## Market Central Switch Selection Guide

Layer 1 Switches are often used for Device Sharing, for Backup or Failover switching, and/or for Access Control switching. Below are some simplified diagrams and descriptions showing how different types of layer 1 switches operate.


2 to 1 Switches are used to connect a common device to either of two selectable devices or networks. Also known as an A/B switch, AB switch or sometimes as an ABC switch (where $\mathrm{C}=$ Common).

For 2 to 1 switches, please see our Data DeadBolt ${ }^{\circledR}$ Manual Switches, and for models with remote control interfaces and automatic switching capabilities please see our Data DeadBolt ${ }^{\mathbb{B}}$ D1000 Intelligent Switches. Also available in gang switch models - please see our SwitchMaster ${ }^{\circledR}$ products.

$\mathbf{3}$ to 1 Switches are used to connect a common device to any one of three selectable devices or networks. Also known as an $\mathrm{A} / \mathrm{B} / \mathrm{C}$ switch, ABC switch or sometimes as an ABCD switch (where $\mathrm{C}=\mathrm{Common}$ ). This could also be used as an A/B/OFF switch by leaving the "C" port open, which provides A/B switching plus Access Control switching.

For 3 to 1 switches, please see our Data DeadBolt ${ }^{\circledR}$ Manual Switches, and our SecureSwitch ${ }^{\circledR}$ Rev A Tempest Evaluated switches, or our SecureSwitch ${ }^{\circledR}$ Rev B DISA Approved models with remote status and control interfaces. Also available in gang switch models - please see our SwitchMaster ${ }^{\circledR}$ R7400 products.


4 to 1 Switches are used to connect a common device to any one of four selectable devices or networks. Also known as A/B/C/D switch, ABCD switch or sometimes as an ABCDE switch (where $\mathrm{C}=\mathrm{Common}$ ). This could also be used as an $\mathrm{A} / \mathrm{B} / \mathrm{C} / \mathrm{OFF}$ sw leaving the " D " port open, which provides $\mathrm{A} / \mathrm{B} / \mathrm{C}$ switching plus Access Control switching.

For 4 to 1 switches, please see our Data DeadBolt ${ }^{\circledR}$ Manual Switches. Also available in gang switch models - please see our SwitchMaster ${ }^{\circledR}$ R7400 products.


Access Control Switches are used to selectively connect or disconnect a device to the network or to another device. Also known as a B/OFF switch.

For access control switches, please see our SecureSwitch ${ }^{\circledR}$ Rev C NIAP validated switches and Fiber Optic Network Access Control Switches. For gang switch models please see our SwitchMaster ${ }^{\circledR}$ R6100 NAC switches.

## SwitchMaster ${ }^{\circledR}$ Gang Switches



For 2 to 1 style gang switches, please see our SwitchMaster ${ }^{\circledR}$ R6100 switches for 1 U rackmount models, or our SwitchMaster ${ }^{\circledR}$ R5000 switches for 2U rackmount models, or our SwitchMaster ${ }^{\circledR}$ R6000 switches ands our new SwitchMaster ${ }^{\circledR}$ R7400 switches for 4U rackmount models.

For 3 to 1 and 4 to 1 style gang switches, please see our SwitchMaster ${ }^{\circledR}$ R7400 switches.

## Typical Backup Application Using SwitchMaster ${ }^{\circledR}$ Gang Switches



When the Primary Network Router fails you can automatically or manually switch over to the Backup Network Router.

## Typical Network Access Control Application Using SwitchMaster ${ }^{\circledR}$ Gang Switches



With Network Access Control you can enable or disable the connection between one or more computers and the Network Router.

## SwitchMaster ${ }^{\circledR}$ R6100 Sharing Switches

8 to 1 and 16 to 1 Sharing Switches connect one and only one of the 8 (or 16) Device Ports to the Shared Port. All other Device Ports are connected to their respective A Ports. With this configuration the selected Device Port has access to the resource that is connected to the Shared Port of the R6100 Sharing Switch, while all other Device Ports have access to their "normal" network connections. Or if the A Ports are not used, the SwitchMaster ${ }^{\circledR}$ R6100 Sharing Switch functions as a simple "selector" switch where any one of the devices connected to the Device Ports can access the shared device on the Shared Port, while the unselected Device Ports are disconnected.


## Typical SwitchMaster ${ }^{\circledR}$ R6100 Sharing Switch Application



Workstation 3 has access to the high performance resource, while all other Workstations have access to their "normal" network connections and resources

