

Quick Reference Guide to the Installation of an ONT Outside the Home Distribution Box



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Tools and Materials

Deployment toolkit

Line finder

Screwdriver, utility knife, scissors, and diagonal pliers

Optical power meter (with red light)



Spring wire threader with an olive-shaped head

Pull tape

Mesh tape

Cable lubricant

Gloves

Shoe covers



FTTR micro optical cable

SC white fiber patch cord (from an ATB to an ONT)

SC/UPC adapter (in an ATB or a home distribution box)

ATB (optical cable outlet in a room)

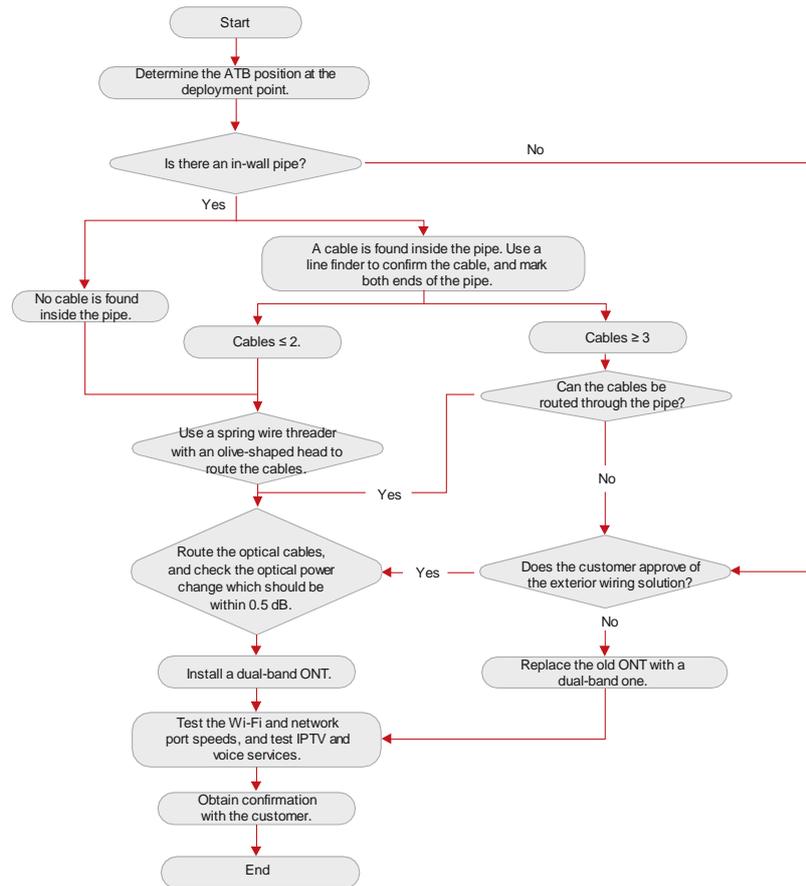


PVC transparent waterproof tape (exterior wiring)

FTTH fiber splicing toolkit

Principle: Place the ONT in the TV cabinet in the living room. If the Wi-Fi signal in the bedroom or study is poor, add a router and connect it to the ONT in the living room through a network cable.

Site survey and deployment are performed at the same time by one or two technicians upon a home visit.



Note:

- The wire threader is made of metal. To avoid electric shocks, disconnect the general circuit breaker before the deployment. In addition, wear insulation slip-proof gloves throughout the deployment.
- Before the deployment, check whether the RX optical power of the drop cable meets the requirement.
- The blue rectangular shell must be removed from the SC connector that is routed through the pipe.

1 Reusing cables for installation

Note:

- This mode is preferred when there are at least 3 cables inside the in-wall pipe.
- Confirm the cables that can be pulled out with the proprietor. It is recommended that the cables be pulled out in the following priority: telephone cable > network cable > CATV cable.

◆ **User notification**

◆ **Label check:** labels attached to cables inside the pipe

◆ **Tool identification:** line finder (if there are cables inside the pipe)

Procedure:

1. Verify that the reusable cable or embedded rope is not used and can be pulled.
2. Wrap the cable head with the pull tape, and bind them using mesh tape as shown in figure 1.
3. Pull out the cable from the other end to deploy the pull tape in the pipe.
4. Select a micro optical cable of proper length (20 m or 50 m).
5. Warp the optical cable using pull tape (by about 0.5 m) as shown in figure 2.
6. Bind the remaining part evenly with mesh tape at 3 or 4 positions as shown in figure 3.
7. Pull out the pull tape at an even speed to route the optical cable out of the pipe.
8. Connect an ONT. Specifically, test the optical power, connect the optical cable to the optical port of the ONT, and power on and register the ONT.



Figure 1



Figure 2



Figure 3

2 Using a spring wire threader with an olive-shaped head

Procedure:

1. Pass a spring wire threader with an olive-shaped head through the pipe.



Step 1 Hold the handle, loosen the butterfly nut counterclockwise, and pull out part of the spring into the pipe.



Step 2 Tighten the butterfly nut about 10 cm away from the weak-current pipe opening.



Step 3 Hold the handle and press it down with force. Rotate the handle clockwise with the other hand until the the spring wire threader passes through the right angle.



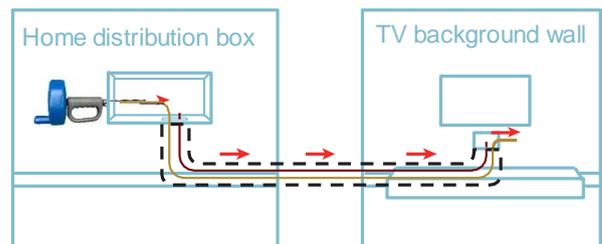
Step 4 After the spring wire threader passes through the right angle, loosen the butterfly nut. Then continue to pass the spring wire threader through the weak-current pipe.

Note

If obstacles (such as gravel and residual cables) exist, tighten the butterfly nut. If the spring cannot move forward anymore, pull it backwards to pull the obstacles out of the pipe.

If you encounter large resistance when pulling the spring backwards, tighten the butterfly nut. Then rotate the handle counterclockwise while pulling the spring backwards.

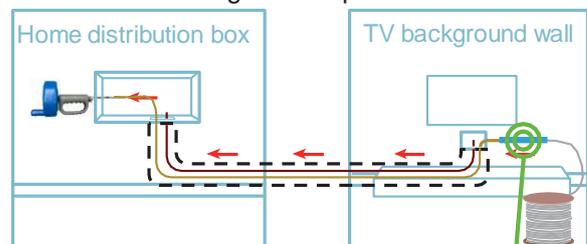
- In-wall pipe
- Spring wire threader with an olive-shaped head
- Other cables
- Pull tape
- Mesh tape



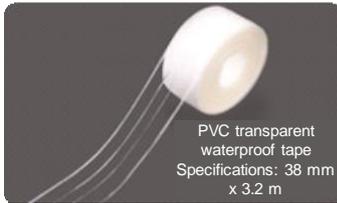
2. Wrap the head of the wire threader with the pull tape, and bind them using mesh tape.



3. Pull out the spring from the other end to deploy the pull tape in the pipe.
4. Perform steps 4 to 8 in the method by reusing cables for installation.



Bind them using mesh tape.



If no pipe or duct is available, implement exterior wiring. It is recommended that you use double-fold waterproof tape and a micro optical cable for neat exterior and good protection.

Procedure:

1. Measure and select a micro optical cable of proper length.
2. Plan the route, and mark the installation position and bending reference line.
3. Wipe the walls and baseboards to avoid water stain and dust.
4. Tear off the release paper from the waterproof tape, stick the optical cable to the waterproof tape, and attach the optical cable and waterproof tape to the walls or baseboards.

Layout effect pictures

<p>Cable routing around an exposed corner (turning of a flat surface)</p> 	<p>Cable routing around an internal corner (turning of a flat surface)</p> 
<p>Cable routing along a baseboard</p> 	<p>Cable routing through a gap between a door and the floor (to pass through obstacles, bumps, and other objects)</p> 

After the optical cable is secured, squeeze the air between the transparent waterproof tape and the wall or baseboard to ensure that they are securely attached.

Note	Double-fold waterproof tape needs to be inspected and maintained regularly. Users can purchase and replace them as desired.
	A user can also tear the PVC transparent waterproof tape into 2 to 3 folds as desired. 

5. Connect an ONT. Specifically, test the optical power, connect the optical cable to the optical port of the ONT, and power on and register the ONT.

Post-deployment cautions	After the deployment is complete, take away the rubbish generated during the deployment.
	Notify users that optical fibers are made of glass, and therefore they cannot be folded for binding.