

Click to verify



























Gibson guitars to class re-issue models built to match the look and specifications of the guitar's earliest production runs from 1952 to 1960. In 1986, responding to the high demand for vintage models, Gibson formed a Custom Shop division. Originally, the Custom Shop began producing accurate reproductions of early Les Pauls, as well as one-off "Today" or "Custom Shop" products in "historic-spec" models, as well as signature artist models. The original Custom Shop artist models, such as the 1996 Joe Perry Les Paul, and later, several other models, were offered. "Relic'd" or "aged" models, branded by Gibson as "Vintage Original Spec" (VOS), are made of the Custom Shop to replicate well-used vintage guitars. As of 2017[update], Gibson offers several variations of the Les Paul guitar with differences in price, features, electronics and finishes. For example, the modern "Standard" offers split-coil pickups for a wider range of sounds. The "Traditional" model offers the more basic features of guitars available during the 1950s to 1980s, and the "Classic" model offers yet other features. "Special" and "Studio" models have a more basic level of finish and are lower-priced. These models are marketed as 'Gibson USA' guitars, capitalizing on their American heritage. The first model, simply called the "Gibson Les Paul", was released in 1952. This style has since been retroactively named "The Goldtop", as the model came only in one finish: an old gold solid paint, with two P-90 pickups and nickel plated hardware. In 1954, the Gibson Les Paul Custom was added to the model line. The Custom featured a solid black finish, gold-plated hardware, and other high-end appointments, including becoming one of the first Gibson models to have 3 pickups. The standard goldtop model received PAF humbucking pickups in 1957,[14] and the goldtop paint job was retired in 1958 and replaced with a two-tone translucent sunburst paint job. From 1958 onwards, this main model was known as the Les Paul Standard, nicknamed "the Burst", and is known for its high collectability. The original Les Paul body shape was retired in 1961 and radically redesigned as the Gibson SG (which for the first several years was known as the Les Paul SG, before Les Paul's endorsement deal ran out). In the mid-late 1960s, the unique tonal quality of the humbucker-equipped "Burst" models became a favorite among rock guitarists, and this renewed interest caused Gibson to bring back the Standard and Custom models in 1968. They have remained in production ever since, as well Gibson added a number of other model lines over the years, including budget/student lines such as the Les Paul Junior and Les Paul Special, studio-quality guitars with basic appointments but upgraded electronics, such as the Les Paul Professional and Les Paul Recording, and other short-lived models, including dozens of celebrity endorsed models. 1952–53 Goldtop with trapezoid bridge and a single P-90 pickup. 1953–57 Goldtop with stopbar bridge (graphically modified to describe original)1953–57 Goldtop with Tune-o-matic bridge and a stopbar tailpiece (2010s reissue)1957–58 Goldtop with PAF pickups (2002 reissue) The first Les Paul model Goldtops were produced from 1952 to 1957. Early 1952 Les Pauls were not issued serial numbers, did not have bound fingerboards, and are considered by some as "LP Model prototypes". However, later 1952 Les Pauls were issued serial numbers and also came with bound fingerboards. The design scheme of some of these early models varied. For instance, some early Les Pauls were fitted with black covered P-90 pickups instead of the usual cream-colored plastic covers. The weight and the tonal characteristics of the Goldtop Les Paul were largely due to the mahogany and maple construction. In 1953, the trapeze tailpiece was dropped, and a new stopbar design was added.[27] This design combined a pre-intonated bridge and tailpiece with two studs just behind the bridge pickup. This increased the sustain of the Goldtop noticeably; however, the intonation and string height adjustability were limited. A new design, the Tune-o-matic, replaced the stopbar in 1955. It consisted of a separate bridge and tailpiece attached directly to the top of the guitar, combining an easily adjustable bridge with a sustain-carrying tailpiece. This design has been used on most Les Pauls ever since. The tuners were produced by Kluson. Main article: Gibson Les Paul Custom 1954 Custom with P90 and Alnico pickups1960 Custom reissue with PAF pickups The Les Paul Custom features gold hardware, multilayer binding including the headstock, ebony fingerboard, real mother-of-pearl inlays and two or three-pickup layout. 1950s Customs were all-mahogany, rather than the mahogany-with-maple-cap of the Goldtop. The original Customs were fitted with a P-90 pickup in the bridge position and an Alnico V "staple" pickup in the neck. In 1957, the Custom was fitted with Gibson's new PAF humbucker pickups,[28][29] and later became available with three pickups instead of the usual two. The traditional Les Paul Custom was discontinued in 1961 and its name transferred to the custom version of the then-new Gibson SG. In 1968, Gibson redesigned the Les Paul Custom as a two-pickup model. The headstock angle was changed from 17 degrees to 14, and a wider headstock and a maple top (in lieu of the original 1953–1961 mahogany top construction) were added. White and two sunburst finish options were added to the color palette in 1974. Also new in 1974 was the optional TP-6 fine-tuner tailpiece, allowing for micro-adjustment of string tuning from the bridge. The mahogany neck was replaced with a three-piece maple neck in 1975 (though mahogany still saw limited use) with this change lasting until around 1982. Popular colors, such as wine red and "silverburst", were added in the 1970s and '80s. Gibson currently produces several Custom models with various finishes and pickups. See also: Flame maple § Gibson Les Paul Standard 1958 Gibson Les Paul Standard, owned by Martin AronistAllStarsGibson Custom 50th Anniversary 1959 Les Paul Standard (2009) In 1958, new Standard model retained most specifications of the 1957 Goldtop, including PAF humbucker pickups, a maple top, and a tune-o-matic bridge with a stop tailpiece or Bigsby vibrato tailpiece. The gold color used since 1952 was replaced by a cherry-red version of the Sunburst finish long used on Gibson's flat-top and archtop acoustic and hollow electric guitars. Since the maple cap was now visible, tops were made either with a solid "plaintop" piece of maple or two bookmatched pieces of figured (curly or quilted) maple. To differentiate from the earlier Goldtop model, the new Les Paul was referred to as The Les Paul Standard. Specifications during 1958–60 varied from year to year and also from guitar to guitar. Typical 1958 Les Paul Standard necks had a thicker neck, thinner frets and lower fret height, which changed during the course of 1959 to develop into typical 1960 necks with a thinner cross-section and wider, higher frets.[30][31] The cherry dye used on the 1958–59 models faded rapidly from ultraviolet light exposure, so in early 1960 Gibson switched to a new, fade-resistant formulation which was also less translucent and slightly more orange; this is sometimes called the "tomato soap burst". Fading of the original paint job was unpredictable, as the red color could either lighten or darken depending on the specific formulation and on the conditions the guitar had been exposed to, resulting in a wide array of nicknames, such as "lemon burst" or "tobacco burst", for the resulting colorations. Despite the wide variety of color variations now found on the original 1958–59 models, they all went to market with nearly identical paint jobs. Furthermore, during the production run, Gibson changed the color of plastic used on the pickup bobbins multiple times between black and white again; however during assembly, pickups were assembled semi-randomly, with no attention given to matching the two single-coil bobbins to each other when building the humbucking pickups; the guitar was sold with a nickel-plated pickup cover, so Gibson did not consider the color of the bobbins to be an aesthetic consideration. Additionally, since the translucent finish allowed the wood grain to show, each Sunburst model has a unique combination of finish fade, wood grain, and pickup colors resulting in a highly individualized guitar, adding to the collectability of the model. Many famous original Les Paul standards can be easily identified by their unique appearance. Paul McCartney playing a 1960 left-handed cherryburst Les Paul Original production of the Standards lasted from 1958 to early 1961. As Gibson only kept records on shipments of "Les Paul" models, and the Sunburst Standard overlapped production years with both the earlier Goldtop and later SG models, nailing down exact production numbers is difficult. Depending on the source, it is estimated anywhere from 1,200 to 1,700 of these early models were made and have subsequently become highly valuable.[31] Production ended in 1961 when Gibson redesigned the Les Paul to feature a "double cutaway" body, which has subsequently become the Gibson SG. The model was quietly reintroduced to dealers as early as 1972 before production of Les Paul Standards "officially" resumed in 1976 due to high demand.[32] They have remained in continuous production since then, as well as periodic reissues from the Gibson Custom Shop, using the original 1958–60 specs. Main article: Gibson Les Paul Junior 1958 Junior1959 TV reissue (Junior DC in TV Yellow) In 1954, the Les Paul Junior debuted, targeting the beginner or student guitarist. As a cost-saving measure, many of the appointments of the Standard and Custom models are absent from the Junior. The Junior is characterized by its flat-top "slab" mahogany body (in contrast to the carved maple top on other models), finished in sunburst. It had a single P-90 pickup (in contrast to the two- and three-humbucker pickup configurations on the more expensive models), simple volume and tone controls, an unbound rosewood fingerboard with plain dot-shape position markers, and a combination bridge/tailpiece unit similar to the Goldtop. In 1955, Gibson launched the Les Paul TV model, which was identical to the Junior except for the name and a fashionable contemporary "lined oak" style finish, later more accurately named "Ford Mahogany". This natural wood finish with white grain filler often aged into a natural wood or dull yellow appearance, and eventually evolved into the opaque mustard yellow, popularly called "TV yellow". The model was not, as a popular myth says, to avoid glare from old TV cameras, but a modern look and a name to promote "The Les Paul & Mary Ford Show" then on television. Gibson made a radical design change to their Junior and TV models in 1959:[33] to accommodate player requests for more access to the top frets than the previous designs allowed, these electric guitar models were revamped with a new double-cutaway body shape. In addition, Juniors were now available with a cherry red finish, while the re-shaped TV adopted a more yellow-tinged finish. 1956 Les Paul Special Singlecut in TV Yellow1960 Les Paul Special Doublecut ("SG Special") Main articles: Gibson Les Paul Special and Gibson Les Paul Doublecut The Les Paul Special was released in 1955, featuring a slab body, two soapbar P-90 single coil pickups, and was finished in a color similar to TV Yellow (but not called a TV model). It fit in the model line between the Junior and the Standard, having the two-pickup configuration of the Standard, but featuring the simpler, more basic appointments of the Junior. In 1959, the Special was given the same new double-cutaway body shape as the Junior and the TV received in 1959.[33] Around this time, Les Paul decided to discontinue his affiliation with Gibson; the model was renamed "SG Special" in the late 1959.[34] However, when the new design was applied to the two-pickup Special, the cavity for the neck pickup overlapped the neck-to-body joint. This weakened the joint to the point that the neck could break after only moderate handling. The problem was soon resolved when Gibson designers moved the neck pickup farther down the body, producing a stronger joint and eliminating the breakage problem. Main article: Gibson SG 1962 Les Paul Standard (SG Standard) In 1960, Gibson experienced a decline in electric guitar sales due to strong competition from Fender's comparable but much lighter double-cutaway design, the Stratocaster. In response, Gibson modified the Les Paul line. For 1961, the Les Paul was thinner and much lighter than earlier models, with two sharply pointed cutaways and a vibrato system. However, the redesign was done without Les Paul's knowledge, and he hated the design, so he asked Gibson to remove his name.[35] The double cutaway design retained the "Les Paul" name until 1963 when Les Paul's endorsement deal with Gibson ended. Without a contract, Gibson could no longer call its guitars "Les Pauls", and it renamed them "SGs" (for "Solid Guitars").[36] 1972 Deluxe with mini-humbuckers1970s Deluxe The Deluxe was among the "new" 1968–1969 Les Pauls and seen as an evolution of the Special.[37] This model featured "mini-humbuckers", also known as "New York" humbuckers, and did not initially prove popular. The mini-humbucker pickups fit into the pre-carved P-90 pickup cavity using an adaptor ring developed by Gibson in order to use a surplus supply of Epiphone mini-humbuckers.[38] The Deluxe was introduced in 1970 and helped to standardize production among Gibson's U.S.-built Les Pauls. The first incarnation of the Deluxe featured a one-piece body and slim three-piece neck (It has been thought that some of these early "one-piece" bodies were actually leftovers from original 1950s Les Paul parts). The multi-piece body (a thin layer of maple on top of two layers of Honduran mahogany) arrived later in 1969. Towards the end of that year, a reinforcing neck volute was added.[24] 1969 Deluxes feature the Gibson logo devoid of the dot over the "i" in Gibson. By late 1969/early 1970, the dot over the "i" had returned, plus a "Made In USA" stamp on the back of the headstock. Gibson produced 216 Deluxe Gold Top as specially-ordered guitars with full-size humbucker t-top pickups between 1972 and 1974 (179 in 1973, 28 in 1974 and 9 in 1972), as a Les Paul Standard pickup specification. [citation needed]tone) Until the end of the year 1974, 90% of the Gibson Les Paul Deluxe manufactured were Gold Top.[citation needed] New colors emerged from 1975, less valued than the Gold Top. By late 1975, the neck construction was changed from mahogany to maple. This lasted until the early 1980s, when the construction returned to mahogany. The body changed back to solid mahogany from the pancake design in late 1976 or early 1977.[citation needed] In 1985 Gibson discontinued the Deluxe model. The Les Paul Professional was produced from 1969 to 1971, it was a rare model as only around 118 were ever produced. Designed primarily as a studio guitar, it featured an unadorned dark-stained mahogany slab body with two low-impedance pickups mounted at an angle and a unique control layout that included not only the standard "rhythm/lead" switch, but also two toggles between the tailpiece and the volume/tone knobs that allowed for additional tone options. The low-impedance pickups required a special cable that included an on-board transformer. The model came with either a stop tailpiece or a Gibson-branded Bigsby vibrato tailpiece. Chicago guitarist Terry Kath used a Les Paul Professional both in the studio and on stage. The model was never popular, and was phased out in 1971 and replaced with the Les Paul Recording model, which itself was replaced in 1983 by the Les Paul Studio model. A few Professionals shipped in 1972 and 1973, though the catalogues had switched to the Recording model by then.[39] Les Paul playing his customized 1971 Les Paul Recording guitar The Les Paul Recording was produced from late 1971–1979 (the first models shipped in 1972). It was a slightly modified version of the Professional model, and featured the same low-impedance pickups and same body, though with a lighter-colored stain.[40] The control layout was changed, the rhythm/lead selector switch was moved near the other controls from the upper left to lower right side of the guitar body, and the tone control toggle switches were rotated 90 degrees. The plastic plate to label the switches and knobs was larger than the Professional model as well. Les Paul himself favored the Recording model among all of the guitars to bear his name; it was his main guitar during his years playing at the Iridium Jazz Club and other New York venues.[41][42] The model was re-issued in 2014. See also: Gibson The Paul Gibson The Paul A single sharp cutaway Les Paul style walnut body, set walnut neck, pearl dot inlays, walnut headstock overlay with gold Gibson logo (1978–1981) or Gibson logo branded into the headstock (1981–1982). Hardware included three-per-side tuners, stop tailpiece, two exposed humbucker pickups, four knobs (two volume, two tone), three-way pickup switch, chrome hardware, available in Natural Walnut finish. It was manufactured between 1978 and 1982. It included such high end items as Grover tuning keys and the Tune-O-Matic bridge. It has become affectionately referred to as "The Coffee Bean Burst" because of its natural finish. See also: Gibson Les Paul Studio Studio The Studio model was introduced in 1983, and is still in production. The guitar is intended for the studio musician; therefore, the design features of the "Les Paul Studio" are centered on optimal sound output and not on flashy appearance. This model retains only the elements of the Gibson Les Paul that contribute to tone and playability, including the carved maple top and standard mechanical and electronic hardware. However, the Studio design, until 2017, omits several stock Gibson ornamentations that do not affect sound quality, including body/neck binding. The first Studios from 1983 to 1986 were made with alder bodies rather than mahogany/maple.[43] The current[when?] Studios come with a chambered mahogany body with either a maple or mahogany cap. The entry-level Les Paul Studio "faded" has a weight-relieved mahogany body and top and a satin finish. In 2018 neck binding and a pair of Gibson's most popular humbucking pickups, 57 Classic and 57 Classic+, and two push-pull pots were introduced. In order to guarantee the stability of the tuning and an excellent sustain were introduced the Grover tuners, the self-lubricating nut and the aluminium tune-o-matic bridge.[44] Gibson also offered the Studio in a "standard" model. This variant was adorned with neck and body binding, ebony fretboard and sunburst paint job. All Studios at the time had dot fretboard markers and a thinner body, Gibson Memphis Black Beauty Gibson released the Memphis ES-Les Paul in 2014. It is a semi-acoustic model with F-holes and most with two Alnico humbuckers. There was a limited Custom Shop run of VOS Black Beauty ES Les Pauls with three humbuckers.[45] Some of these limited run guitars were also fitted with Bigsby tailpieces.[46] The neck is mahogany, but the sides and back are laminated maple and poplar. A mahogany block runs through the body to increase sustain.[47] The Les Paul Memphis ES was released with Gibson's MHS (Memphis Historic Spec) humbuckers.[48] These scatter wound pickups have unbalanced coils to emulate vintage PAFs. The bridge and middle pickups both have Alnico II magnets while the neck pickup houses an Alnico III. In addition to the factory-installed Bigsby B7 and retro 'Milk Bottle' Grover Rotomatics on some models, other vintage enhancements were added to the guitar. The neck features a Historic-style truss-rod, rolled fingerboard edges, and is fretted over top of the binding. The three-pickup wiring offers modern switching and employs Grover Drop capacitors for less treble-cut. Due to its limited run, the Memphis ES-Les Paul has become a sought-after and collectible Les Paul model. This section relies excessively on references to primary sources. Please improve this section by adding secondary or tertiary sources. Find sources: "Gibson Les Paul" - news - newspapers - books - scholar - JSTOR (October 2022) (Learn how and when to remove this message) The Gibson Les Paul HP - which stands for "High Performance" - was introduced in 2016,[49] intending to be a Les Paul version featuring the most modern features, like the G-Force automatic tuner, a compound radius fretboard, a titanium adjustable zero-fret nut, and a carved fast access neck heel, similar to the Access model. Each knob had a push/pull function allowing to split the pickups and transient suppression. The guitar came in a special hardshell case, with a polished aluminium finish. The model was slightly modified in 2017,[50] when the toggle-switch plate was removed, the knobs changed from ordinary speed knobs to chrome top hat ones, and the pickup rings changed from white to chrome. The model had a major change in 2018,[51] with the complete removal of the pickup rings - the pickups were now mounted at the back of the guitar, with two screws for each pickup. This change made pickup swap noticeably harder, demanding a modification of the mounting piece of each pickup, which had to be bent inward.[52] The model was again changed in 2019,[53] reversing the 2018 pickup ring removal. The knobs changed to transparent top hat ones, and the pickup rings were now chrome. The model was again changed in 2020, with the complete removal of the pickup rings. The model was again changed in 2021, with the complete removal of the pickup rings. The model was again changed in 2022, with the complete removal of the pickup rings. The model was again changed in 2023, with the complete removal of the pickup rings. The model was again changed in 2024, with the complete removal of the pickup rings. The model was again changed in 2025, with the complete removal of the pickup rings. The model was again changed in 2026, with the complete removal of the pickup rings. The model was again changed in 2027, with the complete removal of the pickup rings. The model was again changed in 2028, with the complete removal of the pickup rings. The model was again changed in 2029, with the complete removal of the pickup rings. The model was again changed in 2030, with the complete removal of the pickup rings. The model was again changed in 2031, with the complete removal of the pickup rings. The model was again changed in 2032, with the complete removal of the pickup rings. The model was again changed in 2033, with the complete removal of the pickup rings. The model was again changed in 2034, with the complete removal of the pickup rings. The model was again changed in 2035, with the complete removal of the pickup rings. The model was again changed in 2036, with the complete removal of the pickup rings. The model was again changed in 2037, with the complete removal of the pickup rings. The model was again changed in 2038, with the complete removal of the pickup rings. The model was again changed in 2039, with the complete removal of the pickup rings. The model was again changed in 2040, with the complete removal of the pickup rings. The model was again changed in 2041, with the complete removal of the pickup rings. The model was again changed in 2042, with the complete removal of the pickup rings. The model was again changed in 2043, with the complete removal of the pickup rings. The model was again changed in 2044, with the complete removal of the pickup rings. The model was again changed in 2045, with the complete removal of the pickup rings. The model was again changed in 2046, with the complete removal of the pickup rings. The model was again changed in 2047, with the complete removal of the pickup rings. The model was again changed in 2048, with the complete removal of the pickup rings. The model was again changed in 2049, with the complete removal of the pickup rings. The model was again changed in 2050, with the complete removal of the pickup rings. The model was again changed in 2051, with the complete removal of the pickup rings. The model was again changed in 2052, with the complete removal of the pickup rings. The model was again changed in 2053, with the complete removal of the pickup rings. The model was again changed in 2054, with the complete removal of the pickup rings. The model was again changed in 2055, with the complete removal of the pickup rings. The model was again changed in 2056, with the complete removal of the pickup rings. The model was again changed in 2057, with the complete removal of the pickup rings. The model was again changed in 2058, with the complete removal of the pickup rings. The model was again changed in 2059, with the complete removal of the pickup rings. The model was again changed in 2060, with the complete removal of the pickup rings. The model was again changed in 2061, with the complete removal of the pickup rings. The model was again changed in 2062, with the complete removal of the pickup rings. The model was again changed in 2063, with the complete removal of the pickup rings. The model was again changed in 2064, with the complete removal of the pickup rings. The model was again changed in 2065, with the complete removal of the pickup rings. The model was again changed in 2066, with the complete removal of the pickup rings. The model was again changed in 2067, with the complete removal of the pickup rings. The model was again changed in 2068, with the complete removal of the pickup rings. The model was again changed in 2069, with the complete removal of the pickup rings. The model was again changed in 2070, with the complete removal of the pickup rings. The model was again changed in 2071, with the complete removal of the pickup rings. The model was again changed in 2072, with the complete removal of the pickup rings. The model was again changed in 2073, with the complete removal of the pickup rings. The model was again changed in 2074, with the complete removal of the pickup rings. The model was again changed in 2075, with the complete removal of the pickup rings. The model was again changed in 2076, with the complete removal of the pickup rings. The model was again changed in 2077, with the complete removal of the pickup rings. The model was again changed in 2078, with the complete removal of the pickup rings. The model was again changed in 2079, with the complete removal of the pickup rings. The model was again changed in 2080, with the complete removal of the pickup rings. The model was again changed in 2081, with the complete removal of the pickup rings. The model was again changed in 2082, with the complete removal of the pickup rings. The model was again changed in 2083, with the complete removal of the pickup rings. The model was again changed in 2084, with the complete removal of the pickup rings. The model was again changed in 2085, with the complete removal of the pickup rings. The model was again changed in 2086, with the complete removal of the pickup rings. The model was again changed in 2087, with the complete removal of the pickup rings. The model was again changed in 2088, with the complete removal of the pickup rings. The model was again changed in 2089, with the complete removal of the pickup rings. The model was again changed in 2090, with the complete removal of the pickup rings. The model was again changed in 2091, with the complete removal of the pickup rings. The model was again changed in 2092, with the complete removal of the pickup rings. The model was again changed in 2093, with the complete removal of the pickup rings. The model was again changed in 2094, with the complete removal of the pickup rings. The model was again changed in 2095, with the complete removal of the pickup rings. The model was again changed in 2096, with the complete removal of the pickup rings. The model was again changed in 2097, with the complete removal of the pickup rings. The model was again changed in 2098, with the complete removal of the pickup rings. The model was again changed in 2099, with the complete removal of the pickup rings. The model was again changed in 2100, with the complete removal of the pickup rings. The model was again changed in 2101, with the complete removal of the pickup rings. The model was again changed in 2102, with the complete removal of the pickup rings. The model was again changed in 2103, with the complete removal of the pickup rings. The model was again changed in 2104, with the complete removal of the pickup rings. The model was again changed in 2105, with the complete removal of the pickup rings. The model was again changed in 2106, with the complete removal of the pickup rings. The model was again changed in 2107, with the complete removal of the pickup rings. The model was again changed in 2108, with the complete removal of the pickup rings. The model was again changed in 2109, with the complete removal of the pickup rings. The model was again changed in 2110, with the complete removal of the pickup rings. The model was again changed in 2111, with the complete removal of the pickup rings. The model was again changed in 2112, with the complete removal of the pickup rings. The model was again changed in 2113, with the complete removal of the pickup rings. The model was again changed in 2114, with the complete removal of the pickup rings. The model was again changed in 2115, with the complete removal of the pickup rings. The model was again changed in 2116, with the complete removal of the pickup rings. The model was again changed in 2117, with the complete removal of the pickup rings. The model was again changed in 2118, with the complete removal of the pickup rings. The model was again changed in 2119, with the complete removal of the pickup rings. The model was again changed in 2120, with the complete removal of the pickup rings. The model was again changed in 2121, with the complete removal of the pickup rings. The model was again changed in 2122, with the complete removal of the pickup rings. The model was again changed in 2123, with the complete removal of the pickup rings. The model was again changed in 2124, with the complete removal of the pickup rings. The model was again changed in 2125, with the complete removal of the pickup rings. The model was again changed in 2126, with the complete removal of the pickup rings. The model was again changed in 2127, with the complete removal of the pickup rings. The model was again changed in 2128, with the complete removal of the pickup rings. The model was again changed in 2129, with the complete removal of the pickup rings. The model was again changed in 2130, with the complete removal of the pickup rings. The model was again changed in 2131, with the complete removal of the pickup rings. The model was again changed in 2132, with the complete removal of the pickup rings. The model was again changed in 2133, with the complete removal of the pickup rings. The model was again changed in 2134, with the complete removal of the pickup rings. The model was again changed in 2135, with the complete removal of the pickup rings. The model was again changed in 2136, with the complete removal of the pickup rings. The model was again changed in 2137, with the complete removal of the pickup rings. The model was again changed in 2138, with the complete removal of the pickup rings. The model was again changed in 2139, with the complete removal of the pickup rings. The model was again changed in 2140, with the complete removal of the pickup rings. The model was again changed in 2141, with the complete removal of the pickup rings. The model was again changed in 2142, with the complete removal of the pickup rings. The model was again changed in 2143, with the complete removal of the pickup rings. The model was again changed in 2144, with the complete removal of the pickup rings. The model was again changed in 2145, with the complete removal of the pickup rings. The model was again changed in 2146, with the complete removal of the pickup rings. The model was again changed in 2147, with the complete removal of the pickup rings. The model was again changed in 2148, with the complete removal of the pickup rings. The model was again changed in 2149, with the complete removal of the pickup rings. The model was again changed in 2150, with the complete removal of the pickup rings. The model was again changed in 2151, with the complete removal of the pickup rings. The model was again changed in 2152, with the complete removal of the pickup rings. The model was again changed in 2153, with the complete removal of the pickup rings. The model was again changed in 2154, with the complete removal of the pickup rings. The model was again changed in 2155, with the complete removal of the pickup rings. The model was again changed in 2156, with the complete removal of the pickup rings. The model was again changed in 2157, with the complete removal of the pickup rings. The model was again changed in 2158, with the complete removal of the pickup rings. The model was again changed in 2159, with the complete removal of the pickup rings. The model was again changed in 2160, with the complete removal of the pickup rings. The model was again changed in 2161, with the complete removal of the pickup rings. The model was again changed in 2162, with the complete removal of the pickup rings. The model was again changed in 2163, with the complete removal of the pickup rings. The model was again changed in 2164, with the complete removal of the pickup rings. The model was again changed in 2165, with the complete removal of the pickup rings. The model was again changed in 2166, with the complete removal of the pickup rings. The model was again changed in 2167, with the complete removal of the pickup rings. The model was again changed in 2168, with the complete removal of the pickup rings. The model was again changed in 2169, with the complete removal of the pickup rings. The model was again changed in 2170, with the complete removal of the pickup rings. The model was again changed in 2171, with the complete removal of the pickup rings. The model was again changed in 2172, with the complete removal of the pickup rings. The model was again changed in 2173, with the complete removal of the pickup rings. The model was again changed in 2174, with the complete removal of the pickup rings. The model was again changed in 2175, with the complete removal of the pickup rings. The model was again changed in 2176, with the complete removal of the pickup rings. The model was again changed in 2177, with the complete removal of the pickup rings. The model was again changed in 2178, with the complete removal of the pickup rings. The model was again changed in 2179, with the complete removal of the pickup rings. The model was again changed in 2180, with the complete removal of the pickup rings. The model was again changed in 2181, with the complete removal of the pickup rings. The model was again changed in 2182, with the complete removal of the pickup rings. The model was again changed in 2183, with the complete removal of the pickup rings. The model was again changed in 2184, with the complete removal of the pickup rings. The model was again changed in 2185, with the complete removal of the pickup rings. The model was again changed in 2186, with the complete removal of the pickup rings. The model was again changed in 2187, with the complete removal of the pickup rings. The model was again changed in 2188, with the complete removal of the pickup rings. The model was again changed in 2189, with the complete removal of the pickup rings. The model was again changed in 2190, with the complete removal of the pickup rings. The model was again changed in 2191, with the complete removal of the pickup rings. The model was again changed in 2192, with the complete removal of the pickup rings. The model was again changed in 2193, with the complete removal of the pickup rings. The model was again changed in 2194, with the complete removal of the pickup rings. The model was again changed in 2195, with the complete removal of the pickup rings. The model was again changed in 2196, with the complete removal of the pickup rings. The model was again changed in 2197, with the complete removal of the pickup rings. The model was again changed in 2198, with the complete removal of the pickup rings. The model was again changed in 2199, with the complete removal of the pickup rings. The model was again changed in 2200, with the complete removal of the pickup rings. The model was again changed in 2201, with the complete removal of the pickup rings. The model was again changed in 2202, with the complete removal of the pickup rings. The model was again changed in 2203, with the complete removal of the pickup rings. The model was again changed in 2204, with the complete removal of the pickup rings. The model was again changed in 2205, with the complete removal of the pickup rings. The model was again changed in 2206, with the complete removal of the pickup rings. The model was again changed in 2207, with the complete removal of the pickup rings. The model was again changed in 2208, with the complete removal of the pickup rings. The model was again changed in 2209, with the complete removal of the pickup rings. The model was again changed in 2210, with the complete removal of the pickup rings. The model was again changed in 2211, with the complete removal of the pickup rings. The model was again changed in 2212, with the complete removal of the pickup rings. The model was again changed in 2213, with the complete removal of the pickup rings. The model was again changed in 2214, with the complete removal of the pickup rings. The model was again changed in 2215, with the complete removal of the pickup rings. The model was again changed in 2216, with the complete removal of the pickup rings. The model was again changed in 2217, with the complete removal of the pickup rings. The model was again changed in 2218, with the complete removal of the pickup rings. The model was again changed in 2219, with the complete removal of the pickup rings. The model was again changed in 2220, with the complete removal of the pickup rings. The model was again changed in 2221, with the complete removal of the pickup rings. The model was again changed in 2222, with the complete removal of the pickup rings. The model was again changed in 2223, with the complete removal of the pickup rings. The model was again changed in 2224, with the complete removal of the pickup rings. The model was again changed in 2225, with the complete removal of the pickup rings. The model was again changed in 2226, with the complete removal of the pickup rings. The model was again changed in 2227, with the complete removal of the pickup rings. The model was again changed in 2228, with the complete removal of the pickup rings. The model was again changed in 2229, with the complete removal of the pickup rings. The model was again changed in 2230, with the complete removal of the pickup rings. The model was again changed in 2231, with the complete removal of the pickup rings. The model was again changed in 2232, with the complete removal of the pickup rings. The model was again changed in 2233, with the complete removal of the pickup rings. The model was again changed in 2234, with the complete removal of the pickup rings. The model was again changed in 2235, with the complete removal of the pickup rings. The model was again changed in 2236, with the complete removal of the pickup rings. The model was again changed in 2237, with the complete removal of the pickup rings. The model was again changed in 2238, with the complete removal of the pickup rings. The model was again changed in 2239, with the complete removal of the pickup rings. The model was again changed in 2240, with the complete removal of the pickup rings. The model was again changed in 2241, with the complete removal of the pickup rings. The model was again changed in 2242, with the complete removal of the pickup rings. The model was again changed in 2243, with the complete removal of the pickup rings. The model was again changed in 2244, with the complete removal of the pickup rings. The model was again changed in 2245, with the complete removal of the pickup rings. The model was again changed in 2246, with the complete removal of the pickup rings. The model was again changed in 2247, with the complete removal of the pickup rings. The model was again changed in 2248, with the complete removal of the pickup rings. The model was again changed in 2249, with the complete removal of the pickup rings. The model was again changed in 2250, with the complete removal of the pickup rings. The model was again changed in 2251, with the complete removal of the pickup rings. The model was again changed in 2252, with the complete removal of the pickup rings. The model was again changed in 2253, with the complete removal of the pickup rings. The model was again changed in 2254, with the complete removal of the pickup rings. The model was again changed in 2255, with the complete removal of the pickup rings. The model was again changed in 2256, with the complete removal of the pickup rings. The model was again changed in 2257, with the complete removal of the pickup rings. The model was again changed in 2258, with the complete removal of the pickup rings. The model was again changed in 2259, with the complete removal of the pickup rings. The model was again changed in 2260, with the complete removal of the pickup rings. The model was again changed in 2261, with the complete removal of the pickup rings. The model was again changed in 2262, with the complete removal of the pickup rings. The model was again changed in 2263, with the complete removal of the pickup rings. The model was again changed in 2264, with the complete removal of the pickup rings. The model was again changed in 2265, with the complete removal of the pickup rings. The model was again changed in 2266, with the complete removal of the pickup rings. The model was again changed in 2267, with the complete removal of the pickup rings. The model was again changed in 2268, with the complete removal of the pickup rings. The model was again changed in 2269, with the complete removal of the pickup rings. The model was again changed in 2270, with the complete removal of the pickup rings. The model was again changed in 2271, with the complete removal of the pickup rings. The model was again changed in 2272, with the complete removal of the pickup rings. The model was again changed in 2273, with the complete removal of the pickup rings. The model was again changed in 2274, with the complete removal of the pickup rings. The model was again changed in 2275, with the complete removal of the pickup rings. The model was again changed in 2276, with the complete removal of the pickup rings. The model was again changed in 2277, with the complete removal of the pickup rings. The model was again changed in 2278, with the complete removal of the pickup rings. The model was again changed in 2279, with the complete removal of the pickup rings. The model was again changed in 2280, with the complete removal of the pickup rings. The model was again changed in 2281, with the complete removal of the pickup rings. The model was again changed in 2282, with the complete removal of the pickup rings. The model was again changed in 2283, with the complete removal of the pickup rings. The model was again changed in 2284, with the complete removal of the pickup rings. The model was again changed in 2285, with the complete removal of the pickup rings. The model was again changed in 2286, with the complete removal of the pickup rings. The model was again changed in 2287, with the complete removal of the pickup rings. The model was again changed in 2288, with the complete removal of the pickup rings. The model was again changed in 2289, with the complete removal of the pickup rings. The model was again changed in 2290, with the complete removal of the pickup rings. The model was again changed in 2291, with the complete removal of the pickup rings. The model was again changed in 2292, with the complete removal of the pickup rings. The model was again changed in 2293, with the complete removal of the pickup rings. The model was again changed in 2294, with the complete removal of the pickup rings. The model was again changed in 2295, with the complete removal of the pickup rings. The model was again changed in 2296, with the complete removal of the pickup rings. The model was again changed in 2297, with the complete removal of the pickup rings. The model was again changed in 2298, with the complete removal of the pickup rings. The model was again changed in 2299, with the complete removal of the pickup rings. The model was again changed in 2300, with the complete removal of the pickup rings. The model was again changed in 2301, with the complete removal of the pickup rings. The model was again changed in 2302, with the complete removal of the pickup rings. The model was again changed in 2303, with the complete removal of the pickup rings. The model was again changed in 2304, with the complete removal of the pickup rings. The model was again changed in 2305, with the complete removal of the pickup rings. The model was again changed in 2306, with the complete removal of the pickup rings. The model was again changed in 2307, with the complete removal of the pickup rings. The model was again changed in 2308, with the complete removal of the pickup rings. The model was again changed in 2309, with the complete removal of the pickup rings. The model was again changed in 2310, with the complete removal of the pickup rings. The model was again changed in 2311, with the complete removal of the pickup rings. The model was again changed in 2312, with the complete removal of the pickup rings. The model was again changed in 2313, with the complete removal of the pickup rings. The model was again changed in 2314, with the complete removal of the pickup rings. The model was again changed in 2315, with the complete removal of the pickup rings. The model was again changed in 2316, with the complete removal of the pickup rings. The model was again changed in 2317, with the complete removal of the pickup rings. The model was again changed in 2318, with the complete removal of the pickup rings. The model was again changed in 2319, with the complete removal of the pickup rings. The model was again changed in 2320, with the complete removal of the pickup rings. The model was again changed in 2321, with the complete removal of the pickup rings. The model was again changed in 2322, with the complete removal of the pickup rings. The model was again changed in 2323, with the complete removal of the pickup rings. The model was again changed in 2324, with the complete removal of the pickup rings. The model was again changed in 2325, with the complete removal of the pickup rings. The model was again changed in 2326, with the complete removal of the pickup rings. The model was again changed in 2327, with the complete removal of the pickup rings. The model was again changed in 2328, with the complete removal of the pickup rings. The model was again changed in 2329, with the complete removal of the pickup rings. The model was again changed in 2330, with the complete removal of the pickup rings. The model was again changed in 2331, with the complete removal of the pickup rings. The model was again changed in 2332, with the complete removal of the pickup rings. The model was again changed in 2333, with the complete removal of the pickup rings. The model was again changed in 2334, with the complete removal of the pickup rings. The model was again changed in 2335, with the complete removal of the pickup rings. The model was again changed in 2336, with the complete removal of the pickup rings. The model was again changed in 2337, with the complete removal of the pickup rings. The model was again changed in 2338, with the complete removal of the pickup rings. The model was again changed in 2339, with the complete removal of the pickup rings. The model was again changed in 2340, with the complete removal of the pickup rings. The model was again changed in 2341, with the complete removal of the pickup rings. The model was again changed in 2342, with the complete removal of the pickup rings. The model was again changed in 2343, with the complete removal of the pickup rings. The model was again changed in 2344, with the complete removal of the pickup rings. The model was again changed in 2345, with the complete removal of the pickup rings. The model was again changed in 2346, with the complete removal of the pickup rings. The model was again changed in 2347, with the complete removal of the pickup rings. The model was again changed in 2348, with the complete removal of the pickup rings. The model was again changed in 2349, with the complete removal of the pickup rings. The model was again changed in 2350, with the complete removal of the pickup rings. The model was again changed in 2351, with the complete removal of the pickup rings. The model was again changed in 2352, with the complete removal of the pickup rings. The model was again changed in 2353, with the complete removal of the pickup rings. The model was again changed in 2354, with the complete removal of the pickup rings. The model was again changed in 2355, with the complete removal of the pickup rings. The model was again changed in 2356, with the complete removal of the pickup rings. The model was again changed in 2357, with the complete removal of the pickup rings. The model was again changed in 2358, with the complete removal of the pickup rings. The model was again changed in 2359, with the complete removal of the pickup rings. The model was again changed in 2360, with the complete removal of the pickup rings. The model was again changed in 2361