Partscasters

by natthu » 03 May 2014, 04:27

There have been a few suggestions that we should have a thread for Partscasters.
As many of you would be aware, something I love to do is build (or more accurately, assemble) Partscaster guitars.
So I guess I'm probably a prime candidate to start the thread up....

My aim here is to perhaps catalog some of the knowledge I have gained from building these things (for my own benefit as much as others).
Hopefully I can help or inspire others who are considering building a Partscaster, but don't know where to start or what parts work together.
I think it would also be cool if others would contribute their knowledge and examples of their partscasters (ie I don't want this thread to be all about me)

I'm going to start off by just posting a pic of the Partscasters I currently have at arm's reach, I'll discuss their specifics later... and hopefully I'll start adding info soon.
Here are my current Partscasters (well, those which are not on loan to friends or at my house but burried somewhere in a guitar case):

EDIT: Explanation of the guitars in the pic... (from left to right)

Guitar #1: *'72 Deluxe* Telecaster

Body: Warmoth rear rout Tele (now heavily moddified), Mahogany with Black Korina top and black pin line.
Neck: Fender MIJ Jazzmaster neck. It came off of the body I used to make my Partscaster Jazzmaster XII (Pics and thread).
Pick Guard: Warmoth custom (I didn't want the upper toggle you find on a normal '72 Deluxe), 3-ply black-white-black.
Pickups: Seymour Duncan SH-2N Jazz (neck), Seymour Duncan SH-6 (bridge). Both switchable between Parallel and Series via the mini toggle switches near the Volume controls.
Electronics: Prewired harness with vintage caps made by a third company (I forget which one) for a Les Paul.
Hardware: Bridge is a Fender Strat hardtail, Tuners are the factory ones which came on the neck, as are the string trees.

This guitar has had a long evolving life. He started off as a 9 string with a modified Fender John 5 Tele neck, it had no pickguard (rear rout) so you could see more of that awesome Korina top.
I soon realised that a 9 string wasn't very useful for me, so it went through a few incarnations before I settled on the '72 Deluxe look.
I had to remove a lot of the wood under the pick guard near the controls to allow for the pick guard mounted pots. If you take both front and rear guards off there is just a huge messy hole right through the guitar.
Another thing to note is that this body has a Telecaster neck pocket, but the Jazzmaster neck on it has a Stratocaster heel (I'll discuss the ramifications of this later).
This is basically my "Les Paul" type guitar. It replaces the Gibson Les Paul I used to own but couldn't get along with (I'm just too much of a Fender guy I guess).

Rear View and detail of pin line on lower horn:

Guitar #2: *Hartail* Stratocaster

Body: Fender MIM Tom DeLoge Stratocaster, Surf Green.
Neck: Fender USA Highway One Stratocaster.
Pick Guard: Warmoth custom (I needed to exclude the Volume pot hole), Single ply white.
Pickups: Set of Fender MIM Tex-Mex (not wired typically, I'll discuss below).
Electronics: Fender 5-way switch (these are brilliant if you want to mod to an unusual spec), Pots are all CTS IIRC.
Hardware: Factory hardware which came on the body and neck respectively.

This guitar did not change from original conception to what it is now... which is rare for me. I am not a fan of Stratocasters, they just don't work well for me. So I decided to assemble a Strat with all the things which annoy me about them changed. I moved the volume to the first Tone position, as I always bump the (normal position) volume when playing a Strat, and have made the remaining tone control universal. I chose the hardtail body because I don't like the Strat tremolo system. Fortunately the Hardtail Tom DeLonge Strat comes in the colour I most wanted to use; Surf Green. I chose a single ply pickguard because it gives the Strat a more "old school" look IMO.
The other feature of note is that I have wired the pickups in a very non-typical manner. Normal strat wiring will let you choose 5 combinations of pickups: (forward position to back) Neck / Neck+Mid / Mid / Mid+Bridge / Bridge. The mid pickup is wired reverse so that you get a noise cancelling effect (this is why the single coils of a Strat when selected on their own are noisier). The Mid+Neck position is not pleasant to my ears so I have replaced that option with Neck+Bridge and reordered the positions as this: Neck / Mid / Bridge / Neck+Mid / Neck+Bridge. I've moved the combination options (the ones I use most) to the rear switch positions because I am less likely to knock the switch out of selection while playing. To retain the noise cancelling with each of the combination selections I swapped the neck and mid position pickups. I still get a good typical Strat sound out of this guitar despite the deviations from a standard Strat.

Guitar #3: *Hotrail* Telecaster

Body: Fender USA Highway One, 3 Tone Sun Burst.
Neck: Fender USA 50th Anniversary Esquire "Telecaster".
Pick Guard: Custom from an eBay seller. It's made of bakelite instead of plastic (old school) and has a paisley design etched into it which is then painted gold to match the hardware.
Pickups: Set of Seymour Duncan Hotrails for Telecaster.
Electronics: Volume control and a Les Paul style 3 way toggle pickup select switch. No tone.
Hardware: All gold. I used Fender tuners, string tree, output socket and ferrules, but had to go with third party options for the bridge (6 saddle) and control plate (non standard holes).

This one also evolved over a long time period, but It hasn't changed for a while now. I basically wanted another Tele that looked like the Highway One model I already owned, but I wanted it to have a hot output. The Seymour Duncan Hotrail Pickups are excellent because they allow you to maintain the normal single coil look of a Tele (you still lose the chrome neck cover) and use standard Tele hardware. Installing normal Humbuckers on a standard tele requires a lot of modification to the body, pickguard and bridge. The pickguard was a serendipitous find which replaced a single ply black plastic guard (which had zero mojo - pic). I spotted the new guard when I was looking for a bakelite pickguard for another project (an Esquire partscaster. pics). The neck on this Tele was originally intended for that Esquire project (previous neck is shown in the pic with "zero mojo" linked above). I originally had the neck from the Bigsby Tele on this one, but found its lack of vintage tint didn't work well with this guitar's colour scheme.

Guitar #4: *Bigsby* Telecaster

Body: Warmoth Standard Telecaster replacement, no bridge rout, Candy Turquoise finish.
Neck: Fender USA Highway One Telecaster.
Pick Guard: Fender Highway One (from my normal Highway One Tele which now has a Black guard instead).
Pickups: Fender noiseless pickups (neck is an N3, I think the bridge is an older N1)
Electronics: Standard Tele set up, I think this was a pre-wired harness (pre-wired harnesses are great if you're looking for a standard configuration and don't particularly enjoy soldering).
Hardware: All Fender except for the Bigsby B5 trem and bridge unit. The four farthest tuners are the (properly matching) short stem type. I had them left over from another project.

I had wanted a Tele with a Bigsby for quite some time, and had even had a couple of prototype attempts at making one. The Telecasters with Bigsby trems available tend to have binding on the body which is something I'm not particularly fond of. I also discovered that the Bigsby B5 units with the Fender "F" logo are specifically made for Telecasters with binding. If you fit them to a Tele with normal radius round edges, the "F" Bigsby unit will overhang the radius (that's why I used the generic "Bigsby" B5 on this build). I had to have the body custom built because standard Fender Tele bodies are drilled for string-through set up. The Bigsby anchors the strings in the trem unit, so with a normal body you'd be left with unused holes through the body. Another plus of having the body custom

made is that you get to choose a colour which may not be otherwise available... I am a big fan of Turquoise on guitars, but it's a rare Fender colour. I chose to use the noiseless pickups out of curiosity more than necessity, they are quieter than a normal Tele, but not enough that I'd bother specifically using them again (it's also interesting to note that the newer N3 pickup is quieter than the older N1). A down side of the Warmoth body was that they do not rout for a Bigsby unit, so I was left to align it and drill all the screw holes myself. This was a little nerve racking, but I took my time and made sure I did it all right. I'm very happy and relieved with the way it turned out.

natthu

Re: Partscasters

by **Laurie** » 03 May 2014, 05:02

Lovely strat...

Laurie

Re: Partscasters

by **Dirk** » 03 May 2014, 09:39

I dig that sunburst Tele, what pu's are in there?

Dirk

Re: Partscasters

by **natthu** » 03 May 2014, 12:56

Dirk, they are Seymour Duncan hot-rails for Tele.
They give you a good solid hot humbucker-like performance, but they can be used with standard Tele hardware and routing.
So you can turn your twangy Tele into a roaring/screaming machine... or just give it some "oomph".
I did have to file just a tiny bit off of the round part of the pup hole to fit the neck pup loosely (it would still fit without filing but the material covering the coils would be jammed up against the pickguard).

natthu

Re: Partscasters

by **Dirk** » 03 May 2014, 16:36

I asked this cause I still have a parts tele with lil' buckers on my to-do list. I'd like to be able to also coiltap 'em for single coil sounds.

Dirk

Re: Partscasters

by **Laurie** » 03 May 2014, 17:12

I just bought a DiMarzio "chopper" for the neck in my HM strat. It is tappable. Will let you know how it sounds once installed.

Laurie

Re: Partscasters

by **ChristoMephisto** » 03 May 2014, 21:10

Love the blue Tele with the Bigsby

ChristoMephisto

Re: Partscasters

by **natthu** » 04 May 2014, 02:51

> *Dirk wrote:*
> *I asked this cause I still have a parts tele with lil' buckers on my to-do list. I'd like to be able to also coiltap 'em for single coil sounds.*

As an alternative to tapping, I would suggest that you also consider wiring each pickup for series/parallel switchable (that's how the first guitar in my pic is wired).
Series gives you single coil-like tones but won't drop as much of the volume as tapping (because you're still using both coils).
That way you can use a combination of humbucker and single coil sounds and they will be better balanced.

I usually use my bridge pup in series and my neck pup in parallel. It gives it a nice full sound that isn't just full on humbuckers.

natthu

Re: Partscasters

by **natthu** » 04 May 2014, 03:04

> *Laurie wrote:*
> *I just bought a DiMarzio "chopper" for the neck in my HM strat. It is tappable. Will let you know how it sounds once installed.*

Unfortunately my pickup experience only involves Fender and Seymour Duncan, I've not tried any DiMarzio pups yet.
The DiMarzio Chopper looks like more or less the same thing as an SD Hotrail. I wonder how different they sound?
Might have to look up the specs and see if they actually are similar on paper as well.

natthu

Re: Partscasters

by **natthu** » 04 May 2014, 03:08

> *ChristoMephisto wrote:*
> *Love the blue Tele with the Bigsby*

Cheers Christo,

The colour isn't well represented in my photo (it was taken about noon, so the colours are flattened due to the harsh sunlight).
It's actually "Candy Turquoise", so it's got a hint of green which isn't apparent in the pic, and it also has a very very subtle metallic finish.
It's difficult to photograph unfortunately.

natthu

Re: Partscasters

by **natthu** » 04 May 2014, 05:35

Added a bunch of info specific to those guitars to the original post.

I mainly use Fender guitar models to base my partscasters on, but a lot of this can apply to other brands/models too.
If anyone thinks it might be helpful, I plan to cover these specific things soon:

- Neck pocket / Neck Heel compatibility (and available types).
- Scale length and how to change it.
- Hardware compatibility and the differences between vintage and modern types.
- Third party parts (how to avoid the rubbish stuff).
- Licensed third party parts (such as Warmoth and Allparts).
- Making unconventional/non-standard parts work without destroying your guitar.
- Installing a Bigsby (I can cover a couple of different methods).
- Installing a Roland GK type MIDI pickup.

There's other stuff I'll think of, and if anyone has any questions about something not mentioned, I may be able to answer those too.

natthu

Re: Partscasters

by **Dirk** » 04 May 2014, 12:28

Very informative so far!

Dirk

Re: Partscasters

by **ChristoMephisto** » 04 May 2014, 13:18

Still great looking Tele.

Didn't know that about the Bigsbys and the differences.
My F logo'd one is pretty tight against the tail end, about a 1/16" before the curve.
I switched my arm for a longer Chet Atkins one, gives it more range

ChristoMephisto

Re: Partscasters

by **natthu** » 04 May 2014, 13:37

Christo, you've done well to get your F Bigsby on with room to spare would love to see a pic with the Chet arm...
I've considered doing similar myself.

natthu

Re: Partscasters

by **visserman** » 08 May 2014, 18:37

Natthu,

great thread.
I like that Tele with Mahogany top, this while Teles sound dense acoustically anyway compared to Strats.

Have you tried hardware of different companies? Can you hear much difference?

The Strat wiring, I have this as well on a Lead Two, this guitar does have an extra third pick-up (Van Zandt True Vintage), the standard Lead Two does have two pick-ups. The previous owner did convert to a Strat-kind-of guitar. Neck and Bridge is a great combination. The Lead Two also has option of all three pick-ups, which is not a great sound really. A Les Paul with three pick-ups anyone.....??

It seems that you carefully considered all your options and went from there. Probably did a bit of experimentation before you come to those results.

Have you experimented a great deal with type of woods?
Do you think it is hard to get a consistent guitar?---a guitar which sound amplified is more or less similar to how it sounds acoustically--- My Gold Strat is like that, similar to the Les Paul Custom, both guitars have dense type of woods, are fairly heavy, and sound somewhat alike. I tend to think the type of wood is one of the reasons. Of course the Strat is a bit brighter, but it does have such a similar sound as to the Les Paul.

How much does the neck contribute to the sound of the guitar? I guess a lot of people change necks because of feel, just wondering how much it contributes to the overall sound. The body certainly seems to contribute more to your sound, next to type of pick-ups and from there is seems to be details.....

visserman

Re: Partscasters

by **natthu** » 11 May 2014, 14:15

> *visserman wrote:*
> *Have you tried hardware of different companies? Can you hear much difference?*

I haven't really noticed a difference in amplified sound between different brands or quality of hardware, but I do think the better stuff gives the guitar a far superior solid feel, and a better sound acoustically.

> *visserman wrote:*
> *The Lead Two also has option of all three pick-ups, which is not a great sound really.*

Yeah, I used to own a Danelectro U3 which is a pretty cool guitar, but it had an all on switch which used all three pickups... it didn't sound great. For starters you lose noise cancelling, and it also became a little muddy.
I don't think it's a particularly useful configuration. I'm more of a neck+bridge pickup combo guy anyway.

> *visserman wrote:*
> *Have you experimented a great deal with type of woods?*

Yes, but mainly on necks. I have an Warmoth all Wenge neck, and also another made from Goncalo Alves. Both woods do not require a finish, so they can be left raw. I heartily recommend trying a raw neck if you haven't... they feel fantastic. Different woods will give you slightly brighter or darker sound. Warmoth has a good information section where it gives you a chart and some description of what sonic properties different woods possess.

> *visserman wrote:*
> *Do you think it is hard to get a consistent guitar?---a guitar which sound amplified is more or less similar to how it sounds acoustically--- ....dense type of woods, are fairly heavy, and sound somewhat alike. I tend to think the type of wood is one of the reasons.*

Yes, I'd have to agree with you there. My Mahogany Tele is much more consistent than my Strat (which I think is Swamp Ash?). In any case the tele is a much more solid feeling guitar with denser wood.

> *visserman wrote:*
> *How much does the neck contribute to the sound of the guitar? I guess a lot of people change necks because of feel, just wondering how much it contributes to the overall sound. The body certainly seems to contribute more to your sound, next to type of pick-ups and from there is seems to be details.....*

I haven't really noticed any difference in sound worthy of mention between the necks I've used. The body wood does seem to effect the tone/sound more than anything else (other than pickups)

natthu

Re: Partscasters

by **visserman** » 11 May 2014, 14:51

Thanks Natthu,

I think an exchange in guitars would be great instead of pedals, but that is another matter.....

It is good that you mentioned "amplified tone" because sometimes the acoustic tone can be a bit different from the one which is coming out of your amp.

visserman