

Fender

The 'American' sound: full sparkling clean tones and warm distortion for blues, country, surf and jazz.

Peavey classics and early Mesa Boogie amps based on classic Fender designs

Fender Twin



Photo Courtesy of Shawa Gogole

Fender Bassman



Marshall

Originally modelled on the Bassman. Made popular after use by Eric Clapton and Pete Townsend around 1965. Becomes synonymous with hard rock and heavy metal: Jimi Hendrix, KISS, Deep Purple etc. The Marshall 'stack' of two or more 4 x 12 cabs is a rock icon.

Vox AC30



Vox

Vox competed with Marshall in the 1960s with the Beatles being the most well-known of Vox enthusiasts. The AC30 remains a popular amp to this day.



Ampeg amps very popular with bass players but Fender, Vox and Marshall are the prized big three of amplification



The Line 6 POD amp modelling unit

Screenshot from Logic with amp modelling software plug-in



As important as your knowledge of the development of various technologies is **WHY** they developed and the subsequent influence of these developments

As soon as the electric guitar is invented, amps are required to boost the signal enough to drive a speaker

Don't get confused between the **amp** and the **speaker**—even though both are often inside the same wooden cabinet. The amp takes the signal from the electric guitar and boosts it. The speaker converts this back into energy to drive a speaker cone.

Late 1940s: Fender's early amps, known as **Woodies** due to their wooden construction become popular.

Most famous was 'Twin' which used two 12" speakers
1963: Blackface Twin is most popular of the series due to its warm sound

1952: Bassman introduced to partner the Precision. Became highly influential on future *guitar* amps

Early 1960s: Many guitarists like the Fender amps but want a more powerful and exciting sound. Jim **Marshall** looked to the Bassman for inspiration.

First 50-watt **Marshall** amp used four 12" speakers in a cabinet. Immediately bigger sound. Also Marshall valves distorted quicker and easier than **Fender**.

1965: Pete Townsend (The Who) asked Marshall for more power. Marshall obliged with 100W amp subsequently used by Hendrix and all rock/metal bands...

Guitar amps designed to allow guitarists to control the amount of **distortion** applied to the sound. Clean guitar sound is often undesirable (though not always—see the Shadows surf guitar in the 60s with better amps). Even in the 40s you can hear Charlie Christian's Gibson guitar pickups pushing the relatively weak amplifiers of the day

1951: Jackie Brenston's **Rocket 88** 1st record with 'real' distorted guitar. Producer Sam Phillips stuffed paper down the back—OR it fell out of the car on the way...

1964: Dave Davies of the **Kinks** slashes his speaker cone to produce distortion. He also overdrives his Vox AC30 combo amp. Listen to **You Really Got Me**

1960s: Distorted sound becomes more popular in Psychedelic era and **fuzzboxes** appear to get effect at lower volume

1970s: Marshall introduce **Master Volume** control to independently control input (**gain**) and output valves so distortion can be had at lower volumes

1970s: Mesa Boogie begin to produce popular amps. Cross between Fender and Marshall sounds. Based on souped-up Bassman with Fender Princeton cabinet

Although the tube technology was developed from radio and hi-fi guitarists want distortion—not high fidelity. Valves still the most popular choice despite drawbacks

Late 60s: Solid state technology (transistors) replace tubes in most electronic devices. Took a long time to catch up in the tone department...

Since the 1960s the search for increased amplification has been driven by need. The huge popularity of rock and pop means larger venues requiring larger amplification. Screaming audiences with inadequate PAs/amps led the Beatles to give up live performance.

Hard-clipping vs soft-clipping. Quality of distortion. Solid-state remains clean and then suddenly distorts instead of more natural progression of valves

Nowadays solid-state amplifiers have improved vastly although many still swear by tube amps.

Secondly, the search for increased amplification has been driven by aesthetic concerns. The effects of distortion—but also the effect on our ears of pure volume.

Amp modelling is becoming increasingly realistic with advanced hardware and software but has been going since **1982** when Tom Scholz from Boston (More Than a Feeling) manufactured the Rockman allowing DI guitar recording. In 1989 Tech21 brought out the first SansAmp—a pedal allowing 'realistic' guitar amp tones. Line 6 also used DSP (digital signal processing) to produce software the Amp Farm for Pro Tools that did the same. In the late **1990s** this led to the **POD** unit which is now very popular and successful. Now increased processing power means many amp modelling plug-ins such as Native Instruments' Guitar Rig and the ones that we use in Logic.

PTO for some classic amps...