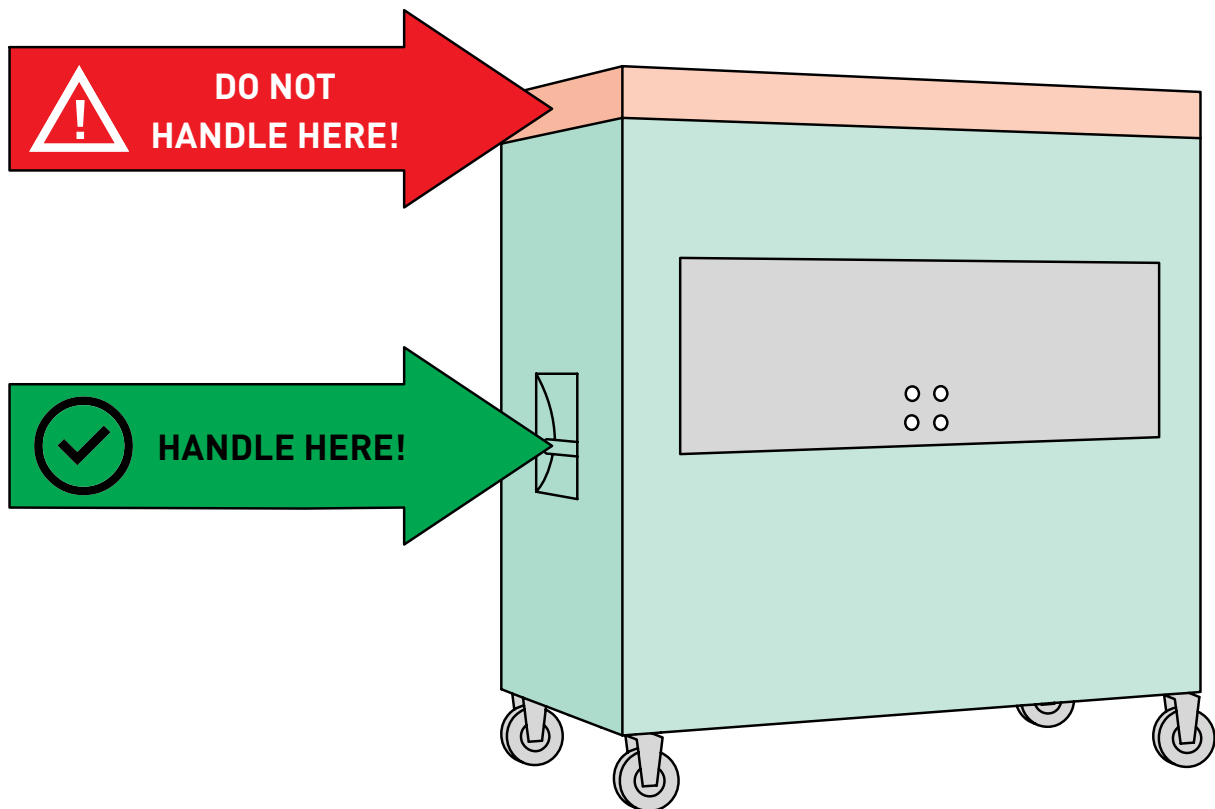




INTERNATIONAL DANCE PARTY OWNERS MANUAL

IMPORTANT NOTE:

Do not handle the IDP on its top lid, because this is a fragile mechanical part of the light effects stage lifting mechanism!



CAUTION!

Risk of electric shock when you open the machine! Do not touch the parts which are labeled with **“120VAC Do not touch!”**. Do not open the parts which are labeled with **“Danger! High voltage!”**

WARNING:

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

IDP owner's manual - Contents

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- General description of the IDP's behaviour 5
- Setting up the IDP for an exhibition / show 7
- Switching the IDP on 11
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General description of the IDP's behaviour (1)

The IDP is a complete disco in a box, with an internal doppler radar sensor, which reacts on the body movements of people in front of it.

In its initial state, when it is closed and appears as a plain flightcase, it is highly sensitive. As soon as someone enters the room or moves within a certain range (up to 8 metres), the machine opens its front latch and exposes its speakers. It starts to play a basic beat and asks the people via its LED sign to “dance to start the party” in 21 languages.

If the people dance enough, the machine increases the complexity of the played music, it transforms step

by step into a party machine and it will also switch off the light in the room, where it is set up. The users perceive a quick and intuitive feedback about the recognized dancing activity by the volume in which the music is played. High volume means, that the machine recognizes a high dance activity. Low volume means, that the machine perceives a low dancing activity. If the dancing activity is high for a certain amount of time, the behavior of the IDP follows a linear dramaturgy which can be best explained in a level model, while it will already switch from level 0 to level 1, if it detects just any tiny bit of a movement. A real dancing activity is not required to switch from level 0 to level 1.

LEVEL	LATCHES	LIGHT EFFECTS	EXT. SPOTLIGHTS	MUSIC LAYERS
0	All latches closed			No music is played
1	Speaker Latch opens	LED Sign switches on		Layer #1 is played
2	Light effects stage lifts up	3 colored light bulbs switch on		Layer #1+ #2 are played
3		Mirror ball rotates and 2 pin spots switch on	Ext. spotlight #1 switches off	Layer #1- #3 are played
4		Gobo projector and laser widow switch on		Layer #1- #4 are played
5		3 colored strobes switch on	Ext. spotlight #2 switches off	Layer #1- #5 are played
6		Police light + ground effects switch on		Layer #1- #6 are played

General description of the IDP's behaviour (2)

If the perceived dance activity is too low, the IDP will quickly switch to a lower level. If the IDP doesn't detect any dance activity at all, it will switch directly to level 0 and close all its latches and switch off all its light effects and sound.

Besides this behavior, the IDP follows another rule, when it controls the fog machine. The rule is simple:

As soon as the machine is in level 1 or higher, it will switch on the fog machine. The fog machine requires now a couple of minutes to heat up.

As soon as it is heated up, the IDP will open the fog latch and blow out a little bit of fog for teasing the visitors. The fog latch remains open. Inside the fog latch, there's an ultrasonic proximity sensor. If people stand in front of the fog latch, the proximity sensor will detect them and blow out fog. If the proximity sensor detects no obstacle, it doesn't blow out fog.

If the fog machine gets too chilled by blowing out a lot of fog, it has to heat up again. During that process, the IDP will close the fog latch.

If the IDP enters level 0, the fog latch will be closed and the fog machine will be switched off.

Setting up the IDP for an exhibition / show (1)

1. Find a proper place for the

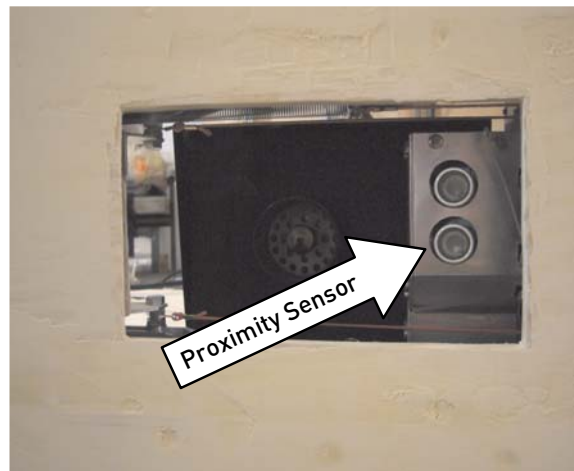
Machine: Make sure, that there's enough space in front of it, that the people can dance. There should also be enough space on the IDP's left side for the fog to come out. We recommend an absolute minimum setup space of four by six metres. For a real party feeling, the venue can be up to 100 m². The IDP pulls up to 1500 Watts from the mains, so it should be connected to a circuit where no other power consumers are plugged in.

2. Placing the stands and the red ropes: The IDP has to be surrounded by at least four silver metal stands, which are connected with red ropes. Make sure, that there's enough distance between the stands / ropes and the machine, that the speaker latch can open without touching the ropes.



IDP setup with four stands, four red ropes and one dancer.

An ultrasonic proximity sensor is mounted inside the fog latch. The fog machine will blow out fog, if the sensor detects an obstacle within a certain range. You have to make sure, that the red rope and the stands do not block the proximity sensor.

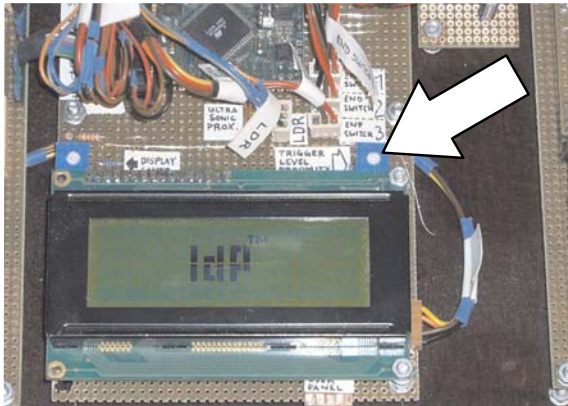


*Opened fog latch with proximity sensor
(Photo is taken during a state, when the machine was not yet finished.)*

3. Adjusting the Ultrasonic proximity sensor: Set the "party / menu" switch at the control panel below the small LCD screen in "menu"-position. Select menu item "Ultrasonic PS" (7) with the poti and push the "Set" button. The Fog latch will open automatically. Directly on top of the small LCD screen, on the right side, there's a small poti with which you can adjust the trigger distance of the ultrasonic proximity sensor. Use a small screwdriver to adjust the distance. You will get a sonic feedback, if the sensor detects an

Setting up the IDP for an exhibition / show (2)

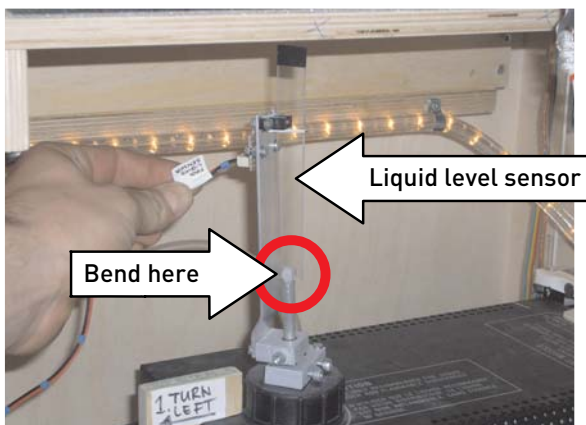
object, which is closer than the trigger distance. When you have adjusted a proper trigger distance, use the “exit” button to return to the main menu.



Adjust trigger level at this poti

4. Filling the machine with fog liquid: Read the chapter “Refilling the Fog Machine” of this manual to find out how to fill the tank of the fog machine.

5. Check if the fog liquid level sensor can move freely up and down, by moving it with your hands. If it can't move freely, bend it a bit until it can move smooth.



6. Connecting the external subwoofer system: The IDP requires an external sound system for the full party experience. The external sound system has to consist out of an amplifier and at least a subwoofer. The dimension of the external sound system depends on the space, where the machine is set up. The larger the venue is, the larger the sound system has to be. The external sound system has to be connected via RCA with the IDP's internal amplifier. Use the “VCR1 out” or “VCR2 out” RCA sockets of the amplifier to connect the external amp. The IDP has a hole in its bottom through which the cables can go. The hole is marked with “Ext. RCA outlet”

7. Adjusting the sound: In order to prevent the IDP's internal speakers from overheating / breaking, turn the “Bass” - poti on its internal amplifier to a minimum position (something in the 1st quarter). The “Treble” - poti can be set to a ¾ position. The amplifier is equipped with a physical barrier for the volume regulator (two big screws). It is strongly recommended, that the volume poti is adjusted somewhere below that physical barrier. The IDP's internal speakers don't provide the party sound. They just provide a spatial orientation for the sound. The loudness has to come from the external sound / subwoofer

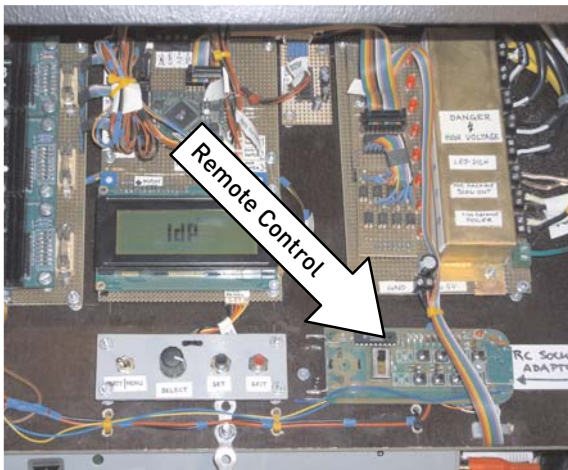
Setting up the IDP for an exhibition / show (3)

system, which should be set up in a hidden position. An ideal position is behind or over the IDP.

8. Setting up the external lighting:

The IDP is capable of switching external lights off and on in order to produce a real party feeling during high dance activity. For that, all the lights in the exhibition venue have to be plugged into a socket with a RC socket adaptor in between the plug of the lights and the socket in the wall. The IDP comes with four of those adaptors. Each is capable of switching a load of 750W maximum.

The lights will be switched in two phases: Phase one is, when the mirror ball is switched on. Phase two is, when the strobes are switched on.



The picture shows, where the hacked remote control for the socket adaptors is mounted inside the IDP. Another remote control is part of the IDP's support package. Use the other remote control for testing and programming the socket adaptors.

How to program the RC sockets:

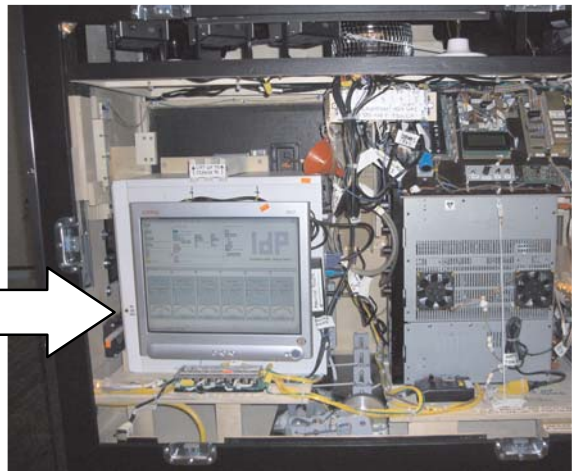
Use the "Logisys" remote control which comes in the IDP support package to program and test the RC socket adaptors. For programming the adaptors, make sure that the "Channel Selection" switch on the remote controlled is set to position I. Take the socket adaptor, that you wish to program and make sure, that nothing is plugged into its socket. Push the button on the socket adaptor, hold it pushed and plug the adaptor into a mains socket. Keep its button pushed. If you push now the button "OFF 1" on the remote control, the adaptor is programmed to switch on/off during phase one. If you push the button "OFF 2" on the remote control, the adaptor is programmed to switch on/off during phase two. You'll hear a clicking inside the adaptor, when the programming was successful. Now, you can release the button on the adaptor and you can plug in the external light.

The programming will get lost, when you plug out the adaptor from the mains. Or if you turn off the power for the socket by switching off the fuse for this section of the exhibition venue!

Setting up the IDP for an exhibition / show (4)

9. Test the LED Sign: The LED sign can lose its memory, if it was not used for a longer time. Switch the “party / menu” switch to menu, select “Latches” → “Speaker Latch” → “Open”. The speaker latch opens now and you can see the LED Bar. Exit the “Latches”- menu and select “Light FX” → “LED Bar Relay 6” → “On”. The LED sign switches on, and starts to display
“Checking... - PL Ver 6.53A - 32K
Memory - With Com - 9600 Baud -
Trivia off - ID=01”
After that, it should display “International dance party” and “Dance to start the party” in several languages. Watch the LED sign for a complete cycle of its announcements. If the LED sign switches into Demo mode and stops to write “Dance to start the party”, you’ll have to upload the LED sign codes again. Have a look in the chapter “Refreshing the LED sign memory” in order to find out how to do that.

10. Finishing the installation:
To finish the installation, set the “party / menu” switch to “party” position, switch the PC on (on its front on/off switch) and mount the enclosure for the service latch of the IDP. Now, test the whole system by dancing your ass off!

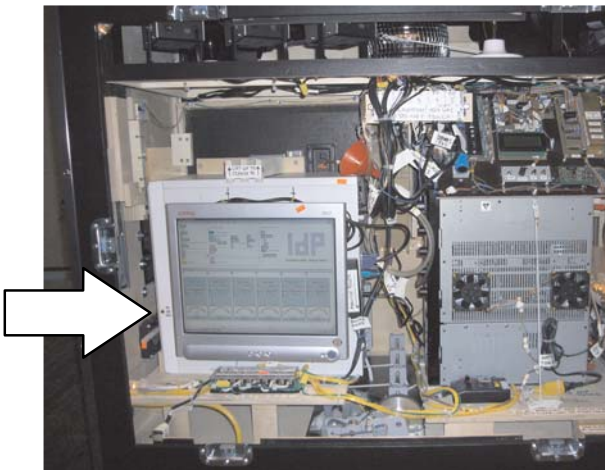


For switching the PC on and off, use the power button on the front of its case.

Attention! The reset button is located directly below the power button!

Switching the IDP on

For switching the machine on, simply plug in its power plug. Now, Switch on the PC at its front on/off-button (the software will start automatically). Make sure, that the “party / menu” switch at the control panel below the small LCD display is in “party” position.

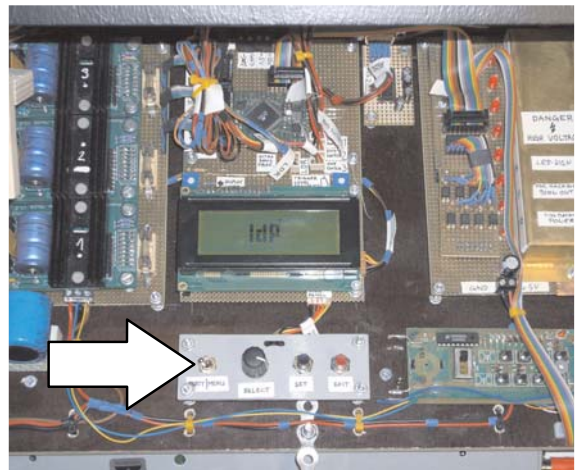


For switching the PC on and off, use the power button on the front of its case.

Attention! The reset button is located directly below the power button!

Switching the IDP off

To switch the IDP off, set the “party / menu” switch at the control panel below the small LCD display in “menu” position. Select the menu item “Shut down”(1) with the poti on the control panel. Push the “Set” button. The IDP will close all its latches now, and switch off all built-in devices. As a last step, you have to shut down the PC manually by pushing the on-off-button at its front. Now, you can unplug the IDP's power plug.

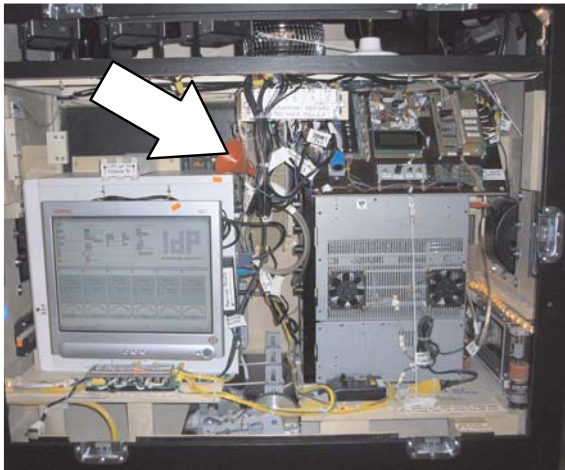


You can find the Party / Menu switch here.

Refilling the fog machine (1)

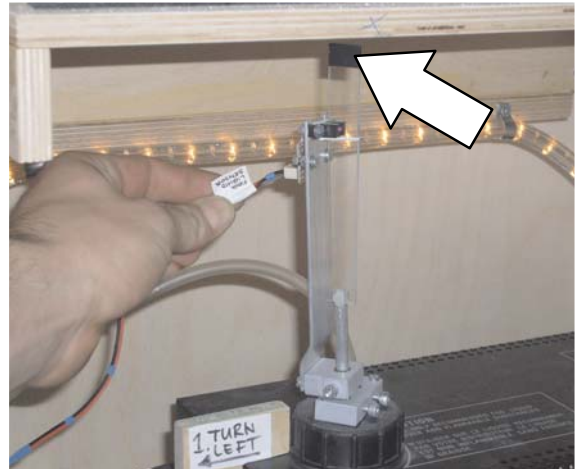
The fog machine will switch itself automatically off, if there's too less fog liquid in the tank. A low fog liquid level is announced in the "Errors" menu item.

To refill the fog liquid, take the red funnel out of the machine and fill it very slowly with new fog liquid. You might want to do that, while the machine is switched off and the power plug is disconnected from the mains. Pay special attention that no liquid goes into the machine!



Funnel for refilling the fog liquid

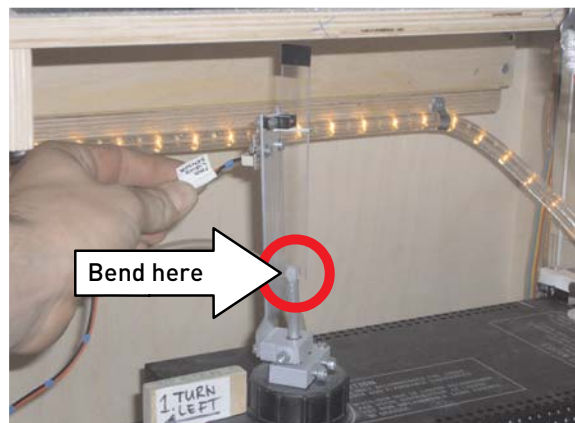
Unfortunately, there's no really intelligent method to find out when the tank is full. So you either have to take out the amplifier in order to see the fog liquid level sensor. If it touches the wood above it, the tank is full. Or, you do that by hand. Feel the sensor in order to find out the level inside the fog machine. Again, if the sensor touches the sheet of wood above it (which covers the speakers), the tank is full.



The liquid level detector: If the black part touches the wood above it, the tank is full.

If the tank is full, put the funnel back to its hook, as indicated on the picture.

After that procedure, you have to check, that the liquid level sensor can move freely! If it doesn't move free, bend it a little bit. If the sensor can't move freely, the machine might not detect, that the liquid level is low and keep on heating, even if there's no liquid inside. This is dangerous and might end in burning the IDP!



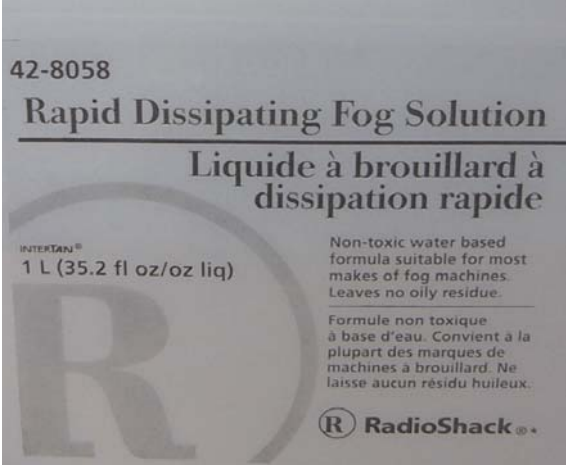
Bend the detector at the plastic screw, if it does not move freely!

Refilling the fog machine (2)

To refill the fog machine, use a rapid dissipating water based fog solution as shown below.



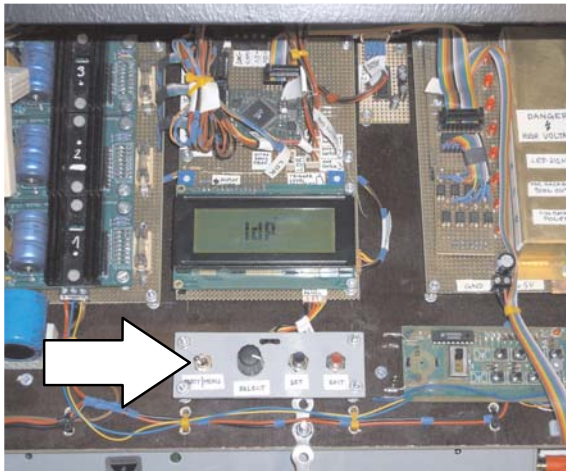
Original fog liquid for the IDP's built-in Radio Shack fogger



The fog liquid container label in a close-up

The IDP's internal test menu (1)

The IDP's control unit comes with a built-in test menu. To access this menu, set the "party/menu"-switch to "menu" position. For normal operation, this switch has to be in "party" position.



You can find the Party / Menu switch here. Located on the right side, next to it, you can find the "select" poti, the "set" button and the "exit" button.

The following list explains the different menu items. You can access a menu item by pushing the "set" button and you can exit a menu item by pushing the "exit" button.

1. Shut down

Push "set" to shut the hardware down. The PC has to be shut down manually by pushing its power button on the front. If the shut down is complete, you can unplug the IDP from the mains.

2. Latches

If you select this menu item, you can open and close the Speaker Latch, the Light Effects Latch, the Fog Latch or simply all Latches.

3. Light FX

This menu item lets you switch on or off all light effects, including the LED sign. This is ideal for testing purposes or for changing the lamps inside the light effects.

Caution! Before you change any lamp, you should unplug the IDP's power plug.

4. RC Spots

Here, you can remote control the RC socket adaptors and switch the external lights on and off via the IDP's built in remote control.

5. Fog Machine

This menu item lets you control the fog machine manually for testing purposes.

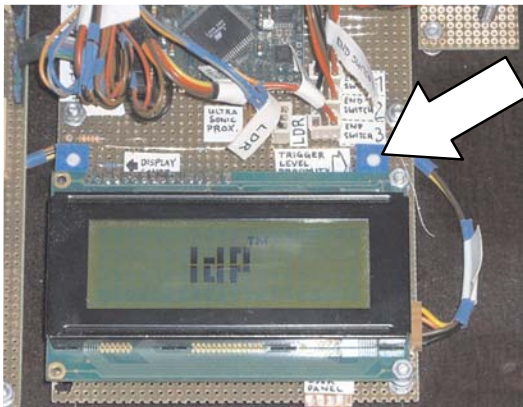
6. Radar Sensor

This menu item lets you check the function of the IDP's doppler radar sensor. You get a sonic feedback as well as a visual feedback when the radar detects a movement. The sonic feedback comes via the piezo speaker, The visual feedback is provided by the little green LED on the microcontroller board.

The IDP's internal test menu (2)

7. Ultrasonic PS

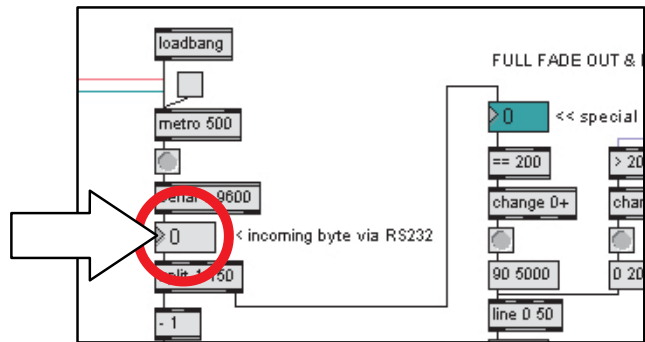
This menu item lets you check the ultrasonic proximity sensor, which is mounted inside the fog latch. If the sensor detects an obstacle close to the sensor, it will give a sonic feedback via the internal piezo speaker. You can adjust the trigger distance with the poti on the right hand side above the LCD screen.



Adjust the ultrasonic proximity sensor's trigger level at this poti

8. RS232

The microcontroller, which controls all functions of the IDP communicates via RS232 with the PC (which only plays the music). This connection is mono directional. RS232 Data is sent by the controller and it received via a RS232 to USB adaptor at one of the PC's USB ports. For testing this connection, you can send single bytes via RS232 at this menu item. Select the byte that you want to send with the poti and send it by pushing the "set" button. Bytes are sent with 9600 Baud, 8 Data Bits, No Parity, 1 Stop Bit



The same byte value, that you send with the controller should appear in this window of the Max/MSP patch.

9. Switches

Every latch and transforming mechanism has two end switches. One is pushed, when the latch is closed - the other one is pushed, when the latch is opened. The menu item "Switches" gives you an overview of the current state of all end switches for all latches.

- 1 = switch is closed / pushed
- 0 = switch is open / not pushed

10. Errors

Errors are reported at this menu item and they can also be deleted here. Errors occur, if one of the latches doesn't reach its open or close position within a certain time frame. If that happens, this motor will be switched off, an error will be reported and the motor won't be used anymore, until you have deleted the error at the "Errors" menu item. Low liquid level also reports an error, which can't be deleted here. It has to be deleted by refilling fog liquid.

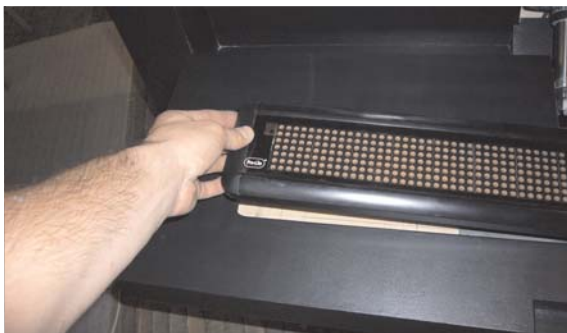
Refreshing the LED sign memory (1)

The IDP's built in LED sign has a battery buffered RAM in which it stores its announcements. The memory will get lost, if the IDP has not been switched on for a longer period. This chapter explains step by step, how to restore the LED sign memory.

1. Open the speaker latch via the test menu and **take out the LED sign carefully**. It is only fixed by magnets inside the latch. You can take the sign out by pushing its right side into the latch. The left side will lift up, then you should be able to take it easily. On its right hand side, the sign is connected to the IDP's power supply. Disconnect the power supply cable.



Pushing the sign on its right side ...

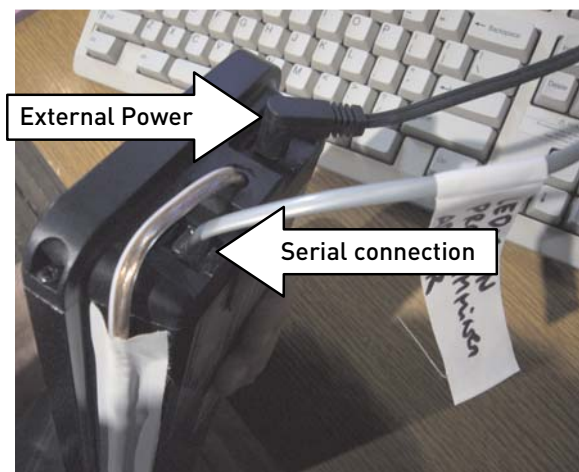


... will lift up its left side - and you can take it out.



The orange connection is the power connection. You have to push a tiny clip on the plug to disconnect plug and socket.

2. Use the additional power supply that comes in the IDP's service box and plug it in. Use the LED sign programming adaptor and **connect the sign with the serial port of the PC** inside the IDP. The programming adaptor is a serial RS-232 connection on the PC side and a telephone plug at the LED-sign side. The picture on the next page shows, where to plug in the cable at the PC.



Power and serial data sockets of the LED Sign.

Refreshing the LED sign memory (2)



The RS232 connection for programming the LED sign is located directly above the blue monitor connection at the IDP's built-in PC.

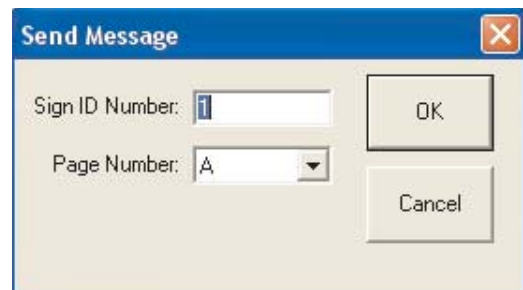
3. **Start the LED sign software** on the PC. The name of the software is "LED_SIGN PROGRAMMER" and you can find it on the desktop. Load the LED sign codes in the software. Start with "idp_page_a". You can find the codes in the folder "LED_SIGN CODES" on the Desktop. There is a safety copy of this folder at C:\ProLite\Data (You can also start the programming software by double-clicking the files in the folders.)

4. **Load the codes into the LED-sign.** The LED-sign programming software has three yellow buttons at its menu bar (they all have a blue "S" in it). You can load the codes into the LED-sign by clicking the left yellow button. Now, a window appears which asks you for the Sign-ID Number. This is always "1". In the window, you also



Screenshot of the LED sign software: Click the left yellow button to upload your messages to the LED sign.

have to indicate a page number (in fact, here you have to enter letters from A-Z and not numbers). You have to enter the same page number, that the file has, which you have loaded. ("idp_page_a" has to be loaded in page "A", "idp_page_b" has to be loaded into page "B", and so on...)



Indicate the page, in which you want to upload the code in this window.

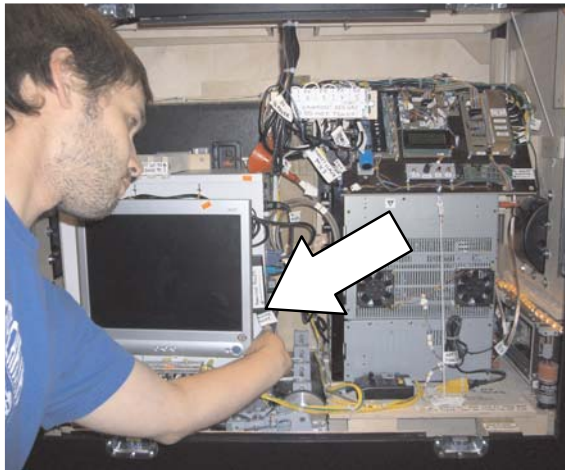
5. Disconnect the LED sign from the PC and the external power supply and **put it back into the speaker latch.** Don't forget to connect the sign to the IDP's power supply. **Make sure, that the power cable is stored in the space, right next to the sign.** If the cable is under the LED-sign, it's harder to get the sign out of the latch!

Disassembling / Assembling the IDP (1)

Assembling is the same process as disassembling - just in the opposite order. This is the reason why we only describe the disassembling process in this chapter - but you'll find additional notes, if you have to pay special attention at a certain step, if you do it in the opposite order.

How to take out the PC

1. Lift the light fx stage with the test menu.
2. Shut down PC by pushing the power button on its front.
3. Disconnect the power of the PC, the power of the monitor, the USB cable and the mini jag.



Disconnecting the PC: The arrow points to the power connection of the monitor.

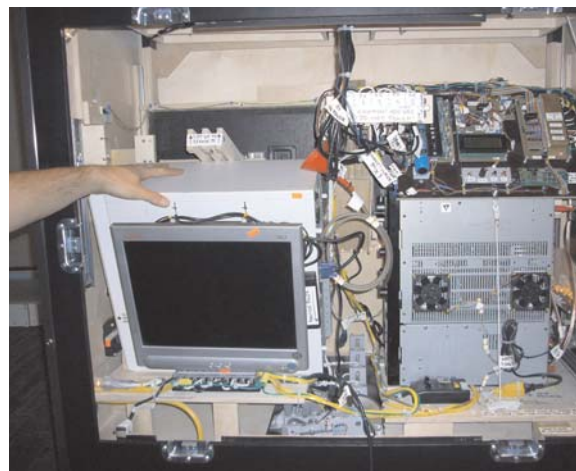
4. Lift up the wooden clasp, which holds the PC in position. (See picture on the top / right.)



The wooden clasp holds the PC with a magnet in position. It can only be lifted up, if the light effects stage is lifted up as well.

5. Take out the PC.

Caution! The PC is not balanced. If you place it on the floor like it is, it might fall on its screen!



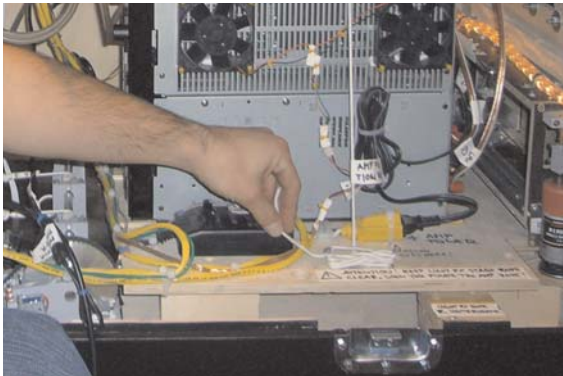
Tilt the top of the PC towards you to take it out.

Disassembling / Assembling the IDP (2)

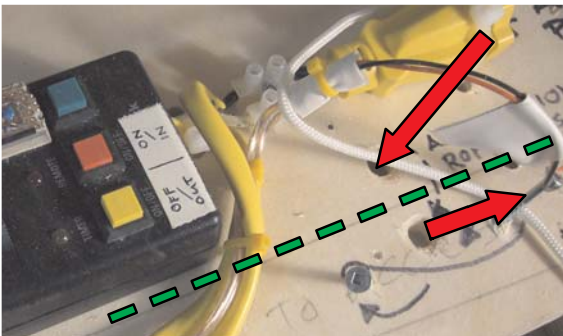
How to take out the amplifier

1. Loosen the white string, which is labeled as “Amp fixation rope”.

Caution! When Assembling / fixing again: Pay special attention to the rope which goes under that string. Avoid to fix that rope with the amp fixation string, otherwise the light effects lifting mechanism can break when it operates the next time.



The amplifier is fixed by a rope, which is fixed with two screws.



The red arrows indicate the way of the amp fixation rope before it is fixed at the screws. It goes into the top hole and comes out of the lower hole.

A rope for the light fx stage lifting mechanism is going under the sheet of wood (green dashed line). Pay special attention, that you don't block the movement of this rope, when you fix the amp fixation rope!

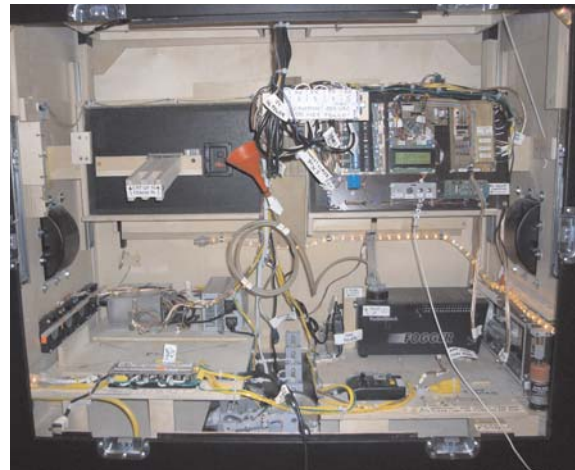
2. Detach the power cord of the amplifier.

3. Detach the 12V connection to the additional cooling fans.

4. Detach the speaker cables

5. Detach the RCA connection (If you attach it again, plug it in at the “CD” input.)

6. Lift the whole control board and take out the amplifier.



The IDP without PC and amplifier.

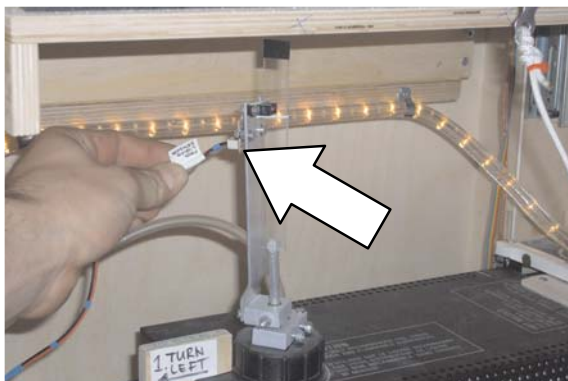
On the left side (usually behind the PC), you can see the two power supplies: One is used for the logic circuits, the other one is for the motors. On the right side (usually behind the amplifier), you can see the fog machine. On top of the fog machine is its liquid level sensor.

Disassembling / Assembling the IDP (3)

How to take out the fog machine

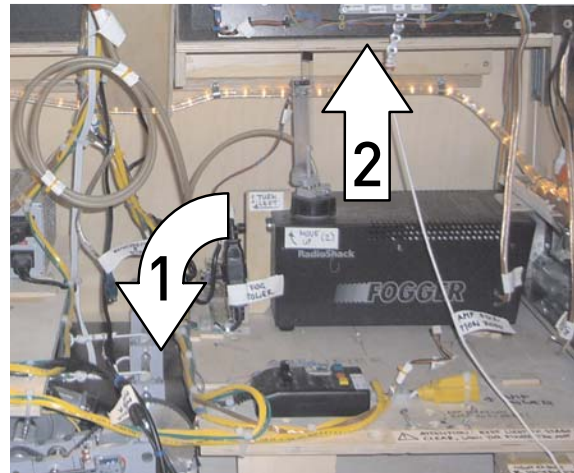
1. Disconnect The fog power.
2. Disconnect the remote control plug.
3. Disconnect the liquid level sensor cable.

**When assembling the machine:
Do not forget to connect the liquid level sensor again, otherwise the machine will always think that the liquid level is low!**



The arrow shows the connection of the liquid level sensor to the microcontroller. Be careful, when connecting or disconnecting the device, because this part is very fragile!

4. Turn wooden clasp to the left.
5. Take out the fog machine by lifting its back first.
Pay special attention to the fragile liquid level sensor!



To take the fog machine out, turn the wooden clasp to the left (1) and lift the back of the fog machine first (2).

Pay attention that you don't damage the liquid level sensor!

6. To empty the tank of the liquid level sensor, just unscrew the top of the tank and fill the content into the next sink.

How to access the strings for the light effects stage lifting mechanism

When you have taken out all devices, you can unscrew the wooden sheets on the floor of the IDP to get access to the strings, because those parts are not glued.

But this is - as you can imagine - a lot of work, because you have to deal with all the wires!

So I hope for *you*, that you don't need to repair anything, there.

Troubleshooting (1)

If there's no sound

1. Test the amplifier:

You can unplug and plug the mini jag connection at the PC. If you hear a crackling sound during the plugging / unplugging, the amplifier is alright. If you can't hear that crackling sound, check the following things:

- *Is the amplifier is switched on?*
- *Check the volume poti of the amplifier.*
- *Are the speaker cables connected properly to the speakers?*
- *Are the speaker cables connected properly to the amp (speaker B, L&R)?*
- *Is the amplifier set to CD input?*
- *Is the audio connection plugged to the CD RCA input of the amp?*

If you have checked everything of the list above, the amp might be broken. Try to run the IDP with another amp!

2. Test if there's a problem with the PC:

- *Is the mini jag connected to the PC at the correct mini jag outlet? (It has to go to the green output on the back of the PC.)*
- *Is the Max/MSP patch running?*
- *Test the Max/MSP patch manually. For that, you should disconnect the*

USB connection to the micro controller. Consult the "Max/MSP patch introduction" chapter to find out how to test the patch manually.

If the patch works and you get a sound output with it, the problem might be the RS232 connection between the PC and the microcontroller.

3. Test the RS232 connection between microcontroller and PC:

You can test the serial communication between the microcontroller and the PC with the menu item "RS232" in the test menu. You can select single byte values with the poti and send them to the PC by pushing the "set" button. Look, if the Max/MSP patch receives the bytes. You can see the incoming bytes in the little grey window in the upper left corner of the patch, labeled with "incoming byte via RS232".

If the connection does not work, check the following things:

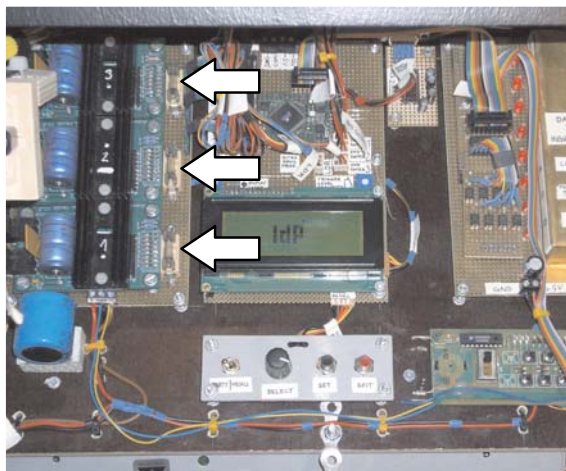
- *Is the USB plug plugged into the PC?*
- *Is the Sub-D RS232 plug plugged into the control board next to the microcontroller board?*
- *Is the microcontroller board connected with the RS232 board next to it?*
- *Is the Max/MSP patch listening to the correct COM port? (If you have plugged the USB Keyspan*

Troubleshooting (2)

adaptor into another USB port than the labeled one, the PC might have labeled it internally with another number of its COM ports. You can try to plug the USB cable into the correct USB port, or you can change the port to which the Max patch listens by changing the letter in the "serial in"-object. In its original state, the PC listens to COM port "d" (The object is "serial d 9600"). By changing this "d" to another letter, you might be able to establish the connection again.)

If one or more latches don't move anymore

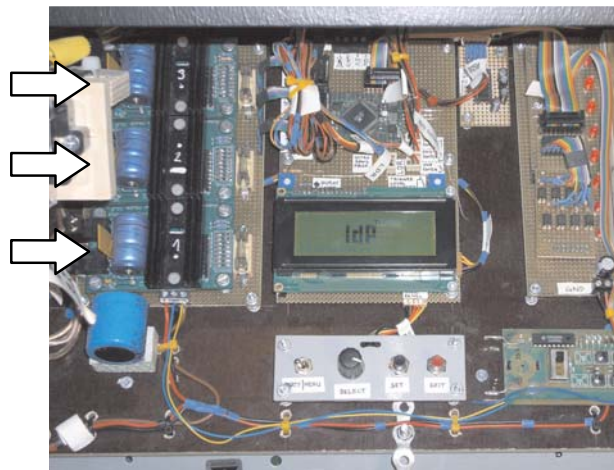
On the left side of the microcontroller board, you can find the three motordrivers for the motors which move the latches. Check the fuses first. If a fuse is broken, replace it with the same type. (Max. 5A, fast blow)



Fuses for the motordrivers (arrows)

If the fuses are OK, test the connection between microcontroller board and motor driver board. Switch "party/menu" switch to "menu" position. Select "Latches" with the poti and push the "set" button. Select the latch, that you want to test and click "set". Select "Open" or "Close" and push the "set" button. On the left side, you should see two red LED's shining. This indicates, that the motor driver operates. If the driver does not operate, check the power supply of that board and check if the motor driver is connected properly to the microcontroller board.

Motor driver 1 = Speaker Latch
Motor driver 2 = Light Effects Latch
Motor driver 3 = Fog Latch



The arrows show, where you can find the red LED's below the power connections for the motors.

Another – very unlikely – problem might be, that the controller has switched off the motor, because the

Troubleshooting (3)

latch did not reach its end position switch in a certain amount of time. Then, the controller would not move this motor anymore. In the test menu, at *"Display errors"*, if this has happened.

If that happened, you can delete that error with *"Delete errors"*.

If the machine has stored an error, you should find out what the initial problem was!

Select "Switches" in the main menu to find out, if all switches work properly by pushing them by hand and by observing the diagram on the LCD screen. The "Test menu" chapter of this manual will help you with that.

If there's no fog coming out of the machine

Is the fog liquid level low? (Check *"Errors"* in the test menu. Toggle through the errors. If *"Fog liquid:OK"* appears, that is not the problem.

If the fog liquid level is not low, but the controller reports an error, check if the liquid level sensor is connected properly to its wiring.

If the fog liquid is low, follow the instructions in the chapter "Refilling the fog machine"

- Check, if the remote control plug is plugged in correctly at the fog machine.

- Check, if the fog machine is switched on on its back.

(If the machine is plugged in correctly, if it is switched on and if the remote control is plugged in correctly, the red LED in on its remote control should be bright.)



*The remote control of the fog machine:
Check if the red LED is bright (arrow)
Are all the buttons in correct position?*

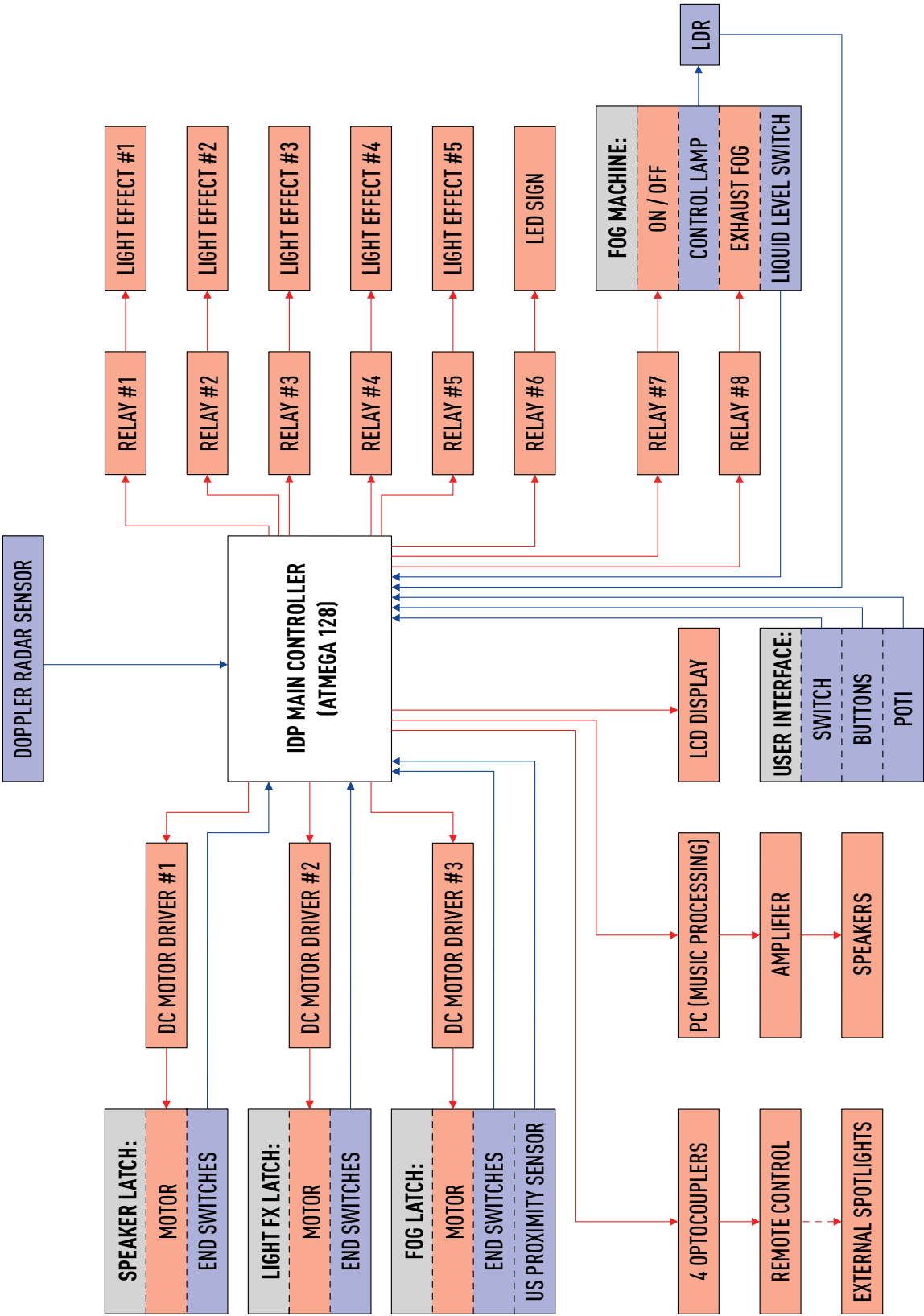
Check if – the yellow button on the remote control is not pushed in.
the red button is pushed in.
the the green button is not pushed in.

If mouse / keyboard don't work at the PC

Mouse and keyboard only work, if they have already been connected, when the PC was switched on.

Shut down the PC by pushing the on/off switch on its front. Connect mouse and keyboard. Start the PC by pushing the on/off switch on its front. Now, they should work.

IDP block diagram



Preparing the IDP for transport

1. To prepare the IDP for a larger transport, you should **empty the tank of the fog machine**. Read chapter *"Disassembling / Assembling the IDP"* to find out, how you can take out the fog machine. The fog liquid is water based, so you can just empty the tank in a sink.

2. **Make sure, that PC, fog machine and amplifier are mounted well inside the crate**. Are they all in their precise positions? Is there enough tension on the amp fixation rope?

3. Make sure that the **IDP service package** is complete. The package consists of:

- 4 RC socket adaptors
- 1 Logisys remote control for socket adaptors
- PC Mouse
- PC Keyboard
- LED Sign programming cable
- LED Sign Power supply
- Manuals for the IDP and for the devices built in the IDP
- Spare light bulbs in red, green and blue
- Container with fog liquid
- Spare hard disk (cloned drive of the drive inside the PC)

4. For a larger transport, you should consider to **remove the LED sign, the PC, the amplifier and the fog machine** and transport those devices separately. Have a look at the Chapter *"Disassembling / Assembling the IDP"* and *"Refreshing the LED sign memory"* to find out, how to take out the devices.

5. **Mount the ground and top protection for the IDP**, before you move it.

Technical specifications (1)

Physical dimensions:

Width: 118 cm

Height: 128 cm
(with light fx stage opened: 169 cm)

Depth: 68 cm
(with speaker latch opened: 99 cm)

Weight: 177 kilos net weight

Power requirements:

The IDP runs with 120 V AC.

The maximum power consumption is 1500 Watts.

Length of power cord: 13m

Internal Hardware:

Controlling:

Main control unit:

Atmega 128 Microcontroller, clocked with a 14745600 Hz crystal, programmed in BASCOM

PC:

Pentium 4 / 3.00 GHZ / 480MB Ram / 74.5 GB HD

The PC is used for multi channel sound playback and software sound compressing / maximising.

It receives data from main control unit via USB Keyspan adaptor.

Relay board:

7-Channel custom built relay board (5 channels for light effects / 2 channels for fog machine)

Sensing:

- Modified Doppler Radar sensor
- Ultrasonic proximity sensor: Devantech SRF04

Transforming mechanisms:

- 3 Heavy duty DC motor drivers (VNH3SP30), each fused with 5A.
- Speaker latch motor: LINAK linear aktuator S28.25-100 IP65 / Max. load 3000N
- Light effects stage motor: Wind-screen wiper motor with additional custom built gear
- Fog latch motor: Como Drills 919D Series

Sound Output:

- Amplifier: DENON 1035R / 130 Watts per channel
- Speakers: 2x AIWA E80

Light Effects:

- LED Sign: Customized Pro-Lite PL-M2014R True color message board
- 8" Mirror ball, lit by one yellow and one red Pin spot light (PAR36)
- American DJ "Laser Widow" with 4.9mW Laser
- Chauvet "Obsession" combined color/gobo wheel / Lamp: EFP5 / 12V / 100W

Technical specifications (2)

- 3x American DJ S81 mini strobe (14W / lamp type BT-106S)
- 36W Flourescent tube for ground effects
- Blue Police light / Rotation speed: 90 rpm / Lamp: 120V, 25W Tungsten E12
- 3x 120V / 7W coloured light bulbs (red / green / blue)
- LOGISYS remote control for switching ext. lights

Fog Machine:

Radio Shack "FOGGER" 120V / 700W with custom built fog liquid level sensor

External hardware:

- 4 RC socket adaptors for external lighting of the IDP.
Maximum switching power per adaptor: 750 Watts
(The external lights will be switched off and on in two phases, so the machine should be lit by at least two different spotlights.)
The external lighting is not part of the IDP and has to be provided by the renter.
- The IDP requires an external subwoofer system. The dimension of the subwoofer depends on the size of the venue where the machine is set

up. The amplifier for the subwoofer is connected via RCA to the IDP's internal amplifier.

The external subwoofer / external amplifier is not part of the IDP and has to be provided by the renter.

- For safety and style reasons, the IDP has to be surrounded by four stands, all connected with red ropes. The stands and ropes are compulsive for any setup of the IDP.

The external stands and red ropes are not part of the IDP and have to be provided by the renter.

For technical requests, please contact:

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