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The opening pages of

1974 Honda CB750 Restoration Guide

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Honda CB750 SOHC

Restoration Guide — 1974

CB750K4 · Single-Year Guide

Key specifications at a glance

Item	This year	Source
Model designation	CB750K4	
Engine	736 cc air-cooled SOHC inline four	M, spec rows 22–25
Bore × stroke	61 × 63 mm	M, row 24
Power / torque	67 hp @ 8,000 rpm / 44 lb-ft (60 Nm) @ 7,000 rpm	autoevolution; M rows 29–30
Brakes	Front disc / rear drum	M, rows 15–16
Exhaust	Four-into-four	M, architecture
Ignition	Battery + coil, points (no distributor)	M, row 55

Scope: Covers the 1974 model year only: CB750K4 (frame CB750-2300001 / 2341915 and up — see identification). The CB750A Hondamatic and post-1978 DOHC models are not covered.

What this is: a restoration companion to the Honda CB750 Shop Manual 1969–1978 — not a replacement for it. The factory manual carries the full wiring diagram and complete service procedures; this guide gives the correct sequence, model-year change points, verified specifications, and finishes and markings the manual does not document.

How to use this guide: identify your bike (page 2), read the running-change register for this year, then work through teardown, specifications, and reassembly. Every number is cited to its source.

About this guide

Covers the 1974 model year only: CB750K4 (frame CB750-2300001 / 2341915 and up — see identification).

IronHead publishes one guide per model year because adjacent CB750 years do not fully interchange: tanks, seats, brakes, electrics, and even engine internals changed year to year. Working from the wrong year's data is the most common cause of wrong parts and wasted money.

Conventions used in this guide: **M** = the Honda CB750 Shop Manual 1969–1978 (factory service manual), cited by spec-table row or manual page. Any figure that could not be verified in factory literature is marked **[UNVERIFIED — not in factory literature]** and must not be used as an ordering specification.

Caution: The Honda shop manual's publication/revision number is recorded in the source ledger where confirmed; where a revision is unspecified the manual is cited by its exact title and the PDF/spec-table locator.

Model identification

Confirm the bike matches this guide before ordering parts.

Item	This year	Source
Frame number	CB750-2300001 and up (commonly published); Honda Shop Manual foreword lists K4 from CB750-2341915	VintageCB750 / cb750.com / Carpy's; Honda Shop Manual foreword, PDF p.2
Engine number	CB750E-2300001 and up	VintageCB750 / cb750.com / Carpy's
Note	K4 frame and engine serials never exactly match on US bikes (owner-verified example: frame 2321660 / engine 2325320). Japanese domestic market K4: frame CB750-2400002~, engine CB750E-2341915~	sohc4.net owner reports (forums.sohc4.net topic 125492)

VIN decoding

- Frame numbers are stamped on the steering head; engine numbers on the crankcase.
- On US bikes the frame and engine numbers of the same bike do not exactly match — they are separate sequences.
- K models: frame prefix **CB750-**. F Super Sport: frame prefix **CB750F-**; engine prefix **CB750FE-**.
- A bike wearing parts from another year is a parts bike or a modified bike — restore to the year the frame identifies, not the year the parts suggest.

Year-change register — what changed for this year

Every entry below is a change FROM the previous model year, with the restoration consequence stated plainly. If a part is not listed here, assume it carries over — and verify against the specification tables.

Running change	Restoration impact	Source
K3→K4: fuel tank stripes changed	Paint/livery difference for concours — K3 stripe layout is not correct on a K4.	M, p.219; PDF p.213
K4 vs K3: different cylinder heads; gearbox indicator changes	Head and gearbox-indicator parts differ — order by year.	en.amklassiek.nl (marque press)
K4 production: around 60,000 units, one model year	High-volume year — parts availability is good.	autoevolution: Honda CB750 K4

Running change	Restoration impact	Source
K4 speedometer: increments of 20 (20, 40, 60, 80...)	Instrument detail for originality checks.	sohc4.net owner report (topic 125492) — unverified in factory literature

Engine specifications (fully cited)

Specification	Value	Year band	Source
Type	Air-cooled 4-stroke OHC, 4-cylinder in line	K0	M, rows 22–23
Bore × stroke	61 × 63 mm (2.401 × 2.480 in)	K0–K8, F/F1/F2/F3	M, row 24
Displacement	736 cc (44.93 cu in)	K0 (unchanged K0–K8 per register)	M, row 25
Compression ratio	9.0 : 1	K0 (no change recorded through K6)	M, row 26
Carburetor	Four, piston valve, 28 mm venturi (Keihin); setting mark 7A	K1–K4	M, rows 27, 85
Valve train	Chain-driven OHC, rocker arms, screw-and-locknut tappets	K0	M, row 28
Max power	67 hp @ 8,000 rpm	K0 (no change recorded K1–K6)	M, row 29; autoevolution
Max torque	44 lb-ft (60 Nm) @ 7,000 rpm	K0 (no change recorded K1–K6)	M, row 30; autoevolution
Lubrication	Forced pressure, dry sump; engine and gearbox share oil	K0–K8, F	M, rows 31–33
Oil capacity	3.5 L total incl. oil tank (oil tank 2 L)	K0–K8	M, rows 31–32
Valve clearance — intake	0.05 mm (0.002 in)	K0–K8, F/F1/F2/F3	M, row 35
Valve clearance — exhaust	0.08 mm (0.003 in)	K0–K8, F/F1/F2/F3	M, row 36
Valve timing	In 5° BTDC / 30° ABDC; Ex 35° BBDC / 5° ATDC	K0–K6	M, rows 41–44
Main jet / slow jet	#120 / #40	K1, K2, K4 (main); K1–K4 (slow)	M, rows 86–87
Float height	0.866 in / 26 mm (as printed)	K1–K4	M, row 89
Air screw opening	1 ± 3/8 turns	K1–K4	M, row 88
Idle speed	950 rpm	K1–K4, K6	M, row 84
Compression pressure	12 kg/cm ² (170.7 psi); normal tune-up range 150–170 psi	K1–K4	M, rows 40, 83
Clutch / transmission	Wet multi-plate; 5-speed, chain drive	K0–K8, F	M, rows 45–46
Primary reduction	1.708	K0–K7 (exc. K8/F3)	M, row 47
Gear ratios	1st 2.500 / 2nd 1.708 / 3rd 1.333 / 4th 1.097 / 5th 0.939	K0–K4, K6	M, rows 48–52
Final reduction	2.667 (18T drive / 48T driven)	K0–K4, K6	M, row 53

Electrical specifications (fully cited)

The factory wiring diagram itself is in the Honda shop manual. The table below is a supplementary inspection map — it does not replace the factory diagram.

Specification	Value	Year band	Source
Ignition system	Battery and ignition coil (points); no distributor	K0–K8, F (all SOHC)	M, row 55
Alternator	Three-phase AC, 12V 0.21 kW @ 5,000 rpm	K1–K8, F	M, row 90
Battery	12V 14 AH	K0–K8, F	M, row 58
Spark plug	NGK D8ES-L or ND X24ES	K1–K4, K6, K7	M, row 91
Spark plug gap	0.6–0.7 mm (0.024–0.028 in); thread 12 mm, reach 12.7 mm	All	M, rows 63–64
Tail/stop	12V 3/32 CP (SAE 1157)	K2/K3/K4	M, row 103
Turn signal	12V 32/32 CP (SAE R1034/L1073)	K2/K3/K4	M, row 104
Indicator lights	12V 2 CP (SAE 57)	K2/K3/K4	M, row 105
Position light	12V 4 CP	K2/K3/K4	M, row 106
Turn signal buzzer	Installed K2+ with buzzer stop button	K2+	M, p.207; PDF p.201
Starting interlock	Safety unit + clutch switch (K3+)	K3+	M, p.209; PDF p.203
Contact breaker	Hitachi; point gap 0.3–0.4 mm (0.012–0.016 in)	All SOHC	M, rows 65, 67
Condenser	0.24 μ F $\pm$ 10%	K0–K6	M, row 68
Spark advancer	Starts 1,000–1,150 rpm; full 2,300–2,500 rpm; 35°	All	M, rows 70–72
Firing order	1-2-4-3 (two breakers 180° apart: 1&4, 2&3)	All	M, row 73

Chassis specifications (fully cited)

Specification	Value	Year band	Source
Frame	Double cradle tubular steel	K0	M, row 10
Overall L×W×H	85.6 in / 2,175 mm × 34.3 in / 870 mm × 46.1 in / 1,170 mm	K2/K3/K4	M, rows 96–98
Seat height	31.9 in / 810 mm	K2/K3/K4	M, row 99
Dry weight	479 lb / 218 kg	K1–K4, K6	M, row 76
Front suspension	Telescopic fork; 141.5 mm travel (K3 spec carried)	K3	M, p.208
Rear suspension	Swingarm, dual shocks, preload adjustable (5 positions from K3)	K3+	M, p.208
Tires	Front 3.25-19 (4 PR) rib; rear 4.00-18 (4 PR) block; 28 psi both	K0	M, rows 13–14
Front brake	Single disc (disc cover fitted from K3)	K3+	M, p.208
Rear brake	179 mm drum; swept area 34.2 sq in (220.5 cm ²)	K2/K3/K4	M, rows 16, 100
Fuel capacity	4.5 US gal / 3.7 Imp gal / 17 L	K1–K4, K6	M, row 79
Fuel reserve	[UNVERIFIED — not in factory literature]: reserve listed for K0 (5 L); K1–K4 band states capacity only	K1–K4	Flag per blueprint
Trail	3.7 in / 95 mm	K1–K4, K6	M, row 80
Front fork oil (after draining)	5.3–5.4 oz / 155–160 cc	K2/K3/K4	M, row 101
Brake disc thickness	Std 0.272–0.279 in; service limit 0.217 in (5.5 mm)	All disc models	M, rows 205–206
Brake disc deflection	Max 0.004 in (0.1 mm); limit 0.012 in (0.3 mm)	All disc models	M, rows 207–208
Master cylinder	Bore 14.0–14.043 mm (limit 14.055); piston 13.957–13.984 mm (limit under 13.940)	All disc models	M, rows 209–210

Torque specifications (fully cited)

Specification	Value	Year band	Source
Camshaft holder cap	6.0–8.0 ft-lb (80–110 kg-cm)	All	M, row 153
Cylinder head mounting nuts	13.7–15.2 ft-lb (1.9–2.1 kg-m)	All	M, row 154
Connecting rod cap	14.5 ft-lb (2.0 kg-m)	All	M, row 155
AC generator mounting bolt	72.3 ft-lb (10 kg-m)	All	M, row 156
Spark plug (torque method)	1.2–1.6 kg-m (8.6–11.6 lb-ft); or finger-tight + 1/2 to 3/4 turn	All	M, rows 160, 235

Caution: Torque figures are as printed in the factory literature. Where the manual shows a discrepancy (e.g. K6 front-disc hardware: 270–230 kg-cm as printed), the conflict is preserved and labeled — never silently ‘corrected’.

Finishes, fasteners, and markings

K4 factory colors (autoevolution; sohc4.net owner report): **Flake Sunrise Orange, Freedom Green Metallic, Boss Maroon Metallic**. White, gold, and black tank stripes (changed from K3); smaller side covers than K0 without leading-edge slots; chromed upper fork; black headlight housing; larger taillight and turn signals than K1.

- K4 colors: Flake Sunrise Orange, Freedom Green Metallic, Boss Maroon Metallic; tank stripes changed from K3 (M, p.219).
- Chromed upper fork; black headlight housing; larger taillight and turn signals than K1 (autoevolution; sohc4.net).
- Fasteners: all threaded parts conform to ISO (not JIS) — do not mix standards (M, row 223).
- Preserve: frame and engine serial stampings, paint witness marks, inspection marks on fasteners.

Teardown sequence

Work in this order. Bag, tag, and photograph every fastener — the running-change register tells you which parts are year-specific.

1. Photograph the bike from every angle, then record frame and engine numbers before touching a bolt.
2. Drain fluids (engine oil, fork oil) into marked containers; note quantities and condition.
3. Remove seat, tank, and side covers; bag and tag every fastener with its location.
4. Disconnect the battery, then the wiring harness — label every connector before separating it.
5. Remove the exhaust system (four-into-four or four-into-one as applicable to this year).
6. Remove the wheels, brakes, and suspension; support the frame on a stand.
7. Remove the engine as a unit; only then split cases if a bottom-end rebuild is planned.
8. Strip the top end: cam, rockers, head, barrels — measure everything before deciding what is reusable.
9. Clean, inspect, and measure every component against the factory tolerances in this guide.
10. Reassembly is the reverse order, torquing fasteners to the figures in the torque table and setting clearances to the specification tables.

Reassembly sequence

- Bottom end first: crank, transmission, cases — torque to the table, check oil passages.
- Top end: barrels, pistons (stagger three-piece oil-ring gaps where fitted), head, cam timing per this year's valve-timing figures.
- Clutch, primary drive, and covers; set valve clearances 0.05 mm intake / 0.08 mm exhaust.
- Install the engine in the frame; fit suspension, wheels, and brakes.
- Wire the harness using the factory diagram; set points gap 0.3–0.4 mm and static timing.
- Fit tank, seat, and bodywork last — after the mechanical shake-down, not before.
- First start: oil pressure, no leaks, idle at this year's idle speed; re-torque the head after the heat cycle.

Tools required

- Metric socket and combination wrench sets (ISO-thread fasteners throughout).
- Torque wrench covering 6–72 ft-lb (cam caps through generator bolt).
- Feeler gauges (0.05 mm / 0.08 mm valve clearances).
- Compression tester; strobe timing light; multimeter.