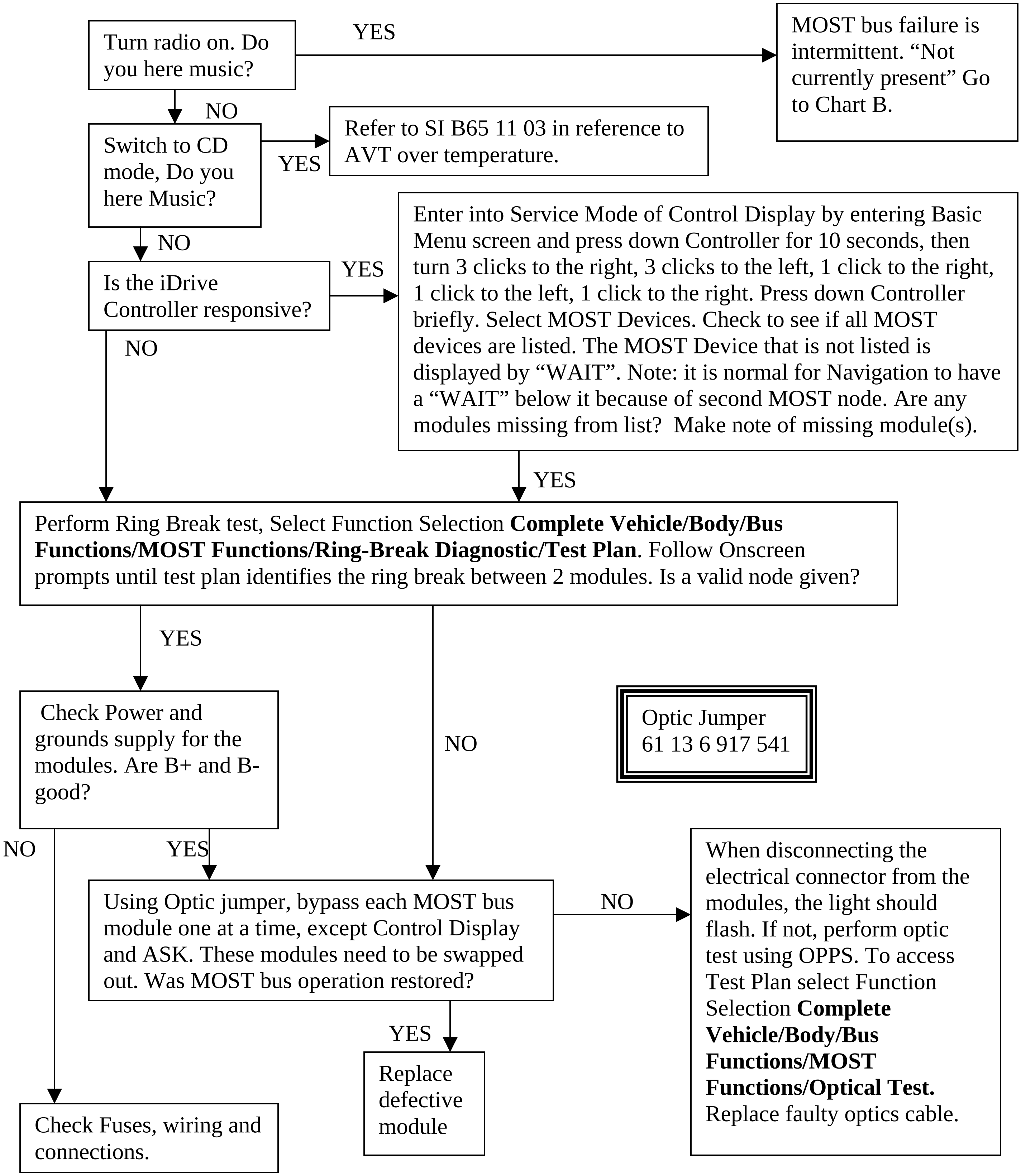
MOST bus diagnosis Chart A Fault Currently Present



Turn radio on. Do you here music?

MOST bus failure is intermittent. “Not currently present” Go to Chart B.

Switch to CD mode, Do you here Music?

Refer to SI B65 11 03 in reference to AVT over temperature.

Is the iDrive Controller responsive?

Enter into Service Mode of Control Display by entering Basic Menu screen and press down Controller for 10 seconds, then turn 3 clicks to the right, 3 clicks to the left, 1 click to the right, 1 click to the left, 1 click to the right. Press down Controller briefly. Select MOST Devices. Check to see if all MOST devices are listed. The MOST Device that is not listed is displayed by “WAIT”. Note: it is normal for Navigation to have a “WAIT” below it because of second MOST node. Are any modules missing from list? Make note of missing module(s).

Perform Ring Break test, Select Function Selection **Complete Vehicle/Body/Bus Functions/MOST Functions/Ring-Break Diagnostic/Test Plan**. Follow Onscreen prompts until test plan identifies the ring break between 2 modules. Is a valid node given?

Check Power and grounds supply for the modules. Are B+ and B- good?

Optic Jumper
61 13 6 917 541

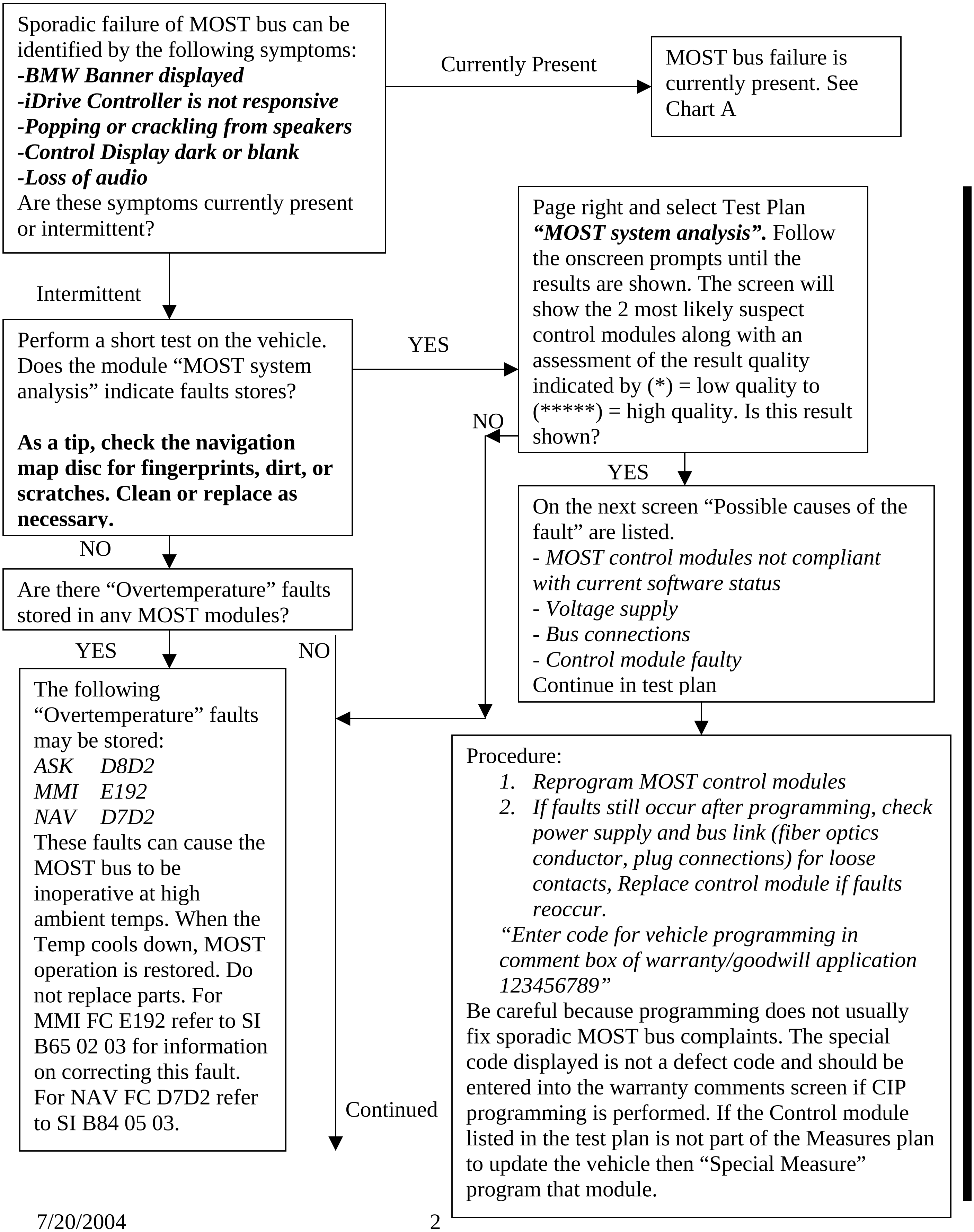
Using Optic jumper, bypass each MOST bus module one at a time, except Control Display and ASK. These modules need to be swapped out. Was MOST bus operation restored?

When disconnecting the electrical connector from the modules, the light should flash. If not, perform optic test using OPPS. To access Test Plan select Function Selection **Complete Vehicle/Body/Bus Functions/MOST Functions/Optical Test.** Replace faulty optics cable.

Replace defective module

Check Fuses, wiring and connections.

MOST Bus Diagnosis Chart B Intermittent Fault



Sporadic failure of MOST bus can be identified by the following symptoms:
-BMW Banner displayed
-iDrive Controller is not responsive
-Popping or crackling from speakers
-Control Display dark or blank
-Loss of audio
Are these symptoms currently present or intermittent?

MOST bus failure is currently present. See Chart A

Perform a short test on the vehicle. Does the module "MOST system analysis" indicate faults stores?

As a tip, check the navigation map disc for fingerprints, dirt, or scratches. Clean or replace as necessary.

Page right and select Test Plan ***"MOST system analysis".*** Follow the onscreen prompts until the results are shown. The screen will show the 2 most likely suspect control modules along with an assessment of the result quality indicated by (*) = low quality to (*****) = high quality. Is this result shown?

On the next screen "Possible causes of the fault" are listed.
- *MOST control modules not compliant with current software status*
- *Voltage supply*
- *Bus connections*
- *Control module faulty*

Continue in test plan

Are there "Overtemperature" faults stored in any MOST modules?

The following "Overtemperature" faults may be stored:

ASK	*D8D2*
MMI	*E192*
NAV	*D7D2*

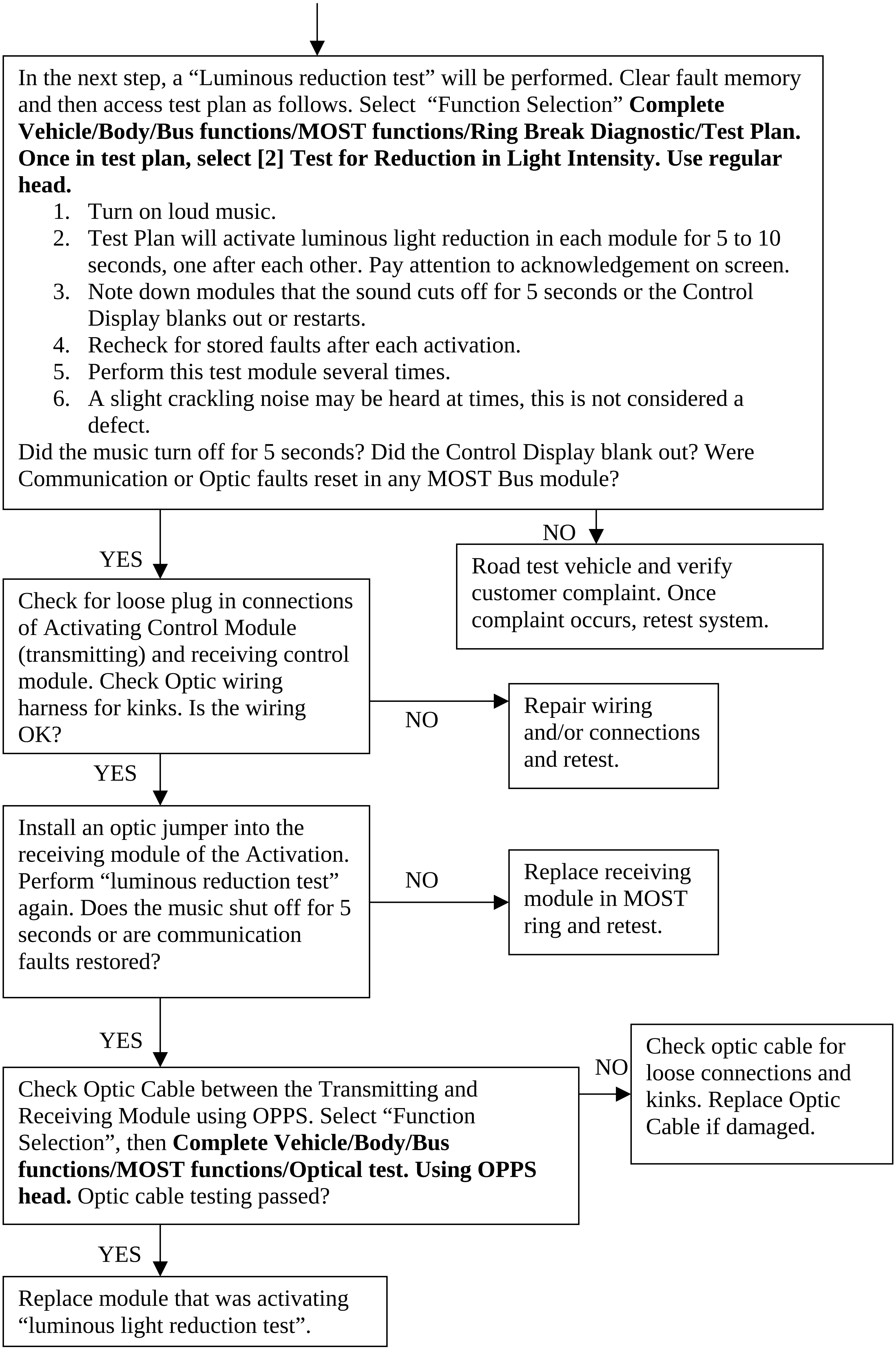
These faults can cause the MOST bus to be inoperative at high ambient temps. When the Temp cools down, MOST operation is restored. Do not replace parts. For MMI FC E192 refer to SI B65 02 03 for information on correcting this fault. For NAV FC D7D2 refer to SI B84 05 03.

Procedure:

1. *Reprogram MOST control modules*
2. *If faults still occur after programming, check power supply and bus link (fiber optics conductor, plug connections) for loose contacts, Replace control module if faults reoccur.*

"Enter code for vehicle programming in comment box of warranty/goodwill application 123456789"

Be careful because programming does not usually fix sporadic MOST bus complaints. The special code displayed is not a defect code and should be entered into the warranty comments screen if CIP programming is performed. If the Control module listed in the test plan is not part of the Measures plan to update the vehicle then "Special Measure" program that module.



In the next step, a “Luminous reduction test” will be performed. Clear fault memory and then access test plan as follows. Select “Function Selection” **Complete Vehicle/Body/Bus functions/MOST functions/Ring Break Diagnostic/Test Plan. Once in test plan, select [2] Test for Reduction in Light Intensity. Use regular head.**

1. Turn on loud music.
2. Test Plan will activate luminous light reduction in each module for 5 to 10 seconds, one after each other. Pay attention to acknowledgement on screen.
3. Note down modules that the sound cuts off for 5 seconds or the Control Display blanks out or restarts.
4. Recheck for stored faults after each activation.
5. Perform this test module several times.
6. A slight crackling noise may be heard at times, this is not considered a defect.

Did the music turn off for 5 seconds? Did the Control Display blank out? Were Communication or Optic faults reset in any MOST Bus module?

Road test vehicle and verify customer complaint. Once complaint occurs, retest system.

Check for loose plug in connections of Activating Control Module (transmitting) and receiving control module. Check Optic wiring harness for kinks. Is the wiring OK?

Repair wiring and/or connections and retest.

Install an optic jumper into the receiving module of the Activation. Perform “luminous reduction test” again. Does the music shut off for 5 seconds or are communication faults restored?

Replace receiving module in MOST ring and retest.

Check Optic Cable between the Transmitting and Receiving Module using OPPS. Select “Function Selection”, then **Complete Vehicle/Body/Bus functions/MOST functions/Optical test. Using OPPS head.** Optic cable testing passed?

Check optic cable for loose connections and kinks. Replace Optic Cable if damaged.

Replace module that was activating “luminous light reduction test”.

Customer complaint when E65 MOST Bus resets

E65 Control Module that resets	**What happens to the audio?**	**What does the customer see in the Control Display?**	**Other symptoms**
Control Display Gateway	Off Permanent	Completely dark, then restarts to BMW banner then “Accept” screen.	
Control Display	Off Permanent	Completely dark, then restarts to BMW banner then “Accept” screen.	
CD Changer	Off Briefly	NAV portion of screen flickers/flashes then returns	CDC shuffles
Logic7 Amp	Off Briefly then returns with lower volume	NAV portion of screen flickers/flashes then returns	
Antenna Tuner	Off Briefly then returns with lower volume	No change or NAV portion of screen flickers/flashes then returns	
Voice Activation	Off Briefly then returns with lower volume	NAV portion of screen flickers/flashes then returns	
Navigation	Off Briefly then returns with lower volume	NAV map portion of screen blanks out and then “Initializes” or NAV portion of screen flashes white/gray.	
Telephone	Off Briefly then returns with lower volume	NAV portion of screen flickers/flashes then returns	
Audio System Controller	Off Briefly then returns with lower volume	NAV portion of screen flickers/flashes then returns	
Instrument Cluster	Off Briefly then returns with lower volume	NAV portion of screen flickers/flashes then returns	Cluster completely dark

Customer complaint when E60/E63/E64 MOST Bus resets (Vehicles with Logic7)

Control Module that resets	**What happens to the audio?**	**What does the customer see in the CID (Central Information Display?**	**Other symptoms**
CID	No Change	Screen Blanks briefly then returns back	
CCC-ANT	Off briefly	No Change	
CCC-ASK	Off briefly	No Change	
CCC-A (Applications)	Off for 30-40 seconds	Screen goes blank then back to BMW screen, then Accept screen	Resets all CCC
CCC-GW	Off for 30-40 seconds	Screen goes blank then back to BMW screen, then accept screen	Resets all CCC
CCC-BO	Off for 30-40 seconds	Screen goes blank then back to BMW screen, then accept screen	Resets all CCC
TCU	Off briefly	No Change	
Logic7 AMP	Off briefly	No Change	
CDC	Off Briefly	No Change	CDC shuffles