# Job Safety Analysis

## Installation of Network Switches

### ITS

<table>
<thead>
<tr>
<th>Title</th>
<th>Work Task</th>
<th>Hazards</th>
<th>Controls</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preplan the work</td>
<td>Gather proper tools and equipment (chassis, wires, Phillips pan-head screwdriver, tape measure, remount kit) Gather proper PPE for the job and inspect it (<strong>closed toe shoes</strong>)</td>
<td>Improper/No Equipment Inspection</td>
<td>Improper/Lack of Inspection can lead to injury from faulty or old parts; proper inspection can lead to repair and replacement of dangerous equipment Improper PPE use and inspection can lead to unnecessary hazards created by wrong PPE or faulty PPE</td>
</tr>
<tr>
<td>Before the job</td>
<td>Know the area of installation (some rooms are small and tight) Place the chassis on the floor or a sturdy table close as possible to the rack. Inspect the chassis</td>
<td>Trip/Fall Back Injury Electrical Hazards</td>
<td>Leave enough clearance to allow you to move around the chassis.</td>
</tr>
</tbody>
</table>
Use a tape measure to measure the depth of the rack. Measure from the outside of the front mounting posts to the outside of the rear mounting strip.

The depth must be at least 19 inches. Measure the space between the inner edges of the left front and right front mounting posts to ensure that it is 17.75 inches (45.09 cm) wide. (The switch is 17.25 inches [43.8 cm] wide and must fit between the mounting posts.)

**Start of the installation process**

1. Install the L brackets, which connect the switch to the rack, as follows: A. Remove the screws from the front of the switch side-cover panels. B. Attach the left and right L brackets using the Phillips pan-head screws.

2. Install the switch in the rack as follows: A. Insert the rear of the switch between the mounting posts (switch into rack). B. Align the mounting holes in the L bracket with the mounting holes in the equipment rack.

3. Make sure that the switching modules are installed securely. Tighten any loose captive installation screws on the switch or rack.

(four screws per side) provided in the rack-mount kit

Installation will require two technicians.

Use proper lift, move and carry techniques (chassis can range in size, may be heavy)
4. Connect all wires to appropriate locations.

5. Power up the network switch using the power cords provided.

Be sure to clear the area around the back of the network switch installation before connection to the building power.
<table>
<thead>
<tr>
<th>Clean Up and Storage</th>
<th>Improper Clean Up</th>
<th>Improper Storage of Equipment/PPE</th>
<th>Leave the room clean with accessible floor space and room around network switch.</th>
</tr>
</thead>
</table>
| 1. Remove all unused wires and package materials from the area.  
2. Make sure the room is locked when leaving. |  |  |  |

| Training | Employees must have hands on training in the proper use of this piece of equipment/installation. | Supervisor is to fill out the turn in the form to UNC-CH ‘Supervisor Led Training Form’ and Environment, Health and Safety for documentation of proper training |  |

| Created By | Neah Tucker, Workplace Safety Officer  
Donnie Mack, ITS Supervisor |  |  |

| Contact Info | For more information about this JSA and other JSAs, contact:  
*UNC-CH Department of Environment, Health and Safety*  
1120 Estes Drive Extension, Chapel Hill NC 27599 CB# 1650  
(919) 962-5507 ✉️ [https://ehs.unc.edu/](https://ehs.unc.edu/) |  |  |