

OBD Inspection System (OIS)

BAR Advisory Group

October 14, 2014



Mandatory OIS Date

- OIS use required no sooner than January 2015
- Additional work still necessary to ensure stability of database that interfaces with OIS
 - off-line testing not possible with OIS
- Stations should use OIS as soon as possible
 - helps BAR test database stability
 - BAR Industry Help Desk and DAD Vendor support now available; avoid last-minute rush
 - Learn OIS Software and DAD functions
- BAR-97 use is allowed on OIS vehicles until mandatory OIS date

OIS required in my station?

- OIS and BAR-97 mandatory for STAR stations
- Other stations must have OIS when inspecting:
 - 2000+ model years with OBDII, under 14,001 GVWR
 - 1998+ diesels, under 14,001 GVWR
 - 2000+ Hybrids (starting December 1, 2014)

[Equipment requirements in 2013 Smog Check Manual, section 1.8.0]

Note: 1996 to 1999 only allowed on OIS if Beta testing (currently only Bosch DAD)

OIS Availability

- BAR Certified DADs now available from three vendors: Applus, Drew, Worldwide (Bosch in certification process)
- Off-the-shelf equipment packages (Cabinet, PC, Bar Code Scanner, Printer) available from: Applus, Drew, ESP, Worldwide, Bosch/SPX, Banalogic, or build-your-own
 - Build-your-own minimum standards apply, see “BAR-OIS Off-the-shelf-equipment requirements” on BAR’s Web page

OIS Hardware

Certified
DADs



Applus



Drew



Worldwide

Sample
of
OIS
Packages



Applus

Cabinet,
computer,
bar code
scanner,
printer

SPX /
Bosch



ESP



Banalogic



Worldwide

OIS Implementation Status

- Currently, about 4,500 active OIS
- Inspection volume about half BAR-97 and half OIS
- OIS units testing about 60% of 2000 and newer model year vehicles
- About 700 STAR stations don't have OIS yet

OIS Training

- BAR's New public Website:
 - OIS Registration Video
 - OIS Software Download Video
 - California BAR-OIS: User Guide (screen shots)
 - On Board Diagnostic Inspection System Q&A
 - 2013 Smog Check Manual
 - Smog Check Reference Guide (hybrid battery enhancements don't need E.O.)
 - DAD User Manuals from vendors
 - Smog Check Inspector Update Training v1.3c
- Automotive Trade Schools getting OIS Software

OIS Information on New Webpage

The screenshot shows a web browser window with the URL <http://www.smogcheck.ca.gov/>. The page header includes the logo for the Department of Consumer Affairs, Bureau of Automotive Repair, and a search bar. The navigation menu contains links for Consumer, Industry, Enforcement, Forms/Publications, and About BAR. The main content area features a large graphic with the text "california BAR-OIS" and an image of an OBD-II connector. A red arrow points to a pagination control showing numbers 1 through 5, with 5 being the active page. Below this, there are three yellow boxes with dropdown menus. The first dropdown is titled "I am a consumer..." and lists various actions like "Apply for/renew a license" and "Check a license status". The second dropdown is titled "I am a" and lists actions like "Find a repair station" and "Find a Smog Check station". The third dropdown is titled "Transla" and lists actions like "Learn more about BAR-OIS" and "Learn more about the STAR Program". A red arrow points to the "Learn more about BAR-OIS" option. On the right side, there is a section for "Our Mission" featuring a photo of Edmund G. Brown Jr. and a text box stating: "To protect and serve California consumers by ensuring a fair and competitive automotive repair marketplace and administering a model motor vehicle emissions reduction program." Below this is a "Calendar of Events" section with a date "OCT 1" and the event "Senior Scam Stopper Event in Palo Alto".

Inspector Update Training on New Webpage

The screenshot shows a web browser window with the URL <http://www.smogcheck.ca.gov/>. The page header includes the logo for the Department of Consumer Affairs Bureau of Automotive Repair and a search bar. The navigation menu contains links for Home, Consumer, Industry, Enforcement, Forms/Publications, and About BAR. The main content area features a large banner for the Consumer Assistance Program (CAP) with the text "DEPARTMENT OF CONSUMER AFFAIRS" and "Bureau of Automotive Repair". Below the banner is a "Home" link and a dropdown menu titled "I am a consumer...". The dropdown menu lists several options, with "Find Smog Check reference materials/training resources" highlighted and pointed to by a red arrow. Other options include "Apply for/renew a license", "Check a license status", "Check a STAR score", "Contact a BAR representative/local field office", "Find a repair station", "Find a Smog Check station", "Find an inspector/technician training school", "Find BAR laws and regulations", "Find CAP forms and resources", "Find the CAP Operations Manual and training modules", "Improve my STAR score", "Learn more about BAR-OIS", "Learn more about the STAR Program", "Lookup a vehicle cutpoint", and "Report unlicensed activity/other violations of the Automotive Repair Act". On the right side of the page, there is a section for "Our Mission" featuring a photo of Governor Edmund G. Brown Jr. and a "Calendar of Events" section with a link to "Senior Scam Stopper Event in Palo Alto".

OIS Software Updates

- Updates include changes and bug fixes
 - Some fixes result of industry feedback
- v.5.12. Released October 1-6, 2014 includes:
 - VIR to include “failed” when monitors not ready
 - BAR Industry Help Desk number corrected
 - Overall visual test results display at arrow
- v.5.13 released mid-October includes:
 - Database enhancements

OBD Readiness Monitor Limits

- Gasoline powered:
 - One monitor allowed for 1996 to 1999
 - Only the evaporative monitor for 2000 and newer
- Diesel powered:
 - Zero monitors allowed for 1998 to 2006
 - Only the exhaust after-treatment system* monitor (e.g., particulate filter) for 2007 and newer

[* includes all monitors related to tailpipe: PM filter, NOx/SCR treatment, catalyst]
- Planned activation in March 2015
- Currently updating BAR-97 Vehicle Lookup Table (VLT) in BAR-97 units to support switch over

OIS vs. BAR-97 OBD Hardware

- DAD requires self test when DAD vehicle communication fails
- DAD must have good connection to PC
 - Wireless: observe DAD lights, DAD software indicators for Bluetooth, Wi-Fi
 - Wired: don't use aftermarket USB extension cables
- DAD must be powered up before inspection
 - DAD auxiliary power / ground cable may be necessary when no battery voltage on pin 16 in DLC
- Become familiar with DAD user manual from DAD vendor

OIS vs. BAR-97 OBD Logic

- BAR-97 only pulls basic OBD data:
 - Mode 01: Pid 01 & Pid 0c (RPM); Mode 03
- OIS pulls all OBD data supported by vehicle:
 - Mode 01; 03; 06; 07; 09; 0A
- Carefully follow OIS screen prompts
 - If data not retrieved first time, OIS Software may prompt user to disconnect DAD from vehicle, cycle key, etc.
 - If OBD communication not successful, user can try unlimited times

OIS Software Tip

- OIS Software allows a station to create multiple virtual analyzers in VID
 - Only create new analyzer when:
 - Original setup
 - Adding an additional OIS unit with DAD
- Update existing analyzer if replacing OIS computer or DAD; don't create new analyzer

OIS Software Tip

- On rare occasion, industry could see the OIS Software display a White Screen
 - Wait a few minutes for OIS screen to display
 - Restart application
 - Check your Internet connection, router
 - Not fixable due to on-line inspection design
- BAR must still add new Technicians / Inspectors to station
 - OIS auto loads existing technicians

New Station Startup with OIS

- BAR representative inspects station
 - Possession of required equipment and materials
 - OIS not functional yet
- BAR Licensing mails Smog Check station wall license
- If new technicians are being added to the station, the station owner signs new technician STAR form
 - Required for all technician additions in case STAR desired in future
- BAR representative adds technicians upon return to office
- Once Smog Check wall license received, Station Owner completed OIS registration process, creates virtual analyzer, and begins testing

Starting OIS Use

- DAD Disclosure Agreement to DAD Vendor
- Using OIS PC and Bar Code Scanner, click OIS Software Registration and Download link on BAR's website.
 - Watch OIS Registration video
 - Watch OIS Download video
 - Station Owner performs OIS Registration
 - Need Smog Check station wall license
 - Need unique email address for each OIS user

Questions?

- BAR Industry Help Desk
 - 866-860-8509
 - BAR.IndustryHelpDesk@dca.ca.gov