Nexans

INSTALLATION INSTRUCTIONS MO623

Nexans N3S ODF system

NEXANS N3S ODF SYSTEM

Content

Product description

N3S is a modular system for terminating a large number of optical fibres while occupying a small amount of floor space. The system consists of patching frames, a splice frame (no wall-mounted splice modules), splice modules, patching modules and a complete solution for handling patch cords and cables.

Three different frame heights are available 2200 mm, 2000 mm and 1800 mm (the height of the cable ladder is additional). The 600 mm width and 300 mm depth are the same for all 3 heights

Each patching frame has an integrated cable ladder. The splice cabinet has an integrated cable ladder to handle cables from the patching frames. Other cables are installed on ladders in the patching area.

Two different systems solutions are offered, S and TS. There is a detailed description of the systems in the "Installation" chapter.

Patching frame
The 2200 mm frame has space for 16 patching modules with 96 fibres each if SC contacts are used, totalling 1536 fibres/frame.
The total frame height is either 2450 mm (TS) or 2550 mm (S) depending on the installation system used.

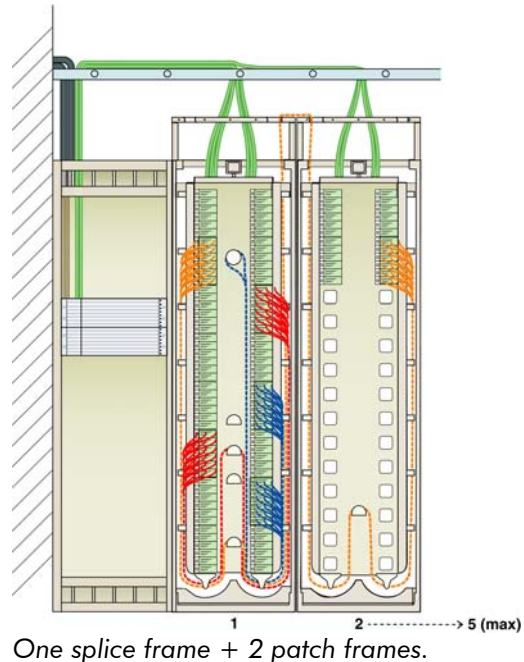The 2000 mm frame has space for 14 patching modules, totalling 1344 fibres/frame.
The total frame height is either 2250 mm (TS) or 2350 mm (S) depending on the installation system used.

The 1800 mm frame has space for 12 patching modules, totalling 1152 fibres/frame.
The total frame height is either 2050 mm (TS) or 2150 mm (S) depending on the

One splice frame + 2 patch frames.

Patch frame

installation system used.

Splice frame
One splice frame can handle the fibres and cables associated with 5 patching frames. This means that 40 connection cables (192 fibres) + 80 patch module cables can be accommodated per frame. The 2200 mm frame has space for 10 splice modules, each of which can handle 768 splices (96 separable 8-fibre ribbons). The total number of fibres that can be spliced in the frame is 7680.

In the 2000 mm frame, there is space for 9 splice modules, totalling 6912 fibres.

In the 1800 mm, there is space for 8 splice modules, totalling 6144 fibres.

When locating the frame, allowance must be made for the cable ladder and cable support, which raise the frame height an additional 350 mm for the cable ladder and 250 mm for the cable support.

Doors
Doors are supplied on request.

Splice module
The splice module consists of 8 swing-out cassettes. 96 fibres can be spliced in each cassette (12 separable 8-fibre ribbons) or 48 single fibres.

Patch module
The contacts are divided into pullout units containing 16 contacts in 8 duplex adapters. Each pull-out unit has an adapter holder that can be twisted to allow access to the inner contacts.

Each adapter holder has punched holes to make it easy to replace damaged adapters.
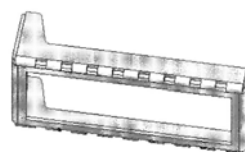

Splice frame

Doors

Splice module

Adapter holder pulled out and twisted

Adapter holder

One side of the box can be removed for easy access to looped fibre.
Each patch module can be installed and removed from the frame independently of all other patch modules.

The 96-fibre box consists of 6 pull-out units, each with 16 contacts.
The 48-fibre box consists of 3 pull-out units, each with 16 contacts (half the height of the 96-fibre box).

With systems solution S (explained later in this document), the box is supplied with preterminated contacts with 20 metre GAQBDU 96 or 48 fibres.

With systems solution TS the box is supplied with preterminated contacts with the required length of cable. The cable is a GASQBDUV 96 G652D, and the 6.5 metres nearest the patch module consists only of a tube over the ribbon.

Side removed

Module with GAQBDU

Module with GASQBDUV

Protective cover and label panel
If doors are not used, there is a protective cover that can be fixed to the side of the box using three screws. The protective cover is designed as a hatch. Markings of any kind can be fixed to the outside or inside of the hatch.

A permanently attached pull-out marking list can be attached to the side of the box. markings can be made on the pull-out part.
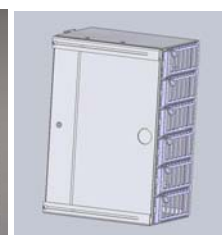
Protective cover   *Label panel*

Guides
Patch cord handling guides are fitted to the side of the inner frame of the patching frame.

Guides

Hangers

Hangers can be fitted to the centre of the patching frame as necessary when the patch cord is installed. Two hangers are permanently installed in the frame (and can be moved if necessary). These hangers have handles that are used when the inner frame is moved out of and into the frame.

Hanger

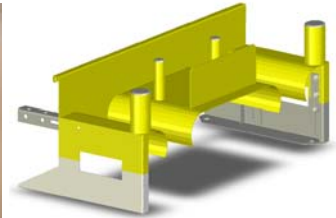**Patch cord ladder, patching frame**

Two variants of patch cord ladder are available. Patch cord ladder S is used for both patch cords and cables emerging from the patch modules, and is designated systems solution S later in the instructions. Patch cord ladder TS is used solely for patch cords, and is designated systems solution TS later in the instructions. One of the patch cord ladders is fitted on the patching frame (further information is given in the "Installation" chapter.

Patch cord ladder S   *Patch cord ladder TS*

Cable ladder, splice frame

The cable ladder is screwed to the top of the splice frame and is used for cables emerging from the patching frame in accordance with systems solution S.

Patch cord ladder for patch frame

Cable support to splice frame

The cable support is screwed to the top of the splice frame and is used to relieve the load on cables emerging from the pitch modules in accordance with systems solution TS.
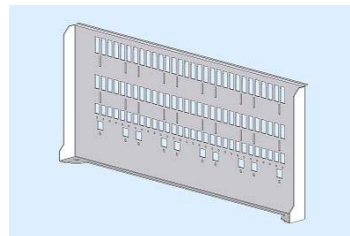
Roll-out ramp

A roll-out ramp is required to withdraw the inner frame from the outer frame. There are two rectangular holds at the front of the ramp that act as a stop for the inner frame when it is pulled out. The roll-out ramp can be screwed onto the floor, which means 1 ramp/frame.

Roll-out ramp

Cable clamp for outgoing cable

Outgoing cable terminates in cable clamps. The cable grips are mounted either at the top or the bottom of the splice frame.

Cable clamp for cable associated with patch modules

The cable clamp is used in the cable support for systems solution TS.

Delivery

Each frame is delivered in a cardboard box measuring 2300 X 720 X 410 mm. 1 box per long pallet.

The frames are assembled with sides, rear piece, guides and 5 hangers.
Patch frames are supplied with the following items as accessories: extra hangers, protective cover, cord ladder, doors and roll-out ramp.

The splice frame is supplied with splice modules, cable grips, a cable ladder and doors as accessories.
The patch module is supplied already connected to x metres of cable. The patch module is delivered in a separate package.

Covered frame

Installation

Systems solutions

Two alternative systems solutions are available. (1) N3S system S with integrated splice frame, and (2) N3S system TS with separately-located splice frame.

1. The patching frame is fitted with patch cord ladder S which is used for patch cords and cables which exit the frame. The splice frame is located in direct connection with the patching frame and is fitted with a cable ladder. The cable ladder is used for cables emerging from the patching frame. Other cables going to the splice frame are installed on ladders located in the distribution room. With systems solution S, type GAQDBU cables are used to the patch modules. In this case, the cable length is fixed at 20 m.

2. The patching frame is supplied with patch cord ladder TS which is used for patch cords emerging from the frame. Cables emerging from the frame which are associated with the patch modules are placed on cable ladders located in the distribution room. In this solution, the splice frame is located in another place (e.g. an adjoining room/cellar). A cable support is attached to the splice frame, and this is used to support cable clamps which relieve the load on cables emerging from the patch modules. In system solution TS, GASQBDUV is used to the patch modules. The appropriate length of cable is used.
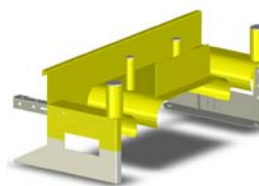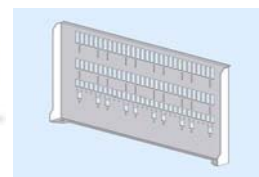

Patch cord ladder S   Cable ladder

Module with GAQDBU

Patch cord ladder TS   Cable grip


Module with GASQBDUV

Location

Before the patch cord ladder for the patching frame and the cable ladder for the splice frame are screwed tight, the frames must be fixed to their permanent locations in the room.

The frames can be installed in various locations in a distribution room. Regardless of location, one splice frame can supply five patching frames. For optimum access to patch cord and cables, a patch frame should not be installed with one side against a wall or in a corner.
The location varies depending on the systems solution.

Systems solution S:
The splice frame is fixed with the back or side against a wall or similar surface. The frame can also be free-standing in the room, but in that case it should be fastened to the floor. The required number of patching frames are added. Frames are attached to one another using the holes at the top and bottom of the back and sides of the frames. There are also holes in the bottom of the frame for attachment to the floor.
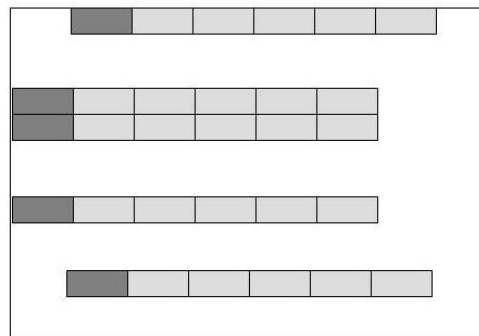
Systems solution S

Systems solution TS:
In this solution, the splice frame is independent of the patching frame. The splice frames can be located in any position in the distribution room or adjoining room. In this case, the cables from the patch modules are led on cable ladders located in the distribution room.
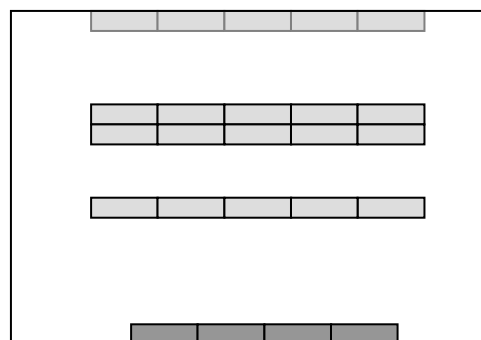
Systems solution TS

So that the frame can be trued vertically and horizontally on uneven floors, there are adjustment screws in each bottom corner of the frame.

Adjusting screw

ODF frame

Pull out and twist

The inner frame of the ODF frame can be pulled out and twisted. There is a lock in the upper part of the frame that is used when the inner frame is in both the in and out positions.

Before the inner frame can be pulled out, the cover at the bottom of the frame is replaced with a roll-out ramp. The frame will only move correctly when ramp are level.

To lock the frame in the out position, use the lock at the top and the rectangular holes in the ramp.
With the inner frame pulled out, it can be twisted 45° in the required direction. On the bottom left side of the frame there is a spring-loaded pin that engages to prevent unintended twisting. Raise the pin to twist the frame.

Installing Patch modules

Lay the cable out on the floor and thread the free end through the correct hole in the inner frame of the patching frame. The inner frame must be pulled out and twisted for easy access. It is a good idea to start installing the patch modules at the very top or bottom to ensure that they are correctly positioned in the frame. If KB109 (96 fibres) is being installed, the cable is threaded through every second hole.

Pull all the cable through the hole and fit the patch module by first hanging it in the frame using the patch modules lug and the corresponding notch on the inner frame. The patch module is screwed to the inside of the frame with the two screws supplied. The screws are tightened from the outside of the inner frame.

Lock button

Frame with cover   *Frame with ramp*

Spring-loaded pin   Pulled out and twisted frame

Hole in frame for cable

Box lug   Notch in frame   Assembled ODF

The cable is arranged in a W on the back of the inner frame using the fixed hangers.

The cable is arranged in a W so that the patch modules can be removed from the frame in future without breaking any fibre connections. For this reason, the front panel of the hangers is removable to facilitate disassembly.

If the patch module is positioned on the left of the frame (looking from the front), the cable exits the frame from the right, see diagram.

When the patch module is positioned at the bottom of the frame, there is a tab at the back of the inner frame that should be pushed in to create an appropriate radius for the cable, see diagram
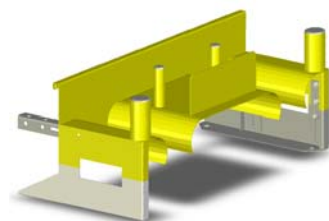
In systems solution S, pull the cable through the correct hole on the patch cord ladder, lay it in the cable channel and run it to the splice frame, see diagram.

In systems solution TS, the cable runs on the rear of the patch cord ladder and up on existing cable ladders in the node. The fan-out part of the cable (the transition from thick to thin cable) is located on the cable ladder entering the node (not in the frame) This means that the transition will be located in various places on the cable ladder depending on where in the frame the module is located (within a length of about 1 m).

To allow the inner frame to pull out and twist, sufficient slack must be left in the cable between the fastening points on the inner and outer frames.

The amount of slack to leave can be seen with the inner frame pulled out and twisted. Secure the cables to the inner and outer frames using cable ties. It is a good idea to lay all the cables being installed at this time before they are secured to the patch frame.

Cable at the rear of the frame

Tab pressed in

Top view of cable, systems solution S

Patch cord ladder, systems solution TS

Fastening point, inner frame   Fastening point, outer frame

System for patch cord organisation

All patch cord is laid in a W shape in the frame, regardless of the location of the patch modules to be patched. The only exception is if the patch modules to be patched are located on the same side of the same frame.

The patch cord is installed on the sides and in the middle of the patch frames inner frame. There are guides on the sides and hangers in the middle, see diagram.

Internal patch cord (blue and red - the colour is only added to illustrate the difference) must be 5 metres long for frames with length 2200 mm, 4.4 m for 2000 mm, and 3.9 m for 1800 mm. Orange patch cord (external) should be twice the length of internal patch cord + the necessary length according to the relative positions of the frames. In this diagram, the length of the orange patch cord is 11 metres.

To keep things tidy, a systematic approach must always be used with the guides. The patch cord of the two patch modules at the top (on each side of the frame) must always be laid in compartments marked in red on the same side as the patch module, then passed to the other side of the frame in the compartment of the patch module being patched. Patch module 3 and 4 have blue compartments, patch module 5 and 6 have white cabinets and patch module 7 and 8 have green compartments, see diagram (if the 2000 mm height is used, there is space for 7 modules/side, and 6 modules if the 1800 mm height is used). If the patch cord exits or enters the frame, the yellow compartment at the back must be used on the side of the frame where the cord exits or enters (the yellow compartment is used for external patch cord).

The open design of the frame means that the patch cord never needs to be threaded through holes.
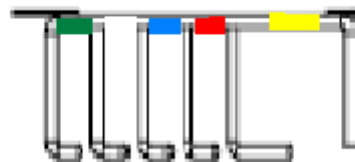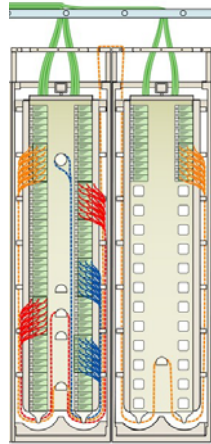
Guide

Installing external patch cord

There is a spring-loaded radius limiter on the tops of the cabinet, to be used for incoming/outgoing cord. This is a safety feature to ensure that the cord cannot be damaged.

The spring-loaded radius limiter has an adjustable stop that is set to its correct position when the frame is installed. Ideally, the radius limiter (after installing the patch cord) should rest against the stop in the in and out (twisted) positions. The rear of the radius limiter has a locking piece to lock the radius limiter in its rear position if necessary.

Spring-loaded radius limiter

Radius limiter, Locking piece

Pull out the relevant inner frames and lock them in the out position. Twist the frames so that the side from which the patch cord exits is twisted outwards. The spring-loaded radius limiters must rest against the stop.

Guides

If possible, you should start with the patch cord from the upper patch module, to allow the cord to run down the rear of the guides.

Connectors in KB109

Lay the patch cord out on the floor and position the connectors (duplex patch cord) in the patch module.

Place the patch cord in the guides on the same side of the frames as the patch module. Make sure that the patch cord is in the correct compartment in the guides, see page 12.

Laying in guides

Place the patch cords of the upper patch module in the inner compartments to prevent the patch cords crossing at any point.

The reason why the cord must be laid in the same compartment down the side of the frame is to make it easy to remove patch module and patch cords from the frame without disturbing the operation of the other fibres.

The only exception is the guide on the side of the patch module being installed. In this case, the whole of the guide can be used for simpler installation.

The function of the hangers is to organise surplus patch cord. Their location depends on the position of the patch modules in the frame. The location of the first hanger will be known when the first cord is installed. Run the patch cord over the hanger in the relevant cabinet. If patching is being done between 2 frames, it may be appropriate to leave half the surplus within the relevant frame.

Because there is a large amount of patch cord – probably duplex patch cord – to be installed, you must ensure that the patch cord hangs free, without twists and internal stresses.

Run the patch cord over the other side of the frame and place it in the compartment marked in yellow (outgoing patch cord) down the whole side.

Lay the patch cord in front of the spring-loaded radius limiter and behind the outgoing radius limiter.

It is important not to stretch the patch cord at any point – it must have full freedom of movement throughout the frame.

The diagrams above show how the patch cord is installed when the patch module is on the left of a frame. However, the principle is the same wherever the patch module is located in the frame. The patch cord must form a W shape and must enter or exit the frame on the side opposite the patch module.

Patch cord in guides

Laying over hanger

Outgoing patch cord

Installing internal patch cord

Pull out the relevant patch frame and lock it in the out position.

If possible, you should always install the patch cord from the upper modules first. The reason is that the patch cord should hang as far into the guides as possible.

Lay the patch cord out on the floor and place the connector in the patch module, for best results making sure that the patch cord is not twisted.

Run the patch cord in the guides on the first side of the frame. Make sure that the cord is in the correct compartment in the guides, see page 12. The reason why the cord must be laid in the same compartment down the full side of the frame is to make it easy to remove patch module and patch cord from the frame without disturbing the operation of the other fibres.

The patch cord is run to the middle off the frame. Because the function of the hangers is to organise surplus patch cord, their position depends on the location in the frame of the patch modules being patched. Hang the patch cord over the hanger and lead the patch cord to the next side. Place it in the correct guides (depending on where the box is located) and fit the contacts in place**.**

It is important not to stretch the patch cord at any point – it must have full freedom of movement throughout the frame.

The front panel of the hanger can be removed if necessary.

The only time the W shape is not used is when the patch modules being patched are on the same side in the same frame. Place the connector in the relevant patch module and run the patch cord in the correct compartment in the guides on the side of the frame. Run the patch cord to the hangers. Hang the patch cord on the relevant hanger.

Laying in guides

Front panel removed

Removing ODFs and cables

If you followed the installation instructions for cables and cord, it is very easy to remove a patch module with full traffic operating in the patch module and the frame.
Pull out and twist the inner frame for full access to the patch cord and cables. To release the cable from the rear of the frame, remove the front panel from the hangers holding the cable concerned. Remove the cable from the hangers and replace the front panel to keep the remaining cables in position.

Remove all the affected patch cord from its compartments on all guides all along the side of the frame.

Unscrew the patch module (the patch module will stay in position because it is supported by a lug at the top of the patch module that engages with a notch on the frame). Move the patch module slightly to the side and lift it out of the frame.
Check that the cable at the back of the frame is not caught on any hangers.

Place the box on a table or similar surface and unscrew the side panel. With the side removed you have easy access to the fibres and connectors.

Each adapter panel has punched holes to make it easy to replace damaged adapters.
To replace an adapter, insert a small screwdriver into the hole on the adapter panel belonging to the adapter being replaced. Press the metal catch on the adapter and pull it out as far as it will go. Press the metal catch on the other side and remove the adapter.

Releasing the cable

Releasing the patch cord
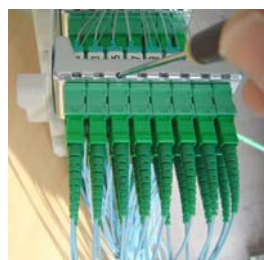
Splice frame

Position of cable and module

As stated in the product description, it is possible to fix 40 connection cables either at the top or the bottom of the frame. There are 5 mounting plates (at the top and at the bottom) holding a possible 8 cable clamps each, 4 on each side. On the same mounting plates, there are also attachment points for the cables coming from the patch modules in systems solution S, 1 on each side. The patch module cables are always installed at the top of the splice frame.
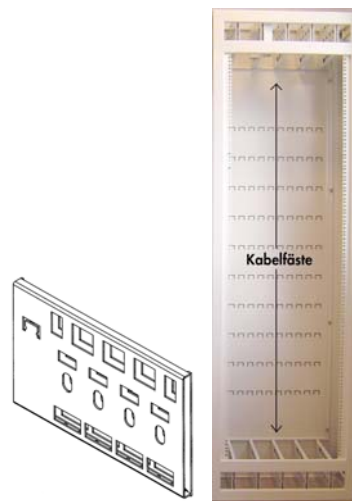
With systems solution TS, a cable support which attaches to the splice frame is used, and cable grips are used to relieve the load on cables coming from the patch modules.

Mounting plate for cable   Splicing frame

The position of the modules depends on the direction of the cable. The arrows in the diagram show the direction of the cable and the order in which the modules must be inserted in the frame. Module 1 is always placed 35 cm from the cable fastening, regardless of the direction of the cable.
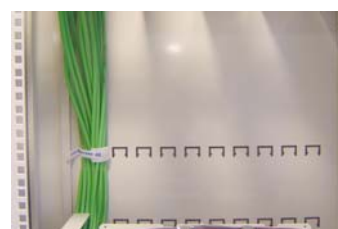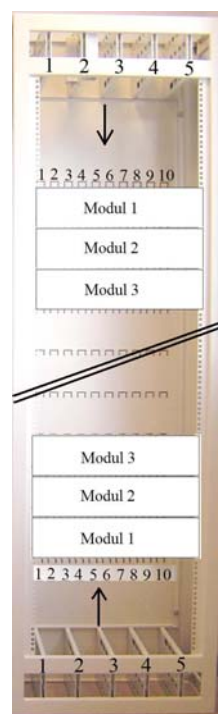The cable clamp holding the cable for module 1 is fixed to the left of the first cable plate, regardless of the direction of the cable. The cables for the remaining modules are secured in their correct order in the cable plate.

All fibres (tubes) running to module 1 are secured to the first of the 10 vertical rows of fastening points at the rear of the splice frame. Fibres for module 2 are secured to row 2, etc. The order is the same regardless of the direction from which the cable enters the frame.

If you are starting with the patch module at the bottom (when the cable enters the frame from the top), secure the cable to cable plate 5 and run the fibres (tubes) in row 9 in a 2000 mm frame. This will

Fastening points

remove any need to cross the fibres (tubes) in any position.

Cables from the patch modules will always enter the frame from the top. Even if the remaining cables are secured at the base of the frame, the patch module cables must be secured in the cable supports corresponding to the splice module location. In other words, the cables for the box at the bottom (which in this case is module 1) are placed in row 1 and the cables for module 2 are placed in row 2, etc.

Cable ladder

In systems solution S, a cable ladder is used. In this solution, the splice frame is connected directly with the patching frame. The cables emerging from the patch modules are placed in the cable ladder (which must be mounted to the splice frame). Which of the five outlets in the cable ladder will be used depends on the location of the splice module on the frame, see previous section.
NB! Only the cables from the patch modules are to be placed in the cable ladder. Connection cables are placed in front of the cable ladder.
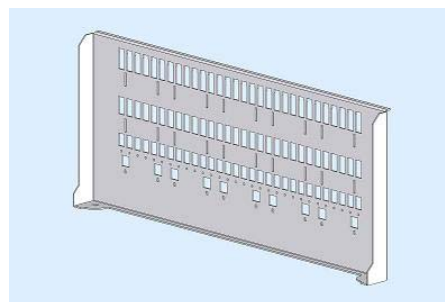

Cable ladder

Cable support

In systems solution TS, cable supports are used instead of a cable ladder. The cable support takes the same amount of cables as systems solution S.
The reason for using cable supports is that the cables to these patch modules requires a different type of fastening point and load relief. The cable is prepared as described below, except that the stripped length (for the cables from the patch modules) is increased by an additional 600 mm.
In this solution, cable clamps adapted for the cable support are used.

Preparing cables solution S

The cables are stripped to different lengths depending on the intended location of the splice module in the splice

Stripping cable using the tear thread

frame. The cable/cables to splice module 1 (at the top or bottom of the frame depending on the direction of the cable) are stripped to 3 m. 15 cm per splice module is then added to this. The longest stripping length is 4.35 metres for splice frames with a height of 2200 mm. Mark the cable at the measurement determined as described above. Carefully make a ring cut at the mark. To expose the tear thread (Nexans cables), carefully strip 10 – 15 cm of the sheath at the end. Split the sheath using the tear thread and remove it. Remove the ribbon and any fabric and cut it at the end of the sheath.

Remove the ribbons from the slots. If Vaseline cable is used, clean the ribbons with isopropanol. Using a felt-tip pen for example, mark the ends of the ribbons with the correct slot number.
Cut the slotted core 10 cm from the edge of the sheath, strip away 5 cm of the slots.

Position the cable in the cable clamp so that the cable will not be subject to any internal stresses when it is installed in the frame later. Secure the cable using the screw.

Tubes are passed over the ribbons, with 12 ribbons in each tube (2 tubes for 192-fibre cable, 4 tubes for 384-fibre cable, etc.). It is a good idea to use left-over sheaths from the patch module cables as tubes. The length of the tubes to the first splice module should be around 90 cm (regardless of the direction of the cable), plus 15 cm per splice module. Secure the tubes to the grip using cable ties. Finally, fit the cover to the grip.

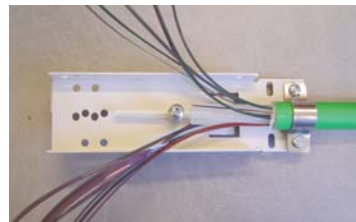The cable from the patch modules is placed in this position only in the frame.

Threading the tubes in the frame in systems solution S
Begin by attaching the cables emerging from the patch modules with cable ties in the rear attachment points on the mounting plate.

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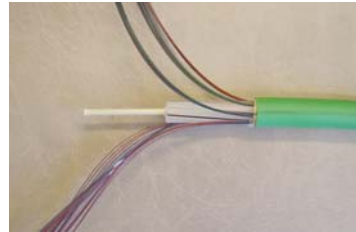
Slot element, cut and stripped

Cable secured in grip

Installed tubes and cable

Screwed cable clamp

The cable clamps are attached by inserting the stamped lip on the rear of the grip into the notch in the cable support on the frame.
The cable grips are attached to the underside of the cable support with the screws provided.

If the cables enter the frame at the top, fix the splice module that will be at the top of the frame 35 cm below the cable support of
the frame (the number of vertical cable fastenings above the box depends on the length of the frame). The distance to the first module is the same when the cables enter from the bottom.

The splice module consists of 8 swing-out cassettes. With all the cassettes open, there is unrestricted access to the tubes and the back of the frame.

If you want to open all cassettes in the splice module, it is easier to unscrew the right-hand fastening point of the module from the frame, see diagram.

Start by installing the tubes in the lower cassette. Place the tubes in the grips in the module.

With the cassette closed in the frame, the length of the tubes should be as shown in the diagram.

Carefully make a ring cut around the tubes with a sharp knife or suitable tube stripper. For the tube at the front of the cassette (see diagram), the stripping length is 1900 mm. To ensure a systematic approach, it is a good idea to choose the tube from the ODFs as the

*Location of splice module 1*

Open splice module

Tubes and ribbons prepared in the cassette

longer tube. The tube from incoming cable is stripped so the remaining fibre is 1400-1500 mm. Pull the tubes from the ribbon. If necessary, wash the ribbon with isopropanol. Loop the fibres into the cassette. Repeat the process with the remaining tubes and cassettes.

So that no tubes and ribbons are left hanging in the frame, it is a good idea to prepare all modules and cassettes before starting to splice.
The ribbon in the splice module is long enough to allow splicing with the splice module fitted in the splice frame.
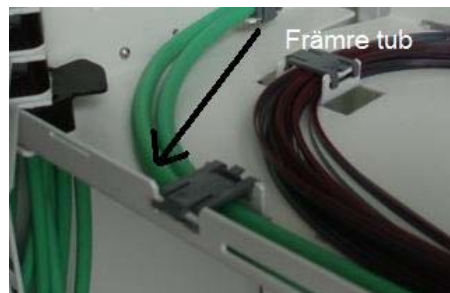
Främre tub = Front tube

Cable preparation, systems solution TS

Connection cables are stripped and prepared as for systems solution TS.

In this case, the cable from the patch modules is a slotted-core cable (standard cable) which should be fitted so that the load is relieved in a more secure way than by cable ties alone. For this reason, a cable support and cable grips are provided to replace the cable ladder and attachment point on the mounting plate. The cable(s) to splice module No. 1 (located either at the top or the bottom of the frame, depending on the cable direction) are stripped for 3600 mm. 150 mm/splice module is then added.
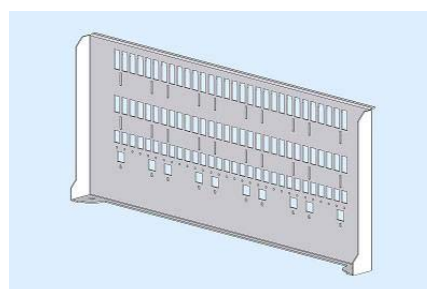
Cable support
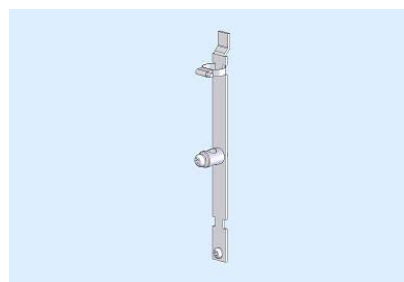
Cable grip

Splicing

Before starting to splice, check that the ribbon is not twisted and that the colour coding faces the same direction. Start splicing if the ribbon has a single long loop and the colours are arranged correctly.
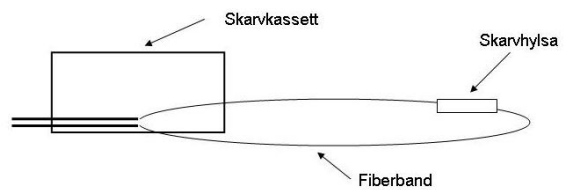
Skarvkassett = Splice cassette
Skarvhylsa = Splice protection
Fiberband = Fibre ribbon

Looping of ribbons in splice module

After splicing, once the splice protection (heat shrink) has cooled down, loop both ribbons in the same direction in the cassette, avoiding twisting and internal stresses.
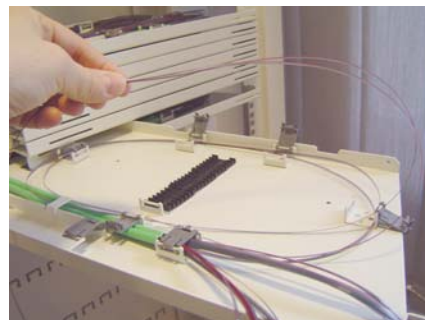
Loop of ribbons
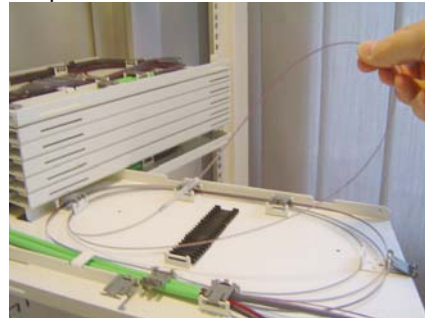
With one turn of the loop remaining, place the splice protection on the splice holder and secure it.
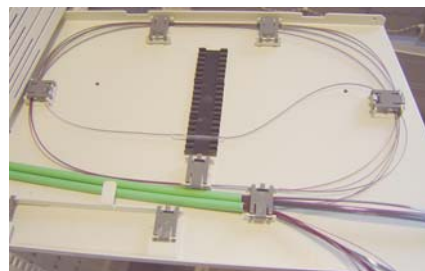
When all fibres are spliced in one cassette, start on the next.
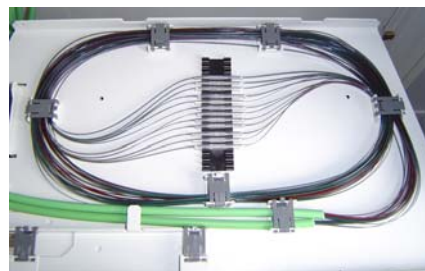
Marking

Different types of marking can be used, so the description below is only a suggestion.

As described earlier in the instructions, each splice frame can handle fibres from up to 5 patch frames. If each splice frame in a patching area is named from 1 and up, the associated patch frames for splice frame 1 are named 1A – 1E. Sticky labels at the top of the frame are a good way of marking the elements.
Each patch module in the frame has its own designated position. Each position in the frame has a marking, for example 1 – 16 in 2200 mm frames and 1 – 14 in 2000 mm frames. A sticky label next to the patch module is a good way of marking, see the diagram on page 25.

The cable from the patch module is marked with the same number as its position in the frame, plus the frame designation.

The splice modules are given the same designation as the patch frame and the patchmodule.
Each hinged cassette in the splice module is marked with the frame designation and the box number, e.g. frame 1A box 1. The splice module is also marked with the address of the cable exiting it.

Marking on the splice module

The fibre ribbon in the cable from the patch module has a barcode marking from 1 – 12. The splice protection in the splice module can be given the same number. In this case, fibre protection 1 contains fibres 1-8 from the relevant patch module.

The adapters are marked from 1-96. Each label has two numbers 1–2, 3-4, etc. Odd numbers have black text on a yellow background and even numbers have yellow text on a black background.
The self-adhesive label is placed on the short side of the adaptor.

Markings on adaptors

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Markings of any kind can be attached to the protective cover or in the label panel. Examples of this kind of marking:

Contact 1 box 1 frame 1A to Long Street.

Contact 2 box 1 frame 1A to Long Street, etc.

The markings could also indicate how the fibres are patched, e.g.

Connector 1 box 1 frame 1A to frame 1A box 9 connector 1, etc.

The markings uses on the frame, modules,
patch cord and adapters obviously must be the same as in the splicing table or similar reference stored on hard copy and also electronically.

Utgående fibrer				Korskoppling						
Kontakt nr.	Box nr.	Stativ nr.	Mot	Kontakt nr.	Box nr.	Stativ nr.		Stativ nr.	Box nr.	Kontakt nr.
1	1	1A	Götgatan	1	1	1A	-	1A	9	1
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Suggested markings on protective cover and label panel

Marking of Patch Frame and Splice Frame