

Appendix F: Error Messages and Troubleshooting

Under certain circumstances, the meter display on the LSR4312SP will indicate an “error message.” Following is a list of conditions that cause an error message to be displayed, and the corrective action required to cancel the error message.

LIST OF ERROR MESSAGES:

Error	Cause	Display Looks Like	Remedy
No Mic Found	Mic is not connected during RMC calibration.	RMC button blinks and the meter lights sequentially from right to left.	Press RMC to exit RMC. Connect mic to networked “LEFT” LSR4328 / 4326P and press and hold to calibrate.
Subwoofer ID Error	Improper DIP switch setting: rear panel DIP switches 1 and 2 both set to off, or two subwoofers have same ID setting.	All front panel buttons blink and the meter shows 5 segments moving back and forth.	Correct DIP switch settings.
Sync Signal Error	No digital signal found or loss of sync signal when the S/PDIF or AES/EBU digital input is selected.	INPUT button blinks and the first meter LED flashes to show muted state.	Confirm digital signal is connected.
MUTE	A subwoofer that is muted indicates mute is active. Subwoofer may be muted by pressing individual or system Mute button in LSR4300 Control Center software, or by activating SOLO on another networked speaker or subwoofer.	First meter LED blinks. No other meter segments are active.	Un-mute individual speaker or system mute, exit SOLO on other speakers.
Reset	Non-standard DIP switch configuration used to restore factory settings. This mode is entered by setting all DIP switches ON and re-powering the subwoofer.	All front panel buttons and meter segments flash rapidly to indicate reset.	Reset DIP switches correctly and re-power.
Digital A/B Channel Selection Error	S/PDIF or AES/EBU input is selected but DIP switches 3 and/or 4 are not set properly.	Two groups of LEDs illuminate fanning out from center (-15) and return to center.	Select “Activate” DIP switch 3, 4 or both.
“Brown Out” Condition	Supply voltage level drops below required voltage.	The following rear panel LEDs illuminate- “Analog”, “AES/EBU”, “CHB”	Disconnect and reconnect power cord. Frequent occurrence indicates inadequate supply voltage. This should be corrected with the application of an exterior power conditioning device.
2 networked subwoofers w/ mismatched settings	LFE/Bass Mgmt DIP switches are set differently and S/PDIF or AES/EBU input is selected		Ensure LFE/Bass Mgmt DIP switch on SUB 1 and SUB 2 have same setting.
RMC-Timeout	RMC process fails to complete.	Bass Mgmt On button blinks and the meter lights sequentially from right to left.	Cycle power button Off then On. Repeat RMC process. If this doesn’t work, perform factory reset and repeat RMC calibration process.
RMC State	RMC process fails to complete	RMC and SOLO buttons blink and the meter lights sequentially from right to left.	Cycle power button Off then On. Repeat RMC process. If this doesn’t work, perform factory reset and repeat RMC calibration process.

Appendix F: Error Messages and Troubleshooting

Following is a list of common easily remedied issues. Consult this list if you are having any difficulties operating your subwoofer.

TROUBLESHOOTING LIST

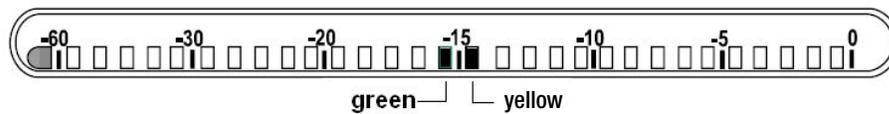
Condition	Cause	Remedy
Erratic network operation	Lack of network terminators.	Install terminators in first and last connected speaker or subwoofer
Volume setting seems low and Power logo is flashing	DIM button on Remote Control is activated.	Press DIM button on remote control to restore full volume. Caution: To prevent sudden jump in volume, lower the system volume setting prior to deactivating DIM control.
No Meter Display	Brightness control is turned down.	Use the brightness control or hold +/- to enter the brightness mode, and push + until you have the brightness level you like.
The subwoofer will not output any audio, and the SOLO button is illuminated.	A SP networked speaker is in Solo mode.	In a networked system, press SOLO on the speakers or subwoofers that have their SOLO button blinking. If your system is no longer networked and the subwoofer is still muted, do a hard reset by powering down and powering up again.
I just finished connecting my system, but there is no audio.	Input selection is not set to match input source.	Make sure your input selection matches the inputs you are using (Analog, S/PDIF, AES/EBU).
I selected my digital input, but the audio keeps dropping out.	Poor connection, defective cable, or source is unstable.	Check connections and cables. Confirm you are using suitable cable of proper impedance. If cables and connections are OK, source may be unstable.
I am having trouble daisy-chaining my digital audio through multiple speakers.	Cable may not be suitable for digital application.	Make sure you are using cables per the S/PDIF and AES/EBU specification, as described on page 44 in this manual.
My remote control doesn't work all of the time.	Batteries weak. Remote not pointed at the Front Left speaker. (Remote will not work with LSR4312SP alone.)	Make sure remote is pointed at the Front Left LSR4328P / 4326P (the speaker with LEFT DIP switch in the ON position).
My subwoofer will not power up. There are no lights at all anywhere on the subwoofer.	Subwoofer is not connected to power source.	Confirm your subwoofer is connected to an active power source. If speaker fails to power-up, please call JBL Customer Service
Upon boot-up, LSR4300 Control Center Software does not "recognize" connected speakers or subwoofers.	USB connection and/or CAT5 Network cables not properly connected. Missing terminator.	Check all network connections to make sure the CAT5 cable is inserted all the way into each jack. Make sure you have two network terminators installed in your system so that all RJ485 jacks are in use. Confirm the USB cable from your computer is connected to the front left speaker (the speaker with LEFT DIP switch in the ON position).
"Brown Out" Condition	Voltage supply drops below the required voltage	Disconnect and reconnect power cord. Frequent occurrence indicates inadequate supply voltage. This should be corrected with the application of an external power conditioning device.
Some features do not work correctly when used with LSR4326P or LSR4328P	Firmware Incompatibility	Refer to Appendix G: Important Information About LSR4300 Firmware" on page 47.

Appendix G: Important Information About LSR4300 Firmware

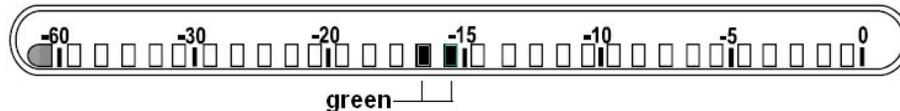
The LSR4312SP Subwoofer has Firmware Version 2.0 or later installed. If you plan to use the LSR4312SP with an existing LSR4328P or LSR4326P Studio Monitor, the firmware in the LSR4328P and LSR4326P Studio Monitor must be compatible. LSR4300 Studio Monitors produced prior to September 2006 have Firmware version 1.1 installed. LSR4300 Studio Monitors produced after September 2006 have firmware version 2.0 or later installed. The enclosed CD ROM includes the required files and procedure to update the firmware in your LSR4300 speakers to version 2.0 or later.

To determine if the firmware in associated LSR4300 speakers require an update, determine the firmware version currently installed in each speaker using this procedure:

- o Remove the power cord from the loudspeaker.
- o Reconnect the power cord to the loudspeaker.
- o Following a brief (2 second) start-up sequence, the front panel display will freeze for approximately 5 seconds with all button LEDs illuminated and the firmware version displayed on the level meter. The firmware version should be read as follows:
 - o The number of green LEDs to the left of the -15dB mark indicate the 1's digit of the firmware version.
 - o The number of yellow LEDs to the right of the -15 dB mark indicate the 1/10ths digit of the firmware version.
 - o For example. Firmware v1.1 will be displayed as follows:



- o Firmware v2.0 will be displayed as follows:



If your Studio Monitors have firmware version 1.1 installed, use the enclosed CD ROM to update each Studio Monitor to version 2.0 or later. Before proceeding, read the READ-ME file on the CD ROM. Copy the contents of the CD to a Macintosh computer with OS10.3 operating system (or later) or a PC with Windows 2000, XP operating system (or later) . Click on the Flash Update application for Mac or Windows and follow the prompts.

Notes:

- o Using LSR4300 speakers with differing firmware versions is not harmful to any of the speakers. However, some features will not work correctly and system performance may be impaired.
- o It is not necessary to update the firmware in any speaker unless you plan to use it with the LSR4312SP Subwoofer and it has an incompatible firmware version. If an incorrect firmware type has been loaded, ie: if a subwoofer has been flashed with LSR4326P or LSR4328P firmware or vice versa, upon power up all LEDs of the display will flash, the LEDs to the left of -15 will be green. The LEDs to the right of the -15 mark will be red, and all of the button LEDs will flash too. To resolve this error, disconnect and reconnect the power cable to the speaker. Then perform firmware update procedure using the correct firmware type.

If you experience any difficulties, go to www.jblpro.com/lsr for the latest information related to the firmware. Or contact:

JBL Customer Service (Monday through Friday)
8:00am - 5:00pm Pacific Coast Time In the U.S.A.
(800) 8JBLPRO (800.852.5776)
www.jblproservice.com

Specifications

System		
	Frequency Response (- 6 dB):	27 Hz – 250 Hz
	Enclosure Resonance Frequency:	27 Hz
	Low Frequency Extension:	
	-3 dB:	29 Hz
	-10 dB:	24 Hz
	Bass Management Crossover ON:	Digital Crossover - Selectable: 50 Hz, 80 Hz, 120 Hz - 4th order Linkwitz-Riley
	Distortion, 96 dB SPL / 1M Low Frequency (<80 Hz)	
	2nd Harmonic:	<1.5%
	3rd Harmonic:	<1.0%
	Maximum Continuous SPL::	116 dB SPL / 1m
	Maximum Peak SPL:	125 dB SPL / 1m (40 Hz - 80 Hz)
	Low Frequency Model:	432G
	Diameter:	300 mm (12 in.)
	Voice Coil:	65 mm (2.5 in)
	Magnet Type:	Neodymium self-shielded
	Cone Type:	Polymer coated paper fiber
	Impedance:	2 ohms
Amplifier		
	Topology:	Linear
	Sine Wave Power Rating:	450 watts (<1% THD into rated impedance)
	THD + N, ½ Power:	<0.08%
	AC Input Voltage:	120 VAC, 60 Hz Model LSR4312SP; 230VAC, 50 Hz Model LSR4312SP/230
	AC Input Voltage Operating Range	+/- 10%
	AC Input Connector:	IEC
	Self-Generated Noise Level:	<10 dBA / 1 m tonal artifact-free noise floor using analog input
	1/8th Power Rating:	25 watts
	Full Power Rating (100 hrs. IEC pink noise, 6dB crest Factor):	200 watts
	Wattage Rating:	AC at 1/8th power IEC Pink Noise 140 watts
	Maximum Current:	AC at maximum power output (audio) 120V AC line 4.2A 230V AC line 2.1A
	System Protection	Short-term peak limit circuit in DSP prevents amplifier clipping Long-term thermal protection circuit prevents system damage caused by overheating
	Fuse Value:	8A, 250V AC Time Lag, Model LSR4312SP 4A, 250V AC Time Lag, Model LSR4312SP/230
Inputs / Outputs		
<i>Analog</i>	L,C,R, LS, RS, LFE Male XLR IN:	Selectable +4 dBu/-10 dBV input sensitivity; Input Impedance 10K ohms. Positive voltage applied to XLR pin 2 produces outward woofer motion
	L,C,R, LS, RS, LFE Female XLR OUT	XLR Balanced loop-through pin 2 hot
	Left, Right ¼-in tip-ring-sleeve IN:	Balanced or unbalanced, Selectable +4 dBu/-10 dBV; Input impedance 10K. Positive voltage applied to ¼" tip produces outward woofer motion
	AD Converters:	96kHz, 24 Bit, 64x Over sampling
	Calibrated Input Sensitivity, Analog XLR & ¼":	
	+4 dBu:	94 dB SPL / 1 m
	-10 dBV:	94 dB SPL / 1 m

<i>Digital</i>	Male XLR IN:	AES/EBU(IEC60958)
	Female XLR OUT:	AES/EBU(IEC60958)
	Female RCA IN:	S/PDIF , (EIAJ CP1201)
	Female RCA OUT:	S/PDIF (EIAJ CP1201)
	Digital Input Sample Rates:	96k Hz, 88.2 kHz, 48 kHz, 44.1 kHz, 32 kHz. Tolerance: +/- 3%
	Digital Input Word Length:	24 Bit
	Network Connection:	RJ45 IN, RJ45 OUT
	Network Protocol:	Proprietary Harman HiQNet™ Protocol using RS485
	Computer Interface for firmware update:	USB Type 1
User Controls		
	Front Panel Controls:	Power ON, SOLO, RMC, BASS MANAGEMENT ON, BASS MANAGEMENT CROSSOVER, LFE FILTER, SUBWOOFER LEVEL, INPUT, +/- (system volume, parameter increment/decrement.
	RMC:	Start, Bypass
	RMC Calibration Functions:	RMC Filter: 73 Frequencies (1/24th octave centers) between 20 Hz to 160 Hz, with a variable Q from 1 (1.4 octave bandwidth) to 16 (1/11th octave bandwidth, and from 3 to 12 dB of attenuation. RMC Trim: +/- 9 dB in .25 dB increments RMC Polarity: 0 degrees, 180 degrees
	BASS MANAGEMENT XOVER	Selectable frequencies: 50Hz, 80 Hz, 120 Hz
	LFE FILTER	Selectable low pass frequencies: 50 Hz, 80 Hz, 120 Hz, NONE
	INPUT Selection:	Analog (XLR / ¼") S/PDIF Channel A, Channel B, Channel A+B AES/EBU Channel A, Channel B, Channel A+B
	SUB LEVEL Control	+/- 7.5 dB in .5 dB increments
	+/-	Default: System Volume Control: 0 dB to ∞ dB Secondary functions: Increment/decrement value of selected function
	Rear Panel Controls:	
		L,C,R,LS, RS Analog Input Sensitivity +4dBu/ -10dBV
		LFE Input +10dB Gain applied to Analog and Digital Inputs
		DIP switches: SW 1: SUB 1 ID SW 2: SUB 2 ID SW 3: Digital Input Assignment Channel A SW 4: Digital Input Assignment Channel B SW 5: Digital Input Function: LFE or Bass Management SW 6: Polarity 0 degrees or 180 degrees
	Additional Controls accessible via LSR4300 Control Center Software:	DIM (-12 dB at full volume), System MUTE, SAVE / LOAD Configuration RMC Trim
Display		
	Front Panel Display:	31 LED Segments for dBFS and indication of settings
	Front Panel Meter:	-70 dBFS to 0 dBFS plus CLIP
	Rear Panel Indicators:	5 LEDs indicate selection of Analog, S/PDIF, AES input and digital channel A or B
Physical		
	Finish:	Dark graphite
	Handles:	Two, flush mounted on sides
	Low Frequency Vent:	Bottom ported linear dynamics aperture
	Baffle Construction:	Injection-molded structural ABS
	Enclosure Construction:	25 mm (1 in) MDF; 50 mm (2") MDF woofer baffle
	Net Weight:	29.5 kg (66 lbs)
	Dimensions (WxHxD):	406 mm x 502 mm x 489 mm (16" x 19.75" x 19.25")

Notes:

All measurements unless otherwise stated made anechoically in a 4p environment at 2 meters, referenced to 1 meter by inverse square law.

The reference measurement microphone position is located perpendicular to the centerline of the low frequency transducer.

Acoustic loading provided by the listening room increases maximum SPL capability and low frequency bass extension as compared to stated anechoic values.

Distortion measurements performed with the input voltage necessary to produce the stated A- weighted SPL at the stated measurement distance. Distortion figures refer to the maximum distortion measured in any 1/10th octave wide band in the stated frequency range.

JBL continually engages in research related to performance improvements. New materials, production methods, and design refinements are introduced into existing products without notice as a routine expression of that philosophy. For this reason, any current JBL product may differ in some respect from its published description, but will always equal or exceed the original design specification unless otherwise stated.

Warranty Statement

Who Is Protected by This Warranty?

Your JBL Warranty protects the original owner and all subsequent owners so long as: A.) Your JBL product has been purchased in the Continental United States, Hawaii or Alaska. (This Warranty does not apply to JBL products purchased elsewhere except for purchases through military outlets. Other purchasers should contact the local JBL distributor for warranty information.); and B.) The original dated bill of sale is presented whenever warranty service is required. The JBL Limited Warranty on professional loudspeaker products (except for enclosures) remains in effect for five years from the date of the first consumer purchase. JBL amplifiers are warranted for three years from the date of original purchase. Enclosures and all other JBL products are warranted for two years from the date of original purchase.

What does the JBL Warranty cover?

Except as specified below, your JBL Warranty covers all defects in material and workmanship. The following are not covered: Damage caused by accident, misuse, abuse, product modification or neglect; damage occurring during shipment; damage resulting from failure to follow instructions contained in your Instruction Manual; damage resulting from the performance of repairs by someone not authorized by JBL; claims based upon any misrepresentations by the seller; any JBL product on which the serial number has been defaced, modified or removed.

Who Pays for What?

JBL will pay all labor and material expenses for all repairs covered by this warranty. Please be sure to save the original shipping cartons because a charge will be made if replacement cartons are requested. Payment of shipping charges is discussed in the next section of this warranty.

How to Obtain Warranty Performance?

If your JBL product ever needs service, write or telephone us at JBL Incorporated (Attn: Customer Service Department), 8500 Balboa Boulevard, PO. Box 2200, Northridge, California 91329 (800/852-5776). We may direct you to an authorized JBL Service Agency or ask you to send your unit to the factory for repair. Either way, you'll need to present the original bill of sale to establish the date of purchase.

Please do not ship your JBL product to the factory without prior authorization. If transportation of your JBL product presents any unusual difficulties, please advise us and we may make special arrangements with you. Otherwise, you are responsible for transporting your product for repair or arranging for its transportation and for payment of any initial shipping charges. However, we will pay the return shipping charges if repairs are covered by the warranty.