

VIN Decoder Worksheet

What each of the seventeen characters means under US federal rules, and the two traps that make a motorcycle VIN harder to read than a car one.

The structure below is federal law, not convention. Everything on this page comes from 49 CFR Part 565 and can be checked against it.

WRITE YOUR VIN HERE, ONE CHARACTER PER BOX

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
world manufacturer									check	year						

WHAT EACH POSITION MEANS

The 17-character VIN as defined for US-market vehicles in 49 CFR 565.15. Character positions count from the left.

POSITIONS	CONTAINS	NOTES
1-3	Manufacturer identifier	Position 1 is the country — L is China, 1, 4 and 5 are the United States. A 9 in position 3 signals a low-volume manufacturer, which changes where the serial number is
4-8	Vehicle attributes	For a motorcycle these must make the make, type, line, engine type and net brake horsepower decipherable
9	Check digit	Required on motorcycles. Values are 0-9 or X
10	Model year	See the warning below — on a motorcycle this character alone cannot fix the year
11	Plant of manufacture	
12-17	Sequential number	Unless a 9 sits in position 3, in which case 12-14 are part of the manufacturer identifier and only 15-17 are the serial

CHARACTERS A VIN CAN NEVER CONTAIN

I, O and Q are excluded from every position of a US VIN, precisely because they are confusable with 1, 0 and 0. If you have read one of those, look again. In the model-year character at position 10, U and Z are excluded as well, and there is no year coded 0.

WHERE THE REGULATION ACTUALLY PUTS THE VIN

WHAT THE REGULATION ACTUALLY REQUIRES, AND WHAT IT DOES NOT

49 CFR 565.13(e) requires only that the VIN appear clearly and indelibly on a part not designed to be removed except for repair, or on a permanently affixed plate. It does not name the steering head, and the well-known readability rule — visible without moving any part, 4mm characters — applies to cars and light trucks, not to motorcycles. Separately, 49 CFR 567.4(e) requires the certification label, which carries the VIN, to be as close as practicable to where the steering post meets the handlebars. That is where the steering-head belief comes from, and it is about the label rather than the stamping.

THE MODEL YEAR CHARACTER

Model-year character at position 10. The cycle repeats every thirty years, so each character has two possible years.

CHAR	YEAR	CHAR	YEAR	CHAR	YEAR
A	1980 / 2010	L	1990 / 2020	Y	2000 / 2030
B	1981 / 2011	M	1991 / 2021	1	2001 / 2031
C	1982 / 2012	N	1992 / 2022	2	2002 / 2032
D	1983 / 2013	P	1993 / 2023	3	2003 / 2033
E	1984 / 2014	R	1994 / 2024	4	2004 / 2034
F	1985 / 2015	S	1995 / 2025	5	2005 / 2035
G	1986 / 2016	T	1996 / 2026	6	2006 / 2036
H	1987 / 2017	V	1997 / 2027	7	2007 / 2037
J	1988 / 2018	W	1998 / 2028	8	2008 / 2038
K	1989 / 2019	X	1999 / 2029	9	2009 / 2039

ON A MOTORCYCLE, POSITION 10 CANNOT TELL YOU THE YEAR ON ITS OWN

The model-year character repeats on a thirty-year cycle: T is 1996 and T is also 2026. For cars and light trucks the regulation adds a tie-breaker in position 7, but that rule does not extend to motorcycles, so there is no federal way to resolve the ambiguity from the VIN alone. Confirm the year from the month and year of manufacture on the certification label, or from the title. A machine built before the 1981 model year may carry no standardised VIN at all.

YOUR DECODE

POSITIONS 1–3

Country and manufacturer identifier

POSITION 1 COUNTRY

L is China, 1/4/5 are the US

IS POSITION 3 A 9?

If yes, the serial moves to 15–17

POSITION 9 CHECK DIGIT

POSITION 10 CHARACTER

TWO POSSIBLE YEARS

From the table above

POSITION 11 PLANT

SERIAL NUMBER

YEAR CONFIRMED FROM

Label or title — not the VIN

ANYTHING THAT DID NOT FIT THE PATTERN

IF IT DOES NOT DECODE

Three different things produce a VIN that will not read. A transcription mistake is by far the commonest — try the alternatives for 8/ B, 5/S, 0/O and 1/I. A machine built before the 1981 model year predates the standardised seventeen-character format entirely. And some imported machines carry numbers that simply do not conform. None of those is the same as the machine being unrecorded.

Need to work out what you actually own?

The Scooter Parts Registry is a free public record of the Chinese factories behind US-market scooters, ATVs and go-karts — brand, engine family, VIN prefix, factory and related machines. No account, no email.

thescooterparts.com/identify