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The opening pages of

1978 Honda GL1000 Restoration Guide

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Factory-Correct Restoration Guides

Honda GL1000 Gold Wing Restoration Guide — Model Year 1978

Engine <i>999 cc liquid-cooled SOHC flat-four</i>	Output <i>80 hp @ 7,500 rpm (period claim)</i>
Brakes <i>Dual front discs / single rear disc</i>	Weight / Tank <i>19 L tank under the seat; spoked 1975-77, ComStar 1978-79</i>

*Single-year edition — covers the **1978** model year only (GL1000 K3 - ComStar year). A companion to the Honda factory service manual, not a replacement: correct sequence, year-change points, measure-first checkpoints, finishes, fasteners and markings, parts interchange, and honest value guidance.*

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About this guide

This is a **restoration companion to the Honda factory service manual**, not a replacement for it. You need both: the manual gives the full teardown procedures, torque tables and the wiring diagram; this guide gives you the correct **sequence**, the **model-year change points**, what to **measure before you clean anything**, what **not to do**, the **finishes, fasteners and markings** that make a restoration factory-correct, parts interchange, and honest value guidance.

Every numeric value in this guide is cited to a source in the spec tables. Anything the cited literature does not give a number for is omitted or flagged [**UNVERIFIED — not in factory literature**]. We never invent specifications.

This is a **single-year edition**: it covers the **1978 GL1000 Gold Wing** only. Do not apply its year-specific details to other years.

Scope: GL1000 Gold Wing — model year 1978 (GL1000 K3 - ComStar year)

Honda Motor Co. — the context that matters

Honda Motor Co., Ltd. was founded in 1948 by Soichiro Honda — a mechanic who had designed his own piston rings in 1938 — and began building motorised bicycles before releasing its first true motorcycle, the Dream D-Type, in 1949. (autoevolution.com Honda background)

Through the 1960s Honda built its reputation on small, reliable motorcycles; the CB450 (1965) was Honda's first 'big' motorcycle, aimed at the British 500s (Wikipedia, Honda CB450). The 1969 CB750 then opened the superbike era.

For restoration purposes, Honda's pre-1975 naming matters: 'K0' marks the first version of a model, with K1, K2 etc. marking running revisions (American Honda Motorcycle Identification Guide, quoted on forums.sohc4.net). The K number does not always track the calendar year — check frame serials, not just the letter.

Model history — GL1000 Gold Wing

The GL1000 of 1975 was the first Gold Wing: a 999 cc liquid-cooled SOHC flat-four with shaft drive, four 32 mm Keihin CV carburetors, points ignition and a fuel tank under the seat - the visible 'tank' is a false tank hiding storage and the airbox (Randakk's Blog, GL1000 VIN codes explained (Honda parts documentation); Hagerty Valuation Tools).

It is an interference engine: the two rubber timing belts are age-limited, not mileage-limited, and a snapped belt bends valves. Belt replacement is the first job on any recommissioning.

Year shape of the run: 1975 (K0) launch with dark-green instruments; 1976 (K1) light-green instruments, Sulfur Yellow joins the colours, plus a limited LTD edition; 1977 (K2) 3-million serial series; 1978 (K3) ComStar wheels replace spokes; 1979 (K4) final year before the 1085 cc GL1100 (IronHead japanese-wave1 GL1000 research).

Most survivors wear period touring accessories Honda never fitted at the factory - a factory-correct restoration returns the bike to the naked motorcycle Honda built.

Model identification — confirm what you have

Frame prefix GL1 (stamped right side of steering head); engine prefix GL1E (left crankcase pad). Honda never built frame and engine numbers to match exactly - a small offset is normal and correct (Randakk's Blog, GL1000 VIN codes explained (Honda parts documentation)). US ranges: 1975 frame GL1-1000001-1020183, engine GL1E-1000001-1020645; 1976 frame GL1-2001483-2032613, engine GL1E-2001422-2038639; 1977-79 continue in the 3-million series (1977 GL1-30xxxxx, 1978 GL1-31xxxxx, 1979 GL1-32xxxxx sequence pattern from surviving-bike records). Carburettor IDs (US): 1975 = 755A, 1976 = 758A, 1976 LTD = 763A - one of the strongest originality checks on the bike. 1977-79 carburettor codes are [UNVERIFIED - not in factory literature as cited].

This 1978: GL1000 K3 - ComStar year. Frame serial reference: 3-million series, GL1-31xxxxx sequence pattern (surviving-bike records)

Year-correct equipment: Per the 1978 US colour chart - no year-specific colour names verified in the cited literature; confirm against the parts book for your VIN.

Confirm the serial block **before ordering parts** — especially brakes, wheels, carburettors and electrics, which are year-specific on this model. A bike titled as one year but carrying another year's major parts is common after 40–60 years; trust the stampings, not the title.

1978 at a glance: Dual 232 mm front discs, single 250 mm rear disc (period figures)

Year-change register — what changed for 1978

Running changes across the model run, with why each matters to a restorer. Rows marked for this year are the ones that affect **your** parts ordering.

- ComStar wheels replace spokes - the single most visible 1978 change. A 1978-79 bike on spokes, or a 1975-77 bike on ComStars, is not factory-correct.
- Trim and detail revisions; the core mechanical package (engine, shaft drive, brakes) carries over.
- Inspect ComStars for cracks and corrosion, especially around the rivets/bolts - a different inspection from spoke tension and rim true.

Verified spec tables — 1978 GL1000 Gold Wing

Every row cites its source. Rows flagged [UNVERIFIED] are printed as found, not as factory-verified. Year band: GL1000 K3 - ComStar year.

ENGINE

Spec	Value	Unit	Source / notes
Engine type	Liquid-cooled SOHC flat-four (boxer), 2 valves/cyl, rocker-arm actuation, screw-and-locknut adjusters		IronHead japanese-wave1 GL1000 research
Displacement	999	cc	IronHead japanese-wave1 GL1000 research
Bore x stroke	72.0 x 61.4	mm	IronHead japanese-wave1 GL1000 research

Spec	Value	Unit	Source / notes
Compression ratio	9.2:1		IronHead japanese-wave1 GL1000 research
Max power (period claim)	80 @ 7,500	hp @ rpm	IronHead japanese-wave1 GL1000 research
Max torque (period claim)	61 @ 5,500	lb-ft @ rpm	IronHead japanese-wave1 GL1000 research
Timing drive	Two rubber timing belts - INTERFERENCE engine; belts are age-limited		IronHead japanese-wave1 GL1000 research
Carburettors	4 x 32 mm Keihin CV; IDs 755A (1975), 758A (1976), 763A (1976 LTD)		Randakk's Blog, GL1000 VIN codes explained (Honda parts documentation)

ELECTRICAL

Spec	Value	Unit	Source / notes
Ignition	Contact-breaker points, two sets (1-2 base plate, 3-4 sub-plate), centrifugal advance		IronHead japanese-wave1 GL1000 research

CHASSIS

Spec	Value	Unit	Source / notes
Final drive	Shaft - inspect splines for dry wear		IronHead japanese-wave1 GL1000 research
Front brake	Dual discs, 232 mm (period figure)		IronHead japanese-wave1 GL1000 research
Rear brake	Single disc, 250 mm (period figure)		IronHead japanese-wave1 GL1000 research
Wheels	Spoked, aluminium rims (1975-77); ComStar (1978-79)		IronHead japanese-wave1 GL1000 research
Tyres	3.50-19 front / 4.50-17 rear, tube-type		IronHead japanese-wave1 GL1000 research
Fuel capacity	19 (5.0 US gal) - tank under the seat	L	IronHead japanese-wave1 GL1000 research

Restoration sequence

The GL1000's failure points cluster in five areas: timing belts, carburettors, the under-seat fuel tank, shaft-drive splines and electrical connectors. Bench order: document and identify, belts before any serious running, compression, engine, cooling, carburettor bank, ignition, shaft drive, chassis, brakes, finishes.

Step 1 - Document and identify

PREREQUISITE: the factory service manual for your year. System: whole bike. Record frame, engine and carburettor IDs. Frame and engine numbers were never built to match exactly - a small offset is correct. A carburettor ID that contradicts the year ends any originality claim until explained.

Step 2 - Timing belts, before anything else

PREREQUISITE: the factory service manual for your year. System: engine. **INTERFERENCE** engine. Do not run the engine hard - or at all beyond a compression check - until belt condition is known. Replace belts of unknown age, inspect tensioner rollers, align marks exactly per the factory manual, hand-turn two full revolutions and re-check every mark.

Step 3 - Engine and valves

PREREQUISITE: the factory service manual for your year. System: engine. Screw-and-locknut rocker adjusters - no shims. Adjust cold, cylinder by cylinder at TDC compression, using the factory manual's clearance figures. On 1976 engines, order camshaft parts against the engine number (change point GL1E-2028170).

Step 4 - Cooling system

PREREQUISITE: the factory service manual for your year. System: cooling. Flush completely, replace every hose, pressure-test the radiator, verify the thermostat. Neglected coolant corrodes the system from inside.

Step 5 - Carburettor bank

PREREQUISITE: the factory service manual for your year. System: fuel. Four Keihin CVs with single-cable linkage - treat as one system. Strip, ultrasonic-clean, keep each body's parts together, inspect diaphragms, bench-sync then vacuum-sync. Inspect the under-seat steel tank for rust at the same visit.

Step 6 - Ignition and electrics

PREREQUISITE: the factory service manual for your year. System: electrical. Two points sets: set gaps on the cam high point, time cylinders 1-2 on the base plate and 3-4 on the sub-plate, then iterate - moving a plate alters gaps. The stator connector block is the documented heat-failure point: inspect for melting; solder or re-house any heat-damaged connections. Electronic ignition conversions are modifications, not factory-correct.

Step 7 - Shaft drive and chassis

PREREQUISITE: the factory service manual for your year. System: drive/chassis. Change final-drive oil; inspect drive splines for dry wear - clean and repack with correct spline lubricant. Steering-head bearings, fork seals, twin rear shocks; spoked wheels trued (1975-77) or ComStars inspected for cracks (1978-79).

Step 8 - Brakes, reassembly, commissioning

PREREQUISITE: the factory service manual for your year. System: whole bike. Rebuild calipers and both master cylinders; replace every rubber hose. Reassemble in the order: frame, engine, shaft, cooling, bank, electrics, brakes, wheels, bodywork last. First start with oil-pressure verification, vacuum-sync warm, heat-cycle, re-check fasteners.

Finishes, fasteners & markings — the concours details

This is what separates a restoration from a repair. Get these right and judges notice; get them wrong and the bike reads as 'refreshed'.

- Year-correct colours and instrument faces are in Identification - dark green faces are 1975-only; verify paint under the side covers and inside the false tank.
- The 1975 exhaust (black, solid chrome shield, chrome tailpipe) is year-specific; later finishes differ.

- Wheel type is year-critical: spokes 1975-77, ComStar 1978-79. Never swap across the break and call it correct.
- Fasteners: metric JIS with location-correct finishes - use JIS screwdrivers. Preserve stampings; never re-stamp.
- Period fairings, bags and trunks are owner accessories, not factory fitment - a factory-correct GL1000 is naked.

Wiring

No generated wiring diagram appears in this guide — a text table is not a wiring diagram, and a wrong diagram is worse than none. Use the **factory service manual's year-correct wiring diagram** as your primary reference.

SUPPLEMENT — not a wiring diagram. Trace the factory service manual's year-correct wiring diagram for your bike. The table below maps the major circuits as an inspection aid only; wire colours vary by year and market.

From	To	Purpose
Battery (+)	Main fuse	Feed - points ignition needs a genuinely strong battery to spark while cranking
Main fuse	Ignition switch	Switched feed
Ignition switch	Coils / points (2 sets)	Ignition feed - base plate 1-2, sub-plate 3-4
Stator	Regulator / rectifier	Charging - stator connector block is the heat-failure point
Regulator	Battery (-) / frame	Ground return

Inspection checklist: battery terminals, main fuse holder, ignition switch contacts, coil connections, ground strap to frame/engine, charging connectors. Clean and dielectric-grease every connection you touch.

Tool list

Real tools, honest substitutes. JIS screwdrivers are non-negotiable on a Honda of this era.

Tool	Qty	Spec / example	Purpose
JIS screwdriver set	1	Vessel or Hozan JIS	Case and carburettor screws
Metric feeler gauges	1	-	Points gaps and valve clearances (factory figures)
Timing light / static timing lamp	1	-	Two-plate points timing
Compression tester	1	-	Baseline - after belt condition is known
Vacuum sync gauges	1	4-gauge set	Four-carburettor synchronisation
Cooling-system pressure tester	1	-	Radiator and hose integrity
Multimeter	1	-	Stator, regulator, grounds
Torque wrench	1	Low + mid range	Belt tensioners, heads, axles (factory table governs)

Troubleshooting — symptom → spec check