



## Happy New Year!

Since its launch in May last year, Autologic Assist has been chosen by an increasing number of work/repair shops around the globe to provide support in getting from Fault to Fix Fast!

Following its inception, the AssistPlus device has been further improved, benefiting from several software updates, thanks largely to feedback from you, our customers.

No surprise then, that we are approaching the supply of an AssistPlus device to our 2,000th customer. To celebrate this benchmark, Autologic are offering a FREE AssistPlus device with 12 months Assist Technical Support FREE.

Customer #2000 - It could be YOU!

If you're looking to migrate to the latest AssistPlus device or considering getting an additional unit, make that decision now and you could benefit from getting it for FREE!

Even more exciting stuff inside, so turn the page to discover more.....

# Meet the Team Keith Witherspoon - BMW Master Tech



Keith Witherspoon, Autologic's self-proclaimed 'pin-up', is the charismatic scouser managing our BMW and Tier 1 Technical teams. Born in Birkenhead in the Wirral, he attended Riversdale college where he loved History, Maths, Sport and anything that involved electronics. In fact, he liked most subjects, even Drama. Not French though - he hated French. His hobbies back then included anything and everything to do with football, he had also started dabbling around with electronics and went by the nickname 'Spoony,' although he's still not sure why it wasn't 'Greek God.'

He started off as an auto electrician for Lucas, which gave him his first taste for the automotive industry. He taught electronics at a college, before moving to BMW in '87, where he began building his Beamer expertise. In 1999 he became one of only 30 BMW Master Technicians in the UK and he was the first Technician in his workshop to achieve the coveted Master Technician golden tie pin. He then passed the assessment again five years later, so we're pretty chuffed to have had him as part

of the Autologic team for the past six years (even if we've never seen his tie pin!).

When asked to choose his favourite car, Keith can give a long list, but the one he goes weak in the knees for is the Cortina Mk III GT, a classic and the first car he ever owned. These days, he's embracing the countryside life and walks to the office every day, which keeps him limbered up for the weekend renovation work he's doing on his new house!

Despite his adjustment to life in Oxfordshire, Keith remains a loyal Reds fan, proudly drinking coffee from his Liverpool mug each day (woe betide anyone who hides it!) and he keeps his highly polished BMW awards on his desk for all to see.

Keith, who loves his role as Technical manager, explains, "customer service is one of my key drivers. I strongly believe in the importance of good customer service, of always trying to give the customer something positive to take away with them." He spends most of his day working on this, often going out of his way to help customers resolve their issues. "I don't have a proudest moment at Autologic, but whenever I help one of our customers fix an issue, I feel well chuffed."

And any advice Mr BMW Tech? "Definitely, make use of the AssistPortal. This allows the customer to add themselves to the list by creating their own online job sheet. You can jump the queue by doing this and it means that the information provided to the support technician is 100% accurate and detailed." We tried to prise some fun anecdotes from our chirpy (Jason Statham lookalike) Scouser, but remaining loyal to his customers, past and present, he refused to comment – he actually said they weren't suitable for print!

## Autologic's Busiest Month on Record!

What's going on out there? The winter is normally a busy time of year for us here at Autologic, but the end of last year was manic. Were people concerned about winter checks, or preparing for a long drive over the festive period? Perhaps it was the news bulletins suggesting that this could be the harshest winter in years, whatever the answer, you guys have obviously been very busy out there (which is a good thing).

At Autologic House, November was the busiest month on record for our technical support teams! Within this was also the busiest week we've ever recorded, with over **2,500 cases** submitted! So it might not surprise you that our support techs were looking forward to Christmas (if they still had the energy!).

In total, our support teams solved 10,946 cases in November, compared to **10,745** in October. That's nearly 11,000 of your vehicle issues fixed! Despite this increased demand, the average response time only went up by 1 minute, from 20 minutes to 21 minutes. This is a testament to the outstanding hard work and skill of our support technicians!

Interestingly, although the German's are used to inclement weather conditions, BMW and VAG were still the highest percentage of cases, but even the tried and trusted British stallion Land Rover came a close 3rd.

If you have any feedback on your experience during this time we would be delighted to hear from you. If it's positive - great, we can pass it on to the hardworking technician in question. If it's constructive, get in touch and help us to improve the service that the team offer to you moving forward. But as you'll see as you read on...**AssistPortal** will increase your efficiency – and ours.

Your comments, ideas and stories can be emailed to: [logicall@autologic.com](mailto:logicall@autologic.com)

# The 5 Point Guide to Diagnostics

**1**

## Verify the fault

- Make sure you have got all of the details of your customer's complaint and that they have been entered correctly onto your job card
- Ask your customer the following questions;
  - When did the fault occur?
  - How often does the fault happen?
  - When the fault occurs, what stops working and what continues to work?
  - Under what conditions does the fault occur? (Hot/cold, braking, accelerating)
  - Has any work been done previously to rectify this fault?
  - Have any parts, new or used, been fitted to the car?
- Check if any warning lights are on
- Road test the car, with the customer if possible, and try to reproduce the fault
- Are there any other faults with the car? (They may be related to the customer's complaint)

**2**

## Understand the fault

- Review the information provided in step 1
- Find out how the faulty function works and what controls it
- Test the faulty function to identify possible causes
- Check for fault codes
- Check technical information websites for manufacturers' bulletins
- Contact Autologic Assist to check if there are any common causes of the fault

**3**

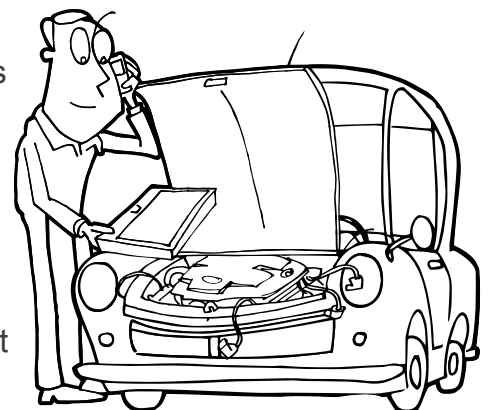
## Find the fault

- Visually inspect the car for any obvious causes of the fault (accident damage, water leaks, etc.) Check all fuses. Are the fuses in the correct locations?
- Check the condition of electrical connectors and pins
- Check the connectors/circuits that are easiest to access first
- Check for any underlying causes of the fault. These will also need to be rectified
- Reproduce the fault under the conditions described in step 1
- *Contact Autologic Assist for advice on how to carry out vehicle checks*

**4**

## Fix the fault

- Always follow the manufacturer's repair procedures as described in the workshop manual
- Replace any faulty components. Be aware of any special tools that may be required or any special set-up routines
- Ensure any wiring repairs have been carried out correctly and that the wiring is routed correctly
- Contact Autologic Assist for advice on the replacement of components



**5**

## Test the fix

- Test the function and ensure it is operating as intended
- Test other functions in the car to check no other faults have been introduced
- Test the car under the condition described in step 1 to ensure the fault does not return

# help yourself!

## FIX

Job card completed and Invoice produced

Technician checks Fix - all is good

Technician talks through further Fix solutions

Brand Champion reassesses info supplied

Front Line transfers to Brand Champion - busy!

Technician picks job card for next car

Technician calls back Assist Support with results

Job card completed and Invoice produced

Technician carries out initial fix

Technician picks job card for next car

Technician checks Fix - all is good

Technician talks through initial checks

Job card completed and Invoice produced

Technician talks through Fix solutions

Brand Champion calls technician

Technician checks Fix - all is good

Brand Champion calls technician

Front Line relays detail to Brand Champion

Technician talks through Fix solutions

Front Line requests Brand Champion

Front Line inputs vehicle data and issues

Brand Champion calls technician

Technician connects to Assist Online

Technician calls Assist Support

AssistPlus - Car DNA captured, support case sent

AssistPlus - Car DNA captured

Blue Box connected

Technician makes initial check

Job card produced

Car in workshop

ROUTE TO YOUR FIX

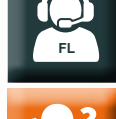
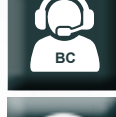
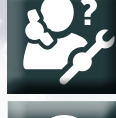
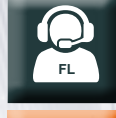
## ASSIST SUPPORT

## TIMELINE

## TECHNICIAN

## FAULT

20:00



CALL

ASSIST ONLINE

ASSISTPORTAL

## SAVE TIME AND MONEY

Our statistics prove that the average time to resolve a submitted case takes **half as long** by using Assist-Portal on the AssisPlus device compared to picking up the phone and making a call.

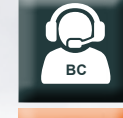
The left hand column displays the most common route to a fix (explanation in Blue) using the **PHONE** which takes around 20mins.

The centre column displays the most common route to a fix (explanation in Grey) using Assist **ONLINE** which takes around 13mins.

The right column displays the most common route to a fix (explanation in Orange) using **ASSISTPORTAL** which takes around 10mins.

## MAKE THE RIGHT CHOICE!

13:00

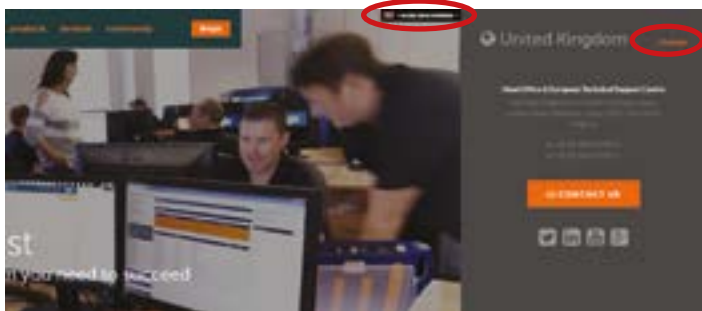


10:00



# autologic.com - it's as much yours as ours

The Autologic website is our key communications area and as a global organisation we have commenced the development of regional sites, all accessible from the autologic.com url. There are currently 4 regions available; USA/ Canada, Germany/Austria/Switzerland, Australia/New Zealand and UK/RoW. The content of the site is now being created specifically for each region. If by chance your web browser points you to the incorrect location, this is easily rectified by clicking the flag in the top right hand corner of your screen.



We are progressing with a host of ideas and concepts for the User Area, which we trust will keep you informed and provide you with an improved repository of technical updates, fixes and help pages. Most of the information that we are building is valuable stuff, so it will only sit within the User Area, password protected, for Autologic Customers only!

## Access to the information that we hold about you!

It is important that any details we have for you and your staff are correct, so we need to ensure that we update our records accordingly and delete any incorrect data. This is for your security as well as ours, but we also have a lot of exciting things coming your way over the next few weeks and we don't want you to miss out, or provide access to people who no longer work within your company.

Due to the nature of our business we get phone numbers, mobile numbers, email addresses, etc. from the thousands of technicians that call us day in day out. Some of these contacts may no longer be in your employ, so we need to update your records. The best way to do this, is to give the power to you. Login to the User Area and update the record of the Primary Contact (hopefully that's you!). It's important that we have the owner or financial decision maker as the Primary Contact, so please get this 100% correct first. Thereafter you can update and edit any records that we hold about members of your team, and you can also create new records for new employees. When this is done we can introduce the AutoLeague!

## The AutoLeague

One of the reasons for getting your data correct is to ensure that our new rewards programme involves everyone that uses (or pays for) AssistPlus devices and benefits from the Autologic Assist Support. We are developing a league of abilities, achievements and interaction and creating a fun and rewarding area for our customers.

The AutoLeague will track the achievements of all mechanics and technicians, providing the monthly winners with rewards. Plus, the overall leading Workshop will also benefit from kudos and rewards each month. Points can be gained by posting fixes, uploading photos, voting, taking on-line training, entering competitions, sending a referral or applying to become a software tester. You will even be able to score our tech team for their knowledge, service and solution speed!

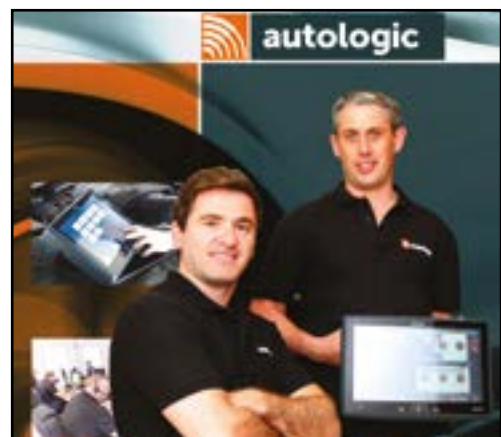
## Roadshow

We're putting the together the plans for the Autologic Roadshow, coming to a street near you!

We've designed a series of events that will take place across the country to bring you training on the many features of your AssistPlus device, plus common faults and fixes.

These 3-hour evening events will be FREE and will provide you with a chance to see the device operated by one of our master technicians, followed by break away sessions, where you can ask our techs anything you need to know about using the many features of AssistPlus.

***Spaces will be limited, so keep an eye out for your email invitation!***



# Wouldn't it be Nice?

As the winter begins to set in, I think back to the summer, when each year I venture down to South Devon to a perfect 'time forgotten' old fishing village, with no Wi-Fi and no mobile signal. For one week, it's perfect bliss!

As I leave the A38, I dig out the Beach Boys classic CD, pray for great weather and join the flowing, but narrow, country lanes. Grinning like a Cheshire cat, I race to the shoreline to commence a vacation which features too many pints of Rattler and crazy times on the water!

Back to the present and I'm considering upgrading the stereo system in my 'very second-hand' motor, so I start to source a suitable alternative. All I want is a replacement twin DIN unit; GPS Sat Nav, Bluetooth for the phone, radio and a CD player. What could be simpler? But no! It appears that I've become that out of touch old geezer from the classic 'Not the Nine O'clock News' sketch, "do you want a woofer with that Grandad?"

The VMs only have a limited answer because, as we all know, they don't make stereo systems. The renowned electronic giants tend to steer away from SatNav unless they come with a huge price tag. I discovered a solution, online, from an unknown Chinese make at a reasonable price, but having checked out the reviews...er maybe not!

It seems that what I need is a streaming unit. It will play music, podcasts and even movies (but I'm bloody driving!) so I research some more. I have to select the unit that streams from my SmartPhone, but the best units are either Apple CarPlay or Android Auto. Fine if I become the prisoner of either force ("I'm not a number I'm a free man" – comes to mind!) but what if I change my phone? Do I have to dole out another £500? It appears that Automakers are rushing to adopt these phone-integration systems, but do they really want the choice of car determined by which system they provide?

I'm still thinking about it. I do miss not having integrated Bluetooth handsfree, but then a bit of peace (and safety) is a good thing, as is my week in Devon. To be honest, the car will probably be replaced before I get a new sound system and who knows what Apple will invent by then, or perhaps Google will admit to being the real Big Brother!

New car sales may be healthy, but not everyone is able to afford one, or benefit from a company car. Which I guess keeps the likes of you and me in business. Whilst I actually prefer the more simplistic mechanical cars, with only a handful of ECUs, I do sometimes envy my friend's latest luxury gizmo's in one of his gleaming new cars that covers less than 10k miles before he upgrades.

In the event that they need attention during year one, he pops back to the dealership where they reset the software and modify the exhaust sound! Personally I prefer the roar of a decent V8.

The 'Right to Repair' may enable independents access to the same OEM technical information afforded to their own dealerships, but despite standardisation, coming in the form of the J2534 common user interface, there is a disparity between how and what data the manufacturers provide. The result being that as car makers release the 'required' (EU5 and onwards) data via the J2534 Pass Through interface, there is still a different process for each marque. Whether this will change, as they approach the 2018 deadline in the USA, is doubtful. Not really surprising considering that they are protecting their own brand, intellectual property and revenue.

In fairness, most of the marques have everything up and running and we will naturally keep you informed of the latest model compatibility, via the constantly updated autologic.com website. In addition, the **Autologic Assist** suite of services, provide you with all the advice and guidance to get you through the complexity of Pass Through, from PC compatibility to logging into the differing variety of on-screen dashboards.

It's a bit like the minefield of updating my stereo, only a lot more important, given that it impacts on your business. But does it? I was recently told that a BMW model had no fewer than 100 ECUs, yet only 2 of them required the Pass Through subscription via the VM, the rest could be fitted and initialised using our **AssistPlus** device.

The greatest benefit of Pass Through, and there's no point hankering back to the past (I still like my CDs!), is that once you're on board, all of the software releases that you utilise are direct from the manufacturer, ensuring that you are not implicated in any way, should a software issue exist...Think about it.

The US and EU 'powers that be' require all car makers to share the same depth of technical information, on one common J2534 vehicle communication interface.



If they had gone further by demanding a common platform where each marque was visible, subject to subscription, incorporating a simple user navigation experience, then all of the cogs would be aligned and our lives would be simpler

– Wouldn't it be Nice?



## Audio systems and MOST bus communication faults

### Introduction

This procedure explains the symptoms and faults associated with BMW/MINI audio systems and MOST bus communication faults.

### Vehicles affected

All models

### Complaint and symptoms

No communication to MOST bus modules



Fig 1: MOST bus module

### Cause

The MOST network uses a ring bus for data communication between the various modules by means of a fibre-optic cable. Data on the ring bus takes place in one direction only. On the MOST ring, messages can only be transmitted provided the bus ring is complete and fully functional. If the power supply or control module is defective, the MOST bus is non-operational and no communication is able to take place. Exceptions are the gateway control module (CCC or MASK) and the HUD control module.

### Fix

#### CCC/MASK

Vehicles are fitted with either the CCC or the MASK. Either of these control modules are the interface (gateway) between the MOST bus and the K-CAN.

To diagnose the CCC or MASK:

- The CCC (Car Communication Computer) – All the control modules with the abbreviation CCC must be selected (CCC-GW)



Fig 2: CCC

- MASK (Multi Audio System Controller) – all the control modules with the abbreviation 'MASK' must be selected (MASK-GW)



Fig 3: MASK

### Common CCC and MASK faults:

1. CID Screen keeps going blank
2. CCC/ Mask keeps resetting causing the screen to keep putting the BMW logo up
3. LVDS line fault codes (this is the main lead from the CCC/Mask to the CID screen)
4. Check the lead for damage is the lead is fine then the CCC/Mask would probably be causing the CID screen to not show any picture
5. None genuine parts fitted in the back of the plug connection to the Audio units. I.e. Parrot kits, phone cables etc.

### If a control module becomes too hot, this control module switches off for up to 10 minutes.

1. This switches the ENTIRE MOST BUS down for 10 minutes
2. "Deactivation excess temperature", is stored in the CCC or MASK and any of the other MOST control modules there are two possibilities:
  - a) If the fault is ONLY in the CCC or MASK, then this module is responsible for the shutdown
  - b) If the fault is stored in the CCC (MASK) and one or more other control modules on the MOST bus, the most likely cause of failure is the other control module. However, this does not rule out the possibility that the CCC or MASK is also faulty
3. If there are a number of modules not communicating on the MOST system then the MOST system Sequence is required, to see what order the module are in the LOOP. This can be done via CIP and any module in red would indicate no communication

### For example:

1. CCC/MASK
2. CDC
3. HUD
4. TEL no communication to ULF/TCU and the other most bus modules

5. TOP-HIFI
6. VM

Pull the MOST plug out of the module and check for a light source. Is there is light on the input from the HUD? If yes, loop out the connection on the TEL with a spare most connector

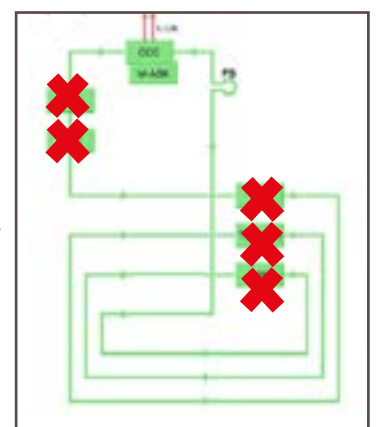


Fig 4: Wiring

Let us know if there are any fixes you wish us to explain and highlight in the next issue of Logicall.  
[logicall@autologic.com](mailto:logicall@autologic.com)

# Back Slap!



**BITS**

**WE**

**LIKE**

"Just wanted to say thanks to Richard from VAG who was helping on an A5/S5. Problem was down to fuel pressure sensor but was really impressed with the support."

*Leeford Motor Company*

"Wanted to say thank you to Chris and Richard for their help. The issue was with the JBE and thanks to Richard D and Chris R I was able to find this issue."

*Pritchard Motor Services*

"Very happy that you managed to help me on the first call and managed to clear the light. It's restored my faith on the AssistPlus and Autologic support."

*Auto Technik CRI Limited*

"I was very happy with the support this morning, especially happy that I got to resolve my issue on my first call."

*Central Garage (Carcroft)*

"Pavel would like to express his thanks to Autologic for their first class assistance"

*Bilreparatorene AS*

"I wanted to thank Gary for the support, I was able to find the drain with his help"

*JAS Land Rover Limited*



"New diagnostic tool just arrived. Great to be on board with Autologic Assist. Move with the times or get left behind." James Rushforth

"thanks Chris Routledge for your help, the car is now fixed. The new turbo was seized solid by the other garage"

*Autotec Scotland Ltd*

## South Korea

When EuroAuto our South Korean distributor held a sales and training event recently, they were delighted with the number of attendees and their dedicated focus. Hosted by four presenters who received positive acclaim from the packed audience.



## USA

In October, Autologic attended the AAPEX show in Las Vegas. Our team, demo'd the AssistPlus throughout the show which included a Media Event that was so overwhelming, the entire stand was engulfed in journos and photographers. Autologic gained extensive press exposure during and after the show, thanks to our PR guru Susan who made a new friend!



With all of this additional attention it's just as well that we've hired Laura Boccardo as the new Marketing Manager for North America. She'll be responsible for customer communications and new business acquisition in the States, so watch this space.

## Germany

German Country Manager Olaf has been busy of late exhibiting at Exhibitions, running Roadshows and arranging demos. Thankfully this was noticed by the main Trade Magazine Krafthand who ran a 4 page Autologic feature!

## Oxford

We're not trying to get one up on our American colleagues, but we did manage to get a Tesla to our UK office before them! Being a bunch of petrol heads there was a bit of head scratching as we checked out the all electric car. Under the bonnet (or as the demo guy said check under the hood?) the tech guys couldn't find a spark plug in sight! Actually it was just a carpeted box! We liked the idea of 350 miles on one charge, but not totally convinced by the £80k price tag. Still lots of diagnosing wiring looms to get through and the electronic disappearing door handles are the dogs. Mind you, aren't fuel prices going down in the UK?!

