



# AIRHORN

## INSTALLATION MANUAL

Bullet 2MC



**WARNING:** To ensure the longevity of you 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.

## AIR HORN KIT INSTALLATION GUIDE

### BEFORE GETTING STARTED

Read over the entire instruction guide before you begin your installation.

### KIT CONTENTS:

- HornBlasters Bullet Air Horn
- HornBlasters Air Source Unit (2MC)
- 17' 1/2" Airline
- 22' 10-Gauge Red Wire
- 22' 18-Gauge Blue Wire
- 22' 18-Gauge Grey Wire
- 3 x 18-22 Gauge Butt Connector
- 3 x 10-12 Gauge Butt Connector
- 1 x Toggle Switch
- 2 x 18-22 Female Bullet Connector
- 1 x 40-Amp 4-Pin Relay
- 2 x 18-22 Gauge Ring Terminal
- 1 x 10-22 Gauge Ring Terminal
- 1 x 10-22 Gauge Male Quick Disconnect
- 1 x 18-22 Gauge Male Quick Disconnect
- 1 x 10-12 Gauge Scotch Lock
- 1 x 18-22 Gauge Scotch Lock
- 1 x 35 Amp Fuse
- 1 x Inline Fuse Holder
- Air Line Cutter
- Air Filter Relocation Kit
- Ear Plugs

**IMPORTANT:** This complete train horn kit uses 12 volt DC components. Only install this kit with a 12 volt DC power source.

### IMPORTANT SAFETY INSTRUCTIONS

#### CAUTION: To prevent the risk of electrical 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.
- 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, 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.

#### Safety During Installation

- Disconnect the ground of your battery before beginning your installation.
- Use eye protection when operating drills.
- Take your time and do not rush your installation.

## INSTALLING YOUR TRAIN HORN KIT

### PLANNING YOUR INSTALLATION

This is the most important step in your installation.

- Plan out the location of each component before starting your installation.
- Make sure you have enough airline and wire to install the system before beginning the installation.
- Make sure mounting locations are secure and void of debris.
- Try to keep the supply wire to the compressor as short as possible. Wires lose voltage over distance therefore shorter wires will result in better performance.
- Mount your air source unit in a location that is as cool as possible and away from heat sources. This will make your compressor run cooler and last longer.
- Your air source unit must be mounted upright or on it's side. **DO NOT MOUNT UPSIDE-DOWN!** Mounting the unit upside-down will allow any condensation buildup to drain back in to the compressor and harm its components, and also will disrupt the compressor's ability to cool properly. *\*Move the drain cock to the plugged port on the side of the tank if you mount sideways; plug the drain with the flush-mount hex plug\**
- Teflon tape or a locking compound should be used on every fitting in your air system to prevent air leaks; unless a white or red PTFE paste is already applied.
- Use the supplied 10 gauge wire or thicker (lower gauge #) wire to power your air compressor.

### RECOMMENDED TOOLS

- 1/2" Wrench
- 9/16" Wrench (1/4" NPT Fittings)
- 10mm Wrench or Socket (Air Source Mounting)
- 12mm Wrench
- Needlenose Pliers (rubber grommets for tank)
- Drill (7/32" or 6mm Bit)
- Wire Cutter/Stripper
- Included Tubing Cutter
- Eye Protection

### I. INSTALLING YOUR HORNBLASTERS TRAIN HORNS

Locate an area for your horns that is dry and free from debris. The horns can be mounted in any direction and still be heard from all around. The horns should not be mounted where they will be completely submerged or will receive any kind of impact. Horns may be mounted directly to your vehicle, on a medium such as grommet strips (plumber's strap), sheet metal or any sort of custom bracket.

1. Locate a secure, dry, and safe position for your horns.
2. Make a mounting template by tracing the mounting bracket on the horn.
3. Using the mounting template drill 7/32" holes for the mounting bracket of the horn.
4. Secure the horn using the supplied mounting hardware.

### II. INSTALLING YOUR AIR SOURCE KIT

Locate a flat and secure installation area for the air source unit as well as an area for the air filter that will remain free of dust, dirt, and debris (your compressors performance is directly affected by air quality). Try to keep the distance of the unit from the battery to a minimum to keep your compressor running at maximum performance.

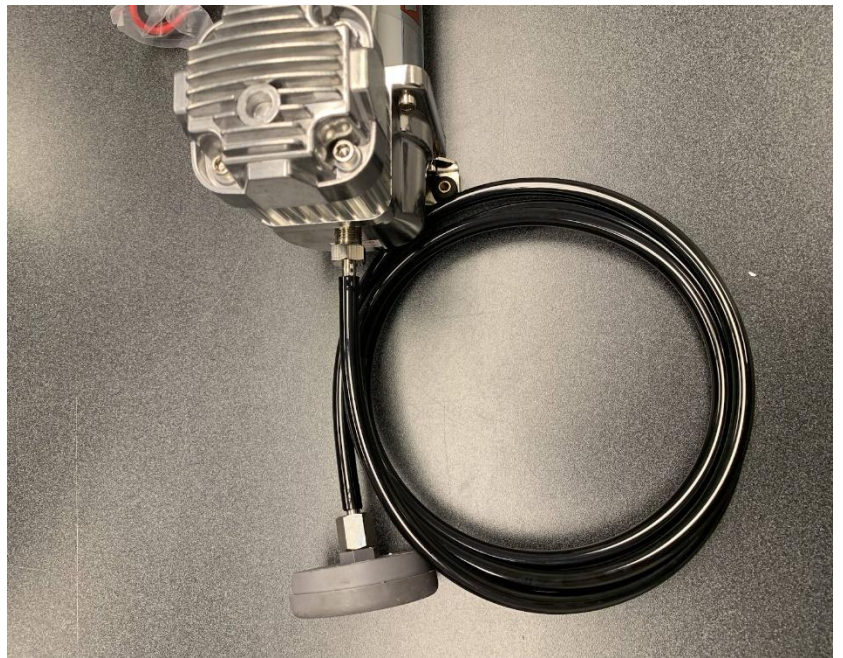
1. Disconnect the ground cable from the vehicle's battery.
  2. Position the unit in the desired location and secure it using the supplied mounting hardware (10mm).
  3. Remove the orange plug in the compressor's air inlet.
  4. Using the supplied hardware, mount the air filter somewhere dry and out of direct contact with moisture.
- Check the diagram on the next page.

# Air Filter Relocation

Your air compressor came with two barbed fittings and an air filter housing.

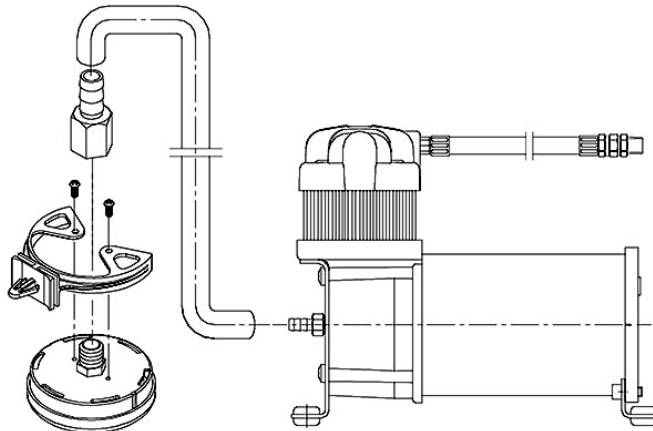


Let's start by taking the fitting on the left with the male thread and inserting it into the compressor inlet. The other fitting (female end) can be threaded onto the filter housing directly. Your compressor/filter should look like the image below. At this point, you can use the supplied 3/8" air line to connect the compressor and filter together.



Route the air filter up to a high and dry location where it will not get wet or exposed to the elements. The compressor itself is fully sealed but if your filter gets wet, the compressor can pull water into itself and this will lead to problems later on down the road. Your compressor will last much longer if the filter is relocated to a high and dry location. Be careful not to kink the air line while routing the filter around.

**\*If your compressor is mounted outside where it is exposed to the elements, the filter MUST be relocated.**



## INSTALLING YOUR TRAIN HORN KIT

### III. INSTALLING YOUR AIR TUBING & AIR VALVE

Before cutting any air tubing make sure to double check your measurements. We recommend cutting lengths with at least an extra inch per line just to be safe. Compression fittings use ferrules (olives) that should be used only once. When threading any fittings make sure to use Teflon tape to prevent air leaks.

**IMPORTANT:** The air horns and connecting fittings up to the outlet of the air valve will use 1/2" air line. The air source unit will use 1/2" air line to connect to the inlet port of the air valve.

**IMPORTANT:** Do not make any kinks in your air line. Doing so will disrupt air flow and the damage is irreversible.

#### Fitting Flow Chart [Air Source] » [1/2" Line] » [Air Valve]

1. Plan out the fittings placement out before you begin and make sure you understand the correct order.
2. Make sure that your tank is empty of air and that the compressor is not running during installation.
3. Install the air line carefully using two wrenches for each compression fitting. Use one wrench to hold the body of the fitting stationary and another to tighten the compression nut.
4. Measure and plumb one length of 1/2" tubing from the tank compression fitting to the air valve located on the horn.
5. Next connect your air valve's inlet port to your air source unit using 1/2" air line and 1/2" to 1/2" compression fitting.

### IV. WIRING YOUR VALVE & AIR SOURCE UNIT

Your train horn kit will use two completely independent circuits. One circuit will connect your horn trigger (push-button intermittent switch, or toggled factory button) to your electric valve. The other circuit will connect your accessory trigger (ignition positive wire) to your air source kit.

#### Valve Wiring Flow Chart [Factory Horn Wire] » [Toggle Switch] » [Air Valve] » [Ground]

#### Air Source Wiring Flow Chart [Remote Wire/Accessory Wire] » [Inline Fuse] » [Air Source Unit] » [Ground]

##### Circuit 1

1. Begin by wiring your horn trigger.
  - a. If you are intending to use your factory horn switch, start by locating the load wire of the horn button (positive when horn is depressed in a standard vehicle) and wiring it to the included toggle switch.
  - b. If you are going to use a push button switch (intermittent toggle switch) wire a fused (5A) wire from any 12 volt source desired (battery) to your switch.
2. Next wire your switch to any pole of your air valve using the female bullet connector.
3. Wire the other side of the air valve to ground using the female bullet connector.
4. Test your circuit by activating your trigger and listening for a 'click' from the valve.

##### Circuit 2

1. Locate an accessory line in your vehicle that is capable of a 16 amp load.
2. Wire your accessory line using an inline fuse (35A) to your air source unit (Red Wire).
3. Ground the other side of your air source unit (Black Wire) to ground.
4. Your air compressor system will not turn on automatically when power is on (Key is in 'accessory' or 'on' position) and automatically turn itself off upon reaching destination.

#### You're Done!

It's time to test your horns! Share your install photos on our facebook at [www.facebook.com/hornblasters](http://www.facebook.com/hornblasters) or instagram/twitter @hornblasters and don't forget to check [www.trainhornforums.com](http://www.trainhornforums.com), the largest train horn community on the internet.

## Install Tips

### General Maintenance / Tips

- Check your air horns for debris when appropriate and at least once a month and clean when necessary.
- Drain your air system at least every other week, to remove any condensation buildup on the inside of your air tank.
- Make sure your air compressor is clean and free from debris at all times.
- Periodically change your two stage air filter on your compressor.

### Tips

- Make sure your engine is running when your air compressors are in use to insure proper voltage and to prevent damage to your system.
- Do not run your compressor above its maximum rated working pressure. Doing so will not only void your warranty, but may also damage your compressor.
- Ensure that each air line is cut nice and straight for your compression fittings.
- Ensure the air line is FULLY seated over the barb fitting before tightening down the nut.
- Check and ensure the drain cock is fully closed (spin the wingnut clockwise until tight to close)
- Make sure the line used to relocate your air filter is not kinked in any way. This will restrict airflow to the compressor and could damage the internals/motor.
- Do not allow the compressor to run when the vehicle is off.

**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. Hold the line in place and use a wrench to tighten the compression ferrule down.

The compressor filter must be changed out every 2-3 months, otherwise the compressor will start to pull in dirt/dust and wear prematurely. The filter can be swapped out with three easy steps, as shown below.



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 to the left.



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.

## MAINTENANCE & TIPS

### TROUBLESHOOTING

#### Air Horn Does Not Sound Off

- Check for air pressure in the tank (Pull safety blow-off valve)
- Check the valve at the horn for a 'click' when you press your activation button
- Make sure supply line from tank is properly seated onto the compression fitting to the horn itself

#### Compressor Does Not Run

- Check the ground connection for the compressor
  - If the ground is loose, use a wire brush to remove any oxidation from the ground point and re-attach the lead.
- Check the fuse connected to the red wire in the inline fuse holder (is it blown?)
  - Replace fuse if blown. If the new fuse pops right away, there is a short in between the compressor and your fuse holder.
- Compressor Overheat
  - Allow the unit to cool for ~30 minutes.

#### Compressor Does Not Stop Running

- Faulty Pressure Switch
  - If the pressure switch has failed, the compressor will fill to the point where the blow-off valve pops, and the system continues to fill.
- Faulty Compressor
  - If the compressor runs but does not pop the safety valve after 10 minutes, the unit may not be building enough pressure to shut-off. If this is the case, your compressor will likely need to be rebuilt or replaced.
- Leak in the system
  - Leak(s) can cause the compressor to take longer to fill, or not allow the system to fill all the way. Spray down each connection with soapy water to ensure none of the components are leaking air from the tank.

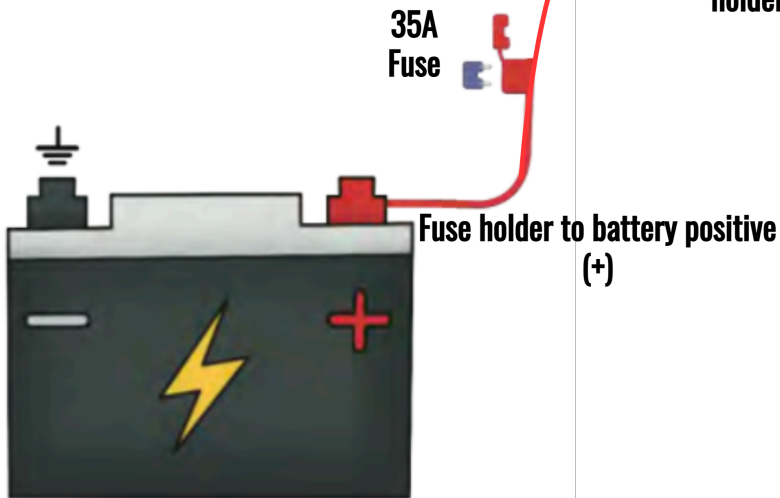
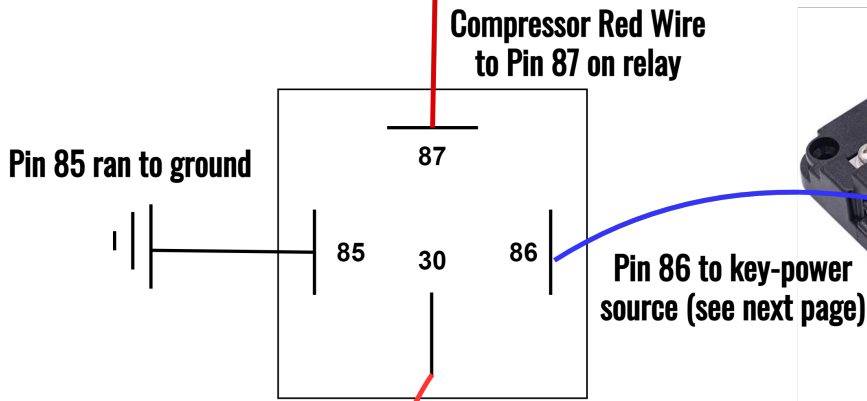
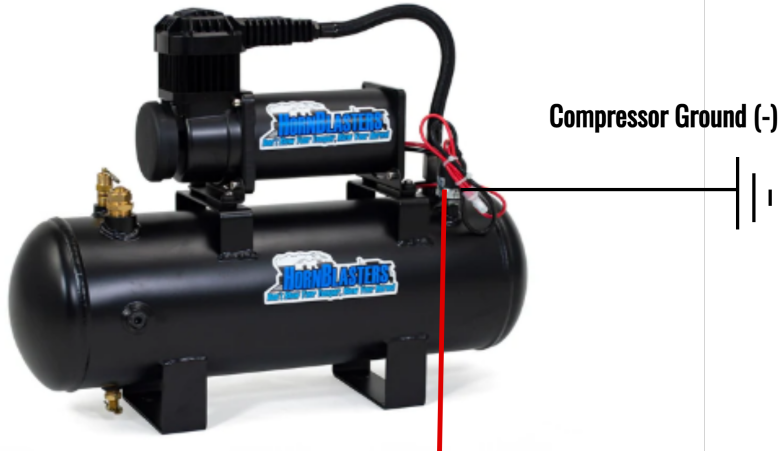
#### Compressor Randomly Refills the Tank

- Leak in the system
  - Spray down each connection with Windex or soapy water (including the drain and blow-off valve) and check for bubbles. Any air leaks will cause the mixture to bubble up.
  - If your air line is leaking at one of the compression fittings, remove the line and cut a new end ~1/4" up the line. Re-seat the line over the compression fitting and let the system pressurize.
- Faulty Pressure Switch
  - Replace pressure switch if compressor is turning on/off intermittently, running for 3-5 second intervals.
- Poor Ground/power Connection
  - A loose power or ground wire will cause the compressor to run intermittently.

#### CAN'T FIGURE IT OUT?

No problem! Give us a call at 813-783-8058, or email at [support@hornblasters.com](mailto:support@hornblasters.com) and we'll be more than happy to help you fix your system. Also feel free to visit our online horn community, [www.trainhornforums.com](http://www.trainhornforums.com), for more information.

## 1.5/2 GALLON AIRHORN/OUTLAW INSTALLATION DIAGRAM





## Wiring Instructions

### Wiring the Relay

**Pin 30:** This pin will connect to the battery positive terminal. You MUST use the supplied 10-gauge wire for this connection. Use the supplied bright-green terminal to connect the red wire to this pin. Cut our fuse holder in half to make two ends, and place this in between pin 30 and the battery positive terminal.

**Pin 86:** This pin will connect to a key-power source. This can be tricky if you've never installed our kits before. 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.

**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.

**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)

Locating a key-power source can be a bit tricky on some vehicles. 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/>. Select your vehicle make/model and you will be shown a breakdown of the fuses on your vehicle. This works great for finding good candidates, such as the radio fuse, sunroof, running lights, or even the cigarette lighter/USB power outlet fuses. 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.

### Key-Power-Source (Using a toggle switch)

Finding a good key-power source for your kit is one of the most challenging aspects of the install process. If you've never worked on a vehicle before this may seem impossible. If you are not comfortable with tapping into the vehicle's existing circuits, you can use a toggle switch to ensure the compressor doesn't run when the vehicle is off, without having to tap into any existing electrical components on the vehicle. To do this, locate the supplied toggle switch that came with your horn kit. Wire one lead of the toggle switch to the output side of your inline fuse holder, 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 unfortunately means that you MUST turn the switch off with the vehicle, otherwise the compressor could run overnight and drain your battery.

### Horn Activation

The horn itself can be wired up a few different ways. If you would like to honk your train horns with the steering wheel, start by locating the factory horn. On most vehicles, the factory horn is directly ahead of the radiator, or mounted in a fender-well. Once the OEM horn is located, we need to find the positive wire connected to the stock horn. Using the supplied scotchlok/tap connector, splice a new lead to the positive horn wire and route it over to a toggle switch (optional). Route the opposite lead of the toggle switch out to the air horn. You can connect this lead to one of the two wires on the solenoid valve for the horn. Take the opposite wire from the horn and route it to the frame as a ground point. At this point, press the steering wheel and listen for a click from the air horn solenoid valve. If you have air in the tank already, the horn should honk.

*A push button can be used to honk the horns instead of the steering wheel if you prefer. Route one lead from a push button to the battery positive terminal, and route the opposite lead of the button to the horn solenoid. Ground the opposite lead to the frame.*

## MAINTENANCE & TIPS

### PHOTOGRAPH & MEDIA SUBMISSION GUIDELINES

Send in your installation photographs and any other media for a chance to be featured on our web site!

### GENERAL AIR HORN SYSTEM MAINTENANCE

- Please submit clean, concise photographs. Make sure your subject is clearly visible and in focus.
- You may submit and digital image format either via email at [media@hornblasters.com](mailto:media@hornblasters.com), or via digital media (CD, DVD, etc).
- Make sure to include some kind of personal information with your submission. We would love to be able to contact you and thank you.

### INSTALLATION GALLERY SUBMISSION GUIDELINES

- Please take at least one photo of each major components of your installation (horns, compressor, tank, valve, switches, etc).
- Don't forget to send us some shots of your vehicle too! If we can't tell what the install is on, we probably won't post it.
- Include as much installation information as possible.
  - Who installed the system and when was it installed?
  - How long did the install take?
  - What is the year, model, and style of your vehicle?
  - If you took your system to a shop, would you recommend the shop to others?
  - Do you have any comments or tips about the installation?
  - Anything else you want to tell us, we always appreciate your feedback!
- Optionally include a little personal information:
  - Your name (if you would like your full name to be displayed, you have to let us know!)

### GENERAL VIDEO SUBMISSION GUIDELINES

- We accept all kinds of media. Please provide us with the highest quality media to prevent video degradation.
- We can read all formats of video. We recommend using either the default your camera records with; or if you are compressing the video, we recommend using AVI containers and Xvid, Divx, or a MPEG codec. We recommend AGAINST using any kind of Windows Media\*, Real Media\*, or Apple QuickTime\* formats.
- You may submit any digital image format either via email at [media@hornblasters.com](mailto:media@hornblasters.com), or via digital media (CD, DVD, etc).
- Make sure to include some kind of personal information with your submission. We would love to be able to contact you and thank you!

\*Windows, Windows Media, Real, Real Media, Apple, and QuickTime are all registered trademarks and copy right of their respective owners.

### GET INVOLVED IN THE TRAIN HORN COMMUNITY

No matter what your take is on your new train horn kit, It's always good to have someone to share your stories with. Trainhornforums.com is the largest train horn community online and provides a place to share photos of your ride, post videos, catch up with other train horn and HornBlasters fans, meet other train horn enthusiasts, or even find help with a complicated question.

Go online to [www.trainhornforums.com](http://www.trainhornforums.com) and sign up today!

Make sure to follow us on all the popular social media! Facebook, Vine, Twitter, Youtube, and Instagram.

Show of your install and tag us in all you photos!



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