

CLASSIC

BY JO-HAN

## 1931 CADILLAC V-16

SPORT PHAETON
body by FLEETWOOD



THE CADILLAC V-16 ONE OF AMERICA'S MOST OUTSTANDING CLASSICS.

In the fall of 1929 the Cadillac Motor Car Company set a new standard for the automobile industry with their introduction of a full series of large, multicylinder, luxury cars. Cadillac not only offered a V-8 and a V-12 but also introduced the fabulous new 16 cylinder automobile. These magnificent vehicles proved to be a unique sensation of quiet, effortless motion. They are regarded as one of America's most outstanding classics. Cadillac, in producing these superior cars, set a standard that started them on the road to American automobile leadership, a position that is held today without peer.

All of the mechanical components on these cars were interesting, but it was the engine that captured the imagination of car lovers. Even today this power plant is considered to be one of the most outstanding engines ever produced. It truly is an inspired study with its parts finished mainly in gleaming black porcelain and polished aluminum.

V-16 engines delivered 165 h.p. from 452 cubic inches of piston displacement. They featured an extensive use of aluminum, which was uncommon in the early thirties. They pioneered the use of overhead valves with hydraulic valve lifters. Syncro Mesh transmissions were standard, and all cars employed an adjustable ride regulator. This

allowed the driver to control the shock absorber firmness to suit the needs of the moment.

In a sense, these cars could be driven much like a contemporary automobile equipped with an automatic transmission. Frequent shifting was unnecessary. Actually, they could be accelerated from a standstill in high gear, and do this without the slightest hesitation. Now even the ladies would find a large automobile a pleasure to drive.

Hollywood was quick to purchase many of these large graceful cars. They could be used in all types of scenery with great effect. V-16s became standard equipment on the streets of Beverly Hills.

Your JO-HAN model is based on the 1931 Cadillac V-16 dual cowl phaeton with body by Fleetwood. Of all the wide range of body styles offered, this style was easily the most dashing. This car was mounted on the 148" wheel base chassis, and when new cost over \$7,000.

The entire model has been reproduced with complete accuracy from the original drawings and from the actual automobile still in its original condition.

JO-HAN MODELS INC.

17255 MORAN

DETROIT, MICH. 48212

MADE IN U.S. A.

NOTE! READ THIS BEFORE YOU BEGIN. Read the instructions thoroughly, and study the assembly drawings and parts list to become familiar with all parts of the model. This kit contains over 160 parts in various sizes and colors. Therefore it is important that these instructions are followed carefully to fit and cement the parts together neatly.

This kit features the new exclusive FRAME-PAK method of packaging. Each frame of plastic parts is molded with identifying numbers appearing on the parts or on tabs next

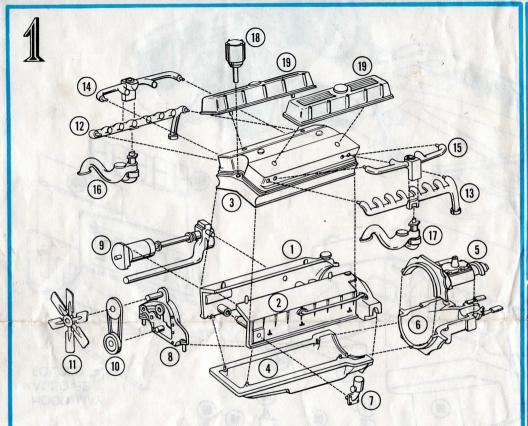
to the corresponding parts. These numbers correspond with numbers on the assembly drawings and parts list. To further find and identify these parts, the color of plastic is indicated on the parts list.

Do not detach parts from the frame until you are ready to use them. After cutting or breaking off the required part, trim away any excess plastic that is not part of the actual piece. Use a single edge razor blade or a small sharp knife. Check the fit of each part before cementing it in place. Use only paint and cement made for polystyrene plastic.

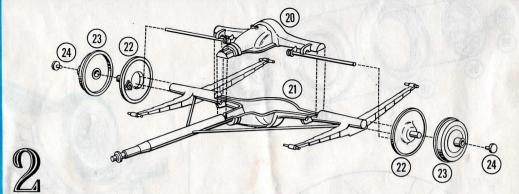
Whenever a chrome-plated part is ready to be cemented in place, SCRAPE OFF CHROME PLATING IN AREAS WHICH WILL BE CEMENTED. CEMENT WILL NOT HOLD TO PLATED SURFACES.

Do not hurry. Work carefully and patiently. Use cement very sparingly and avoid getting cement on hands, so as not to smear plastic surfaces. Apply cement to inside surfaces only. Avoid getting cement on outer surfaces of model sections.

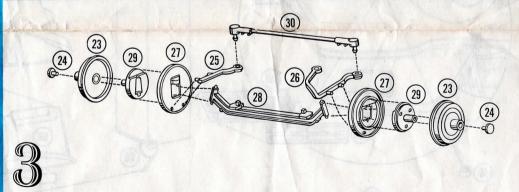
If you plan to paint your model refer to painting suggestions.



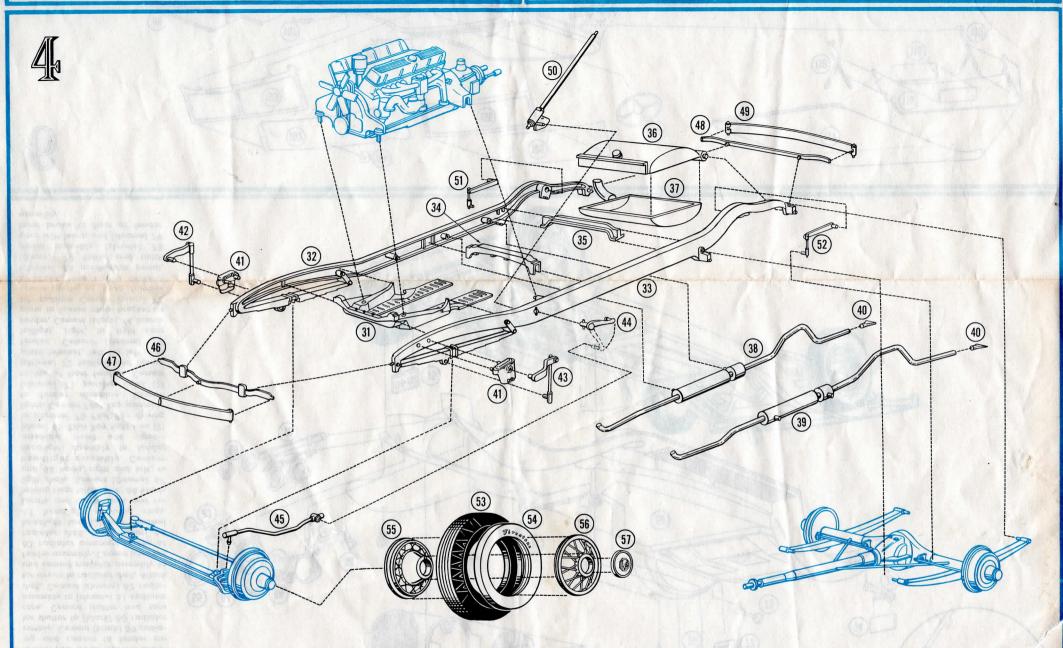
ENGINE. Cement (chrome) 1 engine block, right half, to (chrome) 2 engine block, left half. Cement (black) 3 cylinder head to engine block. Cement (chrome) 4 oil pan to engine block. Cement (black) 5 transmission, top half, to (black) 6 transmission, bottom half. Cement transmission to engine block and oil pan. Cement (black) 7 crankcase breather to engine block. Cement (chrome) 8 engine front cover to engine block. Cement (black) 9 generator, water pump assembly to engine block and engine front cover. Cement (black) 10 fan belt and pulley assembly to engine front cover. Cement (chrome) 11 fan to fan belt and pulley assembly. Cement (black) 12 exhaust manifold, right, to cylinder head. Cement (black) 13 exhaust manifold, left, to cylinder head and exhaust manifold. Cement (black) 15 intake manifold. Eft, to cylinder and exhaust manifold. Cement (black) 16 carburetor, right, to bottom of exhaust manifold. Cement (black) 17 carburetor, left, to bottom of exhaust manifold. Cement (black) 18 distributor to cylinder head. Cement (chrome) 19 valve covers to cylinder head.



REAR AXLE, SPRINGS AND DRIVE SHAFT ASSEMBLY. Cement (black) 20 rear axle, top half, to (black) 21 rear axle, springs, and drive shaft assembly. Cement (black) 22 brake backing plates, rear, to rear axle. Slip (black) 23 brake drums on brake backing plate spindles. Apply cement and insert (blue) 24 brake drum retaining pins into end of spindles of brake backing plates. Make sure brake drums revolve freely.



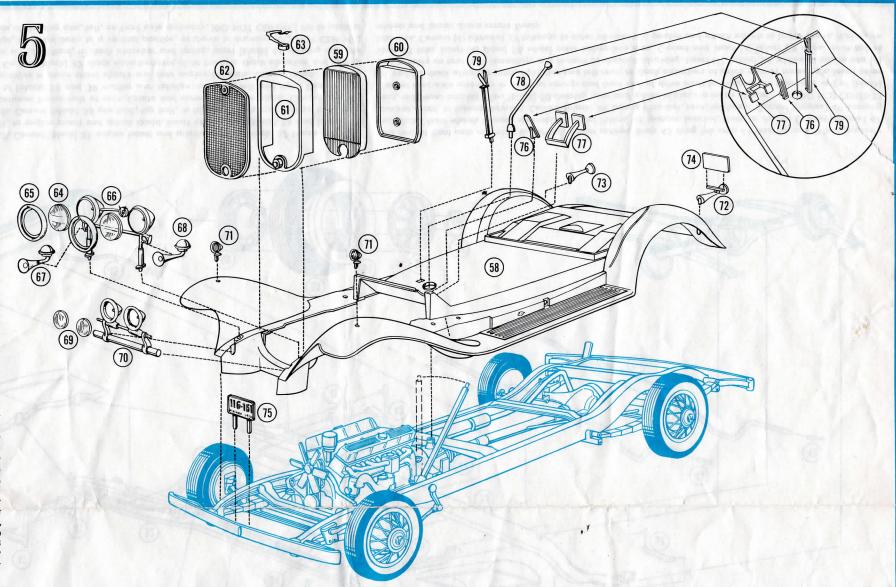
FRONT AXLE ASSEMBLY. Cement (black) 25 steering arm, right, to back of (black) 27 brake backing plate, front. Cement (black) 26 steering arm, left, to back of other (black) 27 brake backing plate, front. Attach brake backing plates to ends of (black) 28 axle, front and cement (black) 29 wheel spindles, front, to brake backing plates. Make sure both brake backing plate and wheel spindle assembly steer back and forth. Slip (black) 23 brake drums on wheel spindles. Apply cement and insert (blue) 24 brake drum retaining pins into ends of wheel spindles. Make sure brake drums revolve freely. Snap (black) 30 tie rod into steering arms.

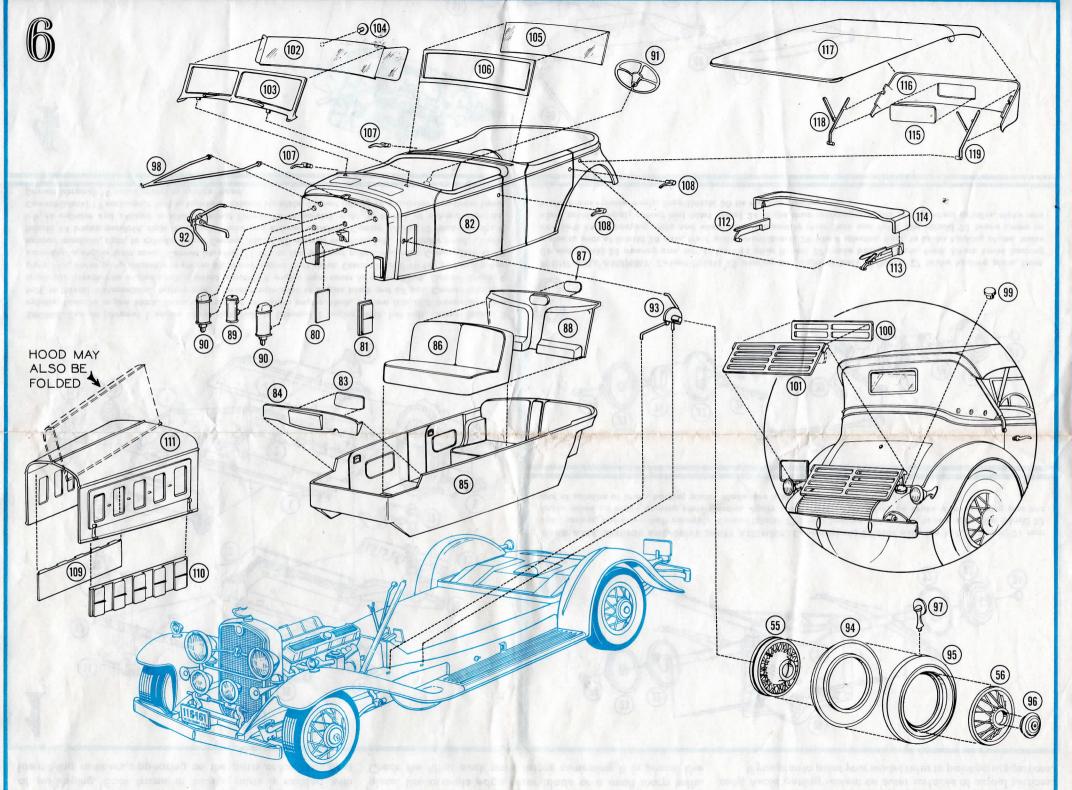


CHASSIS, BUMPERS AND WHEELS. Cement (black) 31 engine mount and splash shield to (black) 32 frame rail, right. Cement (black) 33 frame rail, left, to engine mount and splash shield. Insert and cement (black) 34 and (black) 35 cross members between frame rails. Cement (black) 36 gas tank, top half, to (black) 37 gas tank, bottom half. Insert and cement gas tank assembly between frame rails at rear. Locate and cement engine in place. Cement (chrome) 40 exhaust extensions onto ends of (black) 38 and 39 muffler and tailpipe assembly, left and right. Cement right and left muffler and tailpipe assemblies in place under chassis and onto engine exhausts. Cement (black) 41 shock absorbers (2) to chassis at front. Cement (black) 42 shock absorber arm, right front, to shock absorber and spring. Cement (black) 43 shock absorber arm, left front, to shock absorber and spring. Insert (black) 44 steering arm into frame rail in a horizontal position, then turn down to a vertical position, as shown in drawing. (DO NOT CEMENT.) Snap (black) 45 drag link into hole of steering arm, left, on front axle assembly. (DO NOT CEMENT.) Put in position

and cement front axle assembly to bottom of front springs. Snap 45 drag link onto 44 steering arm. When pro perly assembled front wheels become steerable. Cement (black) 46 bumper bracket, front, to chassis. Cement (chrorne) 47 bumper, front, to bumper bracket. Cement (black) 48 bumper bracket, rear, to chassis. Cement (chrome) 49 bumper, rear, to bumper bracket. Press (black) 50 steering gear and column in place to inside of frame rail. (DO NOT. CEMENT.) Cement rear axle assembly in place at springs and front end of drive shaft to transmission. Insert one end of (black) 51 and 52 shock absorber arms, right rear and left rear, to shock absorbers at inside rear of frame rails. Insert other end in holes on rear axle assembly, and cement as shown in drawing. Insert (4) (white) 54 whitewall, inserts into (4) vinyl 53 tires. Insert (4) (blue) 56 wheel outer halves into tires. Cement and insert (4) (blue) 55 wheel inner halves into tires. Cement (4) (chrome) 57 hubcaps to outer wheels. Add cement and attach wheels to brake drums. Make sure wheels and brake drums rotate freely.

FENDER, RADIATOR, LIGHTS, GEAR SHIFT, HANDBRAKE AND PEDAL ASSEMBLY. Turn steering column into an upright position, as shown in broken lines on drawing. Drop (black) 58 fender assembly in place on chassis and cement. Turn down steering column to final position as shown in drawing and cement to fender assembly, Cement (black) 59 radiator shutter to (black) 60 radiator core. Cement shutter and core assembly to (chrome) 61 radiator shell. Cement (chrome) 62 radiator screen to radiator shell. Attach and cement radiator assembly to fender assembly. Cement (chrome) 63 radiator ornament to top of radiator shell. Insert (clear) 64 headlight lens (2) into (chrome) 65 headlight retaining rings. Locate and cement lens and retaining rings to (chrome) 66 headlight shells. Cement (chrome) 67 and 68 horns, right and left, to headlight assembly. Cement headlight assembly to fender assembly. Insert and cement (clear) 69 Pilot Ray light lens (2) to (chrome) 70 Pilot Ray driving lights. Cement Pilot Ray assembly to fender assembly. Cement (chrome) 71 parking lights (2) to top of front fenders. Cement (chrome) 72 taillight and license plate bracket, left, to left rear fender. Cement (chrome) 73 taillight, right, to right rear fender. Cement (black) 74 license plate to license plate bracket on left taillight. Cement (black) 75 license plate to front bumper bracket, insert and cement (chrome) 76 accelerator pedal, (chrome) 77 brake and clutch pedal assembly, (chrome) 78 gear shift lever, and (chrome) 79 hand brake to floor of fender assembly.





INTERIOR, BODY, HOOD, WINDSHIELDS, SIDE MOUNT TIRES, LUGGAGE RACK, TOP DOWN AND TOP UP. Insert and cement (chrome) 80 and 81 side cowl ventilators, right and left, into inside of (blue) 82 body. Cement (black) 83 instrument panel insert, front, to (chrome) 84 instrument panel front. Cement instrument panel, front to (black) 85 interior. Cement (black) 86 front seat in position in interior. Cement (chrome) 87 instrument panel insert, rear, to (black) 88 instrument panel, rear. Cement rear instrument panel to back of front seat. Install interior in body and cement. Cement body in position on fender assembly. Cement (chrome) 90 vacuum fuel pumps (2) and (chrome) 89 oil filter to firewall of body. Cement (black) 91 steering wheel onto steering column. Cement (black) 92 and 93 spare tire carrier, right and left, to sides of body, and fender assembly as shown in drawing. Cement (black) 94 spare tire covers (2), inner, to (black) 95 spare tire covers (2), outer. Insert (2) (blue) 56 wheel outer halves into spare tire covers. Cement and insert (2) (blue) 55 wheel inner halves into spare tire cover. Cement (2) (chrome) 96 spare tire hubcaps to outer wheels. Cement (chrome) 97 tire mount rear view mirrors (2) to top of spare tire covers. Put in position and cement spare tire assemblies in spare tire fender wells. Cement (chrome) 98 radiator support rod to radiator and firewall.

Cement (chrome) 99 gas cap to rear of body, as shown in insert drawing. Cement (chrome) 100 and 101 luggage carrier, front half and rear half together and in position on rear of body, also, as shown in insert drawing. Cement (clear) 102 windshield, front, to (chrome) 103 windshield frame, front. Cement (chrome) 104 rear view mirror to front windshield. Cement front windshield assembly to body. Cement (clear) 105 windshield, rear, to (chrome) 106 windshield frame, rear. Cement rear windshield assembly to body. Cement (chrome) 107 and 108 door handles, right (2) and left (2), to body. Insert and cement (chrome) 109 and 110 hood ports, right and left, into inside of (blue) 111 hood. Put hood assembly in place. Cement (chrome) 112 and 113 folded roof bracket, right and left, to (black) 114 convertible boot. Cement (clear) 115 backlite to inside of (black) 116 roof, rear. Cement roof, rear, to (black) 117 roof. Cement (chrome) 118 and 119 erected roof bracket, right and left, to roof assembly. Either top down or top up may be snapped on to body.

To signify good craftsmanship, we have included a beautiful Gold Cup which may be displayed alongside of this outstanding classic model. To assemble this cup, cement Gold Cup to (blue) 120 Gold Cup base.

**PAINTING SUGGESTIONS.** This car is already molded in actual colors, which may be assembled without any painting. If desired you may choose whatever colors you wish. These cars in their day were usually painted any color that the purchaser desired. For added realism you may use the following suggestions: Rear instrument panel engraved area is a dark walnut wood grain. Rear instrument panel lower center post is a bleached walnut wood grain. Rear instrument panel window crank and courtesy light are silver.

Taillight lenses are all red. Hood handles, hood latches, interior door handles, window cranks and ash trays are silver. Running board battery box handles, tool box handles, and spare tire cover trim are silver. Running board courtesy lights are white. Center detail in the four wheel hubcaps and crest on radiator screen are painted red. Firewall area on body is black. 1931 Michigan license plate background is black and the border and lettering are red.

## PARTS LIST

COLOR	NO.	DESCRIPTION	COLOR	NO.	DESCRIPTION	COLOR	PART NO.	PART DESCRIPTION	COLOR	PART NO.	PART DESCRIPTION
CHROME		ENGINE BLOCK—RIGHT HALF	BLACK	31	ENGINE MOUNT AND SPLASH	BLACK	58	FENDER ASSEMBLY	CHROME	89	OIL FILTER
CHROME	2	ENGINE BLOCK—LEFT HALF	BLACK		SHIELD	BLACK	59	RADIATOR SHUTTER	CHROME		VACUUM FUEL PUMP (2)
BLACK	3	CYLINDER HEAD	BLACK	32	FRAME RAIL—RIGHT	BLACK	60	RADIATOR CORE	BLACK	91	STEERING WHEEL
CHROME	4	OIL PAN	BLACK	33	FRAME RAIL—LEFT	CHROME	61	RADIATOR SHELL	BLACK	92	SPARE TIRE CARRIER—RIGHT
BLACK	5	TRANSMISSION—TOP HALF	BLACK	34	CROSS MEMBER	CHROME	62	RADIATOR SCREEN	BLACK	93	SPARE TIRE CARRIER—LEFT
BLACK	6	TRANSMISSION—BOTTOM HALF	BLACK	35	CROSS MEMBER	CHROME		RADIATOR ORNAMENT	BLACK	94	SPARE TIRE COVER—INNER (2)
BLACK	7	CRANKCASE BREATHER	BLACK	36	GAS TANK—TOP HALF	CLEAR	64	HEADLIGHT LENS (2)	BLACK	95	SPARE TIRE COVER—OUTER (2)
CHROME	8	ENGINE FRONT COVER	BLACK	37	GAS TANK—BOTTOM HALF	CHROME	65	HEADLIGHT RETAINER RING (2)	CHROME	96	SPARE TIRE HUBCAPS (2)
BLACK	9	GENERATOR, WATER PUMP	BLACK	38	MUFFLER AND TAILPIPE ASSEMBLY	CHROME	66	HEADLIGHT SHELL	CHROME	97	TIRE MOUNT REAR VIEW
DEACK		ASSEMBLY			—RIGHT	CHROME	67	HORN—RIGHT			MIRROR (2)
BLACK	10	FAN BELT AND PULLEY ASSEMBLY	BLACK	39	MUFFLER AND TAILPIPE ASSEMBLY	CHROME	68	HORN—LEFT	CHROME		RADIATOR SUPPORT RODS
CHROME	11	FAN			—LEFT	CLEAR	69	PILOT RAY LIGHTS—LENS (2)	CHROME		GAS CAP
BLACK	12	EXHAUST MANIFOLD—RIGHT	CHROME	40	EXHAUST EXTENSION (2)	CHROME		PILOT RAY DRIVING LIGHTS	CHROME		LUGGAGE CARRIER—FRONT HALF
BLACK	13	EXHAUST MANIFOLD—LEFT	BLACK	41	SHOCK ABSORBERS (2)	CHROME		PARKING LIGHT (2)	CHROME		LUGGAGE CARRIER—REAR HALF
BLACK	14	INTAKE MANIFOLD—RIGHT	BLACK	42	SHOCK ABSORBER ARM—RIGHT	CHROME	72	TAILLIGHT AND LICENSE PLATE	CLEAR		WINDSHIELD—FRONT
BLACK	15	INTAKE MANIFOLD—LEFT			FRONT			BRACKET—LEFT	CHROME		WINDSHIELD FRAME—FRONT
BALCK	16	CARBURETOR—RIGHT	BLACK	43	SHOCK ABSORBER ARM—LEFT	CHROME		TAILLIGHT—RIGHT	CHROME		REAR VIEW MIRROR
	100		DIACK		FRONT	BLACK	74	LICENSE PLATE—REAR		105	WINDSHIELD—REAR
BLACK	17	CARBURETOR—LEFT	BLACK	44	STEERING ARM DRAG LINK	BLACK	75	LICENSE PLATE—FRONT	CHROME		WINDSHIELD FRAME—REAR
BLACK	18	DISTRIBUTOR	BLACK	45	BUMPER BRACKET—FRONT	CHROME	76	ACCELERATOR PEDAL	CHROME		DOOR HANDLE—RIGHT (2)
CHROME	19	VALVE COVER (2)	BLACK	47	BUMPER—FRONT	CHROME	77	BRAKE AND CLUTCH PEDAL	CHROME		DOOR HANDLE—LEFT (2)
BLACK	20	REAR AXLE—TOP HALF	BLACK	48	BUMPER BRACKET—REAR	- CUPOUE		ASSEMBLY	CHROME		HOOD PORTS—RIGHT HOOD PORTS—LEFT
BLACK	21	REAR AXLE, SPRINGS AND DRIVE	CHROME	49	BUMPER—REAR	CHROME		GEAR SHIFT LEVER		111	HOOD PORIS—LEFT
		SHAFT ASSEMBLY	BLACK	50	STEERING GEAR AND COLUMN	CHROME	79	HAND BRAKE	CHROME		FOLDED ROOF BRACKET—RIGHT
BLACK	22	BRAKE BACKING PLATE—REAR (2)	BLACK	51	SHOCK ABSORBER ARM—RIGHT	CHROME	80	SIDE COWL VENTILATORS-RIGHT	CHROME		FOLDED ROOF BRACKET—LEFT
BLACK	23	BRAKE DRUM (4)	BLACK		REAR	CHROME	81	SIDE COWL VENTILATORS—LEFT		114	CONVERTIBLE BOOT
BLUE	24	BRAKE DRUM RETAINING PIN (4)	BLACK	52	SHOCK ABSORBER ARM—LEFT	BLUE	82	BODY	CLEAR	115	BACKLITE
BLACK	25	STEERING ARM—RIGHT			REAR	BLACK	83	INSTRUMENT PANEL INSERT—FRONT	BLACK	116	ROOF—REAR
BLACK	26	STEERING ARM—LEFT	VINYL	53	TIRE (4)	CHROME	84	INSTRUMENT PANEL—FRONT	BLACK	117	ROOF
BLACK	27	BRAKE BACKING PLATE—FRONT (2)	WHITE	54	WHITEWALL INSERT (4)	BLACK	85	INTERIOR	CHROME		ERECTED ROOF BRACKET—RIGHT
BLACK	28	AXLE—FRONT	BLUE	55	WHEEL-INNER HALF (6)	BLACK	86	FRONT SEAT	CHROME		ERECTED ROOF BRACKET—LEFT
BLACK	29	WHEEL SPINDLE—FRONT (2)	BLUE	56	WHEEL—OUTER HALF (6)	CHROME	87	INSTRUMENT PANEL INSERT—REAR	BLUE	120	GOLD CUP BASE
BLACK	30	TIE ROD	CHROME	57	HUBCAP) (4)	BLACK	88	INSTRUMENT PANEL—REAR	GOLD	121	GOLD CUP