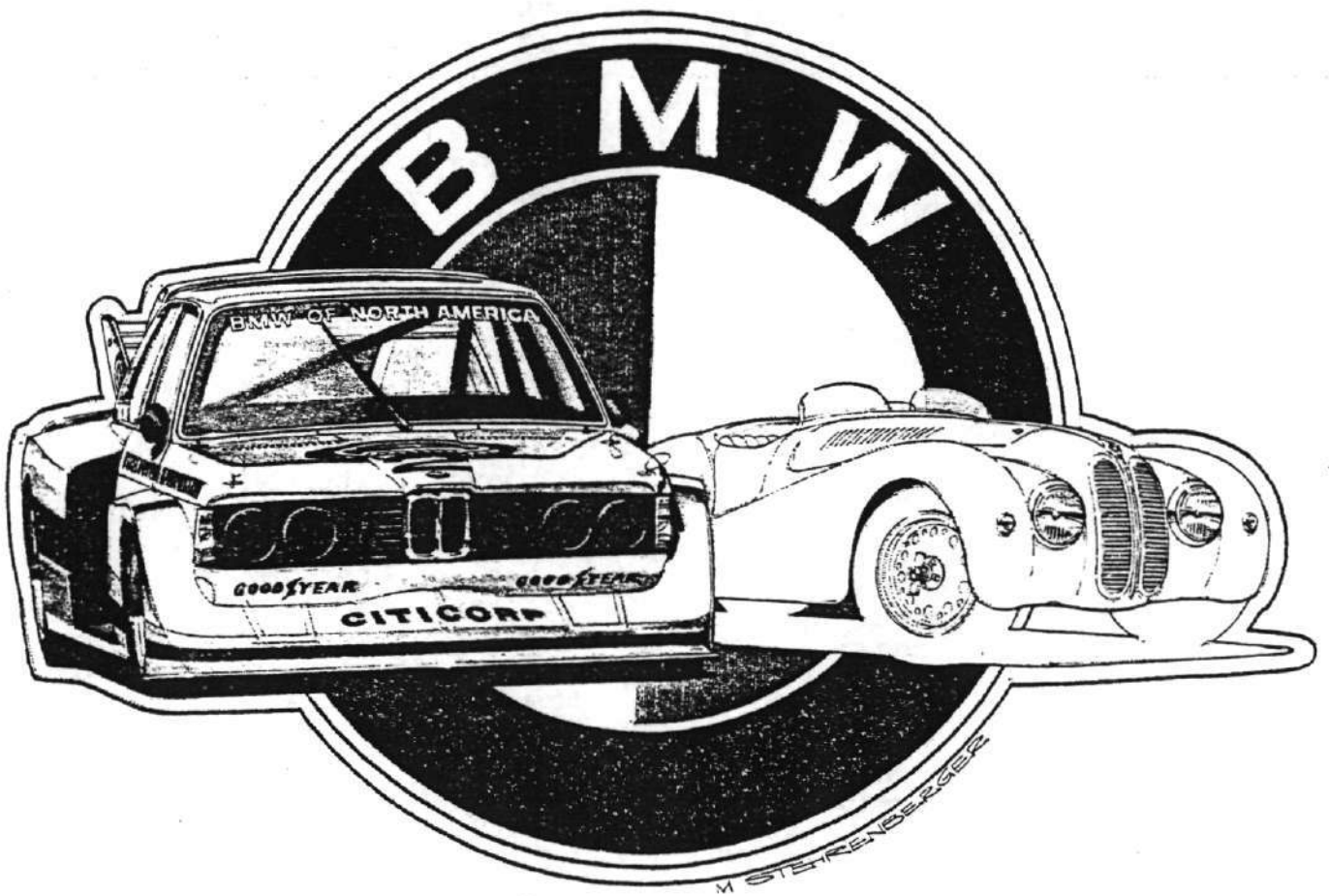


# der bayerische

June 1980



## FROM THE PRESIDENT

I have been very busy since our last meeting trying to get a schedule together for the rest of the year. BMWCCA requires that each chapter have at least one meeting or event and publish a newsletter once each quarter. That alone is enough to keep the few people who volunteered as officers busy for the year. However, I think the local chapter should be the primary beneficiary of BMWCCA membership and to achieve this requires the efforts of a great many people. There are over 50 members in our chapter and there is no way everyone is going to be satisfied. But if just ten percent of the membership are active, we would probably have a very well staffed club. The National Capital Chapter should be able to put on enough events during the year that every member would have a chance to participate. But lets back up a bit.

Participation might be a frightening word that keeps members away from events, but the objective is to have fun. No one will be asked to solo. The structure that I have been trying to establish is one of distributed responsibility. There would be an activities chairman and then a chairman for each event, with workers responsible to the event chairman. There are jobs for people who will assume responsibility and also for those who only have time to help out. The event chairman gets help from the activities

chairman in planning and coordination and from the workers with the details of a particular event. One of the events planned is a winery tour in Middleburg, Virginia. This event has a chairman and he could probably use one or two helpers. Another event we are planning is a tour to Summit Point Racetrack in September and this event could probably best be staffed with a chairman and three or four workers. It is not unusual for clubs to put on events that require 20 or more workers.

On the other side of participation is having fun in the event that the workers are trying so hard to produce. If we put on an autocross next month, three cars might show up. There are certain fears about doing these kinds of things simply because they have not been tried before. But what about a gymkhana designed for fun with very little emphasis on winning. I am sure there are a lot of good ideas for fun events among the members of this chapter, so why rely on me? Lets do it as a group.

I have written a letter to you each of the last two months telling you how I feel about our local chapter membership, activities, etc. Why don't you take the time to write me a letter or even call me and tell me how you feel. If you are not prepared to tell me what you can do for the club, at least lets find out what the club can do for you.

MORE ----

## Survey Results

Getting down off the soap box for a minute, I will tell you a few things that have happened recently. We are involved in a driving school at Summit Point in July and I am told the 630 and 733 owners will have as much fun as the 2002, 320 and 530 guys.

Did you know that the Carling National Brewery in Baltimore has been sold to some outfit in Minnesota that does not believe in factory tours. So there goes our Beer Bust.

Bill Loftin

## der bayerische

is the official publication of the National Capital Chapter of the BMW Car Club of America, Inc. and is not in any way connected with the Bayerische Motoren Werke AG or BMW of North America, Inc. It is provided by and for the club membership only. All ideas, opinions and suggestions expressed in regard to technical or other matters are solely those of the authors and no authentication or factory approval are implied unless specifically stated. The club assumes no liability for any of the information contained herein. Modifications within the warranty period may void the warranty.

Articles submitted are subject to editing and slight revision. Contents may not be reproduced without permission in writing except by the BMWCCA and its chapters.

EDITOR--Chip Gierhart  
703-821-5900 daytime

CIRCULATION--Jane Touzalin  
703-527-2694

### Chapter Officers

President-- Bill Loftin  
301-262-0184  
Vice Pres-- Gordon Kimpel  
703-524-8712 daytime  
Treasurer-- Chuck Garrish  
301-268-5643  
Secretary-- Vicki Livingston  
703-522-8597

TECH TIPS REP / ATLANTIC ZONE  
Bill Machrone 201-322-8654  
(7PM - 10PM)

First off, congratulations to Donald Fong of Washington, D.C., who was the winner of the set of Marchal driving lights. Don's winning entry was drawn from the box of returned surveys by our new president Bill Loftin. You might recall that a survey to determine membership interests for club activities during 1980 was carried in the Dec/Jan issue of Der Bayerische. Following you will find a summary of the responses.

For question number one - participation and interest in chapter activities during the 1980 year - the favorite activities were technical sessions and club meetings with a topical speaker. Third and fourth choices were driving tours and social events.

Question two asked for volunteers to organize events. The greatest majority answered no, but a few dedicated members indicated they would help. And we also got some volunteers for club officers from question three.

Question four was on meeting format. Monthly meetings received

Question four was on meeting formats. Monthly meetings received the most votes with bi-monthly running a close second.

Meeting location preference was overwhelmingly in favor of rotating meeting locations to different areas. And meetings in the evening in mid week took the most votes.

For those of you who took the time to answer, one large Thank You. For those who did not, you missed a chance to have your thoughts known and missed the chance at the lights. Maybe next time...

Chuck Garrish

## Getting Hosed

Quite a few 320i owners had better be on the lookout for coolant leaks. I had a Behr air conditioning unit installed in my 1979 320i, after approximately 1,500 miles. The unit works well, but after 4,500 miles I noticed that my radiator fluid was leaking. After much searching, I discovered that the lower radiator hose had a small hole in it. The hole was about the size a screw driver would make, the kind of hole that is almost impossible to feel. It was a result of the radiator hose resting on the air conditioning compressor, as the engine shifted during driving it wore a hole through the hose. (Anyone without air needn't worry)

To remedy this problem there are several answers; One possibility would be to shorten the original hose enough so it does not touch the compressor. (Be sure to change those lousy german hose clamps to some decent american ones) Another method would be to have a special section made out of metal, that could be inserted near the compressor in the radiator hose. This section would not be easily chafed. The other idea would be to cover this top edge of the compressor with maybe a Teflon shield, so as to reduce the wear. Until you have found a solution, may I suggest a spare hose and fluid.

Bruce Spaulding  
Big Valley Chapter

GASAHOL - BMW of North America has issued a technical bulletin revising their earlier stand on the use of gasahol in BMW's. Extensive tests with gasahol in BMW's are now being performed in the interest of insuring compatability of the alcohol fuel with BMW fuel systems. Until the results of these tests can be evaluated, gasahol should NOT be used in BMW vehicles. (Whispering Bomb, BMWACA)

# Diagnostic Tech Quiz

by Bill Machrone

Try your hand at the answers to these common problems with BMWs. Each problem described has multiple choices of solutions to the problem and a full discussion of the problem will be found at the end. See if you can pick the best answer. As with many other things, these answers are not absolute; there may be different causes of problems and alternative solutions. The purpose of this quiz is to stimulate your thinking about your BMW.

\*\*\*

1. You're driving down the road on a cool day and you realize that even though the heat is on, you feel cold air on your feet. The temperature gauge reads normal. You notice a gradual decrease in power which rapidly deteriorates into missing and stalling. You pull over to the side of the road and the engine stalls. The most likely cause is:

- A. A clogged fuel filter
- B. The cooling system is plugged.
- C. A blown radiator hose
- D. Faulty water pump

\*\*\*

2. You've just recently had your car tuned and it's running great. You're driving down the road and suddenly the car stops dead. You crank the engine and nothing happens. The tach doesn't budge while you crank. The first thing you should check is:

- A. Faulty carburetion or injection
- B. The points
- C. A blown fuse
- D. Out of gas

3. Each time you start the car you hear a loud squealing. It only lasts a moment. You would ignore it but your neighbor with the new Fairmont looks askance at you whenever you start up your Bimmer. The most likely suspect is:

- A. The fan belt.
- B. A bad water pump
- C. A faulty water pump
- D. A vacuum leak

\*\*\*

4. The car pulls to the right. The phenomenon becomes more pronounced when you step on the brakes. You clip out a coupon from the local tire shop and have the alignment checked. It is perfect. The next thing to check for is:

- A. Strong side winds
- B. A bad wheel bearing
- C. Loose nut behind the wheel
- D. High pressure in right tires

\*\*\*

5. As you drive along you hear a steady squealing sound. It doesn't vary in pitch, but just becomes apparent as you gather speed and fades away as you slow down. There are no other symptoms or side effects. The cause is:

- A. A bad wheel bearing
- B. Dragging disc brake pads
- C. The driveshaft center bearing

\*\*\*



6. Sometimes when you start your 530i you suddenly find the car enveloped in a cloud of white smoke. It is occasionally hard to start the car. There does not seem to be much correlation between whether the car is hot or cold. You bring the car to the dealer, where it naturally behaves perfectly. Aware that the guy down the street works for the EPA, you endeavor to locate the problem. A likely suspect is:

- A. A stuck fuel injector
- B. A cracked cylinder head
- C. A defective brake booster

\*\*\*

7. Your fuel gauge behaves erratically. Sometimes it is accurate, sometimes it fluctuates wildly. You've taken to setting the trip odometer each time you fill up because you no longer trust it. The problem is caused by:

- A. Poor contact on the gauge plug
- B. Bad ground, instrument panel
- C. A faulty tank sender
- D. Poor battery to chassis ground
- E. All of the above

### ANSWERS

1. The cold air on your feet and erratic engine operation indicate that you have lost your coolant and that the engine is overheating seriously.

So, you say, what about the temperature gauge? How come it reads normal?

No cop-out here by saying the gauge is defective. In a sudden, catastrophic loss of coolant, the sender for the temperature gauge may well be reading the air temperature inside the cooling system. The sender is designed to be immersed in water; block temperature and the temperature of the steam in the block leave it relatively unaffected. Stop quickly. Your engine is on the line. You have probably blown the lower radiator hose. Virtually any other hose would cause a more gradual loss of coolant, which would be noticeable on the temperature gauge as a rise as cooling efficiency drops.

\*\*\*

2. What sort of gremlin stops your car dead in its tracks right after a tuneup? There can be many causes, but the key here is that the tach is inactive. This means that there is no signal coming from the points. You (or the mechanic) probably didn't tighten the points screw sufficiently, they slipped and are comfortably closed. When the difference is between getting home and getting towed, you can set the points "quick and dirty" by setting the gap with a matchbook cover. Remember, the gap is set while the rubbing block is highest on the cam lobe.

3. Some cars just seem to object to starting and make as many horrendous noises as possible to try and convince you to leave them alone. Don't be dismayed. The most common culprit is the lowly fan belt. Your battery usually needs replenishment after starting the car and the extra load on the alternator can cause the belt to slip, causing the squealing sound. The extra heat of friction generated by the slippage often softens the belt surface sufficiently so that it grabs. The slippage, however, will hasten the deterioration of the fan belt and ultimately cause its demise, usually late at night, far from civilization. Carry a spare and the tools to install it.

4. Umm . . . this one is a giveaway because I just wanted to point that a failed or failing wheel bearing can make itself known in many strange and wondrous ways. Usually you can hear and feel the hearing going, as it often makes grinding, crunchy sounds. The increase in friction is what accounts for the pulling. The braking is uneven because the dying wheel bearing is probably not in adjustment and probably hasn't been for many thousands of miles. Check those bearings as often as you change your oil and repack them every couple of years and you may never have to replace them.

5. The steady, whistling squeal is the classic symptom of a failed driveshaft center bearing. This, of course, means that the bearing itself has failed and what you're hearing is metal-to-metal friction.

The center bearing is a steel hoop that bolts to the underside of the car. Within the hoop is a rubber surrounding ring which holds a bearing in its center. The drive-shaft runs through this bearing. The purpose of the bearing assembly is to keep the driveshaft centered and to absorb vibrations that would otherwise cause the

the clutch. This is the sound of the driveshaft trying its best to dash itself to pieces against the underside of the car. This action is understandably hard on the universal joints and rubber couplings, not to mention your nerves. The only cure is to replace the center bearing assembly. This requires an extra big socket wrench and a moderate amount of cussing. Since the bearing is essentially the same on all cars, the six cylinder cars tend to be harder on the center bearing, due to the increased torque.

\*\*\*

6. White smoke upon starting is not limited to 530is, but the suggested reasons are all fairly common to 530s. The three items are all potential causes of white smoke on starting.

The fuel injector on the 530/528 is an electrically controlled valve that regulates the amount of fuel delivered to the engine by varying the amount of time it stays open. Contrary to popular belief, the timing of the injection relative to opening of the intake valve is relatively unimportant, which is evidenced by

the injection on the 320i, which sprays continually in varying amounts. Dirt can cause an injector to stick.

When a fuel injector hangs open, a steady stream of fuel is sprayed into the cylinder. There is far too much fuel to be burned properly, so lots of unburned and partially burned gas comes out the tailpipe. This is readily distinguished from other types of white smoke by its tendency to sting your eyes and choke you half to death when you breathe it. Although it is possible in theory to clean an injector and restore it to proper operation, the more probable satisfactory solution is to replace it.

The next possible cause of white smoke is a cracked head. You may ask why big dollar luxury cars are cracking cylinder heads, but the fact is that it can and does happen, primarily as a result of overheating. The cooling system of the 530i is heavily loaded by the thermal reactor, which causes much higher underhood temperatures and causes the head in particular absorb much of the extra heat.

You can *never* afford to allow the cooling system to be anything but perfect. Owners who have had their thermal reactors "stolen" (for the titanium content, no doubt) and who have replaced them with Bavaria manifolds or a Stahl header report noticeably lower operating

temperatures, not to mention increased performance and mileage.

The smoke you see when the head is cracked is usually steam from the coolant which has leaked into the cylinders. Michel Potheau published the following technique for detecting excessive water vapor or steam in the exhaust. Simply hold a piece of tissue paper in the exhaust stream. If steam is present, it will rapidly dissolve the tissue. While water vapor is a normal product of combustion, there is a big difference in how long the tissue lasts when steam is present.

The last possibility is one of those fluke things that can drive you crazy if you don't stumble on the problem. A leaky master cylinder coupled with a pinhole in the vacuum diaphragm can cause brake fluid to be drawn into the engine through the vacuum line. The result is impressive white clouds and a relatively minor brake fluid loss. It isn't a common problem, but it would be a shame to replace the head if the vacuum booster were the real culprit.

7. You guessed it! Any of the things listed can cause erratic fuel level indications. The plug on the back of the instrument panel sometimes becomes loose, especially on older 2002s. The fix is to pull the plug and reach in with a jeweler's screwdriver and flex the brass contacts so that they grab the pins on the back of the instrument panel more tightly.

The instrument panel circuit board has been a problem on 2002s for years. The board makes its ground contact with the car through two grommets on the circuit board which are not soldered to the printed circuit. This is remedied with a small soldering iron. A drop of

solder on the grommet will ensure a good electrical connection with the board.

The battery ground strap is forked; it goes two places — to the engine and to the body. Often the connection to the body becomes corroded or the cable breaks completely. The result is a variable ground connection for all the electrical systems in the car, which can be seen in the fuel gauge, the temperature gauge, the lights, etc.

The fuel level sender has a definite lifespan and breaks as it gets older. It works on the principle of an arm sliding on a pair of wires. The resistance of these wires determines the reading on the gauge. The normal course is to replace the unit, but it is possible to repair it by replacing the wires with new ones of *exactly* the same diameter. This must be determined with a micrometer.

[reprinted from the NJ Bulletin]

## Smithsonian Silver Hill Tour

On August 9, 1980, the National Capital Chapter will host a tour of the Smithsonian Silver Hill Air and Space Facility, followed by a picnic. We will meet at the Smithsonian facility at 1:45 pm for a 2 hour tour.

After the tour, we will drive to Louise Cosca Park (10 min). The club will provide charcoal, hot dogs, hamburgers, chips, beer, and soft drinks. We might find a Frisbee and volleyball. This extravaganza will cost you \$2/person. Make your reservation by June 21 with Ira Winthrop at 301-249-6685.

## Cochabamba Distributor

by Will Philliamson

In the continuing quest for more performance from our BAVARIAN MIRACLE WAGENS, we have tried many avenues with varying degrees of success. Gone are the trick-headers, the unrestricted exhaust systems, the special tipped spark plugs, the variable lift cams, the multi-throat carbs and a host of others. We have thrown our money away on these supposed advances for the internal combustion engine efficiency and have neglected the very heart of it all--THE DISTRIBUTOR.

Yes, the lowly distributor from which all spark springs is the simple answer to the many problems we have with our Federalized/EPA Clean Air Cars. We know of the attributes of more static advance and more total advance as provided by the 192-002. We know the dreadful pitfalls of the 391-110, with its too fast and too much. Up until recently the 008 was the hot rodder's dream come true, but now there is the 010 (or the dualpoint 011) The particular model, unlike the 008, is not a "European" model, nor is it a slouch, like the 162-001 found on carbureted sixes.

A list of its better points (not 044) will suffice to clear the air.

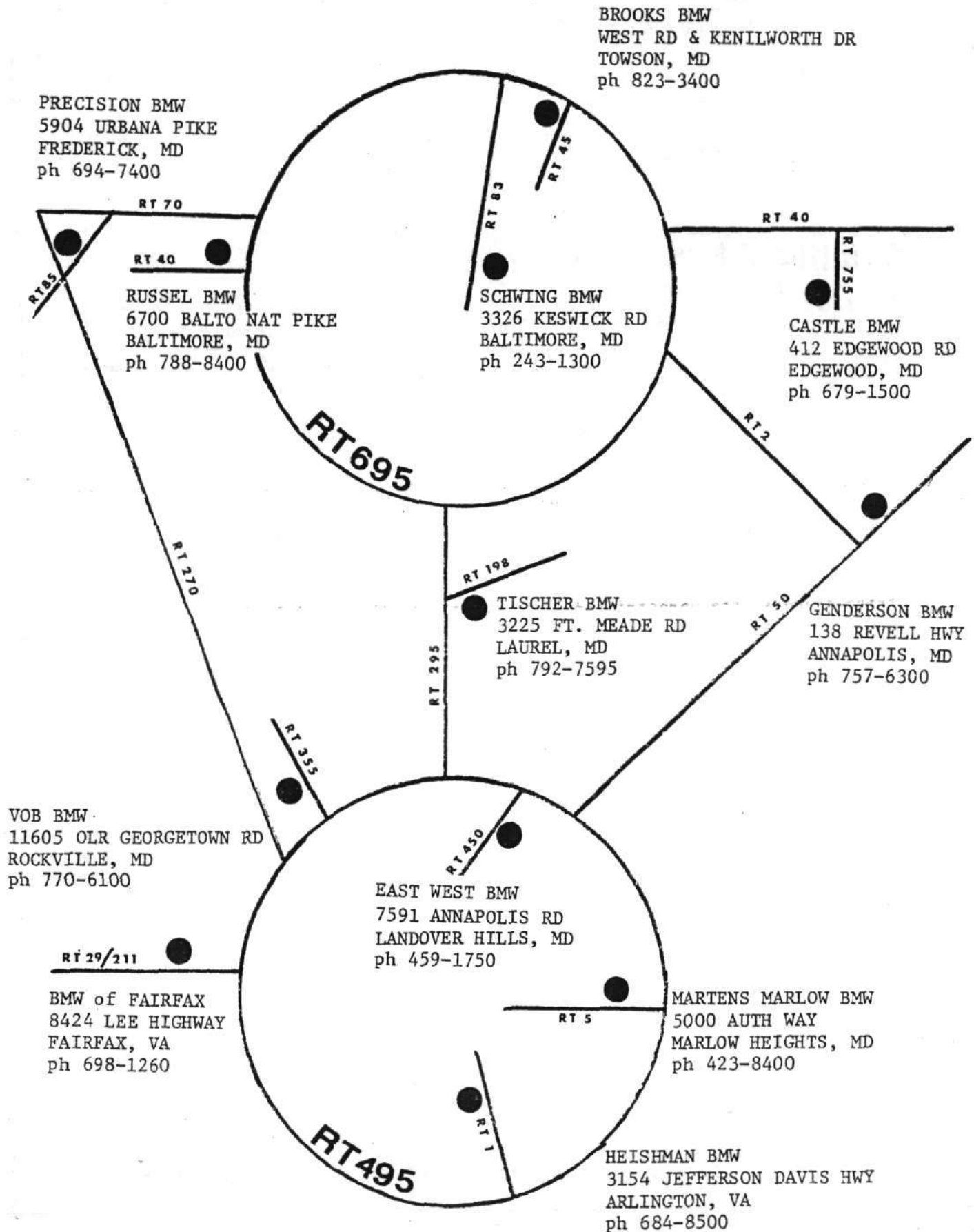
- 1) Machined aluminum body--better precision.
- 2) No external capacitor (manufactured into the point set!).
- 3) Needle rollers support the cam and shaft--no sloppy bronze bushings to wear.
- 4) The vacuum advance can be individually adjusted, like Ford distributors of the late 50s.
- 5) The point plate is drilled and tapped so it can be tied down for full mechanical advance use.
- 6) The advance curve is adjustable via a thumb screw on the outside of the body.
- 7) Can be used with 4, 6 or 8 cylinder engines! Simply change the cam and cap.
- 8) Adaptable for inductive pickup timing via the flywheel.

NOTE: This unit is not available from your BMW dealer. It is available only from your South American Importer and the Cochabamba Distributor Distributing Co. This model is standard equipment on high altitude models delivered to Cochabamba, Bolivia.



# BALTIMORE/WASHINGTON AREA

## BMW DEALER LOCATIONS





4952 Wyaconda Road  
Rockville, Md. 20852  
Telephone: 468 4850

a new *convenient* location 3 minutes from the Beltway behind White Flint Mall. From the Beltway, take Wisconsin Avenue North 1½ miles, Right on Nicolson Lane, ½ mile to Right on Boiling Brook Parkway, Right on Schuykill Road, Right on Wyaconda Road, 100 yards on left.

## Quality BMW Parts and Accessories at Discount Prices

Store Hours:  
10 am-7 pm, Monday-Friday  
10 am-5 pm, Saturdays  
Closed Sundays & Holidays

- Bilstein Shocks
- Supersprint Exhausts
- OEM Parts
- Manuals
- Stabilizer Bars
- Suspension Springs & Kits
- RaceMark Products
- Recaro Seats
- MSD Ignitions & MSW Wire
- Turbocharger Kits
- Talbot Mirrors
- Travel Kits
- Momo Steering Wheels
- Mothers & Armorall Car Care
- Sunroof Wind Deflectors
- ATS, BBS & Momo Alloy Road Wheels
- Fiberglass Fenders, Flares & Air Dams
- ChemLube Synthetic Lubricants
- And MANY MORE!

### Original Equipment Manufacturer:

tune-up parts  
filters  
brake components  
clutch components  
major and minor engine parts

### NOW TAKING ORDERS FOR:

- Marchal Quartz Lamps
- 320i Suspension Springs & Kits

*Dealer Inquiries Welcome!*



BMW  
Porsche  
Audi

Open Saturdays  
and Evenings

*Experienced and Certified Service Technicians*  
*Major and Minor Service by Appointment*

*Auto Werke Offers  
Special Consideration  
to BMWCCA Members*

4954 Wyaconda Road, Rockville, MD 20852---Telephone 468-0323  
(Next to Autoy's New Location—See Above Directions)



**by heishman**





BULK RATE  
U.S. Postage  
PAID  
Arlington, Va.  
Permit #2314

0596\*12\*80\*4  
James A Miner Jr.  
1909 Everglade Ct.  
Crofton MD 21113



## BMW CAR CLUB OF AMERICA, INC.

345 Harvard Street  
Cambridge, Mass. 02138

## MEMBERSHIP APPLICATION

Please accept this application for membership in the BMW Car Club of America and the National Capital Chapter.

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_

State: \_\_\_\_\_ Zip \_\_\_\_\_

Model of BMW: \_\_\_\_\_

Year: \_\_\_\_\_ Ser. No. \_\_\_\_\_

Model of BMW: \_\_\_\_\_

Year: \_\_\_\_\_ Ser. No. \_\_\_\_\_

Your check payable to BMWCCA must accompany this application.

**Total Dues: \$25.00**

This covers your initiation fee of \$2.50 plus both National Capital Chapter and National Dues for a full 12 month period.

## NEXT MEETING:

**DATE:** June 12, 1980

**TIME:** 7:30 PM

**PLACE:** Jolly Ox  
Seminary Road at I-395  
Alexandria, Va

