



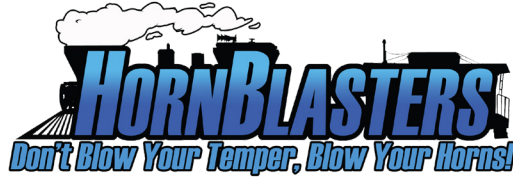
# FLATLAW & MINI OUTLAW INSTALLATION MANUAL

## 3-LITER



**WARNING:** To ensure the longevity of your system, reading and following these instructions are recommended. Make sure to change filters and to drain the moisture from your tank on a regular basis.

**BEFORE YOU PROCEED! THE AIR SOURCE IN THIS KIT IS NOT MEANT TO BE MOUNTED OUTSIDE IN THE ELEMENTS! IT IS NOT WEATHER PROOF AND WILL NOT BE COVERED UNDER WARRANTY IF MOUNTED OUTSIDE OR EXPOSED TO THE ELEMENTS! MUST BE MOUNTED UPRIGHT.**



# HORNBLASTERS MINI OUTLAW/FLATLAW 3 LITER KIT CONTENTS

- Air Source Kit (3 Liter Air Source)
- HornBlasters Mini Outlaw or Flatlaw
- 12' 1/4" Airline
- Air Source Mounting Hardware
- Ear Plugs
- Air line Cutter
- HornBlasters Universal Wiring Kit



1x  
3-Liter Air  
Source



1x  
Solenoid Valve  
(install onto middle of horn)



12 Feet  
1/4" Air line



1x  
HornBlasters Mini Outlaw or Flatlaw



1x  
HornBlasters  
Universal Wiring Kit



## Safety Tips and Important Information

### IMPORTANT SAFETY INSTRUCTIONS



#### **Caution: To prevent the risk of electric shock or electrocution:**

- Do not disassemble any electrical components of this horn kit (air compressor, air valve, pressure switch).
- Do not attempt repairs or modifications of any component. Please refer to qualified service agencies for all service and repairs.
- Do not operate any component where it can fall or be submerged into water or any kind of liquid.
- Do not reach for any component that has fallen or been submerged into water or any kind of liquid.
- Use the included components with 12 volt DC systems only.
- Do not leave the air system unattended during use.

#### **WARNING: To prevent injury:**

- Never allow children to operate the compressor or air horn. Use close supervision when operating this equipment near children or animals.
- The air compressor will become very HOT during and immediately after operation. Do not touch any part of the compressor with your bare hands during or immediately after use.
- Do not use this product near open flames or explosive materials or where aerosol products are being used.
- Do not operate this product where oxygen is being administered.
- Do not pump anything other than atmospheric air.
- Never use this product while sleepy or drowsy.
- Do not use any tools or attachments with the supplied air source unit without first determining maximum air pressure for that tool or attachment.
- Never point any air nozzle or air sprayer toward another person or any part of your body.
- The included compressor is equipped with an automatic reset thermal protector and can automatically restart after the thermal protector resets. Always cut off power source when thermal protector becomes activated.
- Use only in well ventilated areas.
- Do not sound the air horn(s) in close proximity to another person's or your own ear(s).
- Do not fill the included air tank above 150 PSI. Doing so may result in death or serious injury.
- Disconnect the battery negative cable before doing anything. Failure to disconnect this terminal can lead to damaged electrical components.
- Use eye protection when operating drills or other power tools during the install.
- Ensure the parking brake is engaged before you get underneath the vehicle.
- Do not wire the system without the fuse holder.
- Do not allow the compressor to run when the vehicle is off.



## Recommended Tools + Addons

### Recommended Tools

- 1/2" Wrench
- 7/8" Wrench (4-Way Splitter on Valve)
- Wire Cutter / Stripper / Crimp Tool
- 10mm Wrench or Socket (Air Source Mounting)
- 12mm Wrench / Socket
- Drill

### Compatible Add-on Kits *(available @ [www.HornBlasters.com](http://www.HornBlasters.com))*

Name	Description	Part #
Digital Air Gauge	2' Digital Air Pressure Gauge allows you to monitor the tank pressure in the cab	GA-220H

### Optional Install Items *(Not required but will make your install easier)*

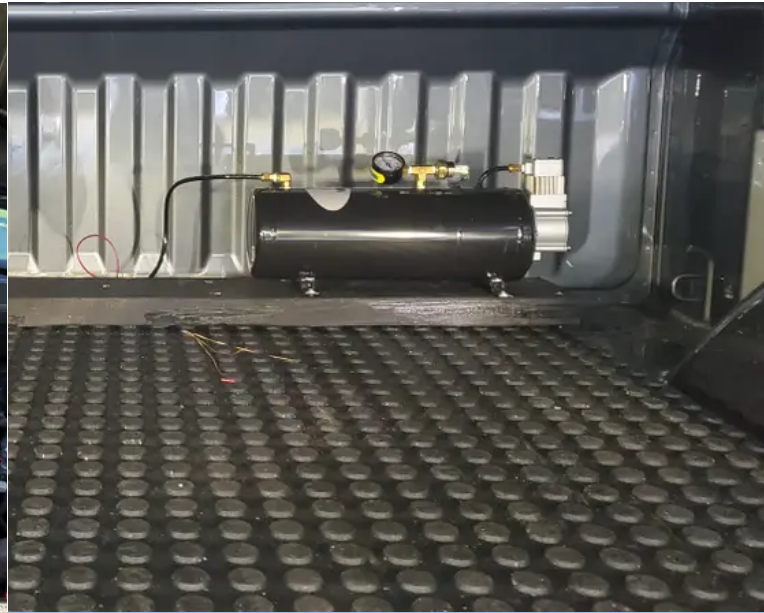
- **Add-a-circuit** - Great for tapping into a key-power source from your fuse-box.
- **Self-Tapping Screw** - These can be used for ground points on the compressor and valve.
- **Cable Ties** - Used to keep your air line looking clean and organized.
- **Heat Shrink Tubing** - Can be used over the terminal connectors to better seal them up against the elements.
- **Thread Sealant** - Can be used instead of Teflon to seal fittings.

## Preparing For the Install (continued)



### Recommended Install Locations for Trucks (Compressor)

- The toolbox is a great location for the compressor. **Do not use the toolbox as a grounding point.**
- Mounting the compressor/tank in the bed (if covered) is a great option. There's plenty of room available and mounting the compressor will help it run cooler and save space in your toolbox.
- The engine bay is a good spot for the compressor as long as you keep it away from the exhaust manifold and engine block. The compressor must remain upright.



### Recommended Install Locations (Horns)

- You can mount these horns underneath the bed or in the bed of your truck.
- If you face the horns forward when mounted underneath they may pickup some dirt/dust from the road. This is normal and will not damage the horn. Make sure to honk the horns regularly to keep any buildup or dust/dirt out of the horn assembly.



# Plumbing Diagram

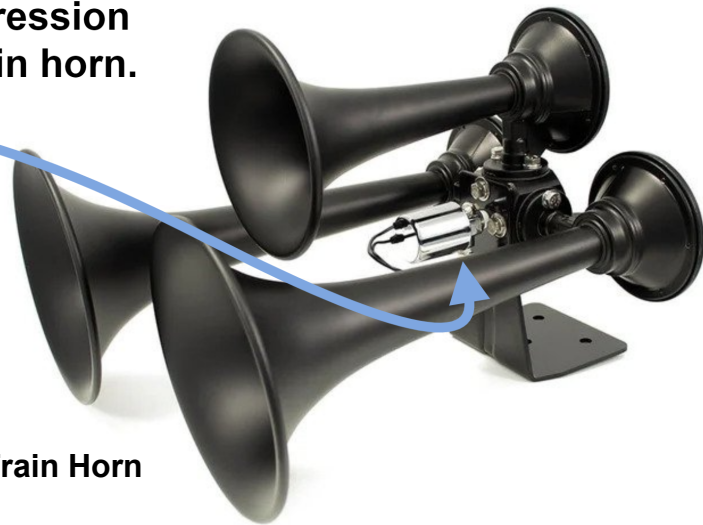
Route this line from the tank to the compression fitting on your train horn.

Air Source



1/4" Air Line

Train Horn



## Plumbing the air line to the tank and horn

Bad Cut



Good Cut



Ensure each air line is fully seated over the compression fitting before tightening the nut down over it. If the line is not fully seated over the barb, it can slip off the fitting even with the nut in place. Firmly hold the line in place and use a wrench to tighten the compression ferrule down. The line will not seal properly if you don't hold it down in place while tightening the nut. It will slip off! The horn will sound very weak if the line isn't seated properly. If the line is too stiff, you can heat it up to make it more malleable. Don't over-do it on the heat as it will melt at a certain point.

\*Take note of the air line to the left. If the line is not cut flush, it will not seal and will create a leak directly out of the tank.

## Changing the Air Filter

Use a flathead screwdriver to pry the filter housing apart. You can insert the flat end of the screwdriver into seam, where the arrow is



Remove the old filter element from the housing. Insert the new element into the center so that the white portion of the filter lines up with the plastic tabs. Replace the cover back over the housing, lining the tabs up on the sides of the cover.

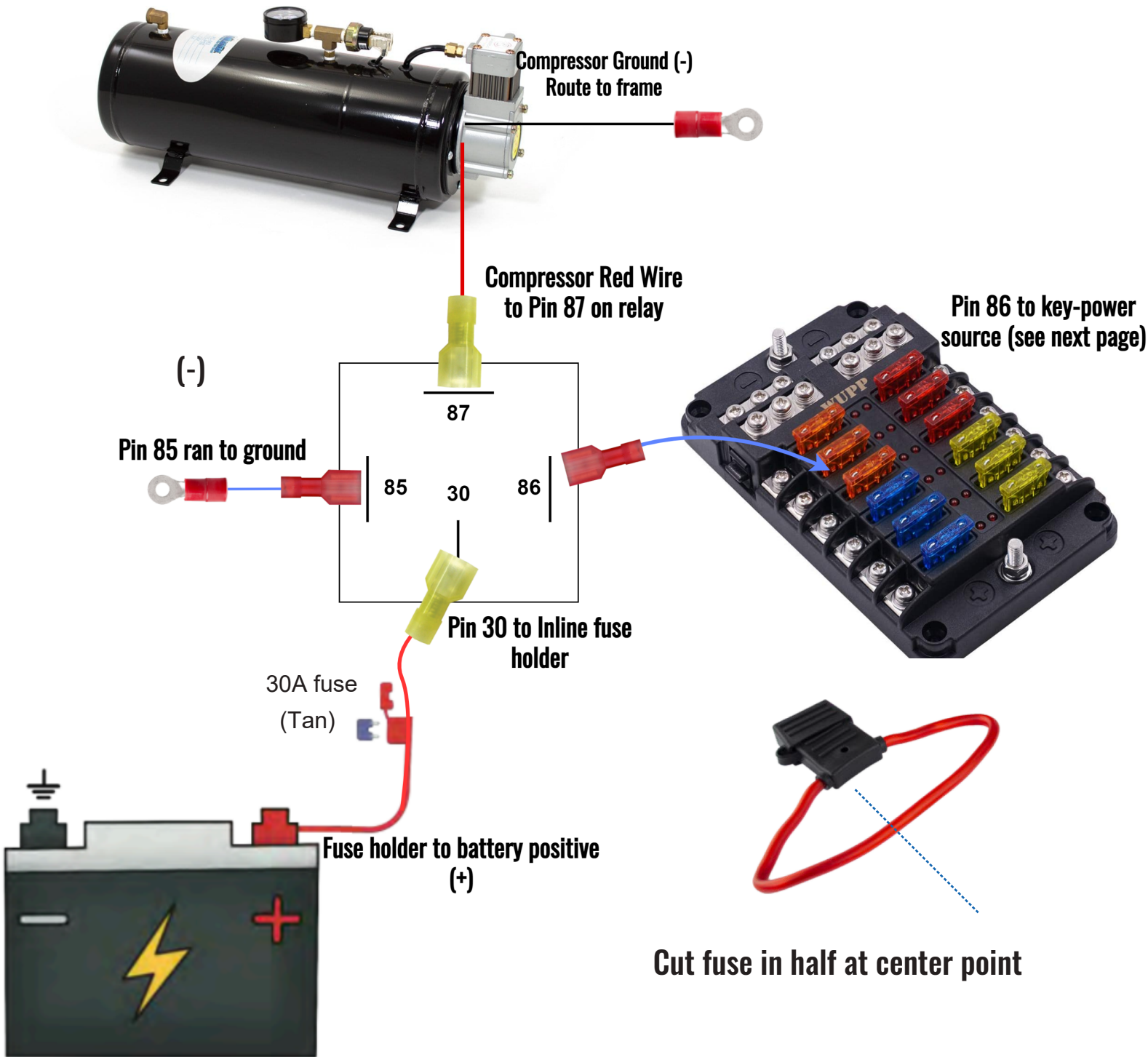
The compressor filter must be changed out every 2-3 months, otherwise the compressor will start to pull in dirt/dust and wear prematurely.

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## 2-GALLON CONDUCUTORS SPECIAL 127H/228H WIRING DIAGRAM



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## Wiring Instructions

### Wiring the Relay

**Pin 30:** This pin will connect to the battery positive terminal. You **MUST** use the supplied 10-gauge RED wire for this connection. Use the supplied tan or green terminal to connect the red wire to this pin. Cut the fuse holder wire in half at the center point. Connect one end to the battery positive terminal. Connect the other end to a lead of 10 ga. red power wire that runs back to the relay.

**Pin 86:** This pin will connect to a key-power source. You are looking to connect this pin to any circuit that is **ONLY ON WHEN THE VEHICLE IS ON**. This will prevent your kit from running when the vehicle is off. Common key-power sources include the cigarette lighter fuse, sunroof, radio, trailer running lights, daytime running lights, etc. You can use any circuit that is rated for 5A or less. The relay only needs a fraction of an amp to operate.

**Pin 85:** Route a lead from this pin to the frame of the vehicle as a ground point. You may use the supplied Blue or Grey wire for this connection. You can use a wire brush on the frame or bed coating to ensure a good connection to metal is made.

**Pin 87:** Take the red lead coming off the compressor/tank combo and connect it directly to this pin.

Your relay is now wired and ready for use. You can use a small lead of wire to connect pins 30 & 86 together to test the relay. If you have this wired correctly, the relay should make a light 'click' sound when the two pins are connected. This means the relay is turning on and off properly. When you start the vehicle, it will send power to pin 86 and turn the relay on, which will allow the compressor to run.

### Key-Power-Source (Normal Method)

If you're having trouble locating a fuse that is only hot when the vehicle is on, you can go online to <https://fuse-box.info/>. You can use a test light to check whether or not the fuses are hot with the key in the off position. Route the black probe/clip to the battery negative terminal (-) and use the red probe on the metal contacts of the fuse(s) you want to check. If the light comes on, your fuse is hot. If the light does not turn on, start the vehicle and check for current. The light should illuminate now that the vehicle is running.

### Using A Toggle Switch Instead of a Key Power Source

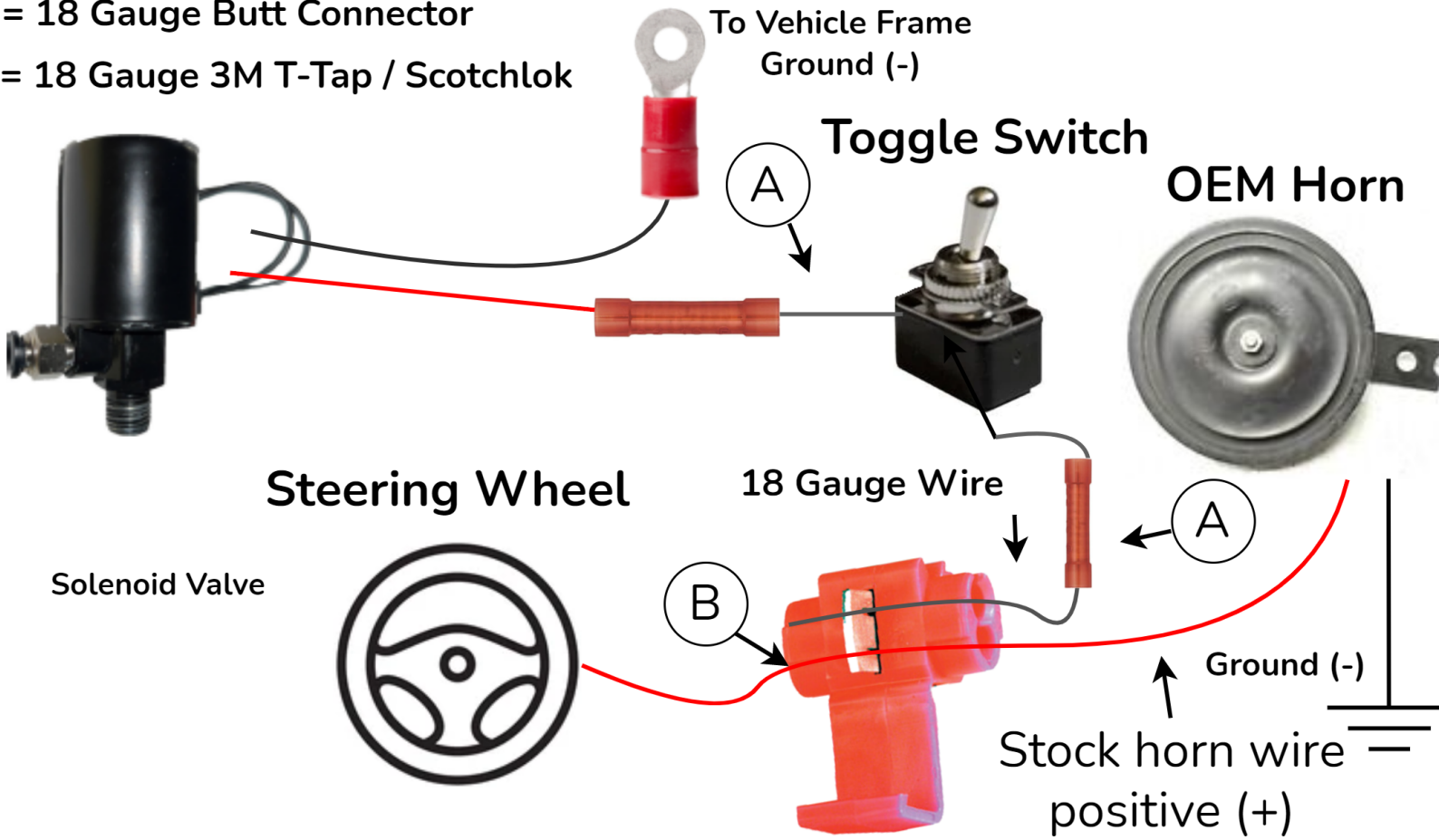
If you can't find a good key power source, you can use a toggle switch instead to manually stop the compressor from running. To do this, locate the supplied toggle switch that came with your horn kit. Wire one lead of the toggle switch to +12v power and take the opposite lead of the toggle switch to pin 86 on the relay. When you flip the switch on, the relay will switch on and allow the compressor run. Wiring your kit this way means that you MUST turn the switch off with the vehicle, otherwise the compressor could run overnight and drain your battery.



# Connecting the Train Horns to the Steering Wheel

A = 18 Gauge Butt Connector

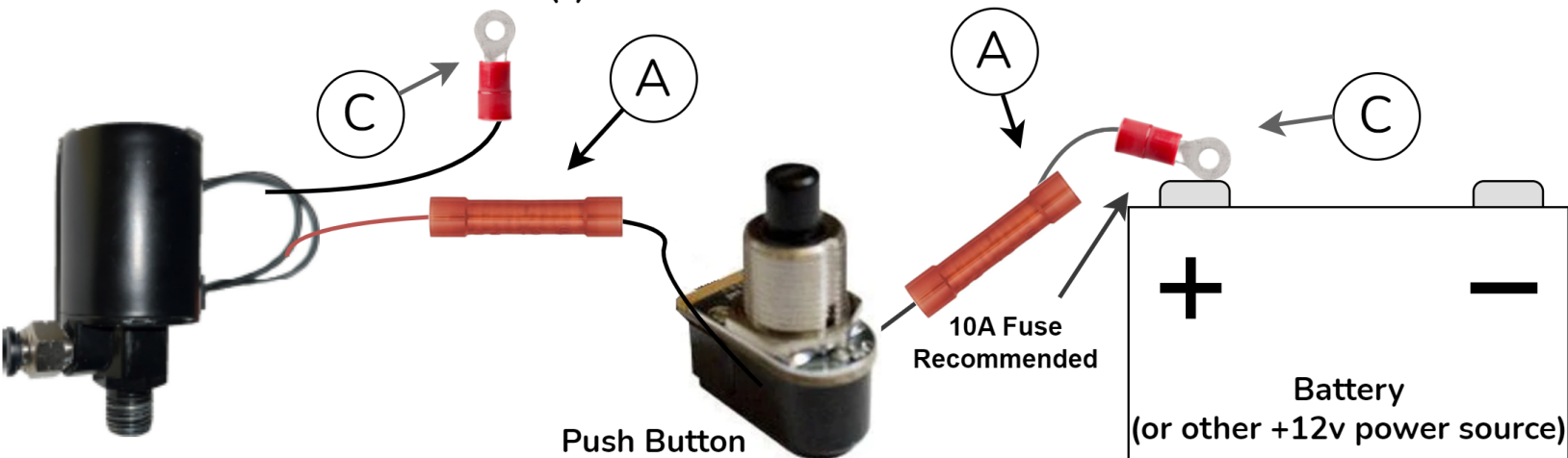
B = 18 Gauge 3M T-Tap / Scotchlok



# Connecting the Train Horns to a Push Button

To Vehicle Frame Ground (-)

18 Gauge Grey/Blue wire for ALL connections





## Maintenance / Tips (Do not throw this away!)

### Once every...

- **2 Weeks**

- Drain the air tank of moisture! Do not let the water build-up in the tank longer than 2 weeks. The water can find it's way into your horns and cause them to sound squeaky or not at all. The water can also find it's way into your pressure switch and cause it to fail.

- **Month**

- Check the air filter element for the compressor. If the element is showing signs of dust/dirt build-up, replace it with a new one.

- **2 Months**

- Check your air lines and make sure they're not rubbing against anything. Inspect the horns for damage.
- Check your wiring for corrosion (**especially in the winter time**) If the terminal connectors become oxidized or corroded, the kit could stop working at random in the future.

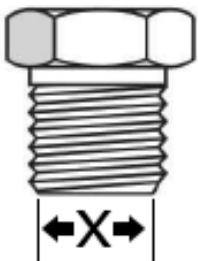
- **3 Months**

- Replace the filter if you haven't already. Inspect the filter if it was recently replaced.
- Check the tank for leaks. After being installed on your vehicle for some time, the vibration from daily use can cause a small leak to occur at the fittings or air line connections. Spray down with Windex or soapy water to find the leak point.

- **Year**

- Check your ground connections. If the connection to the frame isn't that good or comes loose, the compressor or solenoid valve will stop working properly.
  - Use a wire brush to clean these up if needed.
- Inspect your mounting hardware for the compressor/tank/horns. Ensure all components are still secured nice and tight.

## Identifying Fittings



The diameter of the thread (**X**) will determine the size thread a fitting has. If you're not sure which fittings are 1/2", 3/8", or 1/4", measure the thread on each fitting and match it up with the values below.

1/2" NPT	3/8" NPT	1/4" NPT	1/8" NPT
0.84"	0.675"	0.54"	0.405"



## Troubleshooting

### Compressor

- **The compressor doesn't turn on.**
  - Try connecting the compressor to a 12v battery directly.
    - Take the red wire to the positive terminal and the black wire to the negative terminal.
    - Give us a call if the compressor doesn't run. If it does, go to the next step.
  - Double check the wiring for the relay. Test the relay if needed
    - Make sure that pin 86 is connected to a good key-power source and ensure that pin 85 is grounded properly. You can test the relay wiring by connecting a small wire from pin 30 and jumping it over to 86. If the compressor runs when you do this, you need to check your key-power source. It is not giving power to the relay.
  - Make sure the fuse isn't blown
    - If the fuse is blown, this could be due to a short in your wiring. Before you put a new one in, check and ensure your wire is not frayed or exposed anywhere.
- **The compressor runs but doesn't fill the tank**
  - Make sure the drain cock isn't open
    - Refer to page 11. If the drain port is open on the bottom of the tank, it will not fill.
  - Make sure the horn valve isn't open
    - If the valve is open, the air from the compressor is escaping through it constantly. Disconnect one of the two wires. If it stops, your valve is receiving constant power.
- **The tank loses pressure after a few hours**
  - Spray each fitting and air line with soapy water or Windex®.
    - The liquid will bubble up anywhere a leak is present. Typically, fittings need to be tightened further or more Teflon tape needs to be applied to the thread. If you have a leak from the air line connections, re-cut the lines flush and re-seat them into the PTC fittings.



## Troubleshooting

### Horns

#### • The horns won't honk

- Check the air tank for air pressure. If your air gauge reads 0 PSI, refer to the steps on page 12 to remedy the lack of air in the tank.
- Check the wiring for the horn solenoid valve. If the valve has a loose ground connection, it will not work properly. Make sure the valve is connected to your activation switch.
- Check the power source for the horn activation. Use a test light or voltmeter to check for +12v on the lead coming from your stock horn wire or power source. Make sure power is coming into and out of the activation switch/button.

#### • The horns don't sound right

- If your horns start to squeak or sound high-pitched, drain the tank. Moisture buildup in the tank is finding it's way from the tank into your horns. This causes them to squeak.
  - Drain the tank of moisture.
- Check and ensure the end of each bell(s) isn't obstructed or blocked. The horns will sound off at a different pitch when the opening of the bell is blocked.

#### • The horn honks on it's own as soon as it is wired up

- This is a tricky problem to fix and can be confusing to most. On some vehicles, the stock horn receives a constant feed of power from the battery. When the wheel is pressed, a switch inside the steering wheel creates the ground for the horn circuit and the horn honks. When you wire your OEM horn wire to our valve, the valve ground completes the circuit and causes the constant honk.
  - We can fix this problem by following these steps:
    - 1.** Disconnect the valve ground from the frame.
    - 2.** Splice from the OEM horn **NEGATIVE** lead and route this to the toggle switch.
    - 3.** Connect the opposite lead of the toggle to the black wire on the valve.
  - This makes it so that the valve is actuated from the negative side of the OEM wiring. If you have trouble with this, give our team a call @ (877)-209-8179.
- Make sure the valve isn't connected to a constant power source. If the valve is receiving power constantly, it will stay open.

#### • It sounds like the horns are going off at different times

- Remove the back-cap from each horn bell with a phillips head screwdriver. Clean the internals of each bell with warm water and soap. Rinse and re-assemble.

**Can't find your issue listed above? Give our team a call @ (877)-209-8179 or shoot us an email to [sales@hornblasters.com](mailto:sales@hornblasters.com)**

