Classification for a points assessment. In general, a point is worth about 2-3 bhp or around 20 pounds. Four points is worth about a second off a lap time at Willow Springs.

**Class Points = Base Model Points + Modification Points**

<b>Class</b>	<b>Point Range</b>	<b>Class</b>	<b>Point Range</b>
A	246 and up	G	150 to 160
B	226 to 245	H	140 to 149
C	201 to 225	I	130 to 139
D	186 to 200	J	129 or less
E	171 to 185	X	Formula or S/R, 4-cylinder
F	161 to 170	Z	Formula or S/R over 4 cylinders

### 1. Base Model Points

Models are as sold in the USA unless “(Euro)” is indicated. Stock cam points, rim and tire profiles are provided because their Modification Points are based on changes from stock.

<b>Model</b>	<b>Base Model Points</b>	<b>Stock Cam Points</b>	<b>Stock Rim</b>	<b>Stock Tire Series</b>
<b>Sedans</b>				
164 Q	189	6	15x6	65
164 LS	185	6	15x6	65
164 S	180	8	15x6	65
164 L	173	6	15x6	65

Milano Verde	179	6	15x6	55
Milano Platinum	167	6	15x6	55
Milano Silver or Gold	162	6	14x6	60
2000 Alfetta Sedan ('77-'79 , 4-2-1 exhaust manifold)	150	5	14x5.5	70
2000 Alfetta Sedan ('75-'76 , 4-into-1 exhaust manifold)	147	5	14x5.5	70
2000 Berlina ('72-'74)	140	5	14x5.5	80
1750 Berlina	128	6	14x5.5	80
1600 TI. Super (Euro)	150	10	15x4.5	80
1600 Giulia Super	127	6	15x4.5	80
1600 Giulia TI	112	3	15x4.5	80
1300 Giulietta TI (Euro)	99	0	15x4.5	80
<b>Coupes</b>				
2600 Montreal (Euro)	185	0	14x5.5	70
GTV6 2.5 (3.42 Differential, '82-'83)	165	6	15x6	60
GTV6 2.5	168	6	15x6	60
2000 Alfetta GT ('77-'79, 4-2-1 exhaust manifold)	155	5	14x5.5	70
2000 Alfetta GT ('75-'76, 4-into-1 exhaust manifold)	152	5	14x5.5	70
2000 GTV ('72-'74)	162	5	14x5.5	78
1750 GTV	152	6	14x5.5	78
1600 Junior Zagato (Euro)	140	6	14x5.5	80
1600 GTZ (Stradale)	180	10	15x4.5	80
1600 GTA (Stradale)	169	6	15x4.5	80
1600 Sprint Veloce & Speciale	149	10	15x4.5	80
1600 Sprint GT/GTV	144	6	15x4.5	80
1600 Sprint (101 Chassis)	135	3	15x4.5	80
1300 Junior Zagato (Euro)	131	6	14x5.5	80
1300 GT Jr. (Euro)	136	6	15x4.5	80
1300 GTA (Euro) (Stradale)	158	6	14x5.5	80
1300 Sprint Speciale	133	9	15x4.5	80
1300 Sprint Zagato (Euro)	132	9	15x4.5	80
1300 Sprint Veloce	130	9	15x4.5	80
1300 Sprint (101 Chassis)	109	0	15x4.5	80
<b>Spiders</b>				
2000 Spider Quadrifoglio	153	5	15x6	60
2000 Spider ('91 & up Motronic)	154	5	15x6	60
2000 Spider ('82 - '91, Single butterfly SPICA, 4.10 rear, 4 into 1 manifold)	154	5	14x6	70
2000 Spider ('80 -'81, Single butterfly SPICA, 4.10 rear, 4 into 1 manifold, air pump)	147	5	14x5.5	78
2000 Spider ('77 - '79, 4-2-1 manifold, 4.56 diff)	156	5	14x5.5	78

2000 Spider ('75 - '76, 4 into 1 manifold, 4.56 diff)	153	5	14x5.5	78
2000 Spider ('72 - '74, 4-2-1 manifold, 4.56 diff)	160	5	14x5.5	78
1750 Spider	150	6	14x5.5	80
1600 Spider Duetto	142	6	15x4.5	80
1600 Giulia GS4R Zagato	127	6	15x4.5	80
1600 Spider Veloce	145	10	15x4.5	80
1600 Spider (101 Chassis)	133	3	15x4.5	80
1300 Duetto Jr. (Euro)	134	6	15x4.5	80
1300 Spider Veloce	128	9	15x4.5	80
1300 Spider (101 Chassis)	107	0	15x4.5	80
<b>Older Vehicles</b>				
2600 Saloon	128	0	16	80
2600 Sprint	130	0	16	80
2600 Spider	128	0	16	80
1900 Saloon (1950)	130	0	16	80
1900 C (1951)	131	0	16	80

## 2. Modification Points

MODIFICATION	POINTS
<b>Engine</b>	
Dual carbs or stock Alfa fuel injection in place of single carburetor	5
Dual Weber 40 carbs in place of fuel injection	0
Larger than stock carburetor(s) (e.g. Weber 45s in place of 40s)	2
Multi-butterfly fuel injection replaces Single butterfly fuel injection	2
Modified or replaced fuel injection (altered Spica pump, Bosch in place of Spica, etc.)	2
Modified ECU (altered inputs, programmable, chipped, etc.)	2
Modified AFM	1
Velocity stacks	1
Cams (cam points = current cam points minus stock cam points, see table below)	*
Radiator fan removed or altered	1
Total Loss electrical system	1
Head Milled .025" - .080"	2
Head Milled .081" or more	4
Intake manifold ported and/or polished	1
Head air passages ported and/or polished	5
Oversized Intake Valves	3
Oversized Exhaust Valves	1
60-degree valve-angle head	10

4-valve 60-degree head	20
Conversion to 24-Valve 3-L V6 from 12-Valve 3-liter V6 (164LS model, but without tubular headers; additional points for tubular headers and 164 Q intake runners, see notes below)	5
164 Q intake runners in place of 164 LS or 12V intake (see notes below)	4
Euro 2-L twin spark replaces classic 2-L (see notes below)	7
Supercharging/Turbocharging (less points for mild boost at discretion of Classification Director)	25
Nitrous Oxide (N <sub>2</sub> O) injection	8
Non-stock production-type pistons up to 10.5 CR (e.g. Motronic or higher than stock CR Borgo pistons)	2
Racing pistons including all pistons over 10.5 CR	5
Increased displacement, per 100 cc increment for an engine swap**	3
Increased displacement, per 100 cc increment with no engine swap	1
Tubular headers replace cast iron headers	5
Ported, Polished and/or matched port cast iron manifold	1
4-2-1 cast iron manifold replaces 4-into-1 cast manifold	3
Catalytic converter removed	2
Air pump removed	2
Non-stock exhaust ahead of rear axle (including side exit with stock number of expansion chambers)	2
Open exhaust	6
Non-stock flywheel	1
Working air conditioning on cars that did not have it standard	-2
<b>DRIVETRAIN</b>	
Non-stock gearbox ratios or gears added	3
5th gear ratio altered	1
Limited slip added or differential locked	5
Non-stock ring and pinion ratios	3
Track more than 2" over stock	3
Wider than stock wheel rims, per 1/2"	1
Automatic transmission (except modern paddleshift "Selespeed" type)	-6
75 or higher series tires (tire series points = current series points minus stock series points)	0
65 or 70 series	4
55 or 60 series	7
45 or 50 series	10
35 or 40 series	13
Vintage racing tires, any profile	5
Street tires with wear rating > 100	0

DOT "R-rated" track tires <b>or</b> tires with a wear rating $\leq 100$ (Example: DOT track tires of 60 series in place of 80 series, is 10 plus 7, or 17 points total)	10
Racing tires (non-street legal tires)	16
<b>SUSPENSION</b>	
Non-stock type brake calipers, per end (e.g., 4-pot in place of 2-pot; no points for Ate in place of Dunlop)	1
Non-stock type brake rotors, per end (e.g., vented rotors in place of solid; no points for cross drilled or slotted stock type rotors)	1
Non-stock springs, per end	4
Cut stock springs, per end	2
Non-stock front torsion bars	2
Coil overs added, per end	2
Non-stock shocks	-
Negative camber ( $>0.5$ deg from stock)	2
Sliding block, Panhard rod, or Watts linkage added	4
Modified front anti-sway bar, bushings and/or mounts	2
Modified or added rear anti-sway bar, bushings and/or mounts	2
Non-stock suspension bushings, per end	1
Non-stock lightweight suspension components (e.g. aluminum T-bar)	1
<b>BODY AND INTERIOR</b>	
Windshield removed or altered (Note: Only Lexan® allowed as replacement for glass)	2
Bumper removed, per end	1
Impact bumper replaced by non-Impact Alfa bumper, each	1
Impact bumper removed, each	2
Lightened interior, up to 20 lbs	0
Lightened interior, 20 up to 60 lbs	2
Gutted interior, 60 or more lbs	4
Aerodynamic device, each	2
Lightweight body panels, each (fenders and doors per pair)	1
Plastic or removed windows, each (side windows per pair)	1

\* Cam points: Subtract stock cam points then add back in points from table below.

\*\* Engine Swaps: An engine swap is assumed to be one involving no change in the number of cylinders. If the swap involves a change in the number of cylinders, contact the Alfa Classification Director for a modification points assessment.

**Cam Points Table**

<b>Cam Type</b>	<b>Lift (mm)</b>	<b>Deg @ 0.050"</b>	<b>Shankle Rating</b>	<b>Part Number</b>	<b>Points</b>
<b>4-cylinder cams</b>					
1300 Normale	8.6	217	1	101000320000	0
1600 Normale, 1600 early 105	9.1	219	2	105020320000	3
2000 USA	9.6	222	3	105200320000	5
2000 USA Variable	9.6	222	3	105200320000	5
1600 late 105, 1300 105, 1750 early Euro 1750 Spica	9.5	226	4	105020320001	6
1750 late Euro, 2000 Euro	10.1	230	5	105480320001 Shankle AL 6205	8
1300 Veloce	9.0	245	6	101060320000	9
1600 Veloce	9.5	245	7	101210320000	10
"Street Spica", "Street VCT", "Street Bosch"	10.7, 10.9	240, 245	7L	Shankle AL 5417/ 5417A, AL 5419/5419A AL 5404	10
"Fuel Injection Performance"	11.0	240-252	8L	115010320032 Shankle AL 5418A, Colombo & Bariani CB 47, Alfa Group 1	12
"Carbureted Performance"	11.0	252	8	IAP Catalog; 100 deg overlap	13
"Street Bosch"	11.7	252	8	Shankle AL 5442	14
12 mm "TT"	12.0	254	9	Shankle AL5408A	14
10.6 "Racing"	10.5 to 10.6	265	10	101210320001 Shankle AL5410/Al5410A	15
12 mm "hot street"	12.0	264	10	Shankle AL 5406, Kent JK 303	16
12 mm "hot street"	12.0	274	11	Kent ZL-1	17
11 mm "racing"	11.0 to 11.3	280	12	Colombo & Bariani CB54, Profilo 11C3, Colombo & Bariani 11.3A, Alquati A35-1	17
12.5 mm "racing"	12.5	268	13L/13	Shankle AL 5413, AL 5414	19
<b>V-6 cams</b>					
Stock V-6 (GTV6, Milano, 164L)	9.1	228 (intake)	4	60523305/306	6
164S	10.1	235 (intake)	4	60534721/722	8
"Time Trial"	9.5	245 (intake)	7	Shankle AL 6216	10
"Street/Time Trial"	10.5	242 (intake)	7L	Shankle AL 5402	12
"Race"	11.5	284 (intake)	13	Shankle AL 5403	19

<b>Twin Spark cams</b>					
“Stock Twin Spark”	11.5/9.8	252/246*	na	na	8
“Hot Street”	12.1/9.5	280/270	na	C & B ARTS 121.280 S	10
“11.4 Race”	11.4	294	na	C & B ARTS 114.294 C	14
“11.5 Race”	11.5	302	na	C & B ARTS 115.302 C	16

\* Duration is at 1 mm; other durations in table are based on seat to seat timing.

**Notes:**

1. Engine swap points (3 per 100 cc’s or part there of) include any changes which result from valve size, compression ratio and/or intake system (two 40mm Webers is equivalent to stock fuel injection), etc., of the stock replacement engine. Cams are treated separately.
2. Twin spark (TS) conversion: Take the recipient car’s base points minus its’ stock cam points, then add 7 points for the TS conversion plus points for the cams installed in the TS engine. Starting with a 1974 GTV, this would be  $162 - 5 + 7 + 8 = 172$  assuming the stock TS cams. Other modification points, header points for example, would be added as usual.
3. Conversion from stock 2.5-liter GTV6 or Milano engine to stock 3-liter Milano Verde engine is 15 points for the 500 cc displacement increase. Conversion from a Milano Verde 3-liter engine to a 164S 3-liter engine adds 4 points, 2 for the high compression pistons and 2 for the 8 point cams in place of the 6 point cams.
4. Conversion of a 164S V6 (3-liters, 12-valves) engine to a 164 LS V6 (3-liters, 24-valves) engine, but maintaining cast iron headers and 6-point cams, is 5 points. Adding tubular headers would add 5 points, and 164Q intake runners, 4 more points. The total conversion from 164S engine to 164Q engine, including tubular headers and 164Q intake runners, is 14 points.