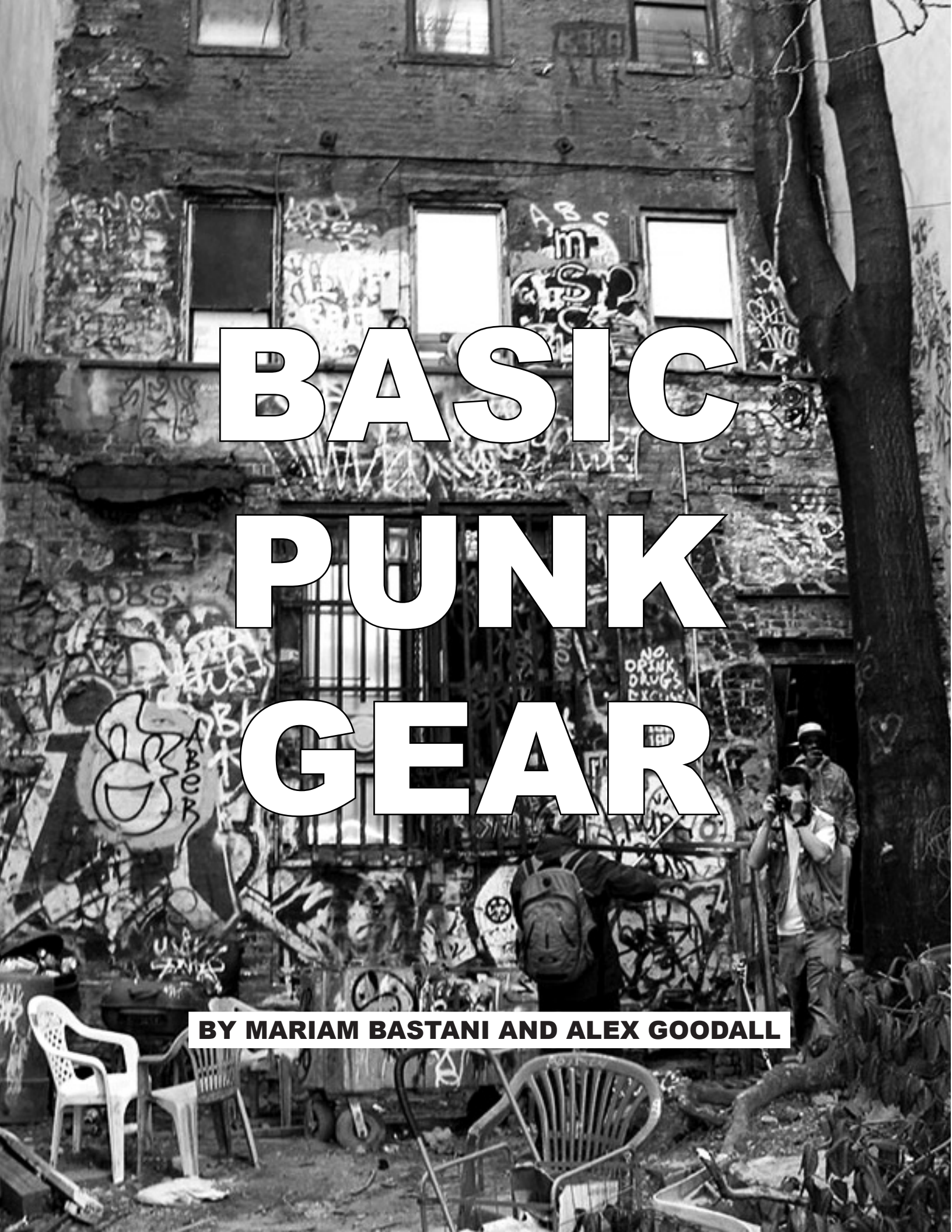

BASIC
PUNK
GEAR
BY MARIAM BASTANI AND ALEX GOODALL

DIY is the way punk survives. As punks we are our own experts and historians. We may not have formal training, but we know how we want things to look and sound, so embrace it. The focus of this is to have very basic knowledge of what we Punks usually use to make noise. Here are some basics.

BACKLINE

Backline in North America is usually Drum shells and hardware, Guitar cabs (guitar and bass). If you have two guitars or singers in the band or keyboards, make sure to ask if the back line will include the items needed to accommodate that.

Backline can mean something different in other countries so make sure to ask what that includes if you tour around! Don't be an imperialist jerk and assume positives or negatives, you are a guest. Have respect. The PA is separate, but usually implied that it's at the show space, but maybe ask about mics.

Nothing else should be expected to be included including cables, drum breakables, instruments, Amps. So make sure you have the stuff you need to make the show happen.

Venue pics are ABC No Rio in NYC

DRUMS

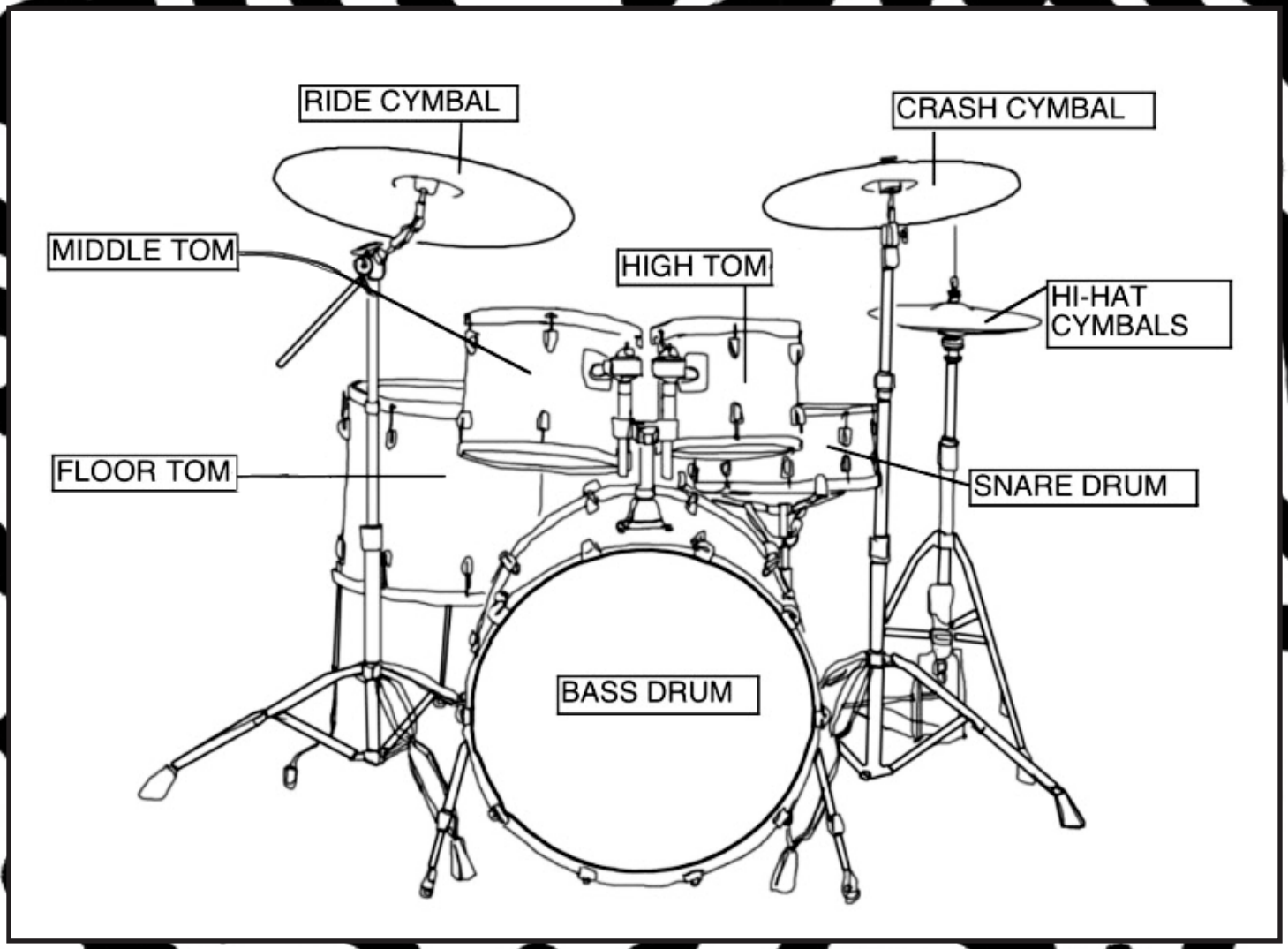
They are bulky and heavy and take longest to set up. Each drummer has unique details in their way of setting up, but the placement is usually pretty basic so you can loosely set up the drums so that they are ready to go. Make sure to find out if a drummer of right or left handed because that will change the set up. All the images I am using here is all for a right handed drummer.

TWO ITEMS that are necessary, but under appreciated.

CARPET:
This is an often overlooked unofficial part of the kit by folks who do not play drums, but one that makes a huge difference. The carpet prevents the drums from moving around the floor while they are churning out some nasty beats. Punks usually use an old carpet that is large enough to accommodate the whole drum kit with some room to spare. Don't forget to run any extension cords or cables that run from the from the front of the band to the back underneath the carpet. This is for safety and to reduce anyone fucking up the cables.

WEIGHT for the front of the bass drum:
This could be cinder blocks or anything really, just as long as it is heavy enough to keep the bass drum from lurching forward while being played because it WILL happen. The carpet isn't enough to keep the bass drum in place, so this is important. Eliminate delays and a break in the magic that is a ripping set by making sure what ever item you can find is heavy enough.

THE DRUM KIT CAN BE DIVIDED INTO FOUR PARTS:
Shells: Bass drum and toms.
Hardware: Cymbal stands and drum stands.
Breakables: hi-hat clutch, cymbals, snare drum, throne (stool), bass drum pedal, and sticks.
Extensions: Cowbell, tambourine, instruments not part of the standard kit. Let the drummer handle these.



DRUM KEY: Most all drummers will have one of these on them. It's good to locate one before the show starts, just in case.

SHELLS: This is your building block. The diameter and height of drums all vary and they can be adjusted in many ways, but here is a Basic set up.

BASS DRUM: This is the big one. The bass drum has two turnkey adjustable legs on either side that prevent the drum from moving. This is the one that goes in the middle and pretty much determines most of the set up. Make sure you pick the correct side of the bass drum to sit in front of the drummer. Sounds weird but it happens and will mean moving a bunch of stuff around to fix it. An easy cheat is to look where the legs are mounted. The legs are always closest to the front part of the drum that faces out to the audience.

FLOOR TOM: This is the bigger of the toms that has removable, turnkey adjustable legs. It's like a spider with less legs. This drum sits to the right of the bass drum.

TOMS: These are the smaller drums that are usually mounted on the bass drum by a metal post. The smaller one is the "high" tom and the bigger one is the "mid" tom named after the sounds they make because of their size just like the other drums. The smaller of the two is usually on the left and the larger one on the right. Just attach them to the post as such and the drummer will adjust them. Sometimes folks have racks, but it's exactly what it sounds like, drums mounted on a rack.

BREAKING SKINS: This is a bad situation. Often there isn't much you can do if no replacement is available. If the Bass drum blows, you can Duck tape an old record cover over the hole and play on that. It will last maybe the show.

STANDS

We usually use a Snare Stand, Hi-hat Stand, Crash Cymbal Stand, Ride Cymbal Stand. Stands can vary in their method of adjustment, most have a turnkey, some you twist, but they generally work under the same principals, lefty loosey, righty tighty. Simple. MAKE SURE you have the top screws and felts for the cymbal stands or the cymbals can easily fly off and get fucked up or the drummer will have difficulty playing from being too loose. If not, improvise.

SNARE STAND: This stand usually folds in and out like a an opening hand and closing hand. It needs to be adjusted for height, angle and grip around the snare. Usually sits to the left of the bass drum.

HI-HAT STAND: This one can be a bit tricky as it has moving parts, but all you need to remember is that one part of the stand stays static while the other part needs to move up and down. There is a tube that holds a rod inside that is activated by a foot pedal. The rod can be unscrewed to reduce the height for storage. Also, part of the pedal can be squeezed and unhinged to lay flat. The whole stand can be adjusted for height in several places. Usually sits to the outer left of the snare stand.

CRASH STAND: The simplest of stands that holds the crash and has several areas to adjust height. Usually sits on the outer left side, between the hi-hat stand and the bass drum.

RIDE STAND: This one is much like the crash stand, but it has a long adjustable arm on top that is meant to sit partially over the floor tom. Usually sits to the outer right between the floor tom and bass drum.

BREAKABLES

These are items that can be broken easily and expensive to replace.

CLUTCH: This is a hotly debated piece, but one that can make or break a whole show. It is often assumed as part of the back-line, but I find drummers can be sensitive about this one, so it's best to make sure if a drummer has one with them or needs one to arrange it ahead of time. This is the little piece that holds the top hi hat cymbal on the hi hat rod in the stand to move it up and down. It has two areas of adjustment, one is a screw and nut that you attach to the top hi hat cymbal and the other part that attaches and tightens to the hi-hat stand rod. The clutch also has felt rings that can easi-ly be lost.

CYMBALS: Punks usually use the trinity: Hi-hats, Crash and Ride. The easiest way to tell them apart is size.

RIDE: This is usually the biggest cymbal that goes on the ride stand over the floor tom on the right.

CRASH: This cymbal sounds like it is named. It is usually the middle size of the three and goes on the Crash stand on the left.

HI-HATS: These are the smaller ones and come in a pair. The heavier of the two is on the bottom and sits on the little felted platform with the rod going through the middle. The lighter top hi-hat cymbal gets the clutch which has a nut and screw to attach to the cymbal. Once the clutch is firmly attached to the cymbal, you thread the whole thing through the rod on top of the bottom cymbal. It will look sorta like a clam. As punks, we often piece our shit together, so if you have no idea. Just set the pair of cymbals at the foot of the stand and put the clutch on the top of the hi-hat stand rod and let the drummer figure it out.

SNARE: This is the drummers baby. They are all different, but are usually in the same spot on the left of the bass drum on the snare stand. Some of these have a little release gate that loosens the snare wires at the bottom so that they aren't always under tension. If you encounter one of these, just be careful not to catch the wires on anything.

THRONE: This is the stool the drummer sits on. There is usually one at a show, but again, each drummer is different. These adjust in at least one place for height. You know where it goes.

BASS DRUM PEDAL: These vary a ton, but they almost always attach to the bass drum with a turnkey screw. The placement is generally at the bottom inner rim of the bass drum at the middle and flattest point. Some bass pedals can be unhinged for storage (like the pedal on the hi-hat stand). If you are booking a Midwest Crust band, then you might get a double bass pedal. You can fuck with it if you want to, but it's best left to the drummer. Often there is a bass drum pedal in the backline, but for some drummers it's sort of like wearing someone else's shoes.

STICKS: Sometimes drummers need them, but that's not really on you.

GUITARS

DIFFERENCE BETWEEN ACTIVE AND PASSIVE PICKUPS:

- Pickups are magnets that magnetize the strings. Strumming the strings disrupts the magnetic field and creates electrical current, which goes to the amplifier and is turned into sound
- Passive pickups are tightly wound coils of copper wire wrapped around a magnet to make a transducer (converts magnetism into electrical current)
- Active pickups are also magnets but less tightly wound to create less output, which is made up with an on board preamp that is powered by a 9V battery (something to always check when your active instrument isn't working)
- Passive pickups are more traditional, have more dynamic range (ie. can play quiet and loud depending on how hard you strum) but are also noisier
- Two kinds of passive pickups, single coil and humbucking. Single coil are higher output but noisier. Humbucking pickups are two single coil pickups wired out of phase to cancel the noise, at the expense of some output.
- Active pickups are much quieter than passive pickups but have less dynamic range and are described as "cold" and "sterile" - less vibe but can have much higher output due to the onboard pre-amp.
- Passive - rock n roll, blues, jazz
- Active - heavy metal, grind ie. very good for "tight" "compressed" "loud" "fast"

This is a humbucker!!

Single-coil VS Double-coil

Vintage Staggered SSL-1

JB SH-4

Passive VS Active

Pearly Gates SH-PG1

Blackouts AHB-1

SETTING UP

- Change strings as often as you think they need, there is no rule for consistency. If your instrument falls out of tune a lot or sounds dead, you probably need to change them. Changing strings also helps fight breaking strings, which is a pain, especially while playing live. Changing strings regularly also helps with intonation.
- Intonation is the tuning of the instrument across the neck. Ie. does an open E sound the same as the 12th fret octave up.
- You might notice that your instrument sounds less in tune the higher up the neck you play, this means your instrument needs to be intonated.
- Fret the string at the 12th fret to play the octave, if it is flat or sharp, change the intonation by moving the saddle piece away or towards the neck with an allen key.
- If the fretted note is sharp, move the saddle away from the neck to make it longer
- If the fretted note is flat, move the saddle towards the neck
- Basses generally need to be changed less frequently since the strings are thicker and degrade slower.

ADJUSTING THE SADDLE

CABLES

- Instrument cables (or patch cables) move the electrical signal from the instrument to the amplifier.
- Try and buy cables that will be long enough to give you physical freedom to move around while playing but not too long because they can pick up interference (noise) especially when longer than 20-25 feet
- Speaker cables are used to move an amplified signal between bass/guitar heads and speaker cabinets
- Very important to make sure that instrument cables aren't used as speaker cables and vice versa
- Speaker cables are not shielded because they don't need to worry about interference (it's quieter than the noise of the amplified signal) and because of that would be incredibly noisy as an instrument cable

If you can unscrew either 1/4" jack, inside should either be two identical wires (other than color), which would be a speaker cable, or one insulated wire and a second woven or twisted bare shield going around the insulation of the first insulated wire. That's an instrument cable.

If you can unscrew either 1/4" jack, inside should either be two identical wires (other than color), which would be a speaker cable, or one insulated wire and a second woven or twisted bare shield going around the insulation of the first insulated wire. That's an instrument cable.

PEDALS

- Pedals modify sound in a number of different ways, examples are distortion, delay, reverb, chorus and volume
- Too many pedals can cause lots of noise due to multiple connections between the amp and guitar.
- The order of pedals is important to consider since they feed into each other, generally overdrives go before modulation (delay/reverb) but experimenting can lead to cool results.
- Usually powered by a 9V battery or plugged into a power source.
- Power sources that plug into the pedals, especially ones that plug into multiple pedals can be noisy due to interference (same interference you can get on instrument cables, but stronger because the gauge of wire is thinner and the shielding is weaker)
- 9V batteries have less interference, but are obviously more expensive, create waste and obviously run out

AMPS

- Amplifiers take the electrical signal from the instrument and amplify it through one or more speakers. This can either be in the form of a guitar head and cabinet as two separate things or in a combo which has both things in one box.
- The amplifier has a preamp and power amp, as well as some tone shaping.
- The preamp boosts the incoming signal and gets it ready for the power amp, which boosts the signal again and sends it to the speakers. The preamp also has tone shaping circuitry like gain and EQ and is where most of the tone of the amplifier comes from.
- The volume of an amplifier is described with the term watts, which is a unit of measurement to indicate power.

TUBE VS. SOLID STATE AMPS VS. HYBRID

TUBE VS. SOLID STATE AMPS VS. HYBRID

- There are 3 kinds of amplifiers: tube, solid state and hybrids
- Hybrid amps use a combination of tubes and solid state circuitry to boost the signal, usually with the preamp being tube and the power amp being solid state.

TUBE AMPS

- Tube amps use vacuum tubes to amplify the signal and are the classic ones used exclusively until the 70s when solid state transistors were introduced.
- They are considered warmer and have a natural break-up distortion (caused by the tubes being overloaded by volume or heat)
- Some downsides are that they are expensive to maintain, fragile (the tubes are made of glass and can break if the amp is dropped or bumped around), dangerous to fix, heavy and can get very hot.
- Since the tubes store voltage, fixing a tube amp is highly not recommended and can be fatal if the voltage is not discharged before working on them.
- Tube amps are also louder sounding than their solid state counterparts - a 50w tube amp sounds quite a lot louder than a solid state one.
- Tube amps change in sound as the volume is increased. Some amps have master volumes on the power amp side which allows you to boost the preamp volume for tone and control the output volume with the master volume.

SOLID STATE AMPS

- Solid state amps used to be considered inferior to tube amps because the transistor technology was still being perfected but now the differences lie in taste and convenience only.
- Solid state amps are more reliable, lighter, easier to fix and less expensive to buy and maintain.
- They are considered to have a cleaner, more natural sound and don't have the same character as a tube amp does.

HYBRID AMPS

- Use a combination of tube and solid state circuitry to boost the signal, usually the preamp being tube and the power amp being solid state.

FUSES

- Fuses protect the amp from tube failure and other high voltage issues and work the same as a fuse on an electrical panel. The high voltage issue will cause the amp to produce too much current (measured in Amperes)
- Inside the fuse is a thin metal wire or strip that will overheat when there is higher than normal current running through it. The overheating causes the wire to burn, which stops the high current from continuing through the circuit and damaging the amplifier.
- Make sure to use the correct fuse for your amp! If the fuse has a lower current rating than the amp, it will probably burn over and over again. If the fuse has a higher current rating, it will allow high current to pass through it to the amplifier and can cause serious damage.

CABINETS

- Cabinets are the speakers that take the signal from the amplifier and turn it into noise.
- Guitar speakers are most commonly 12” but can also be 10” or 15”. Bass speakers are most commonly 10” or 15” but can also be 18”.
- Cabinets contain one or more speakers and are described first by the number of speakers in the cabinet and then the size of the speaker eg. 4x12 means there are 4 12” speakers in the cabinet.
- Cabinets can be have open or sealed backs which can greatly change the sound of the speakers.
- Open backs allow sound to come from the front of the cabinet as well as the back and some of the sides which results in a more open and natural sound with the high frequencies sounding louder. Sometimes they can only be half-opened and sometimes can have small holes cut in them called ports to control the sound leaving the back of the cabinet.
- Closed backs are fully sealed so they can only project the sound forward from the speakers. This tends to accentuate the midrange and low end, giving it a punchier and more focused sound.

IMPEDANCE

- Probably the most important thing to know about connecting amplifiers and cabinets!
- Impedance is measured in ohms which describes the resistance of the signal as it goes from the head to the cabinet.
- The impedance is either 4, 8 or 16 ohms and it is very important that the impedance of the amplifier is the same as the impedance of the cabinet.
- If the impedance of the amplifier is higher than the speaker cabinet, the amp can overheat and blow.
- If the impedance of the amplifier is lower than the speaker cabinet, it will be quieter and the tone can suffer.

THE PA

Otherwise known as the “Public Address” System. That’s right. PA’s vary wildly, but the most important factor is power/ wattage because it determines how loud a PA is. We like to play loud and everyone has been to a show where you just can’t hear the vocals. How loud can this get?

Our sample PA is 800 watts which is ample for the space provided. Think of it this way: We play loud AF so at least 15-20w is what you want per person. This is my own personal superstition which to many sounds weird, but it gives me piece of mind.

As punks, we often play spots that are different sizes and configurations, which keeps things exciting, but it also means that the PA may not be perfect every time. Hit up the people who do the shows there and see how they set it up. They know the space. If you are on your own, it's a good idea to mess around with the PA before the show starts.

SET UP: First position the PA head or "box mixer" in a place that is accessible but out if the way. It's usually off to the side or the back. Try to put it somewhere off the floor. Then place the PA speakers or "monitors" in the desired spots and elevated off the floor. Punks usually rely on these two main monitors for vocals and even though placing them ahead of the band will reduce the chance of feedback, the singers end up not hearing what they are doing, so typically the monitors are someplace behind the singer, sometimes behind everything.

CABLES: This is the easy part. These are long cables that have quarter inch plus. The imputs are usually on the back. There is a power supply cable and two cables that go from the speaker output channel jacks at the back of the PA to the jacks in the monitors. Done.

MICS: Mics can be in all sorts of condition, so if you sing in a band, it's a good idea to invest in a mic (Shure SM58) and a cable. You will see that the bottom of the mic has an imput/orifice/innie (I will not use female, fuck that...) which the mic cable plugs into. The other end that goes into the PA can either be XLR or quarter inch. Choose a channel and plug it in. Make sure the mic is not facing or near the monitors when you switch on the PA power, which is usually on the back.

PAs can look intimidating because frankly there a shit-load of nobs, but in reality, we only use a few, so it's ok to stick to those. Let's look at HI, MID, LO, EFX, LEVEL, and TRIM on the channel your mic is plugged into.

HI, MID, LOW, EFX

Try to start with every-thing at 0 then adjust from there. Think of the HIs as the screech-y, crunchy factor, the LOs as the bass-y, muddy sounds, and the MIDs that muffle, dull those sounds. EFXs will give you that echo-y, reverb-y sound on your vo-cals on a specific channel. You can use a pedal to enhance this. Connect the same way you would for a gutiar, but through the PA!

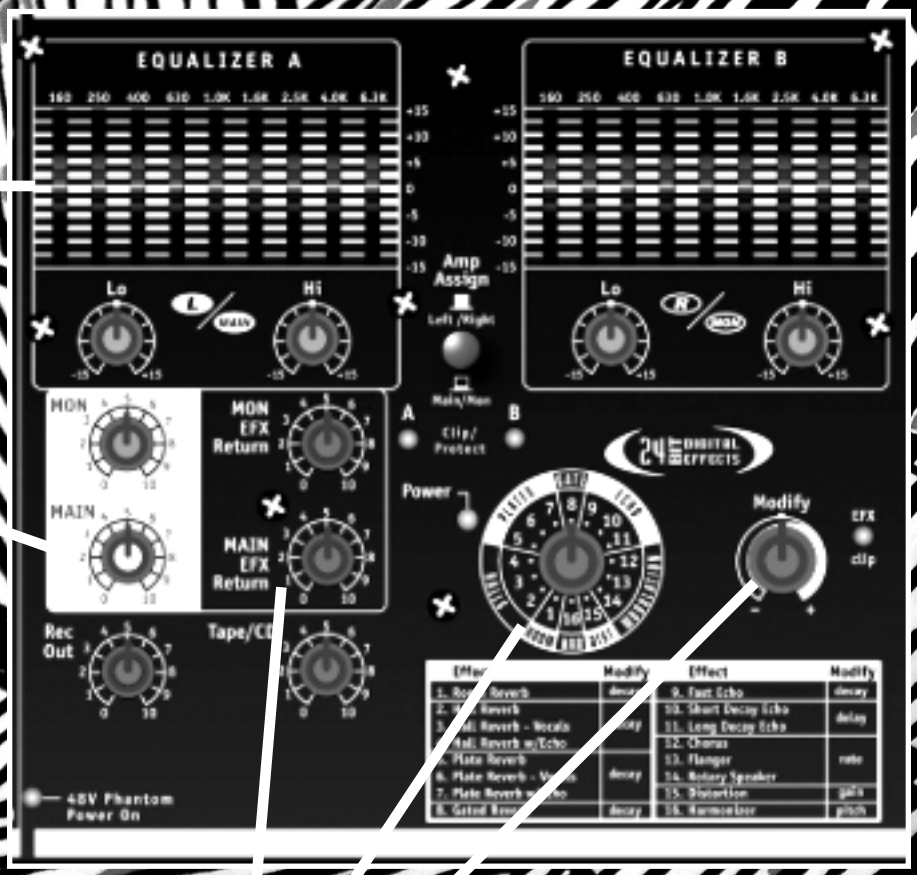
To adjust the volume, start with the LEVEL here, then adjust with the MAIN volume. The MAIN volume will turn every-thing on the PA up, so if you only want to control one mic, use the LEVEL knob. You can further fine tune the volume with the TRIM knob here for the specific mic you are ad-justing.

Make sure to test the overall levels while the band is playing to get the best sound.

FEEDBACK: Those nasty screeching sounds occur when the speaker frequencies are picked up by the mic and loop back into the the speakers. A simple solution is to turn down the mic and tilt the speakers out. A common culprit is the HIs turned up too much.

If you wanna get crazy and experiment, you can modify the frequencies that are causing this feedback. To do this, you would use the faders on the EQ.

EQ



MAIN VOLUME

EFX CONTROLS

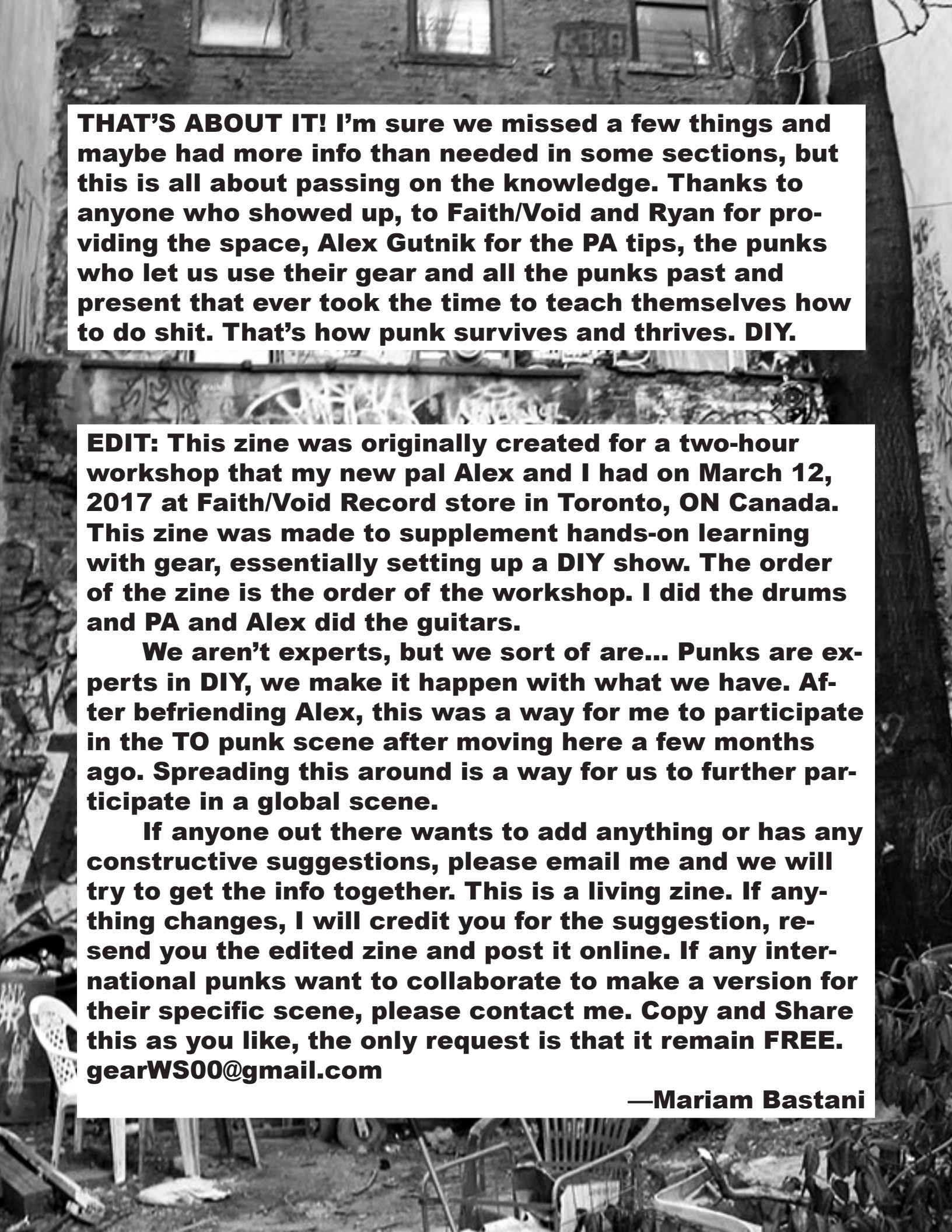
If you need to modify the overall EFX, each PA is different. Here we have the EFX CONTROL KNOB that changes the overall sound (see the chart on the PA?) , a MAIN EFX which controls the intensity and the MODIFY to adjust if the signal is clipping indicated by the lil red light.

HOW TO PLAY MUSIC THROUGH THE PA BETWEEN BANDS:

You can use your phone or an ipod. You just need the right cable which is an RCA to 1/8” or a 1/4” to 1/8”. For the RCA cables, make sure the PA has a RCA ports which will often be labeled L and R, and have one red and one white jack. Buying a 1/4” to 1/8” is a safer bet because you can just plug the 1/4” into any MIC channel and you are good to go. Don’t forget that there are several ways to adjust the volume including on the device you are using, so start low and go high to be safe. I recommend keeping the volume on your device low and turning up on the PA otherwise the sound will become distorted.

RCA to 1/8”

1/4” to 1/8”



THAT'S ABOUT IT! I'm sure we missed a few things and maybe had more info than needed in some sections, but this is all about passing on the knowledge. Thanks to anyone who showed up, to Faith/Void and Ryan for providing the space, Alex Gutnik for the PA tips, the punks who let us use their gear and all the punks past and present that ever took the time to teach themselves how to do shit. That's how punk survives and thrives. DIY.

EDIT: This zine was originally created for a two-hour workshop that my new pal Alex and I had on March 12, 2017 at Faith/Void Record store in Toronto, ON Canada. This zine was made to supplement hands-on learning with gear, essentially setting up a DIY show. The order of the zine is the order of the workshop. I did the drums and PA and Alex did the guitars.

We aren't experts, but we sort of are... Punks are experts in DIY, we make it happen with what we have. After befriending Alex, this was a way for me to participate in the TO punk scene after moving here a few months ago. Spreading this around is a way for us to further participate in a global scene.

If anyone out there wants to add anything or has any constructive suggestions, please email me and we will try to get the info together. This is a living zine. If anything changes, I will credit you for the suggestion, resend you the edited zine and post it online. If any international punks want to collaborate to make a version for their specific scene, please contact me. Copy and Share this as you like, the only request is that it remain FREE.
gearWS00@gmail.com

—Mariam Bastani