

IVM

4/4500

SERVICE MANUAL

07/2016

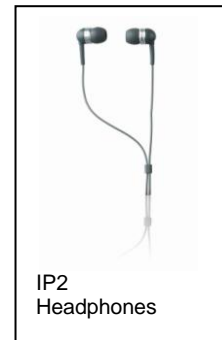
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SST 4500 Transmitter		SST4500 Sender
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SPR 4500 Pocketreceiver		SPR 4500 Taschenempfänger
SPC 4 Powercombiner	8	SPC 4 Leistungscombiner

Last modification: corrected pos. Numbers on page 9

add IVM4500
 add page 8, pos22, pos23, pos24
 add page 8 pos.17 SMD coil
 add page 7 pos. 21 jack socket cap
 add BD3 for Korea
 page 7 added new part pos. 20
 new and corrected partnumbers on pos. 2, 23 SST4, 1+2+4 SPR4

The complete IVM 4/4500 - Family



RMU

- RMU1 3000Z28010
- RMU2 3000Z26010
- RMU4 3000Z29010

Power adapter:

EU, US, UK, AU 7801H00120

SST 4/4500 Antenna

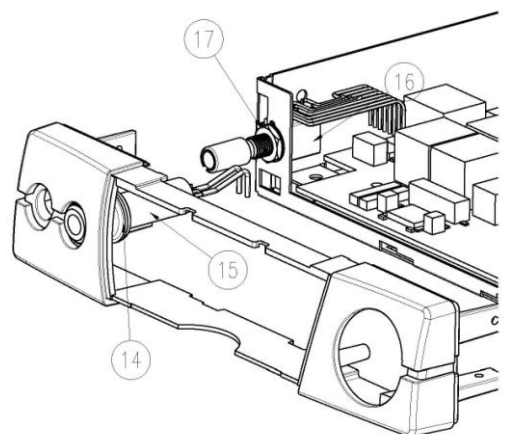
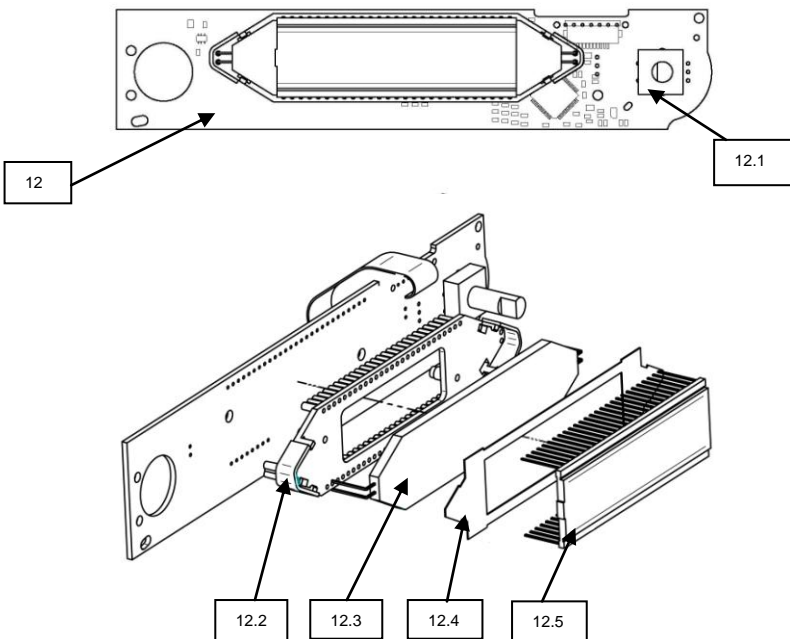
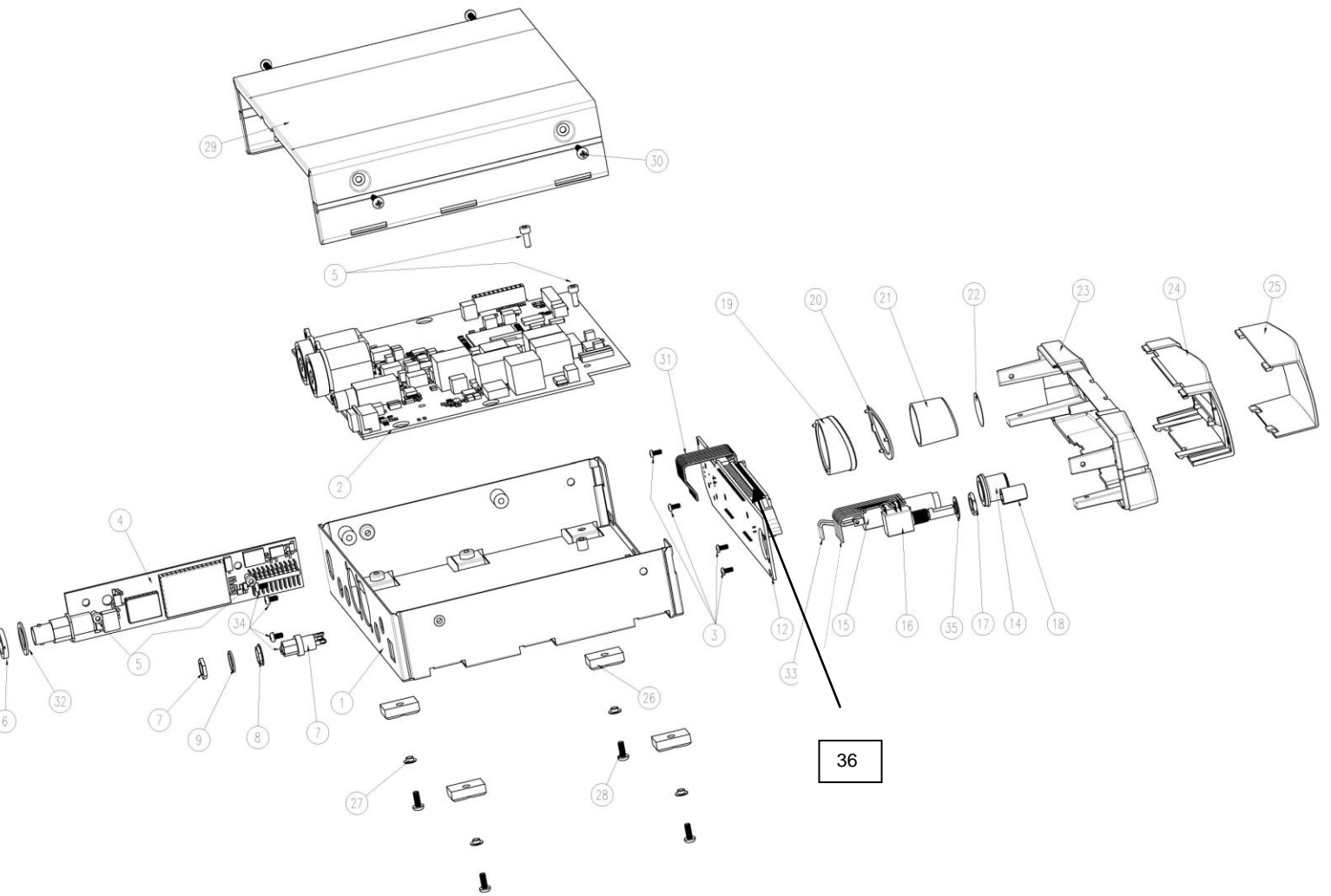
long, Band 1,7,8,9 9999N07440
short, Band 3,4,5,6 9999N07450

Colorcodeset SST4 3050M12010
Colorcodeset SPR4 3002Z17010

Frequency range, Mhz	
Band 1	650-680
Band 3	720-750
Band 4	760-790
Band 5	790-820
Band 6	835-865
Band 7	500-530
Band 8	570-600
Band 9	600-630

For information about PSU4000, HUB4000 and CU4000 please refer to the WMS4000 Service information.

SST4 3050Z00... / SST4500 3095H00...



Parts list / Stückliste

Description	Pos.	Part number Bestellnummer	Quantity Stück		Bezeichnung
			SST 4	SST 4500	
Bottom assy.	1	3050M10010	1	1	Gehäuse unten
Mainboard assy.	2	3050M01010	1	1	Hauptprint, komplett
Screw	3	7500D25000	4	4	Schraube
RF board, complete	4	3050M030*	1	1	HF-Print, komplett
Screw M3x8	5	0912D30000	4	4	Schraube M3x8
Ring nut	6	2841Z10010	1	1	Ringmutter
DC-Jack mountend	7	0110E02710	1	1	DC-Buchse
Insulating	8	3000Z38010	1	1	Isolierung
Insulating disc	9	3000Z39010	1	1	Isolierscheibe
Front board complete	12	3050M02010	1	-	Front Print, komplett
Front board complete	12	3050M02020	-	1	Front Print, komplett
Jog dial switch	12.1	0040E02000	1	1	Dreh-Drück-Schalter
Displayholder	12.2	3050Z15010	1	1	Displayhalter
Backlight	12.3	0013E01950	1	1	Displaybeleuchtung
Cover	12.4	3200Z15010	-	1	Abdeckung
Display	12.5	0050E00090	1	-	Display
Display	12.5	0050E00130	-	1	Display
Adaptor 6,3	14	3000Z55010	1	-	Adapter
Adaptor 6,3	14	3000Z55020	-	1	Adapter
6,3 stereo jack	15	0017E03600	1	1	6,3 stereo Buchse
Poti 10kOhm log x2	16	0021E05960	1	1	Poti 10kOhm log x2
Hex nut	17	part of pos. 16	1	1	Mutter
Knob	18	3050Z13010	1	-	Knopf
Knob	18	3050Z13020	-	1	Knopf
Colorcode holder	19	3050Z11010	1	-	Farbcodehalter
Colorcode	20	3050Z12010	1	-	Farbcode
Shuttle Button	21	3000M20110	1	-	Knopf
Shuttle Button	21	3200M15010	-	1	Knopf
Label AKG	22	3000Z37010	1		Schild AKG
Label AKG	22	4786S00010	-	1	Schild AKG
Front	23	3000Z22160	1		Frontplatte
Front compl.	23	3095M10010	-	1	Frontplatte kompl.
Displaycover	24	3000Z23060	1	-	Displayabdeckung
Displayglass	25	3000Z24010	1	-	Displayglas
Housing Foot	26	3000Z20010	4	4	Gehäuse Fuß
Bush	27	3000Z21010	4	4	Hülse
Screw	28	7985D30110	4	4	Schraube
Cover	29	3000Z15010	1	1	Gehäusedeckel
Screw	30	7985D30120	4	4	Schraube
Cable 3-pol	33	0110E02910	1	1	Kabel 3-pol
Cable 10-pol	31	0110E03070	2	2	Kabel 10-pol
Screw	34	7985D25020	4	4	Schraube
Washer flat	35	part of pos. 16	1	1	Scheibe
Protection foil	36	3000Z56020	1	1	Schutzfolie

*) Last 2 digits of part number according to frequency see table below.

When ordering please always state for which band, frequency-set and power a board is needed!!!

*) Letzte Stelle der Bestellnummer gemäß Frequenzband siehe untenstehende Tabelle.

Bei Bestellungen bitte immer angeben, für welches Band, Frequenz-Set und Leistung ein Print benötigt wird!!!

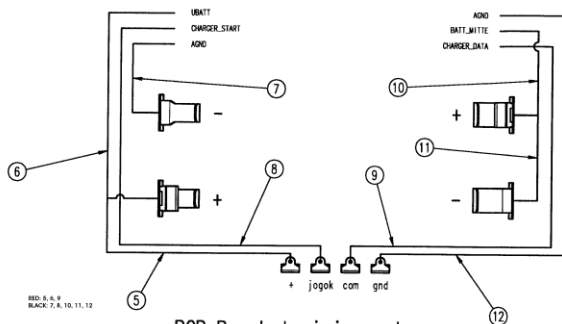
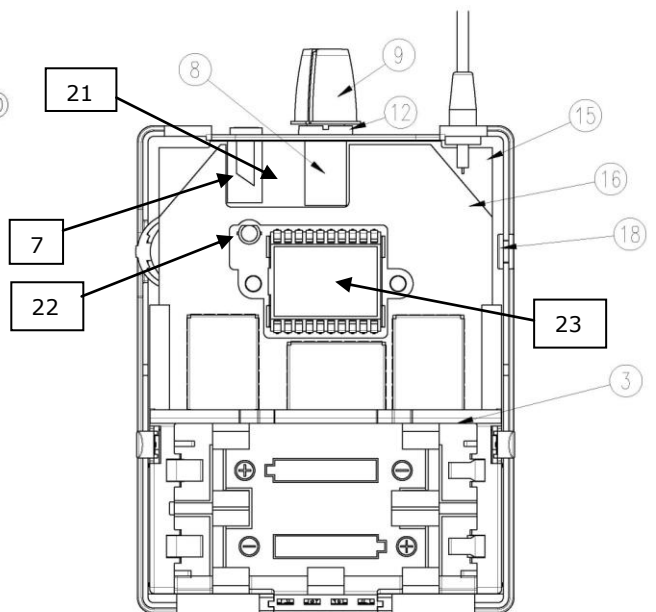
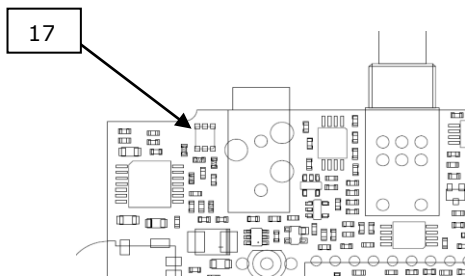
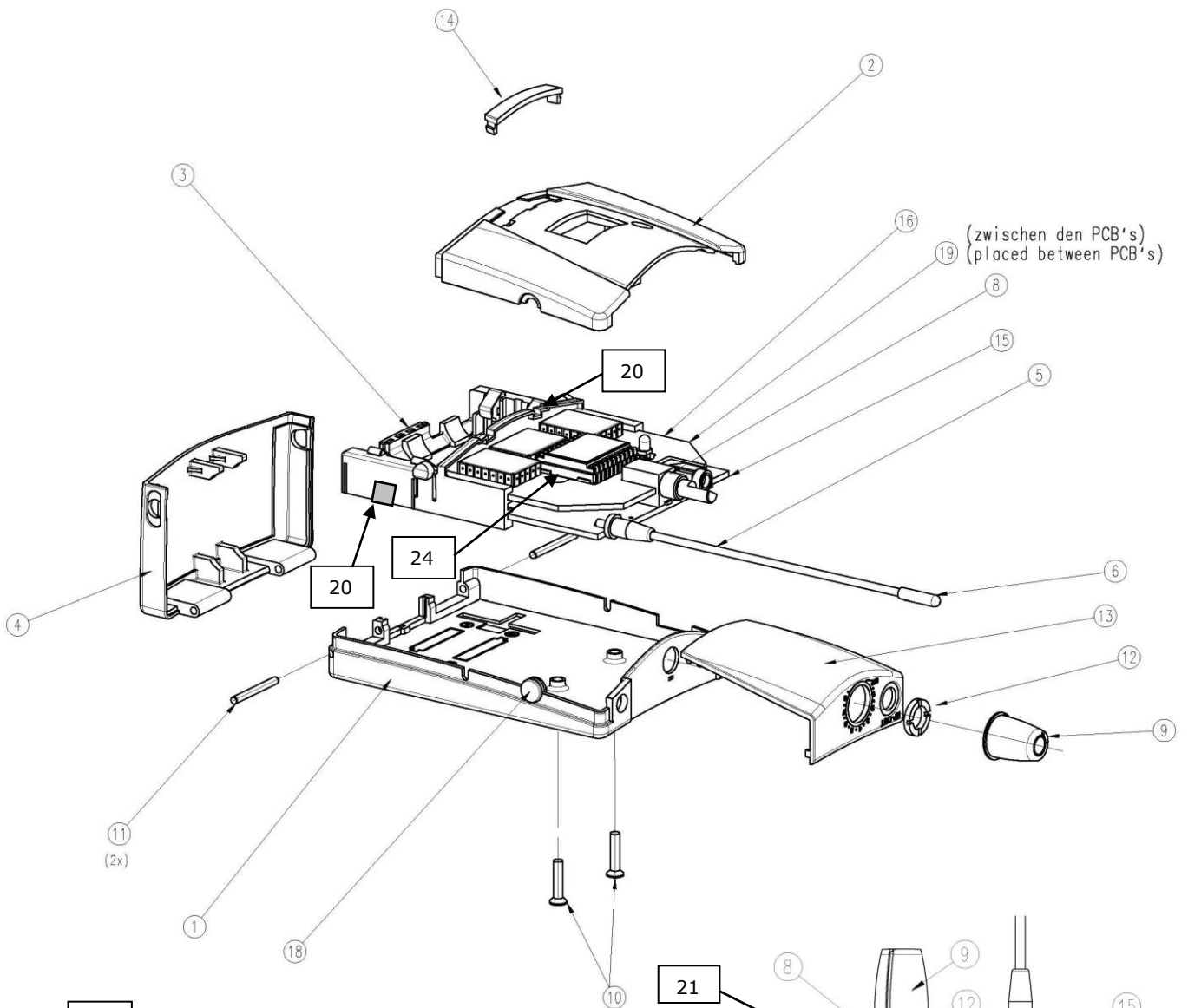
SST4

Frequency band and power / Frequenzband und Leistung															
Pos	3050M030.. *	BD3-CR 10mW	BD5-EU 50mW	BD5-US 100mW	BD5-JP 10mW	BD5-HO 10mW	BD5-TH 50mW	BD5-IL 10mW	BD6-EU 50mW	BD6-ISM 10mW	BD7-EU 50mW	BD7-US 100mW	BD8-EU 50mW	BD8-US 100mW	
4	30	1	-	-	-	-	-	-	-	-	-	-	-	-	
4	50	-	1	1	1	1	1	1	-	-	-	-	-	-	
4	60	-	-	-	-	-	-	-	1	1	-	-	-	-	
4	70	-	-	-	-	-	-	-	-	-	1	1	-	-	
4	80	-	-	-	-	-	-	-	-	-	-	-	1	1	
Range, Mhz		720-750	790-820					835-865			500-530		570-600		

SST4500

Frequency band and power / Frequenzband und Leistung															
Pos	3050M030.. *	BD1 50mW	BD1 100mW	BD3-A 50mW	BD4 50mW	BD4 100mW	BD5-IL 10mW	BD5-JA 10mW	BD5-TH 50mW	BD7 50mW	BD7 100mW	BD8 50mW	BD9 50mW	BD9-U 50mW	
4	10	1	1	-	-	-	-	-	-	-	-	-	-	-	
4	30	-	-	1	-	-	-	-	-	-	-	-	-	-	
4	40	-	-	-	1	1	-	-	-	-	-	-	-	-	
4	50	-	-	-	-	-	1	1	1	-	-	-	-	-	
4	70	-	-	-	-	-	-	-	-	1	1	-	-	-	
4	80	-	-	-	-	-	-	-	-	-	-	1	-	-	
4	90	-	-	-	-	-	-	-	-	-	-	-	1	1	
Range, Mhz		650-680		720-750	760-790		790-820			500-530		570-600	600-630		

SPR4 3051Z00...
SPR4500 3096H00...



REV: 3.6.9
BLACK: 7.8.10.11.12

PCB_Bracket wiring scheme
(back view)

Parts list / Stückliste

Description	Pos.	Part number Bestellnummer	Quantity Stück		Bezeichnung
			SPR 4	SPR 4500	
Housing complete	1,2,4	3051M96030	1	-	Gehäuse komplett
Housing complete	1,2,4	3096M06010	-	1	Gehäuse komplett
Board bracket-assy.	3	3002M05010	1		Gehäuserahmen, komplett
Board bracket-assy.	3	3002M05020	-	1	Gehäuserahmen, komplett
Battery cover	4	3002Z09010	1	-	Batteriedeckel
Antenna assy.	5	3002M21020	1	-	Antenne, komplett
Antenna assy.**	5	3002M21040	-	2	Antenne, komplett**
Rubber cap	6	2890Z18010	1	1	Kappe
3,5 stereo jack	7	0017E15030	1	1	3,5 stereo Buchse
Volume-Pot	8	0021E05940	1	1	Volume -Pot
Knob	9	3051Z12010	1	1	Knopf
Screw M2,5x12	10	0965D25090	2	1	Schraube M2,5x12
Cylinder pin	11	0007D20050	2	1	Zylinderstift
Nut	12	3051Z11010	1	1	Mutter
Display cover	13	3002Z08020	1	-	Display - Abdeckung
Color code cover	14	3002Z16010	1	-	Farbcode - Abdeckung
Main board complete	15	3051M01010	1	-	Hauptprint, komplett
Main board complete	15	3096M01010	-	1	Hauptprint, komplett
RF board complete	16	3051M020..*	1	-	HF-Print, komplett
RF board complete	16	3096M020..*	-	1	HF-Print, komplett
SMD-Coil	17	9023E03400	1	1	SMD-Spule
Plastic plug	18	3051Z13010	1	1	Kunststoffstoppel
Shielding gasket	19	3051Z14010	1	1	Schirmgewebe
Small plate	20	3051Z18010	2	-	Plättchen
Jack socket cap	21	3051Z16010	1	-	Klinkenkappe
Jack socket cap	21	3203Z12010	-	1	Klinkenkappe
Bicolor LED	22	9014E00710	1	1	LED zweifarbig
LCD Display	23	0050E00050	1	-	LCD Display
LCD Display	23	0050E00120	-	1	LCD Display
Display backlight	24	0013E01970	1	1	Displaybeleuchtung
Spring	25	9999N07540	-	2	Feder
Button	26	3202Z10010	-	2	Knopf
Spring cover	27	3202Z11010	-	2	Federabdeckung
Label AKG	28	4786S00010	-	1	Label AKG
Belt-clamp	-	3002Z10010	1	1	Gürtelclip
Color code set	-	3002Z17010	1	-	Farbcode - Set
Warning label	-	9110U36100	1	1	Warnschild

*) Last digit of part number according to frequency see table below.

When ordering please always state for which band and frequency-set a board is needed!!!

*) Letzte Stelle der Bestellnummer gemäß Frequenzband siehe untenstehende Tabelle.

Bei Bestellungen bitte immer angeben, für welches Band und Frequenz-Set ein Print benötigt wird!!!

***) Cut length according to chart on the next page

**) Ablängen, siehe Tabelle auf der nächsten Seite

SPR4

Frequency band / Frequenzband														
Pos	3051M020.. *	BD3-CR	BD5-EU	BD5-US	BD5-JP	BD5-HO	BD5-TH	BD5-IL	BD6-EU	BD6-ISM	BD7-EU	BD7-US	BD8-EU	BD8-US
16	30	1	-	-	-	-	-	-	-	-	-	-	-	-
16	50	-	1	1	1	1	1	1	-	-	-	-	-	-
16	60	-	-	-	-	-	-	-	1	1	-	-	-	-
16	70	-	-	-	-	-	-	-	-	-	1	1	-	-
16	80	-	-	-	-	-	-	-	-	-	-	-	1	1
Range, Mhz		720-750	790-820					835-865			500-530		570-600	

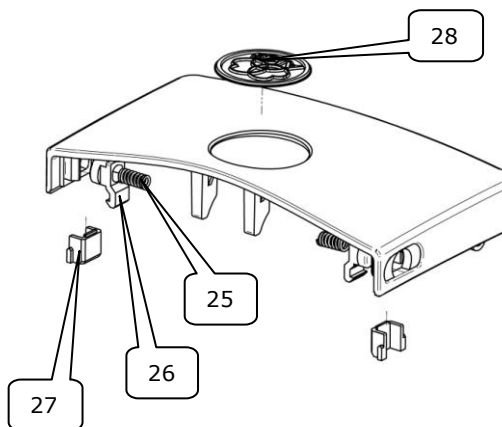
SPR4500

Frequency band / Frequenzband												
Pos	3096M020.. *	BD1	BD3	BD4	BD5-JA	BD5-TH	BD5-IL	BD7	BD8	BD9	BD9-U	
16	10	1	-	-	-	-	-	-	-	-	-	
16	30	-	1	-	-	-	-	-	-	-	-	
16	40	-	-	1	-	-	-	-	-	-	-	
16	50	-	-	-	1	1	1	-	-	-	-	
16	70	-	-	-	-	-	-	1	-	-	-	
16	80	-	-	-	-	-	-	-	1	-	-	
16	90	-	-	-	-	-	-	-	-	1	1	
Range, Mhz		650-680	720-750	760-790	790-820			500-530	570-600	600-630		
Antenna length "L" in mm		111	90					135	111			

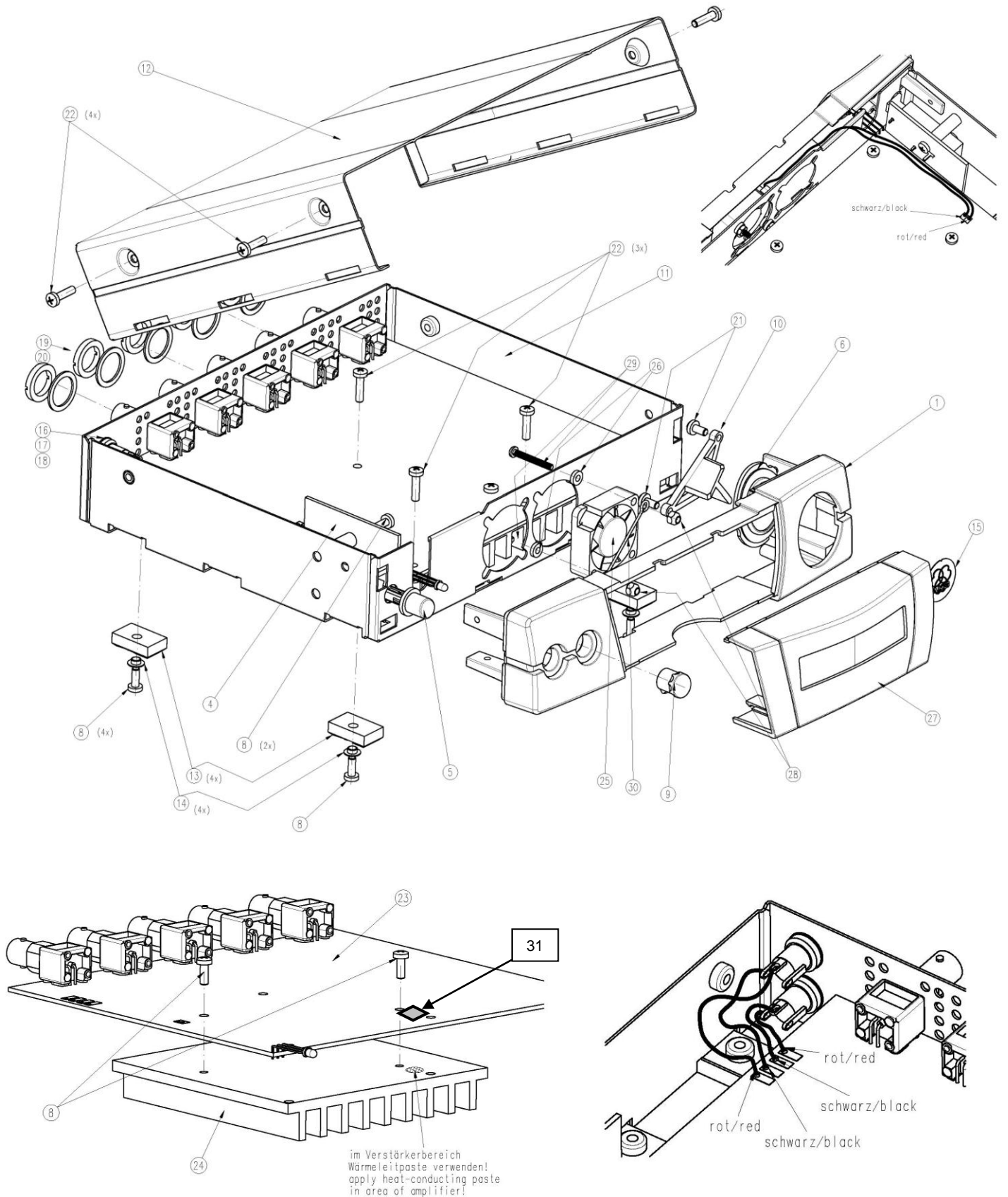
Antenna 3002M21040



Battery cover



Powercombiner 3053Z00..



Parts list / Stückliste

<i>Description</i>	<i>Pos.</i>	<i>Part number Bestellnummer</i>	<i>Quantity Stück</i>	<i>Bezeichnung</i>
Front panel	1	3000Z22130	1	Frontplatte
Powerswitch assy.	4	2997M01010	1	Schalter kompl.
On-off button	5	3000Z48010	1	On-off Knopf
Shuttlecover	6	3000Z47010	1	Abdeckung
Screw M3x8	8	7985D30110	8	Schraube M3x8
Colorcode transparent	9	3000Z36020	1	Farbcode transparent
Holder for shuttlecover	10	3000Z50010	1	Abdeckungshalterung
Bottom assy.	11	3000M17020	1	Gehäuse
Cover	12	3000Z15010	1	Gehäusedeckel
Housing foot	13	3000Z20010	4	Fuß
Bush	14	3000Z21010	4	Hülse
Label	15	3000Z37010	1	Schild
Cable compl. w. DC-socket	16	0110E02710	2	Kabel kompl. mit DC-Buchse
Insulating	17	3000Z38010	2	Isolierscheibe
Insulating disc	18	3000Z39010	2	Isolierscheibe
Ring nut	19	2841Z10010	5	Ringmutter
Washer	20	9999N06050	5	Sicherungsscheibe
Screw	21	7500D25000	2	Schraube
Screw M3x12	22	7985D30120	7	Schraube M3x12
Board compl.	23	3053M01010	1	Print kompl.
Heatsink	24	3053Z05010	1	Kühlkörper
Fan	25	0027E00710	1	Lüfter
Grommet	26	9999N07460	2	Tülle
Front assy.	27	3053M05010	1	Frontabdeckung
Screw M2,5	28	7985D25030	2	Schraube M2,5
Nut M2,5	29	0934D25030	2	Mutter M2,5
Fan protection wire	30	3053Z07020	1	Lüftersicherung
Amplifier IC	31	9015E43530	1	HF-Verstärker IC
Cable for PSU	-	0110E02570	1	Kabel für PSU