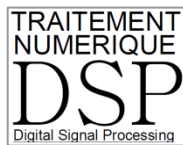


Prodipe DSP UHF systems and microphones

DSP M850 Solo/Duo UHF Microphones DSP B210 Solo/Duo UHF Voice and Instrument Systems

User Manuel:

M850 DSP Solo / M850 DSP Duo / B210 DSP Solo / B210 DSP Duo / B210 DSP Headset / B210 Lavalier tie-clip microphone



M850 DSP Solo UHF		
M850 DSP Duo UHF		
B210 DSP Solo UHF		
B210 DSP Duo UHF		



Safety Information

Thank you for purchasing this digital appliance. To ensure perfect operation and security, please read the manual carefully and retain it for future reference. This manual can be downloaded from our site.



CAUTION

Risk of electric shock
Do not open!

Precautions

The lightning flash with the arrowhead symbol in an equilateral triangle is intended to alert the user to the presence of non-insulated “dangerous voltage” inside the appliance that may be of sufficient magnitude to constitute a risk of electric shock.



The exclamation mark within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.



Important Instructions

1) Read these instructions.

- 2) Retain these instructions.
- 3) Heed all warnings.
- 4) Follow all instructions.
- 5) Do not use this appliance near water.
- 6) Clean only with a dry cloth.
- 7) Do not block any of the ventilation openings that were installed in accordance with the manufacturer’s instructions.
- 8) Do not install near any heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.
- 9) Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the plug provided does not fit into your outlet, consult an electrician to ensure replacement of the obsolete outlet.
- 10) Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where it exits from the appliance.
- 11) Only use attachments/accessories specified by the manufacturer.
- 12) Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the appliance. If using a cart, be careful when moving the cart/appliance combination to avoid injury from tip-over (Figure 1).
- 13) Unplug this appliance during lightning storms or when unused for long periods of time.
- 14) Refer all servicing to qualified service personnel. Servicing is required when the appliance has been damaged in any way, for example, the power-supply cord or plug is damaged, liquid has been spilled or objects have fallen inside the appliance, the appliance has been exposed to rain or moisture, does not operate normally, or has been dropped.



(Figure 1)

WARNING: To reduce the risk of fire or electric shock, do not expose this appliance to rain or moisture.

CAUTION: The appliance should not be exposed to drips or splashes of water. Objects filled with liquids, such as vases, should not be placed on the appliance.



This logo indicates that the product can be recycled after it has been used. Please do not dispose of the product with your normal household waste. Return the product to the shop where you purchased it or place it in the designated recycling container.

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1 – Introduction

This wireless microphone and bodypack system uses highly stable Phase-Locked Loop (PLL) technology to eliminate unexpected disconnections. The power consumption of the microphone transmitter and receiver have been calculated very precisely to ensure good battery life. Every product is subject to strict controls by our quality department before it is offered for sale.

Safety Precautions

To ensure both your safety and the trouble-free operation of this product, please read carefully the safety precautions on page 2 of this manual.

Important: to reduce the risks of electric shock, do not remove the rear panel of this product. For any maintenance issues, please contact your dealer or a qualified technician.

2 – Declarations of conformity

These appliances conform with the essential requirements of European directive RED 2014/53/EU*. Before using this appliance, please observe the legal stipulations applicable in your country. This radio equipment is intended for use at professional spectacles, other similar applications and as auxiliary radio broadcasting equipment.

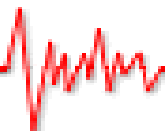
***See declarations of conformity at www.prodipe.com**

3 – DSP (Digital Signal Processor) Module

The DSP (Digital Signal Processor) technology of our UHF equipment provides very high levels of stability in UHF signals. The extremely precise digital processing of UHF frequencies offers stable performance in all circumstances and environments.

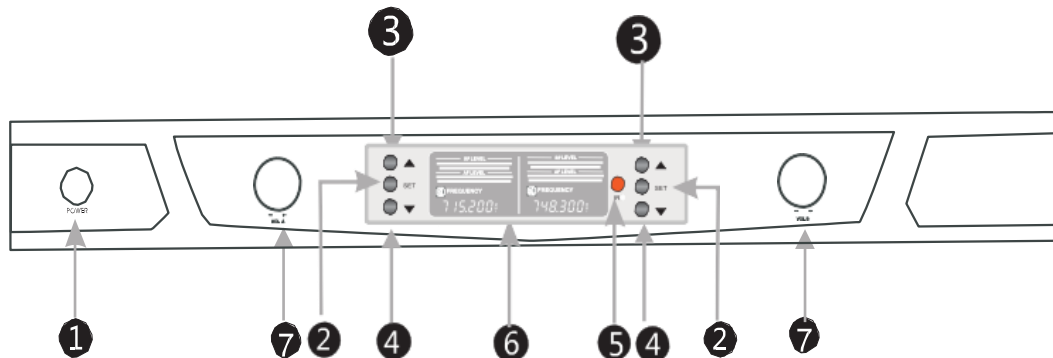
The electronic system of this DSP module is designed to resist any interference which may occur while it is in use, guaranteeing the integrity of the signal at all times.

Voice and instrument sound using Prodipe DSP UHF will be as close as possible to wire transmission quality.



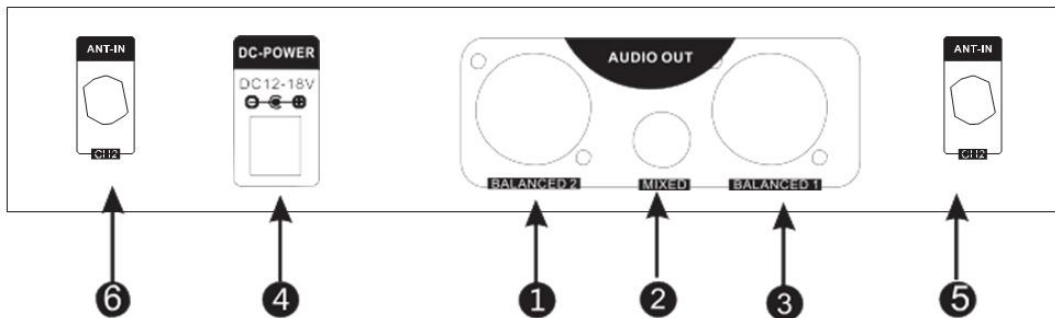
4 – Receiver functions and features

1-Front panel:



1. "POWER" supply button: off/on.
2. Configuration "SET" button: receiver menu.
3. "UP" button: switch to next higher channel.
4. "DOWN" button: switch to next lower channel.
5. Reception and cell tell-tale light [IR].
6. LCD display.
7. Audio output volume control(s).

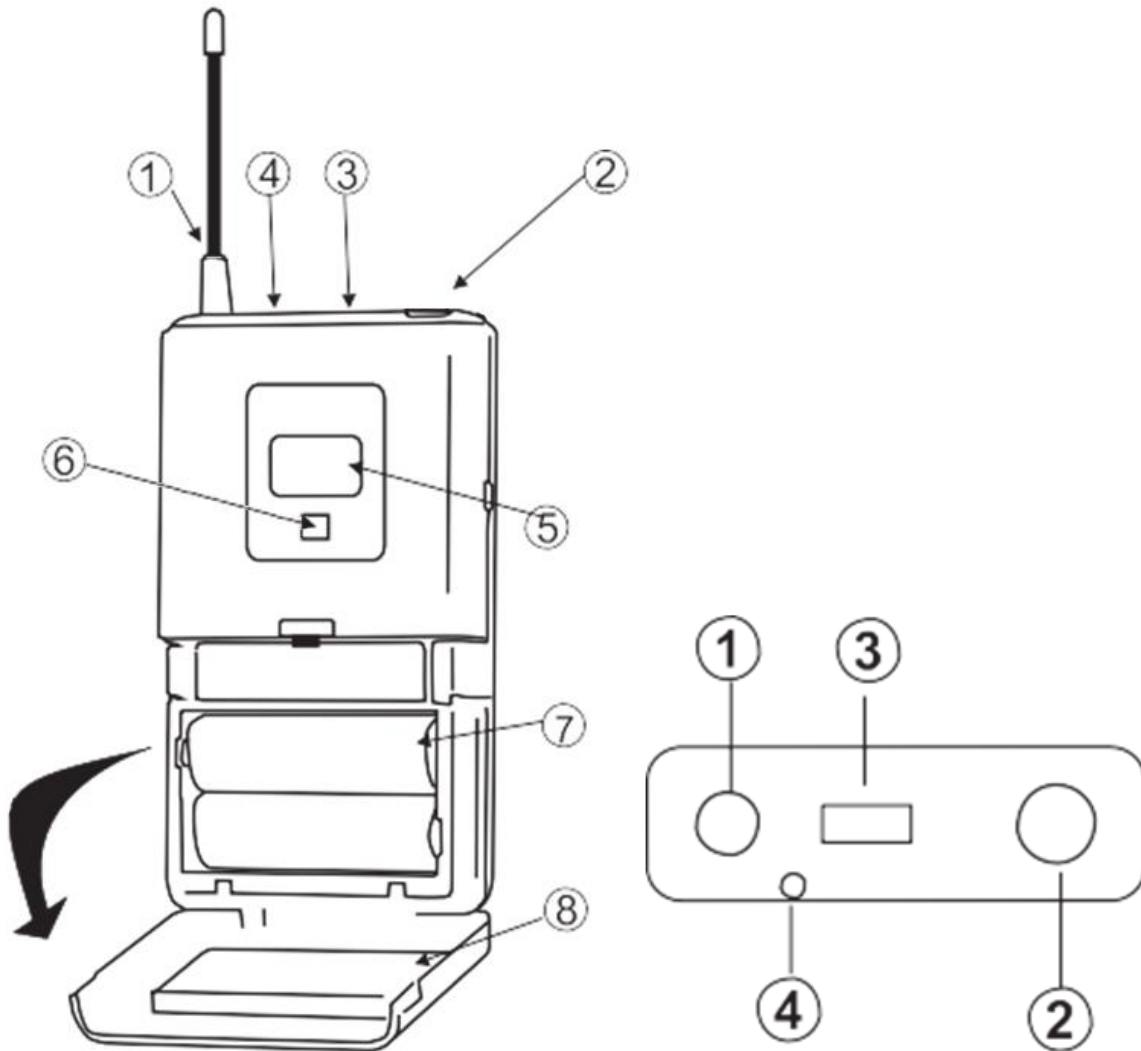
2-Rear panel:



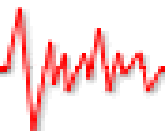
1. Balanced mono audio output XLR (*track B on Duo versions*).
2. MIX OUT (tracks A+B) unbalanced mono audio output 6.35mm jack (*Duo versions*).
Unbalanced mono audio output 6.35mm jack (*Solo versions*).
3. Balanced mono audio output XLR (*track A on Duo versions*).
Balanced mono audio output XLR (*main track on Solo versions*).
4. Power supply connection (12-18V DC).
5. BNC antenna input (*Solo versions*).
6. BNC second antenna input (*Duo versions*).

5 – Transmitter functions and features

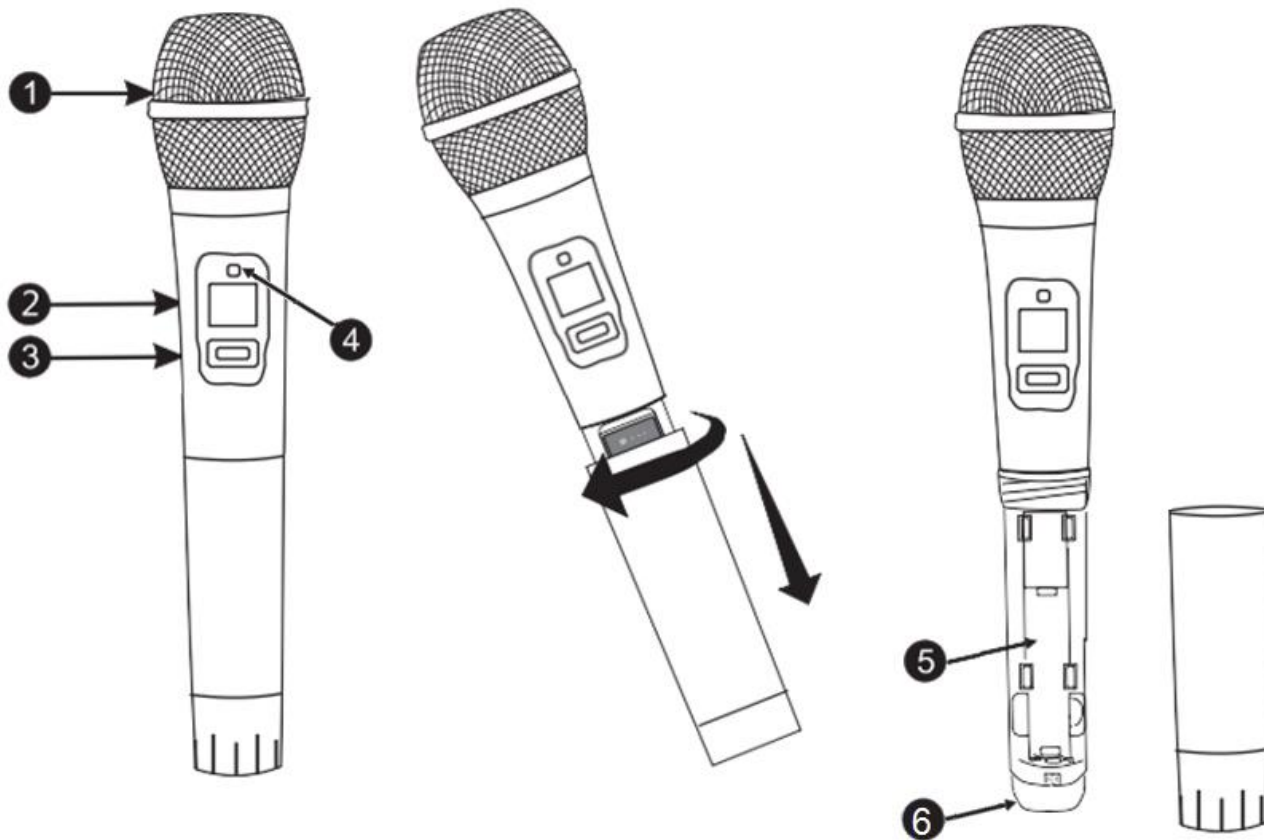
1-B210 Bodypack (*B210 DSP Solo and B210 DSP Duo*) :



1. Bodypack antenna.
2. MiniXLR connection for 21 Series and Lavalier microphones, headset microphone and active cable.
3. ON | MUTE | OFF Switch: ON | MUTE | OFF.
4. Power supply and synchronisation tell-tale light.
5. LCD display.
6. Receiver [IR] for automatic channel selection.
7. Battery compartment LR6 / AA (x2).
8. Battery cover.



2-M850 Microphone (*M850 DSP Solo et M850 DSP Duo*):



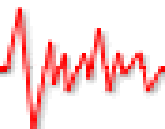
1. Microphone unit and wire mesh cover.
2. LCD display.
3. ON | MUTE | OFF Switch: ON | MUTE | OFF.
4. Power supply and synchronisation tell-tale light.
5. Battery compartment LR6 / AA (x2).
6. Receiver [IR] for automatic channel selection.

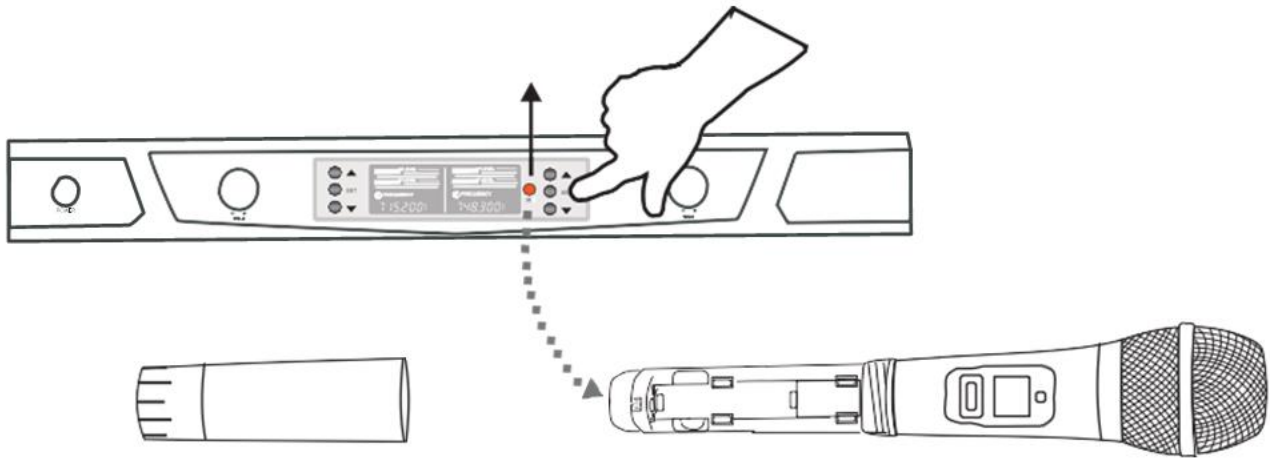
6 – Configuration of transmission channels

Transmission channels are configured automatically. Hold the hand microphone (IR cell at the base of the microphone with battery cover removed) or the body-pack (IR cell on front) facing the receiver (IR cell in the middle of the front panel). Switch the bodypack to "ON" or press the button on the hand microphone for a few seconds and hold against the transmitter to align the IR cells (see diagram below).

Note:

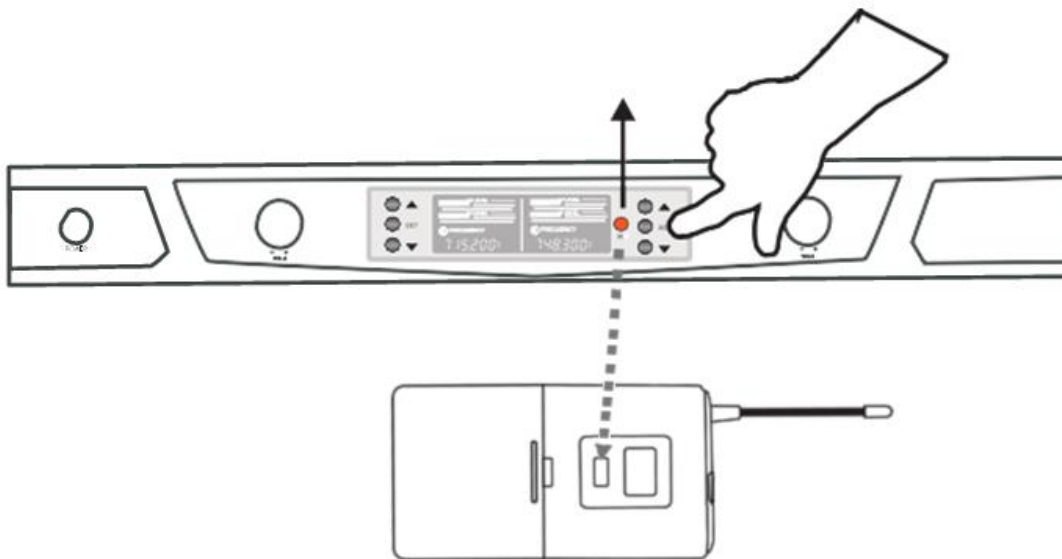
- M850 Microphone: IR cell at the base of the microphone under the battery cover.
- B210 Bodypack: IR cell on front of bodypack.





Press the DOWN button for a few seconds [∇] to start the automatic frequency search; once the frequency has been selected, press the SET button briefly to synchronise the transmitter with the receiver.

When the receiver light shows green, automatic synchronisation is complete.

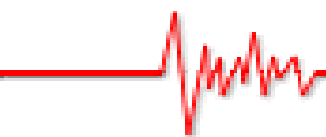


To select a frequency manually, press the "UP" button and hold for a few seconds[Δ]. When the frequency flashes on the display, press "UP" [Δ] or "DOWN" [∇], repeatedly until the desired frequency is shown. Then synchronise the transmitter with the receiver by pressing the [SET] button briefly.

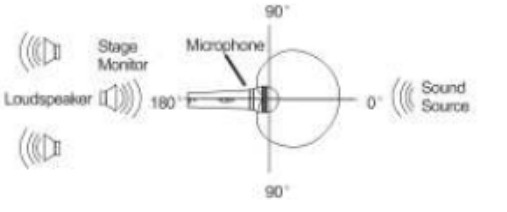

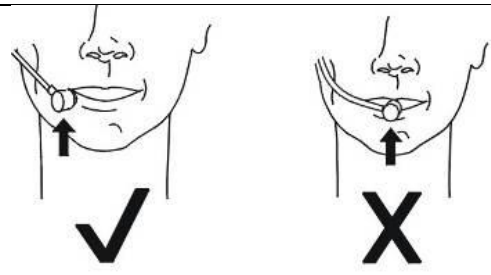
When the receiver light shows green, synchronisation is complete.

For DSP DUO UHF models with two M850 microphones or two B210 bodypacks you should carry out the same procedure for each microphone or bodypack to synchronise them.

CAUTION, once you have synchronised one microphone or bodypack you MUST switch it off before synchronising the other.

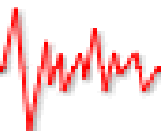


7 – Use

M850 hand microphone		<p>For better sound capture and a perceptible volume increase with your M850 microphone, point the head towards the sound source and keep it away from undesired sounds.</p>
		<p>Do not cover any part of the wire mesh with your hands. Covering the mesh alters the sound and distorts the polarity, increasing the risk of feedback.</p> <p>To avoid this problem, first lower the microphone volume, then hold it a little further away from the speaker or singer's mouth.</p>
Headset microphone		<p>The headset microphone, which can be used with the B210 Bodypack, should be positioned as close as possible to the mouth but off the direct axis, to suppress plosive sounds in speech.</p>
	<p>If you are using a Prodipe Lavalier tie-clip microphone, refer to the accompanying user manual for the best position.</p>	
<p>If you are using microphones from the Prodipe 21 Series, refer to the accompanying user manuals for the best position.</p>		

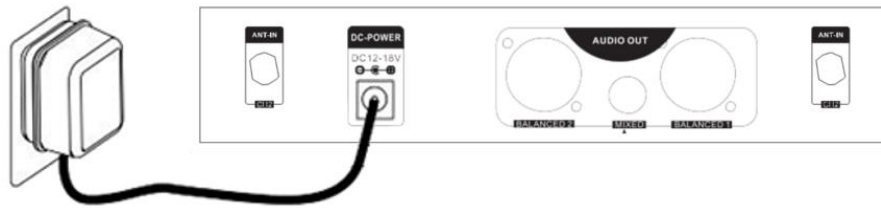
8 – General characteristics of DSP UHF

- UHF receiver with 100, 2x100 or 2x50 Phase-Locked Loop (PLL) channels see *technical characteristics in this manual for further information*.
- DSP digital processing module.
- Infra-red [IR] carrier frequency synchronisation.
- Very high fidelity audio module.
- "Super anti-jamming" circuits.
- Extremely low background noise.
- Interference-free automatic selection of available frequencies.
- Manual frequency selection.
- M85 microphone unit fitted in M850 hand microphone.
- Simultaneous use: up to 8 DSP UHF transmitter/receiver systems



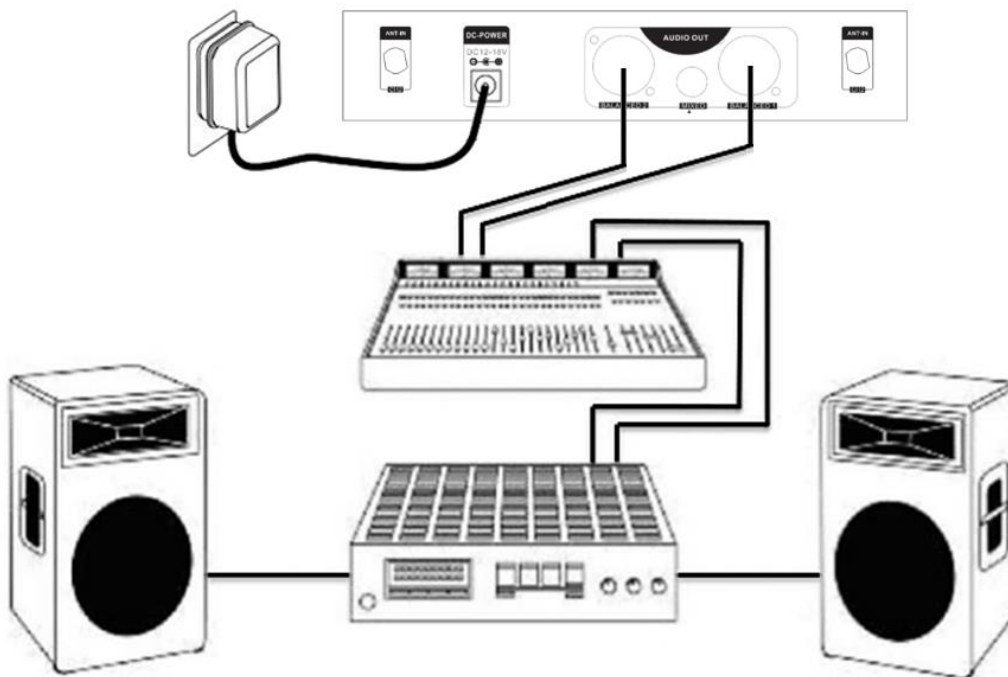
9 – Connections

Receiver power supply:

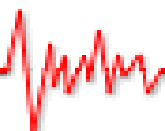


Connect the mains adapter to the socket provided in the back of the receiver and plug into a 230V/50 Hz power source.

Audio connection:



Connect the receiver audio output cable (jack or XLR) to your mixer or broadcasting system.



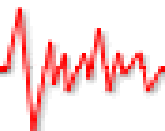
10 – Precautions during use and guarantee

Particles and dust may stick to the mesh and filter, altering the microphone's frequency response. The mesh (without the filter) should be disassembled regularly and cleaned with warm, soapy water, rinsed with clean water, dried and reassembled.

The microphone unit is very sensitive. Please do not drop the microphone and avoid any shocks which might damage the unit.

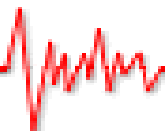
To preserve the sensitivity and sound reproduction quality of your microphone, it should never be exposed to humidity or extreme temperatures (e.g. direct sunlight).

Prodipe and its distributors disclaim all liability for damage to this device resulting from use other than as described above.



11 – Technical specifications

	M850 DSP Solo UHF	M850 DSP Duo UHF	B210 DSP Solo UHF	B210 DSP Duo UHF	OPTIONAL Headset microphone	OPTIONAL Lavalier microphone
MICROPHONE						
Type	Dynamic (M85 unit)				Small diaphragm condenser	Electret condenser
Directional sensitivity	Uni-directional				Omni-directional	Cardioid
Sensitivity (0dB=1V/Pa at 1KHz)	-71dB ±3dB				-37dB ±3dB	-45dB ±3dB
Frequency response	50Hz - 16KHz				30Hz – 18 KHz	100Hz – 12.5 KHz
Output impedance	600Ω ±30%				≤200Ω	2.2KΩ (at 1KHz)
Cable length					1 metre	
SYSTEM - PRINCIPAL FUNCTIONS						
Transmission	UHF					
Frequency processing	DSP digital module					
Frequency band	630 – 655MHz	630 – 680MHz				
Frequencies	1 x 100	2 x 100	2 x 50			
Dynamic	>90dB					
Harmonic distortion	<0.1%					
Frequency response	30Hz to 20KHz					
Range	60 metres					
SYSTEM - TRANSMITTER						
Power	10mW					
Modulation	FM					
Power source	LR6 (AA) 1.5V ×2 (approx. 8h)					
SYSTEM - RECEIVER						
Power supply	AC: 100~240V (45-60Hz)					
Voltage	12V					
S/N ratio	> 96dB					
RX sensitivity	< -94dBm					
Unbalanced audio output (6.35mm jack)	1	1 mix out	1	1 mix out		
Balanced audio output (XLR)	1	2	1	2		



Actual product(s) may differ from illustrations/photographs used

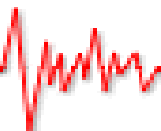
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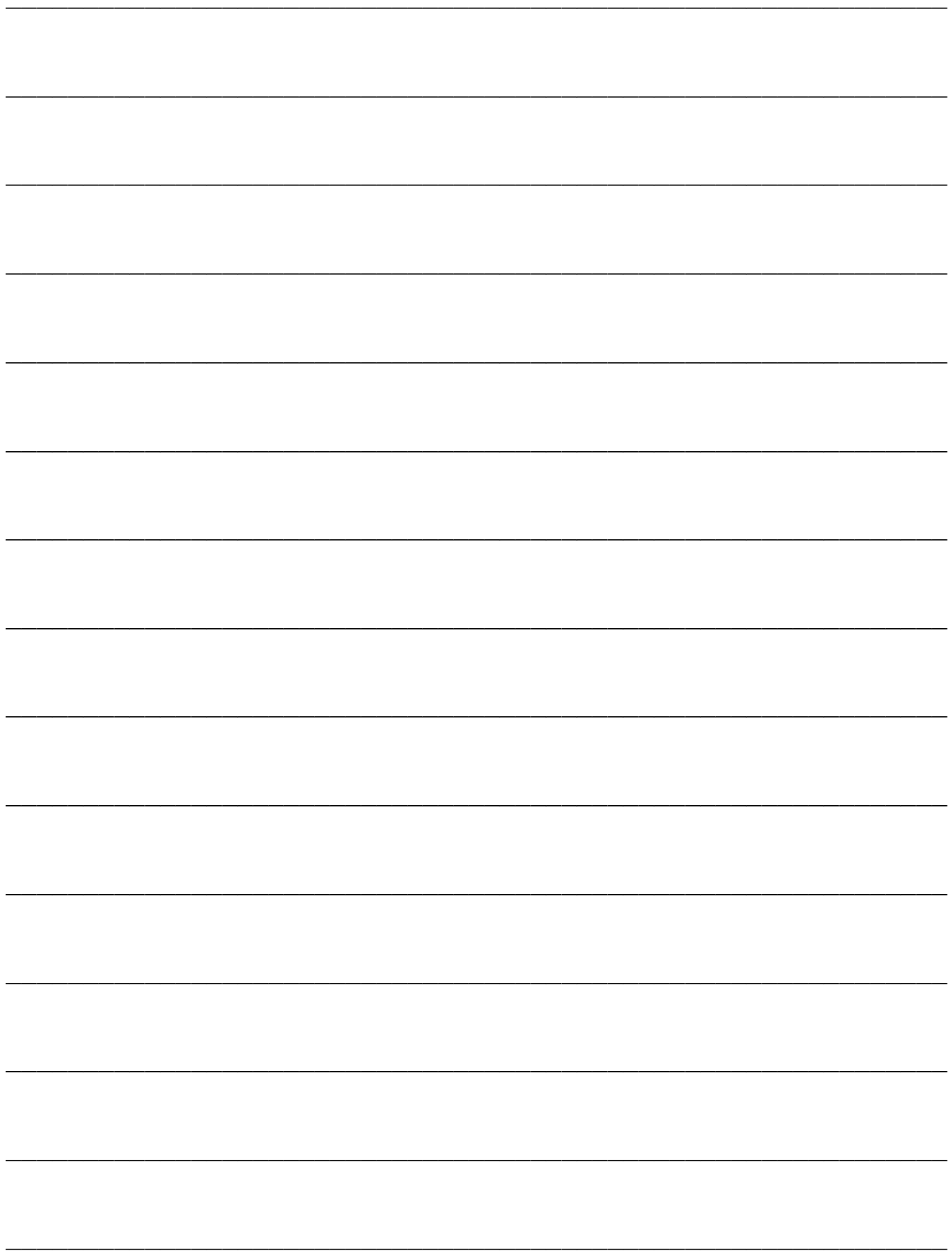
12 – Table of frequencies

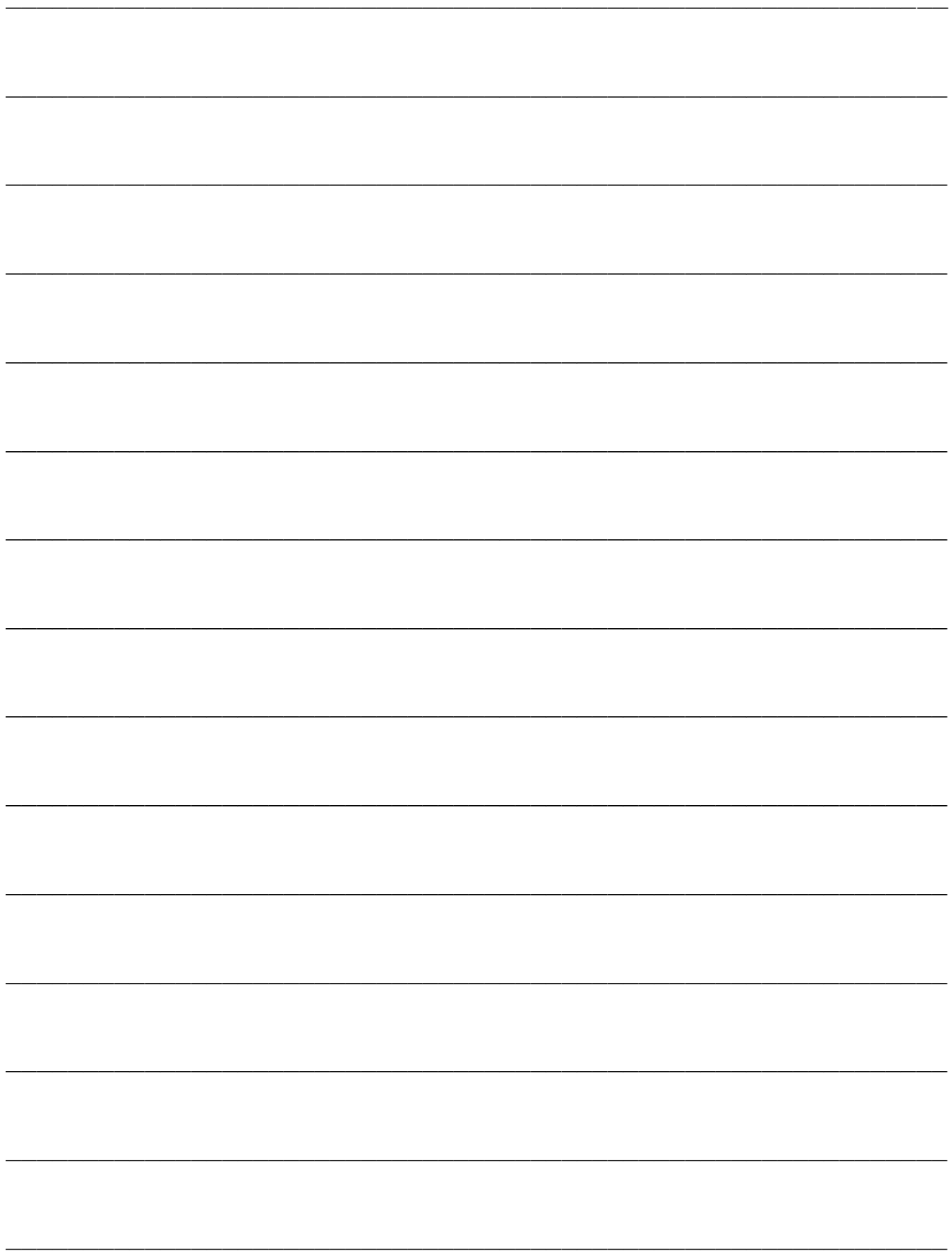
M850 DSP Solo				M850 DSP Duo						B210 DSP Solo				B210 DSP Duo		
1 x 100 channels 1 microphone				2 x 100 channels 2 microphones						1 x 100 channels 1 bodypack				2 x 50 channels 2 bodypacks		
CH	FRQ	CH	FRQ	CH	FRQ	FRQ	CH	FRQ	FRQ	CH	FRQ	CH	FRQ	CH	FRQ	FRQ
1	63010	51	64260	1	63010	65510	51	64260	667600	1	63000	51	65500	1	63000	65500
2	63035	52	64285	2	63035	65535	52	64285	667850	2	63050	52	65550	2	63050	65550
3	63060	53	64310	3	63060	65560	53	64310	668100	3	63100	53	65600	3	63100	65600
4	63085	54	64335	4	63085	65585	54	64335	668350	4	63150	54	65650	4	63150	65650
5	63110	55	64360	5	63110	65610	55	64360	668600	5	63200	55	65700	5	63200	65700
6	63135	56	64385	6	63135	65635	56	64385	668850	6	63250	56	65750	6	63250	65750
7	63160	57	64410	7	63160	65660	57	64410	669100	7	63300	57	65800	7	63300	65800
8	63185	58	64435	8	63185	65685	58	64435	669350	8	63350	58	65850	8	63350	65850
9	63210	59	64460	9	63210	65710	59	64460	669600	9	63400	59	65900	9	63400	65900
10	63235	60	64485	10	63235	65735	60	64485	669850	10	63450	60	65950	10	63450	65950
11	63260	61	64510	11	63260	65760	61	64510	670100	11	63500	61	66000	11	63500	66000
12	63285	62	64535	12	63285	65785	62	64535	670350	12	63550	62	66050	12	63550	66050
13	63310	63	64560	13	63310	65810	63	64560	670600	13	63600	63	66100	13	63600	66100
14	63335	64	64585	14	63335	65835	64	64585	670850	14	63650	64	66150	14	63650	66150
15	63360	65	64610	15	63360	65860	65	64610	671100	15	63700	65	66200	15	63700	66200
16	63385	66	64635	16	63385	65885	66	64635	671350	16	63750	66	66250	16	63750	66250
17	63410	67	64660	17	63410	65910	67	64660	671600	17	63800	67	66300	17	63800	66300
18	63435	68	64685	18	63435	65935	68	64685	671850	18	63850	68	66350	18	63850	66350
19	63460	69	64710	19	63460	65960	69	64710	672100	19	63900	69	66400	19	63900	66400
20	63485	70	64735	20	63485	65985	70	64735	672350	20	63950	70	66450	20	63950	66450
21	63510	71	64760	21	63510	66010	71	64760	672600	21	64000	71	66500	21	64000	66500
22	63535	72	64785	22	63535	66035	72	64785	672850	22	64050	72	66550	22	64050	66550
23	63560	73	64810	23	63560	66060	73	64810	673100	23	64100	73	66600	23	64100	66600
24	63585	74	64835	24	63585	66085	74	64835	673350	24	64150	74	66650	24	64150	66650
25	63610	75	64860	25	63610	66110	75	64860	673600	25	64200	75	66700	25	64200	66700
26	63635	76	64885	26	63635	66135	76	64885	673850	26	64250	76	66750	26	64250	66750
27	63660	77	64910	27	63660	66160	77	64910	674100	27	64300	77	66800	27	64300	66800
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29	63710	79	64960	29	63710	66210	79	64960	674600	29	64400	79	66900	29	64400	66900
30	63735	80	64985	30	63735	66235	80	64985	674850	30	64450	80	66950	30	64450	66950
31	63760	81	65010	31	63760	66260	81	65010	675100	31	64500	81	67000	31	64500	67000
32	63785	82	65035	32	63785	66285	82	65035	675350	32	64550	82	67050	32	64550	67050
33	63810	83	65060	33	63810	66310	83	65060	675600	33	64600	83	67100	33	64600	67100
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36	63885	86	65135	36	63885	66385	86	65135	676350	36	64750	86	67250	36	64750	67250
37	63910	87	65160	37	63910	66410	87	65160	676600	37	64800	87	67300	37	64800	67300
38	63935	88	65185	38	63935	66435	88	65185	676850	38	64850	88	67350	38	64850	67350
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41	64010	91	65260	41	64010	66510	91	65260	677600	41	65000	91	67500	41	65000	67500
42	64035	92	65285	42	64035	66535	92	65285	677850	42	65050	92	67550	42	65050	67550
43	64060	93	65310	43	64060	66560	93	65310	678100	43	65100	93	67600	43	65100	67600
44	64 85	94	65335	44	64085	66585	94	65335	678350	44	65150	94	67650	44	65150	67650
45	64110	95	65360	45	64110	66560	95	64110	65360	45	65200	95	67700	45	65200	67700
46	64135	96	65385	46	64135	65385	96	64135	65385	46	65250	96	67750	46	65250	67750
47	64160	97	65410	47	64160	65410	97	64160	65410	47	65300	97	67800	47	65300	67800
48	64185	98	65435	48	64185	65435	98	64185	65435	48	65350	98	67850	48	65350	67850
49	64210	99	65460	49	64210	65460	99	64210	65460	49	65400	99	67900	49	65400	67900
50	64235	100	65485	50	64235	65485	100	64235	65485	50	65450	100	67950	50	65450	67950

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