

Installationguide Drum&Percussion-Expansion

Congratulations on the purchase of the Drum&Percussion-Expansion. This package will increase the functionality of your RAVE-O-LUTION 309 tremendously. The following new features are at your disposal after installation:

- 128 memory locations for each section.
- 20 Percussion-sets.
- 128 new Percussion-Instruments.
- 32 new waveforms for Kick, Snare and Hihat.
- 38 new patterns.
- LFOs now for each drumsection.

Before you can start taking advantage of these new functions, you will have to install the Drum-Expansion. Please adhere to the installation procedures described in this manual. If you don't understand any of the explanations of the new functions we recommend consulting your authorized QUASIMIDI-dealer or the QUASIMIDI-distributor for your country.

Installationguide:

Included in the package, besides this installationguide, are the following items:

- 1 board with the Drum-Expansion.
- 1 IC with the new operating system on antistatic foam.
- 1 IC removing tool.

Check to see if all the items listed above are included in the package. In addition to the above listed tool you will just need a Phillips screwdriver.

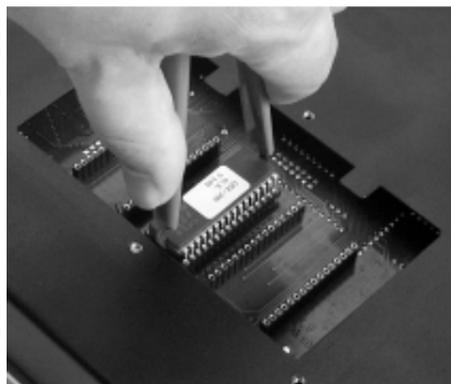
ATTENTION: BEFORE DOING ANYTHING, BACK-UP ANY VALUABLE USER-MOTIFS, SOUND- AND SONG-DATA, BECAUSE THIS PROCEDURE REQUIRES REINITIALIZATION OF THE 309'S MEMORY.

IMPORTANT: The included IC and expansion-board are sensitive to electrostatic charges. This procedure requires that you periodically "ground" yourself, by touching a grounded object such as a water pipe or a grounded piece of equipment. Grounding yourself prevents the static charge in your body from damaging the sensitive IC and expansion-board.

Installation of the operating system IC:

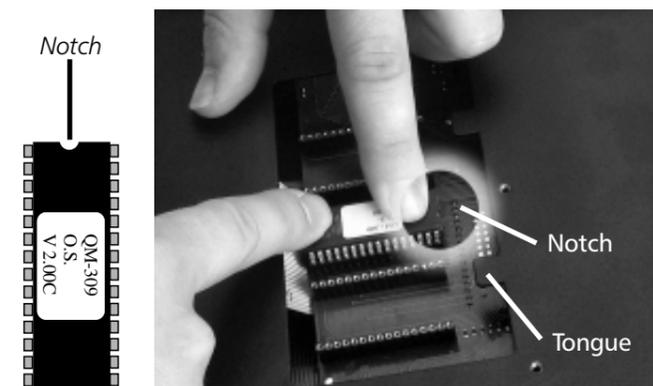
- To start installation, be sure to disconnect the AC-adaptor.
- Place the 309 with the bottom side up on a soft cloth. To place the 309 in a safe position it is better to use the styrofoam of the shipping box.
- Remove the six screws of the small bottom plate.
- Here you see three IC-sockets. The IC you have to change is located in the middle.

- Using the IC-tool, remove the chip. To remove the IC from the socket, place the IC-tool at the both ends of the IC. Pull carefully, alternating from the left and right sides, and remove the chip.



Don't forget to "ground" yourself before you insert the new IC. Insert the the new IC on the socket without pressing. **Pay attention to the polarity of the IC indicated by the notch.**

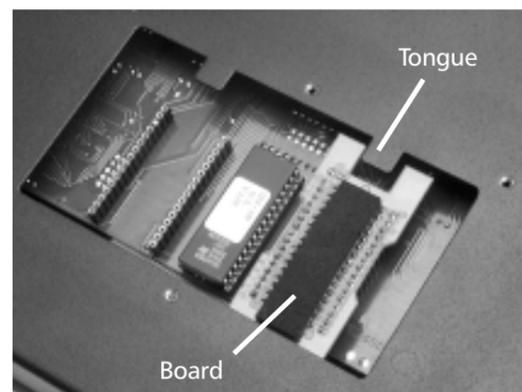
The new IC has to be inserted with the notch oriented towards the tongues of the 309's body (see picture). Make also sure that all the IC's pins fit the socket.



Now press the IC into the socket gently, then double-check the polarity and the positions of all the pins a second time. If everything is OK, carefully press the IC into the socket until fully seated.

Installation of the Drum-Expansion board:

The installation of the Drum-Expansion board is easier than the installation of the operating system IC. The design of the board makes it nearly impossible to insert it in the wrong direction. The following picture will help you for orientation:



Before you insert the expansion-board you should "ground" yourself one more time to prevent electrostatic charge in your body. The Drum-Expansion-Board can be installed left or right of the operating system IC. At first insert the board into the socket without pressing and check if the pins fit the socket. If everything is OK, carefully press the expansion-board into the socket until fully seated. This procedure also needs a little bit of fine feeling to prevent damages of your equipment.

The last step of the installation consists in screwing the small bottom plate onto the 309 body and to initialize the instrument (see next page).

Drum&Percussion-Expansion: New features and soundlist

Initialization of the 309:

After changing the operating system of the 309 it is necessary to initialize the instrument. Otherwise the Drum-Expansion will not be recognized.

With the 309 turned off, press and hold the WRITE-button of the 309 while you switch the power on. The display will show: "INITIALIZE ALL?". To confirm this message press button F1. Don't worry, this may take some seconds and the progression is indicated by a meter in the display. If the Drum-Expansion is installed properly, from now on the display will show the message "Expanded D" after turning on the 309.

Drums with LFO:

The drum-sections KICK, SNARE and HIHAT and the PERCUSSION-section now have each their own LFO (Low Frequency Oscillator). You will find it in the sound-edit menus of each section upwards page 16. The LFO can affect the pitch (VCO, not in the PERCUSSION-sets), the filter (VCF) and the volume of a sound with adjustable Rate and Depth. The LFO gives you the possibility to create interesting modulation effects within a pattern (eg random pitch on a hihat or opening and closing filter on a snare). As an example you can listen to the HIHAT-motif in Pattern 20. In this case, the LFO modulates the pitch of the HIHAT-sound. The descending character of this motif is caused by the selected LFO-waveform (Saw-Down, SWD).

An other new feature of the Drum-Expansion is the possibility to sync the LFOs of each section to the tempo of the sequencer. The synchronisation of the LFOs can be set up with the parameter "LFORat:" in the sound-edit menu on page 17. After the value of 120 the display will show you the different available sync-rates: 1/16, 1/8, 1/4, 1/2 and 1/1. These values indicate the resolution of the LFO-rate within on measure. The display shows the following content:

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Edit Bass-Sound
<17> LFORate:1/16
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If you select another sync-rate in this edit-page, you have to restart the sequencer to set up the synchronisation.

Melodies with the Percussion-Set:

By listening attentively to the new percussion-sounds, you will discover that the choice is enlarged by a lot of synthesizer waveforms (eg 303Bass1 or MixChrd3). If you program a percussion-set by using the same waveform differently tuned for each pad, you will be able to play an additional synthesizer voice like a bassline with the PERCUSSION-section. We prepared this for you in Set 11. Open the sound-edit menu of the PERCUSSION-section and select Set 11. You can now play a melody using the keyboard pads.

More memory locations:

With the installation of the Drum-Expansion, the number of the memory locations for KICK-, SNARE-, HIHAT- and PERCUSSION-sounds is increased to 128. The new factory sounds are located on the memory location numbers upwards 64.

New Patterns:

To demonstrate the new sounds in a musical context, the Drum-Expansion features 38 new patterns. After the initialization of the 309, the new patterns are located on the pattern numbers P01 to P38. In the pattern-select level of the edit-pattern menu, the new patterns are directly following the ROM-patterns.

The following list gives you an overview of the new waveforms and samples featured by the Drum-Expansion:

Kick-Drums:	Snare-Drums:	HiHats:
MassKick	MogSnare	NewHiHat
MoogBDrm	PicSnare	TambHHat
Mod_Dyn1	MoogZap1	808HH_HP *
Mod_Dyn2	MoogZap2	606HH_HP *
Mod_Dyn3	MoogZap3	909HH_HP *
Mod_Dyn6	Mod_Dyn4	NewHH_HP *
Mod_Dyn7	Mod_Dyn5	NatHH_HP *
BD_Shot1	Pit_Ind	MS_HH_HP *
PDisKiK1	Modulo	
PDisKiK2	Modulo2	
PDisKiK3	Modulo3	
PDisKiK4		
DisKiK5		
PDisKiK6		

Percussion-Instruments

128:P_Disk1F	171:Moog_BD1	214:Hahh
129:P_Disk2F	172:El_HiTom	215:Hoohh
130:P_Disk3F	173:El_LoTom	216:Housy
131:P_Disk4F	174:PitIndus	217:Oh_Yeah
132:P_Disk5F	175:PitSnare	218:303Bass1
133:P_Disk6F	176:PitSnar2	219:303Bass2
134:LFO	177:Pit_Cymb	220:HardMKS
135:MoogSnar	178:PitSnar3	221:StabSntF
136:MoogBD_2	179:Pit606Sn	222:TekChrd1
137:D_Kick1F	180:Pit808S1	223:TekChrd2
138:D_Kick2F	181:Pit808S2	224:TekChrd3
139:D_Kick3F	182:Pit808S3	225:TekChrd4
140:D_Kick4F	183:Pit909S1	226:TekChrd5
141:D_Kick5F	184:PitDryS1	227:TekChrd6
142:MoogZap1	185:PitSnar1	228:TekChrd7
143:MoogZap2	186:PitSnar2	229:TekChrd8
144:MoogZap3	187:PitSnar3	230:TekChrd9
145:PicSnare	188:PitUdus1	231:MixChrd1
146:TambBack	189:PitUdus2	232:MixChrd2
147:Tamb_For	190:PitUdus3	233:MixChrd3
148:TambShor	191:PitUdus4	234:MixChrd4
149:WoodBlick	192:KWPitch1	235:MixChrd5
150:909opHH2	193:KWPitch2	236:Chord_1
151:KWEfekt2	194:KWPitch3	237:Chord_2
152:KWEfekt	195:KWPitch4	238:MKSChrd1
153:KW_Kwak1	196:KWPitch5	239:MKSChrd2
154:KW_Kwak3	197:KWPitch6	240:MKSChrd3
155:MasKick2	198:KWPitch7	241:SineBass
156:Modulo_1	199:KWPitch8	242:Rev_Ride
157:Modulo_2	200:KWPitch9	243:Rev_OpHH
158:Modulo_3	201:KWPitchX	244:Rev_909R
159:MogPerc1	202:Lopmatic	245:Rev_Hous
160:MogPerc2	203:LopBrick	246:Rev_HH2O
161:MogPerc3	204:LopShake	247:Rev_Revb
162:MogPerc4	205:LoopSnap	248:Rev_MS20
163:HH2_Open	206:LoopClap	249:Rev_NOHH
164:ModDyn_1	207:Resofect	250:Rev_Yeah
165:ModDyn_2	208:Resofec2	251:RevRide2
166:ModDyn_3	209:PtchChrd	252:RevRight
167:ModDyn_4	210:RightHer	253:RevRigt2
168:ModDyn_5	211:Come_On	254:RevFlang
169:ModDyn_6	212:Get_Up	255:RevCrash
170:ModDyn_7	213:GoHoo	

The Hihat-waveforms marked with a * use a 12 dB Highpass filter instead of the 24 dB Lowpass. This filter gives you the possibility to program Hihat-sounds with increased high frequency which will stand out of your mix.

Remark: A lot of the new waveforms (eg Mod_Dyn6) have a very long release time. You can adjust it with the parameters DECAY and RELEASE. If the DECAY and RELEASE values are high, a sound based on those waveforms might release within the next pattern after a pattern change.