

# H t Air

Newsletter of the Vehicle Air-conditioning Specialists of Australia  
Pre-Convention and July Edition - 1996

National Secretariat: VASA (ACN 063 969 782) PO Box 6222 Silverwater NSW 2128

**Last  
Call**



**Sydney Convention shapes  
up as a real winner**  
**- Don't miss out!**



**Work n' play 96**

It's count-down time to Work n' play 96, the 3rd Annual Convention of VASA, to be held at Sydney's Landmark Hotel at Potts Point from Friday, August 9 to Sunday August 11.

Interest in the convention from exhibitors, sponsors and membership has been the best ever. It is emerging as a most significant event in the Australian automotive calendar.

Registrations close on July 15 - by the time this newsletter is received, everyone who is serious about going should have registered. However, there's a chance that the waverers out there might have pangs of conscience and rush in at the last minute - now's your chance.

Convention Chairman Tony Heat thanks those who have registered and is guaranteeing a busy, productive and rewarding time for all.

"The convention committee has worked many long, hard hours to make this an event to remember,

with exciting exhibitors, very talented trainers, fantastic food, big banquet and a comical comedian," enthuses Tony.

"So to those few who are still thinking about it, please don't delay, we need your registration NOW. If you have mislaid your registration form, please contact Ralph Cadman (02) 648-3499 so he can fax one to you."

The Trade Exhibition will be Australia's most comprehensive in this industry. All spaces are sold out. There are 25 exhibition stands, some of which will be introducing new technologies and equipment for the first time.



Convention  
Chairman Tony  
Heat - the  
glasses were  
for welding the  
whole thing  
together

President Mark Mitchell believes Work n' play will be the turning point for new professionalism throughout the industry. "We will all forge new links, conduct new business, exchange information and learn about how to act and think smarter - it's got all the elements of a great and rewarding convention," said Mark.

## VASA to honour auto air pioneers

Pioneers of the Australian auto air conditioning industry are to be recognised and honoured in an annual awards ceremony, associated with the annual convention.

Nominations for pioneer recognition are being invited now from the entire VASA membership and following selection by the national executive, the first Pioneer Plaque will be presented at the annual dinner at the Sydney Work n' play 96 convention.

*How to nominate - next page* ➡

# Pioneers Awards

President Mark Mitchell said the move by the executive stems from a feeling that there is a lack of a sense of heritage in today's air conditioning industry.

"It's not as though we want to dwell on the past - but we can all learn from it," said Mark.

"Newcomers to the industry have no idea of what went on in Australia through the 40's, 50's and 60's. Much of the work in auto air was experimental and the industry spawned many great "under dash" craftsmen.

The Pioneers award is intended for those who have made a significant contribution to the auto air conditioning industry - and commercial success is not necessarily a factor.

The closing date for nominations is **July 31** - so hurry.

## Here's what you do:-

- 1 Use one of your own letterheads - write or type 'PIONEER AWARD' at the top and then clearly write or type the name of your nomination, together with the person's address and phone number
- 2 Add a brief description of your nominated person's background in the industry, together with a brief outline of why you feel the person should be recognised as a pioneer.
- 3 Sign the letterhead and fax it to VASA Secretary/Treasurer Ralph Cadman at **02 748 6137**.

Remember - do it before July 31 to be eligible for judging for this year.

## INSURERS TO MEET WITH VASA

Major Australian motor insurers will meet face to face with VASA executives at the national convention in Sydney in August.

As Hot Air went to press we were heading for a 100% response rate from the big guns of insurance. Those already accepted are NRMA, VACC, MMI, Suncorp, FAI and AAMI.

The VASA delegation to meet with the insurers will be VASA president Mark Mitchell, vice president John Blanchard and technical committeemen Mark Padwick and Grantley Hand.

Discussion will centre on service and repair standards at the smash repair stage. VASA will argue that all repairs to air conditioning systems should be directed to a VASA member so that professional repair standards can be maintained.

President Mark Mitchell says that at the very least, VASA will be pressing for insurers to insist that comparable service and repair standards as those set down in the VASA standards book, be adopted as the benchmark in the repair industry.

The meeting will be held at the Landmark Hotel in Sydney at 11.30am on Friday, August 9.

## WHAT'S *HOT* IN THIS ISSUE

**CFC-12 shortages looming in USA**  
IMACA Bulletin - Page 3

**A trip down memory lane - special feature**  
Pages 4 and 5

## We'll be go-go-going Gold Coast next year!

It will be formally announced at the Sydney Convention that VASA's 1997 Convention will be held on the Gold Coast.

This means VASA returns to its roots. It was at the Marriott Hotel in Surfers Paradise on Saturday, 24th July 1993 that a group of enthusiastic professionals in the auto air conditioning industry from all over Australia voted to form themselves into a national association.

Conference chairman for Gold Coast 1997 will be Steve Whitelock of Cooltemp, Brisbane (Queensland committeeman Bevan Carrick's partner).

His phone number, if you want to get in early with suggestions or ideas is 07 3375 5566 and fax number is 07 3375 1404.

*Hot Air is the official newsletter of the Vehicle Air conditioning Specialists of Australia.*

*Members are encouraged to share the information with staff, associates and visitors. Leave copies in your customer waiting room.*

# New Member Categories adopted to Cope with Join-up Demand

Since the last issue of Hot Air, VASA has had many and varied approaches from organisations who wish to join VASA. As a result of the executive's commitment to maintain standards and credibility throughout the industry, strict entry requirements will be adhered to.

By virtue of the nature of enterprises wishing to join, the executive has decided to add an Associate Member category.

An Associate Member:-

- 1 **Does not have voting rights**
- 2 **May not use or advertise the VASA symbol**
- 3 **Must pay \$50 annual subscription**
- 4 **Will be included on the mailing list**
- 5 **Will receive "Hot Air" newsletter**

A booklet explaining the various membership categories will be circulated to all members.

## It will be "Magic"!!!

Secretary Treasurer Ralph Cadman wasn't giving too much away when Hot Air asked him what the entertainment will be like at the annual dinner.

"Magic", he responded. Can you be a magician and Irish too? We'll have to wait and see. But Ralph assures us it will be good wholesome entertainment, whatever that means.

Ralph says the keynote speaker, Iven Frangi, will be specially targeting small business with some good advice.



*This is not the entertainer- it's Ralph Cadman*

## IMACA predicts early CFC-12 shortages in USA Australian position unclear

Spot shortages of CFC-12 are expected to become serious in the USA during the 1997 season, with the positioning worsening to the point where there may not be enough CFC-12 for service shops in 1998.

These are the predictions contained in a special bulletin just issued by IMACA, VASA's sister organisation in the USA.

In the meantime, VASA president Mark Mitchell says the position in Australia is still very unclear, with predictions that a shortage of CFC-12 may occur in late 1996 or early 1997.

"In Australia, everything will depend on how much recycled material will make its way back to the market. This makes future supply very unclear," said Mark.

The IMACA bulletin "Update on the CFC-12 Supply", issued in late April, points to conflicting media coverage as "confusing, if not misleading".

"One automotive trade magazine reported that R-12, based on current usage, should last approximately five years," said the Bulletin.

"This article is misleading because it does not tell the whole story. Car

manufacturers are stockpiling CFC-12 and some estimate they will have adequate supplies to handle their warranty and other repair work to the year 2000.

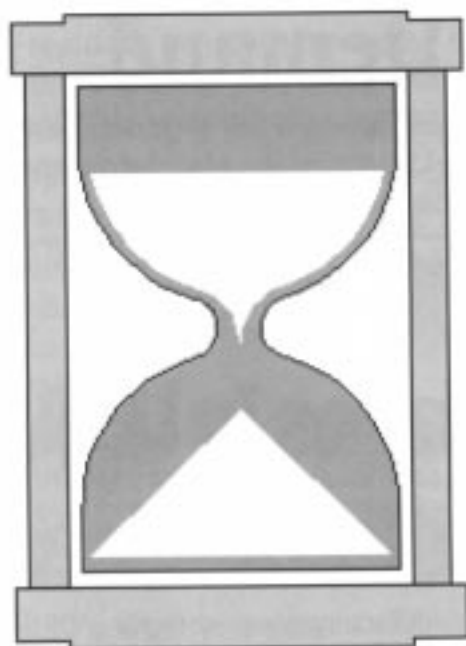
"However, supplies available to the rest of the service industry will be depleted much sooner, probably by the summer of 1998.

"There are other indications that CFC-12 is becoming a scarce and valuable commodity. A recent caller to the IMACA office reported his retail store had been robbed of a large number of CFC-12 cylinders.

"It is time for service shops to carefully consider a course of action regarding CFC-12. Shops currently "topping off" leaking CFC-12 systems may want to reconsider offering this service. It maybe to the shop's advantage to reserve its supplies of CFC-12 for repair jobs only.

"...and, if not already begun, service shops should start training their technicians to retrofit CFC-12 air conditioning systems. Retrofit will be a way of life in the service shop in the very near future," said IMACA.

The Bulletin reported that quantity pricing on a 30 pound cylinder of CFC-12 was around \$235US at the beginning of the year. The current average price was around \$300, with prices as high as \$500 now coming in.



## Does Australian Automotive Air Conditioning really have a history?

With the first ever **Pioneers Awards** being announced at the **Sydney Work n' play Convention**, **Hot Air** sent its sleuths out to discover if we really do have a past. If nothing else, this glimpse back in time will stimulate thinking among members for nominations for the **Pioneers Awards**.

Closing date for nominations is **July 31 1996**.  
**How to nominate - See Page 1**

# "Much of the early car air conditioning work was experimental"

**Director Ralph Cadman delved into the dark recesses of auto air conditioning history to put these facts together.**

Car air conditioning as a serious accessory was introduced to Australia in the early 60's and within a few years there was a handful of operators importing parts, assembling and installing. Some of these were Barney Oros in Sydney, Smiths Industries Sydney, Marlandaire Melbourne, Mark IV Melbourne and Marlan Sydney.

Most installations were carried out for motor dealers and distributors, as very few vehicles offered factory air conditioning. The most popular installations in those days were in Chevrolet, Jaguar, Mercedes Benz, Chrysler, Rambler, Ford Galaxy, Fairlane and a few other luxury vehicles.

Mark IV initiated selling to air conditioning dealers in kit form and were closely followed by Smiths Industries. Both suppliers sent rolls of copper tube for dealers to use as plumbing. Compressors commonly used were York, Femsal and Tecumseh, until the introduction of the Abacus swashplate compressor we came to know as the 508 in later years.

Some time-consuming jobs were required, usually involving trimming around console or glove box areas, in brands such as Rover, Bentley/Rolls Royce, Mercedes 600, Triumph and several others.

Most serious installers were forced to make compressor mount brackets and even drive pulleys for some of these cars. Much of this fabrication work was experimental, as there was very little sharing of information within the industry - *hasn't changed that much, has it!* Some of this experimental work led to some interesting results, involving radiators, bonnets, hoses etc. Every middle aged person in the industry today has some favourite unpleasant memories.

The real change to the industry came with the introduction of Japanese cars in the mid 70's. Japanese systems were imported by Hitachi, Unicla, National (sold

**MARK IV CUSTOM CAR AIR CONDITIONING**



**PUT ONE IN YOUR CAR**

**MARK IV**

by Mark IV) and others. These systems dominated the lower value cars. Stories of installation times of 45 minutes or less in some workshops were held in disbelief, as most installations in an Australian/US car could take between four and eight hours. ❖

🔧 In the early days, there was little airconditioning service work and most workshops targeted dealer work, but those specialists who could understand Cadillacs, Jaguars and Rolls Royces, could write their own tickets and funnily enough, *that's one thing which hasn't changed.*

## Bringing air conditioning to Australia

by  
*George R Jackson*

Although General Motors and Chrysler had played with an air conditioning system before the war and had taken no action on it, a young engineer fresh home from the service brought his development to the Mitchell Company in Dallas, Texas.

He was looking for someone to make it and Mitchell Company were looking for a new product as their cotton gin business had tapered off. He was bought out and the Mark IV systems were given full development and promotion.

At that time (1949) I arranged with Mitchell to export these units. The first went to the U.S. servicemen stationed in Japan. We shipped the units to them parcel post with the installation instructions which included using the compressor valves to evacuate the system and then gas it. There were no pumps in those days.

### AIRCON WAS HOT IN JAPAN

They found that their cars sold faster to the Japanese and for much more if air conditioned, so every G.I. with a car and who was planning to return home, got himself a Mark IV. The Japanese who could afford an air conditioner always had a chauffer so they

**George R Jackson was Jaxson Pty Ltd in Sydney in the early days. George is now 81 years of age and lives in Brisbane. He prepared this nostalgic piece for Hot Air after some imploring by VASA president Mark Mitchell.**

wanted to sit in the back and get the cool air first, hence the popularity of the early trunk models.

From this beginning the Mark IV name became the number one in Japan so we opened up our Asian market with a joint venture between my company, Discal Corporation of San Francisco and the Mitchell Company in Dallas.

It was then felt time to open up Australia. In as much as there had

had to set up our own factory for making adaptor kits. Some of the early Holdens were a real headache. Soon we were developing real interest in the units all over Australia. The big rough Aussies who just rolled down windows when it was hot turned out to be just as conscious as the Americans when it came to a bit of comfort.

Soon travelling salesman found they could lengthen their working



been no sales to Australia the Mitchell Company were a bit afraid of the market here so wished to go into a partnership with another firm rather than take on the market by ourselves.

They chose Flexible Drives who were to market it through their Speedometer Screenwiper operation. This did nothing to reach all of the potential firms who would be interested in car air so this was dissolved and Mark IV Australia was incorporated and we commenced business in Kogara NSW.

The adaptor kit for the American cars were worthless here so we

day with car air. Then the car dealers found they could make almost as much out of an air conditioner added to the price of a car, with no investment, as they were netting from the sale of the car itself. Mark IV then grew into a very vital part of the Australian car air market until it was sold.

I then sold out and started my own firm Mobile Air Parts serving the entire industry with parts regardless of the brand and later to take on the Japanese system Palm Air. I then retired leaving the company to my key employees who then sold it to Stephenson who in turn sold it to Smiths.

# Technical Q and A

Welcome to Hot Air's Question and Answer segment - a regular feature where members can send their curly questions and have them answered by VASA's technical committee.

Write out your technical question, then fax it to Director Glen Watkinson on 08 2688048.

**Q...**

When recharging VK and VL commodores and some other vehicles the TX Valve shuts off and won't reopen. How can I avoid this from happening.

**A...**

**Not easily!** the TX Valve is shutting down due to it being pulled into a vacuum and then when it is charged a "burst" of refrigerant travels up the equalising passage (which was under a vacuum) and "slams" the TX shut.

This is compounded because the evaporator outlet (and sensing point) may be cold at this time as the refrigerant flows past it. The only way to limit the chance of the TX shutting down is to charge **very slowly** in the initial stages but it is still no guarantee that it won't occur.

**Note:** if anyone has "invented" a procedure to overcome this problem let us know...Fax your response to 08 2430802 (Grantley Hand)

**Q...**

I have read hose clamps cannot be used in retrofitted systems. In some cases I can't get my



Grantley Hand  
VASA's training director and  
technical committee member

crimper in to use a crimped joint. What do I do?

**A...**

**True.** There are cases where it is impossible to use anything but hose clamps and if this is the case then you have to retain them. Hose clamped joints should be minimised because 134a systems run up to 3200 kpa (460 PSI) before high pressure cut switches activate, and under these pressures hose clamps are not the preferred jointing method.

**Q...**

How much effect do flywire screens (insect screens) have on air conditioning system performance? Should I remove them when retrofitting a system?

**A...**

Wind tunnel tests show airflow restrictions in the order of 45-55% to the condenser/radiator assemblies in a large number of

cases. Since it is the role of the condenser to dissipate the heat absorbed in the cabin the effect of reduced airflows can be dramatic on hot/humid days. You will normally see this reflected in the high side pressure which becomes very difficult to stabilise or limit.

If an insect screen must be fitted it should be grill mounted or well clear of the condenser radiator assemblies.

## What's that in the sky - is it a car, is it a plane.....??

**Is VASA ready for cyberspace?**

One of the objectives of VASA's inaugural president Mark Mitchell was to establish a national communication system and technical library for instant access by VASA members.

In the light of rapid growth of the Internet, it could be that VASA may one day need to have its own home page on the Internet, with information readily available for members and perhaps an open forum for the public. It could be a good way to promote the wares of VASA members and encourage public use of only those businesses carrying the VASA emblem.

This observation was stimulated by the latest from sister organisation IMACA in the US.

IMACA is going on the net and their first home page is being developed.

They also have their own e-mail address, "imaca@iamerica.net." They will let VASA know when the home page is ready for access.

## VASA's Main Aims

Raise the technical standard of all businesses dedicated to the betterment of the automotive air conditioning industry.

\*  
Raise the self esteem of those businesses.

Make national representation of these businesses to the government and media

\*  
Improve relations between manufacturers, wholesalers, dealers and service technicians.

# Say Hi! to our new members

VASA gives a big welcome to these companies who have been accepted as members during the last quarter.

If new members have any

questions, use the contact register on Page 2 and call a director or committee person closest to you.

## Members

Stephen Hodges	Darwin Auto Electrics	Winnellie NT
Ron Girvam	Bill Moyes Auto Elect	Waverley NSW
Kevin Nicholson	McAlpin & Maurer Pty Ltd	Taree NSW
Robert Reynolds	Reynolds Tractor & Diesel Service	Grenfell NSW
Peter McKay	Peter McKays Auto Electrical Centre	Forbes NSW
Donald Borg	Kiama Auto Electrical Services	Kiama NSW
Allan McArthur	Petrie Auto Electrics & Aircon	Petrie QLD
Brad Niven	Brad Niven Auto Electrician	Griffith NSW
John Frey	South Tweed Autos	Sth Tweed Hds NSW
John Critteudeau	Jerilderie Motors Pty Ltd	Jerilderie NSW
Ed Kilby	Kilby's Heating & Cooling	Cowra NSW
Peter Evans	P J Evans & Co	Rockhampton QLD
John McIlwaine	Bennetts Carparts	Silverwater NSW
Chris Rudd	Cardiff Auto Airconditioning Service	Cardiff NSW
Murray Hill	Murray Hill Auto Air	Sth Hurstville NSW
John Moran	Trade Air Auto Airconditioning	Berwick VIC
Damian Petrie	Bonny Auto Air	Morrabbin VIC

## Associate Member

Ian Rogers	AAMI	Melbourne VIC
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## Jumble Market

The regular column where members can unload their surplus junk! - sorry, superceded or surplus stock.

Hot Air will charge a minimum fee of \$5 - which is \$1 a line for five lines.

Glen Watkinson in South Australia is the Jumble Market manager.....so send him your cheque and your ad.

His address is:-

**Car Aire**  
932 Port Road  
Woodville West SA 5011.

**FORSALE**

**CLUTCHES:** Unicla varous assorted to early Unicla Compressors, suit DA299 & CPL140 etc., \$30 each

**COMPRESSORS:** Unicla R12 UA135 12V with B Sect Clutch - \$90 each

**COMPLETE KITS:** Unicla R12. Suit SV21 Camry \$950, Suit ST140 Corona \$895

**For all,** call Mark Mitchell at SuperCool, (07) 5532 8133

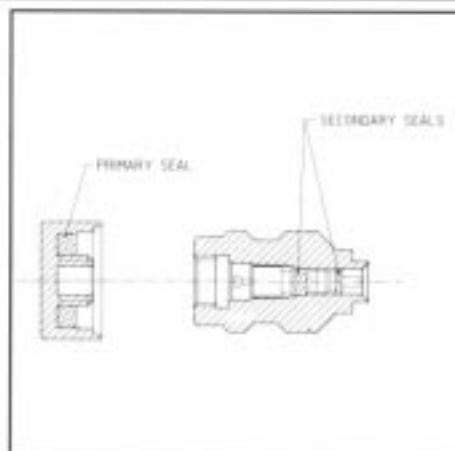
## Technical Tip

### Service valve caps - there for a purpose!

How many times have you removed the service valve cap, placed it on the inner guard, only to find it has vanished. Never mind - we leak checked the valve and it's OK.

Well, here is the valve maker's view of a valve that says it all.

The cap and the o'ring are the primary seal and the schrader valve is the secondary seal. This doesn't mean that a good valve will cover up for a poor cap seal or despite the location will a good cap seal cover up completely for a leaking valve.



Both seals must be good.

Diagnostic procedure is surprisingly simple, although many of us probably do not do it correctly.

Put on the cap, make sure it threads on correctly and finger tighten. Check the valve and if your leak detector doesn't go off, all is OK.

If, on the other hand it does, then and only then, should you replace the valve assembly and install a new cap in the process.

# New Flushing Machine in Sydney Debut

A new flushing machine for the auto air conditioning industry will make its debut at VASA's Work n' play Convention in Sydney.

The TO 3800 flushing machine was designed in the US and manufactured in Australia and will be presented at the Trade Exhibition by Melbourne Auto-Air.

The machine is a closed-loop liquid pumping machine with shop air purge, which will provide technicians with a non-CFC method of flushing contaminated air conditioning system heat exchangers while in the vehicle.

David Ellis, Melbourne Air-Air's marketing manager said the machine's designers had responded to customer demands for a machine which is small, light and portable. It runs on compressed air and can be used anywhere. The pump is imported and provides a unique pulsing action. Other features include a readily replaceable RYCO filter and a range of adaptors is available.

The TO 3800 is designed for use with flushing solvents rather than oils. Special seals allow for solvents that would



normally destroy standard liquid pumps.

The advantages of using solvents is that they have the ability to not only remove loose particles, but to penetrate, clean and remove system contaminants, such as particulate matter which results from compressor or desiccant failure and the gummy residue which may form when refrigerant oil is overheated during compressor seizure.

## VASA READY REFERENCE DIRECTORY Directors and Chairmen of Committees

Directors	Phone	Fax
Mark Mitchell	07 5532 8133	07 5532 8602
Ralph Cadman	02 648 3499	02 748 6137
John Blanchard	03 9890 7333	03 9890 0061
Glen Watkinson	08 347 1155	08 268 8048
Paul Robinson	09 279 3336	09 279 3156
<b>PUBLIC RELATIONS</b>		
Mark Mitchell	07 5532 8133	07 5532 8602
<b>TECHNICAL</b>		
Mark Padwick	02 791 0999	02 791 9029
<b>TRAINING</b>		
Mike Everett	08 243 2422	08 243 0546
<b>CONFERENCE 1996</b>		
Tony Heat	02 9949 5188	02 9949 4243
<b>QUEENSLAND COMMITTEE</b>		
Mark Mitchell	07 5532 8133	07 5532 8602
<b>NEW SOUTH WALES COMMITTEE</b>		
Les Howard	02 477 2422	02 482 2738
<b>VICTORIA COMMITTEE</b>		
John Blanchard	03 9890 7333	03 9890 0061
<b>SOUTH AUSTRALIA</b>		
Glen Watkinson	08 347 1155	08 268 8048
<b>WESTERN AUSTRALIA</b>		
Paul Robinson	09 279 3336	09 279 3156

The information in this newsletter is supplied by the executive and members. VASA maintains a high standard of editorial and technical content, but can accept no responsibility for the accuracy of the statements made nor the technical information provided. If in doubt about any issue, contact an appropriate committee chairman or a member of the National Executive.

The EPA in America has just added two more refrigerant blends, Free-Zone and Ikon-12 to their acceptable alternatives list, bringing the total to five.

To date, HFC-134a and FRIGCFR-12 are the only EPA-acceptable refrigerants actively being sold for the motor vehicle air conditioning industry.

R401C (MP-52) has been on the list for some time, but not marketed in the US for auto air conditioning use. At the same time, EPA moved five additional refrigerant blends from EPA Action Pending to Proposed

**In the US  
different brand  
names are not  
necessarily  
different  
refrigerants**

Acceptable.

However, IMACA point to the confusion of refrigerants to brand names.

To prevent the accidental mixing of

different refrigerants, EPA requires unique fittings, service equipment etc for each alternative refrigerant - not for each brand name.

Therefore, one set of fittings can work (legally) with several brand names as long as the refrigerant's composition is the same.

For example, in the US there are several producers and packagers of HFC-134a, each with a different brand name, so the fittings on the cylinders, service points and service equipment would be identical, regardless of the refrigerant's brand name - it's all HFC-134a.