

# *Painting Your* **CHURCH BUS**



***NORTH PLATTE BAPTIST CHURCH***

*A special thanks to Peter Ward for his work  
in compiling this booklet.*

# Introduction

This booklet, put together by the staff of North Platte Baptist Church, reflects the desire and hard work of our Pastor, William Reeves, to help equip Independent Baptist Churches with the tools necessary to work and engage a successful Bus Ministry in their local towns and cities. It has always been the goal of our Pastor to present a clean and professional look towards our community, and one of the most prominent ministries at NPBC is the Bus Ministry. Painting our buses made them not only look fresh and clean, but they also made them very easily recognized as the buses of North Platte Baptist Church.

Years ago, the church had acquired some new (new to us) buses to replace much older ones. When trying to complete the registration process, we found out that local laws required that privately owned buses could not be school bus yellow and had to be painted a different color. Well, in short, we got to work and gave the buses a facelift and were able to get the registrations completed.

Whatever your reason to paint your bus, this is meant to help you along the process and give you some insights and things to consider that we have discovered through trial and error. Please do not be daunted by the task as it is well worth the effort. Soon you will be looking at the best advertisement for your church, a freshly painted Chariot of the Lord!

There are many questions and circumstances that this booklet does not cover. Google is very helpful. We highly recommend that you watch tutorials on every aspect of this process and use what will work for you.



# 1. Planning

## LOCATION

Having a place to paint your bus is essential to this task. All of the preparation before you paint can be done outside and would not require a shelter; however, an enclosed space for when you paint is highly recommended.

An enclosed area will keep the weather, bugs and random dust from destroying your hard work. We understand that most churches do not have a garage large enough to fit a bus inside, but there are other options that can be recommended. The size needed should be about ten feet wider and longer than the dimensions of your bus. Also the ceiling height should be taken into account as you will need to be on top of the roof to paint it. Having access to electricity will be necessary for your tools and lights. Water would be helpful but not required.

- **Local businesses:** Some might be willing to donate a place or garage big enough to suit your needs. The owner of LineX, a local business here in North Platte, allowed the church to use their enclosed space during non-business hours. The buses were prepped outside then painted at night inside. After a few hours, the paint was dry enough to bring the bus outside again for the next business day and then pulled back in the following night to paint the second color.

- **Storage Rental:** This of course would incur a cost, but you would only need to rent the facility for a short period of time. There are many storage facilities that would have a space large enough to fit a bus, and some may even be climate controlled which would be beneficial for a winter project. The first time NPBC painted buses, we rented a climate controlled RV storage area.

- **Tent:** Though not the best option by far, it is still better than the open air. If you have a place to set up a tent and one is available to borrow or rent, it might be the most cost effective method for your church. A temporary make-shift frame covered in plastic like a green house is also an idea. Dust and wind, though, will likely cause problems for you.

- **Fundraising:** Local business are often willing to support churches and especially children's ministries. Paint, supplies, and facilities all come at a cost which can be offset by donations. (James 4:2)

## **EQUIPMENT**

- **Compressor:** Automotive paint guns generally require compressed air to operate. There are airless paint sprayers on the market, but these are not recommended for this kind of application. The compressor you will need depends upon your spray gun. In the manual for the gun, it will tell you how many CFMs (Cubic Feet a Minute) your compressor will need to produce at a certain PSI (Pounds per Square Inch). Using a smaller capacity compressor will still allow you to paint your bus, but you will take more time waiting for the air pressure to build back up after it dips below the needed threshold. Having a large enough compressor will streamline the painting process.

- **Paint gun:** There are many paint guns on the market. We have used a HVLP (High Volume Low Pressure) spray gun for painting buses. These can range in price anywhere from thirty to a thousand dollars. The last buses that we painted, we used one that had good reviews and was a little more expensive than what we had used in the past, but it didn't spray the paint nearly as well as a thirty dollar gun we purchased from Menards. You also might be able to borrow a spray gun from a local business.

- **Air hose:** A light weight air hose is preferable to a heavy one. Remember, you will be climbing on the roof of the bus. Also, having about a 50 foot hose will give you the maneuverability without having to relocate your compressor every few minutes. Having an air nozzle attachment will help throughout the preparation and painting process.

- **Respirator:** You must use breathing protection even if you are in the open air. There are plenty of affordable respirators on the market. Use one even if you are not spraying the paint and only helping in the vicinity. You will sleep better without your lungs coated in automotive paint.

- **Ladders:** To get on the top of the bus, most of which are about ten feet tall, have a twelve foot A-frame ladder to be safe. For preparing and taping as needed around the sides of the bus, a six or eight foot ladder will work. A rolling scaffold may be helpful depending on your situation.

- **Power washer:** Though this is not required, a power washer will help clean the bus of all grit and grime. Many times the roofs of buses especially are covered in years of caked on dirt. There has even been moss or lichen that needed cleaned

- **Heat gun:** This tool helps in removing any stickers, reflective tape, vinyl letters, logos, etc.

- **Sanding tool:** An orbital sander or oscillating sander will save you much elbow grease.

- **Socket tool set:** This is needed for dismantling the hardware from off the bus and of course reassembly.

- **Hand-tools:** You will need screwdrivers, hammers, wrenches, etc.

- **Lights:** Shop lights will give you a good view of what you are working on throughout the process of preparing and painting.

- **Drill with drill bits:** Corded or a battery powered drills will be essential in many areas of the project.

- **Impact driver:** This is helpful for unscrewing difficult screws and dismantling the hardware on the bus.

- **Paint gun cleaning tools:** The essential parts that you will need are the small spiral brush and the ridged poking tool.

## **SUPPLIES**

- **Disposable shop towels:** These will be used for cleaning the painting equipment and wiping down surfaces with mineral spirits.

- **Rags:** Clean microfiber or regular rags are needed for washing and cleaning.

- **Mineral spirits:** Mineral spirits are needed to wipe down surfaces to remove residue dust before painting.

- **Lacquer thinner:** This is used to clean your painting equipment and tools. This is much more effective at cleaning off paint than mineral spirits.

- **Box cutter with spare blades:** You will use plenty of these. Also having a razor scraper will help with removing the letters and reflective tape.

- **Eraser wheel:** This is a very useful item used in a

drill. It will remove all adhesives and residues left after you take off the reflector tape and lettering. Depending on how much tape was on your bus, you may need two of these. They should be available online or at the automotive paint supplier.

- **Sandpaper:** 60, 80, and 120 grits should only be used if you need to do body repair work on the bus. Use much higher grits for preparing the glossy surfaces for paint-400, 600 and 800 grits.

- **Paint measuring and mixing cups:** Get two sizes, 32 oz and 8oz. The larger will measure the paint, and the smaller will measure the hardener. Have about two of each. You may need more of the larger size as it will help streamline the mixing process.

- **Small paint brushes:** Small art paint brushes will be used for touchups after all the painting is done.

- **Masking tape:** Have a good supply of this, about 6-8 rolls for a bus. Two inch wide tape is good for most applications that you will have; one inch tape is also very useful. If you are using tape for designs, curves, pinstripes etc., there are automotive masking tapes available in smaller widths even as thin as 1/4 inch. Be sure to use an easy release masking tape, especially if it will be applied to the freshly painted bus to separate a second color. Usually blue tape will work just fine. The cheaper white tape can be used, but do not put it on new paint as the stronger glue backing will tend to pull off the new coat of paint more easily.

- **Plastic:** Painters plastic comes in rolls and is best for covering windows and anything you are not wanting to paint.

- **Paper rolls:** Used like plastic to block off areas from over spray. We have found that paper is better than plastic in covering the wheels.

- **Bon-do Body filler:** Depending on the extent of the repairs needed, you will have to research and decide which fillers you will need. The two main types that will fulfill most needs are the green fiberglass for 1/2 inch holes. Then there is the gold body filler used to fill in smaller cracks and scratches, and also as a top coat.

## **DESIGN**

Before you paint, you must have an idea of the design you want and, therefore, how much of each color that you need.

- **Colors:** Whether you choose your church colors or some other combination, having two colors will make your bus stand out more. Adding more colors is not difficult, but of course, will add steps in painting and taping.

- **Curves:** Masking tape will give you sharp lines. Using a narrower tape will allow for a sharper curve.

- **Ribs:** Painting all or some of the ribs of the bus a contrasting color is a very simple design and provides a clean sharp look.

- **Letters:** Vinyl letters are a simple and sharp way to put your church name or any desired information on the side of the bus. In general, you can expect the cost to be about \$250-\$500 depending on how much you want to put on the bus.

## 2. Preparing

The better and more attention to detail in the preparation stage, the more time you will save in the painting stage.

- **Cleaning:** Power-wash the bus to get rid of dirt and grime. Pay special attention to the roof as it is probably the dirtiest.

- **Lights:** After cleaning, check you lights on the bus to ensure that they are in working order. Remove the lights. Take great care to keep all screws together with the light fixture itself, and then mark or label the light as to its use and location. (left back turn signal, right brake, etc.) Masking tape is useful to enclose the screws and secure them to the light. A good place to store the lights is inside the bus. Be sure after taking off a light, to use masking tape to cover the contacts of the wires coming out of the bus to prevent paint over spray. Be careful that you do not lose the wires back inside the bus as fishing them out will be more trouble. Most of the time the lights will have insulated quick connectors already installed and should only have to be pulled apart. If this is not the case, you should install insulated connectors.

- **Mirrors and hardware:** Mirrors, the same as lights, need to be labeled and their bolts or screws kept with them. If your mirrors are heated or have electronic controls, you may have to dismantle some of the inside panels to get the wires out. Hardware: Fenders and the grill may need to be removed for easier access for cleaning and painting, and also depending on your color scheme.

- **Stop signs and cross arms:** School buses will have stop signs and sometimes cross arms on the front of the bus. Unscrew the screws or bolts holding them on and

disconnect the wires. If you need to cut the wires, be sure to cap them off so you do not create a short in your electrical system and drain your battery. Better yet, trace the wires back to the fuse/breaker panel and unplug them.

**- Reflectors, reflector tape, and vinyl lettering:**

Some reflectors are screwed or riveted on. Simply unscrew or drill them out to remove. Use a scraping tool/ razor blade along with a heat gun to remove the tape and vinyl. There will be an adhesive residue left which can be easily removed with a drill and eraser wheel attachment.

**- Dents and body work:** Depending on the condition of your bus you may need to fill in scratches, remove dents, get rid of rust or any combination. Bon-do or off-brand body fillers are simple to use but can take some practice. Depending on what you need to repair, research and look up what you need on youtube.

**- Sanding:** After everything is removed from the bus (lights, reflectors, hardware etc.), to prepare before painting, you must sand all surfaces. This only needs to scuff the glossy surface to help the paint stick and not chip. Use a higher grit sandpaper to scuff, 400 or higher. To save elbow grease, use an electric sander.

**- Clean again:** Everything is now sanded and dusty. Wash the bus with a good car soap. Do not use one that has wax in it. A pressure washer will help. Let the bus completely dry or speed it up with clean rags. Before the taping process, it is best to use the air nozzle and spray out all the water that remains under the ribs. The bus must be completely dry for the best paint job.

**- Taping, plastic, and paper:** Windows, doors, and any hardware that could not be removed (antennas, lights on top of the bus, emergency exit hatches, wheels etc.,

all need to be covered to avoid direct paint or over-spray. In general, it is best to apply a precise border line of tape on the object, and then cut your plastic and tape that on top of the border tape. For a window, tape the edges first, and then tape the plastic on. This process uses more tape, but it will save you much struggling and annoyance. As a reminder, do not apply white or stronger tapes onto fresh paint.



# 3. Painting

- **Primer:** Though it is not required, applying a coat of primer will do two things. It will help your paint job last longer, and it will be more even. Secondly, it will help hide the bright yellow that most buses are painted. This is helpful, especially if you are using a lighter color. We used an automotive primer from Keystone Automotive. It comes in three parts, the primer, the activator, and a reducer. Make sure you mix according to instruction. For a full-sized bus, about three gallons will cover it. Be sure to use a paint stick to properly stir the paint before it is measured out.

- **Paint:** We have used a single stage paint from Keystone Automotive called ALK-200. A hardener is mixed in called ALK-201. This paint is simple to use, and in most cases, one coat is enough as long as you get sufficient coverage. This paint is fairly common and should be available from other carriers. It can be tinted to give you color options. As noted before, get enough paint for your project depending on what surface area you need to cover. Approximately three gallons will be needed to cover the whole bus. Be sure to use a paint stick to properly stir the paint before it is measured out. Use a small cup or a cut-down water bottle to dip out paint rather than trying to pour out the paint from the can and cause a mess.

- **Mixing and filtering:** Pay special attention to your mixing ratios. Measure each part into designated cups. Putting a piece of masking tape on the side of the cup at the correct marker will help you quickly see the right level. The paint should be measured into a larger cup and passed through a paint filter to ensure there is nothing in the paint to clog your spray gun. The hardener, activator, and reducer as needed should each have their own cup but do not need to be filtered. Have a final large mixing

cup to pour all of the parts together, and then thoroughly mix them together with a paint stick before pouring into your paint gun hopper.

- **Spraying:** Before you put any paint into your spray gun, be sure that it is put together correctly and that it is tightened down. This will help ensure your gun is functioning properly and will save you from having to clean it out to fix a problem. Then put a small amount of lacquer thinner in the hopper and spray it out watching the fan of mist to make sure it is not clogged and ready to paint. Set the correct PSI for your gun. To do this, you will need to adjust your PSI input gauge at your compressor or get an adjustable pressure gauge to put on the end of your gun. 25-30 PSI is recommended in most cases. The primer we used came with a data sheet which recommended a low pressure of around 15 PSI. We found that the higher pressure helped spray better. For spraying technique and painting process, watch videos to get a good idea of what you need to do and how to do it. You can also learn how to better adjust your spray gun for your specific needs.

- **Flakes, dust, and runs:** While painting, overspray will get on your plastic. Before putting on a second coat of paint, use the air nozzle to spray off the plastic. You will get dust and flakes of paint that would otherwise land in your paint job. Runs occur from too much paint being applied, usually because you are holding the spray gun too close to the surface. If you can catch a run while it is fresh, you might be able to use a towel soaked in lacquer thinner and wipe the run off cleanly. Then spritz a small amount of paint back on. Please watch videos on avoiding and fixing runs.

- **Drying times:** Painting in 70 degree or warmer conditions would be best. Warmer conditions will allow the paint to dry faster. "With colder conditions, the paint will take longer to dry before you can apply tape to do

a second color. Before applying tape, usually 24 hours in warm conditions will be enough. Use a test spot to make sure that the tape will not leave residue. Tape should pull off leaving nothing behind. When you have established the paint is dry enough, apply your masking tape gently. You do not need to push overly hard as this may cause the tape to pull away the new paint.

- **Between coats of paint:** Tape and plastic off any new areas as needed. Use the air nozzle and clean off flakes and dust. Use 600 grit sand paper to smooth out all surfaces to be painted and clean with mineral spirits.

- **Wheels and Bumpers:** We have used gloss black enamel spray paint that is rust resistant to paint the bumpers and wheels. Sand or grind out the rust spots and clean with mineral spirits.

## **FINISHING TOUCHES**

- **Remove all Tape:** As soon as the final paint is on the bus, remove the plastic and tape. Be careful removing the tape from painted surfaces, and know that you will probably get pieces of paint that pull off with the tape anyway. You are just trying to minimize touch ups.

- **Reassemble Hardware:** Reinstall all hardware, lights, mirrors, etc. If you have labeled everything, this part should be simple and straightforward. Some light fixture housings may need to be painted or touched up before reinstallation. Mirror arms may also need touching up.

- **Touch up paint:** There will be places that need touchups. Simply mix a small amount of paint and hardener, and apply using a small art type brush. Try to dab the paint on

and not brush as it will leave a glossier look.

## **VINYL LETTERS**

Before you order your letters, measure and remeasure the areas that you are planning on putting them making sure they will fit. Changing the font may also change how they will fit.

- **Surface prep:** The paint should be completely dry of course. Ensure that the surface is dust free. Glass cleaner and clean paper towels are a good choice to use right before applying your vinyl.

- **Lining up:** Measure, and measure twice. Use masking tape to pre-position your letters where you want them.

- **Peel and stick:** Be very careful! Once the vinyl adhesive touches the surface, it is very difficult to remove without damage. Firmly press the letters to the surface. Use a squeegee tool designed for vinyl letters to evenly apply pressure. If there are rivets under the vinyl, slowly work the vinyl around it, and you may need to make a pinhole to let trapped air escape.

# Closing Remarks

We hope that this booklet has been helpful and as a last note we understand that painting your bus will not be an easy or small task. Enlist as much help as you can especially for the preparation for painting and washing of the bus. Take each step in turn, complete each step and the process will be much simpler.

This project will be a great blessing to your church as a whole and especially to your pastor. The last three sets of buses that NPBC has painted and used has all been under the vision and direction of Pastor William Reeves. We strongly encourage you to do this undertaking under the leadership that God has given your church. This does not mean that our pastor has been there every minute, but that he has planned, directed and been involved along every step and in certain areas delegated to others.

Thank you and we pray this will encourage you to put a new face on your Bus Ministry! God Bless!



# Pictures





