

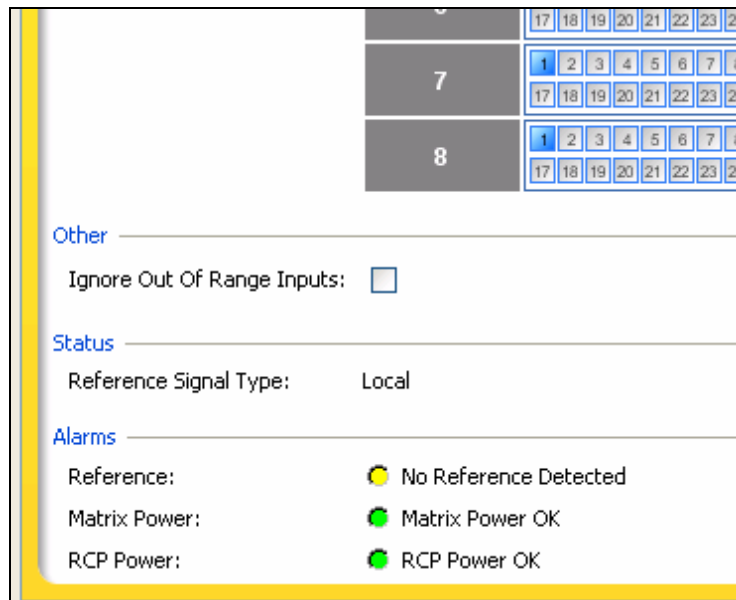
## Using the “Ignore Out Of Range Inputs” Configuration Option

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NK Series routers include the configuration option “Ignore Out Of Range Inputs”.

This configuration option has been implemented to force router switching from the default behaviour when making tied switches on levels with “out of range” inputs.

By default this option is not enabled, as shown below in the screen shot from the router configuration page of Phoenix Control Surface software:

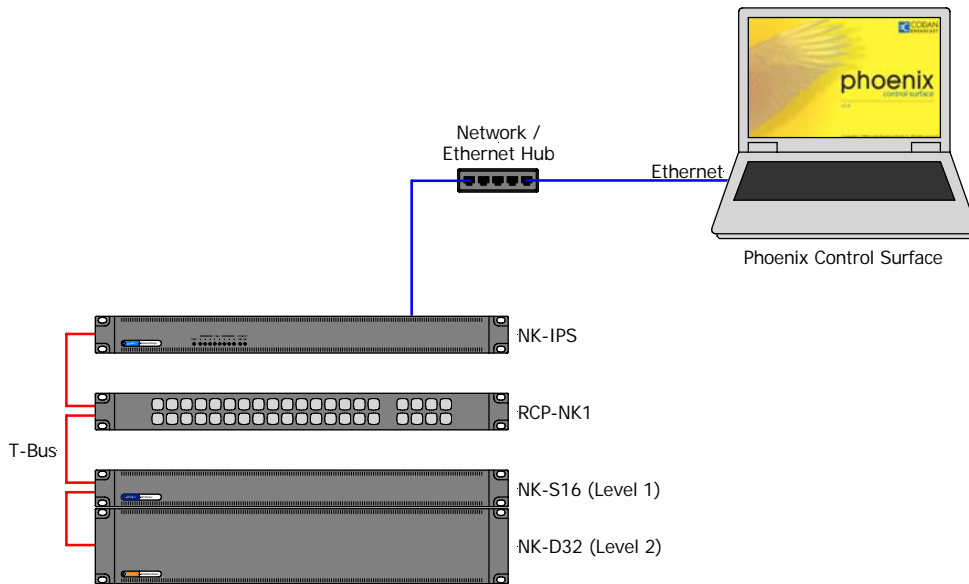


### ***Partial View of Router Configuration Showing “Ignore Out Of Range Inputs” Option***

This is useful as it allows crosspoints to be turned off from a control panel by simply selecting an out of range input when switching a router (i.e. select an input that does not physically exist on the router). However, it does present a problem in some cases when making a tied switch.

Consider the following NK Series system example:

An NK Series routing system consists of an NK-S16 16x16 SDI Video router level, an NK-D32 32x32 AES Audio router level and an RCP-NK1 control panel. An NK-IPS allows configuration from a network connected computer running Phoenix Control Surface Software.



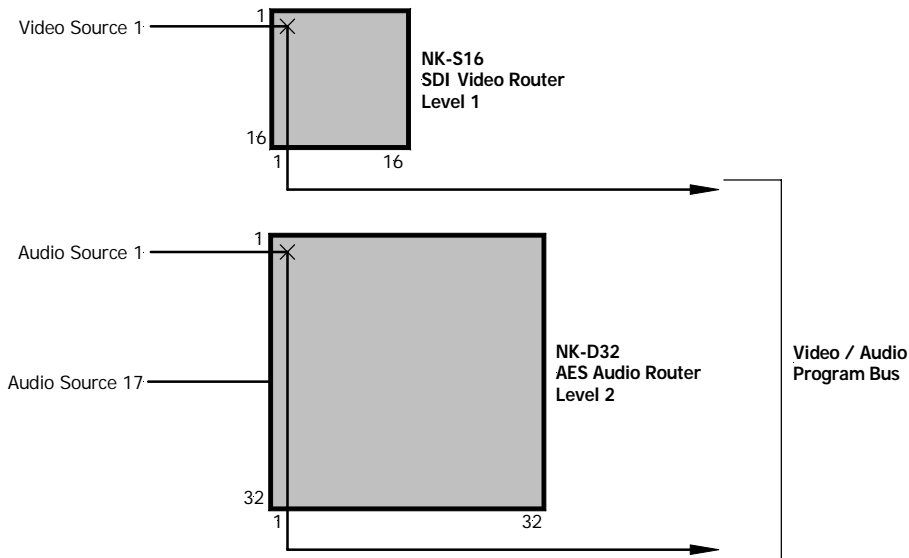
### ***NK Series Routing System***

The RCP-NK1 control panel is configured with a tied breakaway to include both the NK-S16 and NK-D32 router levels as shown below:

Configuration	
Breakaways:	
Breakaway num	level mask (1 ... 8)
1	1 2 3 4 5 6 7 8
2	1 2 3 4 5 6 7 8
3	1 2 3 4 5 6 7 8
4	1 2 3 4 5 6 7 8

### ***Control Panel Configuration with Tied Breakaway***

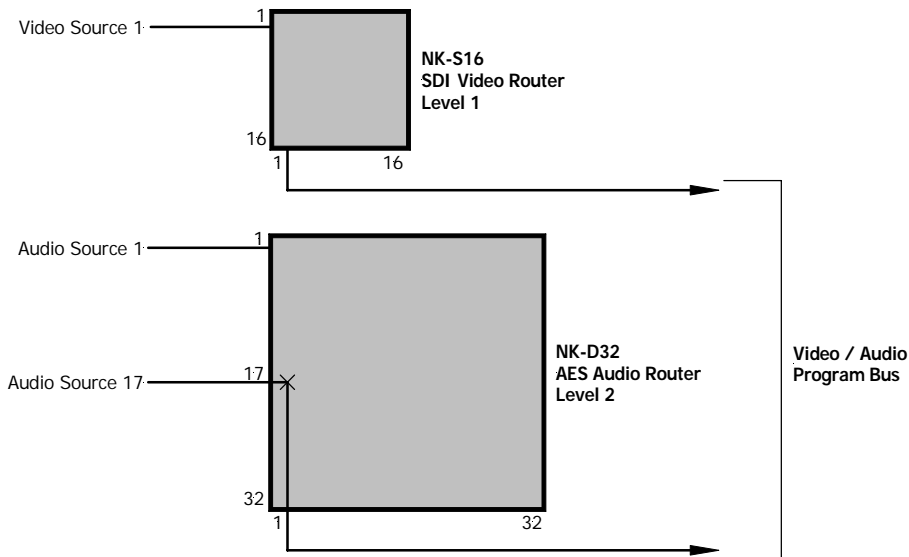
Initially, suppose we want to route Source 1 to Destination 1 on both router levels using the tied breakaway (i.e. Video and Audio levels will be switched simultaneously). This routes Video and Audio to the Program Bus as shown in the diagram below:



**Video and Audio Switching Example**

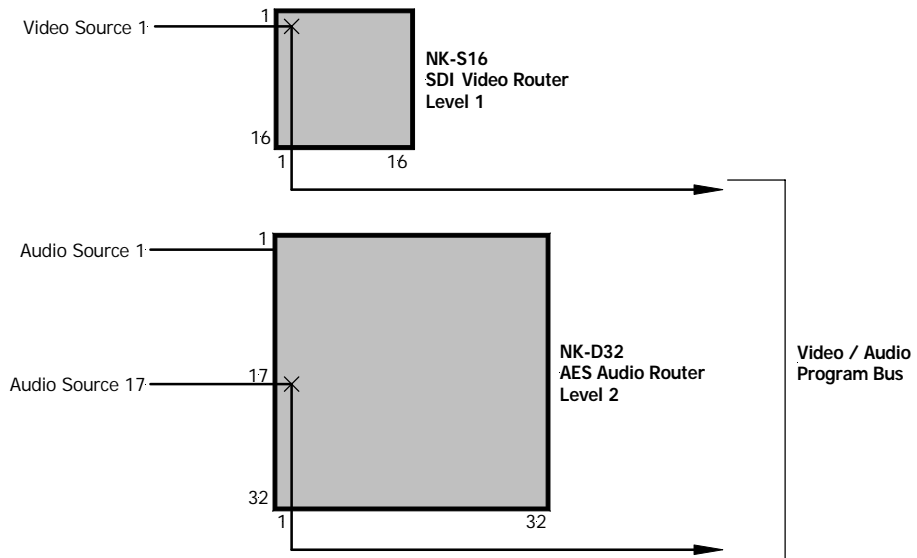
Now suppose we route Source 17 to Destination 1 using the same tied breakaway. Only the AES level can make this switch because Input 17 does not exist on the SDI level (i.e. it is “out of range”).

With the “Ignore Out Of Range Inputs” option disabled, the effect is that the SDI router disconnects Input 1 from Output 1 (i.e. it turns off the crosspoint). As a result, AES Audio will be routed to the Program bus, but SDI Video will not as shown in the diagram below:



**Tied Switch with Ignore Out Of Range Inputs Option Disabled**

With the "Ignore Out Of Range Inputs" option enabled, the command to route Source 17 to Destination 1 on the SDI level will be ignored and the crosspoint status will remain intact (i.e. input 1 will remain routed to output 1), routing the unchanged Video Source 1 along with the new Audio Source 17 to the Program Bus as shown below:



***Tied Switch with Ignore Out Of Range Inputs Option Enabled***