



Mercedes-Benz

service information

TO: OUR MERCEDES-BENZ PASSENGER CAR DEALERS

DATE: September 1994

REF. NO. MBNA 82/78

SUBJECT: ALL MODELS WITH BECKER RADIO (P/N 003 820 36 86)
AS OF M.Y. 1994
RADIO DIAGNOSTIC INFORMATION

The Becker radio introduced on model year 1994 vehicles has a two-level diagnostic mode. This allows technicians to verify the following information.

Level One Diagnostic Mode

LCD display	Test function/Information
MODEL	Becker model number
PR -- V	Software version [for radio microprocessor (R) & faceplate microprocessor (F)]
S -- NO	Radio serial number
RESET	Reset volume, tone, balance and fader
FMAMR	Tuning steps
CON	Sound system type
END	Exit test mode

Level Two Diagnostic Mode

LCD display	Test function/Information
GAL	Speed-dependent volume control setting
LCD	LCD segment test
SOUND	Volume level
ADC	Analog-to-digital converter values
FMSP	Comparator voltage adjustment ¹⁾
AFSO	Audio level adjustment for AM/FM/WB/CC/CD ¹⁾
END	Exit test mode

¹⁾ Not accessible for field measurement or adjustment, specific test equipment required.

Order No. S-SI-MBNA-82/78

Radio must be turned ON and coded to enter diagnostic mode.

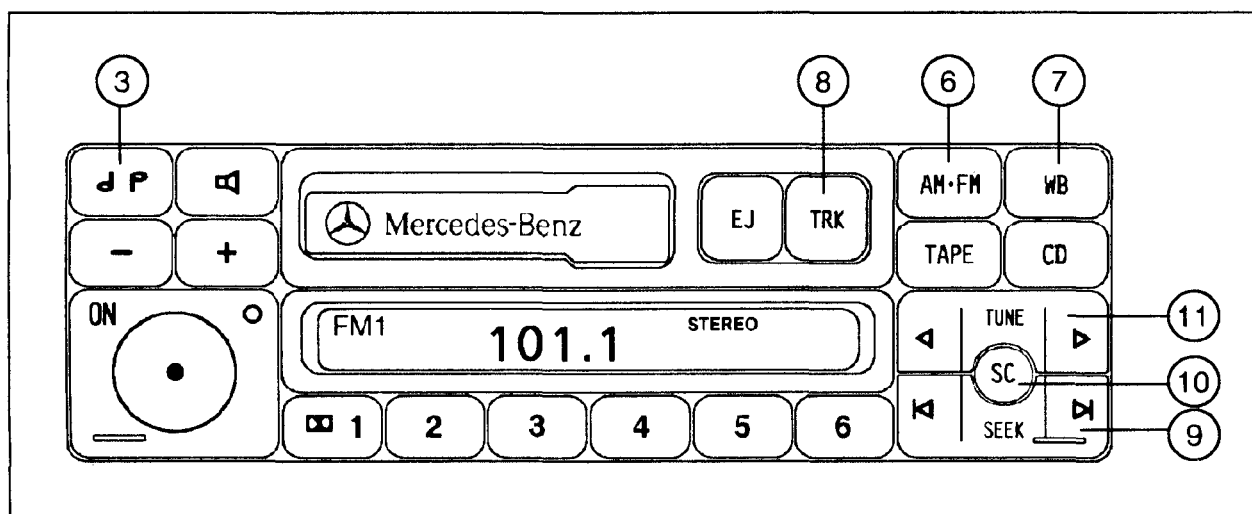
Each step in the entry process must be completed within four seconds.

To enter Level One Diagnostic Mode

1. Press the Bass/Treble selector button (3) on the faceplate. The LCD display should read BASS.
2. Simultaneously press the AM/FM (6) and WB (7) buttons on the faceplate. The LCD display should read TEST.

To enter Level Two Diagnostic Mode

1. Follow procedure to enter Level One Diagnostic Mode.
2. Press the Track selector button (8, TRK). The LCD display should read TEST.
3. Simultaneously press the AM/FM (6) and WB (7) buttons on the faceplate. The LCD display should read BAW2.



To select the different **Test Functions/Information** (see charts on page 1) press the seek tuning (SEEK) button (9).

The actual level, numerical value or visual indication for each test function can be accessed by pressing the manual tuning (TUNE) button (11).

Note: The values for GAL in Level Two Diagnostic Mode change according to vehicle speed.

Example of Level One data

LCD display	Test Function/Information				
MODEL	1492 (for U.S.A. vehicles)				
PR -- V	RWW/YY FWW/YY (R = radio microprocessor, W = week, F = faceplate microprocessor, Y = year)				
S -- NO	First four digits. Press TUNE button (11) to display next four digits.				
RESET	Press scan tuning (SC) button (10) for three seconds to reset volume, tone, fader and balance to preset levels. " -- -- -- -- " will appear on the display to verify that the reset is complete.				
FMAMR	100:9, 200:10, (U.S.A. specification)				
CON	<u>Display</u>	<u>Pin 8</u>	<u>Pin 9</u>	<u>Pin 10</u>	<u>Type</u>
	0	ground	ground	ground	140/202 Bose 4-channel
	1	open	ground	ground	124/202 sound system
	2	ground	open	ground	129 sound system (non-U.S.)
	3	open	open	ground	202 standard system
	4	ground	ground	open	129 Bose 2-channel
	5	open	ground	open	124 standard system (non-U.S.)
	6	ground	open	open	140 standard system (non-U.S.)
	7	open	open	open	linear output
END	Will automatically exit after three seconds.				

Example of Level Two data

LCD display	Test function/Information		
GAL	<u>Display</u>	<u>Acceleration cut-in</u>	<u>Deceleration cut-in</u>
	0	—	15 mph
	2	25 mph	20 mph
	4	45 mph	30 mph
	6	65 mph	55 mph
LCD	Press the TUNE button (11) each time to see: all segments on, all segments off, all segments even, all segment odd		
SOUND	Press the TUNE button (11) each time to see the db level of the audio processor. The value of each item is dependent upon volume, tone, balance and fader setting.		
	<u>Display</u>	<u>Function</u>	<u>Range (min./max.)</u>
	V	Volume	75.00/0.0
	B	Bass	B -- 14/ + 14
	T	Treble	T -- 14/ + 14
	LF	Left front	38.75/2.50
	RF	Right front	38.75/2.50
	LR	Left rear	38.75/2.50
	RR	Right rear	38.75/2.50
ADC	Press the TUNE button (11) each time to see the numerical value, from 0 to 255, indicating the <i>relative</i> strength of the following:		
	<u>Display</u>	<u>Signal</u>	
	ADC1	FM field strength	
	ADC2	not used	
	ADC3	AM field strength	
	ADC4	Not used	
	ADC5	Not used	
	ADC6	Stereo pilot	
	ADC7	Audio output stage temperature	
	ADC8	Power supply voltage	
	Note: These values are not continuously updated. To update values, press the TUNE button (11) to toggle between two ADC positions. When returning to the desired test item, the current value will be displayed.		
FMSP	Not accessible for field measurement.		
AFSO	Press the TUNE button (11) each time to see the <i>relative</i> preamplifier output level of the tuner, cassette and CD sections.		
	<u>Display</u>	<u>Source</u>	
	FM	2222	
	AM	5555	
	WB	5555	
	TAPE	4444	
	CD	3333	
	Note: These are typical values which are determined during final alignment. Not accessible for field adjustment.		
END	Will automatically exit after three seconds.		