

1. General

The following instruction describes the recommended procedures for installing fiber optic patch cords (jumpers) into fiber distribution frame systems.

2. Procedure

IMPORTANT: In order to successfully utilize the jumper lengths recommended in Table 1, follow this routing scheme exactly. See the illustration for frame references. Jumpers should be installed according to planning diagrams.

		Jumper Connector 1							
		A1	A2	A3	A4	B1	B2	B3	B4
Jumper Connector 2	A1		10	8	12	8	12	12	14
	A2	10		14	10	6	10	10	14
	A3	8	14		12	14	10	12	14
	A4	12	10	12		6	14	8	12
B1	8	6	14	6		10	8	13	
B2	12	10	16	14	10		14	8	
B3	12	10	12	8	8	14		12	
B4	14	14	14	12	12	8	12		

Table 1. Recommended Jumper Lengths from quadrant to quadrant (for each additional bay crossed add 3 feet, i.e.; A1 to C3 is A1 to B3 + 3 ft. = 15 ft.)

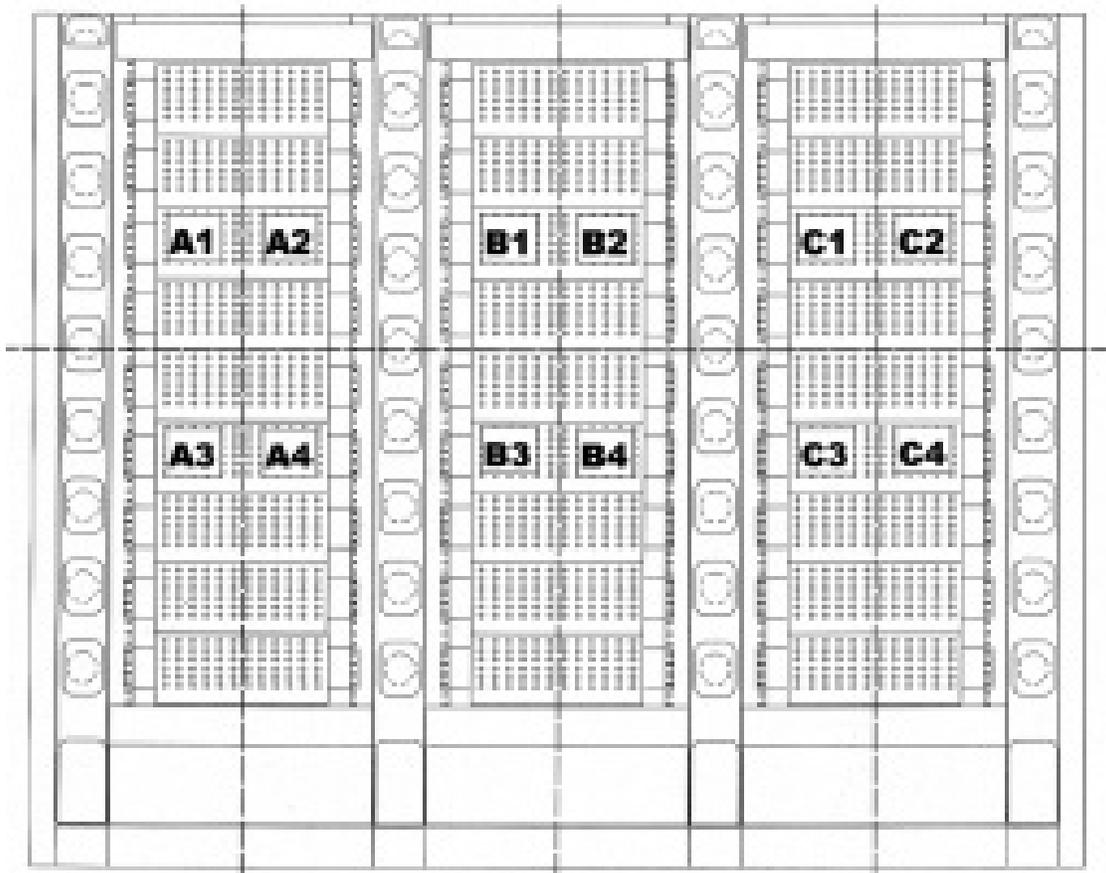


Figure 1



CAUTION: Fiber optic cable is sensitive to excessive pulling, bending, and crushing forces. Consult the cable specification sheet for the cable you are installing. Do not bend the cable more sharply than the minimum recommended bend radius. Do not apply more pulling force to the cable than specified. Do not crush the cable or allow it to kink. Doing so may cause damage that can alter the transmission characteristics of the cable; the cable may have to be replaced.

2.1 Routing in a single frame

- When routing to the left or right side of a single frame, use the interbay storage unit (IBU) to store jumper slack.
- When routing from an upper quadrant of one side of a frame to either quadrant of the opposite side of the frame, route to the top of the frame to traverse to the opposite side and route back down to the correct housing.
- When routing from a lower quadrant of one side of a frame to either quadrant of the opposite side of the frame, route to the lower jumper trough to traverse to the opposite side of the frame and route up to the correct housing.

2.2 Routing in a multiple frame line-up

- When routing from quadrants on the shared sides of adjacent frames, route directly from housing to housing and store excess jumper slack in the IBU.
- When routing from upper quadrants to any quadrant on another frame, route to the upper jumper trough to traverse to the appropriate frame. Route down to the appropriate side frame and into the correct housing.
- When routing from lower quadrants to any quadrant on another frame, route to the lower jumper trough to traverse to the appropriate frame. Route up to the appropriate side frame and into the correct housing using the nearest IBU to store any jumper slack.

NOTE: To protect connector end faces from damage and dirt, leave the protective covers (dust caps) on the jumpers until ready to plug into adapters. Obey the following precautions in order not to damage the surface of the connector and make it unusable:



WARNING: Isopropyl alcohol is flammable with a flashpoint at 54°F. It can cause irritation to eyes on contact. In case of contact, flush eyes with water for at least 15 minutes. Inhalation of vapors irritates the respiratory tract. Exposure to high concentrations has a narcotic effect, producing symptoms of dizziness, drowsiness, headache, staggering, unconsciousness and possibly death.

- Always keep dust caps on connectors and adapters when not in use.
- Ensure dust caps are clean before reuse.
- Use optical cleaning materials as standardized by your company.
- Clean the connector before every mating, especially for test equipment patch cords (jumpers).
- A minimum level of cleaning is listed below. Local procedures may require more rigorous cleaning methods.

Step 1: Remove plugs from the connector adapter.

Step 2: Wipe the connector ferrule twice with a lint-free wiping material moistened with isopropyl alcohol. Then wipe across the end of the ferrule.

Step 3: Repeat previous step with a dry wipe.

2.3 Installing Jumpers



WARNING: Never look directly into the end of a fiber that may be carrying laser light.

Laser light can be invisible and can damage your eyes. Viewing it directly does not cause pain. The iris of the eye will not close involuntarily as when viewing a bright light. Consequently, serious damage to the retina of the eye is possible. Should accidental eye exposure to laser light be suspected, arrange for an eye examination immediately.



WARNING: DO NOT use magnifiers in the presence of laser radiation. Diffused laser light can cause eye damage if focused with optical instruments. Should accidental eye exposure to laser light be suspected, arrange for an eye examination immediately.

- Step 1:** First identify the two ports to be connected.
- Step 2:** Select a jumper length based on Table 1 and Figure 1.
- Step 3:** Remove the dust cap from each connector and mate with their appropriate adapters.
- Step 4:** Use the nearest available IBU to store jumper slack.

2.4 Removing Jumpers

NOTE: It is important to use proper methods when removing jumpers from a populated bay line-up to prevent temporary attenuation or permanent damage to the jumper being removed and the other jumpers in the routing pathways.

- Step 1:** To properly remove a jumper, identify the first end to be disconnected.
- Step 2:** Unplug the first connector, taking care not to disturb adjacent connections, and place a dust cap on the connector to prevent damage to the connector end face. Also, place a dust cap on the exposed adapter to prevent dirt from entering the adapter alignment sleeve.
- Step 3:** Carefully feed the jumper out of the housing and trace the jumper back through the routing pathways. Be careful not to snag, pull or bend any of the surrounding jumpers.
- Step 4:** Once the second end of the jumper has been reached, unplug the connection and place a dust cap on the connector and the exposed adapter.

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