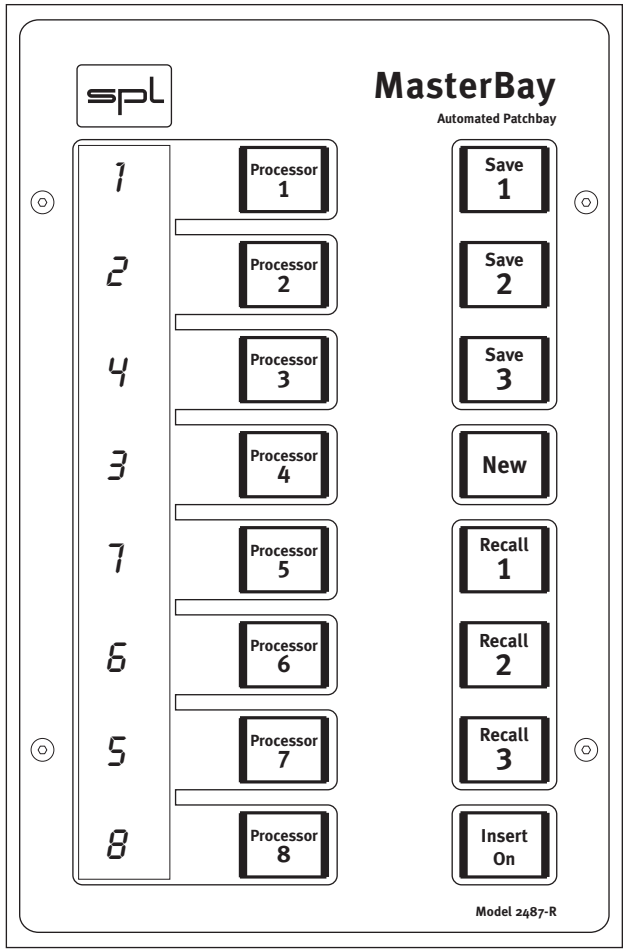
SPL MasterBay



Manual

Manual, Version 1.1, 2/2006

R & D: Wolfgang Neumann

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Sound Performance Lab
SPL electronics GmbH
P.O. Box 12 27, D- 41368 Niederkruechten, Germany
Phone +49 2163 983 40, Fax +49 2163 983 420
Email: info@spl.info, Internet: spl.info

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Fade In

Automated routing of processors in a mastering chain is becoming more and more of an issue for mastering engineers. The SPL MasterBay system allows for instant comparison of single processors or processor chains which can be determined and stored in three different sequences.

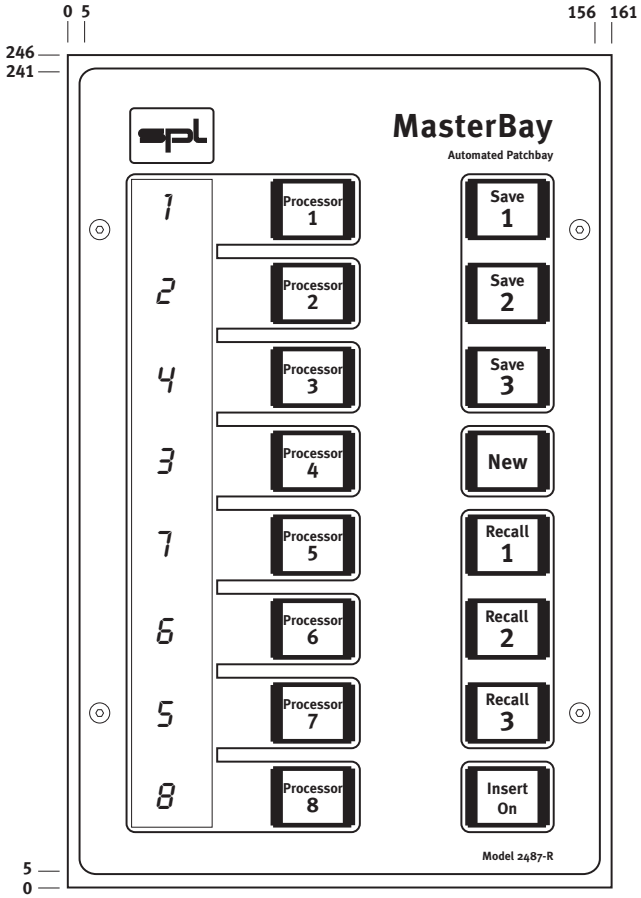
The MasterBay is availalable as dual- or eight-channel system. Each of the fully balanced, entirely passive insert boxes is controlled by the MasterBay Remote Control which can be placed upon the desktop or built into a desk.

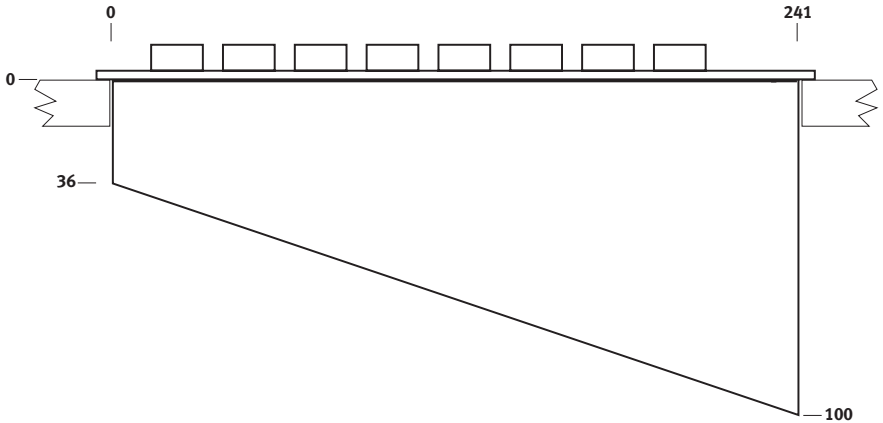
Dual-channel MasterBay:
Remote Control model 2487 and insert box model 2488

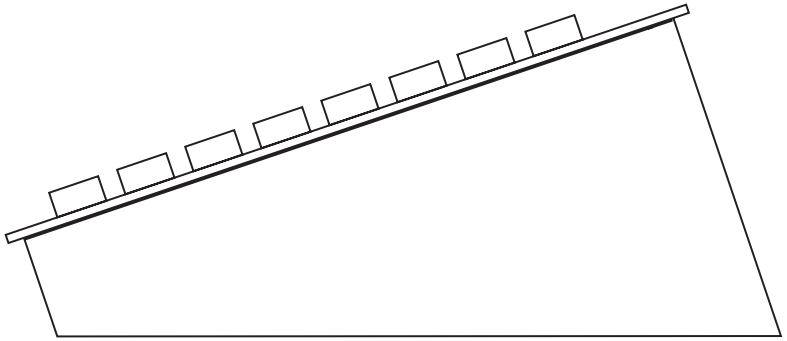
Eight-channel MasterBay:
Remote Control model 2487 and insert box model 2268

The MasterBay Remote Control is connected to one of the MasterBay Insert boxes via the rear DB 25 connector (10 m cable included). The remote houses a CPU to control 146 (dual-channel MasterBay) or 584 (eight-channel MasterBay) gold plated relay switches. It is powered from the respective insert box through the DB 25 wiring, so no additional power supply is needed.

See page 9 for operation and page 11 for the pin configuration of the DB 25 connector.







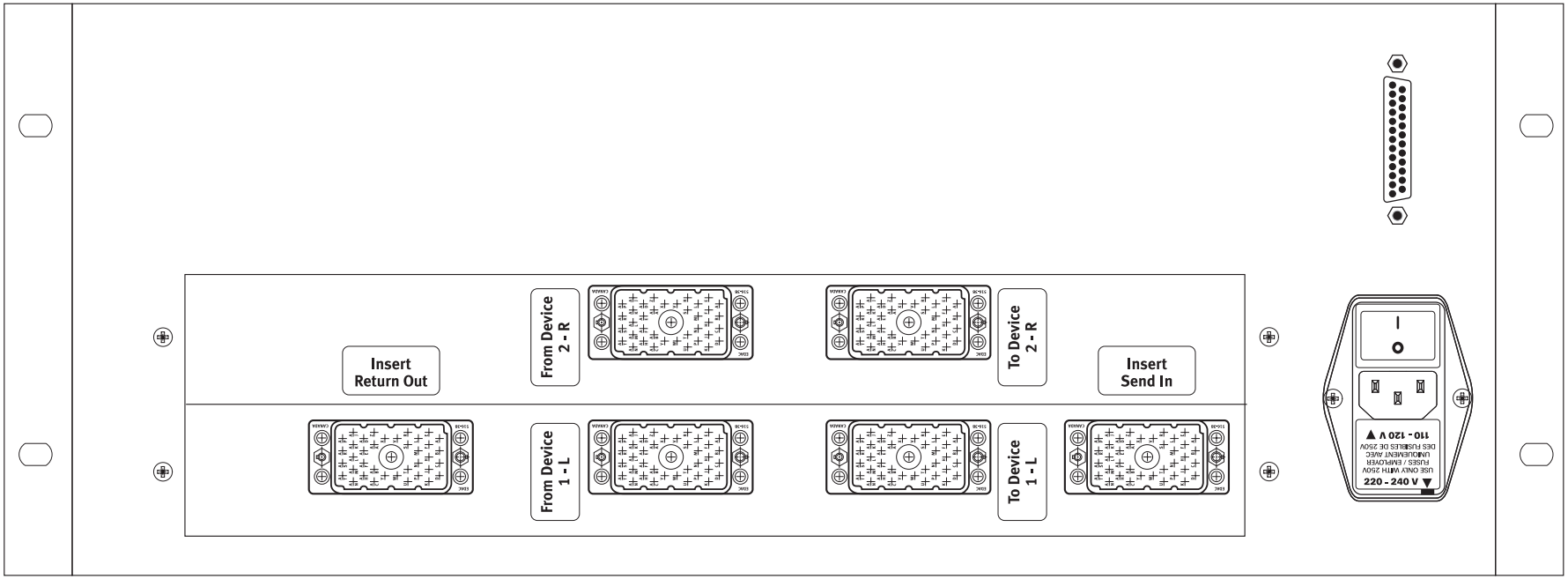
Measurements in millimeter

The MasterBay system is based on a completely passive design with fully balanced signal paths from input to output. All 146 relays are placed on large, double-sided PCBs for switching operation with maximum neutrality in sound quality. A ground path between all audio signal paths ensures the highest possible shielding.

Lavishly dimensioned, linear power supplies based on toroidal transformers are capable of providing adequate current regardless of any demands.

Dimensions
The dual-channel MasterBay insert box comes with detachable 19 inch brackets.

Height: 177 mm/7,08 inch
Width: 440 mm/17,6 inch w/o brackets, 482 mm/19,28 inch with brackets
Depth: 500 mm/20 inch



Eight-Channel MasterBay Insert Box, Model 2268

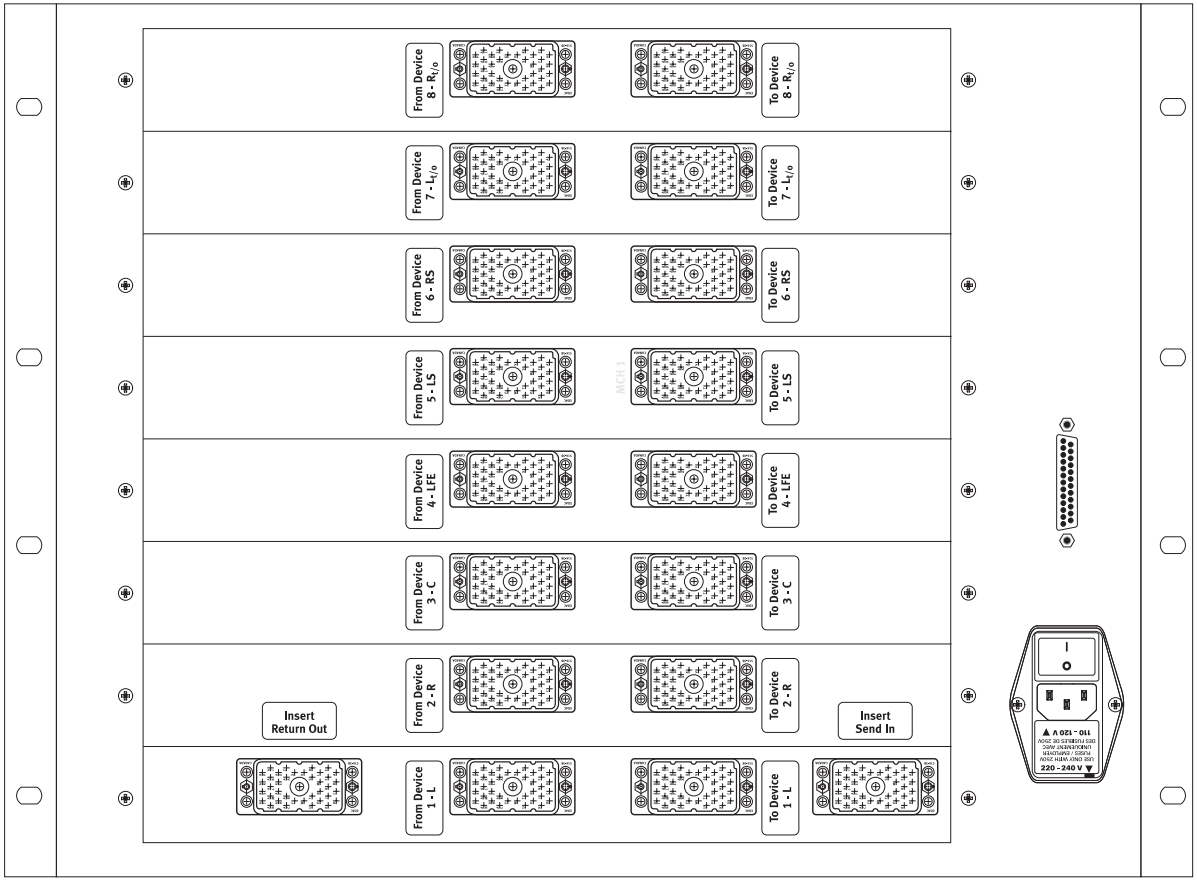
The MasterBay system is based on a completely passive design with fully balanced signal paths from input to output. All 584 relays are placed on large, double-sided PCBs for switching operation with maximum neutrality in sound quality. A ground path between all audio signal paths ensures the highest possible shielding.

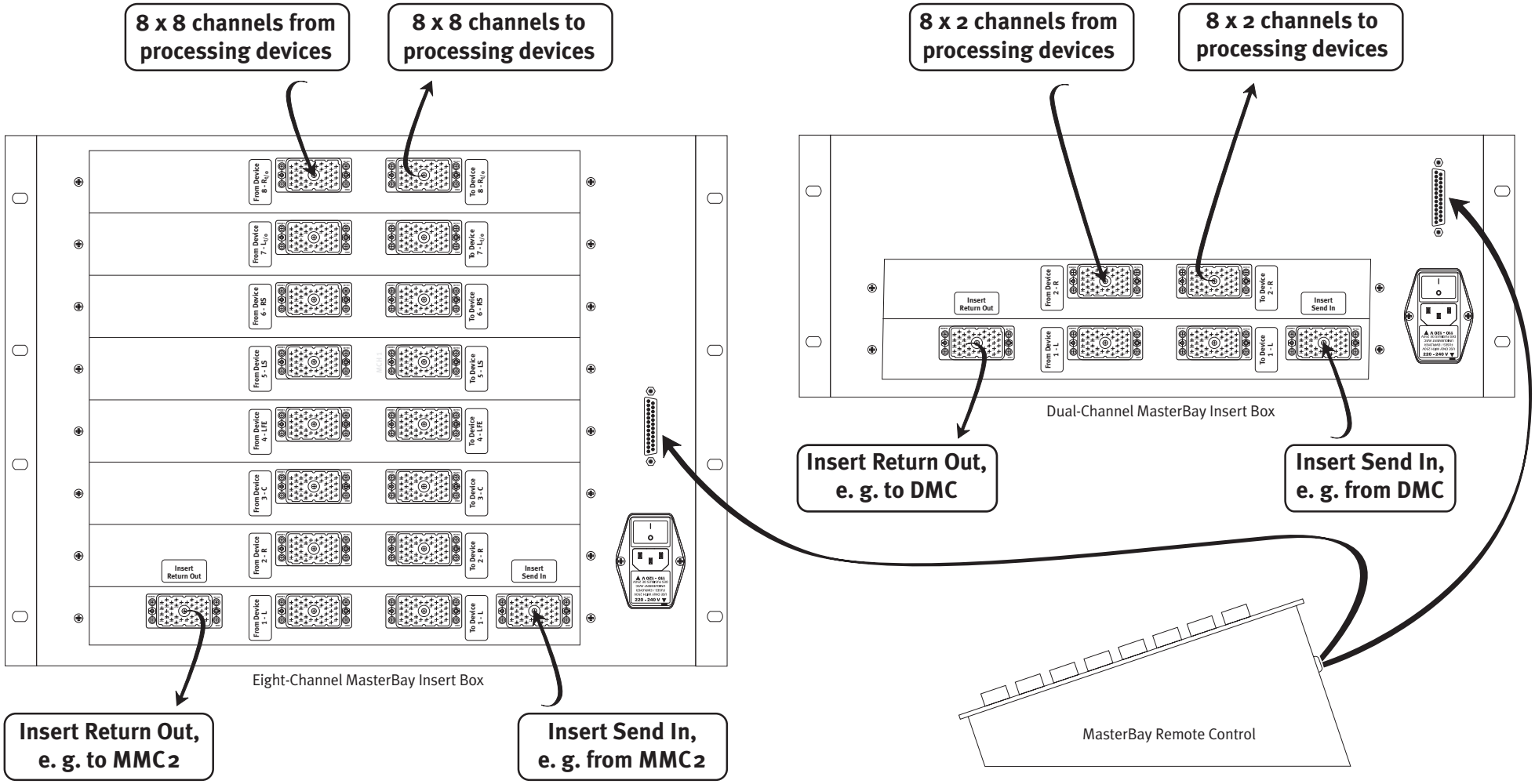
Lavishly dimensioned, linear power supplies based on toroidal transformers are capable of providing adequate current regardless of any demands.

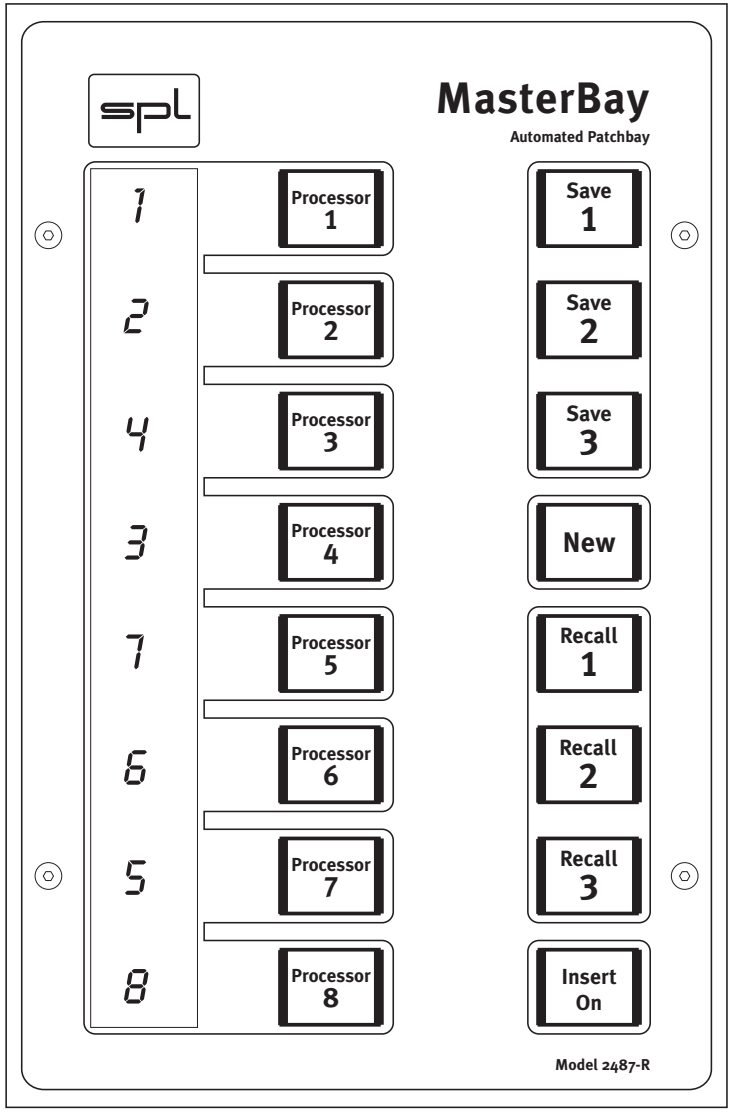
Dimensions

The dual-channel MasterBay insert box comes with detachable 19 inch brackets.

Height: 355 mm/14.2 inch
Width: 440 mm/17,6 inch w/o brackets, 482 mm/19,28 inch with brackets
Depth: 500 mm/20 inch




8 x 8 channels from processing devices
8 x 8 channels to processing devices
8 x 2 channels from processing devices
8 x 2 channels to processing devices
Insert Return Out
Insert Send In
Dual-Channel MasterBay Insert Box
Insert Return Out, e. g. to DMC
Insert Send In, e. g. from DMC
Eight-Channel MasterBay Insert Box
Insert Return Out, e. g. to MMC2
Insert Send In, e. g. from MMC2
MasterBay Remote Control



To help alleviate the complexity of high-end audio patching, the MasterBay system features dual or eight channel insert boxes to which up to eight processors can be connected. The unique advantage of the MasterBay is that the engineer can specify up to three routings, called “sequences”, which can be stored and re-called.

The MasterBay 8, model 2268 supports the connection of eight processors with up to eight channels (64 channels).

The MasterBay 2, model 2488 supports the connection of eight dual-channel processors (16 channels).

The MasterBay remote provides a button for each of the eight external processors. Labels can be changed to the user’s requirements. The covers of the buttons can be lifted to insert a new label.

The order in which the processor selection buttons are activated determines the processor sequence. A seven segment LED-display next to each button indicates the current position of a processor. The mastering engineer can use this feature to compare between sequences in varying order or to compare the same type of processors—such as in the case of an equalizer from Manufacturer A and one of Manufacturer B.

Three memory banks are available which allow an active signal flow sequence to be compared instantly at a button push with three others (for a total of four). An Insert On switch engages the Insert Box or switches to hard-bypass.

Saving a processor sequence

1. Press Insert On to activate the signal flow through the insert box.

2. When determining a new sequence it is demanding to press the New button first to clear the sequence memory. The LED display shows a “–” besides each processor button.

3. Press the Processor buttons in the desired order. At this stage you can only add another processor to the sequence, but you cannot take a processor out of the sequence. This can only be done with recalled sequences, see #7. If the sequence should be changed at this stage, press New to start a new sequence.

4. After the first sequence is determined, press Save 1 to store the sequence.

5. To create more sequence, press New again and determine a sequence. Press Save 2 or Save 3 to store the new sequence.

6. After a sequence is saved, the Save buttons will illuminate to indicate a valid save.

7. To recall a saved processor sequence, press the respective Recall button (illumination on).

8. The Insert On switch can be used to bypass all processors.

Working with a recalled sequence

To exclude one or more processors from a stored preset, press the according Processor Selection button (illumination off). The processor now is hard-bypassed by relays. It can be switched into the signal path at the former position by pressing the Processor Selection button again (illumination on).

It is not possible to add further processors to recalled sequences. Determine and save a new sequence instead.

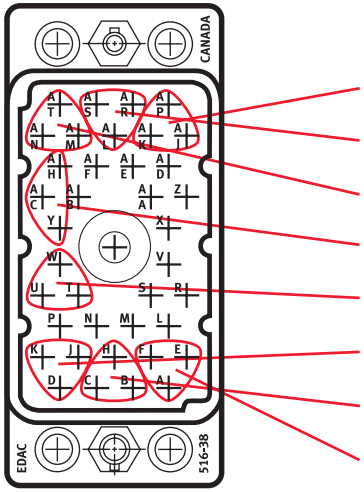
When you change a recalled sequence without saving it, this change will apply to another recalled sequence as well. To avoid this, save the changed sequence or press New before recalling the next sequence.

Erasing sequences

In order to clear the memory of Save 1-3, press New and press the respective Save button. Now the illumination of the respective Save button is off.

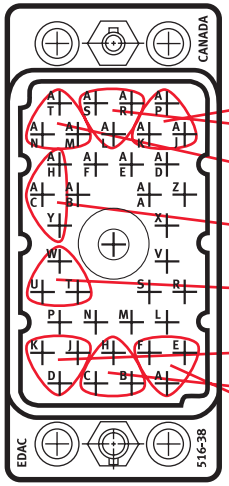
EDAC 38 pin connectors/pin configuration

Dual- and eight-channel MasterBay
“Inser Send” and “Insert Return” connectors



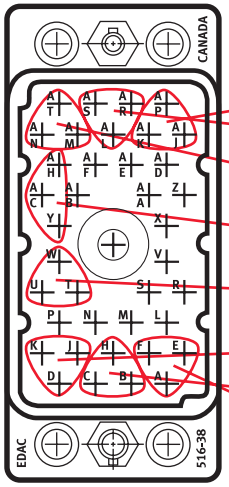
	H (+)	L (-)	GND ⏚
1 L	AP /PP	AJ /JJ	AK /KK
2 R	AL /LL	AR /BR	AS /SS
3 C	AT /TT	AM /MM	AN /NN
4 LFE	AC /CC	AH /HH	Y
5 LS	U	W	T
6 RS	J	D	K
7 $L_{t/o}$	B	H	C
8 $R_{t/o}$	E	A	F

Dual-channel MasterBay
“From Device” and “To Device” connectors



H (+)	L (-)	GND (⏚)		From/To Device 1 / L	From/To Device 2 /R
AP /PP	AJ /JJ	AK /KK	=	L1	R1
AL /LL	AR /BR	AS /SS	=	L2	R2
AT /TT	AM /MM	AN /NN	=	L3	R3
AC /CC	AH /HH	Y	=	L4	R4
U	W	T	=	L5	R5
J	D	K	=	L6	R6
B	H	C	=	L7	R7
E	A	F	=	L8	R8

Eight-channel MasterBay, “From Device” and “To Device” connectors



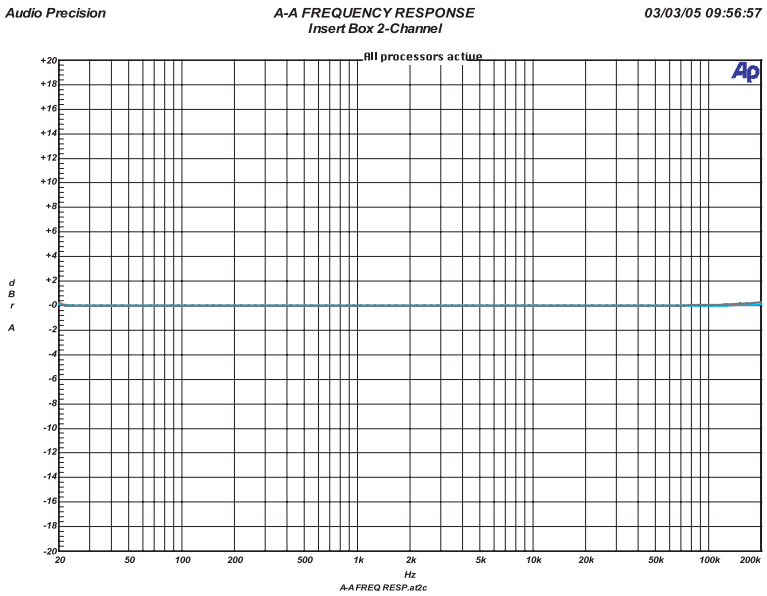
H (+)	L (-)	GND (⏚)		From/To Device 1 / L	From/To Device 2 /R	From/To Device 3 / C	From/To Device 4 / LFE	From/To Device 5 / LS	From/To Device 6 / RS	From/To Device 7 / $L_{t/o}$	From/To Device 8 / $R_{t/o}$
AP /PP	AJ /JJ	AK /KK	=	L1	R1	C1	LFE1	LS1	RS1	$L_{t/o}1$	$R_{t/o}1$
AL /LL	AR /BR	AS /SS	=	L2	R2	C2	LFE2	LS2	RS2	$L_{t/o}2$	$R_{t/o}2$
AT /TT	AM /MM	AN /NN	=	L3	R3	C3	LFE3	LS3	RS3	$L_{t/o}3$	$R_{t/o}3$
AC /CC	AH /HH	Y	=	L4	R4	C4	LFE4	LS4	RS4	$L_{t/o}4$	$R_{t/o}4$
U	W	T	=	L5	R5	C5	LFE5	LS5	RS5	$L_{t/o}5$	$R_{t/o}5$
J	D	K	=	L6	R6	C6	LFE6	LS6	RS6	$L_{t/o}6$	$R_{t/o}6$
B	H	C	=	L7	R7	C7	LFE7	LS7	RS7	$L_{t/o}7$	$R_{t/o}7$
E	A	F	=	L8	R8	C8	LFE8	LS8	RS8	$L_{t/o}8$	$R_{t/o}8$

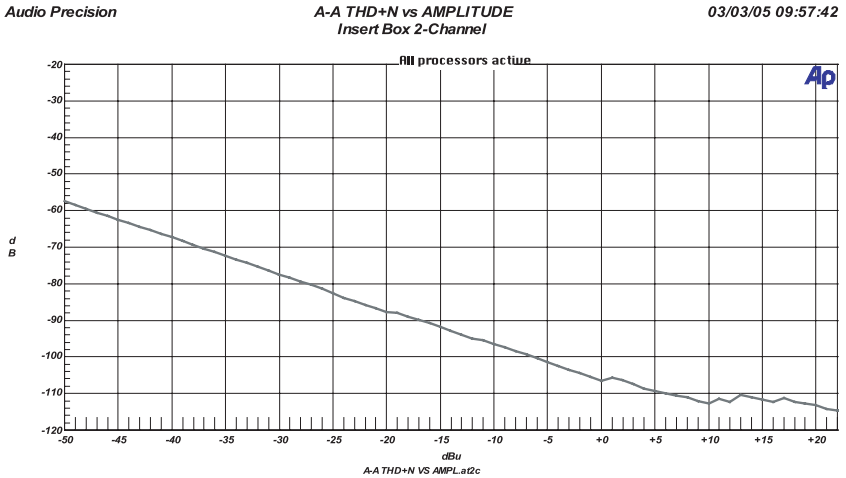
MasterBay Remote Control and MasterBay insert boxes are connected via DB 25 connectors. A 10 m/33 feet cable is included, connecting in a 1:1 pin configuration.

Pin configuration DB 25 connector

Pin 22	-17 V	} Power supply Remote Control
Pin 11	0 V	
Pin 25	+10 Va	
Pin 2	RS 232 – TxD	} Data exchange
Pin 3	RS 232 – RxD	
Pin 7	RS 232 – 0 V	
Pin 1	Ground	

Measurements





Warranty

SPL electronics GmbH (hereafter called SPL) products are warranted only in the country where purchased, through the authorized SPL distributor/dealer in that country, against defects in material or workmanship. The specific period of this limited warranty shall be that which is described to the original retail purchaser by the authorized SPL dealer or distributor at the time of purchase.

SPL does not, however, warrant its products against any and all defects:

1) arising out of materials or workmanship not provided or furnished by SPL, or

2) resulting from abnormal use of the product or use in violation of instructions, or

3) in products repaired or serviced by other than authorized SPL repair facilities, or

4) in products with removed or defaced serial numbers, or

5) in components or parts or products expressly warranted by another manufacturer.

SPL agrees, through the applicable authorized distributor, to repair or replace defects covered by this limited warranty with parts or products of original or improved design, at its option in each respect, if the defective product is shipped prior to the end of the warranty period to the designated authorized SPL warranty repair facility in the country where purchased, or to the SPL factory in Germany, in the original packaging or a replacement supplied by SPL, with all transportation costs and full insurance paid each way by the purchaser or owner.

All remedies and the measure of damages are limited to the above services. It is possible that economic loss or injury to person or property may result from the failure of the product; however, even if SPL has been advised of this possibility, this limited warranty does not cover any such consequential or incidental damages. Some states or countries do not allow the limitations or exclusion of incidental or consequential damages, so the above limitation may not apply to you.

Any and all warranties, express or implied, arising by law, course of dealing, course of performance, usage of trade, or otherwise, including but not limited to implied warranties of merchantability and fitness for particular, are limited to a period of 1 (one) year from either the date of manufacture. Some states or countries do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply to you.

This limited warranty gives you specific legal rights, and you may also have other rights which vary from state to state, country to country.

SPL electronics GmbH, 41372 Niederkruechten, Germany