



September 2014

\$5.00 US

\$6.00 Canada

Bus Conversion Magazine



**A Bus From
The Land
Down Under**

**Loudonville
2014
Flxible Rally**

**Fuel System Care
During Long Term
Parking**

**How I Raised
The Roof On
My MC-5**



Free Online Edition With Every Existing Print Subscription

Last month's offer to provide everyone with a Print-only subscription a FREE Online Edition Add-on when they renew was a big hit. Many people renewed their subscriptions early and several new subscribers took advantage of that offer too. That offer is still available until December 31.

This month we have a special offer for everyone with a current Print or eMagazine subscription to view the Online Edition absolutely FREE to discover the secret that Online readers already know, that the HD (High Definition) version of the Online issue is of a much higher quality than either the Print or the eMagazine.

Also with the Online Edition you have the ability to view the most recent issue of the magazine as well as the two previous issues. So if you happen to be traveling in your bus for up to three months and don't have access to the Internet, when you get home you can log in and the previous months will still be there to view.

The Online Edition also contains a Bonus Section that is not included in the Print Edition due to the high cost of printing and mailing these extra pages, which vary in length each month. The Bonus Section contains extra information such as additional photos taken at rallies and more photos from Travel stories or other miscellaneous information that differs each month.

To view the Online Edition, log in to our website www.BusConversions.com and choose the Magazine tab, then choose the Online Edition sub-tab and log in with this temporary username and password combination. Both the username and password are cAse sensiTive and expire on November 30.

Login as follows (cAse sensiTive);

Username: FreeOnlinePeek

Password: WowVeryNice

To read or download the HD (High Definition) version of the magazine click on the photo of the magazine you are interested in. This will open the magazine in your browser to read. You can scroll up and down to read the entire magazine. Depending on the browser you use, there may be a pop-up that allows you to Save or Print the magazine, zoom in and out, and to change pages. To close the magazine, simply click on the small "X" on the tab the magazine opened in.

If you decide you appreciate the higher quality of the Online Edition and you already have a Print subscription you can sign up for Online Edition Add-On absolutely free until December 31 in one of two ways.

1. Go to www.BusConversions.com/UpgradeMe and choose the option at the bottom of the list "Online Edition Add-On for Print subscriptions of BCM" and fill out the information on the next few pages.
2. Email Linda@BusConversions.com your first and last name and email address and she will email you a username and password to access the magazine.

Please allow up to five business days for your username and password to be emailed to you. Your Online Edition subscription will be available for the duration of your Print Edition.

PUBLISHED BY

Bus Conversion Magazine
9852 Katella Ave STE 361
Anaheim, CA 92804
(657) 221-0432

PUBLISHER

Gary Hatt
Gary@BusConversions.com

ACCOUNTING/SUBSCRIPTIONS

Linda Sohn
Linda@BusConversions.com

EDITOR/ART DIRECTOR

Mike Sullivan
Editor@BusConversions.com

CONTRIBUTORS

| | |
|-------------------------|-------------|
| Gary Brinck | Tami Bruner |
| Marty Caverly | Bruce Fay |
| Dave Galey | |
| Steve and Rita McIntyre | |
| Larry Schlusser, PhD | |

WEBSITE

www.BusConversions.com

Questions/Feedback:
Webmaster@BusConversions.com

ONLINE BBS/DISCUSSION FORUM

www.BusConversions.com/bbs/

Phil Lyons - Forum Admin
ForumAdmin@BusConversions.com

MODERATORS

Nick Badame
Jack Conrad
K. J. "Frank" Franklin
Paul Lawry
Mike Sullivan

On The Cover:

1988 Hino Bus

Owned by:

Steve and Rita McIntyre

Opinions and techniques expressed herein are those of the authors and do not necessarily represent those endorsed by the Publisher. Bus Conversion Magazine and the authors respectively accept no responsibility or liability for any errors, omissions or alterations, or for any consequences ensuing upon the use of, or reliance upon, any information contained herein. Tasks performed in maintaining, altering and using vehicles may require specialized skills and involve inherent risks to the person doing the work or to the safe operation of the vehicle. It is the reader's responsibility to assess their own skills to determine if they can perform any such task and to seek professionally trained assistance if needed.

In This Issue

| | |
|---|----|
| Publisher's Note | 2 |
| Index of Advertisers | 3 |
| Loudonville 2014 Fxible Rally by Tami Bruner | 4 |
| The LED Doctor - Make Your Own LED Fixtures by Gary Brinck . | 8 |
| Fuel System Care During Long Term Parking by Bruce Fay | 9 |
| A Bus From The Land Down Under by Steve & Rita McIntyre .. | 12 |
| How I Raised The Roof On My MC-5 by Marty Caverly | 19 |
| Building Cabinets by Dave Galey | 23 |
| Sun Frost Refrigerators - Electric vs. Propane by Larry Schlusser, PhD | 25 |
| Rally News | 26 |
| Service Directory | 26 |
| Sterling Classifieds | 28 |
| Classifieds | 30 |
| Bus Sighting | 30 |
| Exclusive Digital Edition Only Bonus Content | |
| Loudonville 2014 Fxible Rally - Additional Photos | 34 |
| A Bus From The Land Down Under - Additional Photos | 37 |
| Blast From The Past - Southern Comfort | 38 |
| Bus Chat - Spin-On Fuel Filters | 41 |
| Digital Classifieds | 45 |

Index of Advertisers

| | |
|---------------------------------------|---------|
| Ardemco | 31 |
| Aqua-Hot | 13 |
| Atlantic Custom Coach | 6 |
| Autex | 8 |
| Balance Masters | 24 |
| B & B Coachworks | 23 |
| Byler Rivet Supply | 7 |
| Custom Instrument Panels | 10 |
| Engine Heat Protection | 5 |
| Engine Power Source | 18 |
| Fastening Systems International | 22 |
| Hitching Post | 14 |
| Mobile RV Glass | 21 |
| RV LED Bulbs | 11 & 32 |
| Sun Frost | 11 |
| Sure Marine Service | 20 |
| Wrico International | 15 |

Thanks to our advertisers for
supporting Bus Conversion Magazine.



Exclusively in the September Digital Editions of BCM



Blast From The Past!
We bring you "Southern Comfort", a GM 4905 that was the cover/centerfold feature 20 years ago. Still on the road today! For sale now in the Classifieds on page 28.

Extra photos from other stories in this issue, plus the Bus Chat feature that brings you high interest discussions from the BCM Online Discussion Forum.



Also additional bus related classifieds and potentially other late breaking info. Plus most photos can be clicked to open a much larger view of them.

Do you receive only a Print Edition subscription and would like to add access to the Online Digital Edition? It is easy to upgrade your subscription for **absolutely FREE** until December 31, 2014. Just go online to:

www.BusConversions.com/UpgradeMe

Then click the Online Add-On from the bottom of the list to order it.

Loudonville 2014 Flxible Rally

by Tami Bruner



Scott and I were able to attend the Loudonville 2014 Flxible Rally and it was a great time. This is the largest bus rally that we have been to so far and there were a lot of buses in attendance. Not only were Flxible buses there but there were also S.O.B's (Some Other Buses) there as well. We got to meet some people that were members of GLCC (Great Lakes Converted Coaches) that we had never met as well. For example, John and Ruth Maryo, Frank and Betty Nohel, Junior and Bertha Showman, Mike Muller and Mary Ann Nash, and Mike Middaugh. The others in attendance were John and Paulette Lingafelter, Don and Sandy Moyer, Paul and Claudiene Elbisser and Marty and Pat Caverly.

We arrived on Wednesday night around 8:50 and almost missed checking into the campground because they close at 9 PM on Sunday - Thursday. But we slid in just in the nick of time. Once we got the bus parked we walked around to see all of the Flxibles that were already there and some of the other buses. We ended up parked up butt to butt with Marty and Pat. After walking around, I went to bed because I was exhausted from working all day and traveling five hours to get there. Scott walked around and found a campfire and people to talk to and get acquainted with.

On Thursday the rally officially got started and we had biscuits and gravy, sausage, and eggs for breakfast. It was yummy; a big thank you to Ruth Maryo's brother for cooking breakfast for us on Thursday and Friday morning. After breakfast we registered for the rally where we got goody bags, name tags with fancy lanyards that Ruth made, and signs to hang in our buses. There was also a book exchange that was set up that you could take a book and leave a book for the rest of the week.

I love reading so I left three and was able to get three new books to read. There was also a Yankee candle swap that day at 2 PM but I missed that one because Ruth and I went uptown to get my hair cut and pick up some supplies.

That evening we had a light meal and everyone brought an appetizer to share. We had a lot of fun socializing and meeting new interesting people. Ken and Joan Utterback took a group of us that had never been to the Flxible museum on a personal afterhour tour of the museum. After the tour, we gathered around a campfire and had adult drinks and talked about stuff and some buses as well.

Friday morning we started off with pancakes, sausage and eggs. After breakfast if there were new arrivals, they could register and if you were a F.O.I (Flxible Owners International) member, you could pay your dues as well.



Bus Field Trip



Flxible parade through Loudonville



1956 VL-100 - Sam and Carol Bricker



1962 Flxible Starliner - George Showman



1966 Flxliner - Mike Muller and Mary Ann Nash

There was a craft/swap/flee market. Those who wanted to join in could set up by their bus to sell their stuff. There were lots of different items that you could choose from - lots of bus parts and some very interesting crafts.

Some of the guys took off to Mansfield, OH as John Showman heard there were some Flxible buses and bus parts for sale and wanted to go look at them. Scott went with them, so while he was gone I took some R&R time lying out in the sun in the nice patio area just outside the indoor pool. I also took one of my new books and read it while I was out in the sun.

At 1PM, we had a presentation from Kirwan Elmers who is the co-founder of Custom Coach Corporation. He had some very interesting history of his family and how they got started in their business. After that, we had an ice cream social with some wonderful toppings. Next, Mike Middaugh took stage to talk to us about the early conversions of FMCA.

That evening we had a potluck dinner and there was so much food that we needed a super big plate to hold it all. Each person had to bring two dishes to share and by the time I got there with my two dishes, a little before 6 PM, they had run out of table space.

We were joined by a lady from Dometic that was camping there and we all had a great time. If you haven't had a chance to camp with Ruth and John Maryo I



Engine Heat Protection

Reduce that unwanted heat with EHP Wet Blanket exhaust insulation



EHP Wet Blanket is a 1/4-inch thick ceramic-based material used for insulating underhood components from heat. Usable in temperatures up to 3200 degrees Fahrenheit, the blanket is wrapped around the heat source, such as exhaust pipe and reduces its radiating temperature by half. It contains no asbestos. Easy to install - complete instructions.

39250 Green Meadow Road, Temecula, CA 92592
(951) 302-2212
EngineHeatProtection.com

Loudonville 2014 Flxible Rally

suggest you find a rally that they are going to be at and hang out with them. They are a great people to be around.

Saturday morning was the big parade. Breakfast featured homemade Amish doughnuts. They started organizing and lining up the Flxible's at 9AM to go into town and get ready for the 10AM parade. Unfortunately, it was a drizzly dreary morning. We got into town right before the parade, and it sprinkled, but as the buses started coming up the street, the rain stopped. It was a great time for the people that came out in town to see all of the wonderful buses. We were able to ride uptown with Ruth, who didn't ride in her bus as she was an official picture taker.

Some people from town came right out to the campground after the parade to see the buses. We officially had all buses open for tour for the rest of the afternoon starting at 1PM. We had quite a few people interested in seeing the inside of our bus and I know Scott had a chance to go and see a few of the other buses. Of course, the Flxible buses had the most traffic in them all day.



1967 Flxliner - Robert and Joy Watters



1950 Clipper - Peter and Shari Strout



1954 Visicoach - John and Ruth Maryo



1962 Hi-Level - Jere and Ronnei Brannon

ATLANTIC CUSTOM COACH



We Can Help You With:

- » Aluminum Race Decks & Stair systems
- » Coach Chassis & House Systems
- » Custom Stainless & Aluminum Metal Work
- » Electrical Systems
- » Lateral Arm Awning Installation & Repair
- » Heating & Cooling Systems
- » KVH Satellite Systems
- » Audio & Video Systems
- » Bodywork & Graphics

Your satisfaction is our highest priority!

609-465-3285

1505 Route 9 North, Cape May Court House, N.J. 08210



ATLANTIC CUSTOM COACH
atlanticcustomcoach.com

That night's supper was catered by an Amish restaurant and we had beef, ham, chicken, mixed vegetables, mashed potatoes and gravy with bread and butter and cherry and peach pie for dessert. The last night's campfire was at the Maryos' again and it got crazy. Ruth made some awesome blueberries and we talked about what people were going to do next. It was also a sad evening because we knew the rally was about to end, and the next morning we would be leaving and wouldn't be seeing the people again for a while. Especially since Loudonville only happens once every two years. Until then, we look forward to seeing everyone at the upcoming GLCC Rallies and any other Rallies that we can attend.



1956 Scenicruiser - Joe Piper



1958 Flxible Starliner - John and Paulette Lingafelter



MCI 102A - Paul and Claudiene Elbisser

BYLER RIVET

www.BylerRivet.com

800.325.3147

Drill Bits • Threaded Inserts • Clecos • Blind Rivets • Rivet Tooling • Tool Repairs

2118 Parkside Ave. Irving, Texas 75061

The LED Doctor

by Gary Brinck

Make your own LED fixtures

A friend of mine, Mike, recently built some LED fixtures to replace his 18" fluorescents and that inspired this column. It is fairly easy to make your own custom fixtures with LEDs. The wiring is simple, heat is not an issue, and reflectors aren't needed. In many cases you won't even need to mount sockets for the lamps as you would for 12V incandescent or fluorescent bulbs. At the right is an example of Mike's fixture. It uses a pair of 4" LEDs intended for ceiling or under-cabinet mounting, but instead places them in a custom wood mount. The small switch you see between them allows one of the lights to be turned off, providing either full or half intensity. The fixture itself is controlled by a wall switch for the circuit that powers two of these fixtures.

Here are some examples of LED lights that can be used in this style of fixture. They are often available with voltage ranges as broad as 8-30 DCV, so they can be used in both 12V and 24V systems.



Flat faceplate



Rounded faceplate

There are other types of LED lights available that can be adapted into your own fixtures. Another idea is to use a rigid LED strip mounted in a slot in your own custom designed wood mount. If you have a router or a table saw, you can easily cut a slot in solid wood, but you can also make a slotted panel by placing the rigid strip on a thin backing board and then laying narrower boards on either side of the rigid strip. The rigid strip is already mounted in a nice aluminum frame and wired.

Rigid strips are available in a number of ready made lengths and colors – check the automotive department at Walmart or an auto parts store. The strip shown at the right is a 20" model but it can be cut to any desired length.



HP-RS20-2T LED Strip



The DIY custom made LED fixture that inspired this month's LED Doctor column

**Do you have a question about LED lighting?
Send an email to Gary Brinck at:
DrLed@OcalaHitch.com and the LED Doctor will
respond with an answer for you.**

The LED Doctor is brought to you by RVLEDBulbs.com and The Hitching Post of Ocala (OcalaHitch.com). Gary Brinck is a retired IBM computer systems engineer who is well-known in Internet RVing circles.

Complete Your Bus Conversion with a state of the art electrical windshield wiper system from

AUTEX
AUTOMOTIVE DEVICES
Manufacturer of AIR to ELECTRIC
Windshield Wiper Conversion Kits
Replacements for MCI, Eagle, Prevost, Gillig, RTS, New Flyer, NABI, Neoplan



FEATURES & ADVANTAGES

Easy to Install: Bolts directly to factory mounting points. No cutting or drilling required.
Installation Kit: R11 and L11 mounting brackets with Bosch motors. (12 or 24 Volts) pre-set wire harness with controls, variable, intermittent and two speeds. Wiper arm and blades are optional.
Extended Wiper System Life: Smooth and quiet electric power eliminates erratic operation and abuse of wiper components.
RELIABLE: AUTEX systems have been fleet tested under the most extreme conditions.

Automotive Devices Limited
90 Wakefield Ave., Staten Island, NY 10314
Tel: 718-983-9898 Fax: 718-494-4975
Email: customerservice@autexacs.com

Fuel System Care During Long Term Parking

by Bruce Fay



A Little Background

One of the dilemmas of a diesel-powered bus is what to do about diesel fuel when the bus is going to sit for a while and not be driven. I'm sure that never happens to your bus, but it does to ours. The conventional wisdom for gasoline engines is to do one of two things: 1) add fuel stabilizer and fill the tank to purge it of air, or 2) completely drain the fuel system and "oil" the internals of the engine. Option two is often selected for boats that are being dry-docked for the winter. One of the problems with an empty tank, however, is that our diesel fuel systems would need to be re-primed, and that's a pain. Another problem with an empty tank, particularly when the temperature is going to move up and down, is that that air in the tank contains water vapor and it condenses out as the air cools. Full tank, very little air, very little condensation. But that's gasoline, which seems to tolerate long term storage with the addition of proper fuel stabilizer. Diesel fuel is not gasoline, and it is less amenable to long-term storage without the possibility of problems. What to do?

Diesel Fuel Treatments/Additives

I use two different diesel fuel additives. One of them is Stanadyne Performance Formula Diesel Fuel Additive, which I purchase online from The Diesel Store. You can read the manufacturer's claims on The Diesel Store website. Per the manufacturer's recommendation, I add approximately one 16-oz. bottle for every 60 gallons of fuel I put in the tank. I buy it in 12 bottle cases. I don't know if it does any good, but it certainly hasn't done any harm, and I have not had any fuel problems.

The other additive I use is Racor Biocide, which I also get from The Diesel Store. It's a bit pricey, but it is serious stuff, and you only need small quantities to treat the amount of diesel fuel in your bus fuel tank. Basically, it keeps nasty stuff from growing in your fuel while it is sitting. That's one of the big differences between gasoline and diesel fuel; stuff can and does grow in diesel fuel. The presence of suspended water in your fuel further enhances the ability of stuff to grow, which leads to a third course of action.

Diesel Fuel Polishing

The idea of diesel fuel polishing is relatively simple: continuously and slowly circulate the fuel through a

filter/water separator to keep the bad stuff out of it. The "magic" is that the filter/separators apparently work more effectively at removing gunk and water when the fuel is moved through them slowly, very slowly. For added effectiveness, while the bus is sitting you could also install a smaller micron filter than you normally use, but you would have to change it back before starting/running the bus.

A Diesel Fuel Polishing Module

The Racor Division of Parker Industries, the same folks that make the water separators/filters that many of us use, make something they call a Fuel Polishing Module, model FPM-50.



The Parker FPM-50 on the bench with fittings ready to install

They primarily market it to the marine industry, but it is equally applicable to our converted bus situation. Basically it is a small solid state pump that runs off of 12 VDC and draws about 150 mA of current. That isn't much power, and it will circulate approximately 50 gallons of fuel per day with that amount of energy. For marketing purposes they simply named it for what it does.

The FPM-50 has three ports, two of which are designed to go "in line" with a primary fuel line and one of which is a return line for the fuel polishing function. Yes, the FPM-50 can be installed in the main fuel line to your engine, downstream of your water separator/filter. When the engine is running, the FPM needs to be turned off, and the fuel flows through it like it isn't even there. With the main engine off and the FPM-50 on, it slowly draws fuel out of the tank, through the water separator/filter, and returns it to the tank via the return port and the normal engine return line. A check valve is needed to keep the FPM-50 from pumping fuel backwards into the engine via the return line.



The T-fittings (top) and the check valve (bottom)

Fuel System Care During Long Term Parking

Alternative Installations

The primary advantage to using the main engine fuel line is that it draws fuel from lower down in the tank than any other pickup tube. The disadvantage is that you have to tap into your primary fuel delivery and return lines. There are alternative ways to install the FPM-50. One of them is to use a dedicated fuel loop, and this is an excellent way to go IF you have access to your fuel tank and a way to install dedicated pickup and return lines. The pickup line in this case can be close to the bottom of the tank, and the FPM-50 does not have to be turned off while the main engine is running.

Another installation option, and the one I chose, is to install the FPM-50 in an existing auxiliary fuel loop. Buses used in commercial service may not have had one of these initially, but chances are you already added one (or more) to your converted bus to run a generator and/or Webasto hydronic heating system. In our case, I chose to install the FPM-50 in the fuel loop for our Aqua-Hot hydronic heating system. The fuel lines were smaller and easier to work with than the main engine lines, and were relatively accessible. The only downside to this approach is that the bottom end of the pickup tube is positioned above the bottom of the tank so that it will not draw fuel when the fuel level gets below a quarter tank. However, starting the main engine occasionally and letting it idle for a while will stir up the fuel in the tank.

Our Aqua-Hot has its own small Racor water separator/filter, which is why I could install the FPM-50 in its fuel loop. I had to cut the fuel line that runs between the outlet of the Racor and the inlet of the Aqua-Hot and install the FPM-50 between these two loose ends. The outlet of the Racor was plumbed to the inlet of the FPM-50 and the Aqua-Hot inlet was plumbed to the outlet of the FPM-50. I cut the return line from the Aqua-Hot to the tank and inserted a T-fitting and check-valve. The check valve is between the T-fitting and the Aqua-Hot and requires a very low pressure to open in the forward direction. The third branch of the T-fitting was plumbed to the return port on the FPM-50. In operation, the check-valve prevents the FPM-50 from pumping fuel backwards into the Aqua-Hot via its return line.

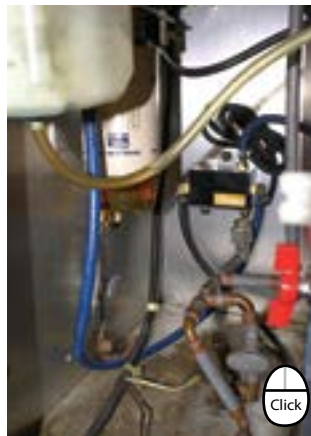


The Aqua-Hot is center right. The FPM-50 is in the small vertical compartment center left. The battery for the FPM-50 will go in the compartment below the Aqua-Hot.

I was also able to mount the module in a location where I could install a small 12 VDC AGM (Absorbed Glass Mat) battery nearby to run it and installed a battery disconnect switch in a convenient location to make it easy to turn the FPM-50 on and off. The battery is connected to a maintenance charger that keeps it charged when we are plugged in or running the generator. This battery is completely independent of the engine/chassis batteries, the house batteries, and the generator starting battery.



The Aqua-Hot fuel return line cut and plugged.



FPM-50 installed on rear wall where the fresh water expansion tank was. (Note that the water pumps have been removed from the floor of this compartment as they were being replaced with a new, single pump that did not require a surge tank.) The Racor fuel filter/water separator for the Aqua-Hot is in the upper left behind the coolant expansion tank for the Aqua-Hot.

CUSTOM INSTRUMENT PANELS

Dash Panels For Bus Conversions

Made to your specifications.



Eagle • GM • MCI • Neoplan • Prevost
AC/DC Monitor Panels
Back Up Monitor Systems • Dash Accessories

28585 Valley Drive
Albemarle, NC 28002
[Tech] 704.985.0171 • 800.462.7635 • [FAX] 704.985.0173
Email: cipdash@sbcglobal.net
Visit us on the web: www.custominstrumentpanels.com



The FPM-50 inserted into the fuel delivery line between the Racor fuel filter / water separator and the Aqua-Hot (horizontal connections). The fuel bypass line comes off the top of the FPM-50 and goes to a Tee in the fuel return line. In polishing mode, the pump draws fuel from the tank through the Racor and returns it to the tank. In normal mode, fuel flows through the FPM-50 as though it was not present.



Battery tray in small compartment under the Aqua-Hot. Note the wires on the right. The wires in the split loom are from the switch. The other cable is from the maintenance charger in the electrical bay to the right.

The small 12 VDC AGM battery secured, connected, and fused. The cable in front of the battery is from the maintenance charger. It has a polarized plug arrangement.



Battery disconnect switch used to turn FPM-50 on/off



Battery hold down kit



Dr. Bruce Fay is a retired educational assessment and evaluation consultant and a former electrical engineer, photographer, and teacher. Linda is a retired CPA & corporate controller. They live in S.E. Michigan, and started traveling North America in their 1990 Prevost H3-40 coach conversion in June 2013. Their website and blog are at www.omnibus-mi.us. They can be reached at us@omnibus-mi.us.

Conclusion

Although you could probably rig up some other kind of pump to accomplish this, the thing that makes the Parker Racor FPM-50 unique is that it moves fuel very slowly using very little power. The FPM-50 is a purpose-built device because when it comes to fuel polishing, more (flow) is not better.

**REVOLUTION™
RVLED
Bulbs**

10% Off
Coupon Code
BCM18

www.RVLEDBulbs.com
800-241-2122

Sun Frost

Energy Efficient Refrigerators & Freezers



- ▶ Available in DC, AC or both
- ▶ Select From Over 10 Models
- ▶ No leveling required.

- ▶ Available in 100's of colors, woods & stainless steel finishes
- ▶ Will run for 3 days on two golf cart batteries.

P.O. Box 1101, Arcata, CA 95518
tel: (707)822-9095 fax: (707)822-6213
info@sunfrost.com www.SunFrost.com



While most of the bus nut world is in the western hemisphere, and usually involves bus brands such as Eagle, MCI, Prevost, GM, Flxible, Gillig, International, etc., the BCM subscribers list over the decades stands testimony to the fact that there are bus nuts in every part of the world. This month we have the honor of showing off a bus conversion from "Down Under", a.k.a. Australia. The bus is also a relatively unknown brand in North America - Hino, a member of the Toyota family. Hino is a common brand of bus in Australia, just as MCI is the U.S. Read on, and enjoy the McIntyres' story of their bus conversion.

Greetings to all our fellow bus nuts around the world. We live in Sydney, Australia and thought we would share our bus conversion from down under with you.

I have always been interested in motorhomes and bus conversions. Doing a bus conversion was in our long-term retirement plan. We decided to bring the project forward and carry out the conversion so that we could start enjoying it at an earlier age. My wife and I are in our 40's. Our kids are now in their late teens and early 20's, so we can comfortably leave them to enjoy extended weekends away.

We purchased a 1988 Hino CH160, a 7-meter (23 feet), 25-seat bus, from the Christian Life Church in Queensland, Australia in 2009. The reason we decided on a 7-meter bus was the fact that it is was small enough to fit into the smallest of caravan parks. Yet being what

they call a Midi Coach, it still has the heavy-duty running gear, air ride suspension, under bus storage, etc. Here in Australia we are not lucky enough to have RV parks that can accommodate larger rigs as are common in North America. But that relatively short length comes at a price - we had to go to even greater lengths to optimize every space. It took a lot of planning to fit all the necessary gear we required into a 7-meter bus.

In addition to the bus, we have a 6-meter Pantec trailer that we can tow behind the bus. Its paint scheme complements the bus, and it is fitted out the same, including bunks, air conditioning, TV, etc. This also carries our Suzuki Jimny, a small 4WD SUV. The trailer also has a winch and a tow ball to draw in and secure our jet ski on its trailer for use when taking the whole family to a water destination. It also features a chock mount for securing a motorbike when needed.



This trailer was chosen because it is the same width as the bus and large enough to haul the Jimny



This is no mere car trailer. It includes bunks, television, air conditioning, equipment to haul a jet ski on its own trailer or to secure a dirt bike



The open trailer provides a lighter, more fuel efficient option when the added sleeping capacity and/or other functionality of the enclosed trailer is not needed



Interior stripped out and floor panels removed in preparation for modifications. Also, you can see in this photo where the engine resides in this mid-engine bus

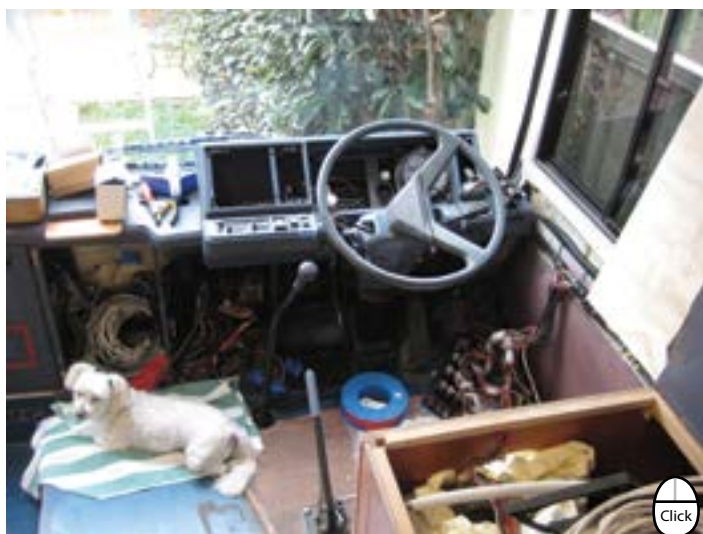
For those occasions when it is just the two of us on a road trip, we also have a lightweight custom built open car trailer for bringing the Jimny along. It also has mounts for the motorbike.

When we bought it, the bus was in original commercial service condition. Once we got the bus back home, I removed all the seats and then completely stripped the internal lining. I am a Marine Electrician and work on boats 40 feet in length and larger including many super yachts. Incorporating that experience into our bus plans, I set my standards high. To get the bus to the standard we wanted, I employed the help of a shipwright to do the timber fit out and had the bus painted by a professional motor coach painter.

As with many Eagles and MCI buses, with this particular model of Hino, many choose to raise the roof. Instead, I chose to lower the floor in the bathroom. In general, I applied my experience with boats to make the

confined space of the bus feel as large as possible. For example, in the galley the aisle is widened 8" to make it easier to move around in it. Throughout the bus, cabinet and drawer handle/latches are the nautical style flush fitting type – reducing their protrusion into living space.

We refitted the driver and passenger seats with Isri brand air-operated seats. The interior cabinetry and trim is consistent with the marine influences found throughout the bus. All new appliances and fittings



Complete dashboard remodel and clearing the way for the new driver and passenger seats (with proper canine supervision of course)

Imagine an Endless Supply of Hot Water in Your Motorcoach!

The Aqua-Hot, by Vehicle Systems, luxuriously provides a continuous supply of hot water - meaning your geyser never runs dry! This unique hydronic heating system (heating with hot water), also provides three separate interior heating areas (no cold spots), engine preheating, and it operates off diesel fuel.

Aqua-Hot. It's Faithfully Hot.

Aqua-Hot™
By Vehicle Systems, Inc.
Motor Coach Heating Specialists

www.aqua-hot.com
1-800-685-4298

A Bus From The Land Down Under



Steve demonstrating the exterior slide-out grill and sink



Galley with slider window set into OEM bus window pane



Bedroom continues the marine styling and space efficiency

were installed. New entertainment systems featuring 32" flat screen TVs were installed in the front parlor and the bedroom. Programming is provided by either DVD or the Oyster Satellite system.

Other comfort and convenience features include a ducted vacuum system and a heated towel rack.

As mentioned, the bathroom floor is lowered 10 centimeters (4 in.) to make for a more comfortable shower without raising the roof. Again drawing on my nautical experience, we chose a VacuFlush toilet to reduce water consumption and provide flexibility in tank







HITCHING POST

DrawTite
Reese®

**Towing Systems for Cars,
Trucks, RVs, Scooters,
and Bus Conversions.**




TRAILER HITCHES
WIRING
BRAKES
TRAILER REPAIRS
BRAKE CONTROLS
RV TOW BARS
TOW CAR LUBE PUMPS
TRUCK ACCESSORIES

800-241-2122
352-629-0756
www.OcalaHitch.com

5th Wheel • Gooseneck • Receiver Hitches

placement for better space utilization underneath the bus.

As with most bus conversions, just about everything had to be custom made to fit. One of the biggest custom fabrication projects was the outdoor kitchen and BBQ, it had to be easy to use or it would not be used as it should. To fit it all in I had to modify the wheel well arch and framing. That modification took a lot of planning to ensure it would not interfere with tire movement under various conditions. I made a custom enclosure to house the sink and plumbing, which slides in and out when required and locks in both positions. As for the BBQ I made a double custom slide so it would slide out from the bus far enough not to make a mess and also was free standing.

Overall, we wanted to keep the original bus windows. However, in the galley we wanted a slider window we could open easily. Rather than completely disrupting the smooth lines of the exterior glass by replacing that entire window with a slider, we cut a hole in the glass and installed a smaller slider window in it. The rear window was originally solid as well. We felt this had to be an opening style window too for ventilation.

For even more ventilation, we installed marine type roof hatches in the shower, bathroom, bedroom and kitchen. The kitchen one is big enough to climb through so it can provide access to the roof from inside. Their location provides good ventilation in the summer.

As there is so much glass on the outside of the bus I had them tinted extremely dark. In the winter it is great as the windows warm the bus once the sun hits; in the summer the windows heated the bus. But we found that we were using the air conditioning more than planned, so we installed a second awning on the other side of the bus just to shade the glass. This made a huge difference.

To support our power needs we installed a separate 24V, 120AH house battery bank, 3000W inverter/charger, battery monitor, and 3KVA generator. We chose to use separate black and gray waste holding tanks. For fresh water, we also went with a dual tank approach – a 220-liter (58-gallon) primary tank, and a 40-liter (10-gallon) reserve tank. The bus is heated with a diesel-fired furnace and cooled with a Dometic B3000 roof-air unit.

Finally, after 14 months, we completed the project. We did our first shakedown trip in January 2011. Since then we have made some necessary changes and are now extremely happy with the finished product.

We now enjoy the bus and travel up and down the east coast of Australia every opportunity we get. We have met lots of wonderful people and have had so much help along the way.



Simple boat style bathroom with vanity and Vacuflush commode

WRICO INTERNATIONAL

W



I

THE GENERATOR MAN

We carry a full line of Coach Conversion Parts & Accessories, to list a few:

- Wrico Generators
- Magnum Inverters
- Webasto Hot Water Heating Systems
- Cooktops & Water Heaters
- Automatic Transfer Switches
- Generator Autostart System

Call the people with the Coach Conversion Experience and Know-how.

Made Specifically For Bus Conversions

Kubota Powered • Water Cooled • 1800 RPM

Direct Drive • Easy To Service

Rugged and Trouble Free

Buy direct and save. Call the Generator Man

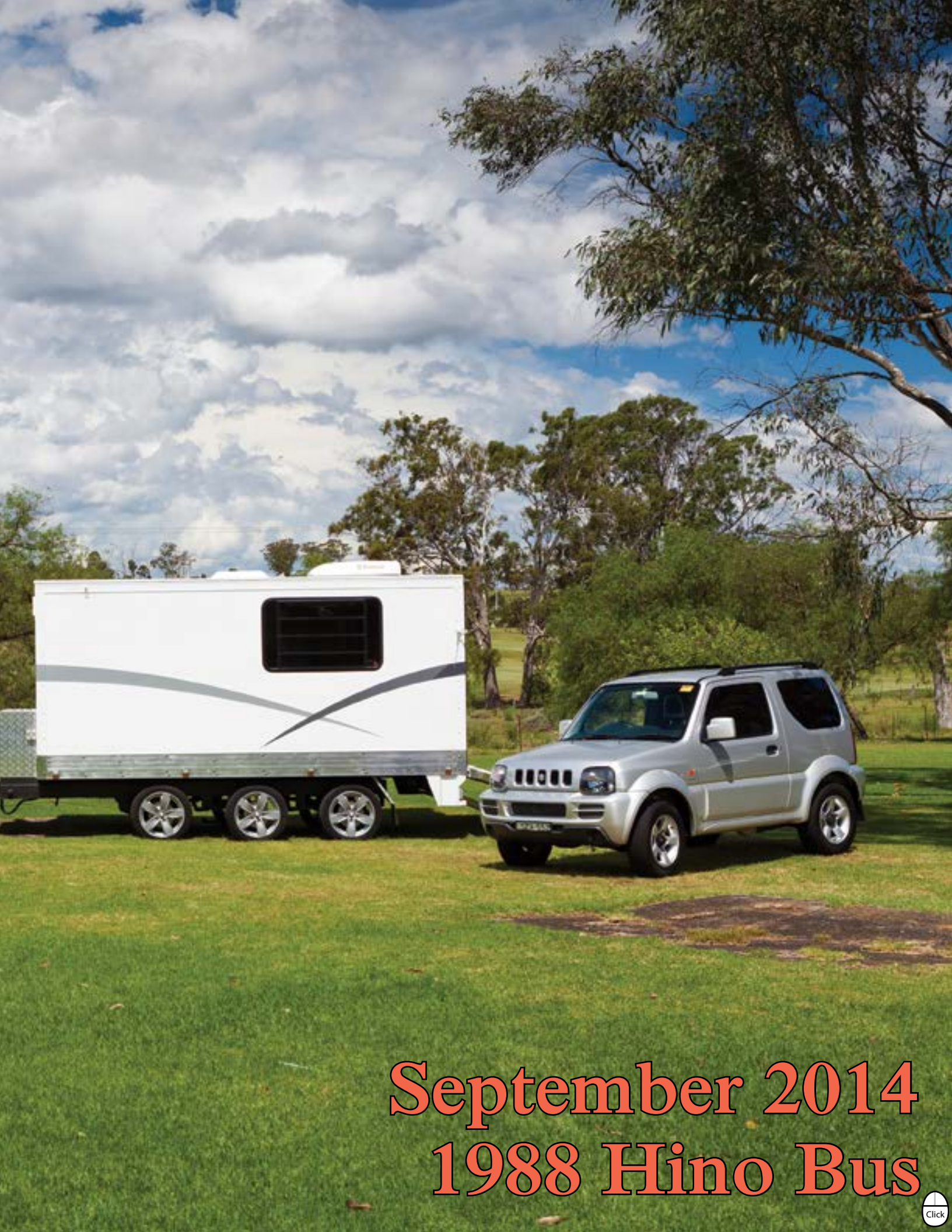
(541) 744-4333

WRICO INTERNATIONAL

PO Box 41555 • Eugene, Oregon 97404

BCM





September 2014
1988 Hino Bus

Specifications

Chassis/Powertrain:

Manufacturer: Hino (Toyota Group)
Model: CH160
Year: 1988
Vehicle Weight: 7.9 tons (17,500 pounds)
Overall Length: 7 meter (23 feet)
Overall Width: 2.2 meter (7.2 feet)
Overall Height: 3 meter (9.8 feet)
Outside Color: White body, silver/gray features
Engine: Hino WO6E, intercooled, turbocharged
Transmission: 6-speed manual gearbox
Power Steering: Yes
Suspension: Airbag
Wheels: Steel/Stainless steel trim

Tank Capacities:

Fresh water: Main 220 liter (58 gal)
Reserve 40 liter (10 gal)
Grey water: 130 liter (34 gal)
Black water: 75 liter (20 gal)
Fuel: 150 liter (40 gal)
Propane: 4 kilogram portable (8.8 pound)

Conversion:

Type: RV/Bus
Converted by:
Woodworking by Traditional Timbers
Paint by Peter Fitzhenry Coach Painters
Electrical, Plumbing and remainder of fit out by owner, Steve McIntyre.
Interior Theme: Marine

Electrical:

Systems: 24V DC, 240V AC 50 HZ
House batteries: 120AH AGM
Start batteries: Odyssey 730CCA
Inverter /charger: Victron 24V, 3000W
Generator: Honda EU20I, 2000W, 240V AC, 50 HZ
Shore Power: 20A @ 240V
Lighting: LED

Exterior Equipment:

Outside sink: Stainless steel slide out
Outside BBQ: Stainless steel / gas slide out
Bar fridge: Glass door – Schmick
Awnings: 2 - Fiamma, 4.5 meter (15 feet)
Outdoor speakers: Fusion 7-inch



Roll out and enclosed models available!

Generators for the long road ahead.

- Commercial grade quality and competitively priced!
- 7KW to 100KW generators, powered by a rugged Kubota or Cummins diesel engine.
- RVIA-approved models and a wide range of options available.
- Enclosed units feature convenient single side service and removable doors for easy access to maintenance parts.
- Experienced support staff to help guide you, including electrical and mechanical engineers.
- Generator service in the Charlotte area – from simple repairs to complete replacements on most makes and models, with convenient interstate access. Mobile service available!



enginepowersource.com
or call 800-374-7522

348 Bryant Blvd. • Rock Hill, SC 29732



How I Raised The Roof On My MC-5

by Marty Caverly

When I started to convert my bus, a 1973 MCI MC-5B, I kicked around the idea of raising the roof. I wanted to do it so I could put more insulation in both the roof and the floor. By raising the roof, I was able to maintain ceiling height – especially with the air conditioning ducts reducing some of the available ceiling height.

After a few months of doing other things, I decided to bite the bullet and go for it. I blocked the bus up on timbers so there was no bending or twisting of the framework. Next, I removed all of the skin on the outside up to the roof. This included removing the entire drip rail and the rivets under it, which holds down the edge of roof.



Before



After



I cut steel tubing with a saw every ½-inch and then bent the tubing to form the curve I needed and welded it back together.



The structure below the front cap was so rusted from the designation sign that the skin was the only thing holding it together.



Also I found a break on the right driver post broke under the skin.



To cut the uprights between the windows I used a 4½ electric grinder, with 6-by-1/16-inch cutting wheels which I purchased from McMaster-Carr. I cut all the upright supports, except at the four corners. I made the cuts in the middle of the vertical uprights between the windows. I placed bottle jacks in each corner of the bus on the floor, and made some pipe extensions to go from the floor jack to a cross timber in the front and rear. Each pipe had a cup in the bottom to fit into the top of the jack and the top bracket was screwed into the timber so it was well anchored.

How I Raised The Roof On My MC-5



I made angle iron brackets to clamp the uprights on two sides of the cross timbers so there was no movement in any direction.



The angle iron was clamped with c-clamps. I then unclamped one c-clamp and jacked one corner up one inch, re-clamped it, and went on to the next corner. I kept going around the bus until I had it raised eight inches.



The next step was to replace all the steel framing from the floor line to the roof. I used 1½-by-1½-by 1/8-inch tubing and built them like trusses, building the windows frames as I went.



After the steel was up I drilled holes in all the framing and spray-foamed all the tubing inside to reduce condensation and add insulation. I bought a complete fiberglass kit from R&M Fiberglass. It included caps, front and rear surrounds, and the siding. The siding came in 35-foot rolls. For the front and rear caps, to fit to the framing, I had to rebuild the ceiling structure.

Sure Marine Service

Feel the Heat

The combination of Webasto and Sure's own Real fan heaters (3,500 to 25,000 BTU) makes land cruising fun and comfortable.  Webasto DBW2010, 45,000 BTU

Sure Marine has over 100 dealers nationwide, each trained to be the best. We can help come up with the right solution on land or at sea.

Contact Sure for your nearest dealer or some solid advice on your application. The Heating/Cooling professionals at Sure Marine Service can extend your cruising season!

Webasto **REAL** Real 643X 14,000 BTU
Marine Comfort

Sure Marine Service, Inc.
5320 28th Ave. N.W.
Seattle, WA 98107
(800) 562-7797 (206) 784-9903
www.suremarine.com
or
Shop Online: www.suremarineservice.com

40 ANNIVERSARY
BBB ACCREDITED BUSINESS

Before



Click

After



Click

The rear cap extended back almost two feet more than the original cap



When I started to skin the bus, my granddaughter Amber helped me for the summer. She was a trouper even when the work got dirty and hard. Of all the jobs, she enjoyed riveting the most.



Click

I started skinning the bus in the rear with the rear cap and the entire surround.



Click

We laid the sides out on sawhorses to flatten them before installation.



Click

After laying out the sheets, I had a bunch of friends help me install the sides, which came in 35-foot rolls. All of the fiberglass was riveted on with Monobolt® rivets for support and lighter duty rivets where supports weren't needed. I started out with two Harbor Freight rivet guns but they didn't last with the Monobolt® rivets so I bought a Huck rivet gun from Fastening System International. I think we installed at least 300 rivets on the entire bus.



Click

Click

Once the sides were done, I moved to the front cap and then the front surround. The door was skinned next.

Do you enjoy project articles like this? A lot of your fellow bus nuts do too. If you have done a project on your bus, large or small, drop an email to Editor@BusConversions.com to get started on sharing your project with the bus nut world.



Call today for \$100 off!
 1-855-778-4527
www.MobileRVGlass.com
 Nationwide windshield repair & complete fabrication services!

How I Raised The Roof On My MC-5 by Marty Caverly



Before



After



Notice the bumper covers are over the original bumpers.



I decided to reskin the baggage compartment doors with fiberglass also. At this time I decided to make café type doors that swing sideways instead of having doors that I had to crawl under. I built doorframes of one-inch square tubing with stainless steel piano hinges.



My wife Pat and I live in Clio, Michigan. I was an electrician for GM before retiring and she worked for a fast food restaurant. I first got hooked on bus conversions when a friend asked me to go with him to look at a bus for sale. He wasn't interested in it after he looked at it, but I was. My wife couldn't believe it when I told her that I wanted to buy a bus. We had never camped before so she thought I was nuts. I can be reached at scoobydo42@charter.net.

Blind Rivets and Tooling FOR BUS CONVERSIONS

PT-100-C Air Hydraulic
D-100-C Hand Hydraulic
Sloux Air Drill
Rivet Head Shaver HS310-6B

Shave Head Rivet Specialists!

Nutserts®
Rivnuts®
AVK Inserts®
Plusnuts®
Interlocks®
Bulb-Tite® Shave Head
Pop® Rivets
Monobolts®
Avex® Style
Q Rivets
Magna-Grip®
Clecoc

FSI FASTENING SYSTEMS INTERNATIONAL, INC.
www.fsirivet.com

Authorized Tool Repair Center for:

Tel: 800-344-2393 - sales@fsirivet.com

Building Cabinets

by Dave Galey

The body of a cabinet is known as the carcass. Normally when you think of a carcass you think of a dead cow or horse out on the prairie being circled by a flock of vultures. You must now change your way of thinking but this is the easiest part of a cabinet to make.

The simplest cabinet may be box with a top and a pair of doors. When using a wood grain surface instead of a plain surface such as a Formica, the grain should always be oriented in the vertical direction. To have the grain running horizontal is unnatural since most trees grow vertically rather than side to side. In earlier times, the carcass was made from glued-up pieces of wood. Often a carcass was framed much like a door or a cabinet front and a thin panel, or a raised panel was inserted. Today we make the carcass from $\frac{3}{4}$ -inch thick plywood. If we are planning a hardwood cabinet, we use a plywood with a matching hardwood veneer. Traditionally veneer has been $\frac{1}{28}$ of an inch thick.

This is approximately one millimeter. However, in recent years as hardwoods become more rare, veneers have become almost paper thin. By that, I mean just a few thousandths of an inch thick. When using this material extreme care must be used so that the veneer is not sanded through. If the plan is to cover the carcass with a product such as Formica then a good grade of A-C plywood will work fine and consideration should be given to the direction of the grain.

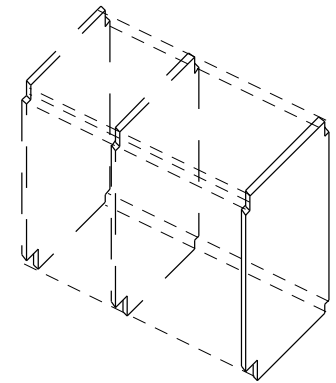
The two sides of this box cabinet should be the same dimensions. The back may be of thinner material such as $\frac{1}{4}$ -inch thick plywood. Furthermore a rabbet $\frac{1}{4}$ -inch deep and $\frac{1}{2}$ -inch wide would allow the back to recessed into the cabinet sides and ensure the cabinet is square when secured to the side and bottom.

The front of this cabinet may be finished with edge banded tape matching the hardwood or a face frame may be attached. If this cabinet is to be placed on the floor, such as an entertainment center, a raised frame should be installed to provide a toe-kick area. A toe-kick area is traditionally $3\frac{1}{2}$ inches high and inset about $1\frac{1}{2}$ inches. None of these figures are rigid and may be modified to suit the builder. Cabinet tops are a separate subject all their own as are cabinet doors.

The carcass for an overhead cabinet in a bus will generally have to match the contour of the ceiling. This is where your template making ability will pay off. An overhead kitchen cabinet may consist of nothing more than a side bulkhead and a pair of shelves with the other end of the cabinet mating up against a wall. It is suggested, however, a cabinet bulkhead be provided for each end so the cabinet may be completed in the workshop on the bench, stained, varnished or lacquered in the shop and installed in a finished condition.

The carcass for the kitchen counter may consist of a number of bulkheads, or partitions assembled together with a series of rails set into notches. These notches should be $\frac{3}{4}$ inch by $1\frac{1}{2}$ inch (nominally 1 x 2s) along

the back and the top front. A toe-kick notch $3\frac{1}{2}$ inches high should be cut into the bulkheads along the front to accommodate a 2 x 4. Again, this toe-kick recess should have a finished inset at least $1\frac{1}{2}$ inches. After the carcass is assembled with the rails in place, the carcass may be secured against the wall by installing screws through these rails. Also, notches should be cut where appropriate to accommodate plumbing and electrical runs.



Cabinet bulkheads

These utility notches may be conveniently hidden below the toe-kick line. The sketch above is an example of kitchen bulkheads with the notches cutout.

Before assembling the bulkheads with the 1 x 2s and the toe kick plates, it is a good idea at this point to install all the drawer glides since space may become a little cramped after they are put together. Also cleats should be installed on which to mount the cabinet floor. These cleats will line up with the top of the toe kick plate so the cabinet floor may extend over the it. Dados (milled slots) may be employed instead of cleats, especially where shelves are to be installed. The advantage of cleats for

B&B COACHWORKS



15 years of **COMPLETE** custom fabrication experience. Conversions on any make.

Specializing In:

- Coach widening - 96" -> 102"
- Slide Outs
- Remodel & Repair on ANY motorhome or bus.

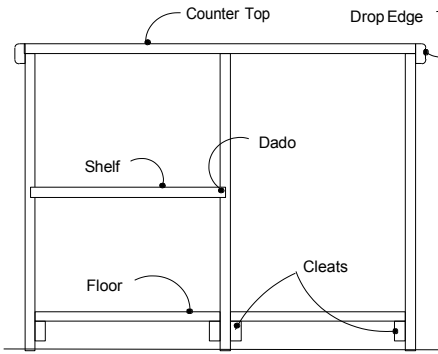
We WILL SHIP:

- Radiator spray systems
- Engine door louvers
- Air steps for entry door
- And much more!

4350 S. Arville, Unit 6
Las Vegas, NV 89103

Call today for conversion specs and photos.

(702) 873-4415



Cross section frontal view of kitchen cabinet

the lower shelf is screws may be used to secure the shelf through the top into the cleat. Back to back dados cancel the technique of using screws on both sides unless one set of screws is installed at a steep angle.

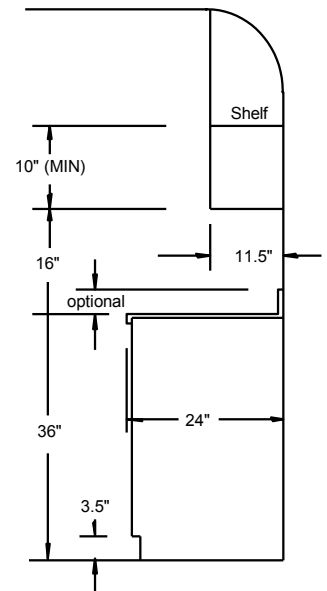
The carcass for an overhead kitchen cabinet consists only of end bulkheads and shelves. Depending upon the headroom in your coach you may have one or possibly two shelves in your overhead cabinets.

Many coaches have had their roof raised which allows for a two shelf overhead cabinet.

The common distance from a counter top to the bottom of the overhead cabinets is 16 inches. Obviously if there is a window in the way, this rule doesn't apply. The normal height of the kitchen counter is 36 inches. This means the overhead cabinet begins at 52 inches above the floor. With the customary slope of the coach roof at 11 inches inside of the outside wall, a dimension of 76 inches would allow for a cabinet height of 24 inches. This would provide for a two shelf cabinet. The minimum

inside height between shelves should not be less than 10 inches. Nor, should the shelf width be less than 11 inches. If you have a problem achieving these minimum dimensions, be sure and get written permission from your wife.

The dimensions shown in the drawing on the right are recommended but in no way are they etched in stone. The important thing is that they are a comfortable fit for you and your family.



Cross section, side view of upper and lower kitchen cabinets

Dave Galey is a leading author in the bus conversion field. For over 12 years, his best seller, *Bus Converter's Bible*, has been teaching bus nuts many of the tasks needed for successfully converting buses into great RV motor coaches.

This article is an excerpt from Dave Galey's book *Classy Cabinets For Converted Coaches*. Dave's books are available for purchase as PDF e-books in the BCM Online Store in the "books" category at www.busconversions.com/store/

BALANCE MASTERS®

THE ONLY PRODUCT OF ITS KIND ON THE MARKET THAT HAS BEEN TESTED AND APPROVED BY THE U.S. MILITARY

www.BalanceMasters.com

One Time Investment!

NEVER BALANCE YOUR TIRES AGAIN

Balance Masters will stop tire cupping and increase tire life up to 50% or more!

FITS MOST HEAVY-DUTY TRUCKS, MOTOR COACHES BUSES, MOTOR HOMES, VANS AND CARS FROM 2" TO 5 5/8" DIAMETER DRIVESHAFTS

NO STEEL BALLS
NO SANDS OR OILS
NO PREBALANCING

Active Balancing Systems are the Ultimate in on-board balancing devices!

SUN-TECH INNOVATIONS, LLC
P.O. Box 9154
Canoga Park, CA 91309
(877) 826-9127 · (818) 882-8431
Fax (818) 882-7859

OVER 30 YEARS IN BUSINESS

Sun Frost Refrigerators

Electric vs. Propane

by Larry Schlussler, PhD

If you live off the grid and need a refrigerator, the two most common choices are Electric or Propane. Sun Frost manufactures high efficiency electric refrigerators that are an excellent alternative for off grid use. They can be powered by either AC or DC power.

Electric = Versatile and Sustainable

The DC models can be powered by 12V or 24V batteries. One 100 amp-hour 12V deep cycle battery will typically run the Sun Frost RF1 two or three days without recharging. The batteries can be kept charged by periodic use of a generator or by a single 135-watt Photovoltaic (PV) panel. A PV Panel is essentially a battery charger; a 135-watt module produces up to 7.7 amps in the full sun. The panel will provide the energy needed to run the refrigerator with about four hours of direct sunlight. On a cloudy day, you will still get about four hours of equivalent sunlight, but over the whole day. On rainy days, part of the energy required would be provided by solar and part by the battery. In the northern states in mid-winter, there may not be enough sunlight (insolation) to keep the refrigerator running. Under these conditions, the batteries could be topped off with a generator. In a sunny state like Colorado, a 135-watt panel will supply energy and keep the refrigerator running all year.

The Propane Alternative:

A propane refrigerator uses what is called an absorption process to cool the refrigerator. This process is powered by heat. The heat can be produced either electrically or by combustion.

A 10 cubic foot propane refrigerator will typically consume 1.5 lbs., or .375 gallons, of propane per day. The energy content of 1.5 lbs. of propane is 32,250 Btu or about 9,485 watt-hours. The Sun Frost RF12 consumes only 24 amp-hours per day, which is equivalent to 288 watt-hours a day. That is an astounding 32 times less.

Longevity, Safety, and Fire Danger

From the information we are collecting, new propane refrigerators last 6 to 12 years. Sun Frost refrigerators have proven themselves to last 25 years or more. The old Servels made in the 1950s could last 50 years or more. However, they are currently being recalled because of dust and rust, which often keeps the burners from burning cleanly. As a result, they produce carbon monoxide and are responsible for 22 deaths according to the US Consumer Products Safety Commission. The new Servels are connected to older models in name only. On

newer propane refrigerators, the burner area still requires periodic cleaning and flame inspection. Inspection may be difficult if the refrigerator is mounted too close to a wall.

Due to fire safety concerns, when propane refrigerators are used in RVs, the American Gas Association recommends turning a propane refrigerator off when traveling down the road. There are about 3000 RV fires per year and many can be traced to the refrigerator. Even if the fire was not started by the refrigerator, its venting system can add air to the fire and accelerate its spreading.

The two major manufacturers of propane refrigerators have had many recalls. The recalls typically involve cracks in the cooling system near the area of combustion. The cooling systems contain ammonia and hydrogen, both of which are combustible. In an RV use, leveling becomes an issue. Although the cooling will still operate when the unit is not level, the internal pressure of a unit is higher when the refrigerator is not level. The refrigerator will not always be level while driving, exacerbating the leakage problem. RV enthusiasts will be glad to know with a Sun Frost performance is not sacrificed if the vehicle is not level.

A propane refrigerator produces a considerable amount of waste heat, which greatly lowers the energy efficiency. Typically, a 10 cubic foot unvented propane refrigerator produces the same amount of heat as a 1000-watt heater running 9.5 hours per day. Much of this is vented to the outside, but some remains inside. While this may be appreciated in the winter, come summer it will require more air conditioning to offset the added heat.

Cost:

When considering all the costs to keep a refrigerator running 25 years, a solar-powered Sun Frost costs about 3.7 times less than a similar capacity propane model. Over 25 years the total system cost for a Sun Frost would be about \$3,456, including the cost of the solar system, refrigerator, and replacement batteries. High quality batteries will need to be replaced every eight years if properly maintained.

The total running cost of the propane-powered system over 25 years is about \$12,800. This includes the refrigerator replacement after 12.5 years. This is a generous estimate for a new propane refrigerator's longevity. We assumed the cost of propane to be only \$3 per gallon, a cost that at times has escalated to \$6 per gallon.

The total savings over 25 years with a solar powered Sun Frost is \$9,300. When considering safety, longevity, maintenance, product quality, carbon footprint, and cost, a Sun Frost is a clear winner. To find out more information and where you can purchase a high quality Sun Frost refrigerator, visit our website at: www.SunFrost.com or call us at (707)-822-9095.

Bus Conversion Service Directory

BusesOnline.com
Largest Online Marketplace
Buses/Parts/Collectibles

Sandblasting and Rustproofing
No Job Too Big or Too Small
773-858-3473 / MenAtWorkSCS.com

Mobile Internet Information
for RVers by RVers
RVMobileInternet.com

Mountainview Off Grid Living
Compost Toilets and Kimberly Stoves
MountainViewOffGridLiving.com

Winlock Galey
Books for Bus Conversions
WinlockGaley.com
951-943-0014

The Kimberly Stove
Your Off Grid Living Solution
UnforgettableFireLLC.com
855-USA-STOVE

St Cloud Estates
Lots Near Blue Ridge Parkway
StCloudEstates.com
407-948-0613

Cox Woodworking
Custom Cabinetry for 35 Years
CoxWoodWorkingInc.com
603-399-7704

For information about placing your ad in our Service Directory either email
Ads@BusConversions.com or call the office at (657) 221-0432. Ads start as little as \$17/month

Thank You

When you contact our advertisers, please let them know you saw their ad in *Bus Conversion Magazine*. We want to hear from you! Write to us. Email us, call us. Tell us what you like and don't like. What types of information would you like to see in the magazine? Send us a story! Do you have Before and After photos of your conversion project? During? Maybe a story about adventures while traveling, or a wonderful place to camp that you found. Contact Editor@BusConversions.com to learn more or discuss your article idea.

Rally News

Arcadia 2015 Bus Rally 15th Anniversary

The Premier Bus Rally of the Year!
Over 100 buses!

December 29-31, 2014
Early Arrivals on December 26
Turner Center
2250 NE Roan St.
Arcadia, FL 34266

For more info & registration visit:
www.ArcadiaRally.com

Website will change constantly
from now until rally.

"Like" us on Facebook!



Southeast Bus Nuts

Halloween Rally
Nov 6-8, 2014

Twin Oaks Bluegrass Park
Hoboken, GA (Near Waycross)

Contact Mike Heron for more information:
mikeheron@bellsouth.net
SEBusNuts.org

Lake Mead Dam NRG Gathering

Nov-14-16, 2014
Lake Mead RV Village Park And Campground
268 Lake Shore Blvd, Boulder City, NV

Attendees are responsible for reserving a camping space and for park entry fees. We will be camped out in the lake view site. Contact Van for any info or directions at 702-664-4265.

Having a rally? Let us know! We will help you spread the word.

If you or someone you know is hosting a bus rally, we invite you to send us the information so that we can announce it here in THE magazine for bus nuts. Please send it to us at least three months before the rally date so that we have the time needed to get news of your rally out there. Then after the rally, send us photos and a story about the rally - we'll make your rally famous.

Don't Miss the Bus! Subscribe/Renew Today!

You can subscribe/renew at BusConversions.com or mail this form with payment to the address below.

Name: _____ Phone: _____

Firm/Organization: _____ Year/Make of Bus: _____

Address: _____ Email Address: _____
(Email Address is required for the free Digital Edition)

City: _____

State/Province: _____ ZIP/Postal Code: _____ Country: _____

Payment Method:
 Check Enclosed Check # _____
 Credit Card Visa MasterCard

Name on Card: _____

Card #: _____ Exp. Date: _____

Total Amount: \$ _____ **California Residents Add 8% Sales Tax**

Signature: _____

| | |
|--|--|
| Digital Editions (PDF) | <input type="checkbox"/> 1-Year \$25.00 |
| <input type="checkbox"/> Emailed File | <input type="checkbox"/> 2-Year \$45.00 |
| <input type="checkbox"/> Online Access | <input type="checkbox"/> 3-Year \$60.00 |
| Print Magazine: | <input type="checkbox"/> 1-Year \$38.00 |
| Std Class Mail | <input type="checkbox"/> 2-Year \$70.00 |
| U.S. Addresses Only | <input type="checkbox"/> 3-Year \$99.00 |
| Print Magazine: | <input type="checkbox"/> U.S. \$68.00/Yr |
| First Class Mail | <input type="checkbox"/> Canada \$68.00/Yr |
| | <input type="checkbox"/> Intl. \$99.00/Yr |

SPECIAL!
 Through
December 31st, 2014
 New and Renewal Print
 Subscriptions include
 the Online Edition
Absolutely Free!

This is a New Subscription

This is a Renewal

This is a Gift

Mail To:
Bus Conversion Magazine
Attn: Subscriptions
661 E. Main St. #200-313
Midlothian, TX. 76065

Or Call To Place Order:
657-221-0432

Rev. 09/14

Take a Bus Trip Down Nostalgia Road Order Back Issues of BCM Using This Form

Name: _____

Address: _____

City, ST, Zip: _____

Phone: _____

Email: _____

Payment Method:
 Check Enclosed Check # _____
 Credit Card Visa MasterCard

Name on Card: _____

Card #: _____

Exp. Date: _____

Signature: _____

Mail to:
 Bus Conversion Magazine
 Attn: Back Issue Orders
 661 E. Main St. #200-313
 Midlothian, TX. 76065
Or Call To Place Order:
657-221-0432

Qty of Magazines: _____ X Rate based on chart below: \$ _____

Shipping & Handling based on chart below: \$ _____

California Residents Add 8% Sales Tax: \$ _____

Please indicate format desired: **Total: \$ _____**
 Printed PDF(s) by Email PDF(s) on USB Thumb Drive (\$9.95 Total S&H, any Qty.)

| Magazine Prices and Shipping/Handling | | |
|---------------------------------------|-----------------|---------------------|
| Quantity of Magazines | Cost Each | Shipping & Handling |
| 1-2 | \$5.00 | \$4.00 |
| 3-8 | \$4.50 | \$8.00 |
| 9-30 | \$4.00 | \$15.00 |
| 31+ | \$3.00 | \$25.00 |
| 1 ea of All in Stock | \$2.00 | \$50.00 |
| E-Mag PDF by Email | Same as Printed | N/A |
| PDF on USB Thumb Drive | Same as Printed | \$9.95 |

Shipping for U.S. Only. For orders out of the U.S. contact us for S&H prices.

Circle The Issues You Are Ordering

| | | |
|--|---|--|
| 1999 Jun Sep Oct Nov | 2000 Feb Apr May Jun Jul Aug Sep Oct | 2001 Jan Feb Mar Apr Jun Jul Aug Nov |
| 2002 Mar Apr Aug Sep Oct Nov Dec | 2003 May Jul Nov | 2004 Jan Feb Mar Apr May Aug Oct |
| 2005 Nov Dec | 2006 Feb Mar Apr May Jul | 2007 Feb Mar Apr May Jul Aug Sep Oct Nov Dec |
| 2009 Jan Mar May Jun Jul Aug Sep Oct Nov Dec | 2010 Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec | 2011 Jan Feb Mar May Jun |
| 2012 Oct Nov Dec | 2013 Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec | 2014 Jan Feb Mar Apr May Jun Jul Aug Sep |

Downloadable back issues are available for 2008 to present in the BCM Online Store:
www.BusConversions.com/store/

Rev. 09/14



1974 GMC PD-4905

Hemming's 2.1 rating, All original. Bus won First Place People's Choice award at Bus Bash in Hibbing, MN, Birthplace of Greyhound Buses, and was interviewed by local TV station in Duluth, Minnesota. Recently driven and ready to drive. Take a tour at www.youtube.com/watch?v=N8W39ixx7MM



8V92T, 50,000 miles on overhaul, Allison Automatic with overdrive, Jake brake, Auxiliary 110V Air Compressor built in to air up system quietly before pulling out of space, 15KW Isuzu Diesel Genset, 4500W Inverter, plus Several Smaller Inverters, 8 Golf Cart Batteries, Built In Battery Charger, 4- 500W Solar Panels, Air Throttle, Air Shift, Electronic Ultraviolet germ killer in Black Water Tank, Oak Interior, All New Michelin Tires, Balance Masters Balancing System, Zip Dee Awnings on both sides, Basement Bedroom, Hydronic Heat, Propane Hot Air Furnace, Catalytic Heater, Basement A/C, Large Refrigerator/Freezer, Separate Ice Maker, Microwave/Convection Oven, Built In Braun Food Processor, Jenn-Air Range with 2-Gas Burners, 2-Electric Glass Top Burners, Removable Jenn-Air Grill, Floor has Embossed Oak Leaves in wood, Air Brakes recently inspected Built In Central Vacuum, Large Capacity LP Tank, Sony CD Player with 6 CD Cartridges.

\$70,000 O.B.O.

or \$75,000 with Honda Toad with All Tow Attachment

Contact Ervin, 480-236-2046 or email skwatter@cox.net Located in Mesa, AZ

FACT #1: Collectively bus conversion owners spend several million dollars per year on their buses.

FACT #2: BCM is the only periodical publication specifically for bus conversion enthusiasts.

If you have something bus related to sell, you should advertised it in BCM!

Classifieds ads start for as little as \$5 per month!

Call 657-221-0432 to get your ad listed.

1958 GMC PD-4104 Bus Conversion

Purchased in 1984 with a rebuilt engine and driven less than 18,000 Miles.



- Detroit Diesel 671, w/New Head Gasket
- Replaced Wiring
- Air Brakes & Power Steering
- Good Tires
- No Dents In Body
- Good Paint & Chrome
- Onan 7.5 KW Generator (runs both A/C)
- Two Roof Air Conditioners
- Furnace Ducted Throughout Coach
- 77-Gallon Fresh Water Tank (under bed)
- Separate Black/Gray Waste Tanks, 75-Gal. Each
- New Shurflo Water Pump
- 2" High Density Blown-In Insulation
- Converted RV Tinted Windows
- Custom Window Treatments Including Shadow Boxes With Indirect Lighting
- Bathroom With Sink & Medicine Chest
- Large Rear Bedroom
- Side-Closet with Mirrored Sliding Doors
- Full Neo-Angle Glass Shower
- Lead Glass Frosted Pocket Door To Bedroom
- Lead Glass Bi-Fold Door To Bathroom
- Kitchen Cabinets - Euro Design, Mahogany w/ Black Glass & Mirrored Black Glass Back Splash
- Curved Counter Top w/ Storage
- All Built In Cabinetry is Mahogany
- Full Size Cast Iron Kitchen Sink
- Magic Chef Oven/4-Burner Cooktop (New)
- New Microwave
- New Norcold 6.3 cu. ft. Refrigerator

\$35,000
Call Lloyd or Doreen
(775) 882-6225

1970 GM 4108



318HP 8V71, 20,000 miles on motor, automatic transmission, Air lift tag axle, Jake brake, complete custom, runs great, Bus was featured in August 2004 issue of BCM .

\$27,000 O.B.O
 In Waterford, NY
 518-383-1007
 jmacy104@aol.com

1970 GMC PD-4108



8V71 Engine rebuilt in March 2014. Power steering, Allison V730 auto, Jake Brake, good tires. 4-burner stove w/ oven, microwave, fridge, bathroom w/ shower, LCD TV/DVD, Double bed, A/C, 100 gal. fresh water. Lots of extras & all maintenance records.

More info at:
www.TaylorNoonan.com/bus

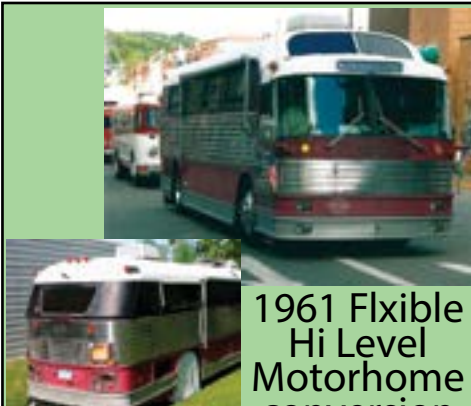
\$38,000 (Canadian Dollars)
 Call Bryan at
 604-219-8430
 Located in Vancouver BC

1971 MCI MC-7 Conversion Coach



40 Ft 8V71T Detroit Diesel w/Turbo, Manual 4-speed tranny. Onan gas Generator (not hooked up), Microwave Oven, Gas Stove/Oven, Beautiful Cabinets, Shower/Tub, Stereos, Queen Master bed, Bunk Beds, 10-Gallon Water Heater, Black/Grey/Fresh Water Tanks. Aluminum chassis. All exterior light lens covers are new but not installed and are stored inside the bus.

\$7,900
 Contact Bruce 334-301-9921
 brucetaylor318@gmail.com
 Located in Montgomery, AL



1961 Flexible Hi Level Motorhome conversion

Completely converted, powered by a 6v92 Turbo the motor that had a full major in 2010, new Allison 644 automatic Transmission at the same time, total miles 12,003 since full major; rear end rebuilt in 2013 with 350 miles on it; new tires. Oak interior, carpet, tile, hardwood. Peninsula glass windows, day/night shades; window and large awning, 2 roof air, 6.5k gas generator, household frig

SOLD!
**ANOTHER ITEM LISTED
 IN BCM HAS SOLD.**



Located in Carson City, NV



1983 MC-9 Seated Coach TMC Crusader 2

47-passenger with DD 6V92, 20,000 miles on out-of-frame engine rebuild, 5-spd manual trans, over the road A/C, new tires. Very nice condition inside and out for a coach of this year, VHS w/4 Monitors and CD. More photos available upon request.

\$9,995 OBO
 Call Richard
 541-421-5262
 BeverlyC@otcwb.com
 Located in Long Creek, OR

Parting Out 1966 GM 4107 Sr# 456

- Walk in door
- Baggage bay doors
- Compartment doors
- Windshields
- Fiberglass & aluminum panels under windshields
- Radiator
- Tailgate
- One bumper
- Steering box & related
- 4106 flywheel & clutch
- All side windows
- Muffler w/dual outlets and tailpipes
- Windshield wiper arms
- No interior
- Rear end housing with metallic brakes
- Front axle
- Please call for other misc. parts.

Contact Carl at
 520-604-2158

Classifieds

CROWN

1978 Crown Bus - Crown bus with V6 Cummins engine 5-speed manual. Oldie but goodies.

SOLD!

GMC

1956 Greyhound Conversion - 1956 Greyhound bus converted into a class A motorhome in the 80's. Rear master bedroom, center bath and closet, center kitchen, front living room, manual trans, basement storage, all aluminum bus. Sold as is. Needs work. \$10,000 Call Sam 407-271-5920 itsaphone@yahoo.com FL



1973 GM PD-4905 40' - 318-8V71 Detroit engine automatic transmission, Shepard power steering, old conversion, asking \$18,000, located in Oklahoma City, Call Al at 405-514-8419

INTERNATIONAL

2002 International Party Bus - Very nice International Party Bus. 30 seats in immaculate condition. Auto trans. Many new parts on engine and interior. Ice cold A/C, rear suspension air bags, front euro headlights and too many extras to list. \$27,000 Located in Hollywood, CA Call Cliff at 520-559-3178 AZ

SOLD!

MCI

MC-9 8V71 - Allison transmission, raised roof, holding tanks, shower, toilet, counter, sink, three roof ACs refrigerator, stove top, Six RV Peninsula windows, webasto heating system, 15 KW generator, 4000W inverter. Too old and broke to finish. \$22,500. Call Jim 843-420-1076 SC

1988 MCI 102 - 8V92T Allison automatic transmission, turbo engine, rebuilt recently 313,700 miles, two-stroke, 49 seats, runs great located in: Sidney, Montana Call Willie @ 701-460-0930 billjustleft@gmail.com \$12,000

PARTS



GM Differential For Sale - Differential fits GM Bus Models 4106, 4107, 4108, and 4905. The ratio is 4-3/8 and the gears are 940. Low mileage on new gears and bearings. Located in Herford, AZ Call Cliff at 520-559-3178 AZ

WANTED

Information Wanted '53 - '60 PD 4104s -

I am searching for all the surviving PD 4104s in the world. From 1953-1960 5,065 coaches were made. Where are they now? Yes, some were scrapped. Does anyone have those serial numbers? I am tracking the coaches by serial number and location; city and state. I am looking for any and all information on these coaches: whether a scrapped RV or other conversion or still a bus. I can account for 300 so far. List will be posted online. Contact Jon Usle jusle@aol.com or 760-272-4081

Tips For Selling A Bus

- Clean it thoroughly inside & out. Remove anything that won't go with it when it sells.
- If on or near open ground, keep grass & weeds trimmed.
- Take many photos and be prepared to email them to prospective buyers. An easy way to share them is to use a free online sharing service like Photobucket or Dropbox. Once photos are saved there, you can easily send a single link to a prospective buyer.
- If possible, do a show-and-tell video of it and post it on YouTube.
- Prepare the "long version" very detailed description of your bus and all its features in advance to email to prospective buyers quickly on request.

You can sell
it in BCM
Classifieds!

For as little
As \$5/month!
Call 657-221-0432.

Bus Sighting



Engineer Graham Smith spent 20 years converting a 1968 Daimler Fleetline Double-decker bus into a home, including an on-board garage for his car.

Guaranteed Classified Ads!

Do you have a bus conversion, bus shell, tour bus, almost finished bus, or any other kind of bus to sell? We can help you sell your bus, bus supplies, and parts or services. Advertise for three months - at the end of that time, if your item(s) have not sold, we will run your ad again for up to three months for free.

STANDARD CLASSIFIED ADS

\$10 for each 50 words per month. Photo is an additional \$5. Or run your ad for three months for \$25 for 50 words a month plus \$10 for a photo.

STERLING CLASSIFIED ADS: Regular (1/6 page) Up to 100 words and two photos \$25 per month or \$60 for three months

STERLING CLASSIFIED ADS: Large (1/3 page) Up to 200 words and three photos. \$50 for one month, \$120 for three months

STERLING CLASSIFIED ADS: Extra Large (1/2 page) Up to 300 words and four photos. \$75 per month or \$180 for three months.

Sterling Classified Ads are for Bus or RV sales only and must be prepaid. No refunds for early withdrawal. All ads and cancellations must be received by the 15th, two months prior to publication.

As an ADDED bonus, when you place a Sterling Classified Ad in our magazine, we will also place your ad on our website that gets close to 1 Million page views per month.

MOVE THAT BUS!

Email your ad and photos to Ads@BusConversions.com. Or mail your completed ad and photos to Bus Conversion Magazine, Attn: Classified Ads. 9852 Katella Ave Ste 361, Anaheim, CA 92804. You can also call us at 657-221-0432 or 714-520-1784.

Tanks, Toilets and Systems

BUY DIRECT & SAVE! *Hundreds of Sizes to Choose From*



New Systems Auxiliary Replacements

Heavy duty rotomolded construction.
One piece, non-corrosive high density polyethylene

| STOCK # | GALLONS | L X W X D | HEAVY DUTY | LIGHT DUTY |
|---------|---------|-----------------------------|-------------------|-------------------|
| B-302 | 200 | 60 x 36 x 24 | 750 ⁰⁰ | N/A |
| B-392 | 170 | 67 x 24 x 24 | 655 ⁰⁰ | N/A |
| B-300 | 135 | 76 x 28 x 16 | 635 ⁰⁰ | N/A |
| B-407 | 135 | 78 x 33 x 13 ^{1/2} | 635 ⁰⁰ | 492 ⁰⁰ |
| B-356 | 130 | 60 x 30 x 18 | 610 ⁰⁰ | N/A |
| B-328 | 115 | 40 x 28 x 26 | 545 ⁰⁰ | 492 ⁰⁰ |
| B-298 | 110 | 76 x 24 x 15 | 510 ⁰⁰ | 492 ⁰⁰ |
| B-391 | 110 | 95 x 33 x 9 | 510 ⁰⁰ | 492 ⁰⁰ |
| B-433 | 110 | 48 x 24 ^{1/2} x 24 | 510 ⁰⁰ | N/A |
| B-427 | 105 | 39 x 26 x 26 | 510 ⁰⁰ | 492 ⁰⁰ |
| 66W | 100 | 67 x 22 x 16 | 451 ⁰⁰ | 408 ⁰⁰ |
| B-354 | 95 | 47 x 33 x 16 | 510 ⁰⁰ | 492 ⁰⁰ |
| B-387 | 92 | 72 x 33 x 10 | 485 ⁰⁰ | 408 ⁰⁰ |
| 61W | 75 | 54 x 22 x 16 | 465 ⁰⁰ | 330 ⁰⁰ |



Model AX308BN
Holding Tank Monitor Panel
Water Pump Switch
Size: 3.87" x 4.62"

\$59⁰⁰



Model A7749BN
Fresh/Gray Water Monitor
Holding Tank Monitor
L.P. Gas/Battery Monitor
Water Pump Switch
Size: 3.87" x 4.62"

\$99⁰⁰



Model AX309BN
Fresh Water Monitor Panel
Water Pump Switch
Size: 3.87" x 4.62"

\$59⁰⁰

Tank Monitor Panels

JRV, The Monitor System innovator now offers a single tank monitor system for everyone...RV's, Travel Trailers, Tent Trailers, Boats and Slide in Campers

- LED Electronic Graphics
- Lexan overlays in your choice of colors: white, brown or black.
- Custom colors and silk screening available
- Tank harness included with each panel
- 3.87" x 4.62" ABS bezel in your choice of colors: white, almond, brown or black

Traveler China Toilets

All the comforts of home

Traveler china toilets provide all the comforts of home in a gravity discharge toilet for RV and bus applications. Designed to mount over a 4-bolt 3" closet flange in top of holding tank. Water connection is 1/2" MPT.

• **Freshwater operation**
China bowl is rinsed with fresh water from onboard demand system. Integral anti-siphon vacuum breaker protects potable water supply.

- **Easy to clean** Durable china resists stains and scratching
- **Proven reliability an easy maintenance**

| PRODUCT NO. | MODEL NO. | COLOR | SALE PRICE |
|-------------|-----------|---------------|---------------------------|
| 651001 | 510 Plus | White or Bone | \$349⁰⁵ |



500Plus Series

ARDEMCO INC.

• Dealer inquiries welcome •

800-253-0115

www.ardemco.com

778 W. 17th St., Costa Mesa, CA 92627



RV LED LIGHTS AND MORE



Save Batteries

Lasts over 40,000 hours

No Heat - Cool to Touch

Low Cost and High Quality

Satisfaction Guaranteed or your money back - **Free Shipping** on LED orders over \$100.00 (USA Only)

I recently placed an order for HP-G409C G4 LED bulbs. The order arrived here with me quickly and was all OK. I installed the bulbs on my bus and have been amazed by the performance! Before, I was pulling about .7 of a kilowatt with all my interior lights on; now, the current draw doesn't even register on the power consumption meter. They are installed in interior puck lights. I'm glad that they're dimmable because I think I'm going to have to buy a couple of dimmer switches for the smaller rooms on my bus. These LED lights have met my needs perfectly. Thank you for good products and good service. - Bruce Henderson NC USA

Here are a few types of bulbs and products we have available to help you with your bus conversion:



Single Contact 1141/1156



Double Contact



T10-Wedge



Wedge Base T-15



G4 PinBase



T5 - T8 Tubes



Motion Lights



Light Fixtures



Power WiFi
Booster



Outdoor Mats



Camping Chairs



Camping Tables



Tow Car Brake Systems

LED's draw less power which saves your batteries.

LED Bulbs are cool to the touch and last thousands of hours longer than hot incandescent bulbs. RVLED Bulbs now has affordable bulbs to fit all budgets.



All of our series of bulbs are rated to last 40-60,000+ hours.

LED Bulbs produce more light than the bulbs they replace and draw about 1/10th of the power of a standard bulb.

Whether you are an expert or a novice, we can help you. Call us today!



September 2014

Digital Edition Bonus Content

Exclusively Available In The BCM eMag & Online Editions





Flxible Parade Through Loudonville



1947 Flx Clipper - Karl and Julie Foy



1964 Flxliner - Junior and Bertha Showman



1947 Flx Clipper - David Hamburger



Flxible Visicoach



1968 Flxible Flxliner Original Seated Bus - Stan Holter



1961 GM 4106 - Kenneth Dillon



Flxible Clipper with matching trailer



Flxible Clipper



1948 Spartan - Don and Sandy Moyer





Eagle, GM, MCI, all buses are welcome to attend



1947 GMC - Ron Pushnick



1965 MCI - Dave & Juanita Smith



MCI MC-8 - Mike Middaugh



991 Prevost - Frank & Betty Nohel



1973 MCI 5B - Marty and Pat Caverly

A Bus From The Land Down Under by Steve and Rita McIntyre



Shower is set into lowered floor section



Front wheel well



Work in progress



Inverter & other utilities hidden away on-board



With the three axle trailer, the car can be loaded without trailer being hitched to the bus at the time. Also, GM owners may want to consider this - minimal tongue weight on the hitch.



Bunk beds in the enclosed trailer, screened door installed

Blast From The Past

September 1994

GM P8M-4905A

“Southern Comfort”



Southern Comfort was the name given this 1974 GMC PD4905 conversion, and for good reason, although I would have christened the coach Mighty Oak. This bus was converted in 1990 by a company named Southern Comfort in Colorado Springs, Colorado. Of all the conversions that I've seen in my 23 years of conversion work, this is by far the most unusual bus I've seen.

I'll start with the outside and work in. This 40-footer with only a single rear axle, features three large under-bays. This provides the extra space for a lower bedroom with access from the kitchen area inside. When first noticing this coach I see a few interesting outside additions, such as a port hole window from the lower bedroom, looking out.

Quite obvious is a decorative wrap of sorts in the center of the bus about 2 feet wide. I don't know of any purpose for this trim work other than looks. It almost looks like some sort of air ventilation system, but it's not.

The bus is painted completely with no exposed aluminum. Outside colors are cream with brown and gold accents strips.

As I inspect the bays, I find a 15 kw diesel generator that powers the 110-volt electrical system. The bays have a complete set of shore power cables to fit any hook-up in any location. Each power cord has its own storage compartment separately labeled. Also located in this bay is a large set of jumper cables with a quick connect for ease of use.

In the back bays of the bus I find not 1 or 2, but 3 on-demand propane hot water heaters. These heaters provide plenty of water for the 4 inside sinks as well as the oversized sunken bath tub.

The bus air conditioning was removed with the generator placed in the forward compartment where the old air conditioning unit was located. The bus is now equipped with 3 separate Cruisair systems.

For engine power, the factory 8V71 Detroit diesel engine was retained. The factory 4 speed stick transmission was replaced with an VS 2-8 automatic. It's shifted with a toggle switch on the dash.

The inside walk-through is quite a treat. Solid oak is everywhere. There is more oak in this bus than I've seen

in a small forest. Each air space, no matter how small, has been designed with a door or access area. Eye appeal and maximum efficiency is the best way to describe this clever interior design. And don't worry about drawers flying open, there are no drawers anywhere! Storage openings feature doors that slide open and shut or lids that lift up to access an area.

When you first board the bus, you pass through an oak covered entrance door. Upon you is a large passenger seat covered in a dark brown leather. The drivers seat is covered in matching leather. The entire dash board has been covered in oak with a hidden compartment containing the bus entrance door handle which has been retained. While most of the bus gauges and switches were kept, they were all re-mounted in oak.

Moving on, we step up to a small living room area where the furnishings are compacted. Seating is for two people with a small table that folds out for an eating area. Further back is the large kitchen area featuring Corian countertops and Jenn-Air range. Across the way stands a full size kitchen sink, built in ice-maker, microwave, Krups coffee-maker, blender, and 3-way Dometic refrigerator, handsomely finished in oak of course.

As you pass through the kitchen you must watch your head as you enter an arch shaped hall way into the bathroom area. The sunken tub is big enough to make your average NBA player feel comfortable. It has a shower complete with port hole showing into the kitchen area and rather fancy faucets with molded fish handles.

Directly across is the bathroom vanity sink area. Continuing rearward you reach the bedroom where you find a queen-size bed with headboard on the drivers side wall. The bed is not one you can walk around, in fact, you can only climb in by way of the central passageway. The



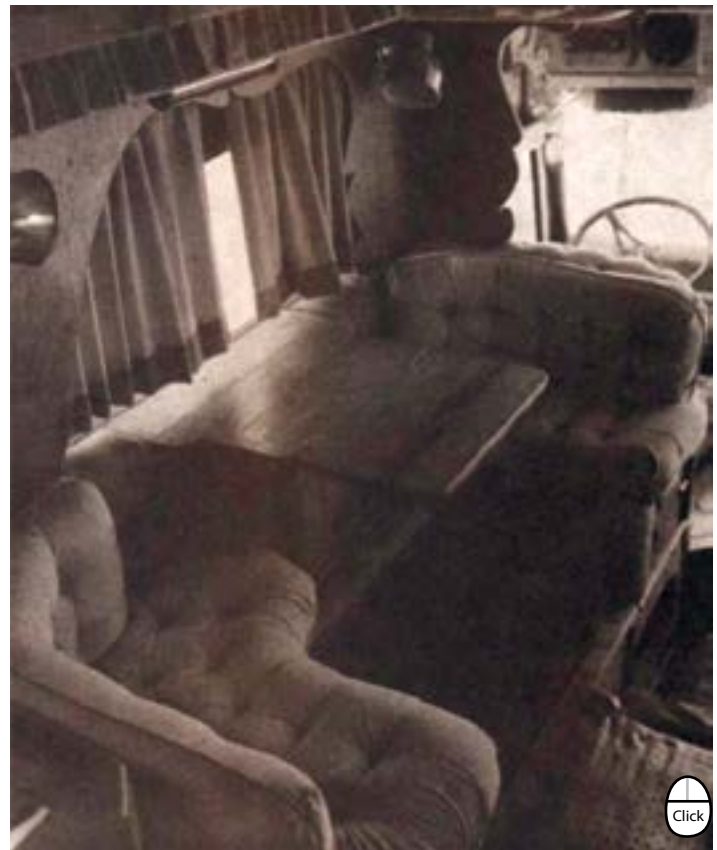
Interior photo showing the magnificent oak kitchen

area does have a built-in entertainment system mounted for great viewing and listening from your bed. Grooved oak cabinetry surround the entire sleeping area.

For convenience, 2 vanities both with hot and cold running water are close by. An expensive looking nautical clock adorns the wall here. Also within easy reach are his and hers closet/ armoire combinations. Plenty of space available for hang-ups and most other clothing.



Curb-side view



The living room area in the front of the coach

Blast From The Past - Southern Comfort

Specifications

Chassis/Powertrain:

Manufacturer: General Motors
Model: P8M-4905A
Year: 1974
Overall Length: 40 feet
Overall Width: 96 inches
Overall Height: 11 feet
Engine: DD 8V71
Transmission: Allison VS2-8 Automatic
Suspension: Airbag
Wheels: Aluminum
Paint Theme: Creams and Browns

Conversion:

Type: RV/Bus
Converted by Southern Comfort Conversions
Interior Theme: Oak
Carpet: Creme Pile Carpet
Countertops: Corian®

Electrical:

Systems: 12V DC, 120V
Generator: 15KW Diesel
Inverter: 3000 Watt Vanner
Converter: 75A

Plumbing:

Pipes: Copper
Water Heater: 3 - Propane On-Demand

Tank Capacities:

Fresh water: 150 gallons
Grey water: 100 gallons
Black water: 50 gallons
Propane: 60 gallons

HVAC:

Heat: 43,000 BTU Propane Furnace
Air Conditioning: 3 - Dometic Cruisair systems
Vent: 2 - Skylight vents

The craftsmanship and high quality materials used for this interior conversion maximize comfort and durability. Southern Comfort is truly one-of-a-kind. These pictures do not do the coach justice.

This feature was originally published in the September 1994 issue of *Bus Conversions Magazine*. Southern Comfort Conversions is now known as Southern Comfort Automotive and focuses on luxury remodels of vans, SUV's, and cars. Their company's reputation of high quality, durable, luxury vehicle modification, is evident in this well executed 4905 conversion. The current owner of this bus reports that it is still in great shape. And it is for sale! Please see the Sterling Classified ad listing on [page 28](#) for more details and contact information.

Do you have something bus related to sell?

You can sell it in BCM Classifieds!
For as little as \$5/month!

Call 657-221-0432.



One of the four sinks throughout the coach

This month's Bus Chat is a discussion on the *Bus Conversion Magazine* Online Discussion Forum regarding converting older buses to a spin-on fuel filter. To read the rest of the story, you can visit the discussion at: www.BusConversions.com/bbs/index.php?topic=27803.

Post by: thekid745

I have a 6v71 in my 1969 fishbowl. What is required to switch the fuel filters to spin on? Or is it even possible?

Post by: luvrbus

Napa sells the primary and secondary base for spin on filter. It's an easy change as they go in the same place with the same bolt pattern. The cost is about \$50 a piece.

Post by: thekid745

That's sounds easy and cheap. Is the spin on just as good as the original?

Post by: luvrbus

Better by far.

Post by: thekid745

Awesome, thanks for the info.

Post by: chessie4905

Always carry spares and a small container of fuel to pre-fill them before installing. Oh, and a metal strap type oil filter wrench of the proper size. Example:

www.NapaOnline.com/Catalog/CatalogItemDetail.aspx/Oil-Filter-Wrenches/_/R-SER772159_0405868278

Post by: Dave5Cs

This is where I just got mine. IIRC it was \$127 for two tops and 2 sets of each filter.

DieselPro.com/detroit-diesel-parts/6v71-engine/fuel-pump-bomba-combustible.html

Post by: Barn Owl

Why do you want to change? Why are spin-on filters better? I was going to change mine one time and got talked out of it. My bus came with a pile of filters so I thought I should at least use them up. If I can recall the spin on filters cost more. When I change my filters I can see exactly what they have caught. If I were to go through the trouble to change mine I would go to the see

through filter that shows how dirty it is by the level of the fuel in the filter.

For example: www.Davco.com/DFP-_fp382.htm

Post by: thekid745

Now you have me wondering. I might have to get more feedback before I make a possible change. I was thinking spin on would be easier.

Post by: eagle19952

A 3442 NAPA fuel water separator makes a world of difference. The old socks have been obsolete for years, DD stopped putting them on new engines around the 80's.

Post by: Barn Owl

Luvrbus says they are "better by far". I am sure he will explain that when he shows up. NAPA still sells the old filter cartridges. Spin-on filters are more of a convenience for the mechanic I have been told. Your bus will run just fine with either type you choose and obsolete does not necessarily mean improved in this case. If what you have is working, put your money to better use somewhere else.

Post by: wg4t50

I agree with Barn Owl, The spin on are nicer and easier but sure not better, just like the conversion to the spin on oil filter vs the cartridge, NAPA/Wix has the change over kit for that too.

Post by: chessie4905

When you need to change fuel filters on the road, you'll appreciate avoiding the mess from the fuel when changing, just like using the old style oil filters. If money is really tight or you spent it all for those aluminum wheels, just stay with the socks.

Post by: thekid745

The less messy change out on the road is why I wanted to convert. I'm leaning towards the spin on for sure. This was all great advice, thanks.

Post by: luvrbus

One time digging the sock filter out of the fuel pump, you will love the spin on filters.

Post by: wildbob24

Having dealt with both installations, there's no doubt in my mind that spin on filters are better. Even if it's only for the convenience factor, there's nothing wrong with convenience for the mechanic, especially if the mechanic is you. :)

Post by: Barn Owl

What would cause a sock filter to come apart? If you keep them changed and not put one in that was dry rotted and stored in the battery compartment you should be fine. That scenario would be a side of the road downer for sure to deal with. How often does that happen? Rare enough that I am sure I probably would never see that failure. Luvrbus being in the business has seen every type of failure known, and in my book he is the authority here on this board. I am for weighing the cost vs. benefit of changing what you have that is working. If it was 1 in 100 odds I would change it, 1 in 1000 I would not. I would agree that the oil filter spin-on is much better, but I change my socks without a mess, no problem there. I must have gotten the hang of it.

Post by: luvrbus

The old socks with the metal center were not all that bad coming apart but they still would at times. The new ones with the plastic and cardboard centers are terrible. There is not much difference in the price of the spin on and canister type. In fact, the canister type are costing more at most places.

Post by: TomC

The best would be to convert the canister socks to paper type filters. Most engine manufacturers are now using canister type filters with paper (like what spin ones have) filter elements. My bus came with the spin on fuel filters, but I have since changed the oil filter and the transmission filter to spin on. Much easier to change.

Post by: Lin

Tom, I assume you meant that your bus came with canister filters.

My previous bus had canister filters, and I managed with them although they are more of a nuisance to service than spin-ons would be. My normal tendency

would be to do just that. However, if the change was a mere \$50 bolt on, I would definitely do it. This bus has spin-ons, and is definitely preferable.

Post by: TomC

My fuel filters had already been changed to spin on when I bought the bus. But the engine oil filter and the transmission filter were both canister using paper element. Always seemed to leak. Changed both to spin on and love the difference. Surprisingly, the big spin on filters are not that expensive.

Post by: digesterman

Spin on filters, it was an improvement, just go with it.

Post by: thekid745

Going with the spin on. Thanks for the information all. Very helpful and insightful.

Post by: Boomer

Go with a Fuel Pro. You should be able to pick up a used one at a truck junk yard. Much better than spin on. They are way better than spin on's just as spin on's are way better than canister.

Post by: TomC

The main advantage to the Davco FuelPro filter, is that you'll always know when to change the filter. The FuelPro looks like an upside down filter with the clear bowl at the top of the filter. As the filter gets dirty, the fuel rises in the filter till the fuel comes even with the "change filter" line. No debate when it needs changing. Plus, it can be ordered with either electric or coolant heating and it is a drainable fuel/water separator. The main reason I haven't changed is that my starter override is on the secondary filter (after the fuel pump before the engine). I would have to eliminate that with the FuelPro. Course, maybe run the FuelPro with the secondary?

Post by: solodon

Well, my coach came with the spin on filters. I've always hated changing things that are still usable and it's impossible to tell when to change a spin on until you have a problem. After looking at this thread, and googling the Davco, and how to change the filter (youtube videos are nice) I've decided that I'll be getting used fixtures (I'm frugal [cheap]) and switching. Seems that since you always have fuel in the housing there is less risk of having start up problems and not having to prime

Exclusive Bonus Content Available Only In eMag & Online Editions

the system both of which seem to be a big plus. Thanks to all for the info.

Post by: luvrbus

If you wonder which is which on the top in fine letters will be primary or secondary markings.

Post by: chessie4905

Forget those fancy wonder filters. They are great, especially for the newer four cycle engines that use more precise injection systems. Just go with primary and secondary spin ons. Low in cost and have been used for millions of Detroits with no issues. I take a permanent magic marker and put date and mileage on each element. You can install a pressure sensor in head of filter wired to a dash light to warn of increasing restriction.

Post by: luvrbus

Or install a pressure gauge in the top of the secondary filter. When it starts reading low, change the filters.

Post by: lostagain

I change mine every year. It is not like it is a lot of money!

Post by: Ed Hackenbruch

Especially if you get them on sale. I get mine each winter/spring during the Napa Gold Filter sale.

Post by: luvrbus

The best buy on filters takes place when the Detroit Diesel dealers have their spring sale. Both fuel filters and the oil filter comes in a pack for under \$20. I always bought mine from Pacific Power or WW Williams.

Post by: Cosmo

Ok I'm new here and always learning. My 4106 has the canisters for fuel filters, motor and transmission has spin-on filters. I'm doing a lot things to this bus to update and service. The one thing I haven't done yet is the fuel filters. The main reason being, I have read somewhere that you better not lose the prime and opening the fuel filter

Get Your Bus ID Poster While They Last!



Front



Once upon a time,

BCM created these cool 2-sided posters with photos and specifications of many different buses. Knowing they would be popular, many were printed to get the price per poster as low as possible. But as many a tale has taught, even good things do come to an end. The supply of these posters is running low and they will not be reprinted. So if you or someone you know would like to get them before they are gone for good - you must order now!

Only \$5ea. + S&H

Orders for multiple posters can be combined to save on shipping!

You can order yours today via BCM's eBay store:

stores.ebay.com/Bus-Conversion-Magazine

(click the Bus ID Posters category from left menu)



Rear

BUS CHAT

would cause that to happen. So, how does one change out the filters without losing prime? That is the last thing I want to do.

Post by: chessie4905

While you are changing over to spin ons, good time to install an inline electric fuel pump. Makes filling filters super easy.

Post by: luvrbus

I found a place I can buy the Racor filter with the built in primer for \$84, not bad, and they work to prime an old DD - www.4Land4Sea.com

Spin on filters are a lot easier to prime than the old antique canister type. I also think the inline pumps are great.

Post by: lvmci

No kidding, the old canisters are half again heavier, if not more, the element moves around and its bigger and more awkward to install, thank you Clifford for showing me all that.

Post by: luvrbus

It will make a believer out of one when you see the old fuel pressure go from 6 lbs to 40 at idle.

Post by: wildbob24

As for losing prime, just fill the filters full, which is much easier with the spin on filters. When you start the engine, manually raise the RPMs a little, for 30 seconds or so, and you should be fine.

Discussions like this take place on a daily basis in the *Bus Conversion Magazine* Online Discussion Forum.

To read them go to:

www.BusConversions.com and click Forum on the menu bar.

Anyone can read the main discussion board. But to get the most out of it you need to join by clicking the "register" link above the login box in the upper left section of the forum page.

Registering is free and with a registration you will be able to view all the available discussion boards and, view images, lookup and contact other members, and most importantly, post your own questions, experiences, and reply to others.

See you soon on the Forum!

BUSES - PARTS - REPAIRS

Buses For Sale: Seated, converted or empty.
Specializing in MCI. We buy, sell and broker!

Bus Parts: Used body, interior, exterior and mechanical. We part out MCI buses. Big parts, little parts. Engines, transmission, rear ends, doors Glass, seats, and tires, dash A/C and heat blowers. If you need it, and not excited about paying MCI dealer prices, give us a call.

Bus Work: We can do minor repairs or modifications for the bus & conversion owner. We also have a wealth of knowledge on buses & conversions. Please call!

Westminster CA

562-972-2158



Bus Barn With Benefits

This house was built for two people with a large bus conversion motorhome. The house itself is about 900 sq. ft.

The bedroom is an upstairs loft with its own fireplace, and French doors leading out to the balcony deck. It has a full bath with toilet, two sinks, extra-large shower, large upright washer and dryer, a large clothes closet with shoe rack.



The Living room has a high beam ceiling, large fireplace, and three large bay windows. Under the loft is the kitchen equipped with a gas stove, microwave, large two-door refrigerator, and adjacent dining room with a window box seat. Also downstairs is a ½ bath, pantry, and a door going out to the motorhome. There is a spacious office/den with beautiful cabinets and its own stone fireplace and its own door onto the front porch where the hot tub is.

The bus barn part of the house has a 12'x45' parking slab for the motorhome with all the hookups - water, sewer, TV, phone, 220V 50A power, and hookup to large propane tank. Adjacent to the bus barn there is a 2nd parking space with full hookups for a second motorhome. There is a water well and a 12'x24' work shop with large air compressor, standby generator that can run the whole place. On 1/3 of an acre of land located in Magnolia, TX (North of Houston in the Woodlands). You can read more about the home and see more photos in the article about it in the November 2012 issue of BCM. Located in Magnolia, TX.



Asking price \$175,000

Call Tuck or Sharon at 281-252-5439

Tips For Selling A Bus

- Clean it thoroughly inside & out. Remove anything that won't go with it when it sells.
- If on or near open ground, keep grass & weeds trimmed.
- Take many photos and be prepared to email them to prospective buyers. An easy way to share them is to use a free online sharing service like Photobucket or Dropbox. Once photos are saved there, you can easily send a single link to a prospective buyer.
- If possible, do a show-and-tell video of it and post it on YouTube.
- Prepare the "long version" very detailed description of your bus and all its features in advance to email to prospective buyers quickly on request.



1965 MCI-5A 8V71

1965 MCI-5A 35' 8V71, 4-speed standard transmission, power steering, hydraulic leveling system - never used. Inverter/Converter/Charger - used only 3-4 times, side-by-side refer 12V & propane with ice maker used 3-4 times, propane water heater used 3-4 times, two new 8D batteries - purchased last year, new air filter to blower connectors, 7KW Onan diesel genset with in-cabin remote, heated power rear mirrors, foil bubble insulation and 1" blue Dow board insulation, 100 gal. fresh, 97 gal. gray, 45 gal. black, shower, RV toilet, maple cabinets, dinette, sofa. Engine blower problems (must be repaired before drivable)

\$4,750

In Murrieta, CA
530-925-5103

Have something bus related to sell?

Place your classified ad here and get results!

Send an email to
Ads@BusConversions.com
and ask us about setting up
your ad listings
or call 657-221-0432.

1969 Eagle Model 07 Conversion



Beautiful 102" Wide Model 07 with new 455 HP engine by Detroit Diesel with only 2,200 miles. New tires, all new batteries including house, generator, engine. New Aqua-Hot system, Wrico 15 KW generator. 3 Roof A/C Units, Big Foot hydraulic jacks. All amenities. So many new things upgraded it is ready to hit the road. Pictures upon request. Located in CA, \$79,995

Call Les
760-608-1520



Flamin' Hot Special!

Introducing The New Digital Classifieds

Prices effective for new ads started in Sept, Oct, and Nov.

| Ad Size | Print & DE | | DE Special Promo | |
|--|------------|----------|------------------|----------------|
| | 1-Month | 3-Months | 1-Month | 3-Months |
| Digital Edition Standard Classified Ads | | | | |
| Up to 50 words w/o Photo | \$10.00 | \$25.00 | \$5.00 | \$12.50 |
| Up to 50 words w/ 1-Photo | \$15.00 | \$35.00 | \$7.50 | \$16.50 |

| Digital Edition Sterling Classified Ads | | | | |
|--|---------|----------|----------------|----------------|
| Regular (1/6 Page) | \$25.00 | \$60.00 | \$12.50 | \$30.00 |
| Can contain up to 100 Words and 2 Photos | | | | |
| Large (1/3 Page) | \$50.00 | \$120.00 | \$25.00 | \$60.00 |
| Can contain up to 200 Words and 3 Photos | | | | |
| Extra Large (1/2 Page) | \$75.00 | \$180.00 | \$37.50 | \$90.00 |
| Can contain up to 300 Words and 4 Photos | | | | |

Send an email to Ads@BusConversions.com and ask us about setting up your ad listings or call 657-221-0432.