

# Mopar Connection

ISSUE NO. 5

NOVEMBER/DECEMBER 1994

Deadwood it was not, but the Black Hills Mopar club had our Poker Run and what a blast! From throwing darts, pitching horseshoes, and shooting guns, it took Barb Rick 5 aces to win the \$50 first place. Kris Peterson won 2nd place (Jim tried to claim it), and Tony Heick and Ken Stradmeyer tied for 3rd. Everyone had so much fun that we didn't make it back to town until 8:30 -a little late for the meeting at 7:00. We hope to have another Poker Run next year only we'll start earlier.

It's hard to believe that the club will be in existence for 1 year in January. And along with that comes election of officers. We would like to extend an invitation to you to vote for officers and to make your choice of the people you feel will run the club the way you want! It's your club and your choice.

## BOB'S MOPAR THOUGHTS

Here it is winter time (well, not technically). Soon all summertime outdoor activities will be restricted to the heated garage, the workshop in the basement, or just on the couch watching the tube. Occasionally you may find a hard-core member cruising around in the slush and slop in their pride and joy. But generally, most people leave them parked in fear of icy intersections and other careless drivers. I know I can hardly wait for the 70 degree days (or warmer).

Looking back over this past year, I feel that the club was very successful. We made an impact on this community that we can all be proud of. I hope next year it only gets better. Well, 'till next time, I'm going into hibernation! Mopar to ya!

## ❖ CHRISTMAS PARTY ❖

The Black Hills Mopars Christmas Party will be held at the Peace Officers Club House on Friday, December 2. An attached map provides directions on how to get there. Our thanks to Jerry and Barb Big Eagle for making the arrangements to use the club house. The club house will be opened up at 6:00 PM and we will plan to eat at 7:00 PM. Dinner will be provided and paid for by the club. Beer and pop will also be provided. No under age drinking will be allowed. Feel free to bring a dessert if you like. At the October meeting it was decided to have a gift exchange. Each member is asked to bring a gift of no more than \$5 in value and names will be drawn to select a gift. The club questionnaire and nomination form for election of officers will both be collected at the Christmas party so be sure to have them filled out.

## BLACK HILLS MOPARS OFFICERS


<b><u>PRESIDENT</u></b>	Bob Watkins	787-		
<b><u>VICE-PRESIDENT</u></b>	Darren Witt	343-		
<b><u>SEC/TREASURER</u></b>	Dan Schiermiester	341-		
<b><u>BOARD OF DIRECTORS</u></b>				
	Phil Schmidt	341-		
	Don Schmidt	787-		
<b><u>CLUB DIRECTOR</u></b>	Martha Watkins	787-		

Please feel free to contact any of the officers with any questions or suggestions you may have.

MOPAR CONNECTION is the bi-monthly newsletter of the Black Hills Mopars. The newsletter staff reserves the right to edit or reject any article or ad submitted for inclusion in the newsletter.

## EVENTS UPDATE

### \*CLUB SPONSORED EVENTS

<b><u>OCTOBER</u></b>		
15	7:00 MEETING AT BLACK HILLS POWER AND LIGHT	
<b><u>NOVEMBER</u></b>		
19	7:00 MEETING AT BLACK HILLS POWER AND LIGHT	
<b><u>DECEMBER</u></b>		
2	7:00 Christmas Party at the Peace Officers Club House south of Rapid City on Highway 16. (See attached map for directions)	
<b><u>JANUARY</u></b>		
21	7:00 MEETING AT BLACK HILLS POWER AND LIGHT	
	Items will include election of officers, schedule of events for 1995, and much more.	
<b><u>FEBRUARY</u></b>		
24,25,26	15th annual World of Wheels. Contact Jim Neuzil at 348-	
<b><u>JUNE</u></b>		
24	Mopars in the Hills at Dodge Town	

## MOPAR SPOTLIGHT

In this section of our newsletter, we feature a club member and their car. For this issue we picked David and Beth Doerr's 1969 Dodge Charger RT/SE.



**Owners:** David and Beth Doerr

**Ride:** 1969 Dodge Charger RT/SE

**Power train:** 440 Magnum with 727 Torqueflite automatic

**Exterior:** F8 dark green metallic with black interior, painted by Lust Chevrolet, Aberdeen

**History of the Car:** I was one of the lucky ones who was in the right place at the right time. In 1984 I worked in the service department of Lust Chevrolet in Aberdeen when a customer from Fargo, ND, who had special-ordered the car, brought it in to trade. He had kids now and needed a 'family car' (sound familiar?). I picked it up for the trade-in price of \$2500!! Basically, all I've done is new paint, tires, and some detailing. we've often thought about driving to Fargo to visit and show him what he let go, but we hate to see a grown man cry!

## A LITTLE BIT OF CHARGER HISTORY

Charger, what a great name for the sleek new machine that Dodge introduced in 1966. The better known Chargers were built through 1974 with the name being used into the mid 80's. Chargers represented some of the most exciting muscle models ever to come down the line. There's always been something special about Chargers. Perhaps it has to do with the performance capabilities of the car or the luxury options and appointments available with a big engine under the hood.

The 1966 Charger has a fastback body style and trick interior. It has 4 bucket seats and the rear ones can be folded down. Of the 37,300 Chargers built that year, only 468 carried the Hemi.

In 1967, few Chargers were made, however, better performance was offered under the hood.

The 1968 and 1969 Chargers got a complete body redesign. Of the 17,582 '68 Chargers produced, only 475 carried the Hemi. In '69 there were only 432 Hemi's out of 18,776 produced. Only 2100 '69 RT buyers opted for the special edition package. The '68 has 4 round taillights and the sleek grill with hideaway headlights. The '69 has the oval taillights and the chrome piece in the center of the grill. It too has hideaway headlights. The Charger 500 model appeared for the first and only time in 1969.

The '70 had a new grill, loop front bumper and rear taillights. The '70 RT has a flat reverse-facing scoop on the doors.

The big news for the '71 was the transfer of the economy racer. Low price and high performance were the goals of this model.

The '72-'74 Chargers were starting to move away from the sleek race car look of its earlier brothers making all the earlier cars worth their weight in gold for collectors.

The Dodge Charger still ranks right up there in popularity with the other Chrysler muscle cars and the big-engined models will continue to demand the bucks in the 90's.

**direct**  **connection**

## Accessing Mopar Fault Codes by Dan Schiermeister

Many of us own newer Chrysler vehicles that have fuel injection and the logic module controlled computer ignition system. When you have a problem with this system it can be a real nightmare to repair, and most people are scared to death to even start messing with it. This is exactly how the dealers want you to feel. But with a few pointers on how to access the fault codes, repair can be easier than some of the older systems.

All manufacturers have some kind of on board diagnostics, which means you can access the fault codes without expensive equipment. A fault code is simply a pair of numbers that identify a problem component or system. If the connector falls off of your coolant sensor, your Mopar will go into what is called the "Limp Mode" and basically run like dog. (By the way, the coolant sensor is what you would disconnect if you want to set the initial timing on your fuel injected vehicle). To get to the "other guys" codes you need a special key (sold at Champion), a readout tool (also sold at Champion), or at the very least a paper clip pushed into the correct two connectors of the readout cable (get Tech Tip at Champion). But if they ever try to sell you a diagnostic tool for a Mopar, don't buy it! This is because Mopar did it better and made their vehicles completely self diagnostic. All you need is your ignition key, and a pad and pencil.

To begin, you turn on the ignition, then off, then on again, then off again, then back on. you need to do this in less than five seconds. Now look at the "check engine" or "power loss" light. If we use our coolant sensor example, the light will go out, then flash twice (write down 2), then pause briefly, flash twice again (write 2 again), then pause for a longer time. If this is the only problem, it will then flash five times (write down 5), pause briefly, and then flash five more times (write 5 again), and stay out. Now turn off the ignition. Each number separated by a short pause represents a two digit number. The first set translates to "22", and the second set means "55". Now look at the fault codes listed to the right. "22" means there is a problem with the coolant sensor circuit, and "55" means the end of the test. Now go out and find the sensor, and reattach the

connector. Hopefully you vehicle will again run normally.

There are a few things you should know, the fault codes are only designed to point you in the right direction. The problem could be in the sensor, the wiring, or the logic module itself. Also, the system will not diagnose conventional components like plugs, coil, or distributor cap, (continued next page)

### CHRYSLER SERVICE CODES

CODE	AREA IN QUESTION
11 Ignition Not Cranking	No Dist. Signal, Engine Not Cranked Since Battery Was Disc.
12 Memory Power Lost	Battery Feed To Logic Module Has Been Disconnected Within Last 20 To 40 Starts
13 Manifold Pressure	M.A.P. Sensor Vacuum Does Not Change
14 Manifold Pressure	M.A.P. Signal Too Low Or Too High
15 M.P.H. Sensor	Vehicle Distance Sensor Failure
16 Low Voltage	Battery Sensing Voltage Low
17 Knock Sensor	No Knock Signal Above 5000 R.P.M., Engine Running Too Cool
18 Canister Purge	Canister Purge Solenoid Failure
21 Oxygen Sensor	Oxygen Sensor Circuit Failure
22 Coolant Sensor	Coolant Sensor Circuit Failure
23 Charge Temp. Sensor	Charge Temp. Sensor Circuit Failure
24 Miscellaneous	T.P.S. Sensor Bad, Spark Control Computer
25 Miscellaneous	I.S.C. Motor Circuit Failure, Radiator Fan Coolant Sensor
26 Injector	Injectors 1 And 2 Don't Fire, Fuel Injector Driver
27 Injector	Injectors 3 And 4 Don't Fire, Fuel Control Circuit Failure
31 Canister Purge	Canister Purge Solenoid Bad
32 Miscellaneous	Power Loss/Limit Lamp Defective, EGR System Failure
33 A/C Relay	A/C Relay Circuit Failure
34 Miscellaneous	EGR Solenoid Failure, Speed Control Servo Failure
35 Miscellaneous	Radiator Fan Relay Failure, Idle Switch Circuit Failure
36 Wastegate Solenoid	Wastegate Solenoid Failure
37 Miscellaneous	Baro. Read Solenoid Failure, (89-90) Part Throttle Unlock Solenoid
41 Charging System	Charging System Excess, No Field Current
42 Automatic Shutdown	Auto Shutdown Relay Circuit Failure
43 Power Module	Spark Control Interface Failure
44 Miscellaneous	Wrong Prom, Battery Temp. Sensor Failure
45 Miscellaneous	M.A.P. Signal Shows Excessive Boost, 4-Speed Overdrive Solenoid
46 Over Voltage	Battery Voltage Too High
47 Under Voltage	Battery Voltage Too Low
51 Oxygen Sensor	Lean Condition Indicated
52 Miscellaneous	R.A.M. Failure or Rich Condition Indicated
53 R.O.M.	Logic Module Failure
54 Logic Module	No Dist. Sync Pickup Signal
55 Test Complete	Indicates The End Of The Test Procedure
61 Baro Read Solenoid	Open or Shorted Baro Read Solenoid Circuit
62 EMR Mileage	Unsuccessful Attempt To Update EMR Mileage In Controller EEPROM
63 EEPROM Write Denied	Unsuccessful Attempt To Write To An EEPROM By Controller (Read Only On A Scan Tool)
88 Test Start	Indicates Start Of Test

I have some more words of caution, if you have real sticky problem, buy a Chrysler service manual. If your car is less than five years old, has less than 50,000 miles and the warranty is in your name, take it to the dealer because you are most likely covered by the emissions warranty. Also, system signals are low voltage and low power. If you really want to get into these systems, you will need a digital voltmeter. The meter movement/analog type will not work! Finally, static electricity can damage the logic module. Ground yourself and disconnect the battery. Sensors are a little more durable and can be replaced with only the ignition off. And never, never use non-resistor plugs.

In summary, if you plan to do your own repairs, you should familiarize yourself with the components do a little tinkering. Most problems can be fixed by cleaning and lubricating the connectors with silicone grease.

Also remember that not all codes mean there is a problem. If you recently disconnected

your battery cables, you will get a code 12.

Go ahead, get your key and try it out. A little care will keep these fascinating systems operating. The best mechanic has to spend weeks on trial and error tinkering to get a conventional carbureted electronic system to do what these systems do. They correct injector fuel delivery for altitude, ambient air temperature, manifold air temperature, coolant temperature, manifold pressure, speed, and fuel quality. And no choke to mess with! Your car can even run this crap unleaded regular gas they sell in Rapid City. This is because the system will retard the timing based on engine ping and input from the oxygen sensor. You will have less power and mileage, but you won't hurt the engine.

The figure below gives you an idea of how the components are all connected together and an indication of what the various sensors look like. If you have any questions, just ask.

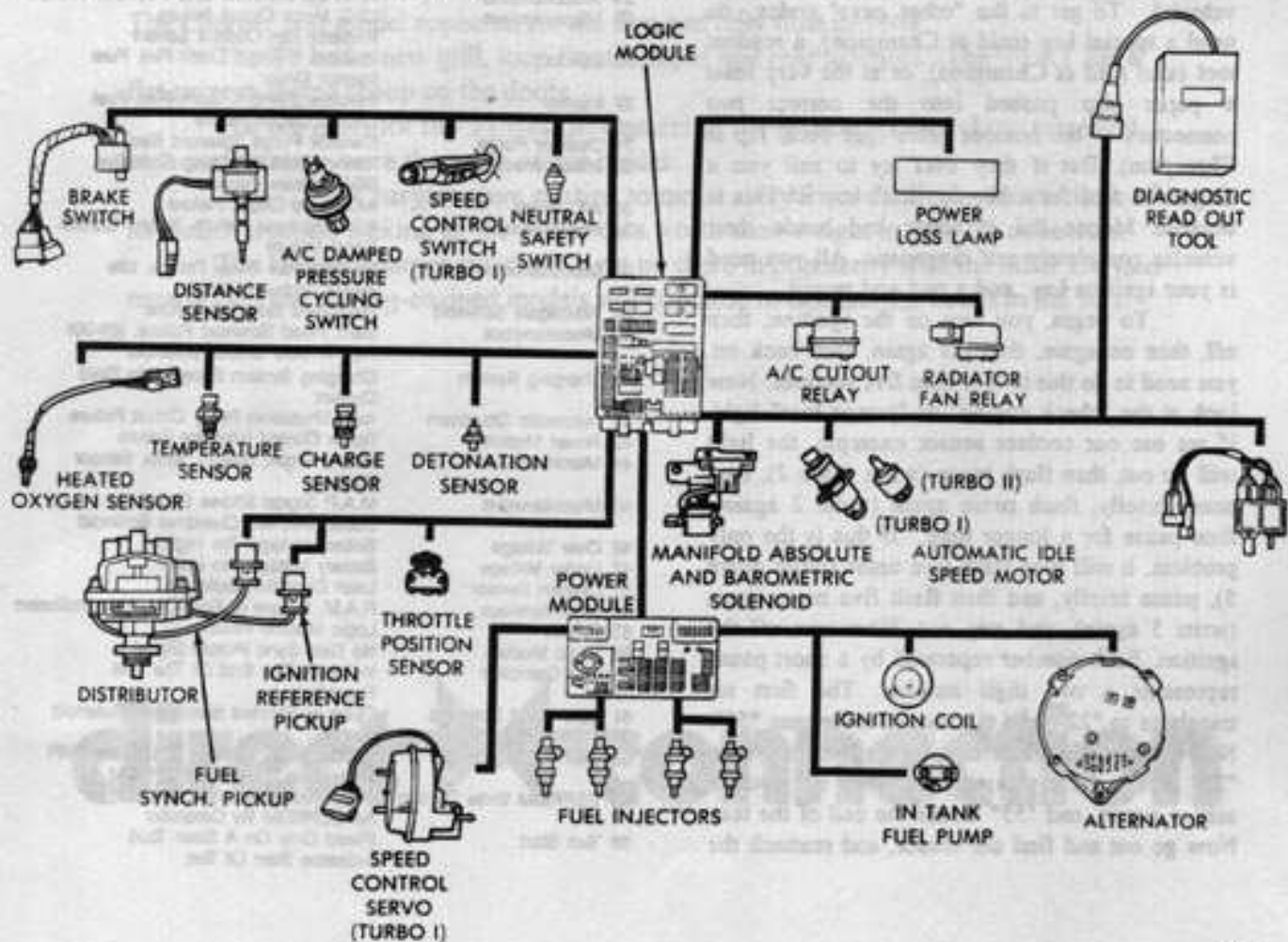


Fig. 2—Multi-Point Fuel Injection Components (Turbo I & II)

## Club Questionnaire

This questionnaire was put together to receive your input on the Black Hills Mopars Car Club. We ask that you fill it out honestly and provide us with as many ideas and suggestions as you possibly can. Please bring your comments to the Christmas Party or to the January 21 meeting at BHP&L. Our goal is to make this car club the best it can be.

What is your overall level of satisfaction with the club? Did you get out of it what you thought, or were you disappointed?

Are the meetings giving you the information you need? What other things should be provided at the meetings? How often do you think we should hold the meetings?

Do you like meeting in the same place every month, or should we schedule some meetings at other locations, and if so, where?

What events would you like to see the club hold for 1995?

May Day Run? *yes*

Picnic in the park? *yes*

Show -n- Shine? *yes*

Scheduled Rod Runs? *yes*

Dodge Town Car Show? *yes*

Poker Run? *yes*

Other:

*Try to combine events.*

Would you like to see some of these events combined?

Is the newsletter an informative source for you? What do you like or dislike? Is there additional information that could be provided in the newsletter?

How should the club spend the money collected from dues?

Do you plan to continue as a club member?

What other suggestions do you have?

What changes might you suggest to the point system? Should it be continued?

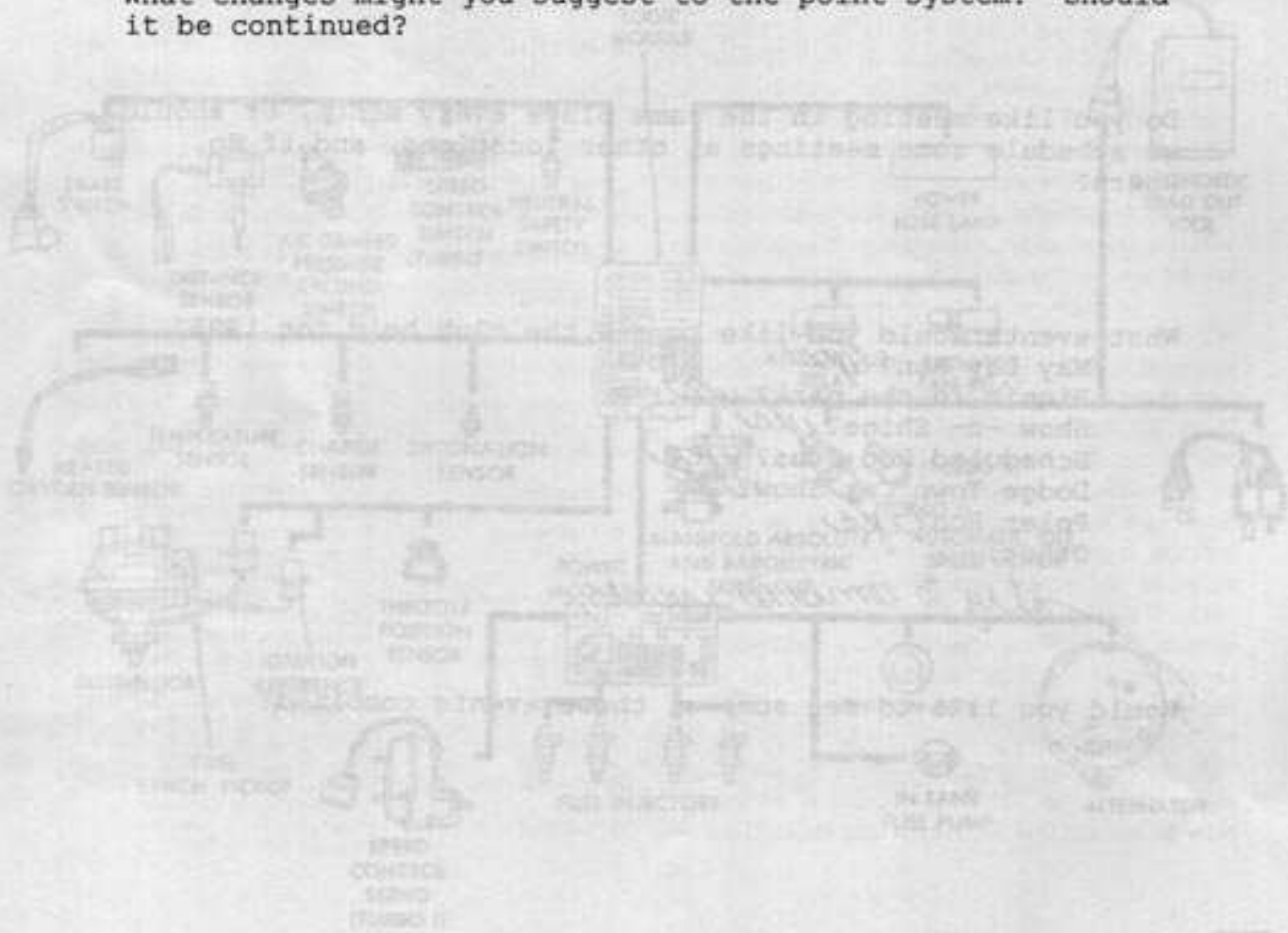


Fig. 2—Multi-Point Fuel Injection Components (Turbo I & II)



## NOMINATION FORM FOR CLUB OFFICERS IN 1995

Please fill out this nomination form for club officers and bring it with you to the Christmas Party on December 2 at the Peace Officers Club House or bring it to the club meeting on January 21 at BHP&L. Feel free to nominate yourself if you would like to become an officer. More than one person can be nominated for each position also.

**President:** Bob Watkins

Job duties are to organize club activities, direct club meetings, arrange for locations of club events, and assist with the newsletter.

**Vice-President:** Tom Baker

Job duties are to assist the President.

**Secretary/Treasurer:** Dan Schiermeister

Job duties are to keep an updated list of club members, manage the club financial account, assist in organizing club activities, and help with the newsletter.

**Board of Directors (2 persons):** Kevin Lard, David Doers

Job duties are to organize the newsletter and assist with club activities.

**Club Director:** Kelly Wolfhard

Job duties are to organize all club displays at events, assist with club activities, and help with the newsletter.

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