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

Cabinet,
computer,
bar code
scanner,
printer

Applus

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

Inspector Update Training on New Webpage

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
  - <u>Only</u> the evaporative monitor for 2000 and newer

- Diesel powered:
  - Zero monitors allowed for 1998 to 2006
  - <u>Only</u> 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
- <u>Become familiar with DAD user manual from DAD vendor</u>

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