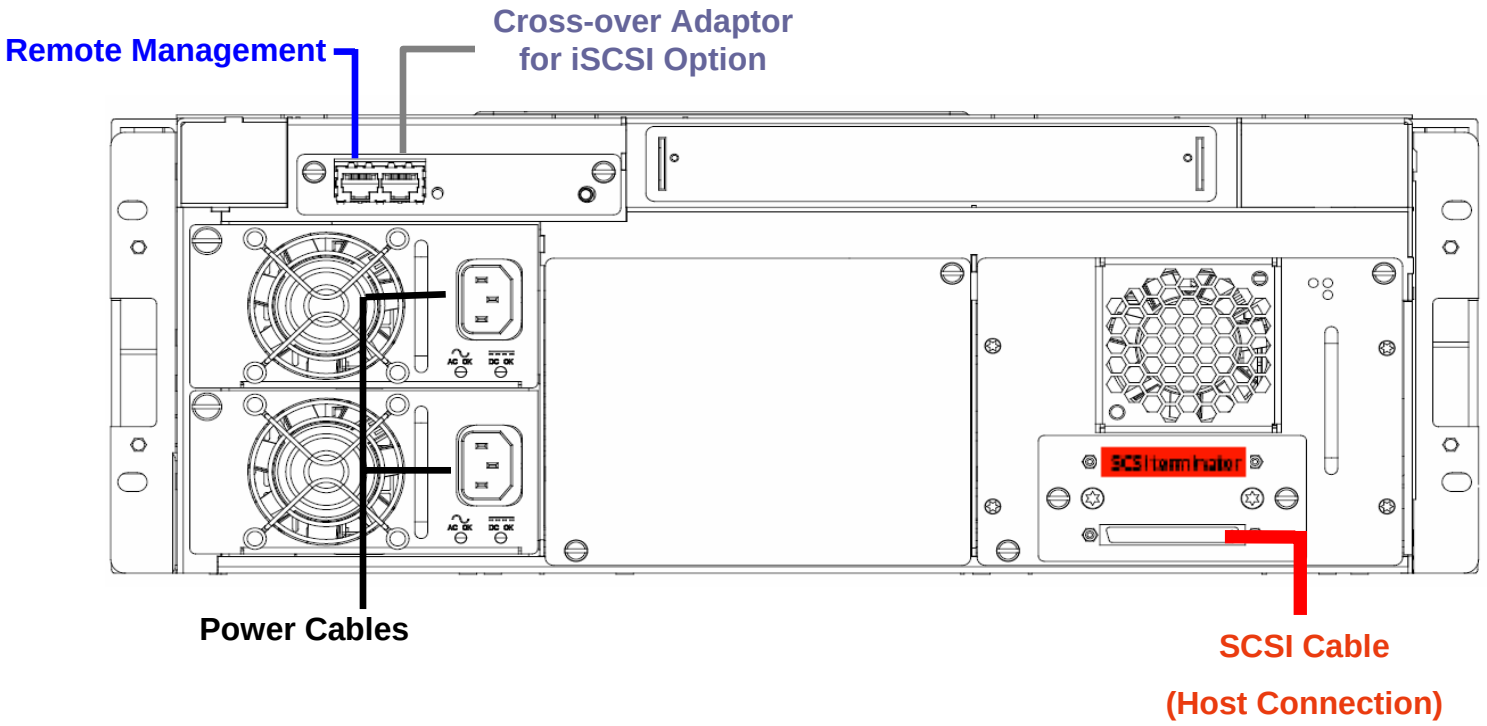
IBM 4U Modular Tape Library

Cabling & Configuration Guide

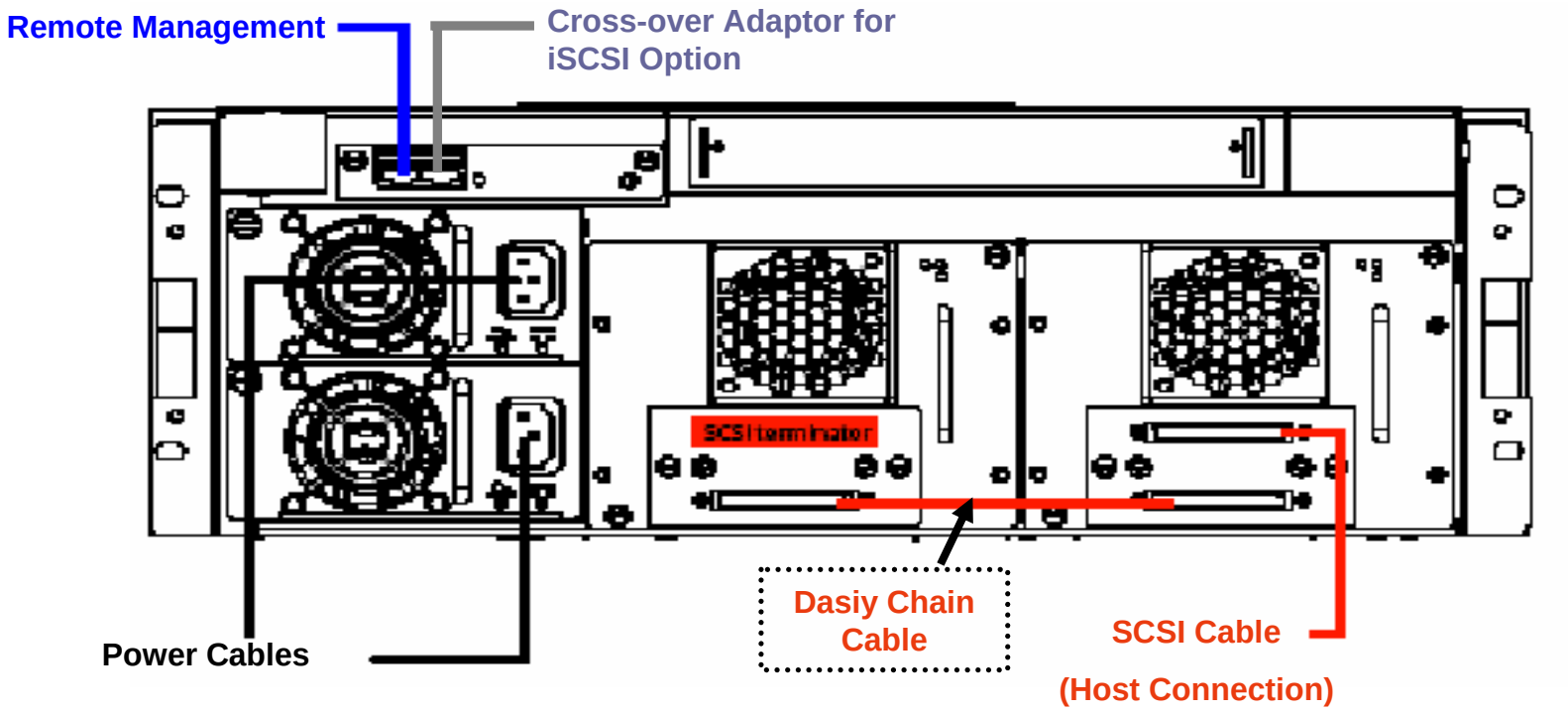
Cabling Specifications – SCSI (Single Drive)

1. Connect Power Cables to unit.
2. Connect SCSI Cable to host
3. Terminate SCSI bus at drive.
4. Connect Ethernet connection for Remote Management



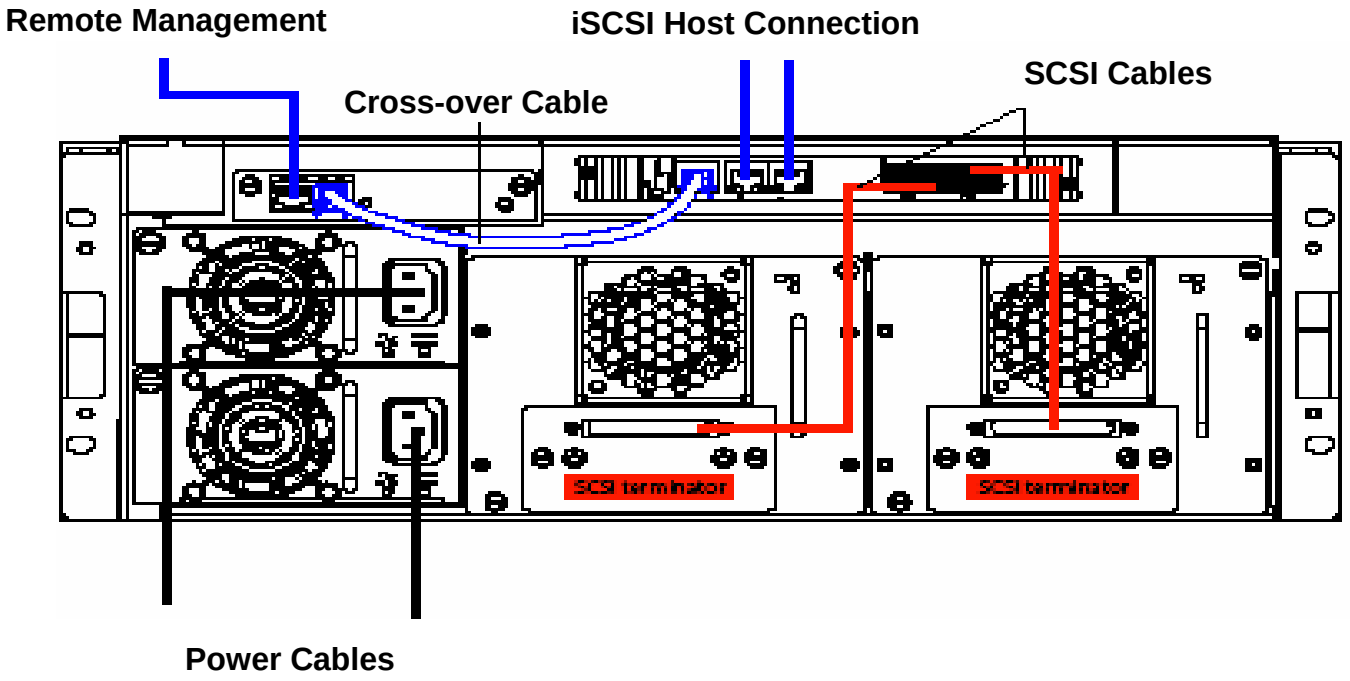
Cabling Specifications – SCSI (Dual Drives)

1. Connect Power Cables to unit.
2. Connect SCSI Cable to host
3. Daisy chain Drive Sleds and install SCSI Terminator on last drive of chain.
4. Connect Ethernet connection for Remote Management



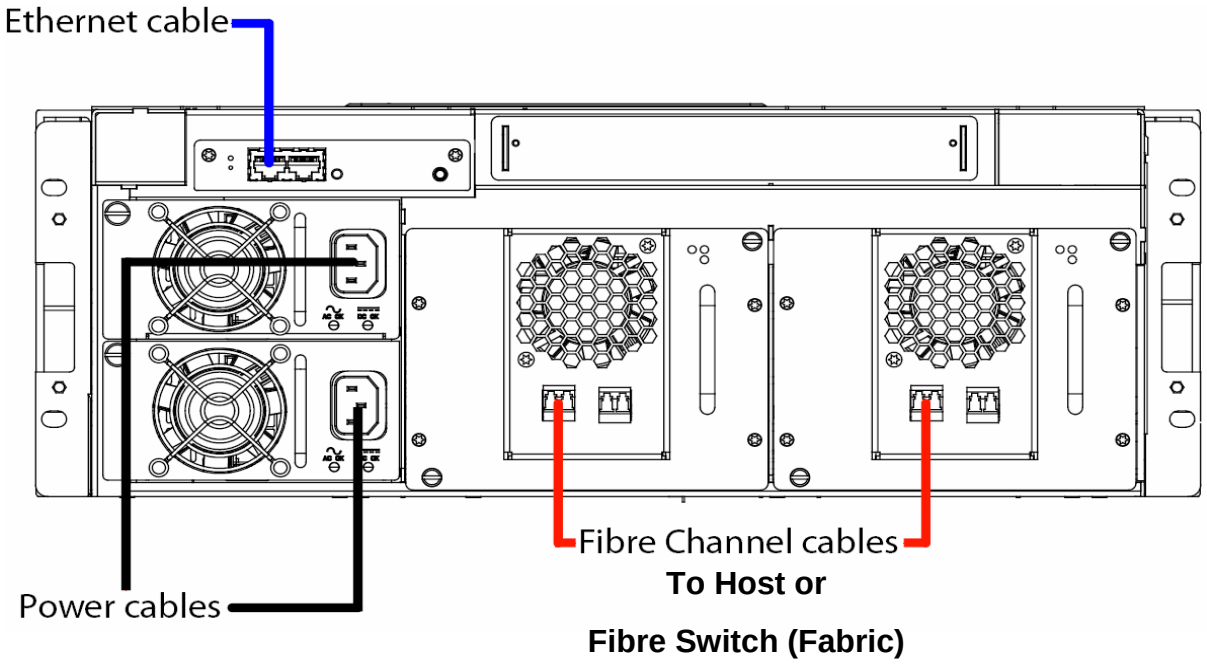
Cabling Specifications - iSCSI

1. Connect Power Cables to unit.
2. Daisy chain Drive Sleds from iSCSI bridge and terminate bus at each drive.
3. Connect Cross-over Cable to remote management and iSCSI option.
4. The iSCSI bridge takes two ethernet connections and creates two independent SCSI initiators. These can be cabled into drives as needed for throughput and network utilization



Cabling Specification – Fibre Channel

1) Connect Power Cables to unit.
2) Cable fibre to host or fibre switch (fabric).
3) Note that no termination is necessary.
4) Cable ethernet to management host



Stacking Modules / Adding onto existing Library Base

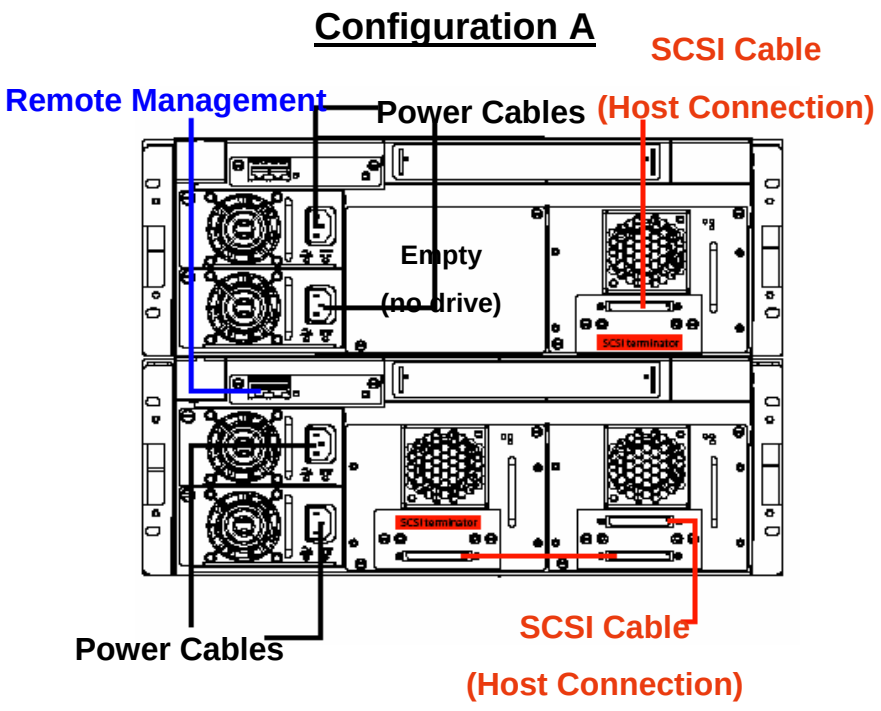
- A stack can be configure with up to 4 library modules, with 1 configured as the Master and the rest configured as Slaves.
- Only the Master module in a stack requires a drive. The Slaves can be configured without drives, if desired, and only used for increasing the number of slots (magazines) in the library stack.
- The network should only be cabled to the Ethernet connection of the Master in a stack. This is for running the Remote Management Utility.
- No special cabling is required between library modules in a stack. Communication between the modules is carried over IrDA (no wires) and is configured automatically when the Master/Slave setting is turned on for each module.
- For SCSI configurations, each library module should be connected separately to the host so no more than 2 drives are attached to each SCSI bus.
- There is no required order for the Master and Slaves in a stack, but it's generally recommended to place the Master near the center of the stack, especially when the other modules are mainly used for storing tape cartridges.
    - When the Master is the only module in the stack with a drive, all tapes must be transported by the library to the Master so distributing the tapes evenly above and below the Master reduces access time.
    - The closer the Master is to the middle of the stack, the higher it is in the cabinet and the easier it is to view the front panel display (OCP), which is the main display for the stack.

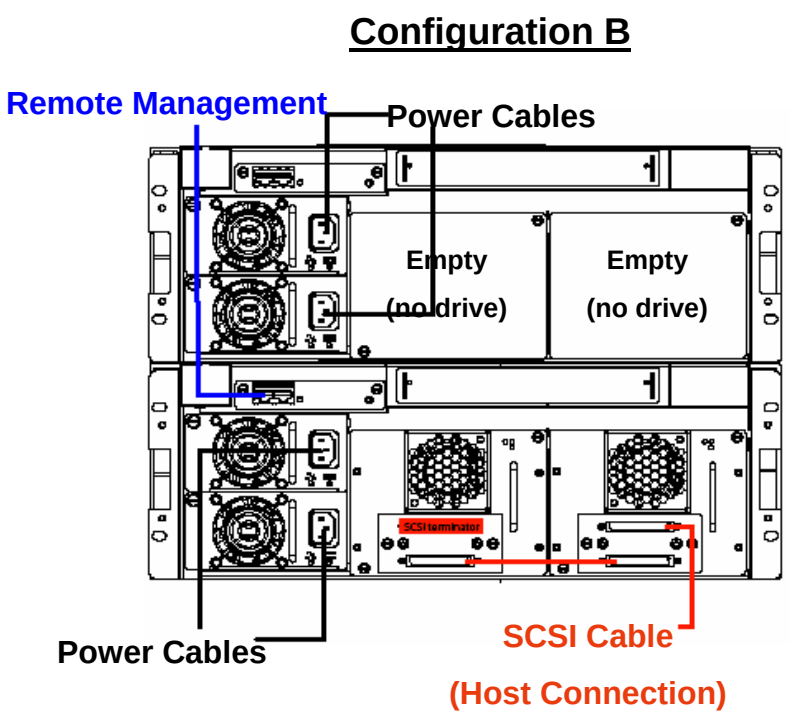
Stacking – a Small (2 Library) Stack

Stacking (SCSI shown) allows for added capacity by adding tape magazines, or added throughput by adding drive sleds, or both.

Configuration A: Addition of top library provides added capacity (magazines) and throughput (drive) to the base library (bottom).

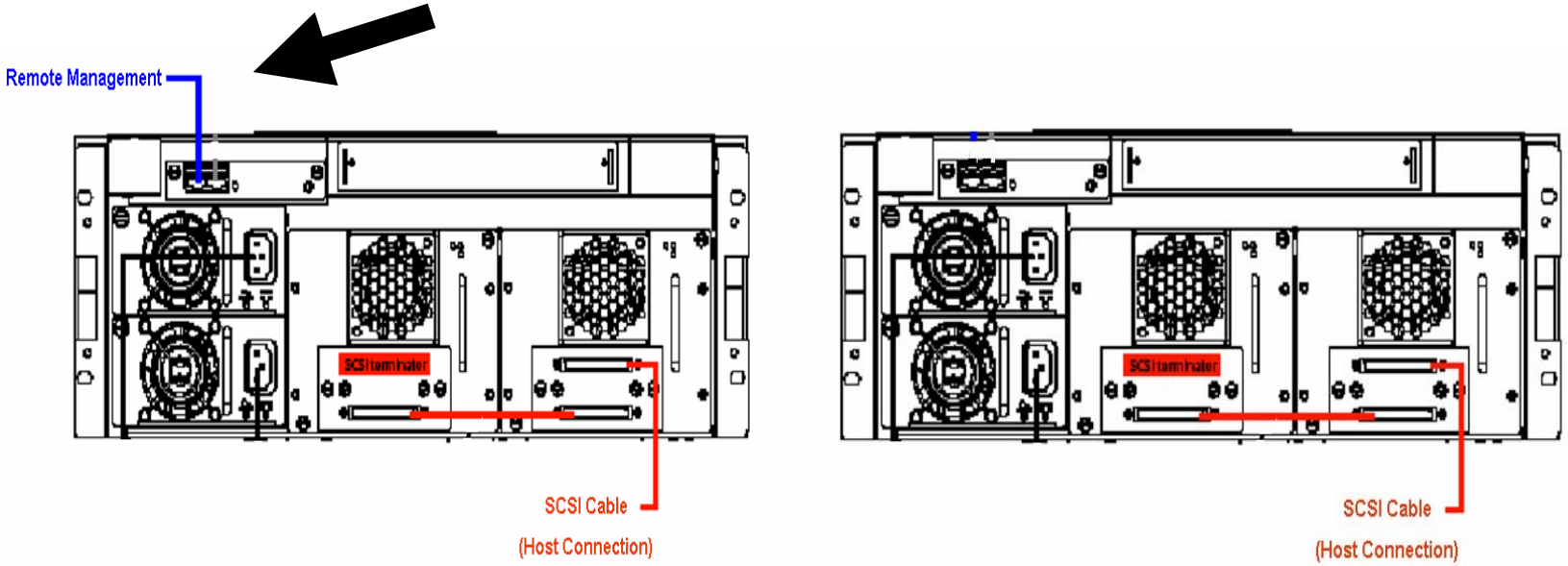
Configuration B: Addition of top library provides added capacity (magazines) to the base library (bottom).





Stacking up to 4 Library Modules (maximum)

- **There can be only 1 Master in the stack.**
- **The Master can be placed anywhere in the stack, but the middle is recommended**
- **The only difference between cabling a Master and a Slave, regardless of the interface used (scsi shown), is that only the Master's ethernet (Remote Management) connection is used.**



Master

Slave