Writeup: Common Cluster Complications Cleared Up upd 6/05/07

Author	Message
Ablice Advanced Member Joined: 19 Jun 2005 Posts: 434 Location: SLO, CA E30: White '88 325is 5spd	Posted: Wed Jan 31, 2007 2:02 am Post subject: Writeup: Common Cluster Complications Cleared Up upd 6/05/07 quote Heylo... Today in class we'll discuss most of the cluster situations a normal Do It Yourselfer will be likely to be enthralled with. I'll also sort out some basic confusion and no-no's to be hashed out. Let's get to work.  *My 325is Cluster*

Section One: Removing the Cluster

Firstly, how do we remove the cluster for work? For one, your Bentley should be the first check—failing that, **this lovely site** details the operation in such detail there isn't much for me to add...except:

1. Remember to put a microfiber or fine cloth on the steering column plastic.
2. If you're new to pulling clusters, pull the wheel—making sure to mark the position of the wheel relation to the shaft splines. A 22mm nut is secured on there. Make sure to put the washer back on and torque the nut correctly. If you're a pro, you shouldn't have to pull the wheel. Watch out for the cluster mounting tabs and plastic face—they're remarkably delicate. Okay so they only cost 160 bones over **here as an example** but it's not worth it unless you're restoring the whole car.


^Support the cluster like this. I used the inside of a jacket for this job. The second photo is a start, but the tabs can break if you're trying to loosen the screws on the back of the cluster.

3. Do not loose any of the cluster mounting screws, nor strip them. Watch out for the silver knurled nuts for the below-cluster-trim panel—the one closest to the center console loves to fall down to the front console area.
4. When replacing the lower dash trim panel (the one above your pedals) try to ensure that the securing tabs just above the accelerator pedal and the clutch footrest pad are supporting the front part of the panel—one day you'll push your clutch in and nearly panic as your foot catches on the panel; wait until you're shifting as you're crossing lanes of traffic passing other motorists—a potentionally precarious situation.

The one on the left is a little messed up there, but you get the point 

5. All the plugs are fairly obvious as to their proper location upon reassembly except the little green wire one coming off the speedo can confuse the ingnorant. Short answer—it goes in the green plug wherever it can fit. See the pictures later.
6. Never put the gauge faces (the needle faces) face down on a surface—always face up.

Section Two: Problems

You are most likely removing the cluster because of one or more of the following problems:

a. Coolant, tachometer, speedometer, gasoline/diesel, fuel economy/oil pressure(M3, 320is) gauge inoperative, illogical reading or flickering.
b. Your cluster clock on your 316/316i is not happily counting away the time. Sorry, can't help you with that. Nor can I assist you with the special South African clock with integrated fuel economy gauge...sadly.
c. Your service indicator lights, INSPECTION, OIL SERVICE, and/or the little clock indicator is/are not gratefully working away.
d. You have a blown or otherwise inoperative bulb inside the cluster.
e. Your cluster plastic face is not clean on the inside or out and you are looking into cleaning it or replacing it. (My 325is had something a little perplexing on the inside)

We'll delightfully hash each individual despicable problem described above. Cluster problems, like the one in my (thankfully gone) 325e are sometimes incredibly fustrating and demoralizing. Let's hope this little write up can settle that—or at least kick the cart in a direction.

Section Three: The Cluster Itself

Before we start discussing common aliments relating to the cluster, we ought to have an obligation, if the knowledge is lacking, to investigate the problem to further understand the situation.

Basically, there are two types of clusters: coding plug type (hereafter referred as CPT) and the non-coding plug type (NCPT). The code plug:

The coding plug from my 325is. You can check the "TYP" of your 13-button OBC by pressing the 100 and 1 keys together. This specimen is a 4.6 TYP.

Nothing real fancy, just a little board with a chip encased in a lovely plastic shell and some letters on it. There are different coding plugs for every type of E30, from the 316, 316s, 316i, 318i, 318is, 320i, 320is, 323i, 324d, 324td, 325, 325e, 325i, 325iX, 325is, M3, M3 Evo, and M3 Sport Evo II...coupes, sedans, Tourings, convertibles, Baur Cabriolets...all changed in 1986 in Europe at least. Your 13-button OBC also has a similar (if not the same, I can't recall the one on my 325e if it had one, my 325is has one, but I'm not sure if they're exactly the same) coding plug attached to the back of the unit and tells the OBC what kind of car is this.

Now, the CPT cluster bodies will NOT interchange directly with NCPT type bodies. The quick way to identify each is the CPT have a blue

back, the NCPT have a white back. Also the cluster boards are different and will not swap over—I am not sure about the gauge units because I don't want to remove my 325is cluster again and fiddle with the fickle units. You could swap a NCPT type cluster for a CPT cluster, just get the right coding plug.

From left to right, the back of a CPT cluster, the front of a CPT (note the coding plug in the lower right of the cluster) and the back half of a NCPT cluster.

Here is why a CPT Service Indicator Board will NOT fit a NCPT board and visa versa. The left one is a CPT, the right one a NCPT main board.

With that, let's move on it inside the cluster itself. From left to right, we have the gas/diesel gauge, the speedo/odometer/tripmeter, tachometer/fuel economy gauge, and the coolant gauge.

The front of CPT cluster.

Now, the troublesome Service Indicator Board (SIB). This board is a very fickle unit that commonly leads to problems relating to the fuel gauge, tachometer and fuel econometer, coolant gauge and the Service Indicator Lights (SIL). We'll get into those problems a little bit later—the tail can't wag the dog.

Two NCPT Service Indicator Boards, and a CPT SIB. Note the green ones have a orangish anti-corrosion substance. The light tan one is earliest one, with two NiCad batteries—it's the original board from my 325e.

What is the SIL setup supposed to be anyway? Well, if it works as originally intended, the system is collects information such as starts, journey intervals, speed, etc etc and is intended to calculate your OIL SERVICE intevals. Before long you'll have INSPECTION I and INSPECTION II which is all the work of the SIL setup—a rather clever idiot light system. After August 1985 (Europe, at least) the number of SIL changed from three red lights to just one, and added a small clock symbol betwixt the OIL SERVICE and INSPECTION lights to remind you of annual service—new brake fluid and coolant, etc etc. This was updated in October of 1985 in Europe, at the same time they updated the speedo from 140mph to 150mph, also the time when the 325i replaced the 323i. (My 325is didn't have a bulb on the SIL board for the clock symbol, so I put one in)

The early SIL setup, and the later one. Some time before they updated to the later setup they changed the illumination type on the early model—it used to be that only the text was lit up, now a big box surrounds it is lit up. Huh.

It's actually a pretty nice setup for cars this old—but then with time conditions errode in the cluster and it gets suprisingly warm in there. The NiCad batteries used on the early NCPT SIB can leak and spill all over the board, causing erratic operation and lots of cursing. We'll get into that later.

If you have a cluster apart in front of you, you will probably notice the SIB isn't quite connected to the cluster main board. That, and the SIL board attached to the SIB, are not happy companions. Fortuantely an innovative invention called solder usually gets the message across. Again, a bit later.

To take the cluster apart, simply remove all the screws surrounding the cluster, (the one between the speedo and tach loves to be troublesome...loosen it all the way, then dig it out with needlenose pliers) and carefully pull it up and apart. When putting it back together, first put the SI board carefully back in its place (it has slots), put the white plastic holder in, then align the black male plugs on the SI board to the holes in the cluster back. See the photo below...

Note the black male plugs on the ends of the SI board connection...

There are two types of bulbs inside the cluster, the big ones used for the main cluster illumination and a multitude of small ones. (Same type used in the CHECK CONTROL panel). They simply twist out and are swapped back in. Some slots have bulbs that are not wired throught the cluster—an example being the CHECK ENGINE and ANTI-LOCK lights. See the photo below...

The externally wired bulbs for the CEL and ABS lights on my 325is.

Section Four: Indepth Detail of the Main Cluster Back

Well, with the generalities of the cluster discussed, let's get to the more specifics. The SI board will be discussed in the next section.

a. Problems with instruments.
First check the fuse box. Check fuse 10 in particular. Dive under the under dash (drop the glovebox on a RHD car) panel and check out the cluster main ground—it's above the brake pedal pivot:

Sorry for the murky photo—the screwdriver is pointing to the main ground.

Use a 10mm 3/8" drive socket, a long extension and a rachet—take the nut off, use a small file (it's tight in there) and clean up the contacts of the wires eye connections, the ground connection and the bolt itself.

If that fails and your fuel gauge/coolant gauge is still finky, check the grounding nut on the back of the gauge unit:

This one is a little unclean. It should be shiny and clean.

Again, remove the nut and using a small file, clean up the nut and board connection a little. Try replacing the gauge unit itself with a spare (you should have a spare replacement cluster on hand, for bulbs, SI boards and gauges), try tracing the connection across the main board with an ohmmeter. Also check the sensor wiring. The SI board could also be at fault, even if no ailments are apparent to the naked eye.

Some members across these forums and their like have reported board cracking near the upper corners. Check those areas with a volt-ohm meter, or replace it if in doubt—you'll have to pull all the gauges.

b. Problems with the speedo/odometer and tachometer/fuel economy gauge/oil pressure gauge.

Can't really help you if you have a clock in place of the tachometer (early 316 and 316i), a tachometer with a oil pressure gauge (320is, M3), or the unique South African clock with fuel econometer. No experience with either.

But, tachometers do go bad. My 325e did, it would decide on it own accord when and what to register. When that happens, just replace it—internally it looks as innocent as a pie—except you eat pies. (yum) The 325e, 324d, and I highly suspect 324td, the 320is and M3 have completely different tachometers. The difference is the readings.

You can swap a regular 6500-redline tachometer in place of the 4750-redline 325e one for example, and it'll work and register correctly. Therefore the incoming signal is the same—but the gauge unit itself differs in how it interprets that RPM signal. So you can say, "oh yeah, I get this—I take a 6500 tach and pull the gauge face and throw on the 4750 face and it'll be good"... Actually it won't work. "But I can just adjust the needle here and there and—" No, it still won't work.

Also. Coding plug clusters, the ones with the blue backs, have different tachometer and fuel economy gauge units. It appears that they are just motor driven units and there is no electronic circuitry like the older white NCPT clusters. As such, and the connections being slightly different, the early and later units will NOT swap. I found odometer units to be nearly identical though, although there was some slight differences in the internals, the connections appeared identical. Coolant and fuel level units should swap without issue.

But, back on the tracks, just replace the unit unless something visually looks promising that could restored breath into it. If you have erratic signals and checked everything above and isolated the cluster from the rest of the shebang, well, then you'll have to trace the RPM signal to the cluster. Good luck.

If you find your gauges are not appropiatly reading correctly, as when the gas tank was completely filled up and the reading is 4/5 full, suspect a troubled gauge unit—they can get borked up when they get pushed out of position. Check the pictures for the proper position. One reason why you don't put gauge faces face down.

You can get a quick estimate of the proper needle positions in this photo.

Removing the tachometer is fairly simple. The tachometer can be seperated from the econometer without having to pull both. The needles are a tricky buisness if you want to paint them or remove them—go very slowly. The faces are secured only by small blade screws. The fuel and coolant gauges are simply removed by loosening the nut on the back of the unit and pulling the gauge out. The tachometer and speedometer have screws on the back that need to be removed first. You can pull the tachometer out independantly of the econometer.


The tachometer removed with the econometer intact. And second photo, how they fit.

The econometer, if it goes bad, can give the SI board erratic readings for the SIL calculations. If you find that it informs you of a needed oil change far to early, try replacing the MPG-L/100km unit. The fuel economy gauge registers its readings off, what I highly suspect, from engine vacuum.

Of odometers. I don't know much about them, other than removing them. The screws pop out the back and the unit pulls forward. Before you get excited though on the early NCPT clusters there is a little black plastic insert thing that secures part of the odometer, well, sort off. Loosing it would not be a particularly canny idea.

The back of the early type speedo. My 325is has the updated 150mph one.

By far the most common problem I have heard of odometer failure is stripped gears. **This site** has replacement gears available. I have no knowledge of replacing the gears—sorry.

If your speedometer starts acting up, first check the signal wire and unit on the rear diff cover. With the oldest BMW E30 at just about 24 years old and the newest E30 being just about 13 years old things can get a bit ropey in there. Any more electrical deduction work involves a proper wiring diagram setup.

Section Five: Indepth Detail of the Service Indicator Board

This wretched invention obviously intended with good purpose in mind, has easily become one of the banes of E30 troubles: flakey instruments.

That, incidentally enough, implores the question—how do I know it's the SIB? Well, to be honest, not much else is responsible for the majority of the gauges. Without the SI board the coolant gauge will NOT get power and I forgot if the 13-button OBC will work without the SI board. There has been a couple topics going around of cheating the SI board and soldering jumpers in position. You may respond to those methods as you may please. If you are restoring a nice M3 or other worthy car, it is quite a mark among the E30 community to have fully working and clean-clocking instruments—your decision.

What was the Service Indicator Light setup supposed to be anyway? Just an idiot light setup. When it is working correctly, the all the green lights should be on after resetting and gradually count down to the right fewer and fewer lights until the yellow one trips. After awhile the red one(s) will come on to remind the owner of the seriousness of the oil change. The OIL SERVICE light will come on at the same interval as the yellow light. The INSPECTION comes on to remind you of BMW recommended Inspection I and II services.

What it boils down to is, if all else fails on the fuel gauge, coolant gauge (especially), tachometer, etc gauges it is usually dying SI board batteries. Fortuantely the problem has been tackled by quite a few persons so informational droughts are not to be feared. Or you could have a poor connection or simply just a bad board. Bad boards are sometimes rife and there is nothing you can really do. My '89 325i had a problem with a itchy gas gauge: the SI board from my wrecked 325iS fixed it. So the later ones are just as susceptible as the early ones. But the Lithium/Manganese oxide batteries are not used the same way as the earlier NiCd AA batteries so most last quite long - more than 10 years.

On some 1985 and 1986 models interference with the radio can sometimes be caused by a faulty SI board. To check if yours is at fault, pull

the SI board with the cluster installed (tricky work—best to pull the wheel—even for pros; and work slowly) and try operating the radio. If the interference abates, your problem lies with the SI board.

But first, since some of you may be unfamailar with the SI board, let's study three major types. Let's look at the earliest one I have here.

The first specimens were NiCad AA capacity, of VARTA make. No longer made, of approximately 500mAh capacity, they were spot welded (I believe that is the method of attachment, either that or they're pressed on) on to a quad setup of metal tabs. This original board setup does not have corrosion protection and is of Motometer make—later ones like in my 325is and the updated NCPT (listening to some lovely WoW tunes) are made apparently also by Motometer, even if it went into a VDO cluster. You can swap SI boards between makes, but some instruments are a little bit differently—I noticed the tachometer and odometer were different once.

The earliest one is the tan one, and the updated NCPT one is the green one.

This specimen started to act up with out much remorse. These SIB are infamous for the unseen troubles—usually the SIL are not resetting correctly or showing illogical readings. First the fuel gauge would one minute show 3/4 full, another minute just under 1/2, another minute 2/3 full—something's wrong under there. Then the service indicator lights began to act up and not reset correctly. If the SIL do NOT reset promptly (you can rest them yourself—just need a jumper—see **here** for more information) then you definitely have a problem with the SI board and she has to come out.

Let's move to the next type: the updated dual Lithium/MnO2 (manganese dioxide) and beefed up with corrosion protection. I have no knowledge when the board was updated from the early NiCad AA type to the Li/MnO2 type and corrosion protection was added. But this specimen has "KW 43/89" marked on it...I must guess sometime in 1987 or so forth. Huh.

And finally, the coding plug type. As far as I have seen, I have only seen these boards with the Li/MnO2 batteries. The CPT and NCPT boards are not interchangable. The coding plug system was adopted in (Europe) in 1986—all the better if the only E30 in the breaker's yard is a 316i and you have a 325is—they'll swap, just carry over your coding plug.

The updated coding plug type.

So, now that we know a little bit about the boards, what are their common problems?

a. Weak connections from the main board to the SIB.
b. Weak connections from the SIB to the SIL board.
c. Dead or dying batteries, the former leading to possibly d.
d. Contaminates leaking from the batteries and weaking the board or other wise damaging it.
e. An electronic failure on the board itself.
f. Inability to properly reset the SIL lights.

With a, b, and c the board is repairable in most cases. I got a board once from a 'yard and there was corrosion that had leaked out of the batteries and damaged a nearby resistor. Me tripping over it and breaking it didn't help either. With f the problem could be a shot board or blown batteries.

If you can't see the electronic part failure on case e, it's time for a replacement board. The problem is the AA NCPT boards are hard to find, and here in the 'States, most of the time the only ones you'll find are already gone or damaged—I find most of them the only ones you'll find are from 318i models, which only ran for 1984-1985. Etas are another story, because I haven't seen any of them at three seperate yards and the are abound everywhere at For Sale sections.

Back again, the AA NCPT type boards are not easy to find. Personally, if you value the car that much, as in, it was the first 320i off the production line, the last 323i off the line, et cetera then it may be worthwhile in your case to maintain originality in the cluster, but—does it really matter?

On the other hand, the CPT clusters are about here and there. Fortunately the coding plug issue makes it such that you shouldn't have to worry much about crossing boards from another year or model. Once you get a decent board, which, like seats, tend to disappear rabidly quick, then you still have the battery problem and holding your breath hoping it all will work good.

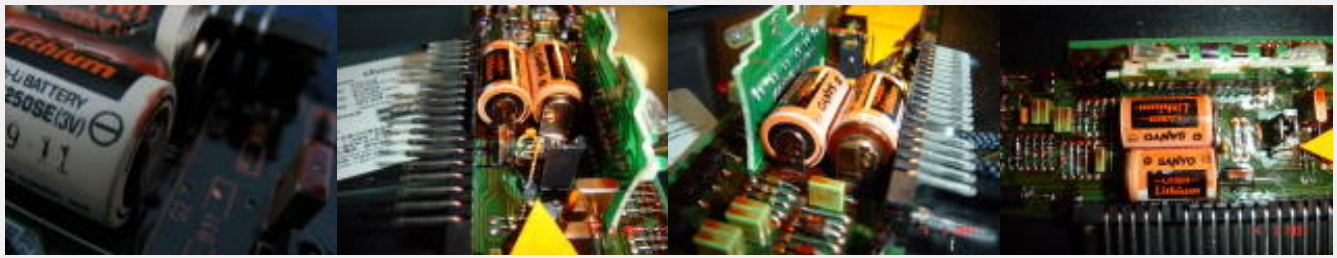
The AA NiCad batteries are recharged when the ignition is in the ON position. If you are replacing the batteries first charge them that way you won't have to leave the ignition on for (according to the Bentley) a good couple of hours, if my memory serves me right. When replacing the batteries it is probably a canny idea to put NiCads back in, rather than using rechargable NiMh or Lithium batteries. Some folks have reported good results with such—others denounce swapping because NiMh and NiCad batteries are charged differently.

Also note that the NiCad batteries are NOT interchangeable with the Lithium batteries. The NiCad batteries will not fit onto the Lithium type board, and visa-versa, because the older NiCad board will try to recharge the un-rechargable Lithiums, whereas the Lithium board will not recharge the NiCads so they'll die.

On the other hand the Li/MnO2 batteries are *not* recharged, but to help them out they should last a good five years or so, some estimate double that but I'll play it safe. I have honestly not looked for replacements because the only batteries I swapped for my 325e NCPT cluster was the AA/NiCads. I used Radioshack replacements—apparently some comments about the fact that the original VARTA makes were able to sustain the extended intervals of heat inside the cluster. They still leak, but...

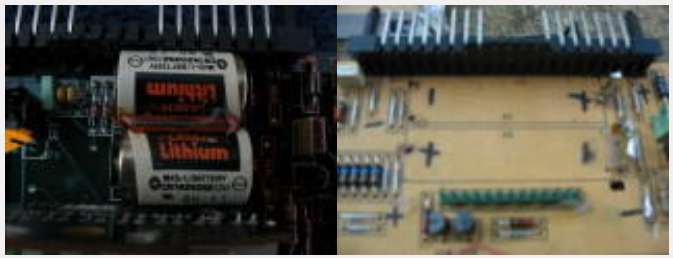
Testing the batteries is quite simple. The AA/NiCad batteries should measure about 1.2 volts full, the Li/MnO2 batteries at least 2.70 volts. I have yet to see any drop below 2.90 volts each, so you shouldn't express much trepidation over the battery life remaining. Your mileage may vary. My 325is batteries measured about 3.15 volts each, a little high, and the updated NCPT board was...around 2.93/2.96 volts last I measured it.

Replacing the batteries on either board type is quite tricky in my experience—either I'm not doing it right or the swap is just fustrating. Because of the method that was used to attach batteries to the board is not user-friendly, it takes a little bit of gently applied violence to remove them—I used a small screwdriver. Soldering them on is another story because the solder doesn't want to stick and most of the time you might have to settle for an ugly joint that hopefully works. When you're done soldering either setup put a nice thick blob-line of gasket maker between the batteries so they won't shake themselves loose, which they do with a little hammering over the road.



This is how the batteries are attached to the points there. The AA/NiCad setup is similar.

When you're breaking the battery joints there try not to damage the little conductor tabs. They're quite fragile and they're a pain to resolder. Be careful not to splash solder around on the board making improvised jumpers—it can ruin the board. It's not easy.



In case you loose the polarities...

If you're real good, you could even cheat the board setup and wire an external battery setup (probably only worthwhile if you have an AA/NiCad setup). Batteries die—reach down, pull them out and throw new ones in—if you're crafty enough. You'll have to a hole in the cluster for the wires to pass through, unless you use a light bulb hole or something.

Regarding the other problems, weak connections...oh dear. My 325e made me quite incensed over this issue. The SIB to main board connection isn't made too well. The design works fine for the speedo and odometer but not for the SIB. What you can do if you have this issue (usually charactorized by the SIL coming on at will and flickering around when they're not supposed to) is pull the all the gauges and bulbs, the pull the entire main board up. Then you could solder the whole SI board directly to the main board—while you're at it, solder the SIL board to the SIB, because that little bugger loves to wiggle around—and forget about putting something in between the board and the batteries because it won't last.

A quick photo of the situation.

That's about pretty much the only option I can think of there for you. If you do that you should also have spare good main boards and SI boards ready to go...doesn't the whole situation delight you?

So how do you reset the lights once you're all done? Easy, **this site** details the procedure. You might want to use a fused jumper wire (the Bentley doesn't say how many amps, I use a 10A in my custom jumper box) for protection. Remember to plug the jumper in first, then turn the ignition ON, not the other way around. If the lights will not light up correctly (all the green lights should be on, the OIL SERVICE and INSPECTION lights should be out) then your board is either bad, has a bad connection to the main board or the SIL board isn't secured properly, or you battery work didn't work.

Section Six: Frequently Asked Questions

Here we are.

Q: What's this "CHECK" light flashing between the speedo and tachometer? Does this indicate a problem with the engine or something?

A: This is a VERY common question. It gets annoying after awhile. Many people, more than you think, confuse this with the CHECK ENGINE light even when they don't have one.

That CHECK light is there to tell you of a fault that has been detected with the Check Control system above your mirror. Don't panic if the

BRAKE LIGHTS one is on before you press the brake pedal—the system has to wait until you complete the circuit and is completely normal unless you've pressed it quite a few times fully and it's still on.

If you have a CHECK ENGINE light, it'll be a red one towards the lower left of your cluster.

The CHECK ENGINE is to the lower left. Like the murky photo? Wouldn't work right.

Q: What are all these lights below the whole gauges?

From left to right, according to my memory:

Glowplug status (diesel)

Wait to Start (diesel) / CHECK ENGINE

Trans Programme (automatic transmission trouble)

Front Foglights

Rear Foglights

Trailer lights

Parking brake

Brake Lining

Brake fluid

Anti-Lock Braking System

Battery status

Oil pressure

A quick shot of a Euro 324d that was imported here. Interesting car...drove it...automatic, diesel and NO options...

Q: Can I change my cluster illumination (also my center console) color?

A: From just looking at it, it looks pretty difficult. If you want it to look original and professional, you could start by pulling out all that orangy plastic and replacing it with clear or whatever. Good luck finding a suitable replacement, I haven't heard of any. Some folks have some interesting attempts—saw a little setup over at bimmerforums.

Q: Why does my battery not charge when I have no cluster in the car (or, my battery bulb is out)?
A: Older E30s suffered from this issue. The charging circuit is routed through the battery bulb and if it is removed or otherwise non-operative it will not charge. Here's what the Bentley says:

(Chaper 16, page 16) "On models built up to late 1986, a burned out alternator warning light will prevent the alternator from charging. On late 1986 and later models, a resistor is wired in parallel with the alternator warning light. This will allow current to reach the alternator during starting when the warning light is burned out."

Q: I noticed a little bulb slot just where the coolant hot area is...can I put a bulb there like how the fuel gauge setup is?
A: No. Don't bother. If you look where the slot is on the gauge itself, you'll see you'll be illuminating just black...if any at all. Don't bother. (Same with the OVERHEAT light in the Check Control panel, I saw one over at e30zone.co.uk on a E30 that had a legitimate setup for it... wonder what it does)

Q: Umm, I'm putting the cluster back in and I don't know where this little green wire goes?
A: Simple answer...anywhere it can fit in the green plug. See the pictures why...


The little green wire connects to any of the slots to the far right of the connector. The right picture shows why.

Q: Can I remove the plastic cluster face?
A: I have, it's sort of pressed in or something. There is a possiblity of cracking the plastic face whilst doing so. If you need to clean it up, you could bust out 160 bones for a new one. Your choice there mate.

Q: Can't I just bypass the SI board and use jumpers to bypass it?
A: There was a post like that on bimmerforums where someone did that and made it work. I have no experience with that—you'll have to search around.

Q: How do I take off the gauge needles and faces?
A: The faces are held on with two plastic screws for the odometer and tachometer, but first you have to remove the needles. Use extreme caution.

Q: How do i change the odometer gears?

A: Sorry, never had to do that, yet. A search around here should help you with plenty of advice and experience.

Q: What about the batteryless SIB around some retailers here?

A: I have seen those. I don't know how they work (Pelican parts has some) but I have tried to ask around. Nothing. Wonder why.

Section Seven: Epilogue

I have been wanting to do this for awhile. I will probably update it from time to time. Nominate it for a sticky or something.

Thanks. If you appreciated the material in here or have stuff to add, let us all know...=)

Thanks to cyclingches at Bimmerforums for some of the photos used here. Photos used with permission.

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The 850CSi(video link) What an awesome car.

Cluster write-up

I love game music. If you do too, visit here.

Last edited by Ablice on Sat Jul 14, 2007 5:36 pm; edited 6 times in total

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dom
Moderator

Joined: 29 Nov 2005
Posts: 14198
Location: san francisco, california
E30: 1989 325i

Posted: Wed Jan 31, 2007 2:26 am Post subject: quote

sticky worthy

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DBcooperM12 wrote:

> when i grow up, i hope to be a superamazinasian....like dom.

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Restoman
Location Nazi

Joined: 29 Jun 2006
Posts: 1126
Location: Shreveport, LA
E30: 1987 325e 2dr

Posted: Wed Jan 31, 2007 2:27 am Post subject: quote

Sticky and a Trophy!

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[/img]http://i139.photobucket.com/albums/q309/Restoman_photos/top.jpg

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Mtriple
Advanced Member

Joined: 27 Nov 2004
Posts: 249
Location: Twin Cities
E30: 1989 325is

Posted: Wed Jan 31, 2007 2:31 am Post subject: quote

Nice job! Much appreciated.

_____

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protomor
Technical Junkie

Joined: 20 Aug 2005
Posts: 1887
Location: Northern VA, USA
E30: 1989 325i, 1989 325i M20T

Posted: Wed Jan 31, 2007 10:30 am Post subject:

quote

I dont need most of this yet but im sure I will one day, I vote sticky.

_____

Call me -Yoshi-

JB Weld spokesman

Status: Tuning

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87-325iC
Technical Junkie

Joined: 22 Jan 2006
Posts: 3165
Location: nc

Posted: Wed Jan 31, 2007 10:32 am Post subject:

quote

finally.

thank you.

_____

> **Quote:**
>
> The problem is that we don't know where to check the oil... Our oil is located in Alaska, California, Coastal Florida, Coastal Louisiana, Kansas, Oklahoma, Pennsylvania, and Texas... the dipsticks are in Washington, D.C. ...Slowman

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the pirate
Advanced Member

Joined: 03 Oct 2006
Posts: 339
Location: Annapolis, MD
E30: '86 325e

Posted: Thu Feb 01, 2007 8:00 am Post subject: quote

awesome. finally got to what I wanted to do. Did a better job too. nice job and thank you.

One update off the top of my head for the needle alignment. on the speedometer only, there is a small dot at the very edge on the left side of the guage face. that dot is where you are to line the needle up for where it's to rest. (oh the things you find out when rolling the odometer to the mileage you want when installing a new one)

_____

^still wondering why the hell the seals didnt arrive with the plate

the not so ugly eta, looking better one rattlecan at a time.

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jean
Advanced Member

Joined: 09 Jul 2006
Posts: 454
Location: Sacramento

Posted: Sat Feb 03, 2007 7:07 pm Post subject: quote

Nice write-up, gotta love them e30 clusters lol

_____

84 318i

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Chris
Site Admin

Joined: 04 Aug 2003
Posts: 10931
Location: Hoboken, New Jersey USA
E30: 1989 325is

Posted: Sat Feb 10, 2007 8:26 am Post subject: quote

Nice writeup!

Stickied.

_____

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