



BARI X ANNUNCIOM WITH X8

HowTo guide

Using switches to select communication targets for an Annunciom

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I Introduction

I.1 What is this document for?

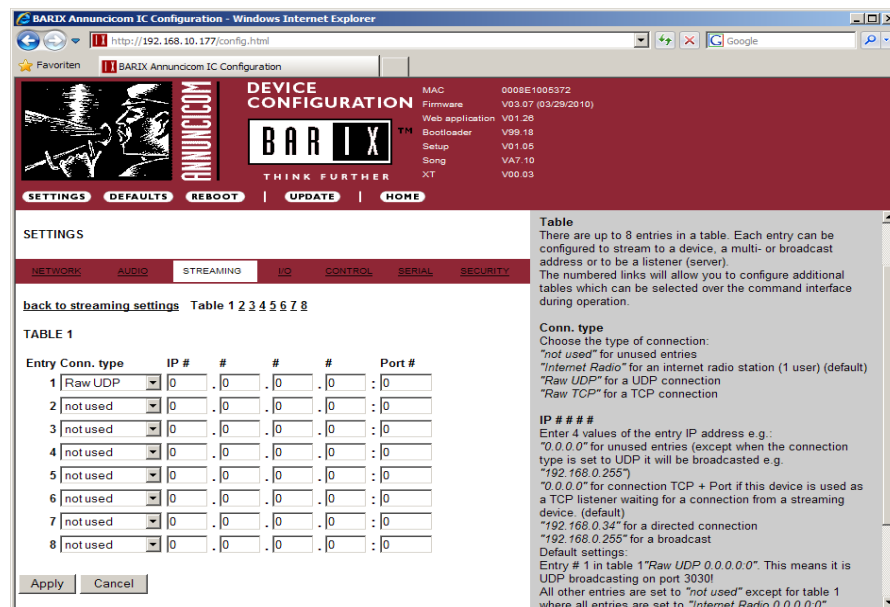
This document explains how to interface up to 8 external dry contact closures to a Barix Annunicom, to allow the user to manually control the streaming destination(s) of the Annunicom device using physical contact closures.

In this way a user could for example:

- manually select specific zones to make an announcement from a Paging master station
- select a specific device for an intercom call using a switch

I.2 Background

In the Annunicom Standard firmware (version 3.x) there are 8 tables that can be used to set the streaming targets for the device, but only one of the tables can be active for streaming at a time. Users sometimes need to be able to select or change where the device is streaming audio to.



Selecting or switching the tables (destinations) to be used for communication can be done:

- Automatically, from an application, using a network command ($s=tab://2$),
- By browser, using the Annunicom web interface,
- Manually, by closing a switch. If more than 2 selectable destination tables are needed this is achieved by interfacing extra contact closures using a connected Barix X8 extension module.

This document explains the X8 method.

I.3 Prerequisites

- An Annunicom, loaded with the Annunicom standard firmware, v3.x already configured to stream to multiple targets. Refer to the [Annunicom firmware manual](#) for details of how to do this.
- An X8, appropriate dry contact closures (switches) and related hardware for wiring the connections.
- Multiple destination devices, connected via LAN

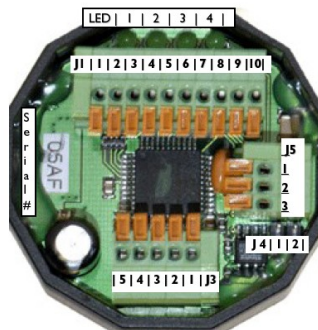
2 Instructions

2.1 Overview

There are 3 steps to complete;

- first the X8 must be put into a special mode of operation,
- then the X8 must be wired to an RS 232 connector and to the selector switches. Make sure that you use a sensible length of cable for your particular situation.
- Finally, the Annunicom streaming and serial settings must be configured.

2.2 Preparing the X8



The X8 needs to be configured for this mode of operation:

- a) connect inputs 10 and 11 together (pins 9 and 8 of J1)
- b) connect inputs 17 and 15 to ground (pins 2 and 4 of J1 to pin 1 of J1)
- c) power up the X8. The device will reconfigure itself for the special „Annunicom“ mode.
=> all LEDs will be illuminated, LED 3 will blink
- d) remove the power, then remove the connections.

The X8 is now ready for use.

After restarting the X8, the left LED will be permanently on and LED 2 will blink every second.

If the device does NOT blink as expected, it may be loaded with an old firmware version, in which case the X8 device needs a firmware update (typically done using a Barionet – consult the [X8 manual](#)). To upload a new firmware you will need to return the X8 back to default mode: power off the X8 , connect pin 8 & 9 of J1 together and power on again.

2.3 Wiring the X8 to an RS232 connector.

Using a length of 3 core cable suitable to your application, connect the terminals of the X8 to a female RS232 connector; this can then be plugged in to the Annunicom's male RS232 socket when required. The connections are described below.



- a) Power from the Annunicom for the X8 is supplied on pin 4 of the RS-232 connector
- b) Ground from the Annunicom is available on pin 5 of the RS-232 connector.
- c) the serial data stream from the X8 needs to be connected to pin 2 on the Annunicom RS-232 interface.

Although the X8 transmits using RS-485 voltage levels and the Annunicom input used is RS-232, the connection as described below works reliably within the specifications.

Make the following connections on one end of your cable:

- Pin 5 of J3 on the X8 to PIN 5 of RS-232 connector of the Annunicom
- Pin 4 of J3 on the X8 to PIN 4 of RS-232 connector of the Annunicom
- Pin 3 of J3 on the X8 to PIN 2 of RS-232 connector of the Annunicom

2.4 Wire the switches to the X8

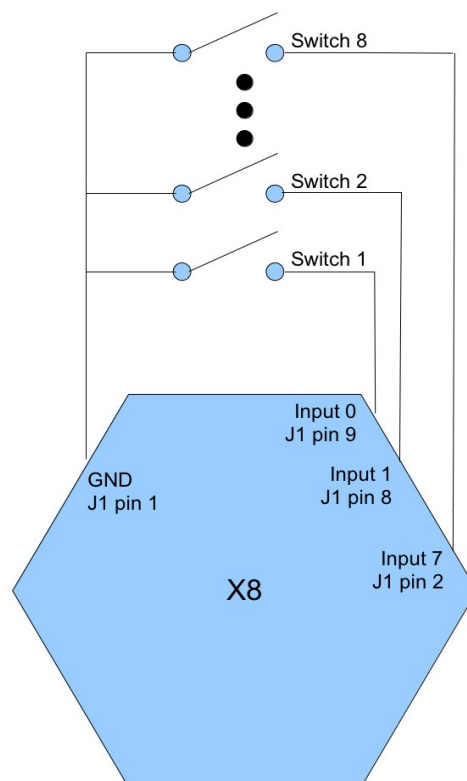
Now the X8 must be connected to the hardware contact closure switches.

All switches need to be connected between signal ground (pin 1, J1) and the respective input.

When a switch is closed, a corresponding command to select the matching table is sent to the Annunicom.

When all switches are released (open), a command for an empty table (Table 0) is sent to the Annunicom to stop communication.

Table x switch	Input	J1 Pin
1	0	9
2	1	8
3	2	7
4	3	6
5	4	5
6	5	4
7	6	3
8	7	2



2.5 Annunicom settings

The Annunicom must be loaded with the Annunicom Standard firmware (version 3.x or higher).

On the Annunicom web interface home page, click on the 'Configuration' button, then select the 'Serial' tab. Use the UI to set the serial interface configuration as below:

```
Serial 1
Baud rate = 19200
Data bits = 8
Parity = no
Stop bits = 1
Handshake = none
Local Port = 0
```

Apply these changes; the device will restart.

Under the 'Streaming' tab of the Configuration pages, the 8 tables can be used to define different stream targets (max. 8 per table).

2.6 Using the switches with the Annunicom.

You have now wired up the switches and configured the Annunicom and the X8: Plug the X8 connector cable in to your Annunicom and you are ready to go!

First set the streaming destination using one of the switches. This does NOT start the audio streaming as this is controlled by the Annunicom settings.

Now start the audio stream according to how the Annunicom is configured. (PTT, send on level, send always...)

Note:

The X8 periodically sends a command to the Annunicom to select the active Streaming Table, based on the currently active switch. If no switch is active, the Annunicom sends the „Table 0“ command to the Annunicom; this has 2 consequences:

1. the Annunicom will stop streaming when it receives the Table 0 command. If the Annunicom is in PTT mode, it will remain in Talking mode until the PTT is released, even though it is no longer streaming! This is done in this way to support “send always” mode.
2. Using switches connected using the X8 in this way changes the way the Annunicom firmware operates: when no X8 with switches is connected to the Annunicom, it has a default target of Table 1 – if the user opts to send audio, it will go to the default address(es) identified by Table 1. This will NOT happen if an X8 is connected.

If you use two inputs on the X8 at the same time, then the input activated last will be used and sent to the Annunicom, as the Annunicom can only support one active table.

3 Legal Information

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