

PHILIPS

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G3 Training Module

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RESPIRONICS

Sleepware G3



Configuring RESMED Channels in Alice 6

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Configuring Resmed Channels for Alice 6 – using dual cables from the TX link

1. Open up Resmed Easy Care TX program, and click on MENU dropdown. If it shows 'not connected', click on drop down, choose room, choose connect. Then click on menu and choose DC output configuration.
2. The DC Output configuration is user configurable; the user can set up each channel as they prefer. Please note that these instructions follow the standard set up by the Resmed installer.
3. Make note of each channel's output color, signal type, low and high value, and voltage range. Keep this onscreen or write it down.
4. In the bedroom, note the cables plugged into the tx link. If the lab is using dual cables, then you should see cables in all 6 inputs. The cable from red/blue on the tx link would be connected to Aux 1-2 on the back of the base. The cable from green/yellow would be connected to Aux 3-4. The cable from black/white would be connected to Aux 5-6.
5. Please note that IPAP, EPAP and CPAP channel low value is 0 cmH2O, and high value is 30 cm H2O. Leak low value is 0 L/min, and high value is 60 L/min. Voltage range for IPAP, EPAP CPAP and Leak is 0-1 V. Patient flow (or CFLOW channel) channel can be changed to -120 to 120 under value.

DC Output Configuration

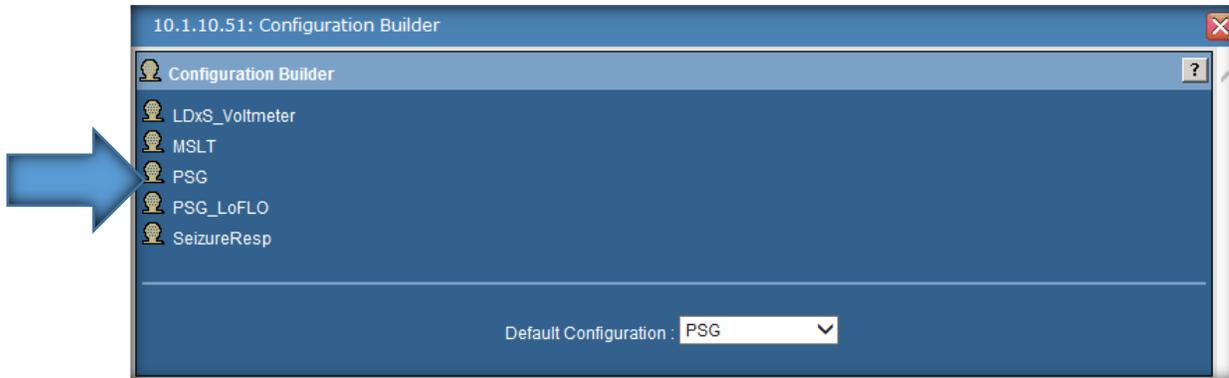
Output	Signal	Low Value	High Value	Range
A - Red	Patient Flow	-100 L/min	100 L/min	-1 to 1 V
B - Blue	Leak	0 L/min	60 L/min	0 to 1 V
C - Green	Inspiration Set Pressure	0.0 cmH2O	30.0 cmH2O	0 to 1 V
D - Yellow	CPAP Set Pressure	0.0 cmH2O	30.0 cmH2O	0 to 1 V
E - Black	CPAP Set Pressure	0.0 cmH2O	30.0 cmH2O	0 to 1 V
F - White	Minute Ventilation	0.0 L/min	30.0 L/min	0 to 1 V

Apply
Save...
Load...
Close
Calibrate...

Open up G3 software and click on base button dropdown.



Choose configuration builder, and click on **PSG** configuration file.



The file will open, and you will add channels to the configuration by clicking on an arrow to the left of channel area.

10.60.50.212: Configuration Builder

Configuration File : PSG_ResMed_LDxS.cnf

Channel List

Label	Type	Source	Frequency	Bits
+ F3M2	EEG	Headbox	500	16
+ F4M1	EEG	Headbox	500	16
+ M1M2	EEG/EOG	Headbox	500	16
+ C3M2	EEG	Headbox	500	16
+ C4M1	EEG	Headbox	500	16
+ O1M2	EEG	Headbox	500	16
+ O2M1	EEG	Headbox	500	16
+ LEOGM2	EOG	Headbox	500	16
+ REOGM2	EOG	Headbox	500	16
+ Chin	Chin EMG	Headbox	500	16
+ LARM1	EMG	Headbox	500	16
+ RARM2	EMG	Headbox	500	16
+ O1M2	EMG	Headbox	500	16
+ O2M1	EMG	Headbox	500	16
+ ECG1	ECG	Headbox	500	16
+ RLEG1	Leg EMG	Headbox	500	16
+ LLEG2	Leg EMG	Headbox	500	16
+ ECG1	ECG	Headbox	500	16
+ ECG2	ECG	Headbox	500	16
+ MSnore	Microphone Snore	Headbox	500	16
+ TFlow	Thermistor Flow	Headbox	100	16
+ PFlow	Flow	Headbox	100	16
+ THQ	Resp Effort	Headbox	100	16
+ ABD	Resp Effort	Headbox	100	16
+ SpO2	SpO2	Headbox	1	10
+ Pleth	Pleth	Headbox	100	16
+ Position	Body Position	Headbox	1	8
+ Flow	Flow	Aux 1	100	12
+ Leak	Numerical	Aux 2	1	12
+ IPAP	IPAP	Aux 3	1	12
+ EPAP	EPAP	Aux 4	1	12
+ CPAP	CPAP	Aux 5	1	12
+ mnVT	Numerical	Aux 6	1	12
+ PulseR	Pulse Rate	Headbox	1	8
+ Total data size (10 hours)	723	MB		

Neuro References

Type	Label
Left	M2
Right	M1

EOG References

Type	Label
Left	M2
Right	M2

OK Delete

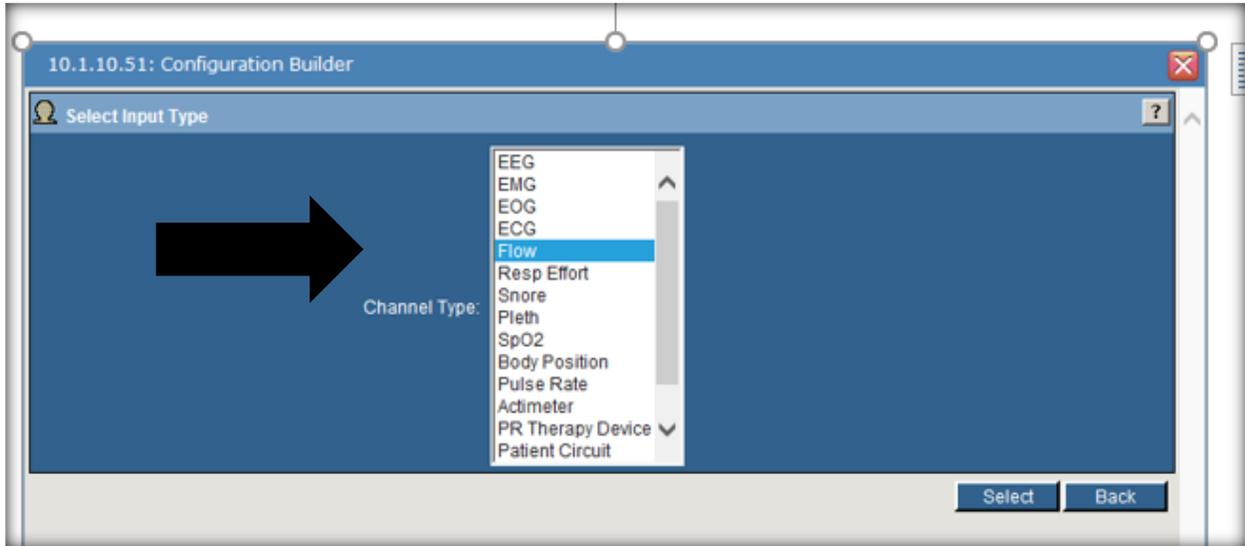
* Note: Screenshot is from the Online HELP file in Sleepware G3.

* Disclaimer: Screenshots may change based on software version.

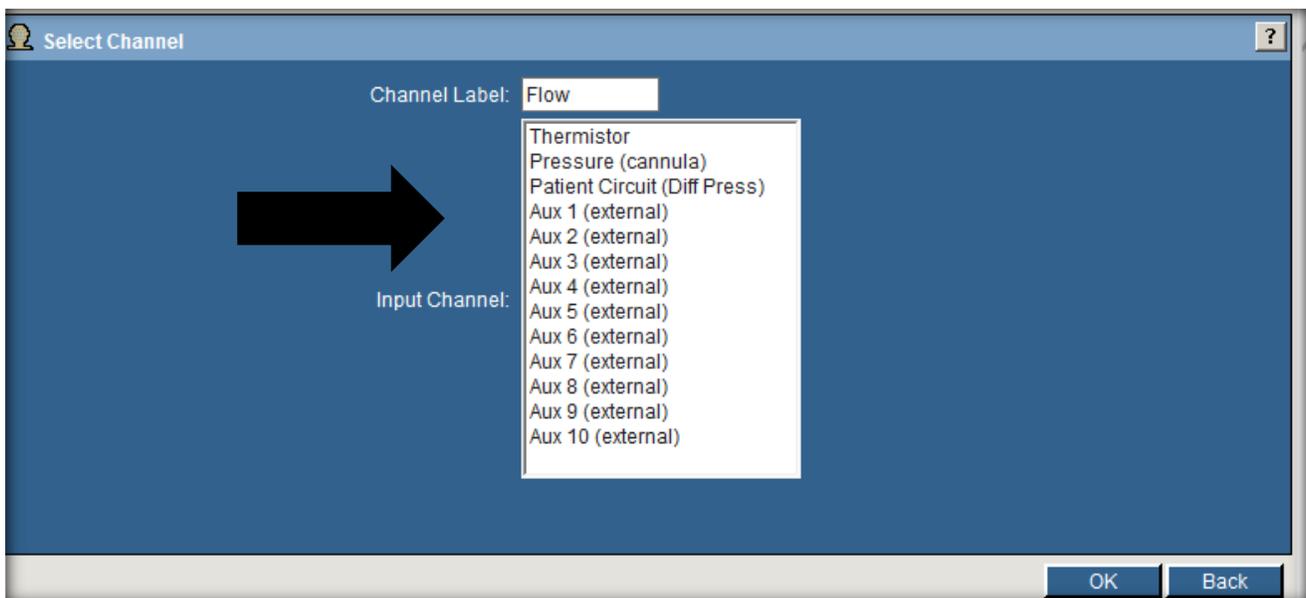
We will build channels as they are listed in the Tx link DC output configuration, as well as the configuration builder screenshot on the previous page.

Cflow channel configuration-

Choose FLOW as the channel type.



Note that the channel label requires a name; for CPAP Flow, name it "CFLOW". **Choose Aux input 1**



* Note: Screenshot is from the Online HELP file in Sleepware G3.

* Disclaimer: Screenshots may change based on software version.

Cflow channel configuration example-
Note the min/max value is -120 to 120.

10.60.50.212: Configuration Builder

PSG_ResMed_LDxS.cnf - Channel Details

The diagram shows the Philips ResPironics Alice 6 LDxS device with various electrode and sensor placements. The top section is labeled 'PHILIPS RESPIRONICS' and shows a head diagram with EEG electrodes: LEOG, FP1, Fp2, REOG, F7, F3, Fz, F4, F8, T3, C3, Cz, C4, T4, A1/M1, T5, P3, Pz, P4, T6, A2/M2, O1, and O2. Below the head are two EMG channels (EMG1, EMG2) and two LEMG channels (LEMG1, LEMG2). The middle section shows a human figure with ECG/EKG electrodes: RA, LA, V, RL, LL, and SpO2. The bottom section shows SpO2 and IOIOI sensors.

Channel: Flow

Label:

Type: Flow

Frequency (Hz):

Bits: 12

Address (hex): 2/3

Source: Aux 1

Unit:

Decimal Digits:

Conversion:

	Value	Volts
Min	<input type="text" value="-120"/>	<input type="text" value="-1.000"/>
Max	<input type="text" value="120"/>	<input type="text" value="1.000"/>
Offset	<input type="text" value="0"/>	<input type="text"/>

OK Delete

* Note: Screenshot is from the Online HELP file in Sleepware G3.
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Leak channel configuration example-

Choose **Aux input**, **Numerical channel type**, and choose **Aux input 2**. Note min max value and voltage ranges.

10.60.50.212: Configuration Builder

PSG_ResMed_LDxS.cnf - Channel Details

The diagram shows the Alice 6 LDxS device with various channels labeled: LEOG, Fp1, Fp2, REOG, F7, F3, Fz, F4, F8, T3, C3, Cz, C4, T4, A1/M1, T5, P3, Pz, P4, T8, A2/M2, O1, O2, EMG1, EMG2, CEMG, ECG EKG, RA, LA, V, RL, LL, SpO2, LEMG1, LEMG2, Alice 6 LDxS, SpO2, IOIOI.

Channel: Leak

Label:

Type: Numerical

Frequency (Hz):

Bits: 12

Address (hex): 2/4

Source: Aux 2

Unit:

Decimal Digits:

Conversion:

	Value	Volts
Min	<input type="text" value="0"/>	<input type="text" value="0.000"/>
Max	<input type="text" value="60"/>	<input type="text" value="1.000"/>
Offset	<input type="text" value="0"/>	<input type="text"/>

* Note: Screenshot is from the Online HELP file in Sleepware G3.

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IPAP channel configuration example-

Choose **Aux input**, **IPAP channel type**, and then choose **Aux input 3**. Note the min/max value and voltage ranges.

10.60.50.212: Configuration Builder

SeizureResp_ResMed_LDxS.cnf - Channel Details

Channel: IPAP

Label:

Type: IPAP

Frequency (Hz):

Bits: 12

Address (hex): 2/5

Source: Aux 3

Unit:

Decimal Digits:

Conversion:

	Value	Volts
Min	<input type="text" value="0"/> cmH2O	<input type="text" value="0.000"/>
Max	<input type="text" value="30"/> cmH2O	<input type="text" value="1.000"/>
Offset	<input type="text" value="0"/> cmH2O	<input type="text"/>

OK Delete

* Note: Screenshot is from the Online HELP file in Sleepware G3.

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EPAP channel configuration example-

Choose **Aux input**, **EPAP channel type**, and **Aux input 4**. Note min/max value and voltage ranges shown below.

10.60.50.212: Configuration Builder

SeizureResp_ResMed_LDxS.cnf - Channel Details

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Alice 6 LDxS

Channel: EPAP

Label:

Type: EPAP

Frequency (Hz):

Bits: 12

Address (hex): 2/6

Source: Aux 4

Unit:

Decimal Digits:

Conversion:

	Value	Volts
Min	<input type="text" value="0"/> cmH2O	<input type="text" value="0.000"/>
Max	<input type="text" value="30"/> cmH2O	<input type="text" value="1.000"/>
Offset	<input type="text" value="0"/> cmH2O	

* Note: Screenshot is from the Online HELP file in Sleepware G3.

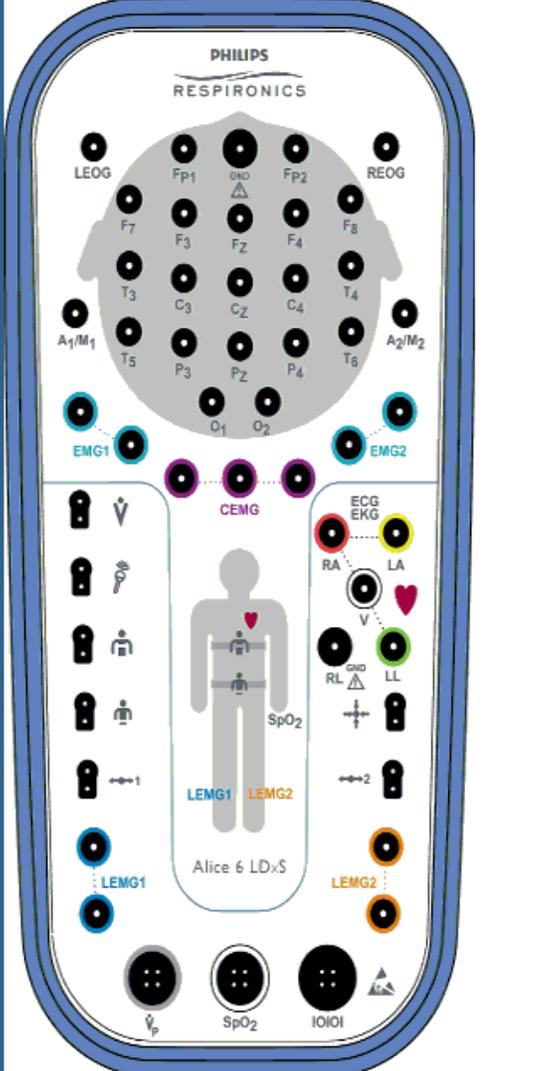
* Disclaimer: Screenshots may change based on software version.

CPAP channel configuration example-

Choose **Aux input**, **CPAP channel type**, and **Aux input 5**. Note value and voltage ranges listed below.

10.60.50.212: Configuration Builder

SeizureResp_ResMed_LDxS.cnf - Channel Details



The diagram shows the Philips ResPironics Alice 6 LDxS device with various input channels labeled: LEOG, REOG, FP1, FP2, F7, F3, FZ, F4, F8, T3, T4, T5, T6, A1/M1, A2/M2, EMG1, EMG2, CEMG, ECG EKG, RA, LA, V, RL, LL, SpO2, LEMG1, LEMG2, Alice 6 LDxS, Vp, SpO2, and IOIO1.

Channel: CPAP

Label:

Type: CPAP

Frequency (Hz):

Bits: 12

Address (hex): 2/7

Source: Aux 5

Unit:

Decimal Digits:

Conversion:

	Value	Volts
Min	<input type="text" value="0"/> cmH2O	<input type="text" value="0.000"/>
Max	<input type="text" value="30"/> cmH2O	<input type="text" value="1.000"/>
Offset	<input type="text" value="0"/> cmH2O	

* Note: Screenshot is from the Online HELP file in Sleepware G3.
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Minute ventilation channel configuration example (if desired)-

Choose **Aux input**, **Numerical channel type**, and **Aux input 6**. Note min/max value and voltage ranges listed below.

10.60.50.212: Configuration Builder

PSG_ResMed_LDxS.cnf - Channel Details

Channel: mnVT

Label:

Type: Numerical

Frequency (Hz):

Bits: 12

Address (hex): 2/8

Source: Aux 6

Unit:

Decimal Digits:

Conversion:

	Value	Volts
Min	<input type="text" value="0"/>	0.000
Max	<input type="text" value="30"/>	1.000
Offset	<input type="text" value="0"/>	

OK Delete

* Note: Screenshot is from the Online HELP file in Sleepware G3.

* Disclaimer: Screenshots may change based on software version.

Last, we will change the name of the configuration.

Save the edited configuration file to the pc desktop, using “store to pc”. The user will choose the file to be saved, and then click Save in “File Download,” choose the location to save it to in “Save As” (saving to the desktop is convenient), and click Save. Once the file is saved to the desktop with the default configuration name, a user can right click on the file in Windows Explorer, choose rename, and save the configuration as PSG_RESMED. After the configuration is renamed, open the configuration builder, and save the newly named configuration back onto the basestation, using “load from pc”. The user will choose browse, and then find the newly renamed configuration file to save, click Open and then OK and again OK. Once saved back into the configuration list on the base, the original can be deleted from the configuration builder by selecting it and then clicking Delete and Yes.

To check functionality, start a study and turn on Resmed unit, to verify that all channels are working and calibrated correctly.

