Sensing Junction Box and Terminal Junction Box Installation Manual

Junction Boxes Installation Manual

INTRODUCTION

All Nxtar's Junction Boxes are made of ABS + Polycarbonate material to withstand the harshest outdoor conditions and to meet the customer's requirements. Using our plug and play design, there is no need for expensive splicer and fusing during installation which saves installation cost and time.

In this manual we illustrate the connections from the Leading Fiber to the Sensing Junction Box, and from the Sensing Fiber to their respective Terminal Junction Boxes. From the step-by-step instructions, the SI or Authorized Installer should be able to perform all the installation for the outfield components.

Sensing Junction Instillation tools

1. Components supplied by Nxtar

Sensing Junction Box

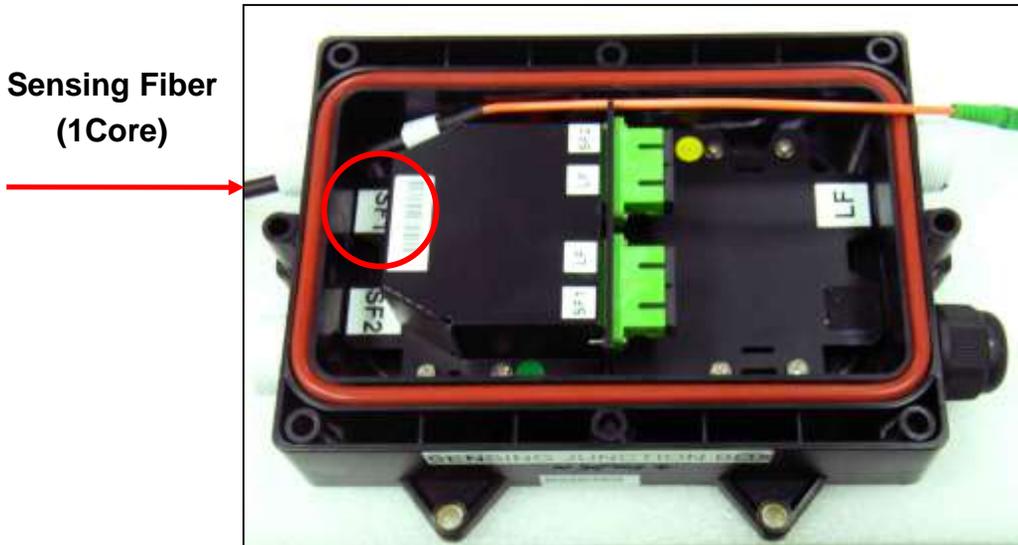Leading Fiber

Sensing Fiber
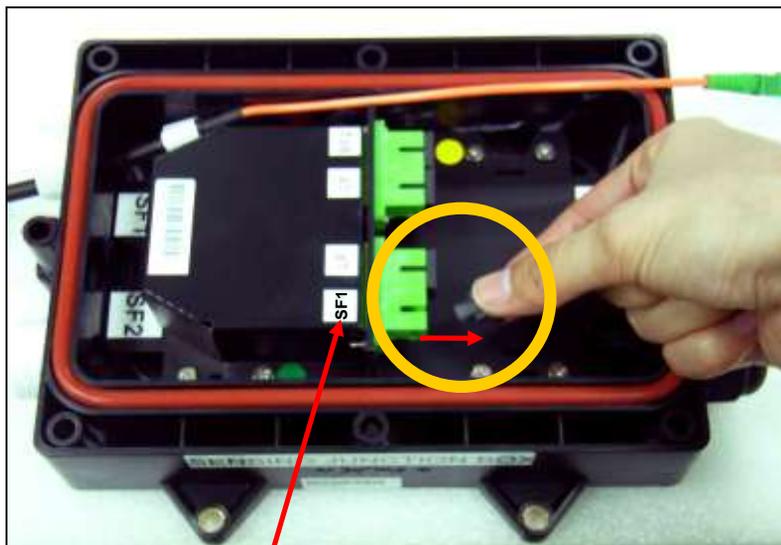
2. Prepared by Installers

Electric Screwdriver

27 mm Spanner

Junction Boxes Installation Manual

Sensing Junction Box Installation

Step 1 Insert sensing fiber to the port labeled SF1. Hold the connector with one hand, while pushing fiber with the other hand. Extra care needs to be taken when inserting the connector. Never bend the fibers at sharp angles.
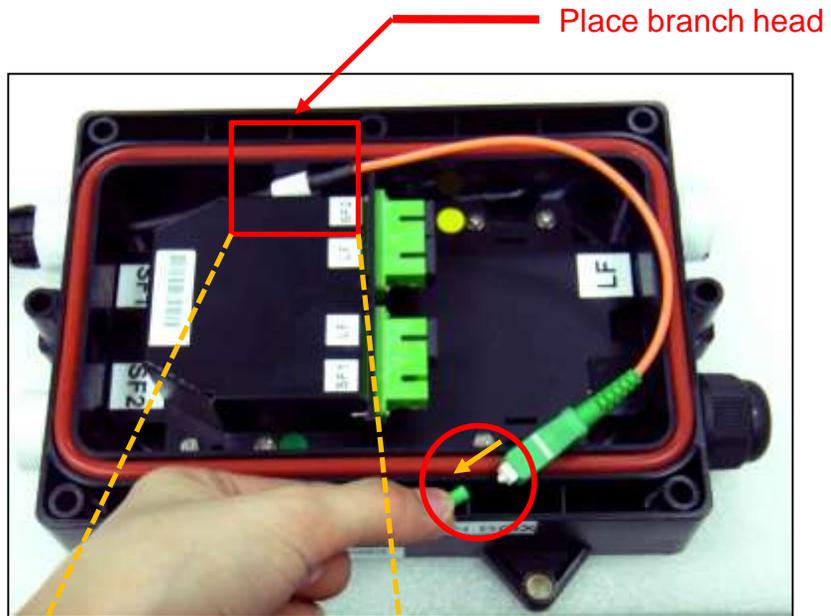
**Sensing Fiber
(1Core)**

Step 2 Remove the cap of SF1 adaptor**.**

SF1
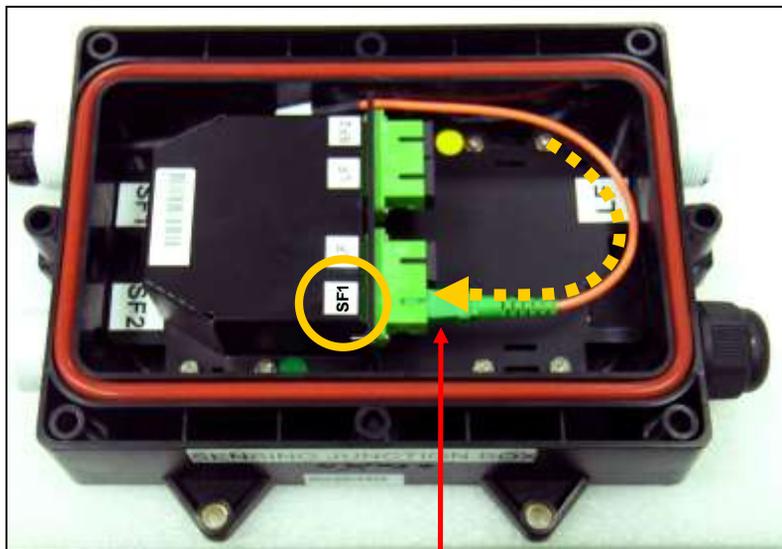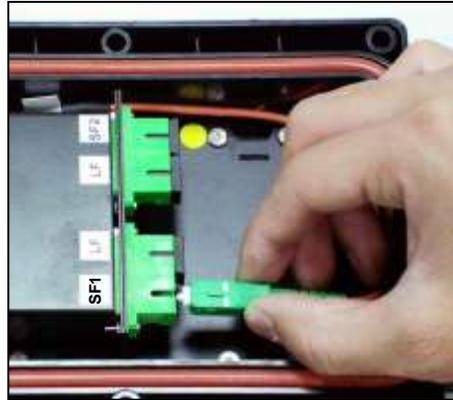
Junction Boxes Installation Manual

Sensing Junction Box Installation

Step 3 Place branch head in the middle as shown below. Push fiber forward carefully, do not pull branch head lest the fiber is broken when you are pulling. Remove cap of connector.
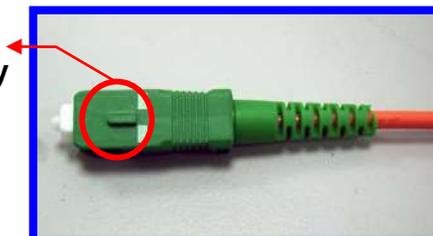

Place branch head

Branch head is
located at red point

Sensing Junction Box Installation

Step 4 Clean connector and it peripheral surfaces with alcohol, and then insert connector to SF1 adaptor horizontally. Keep the surface of the connector head clear from any objects, and it must not be touched by hands when being inserted to adaptor.

Facing upward, insert it horizontally

Sensing Junction Box Installation

Step 5 Clean fiber and the bottom of the rubber with alcohol, and then tighten cap in clockwise way with a 27mm spanner.

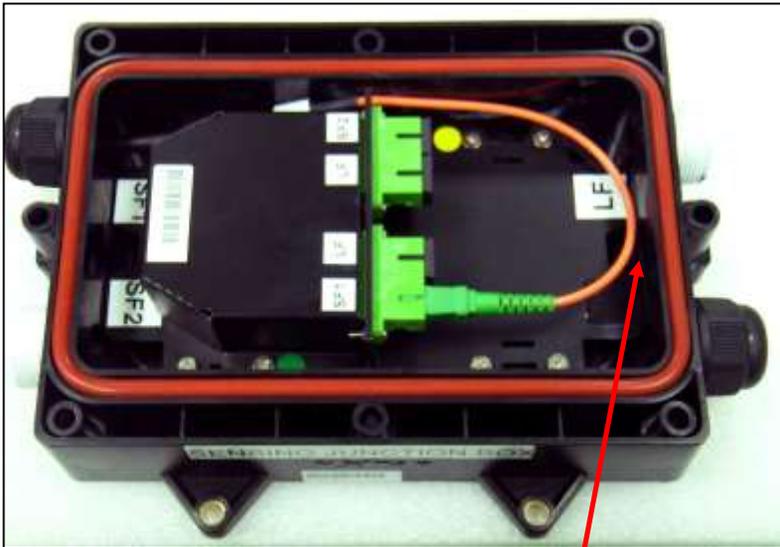**Clean fiber and the surface of fiber with alcohol.**

Tighten the cap in a clockwise way with spanner
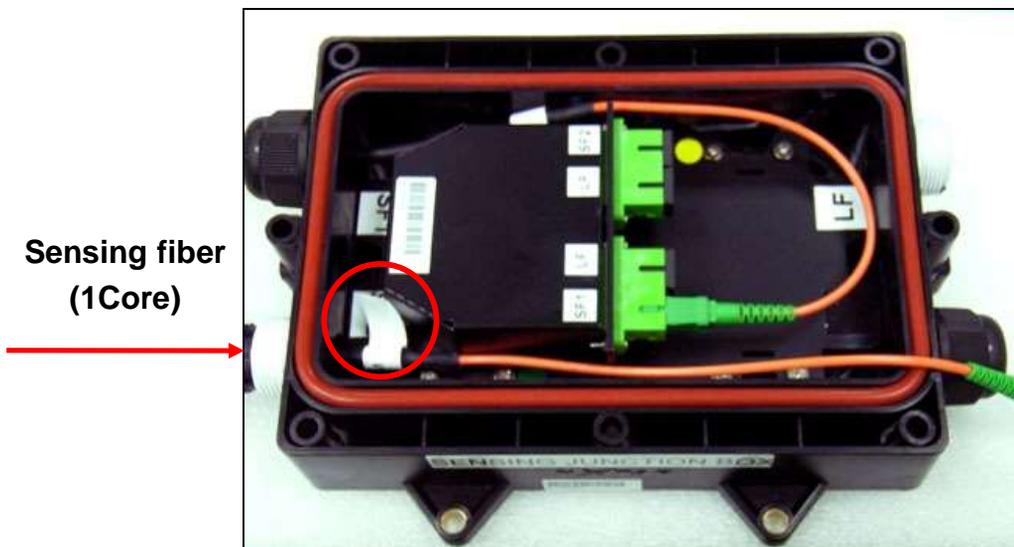
Stop tightening the cap once the joint is seamless.

Enlargement

Step 6 All fiber should be tucked gently into box. No remaining fiber should be exposed.
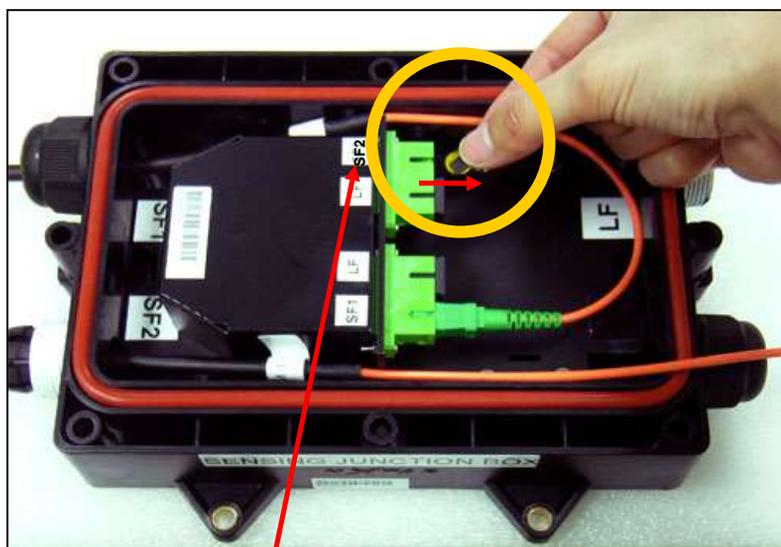

Fiber is in the right position.

Sensing Junction Box Installation

Step 7 Insert sensing fiber to the port labeled SF2. Hold the connector with one hand, while pushing fiber with the other hand. Extra care needs to be taken when inserting the connector. Never bend the fibers at sharp angles.
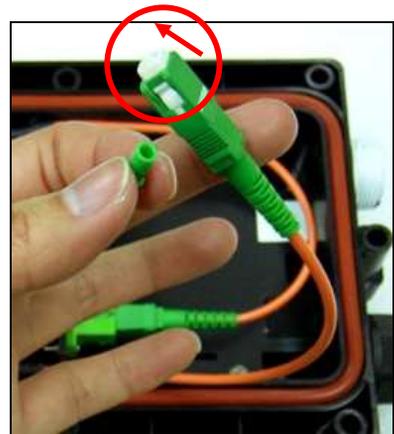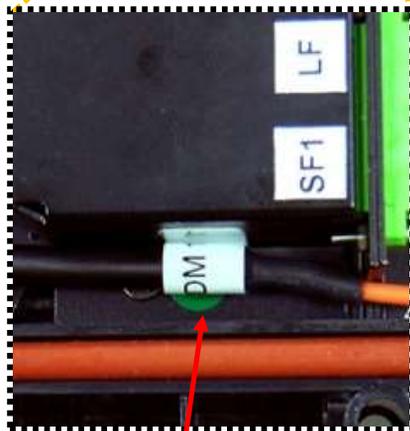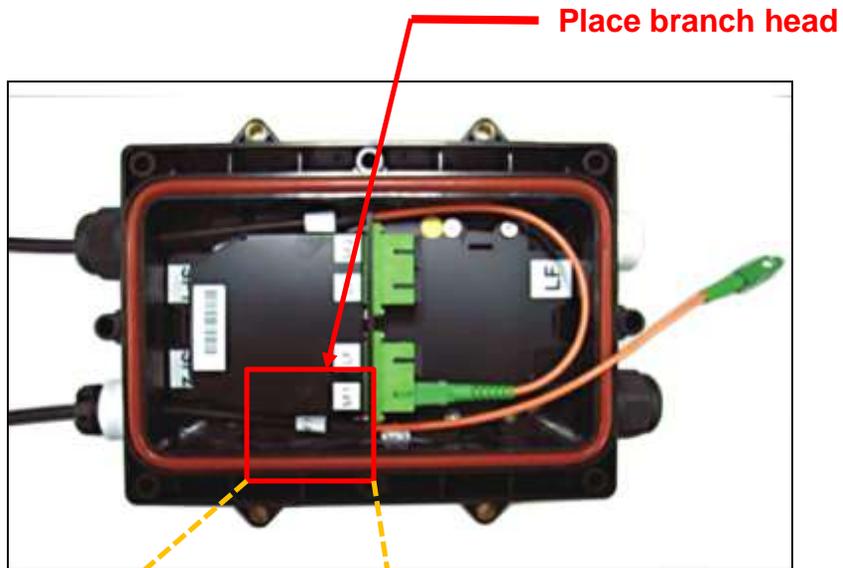
Sensing fiber (1Core)

Step 8 Remove the cap of SF2 adaptor SF2.

SF2

Junction Boxes Installation Manual

Sensing Junction Box Installation

Step 9 Place branch head in the middle as shown below. Push fiber forward carefully, do not pull branch head lest the fiber is broken when you are pulling. Remove cap of connector.
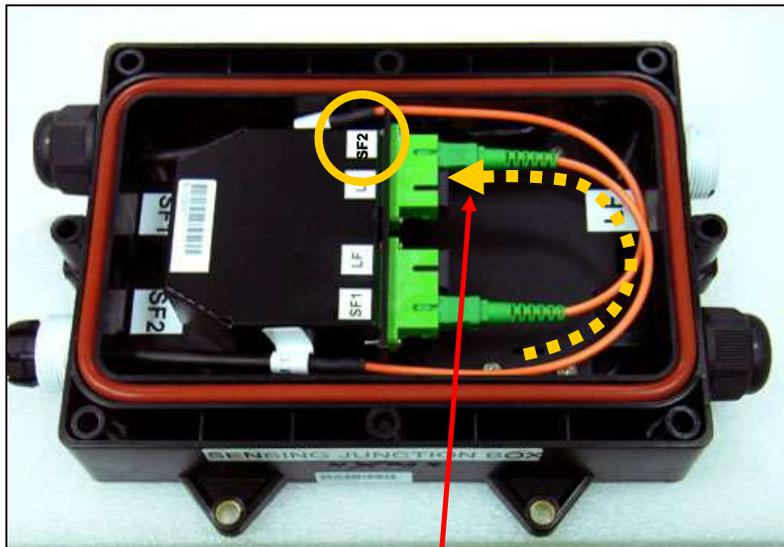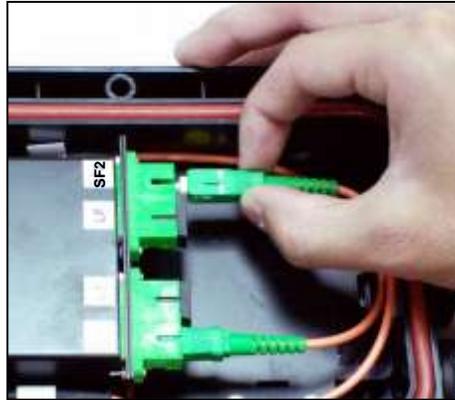
Place branch head

Branch head is located at green point.

Remove the cap of the connector

Sensing Junction Box Installation

Step 10 Clean connector and it peripheral surfaces with alcohol, and then insert connector to SF1 adaptor horizontally. Keep the surface of the connector head clear from any objects, and it must not be touched by hands when being inserted to adaptor.
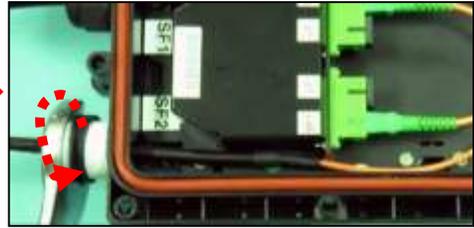
Facing onward，insert horizontally

Sensing Junction Box Installation

Step 11 Clean fiber and the bottom of the rubber with alcohol, and then tighten cap in clockwise way with a 27mm spanner.

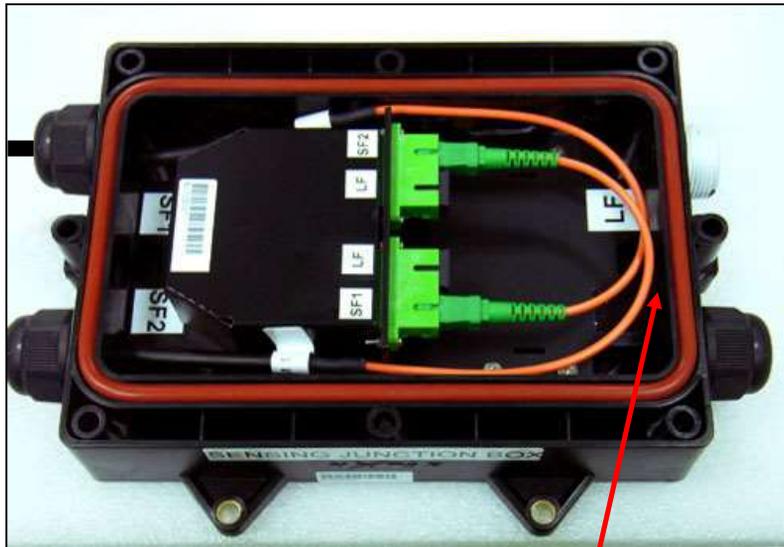**Clean fiber and the surface of rubber with alcohol**

Tighten the cap in a clockwise way with spanner

Enlargement

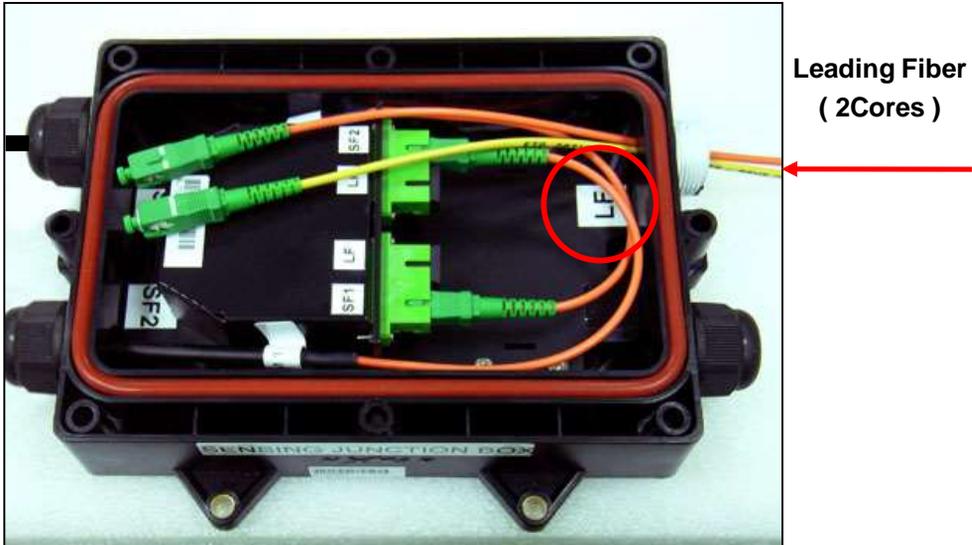**Stop tightening the cap once the joint is seamless.**

Step 12 All fiber should be tucked gently into box. No remaining fiber should be exposed.
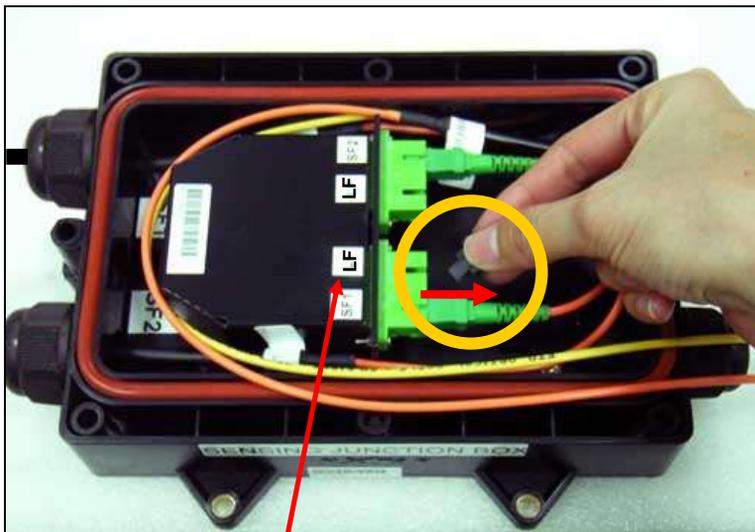
Fiber is in the right position.

Sensing Junction Box Installation

Step 13 Insert sensing fiber to the port labeled LF. Hold the connector with one hand, while pushing fiber with the other hand. Extra care needs to be taken when inserting the connector. Never bend the fibers at sharp angles.
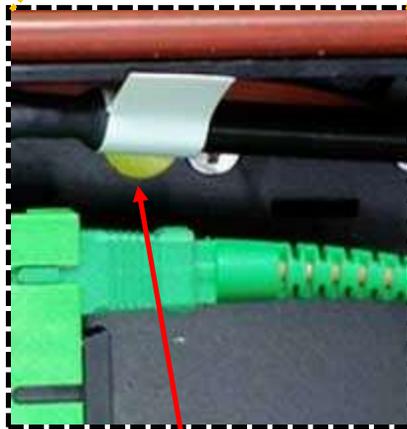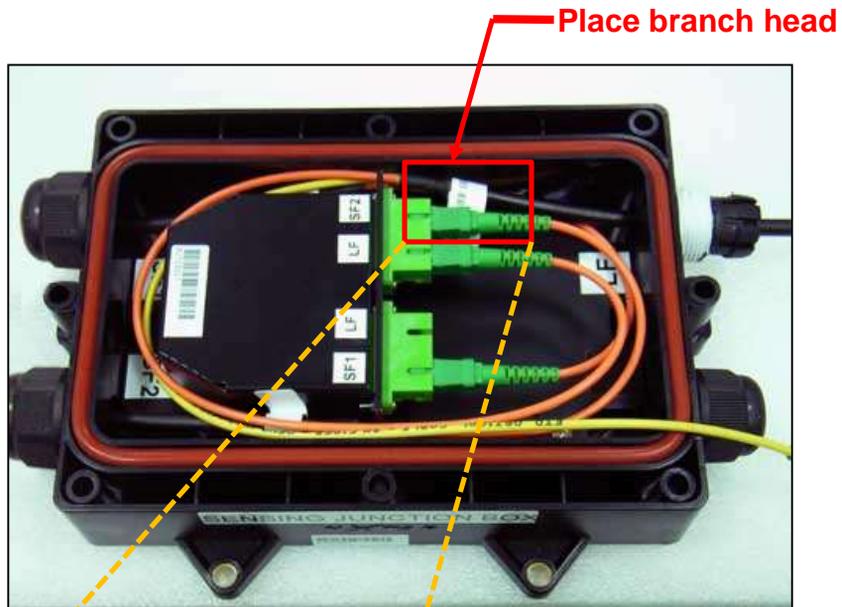

Leading Fiber (2Cores)

Step 14 Remove the cap of LF adaptor.

LF

Junction Boxes Installation Manual

Sensing Junction Box Installation

Step 15 Place branch head in the middle as shown below. Push fiber forward carefully, do not pull branch head lest the fiber is broken when you are pulling. Remove cap of connector.
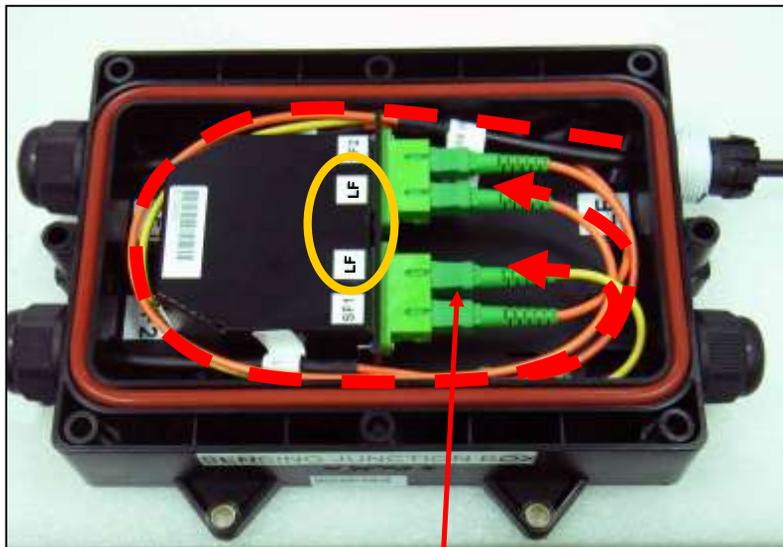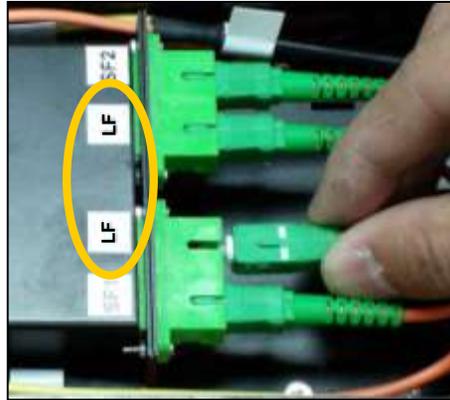
Place branch head

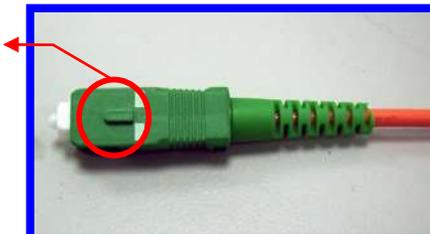**Remove the cap of the connector**

Branch head is located at yellow point.

Sensing Junction Box Installation

Step 16 Clean connector and it peripheral surfaces with alcohol, and then insert connector to LF adaptor horizontally. Keep the surface of the connector head clear from any objects, and it must not be touched by hands when being inserted to adaptor.
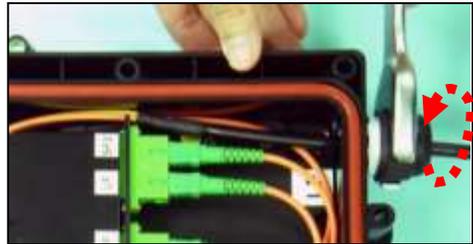
**Facing onward，
insert horizontally**

Sensing Junction Box Installation

Step 17 Clean fiber and the bottom of the rubber with alcohol, and then tighten cap in clockwise way with a 27mm spanner.
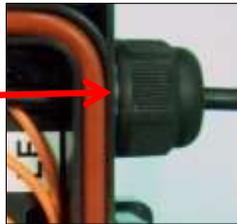
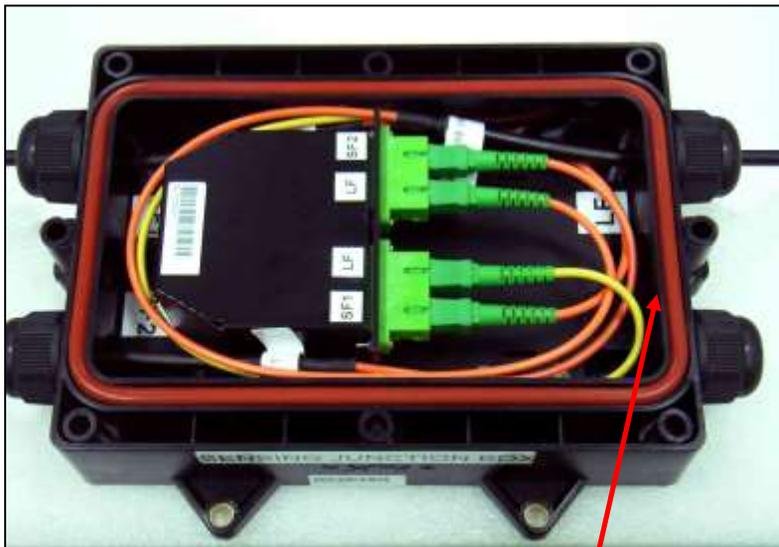**Clean fiber and the surface of rubber with alcohol**

Tighten the cap in a clockwise way with spanner

Stop tightening the cap once the joint is seamless.

Enlargement

Step 18 All fiber should be tucked gently into box. No remaining fiber should be exposed.

Fiber is in the right position.

Sensing Junction Box Installation

Step 19 Clean the O-ring and the joint of the upper cover with alcohol. Before sealing the cover, beware that fiber and tag should not be exposed.
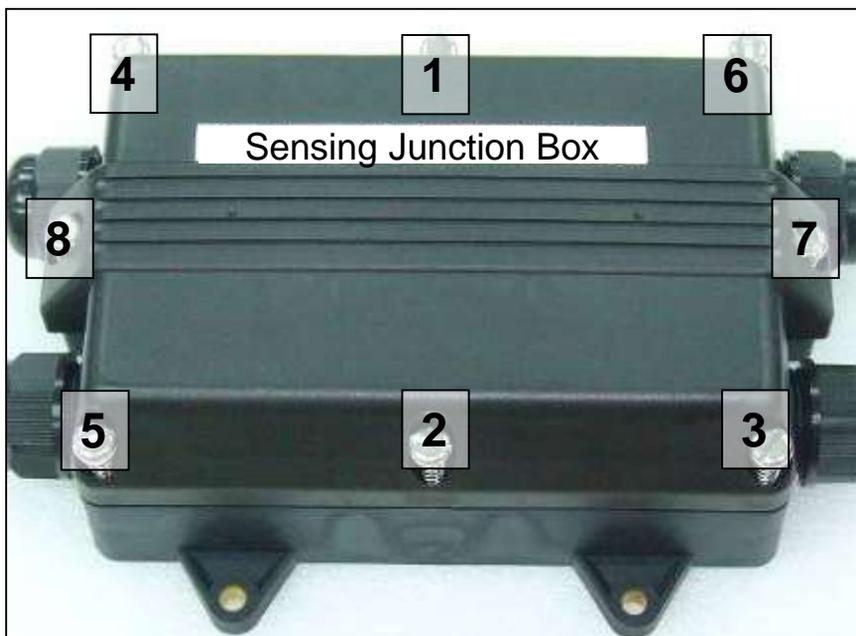

Clean the O-ring and the joint of the upper cover with alcohol.

Seal the cover

Step 20 Tighten the cover with a screw driver or electric screwdriver in the sequence as shown below. Check whether the box is seamless.

Sensing Junction Box

Terminal Junction Box Installation Tools

1. Components Supplied by Nxtar

Terminal Junction Box

Sensing Fiber
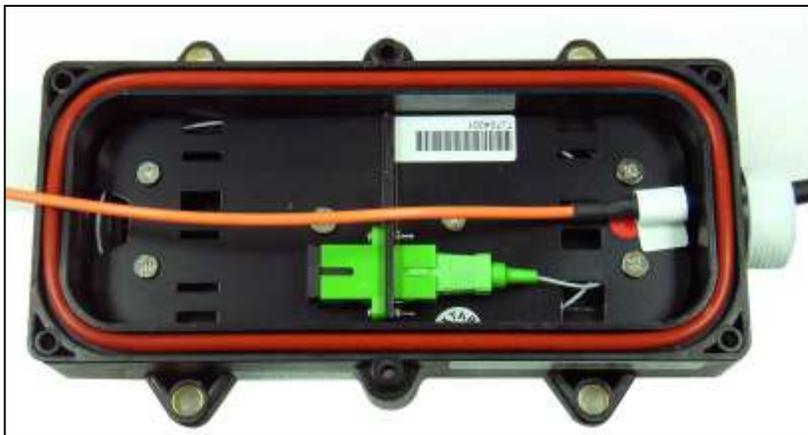
2. Tools Prepared by Installers

Electric Screwdriver

27 mm spanner

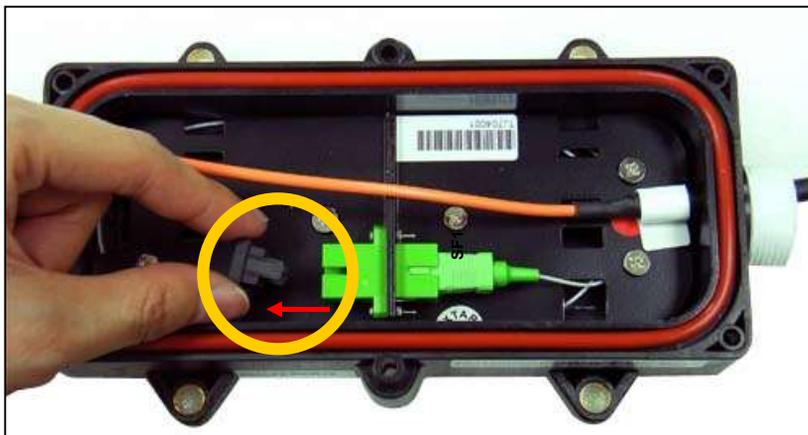**Junction Boxes Installation Manual**

Terminal Junction Box Installation

Step 1 Insert sensing fiber to the port. Hold the connector with one hand, while pushing fiber with the other hand. Extra care needs to be taken when inserting the connector. Never bend the fibers at sharp angles.
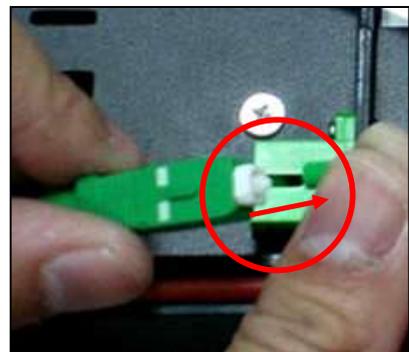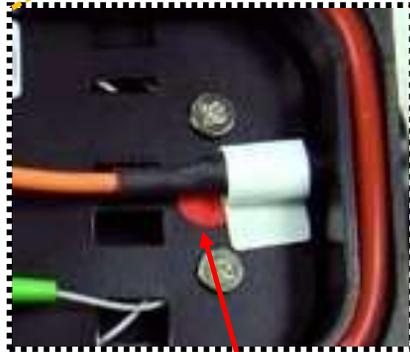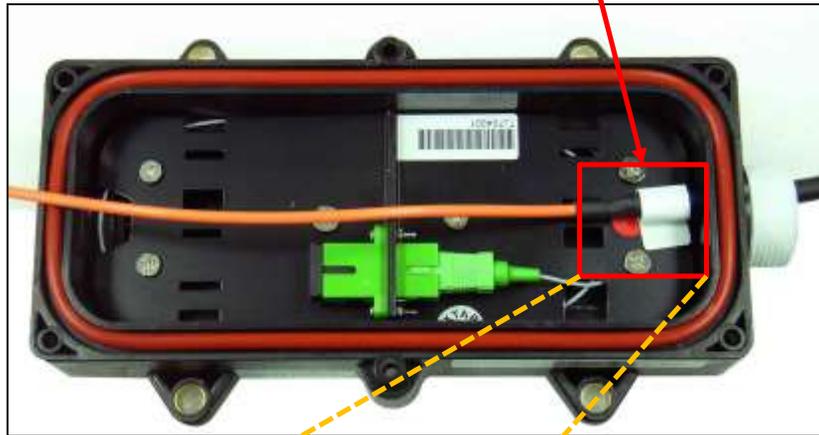

Sensing Fiber (1Core)

Step 2 Remove the cap of the adaptor.

Junction Boxes Installation Manual

Terminal Junction Box Installation

Step 3 Place branch head in the middle as shown below. Push fiber forward carefully, do not pull branch head lest the fiber is broken when you are pulling. Remove cap of connector.
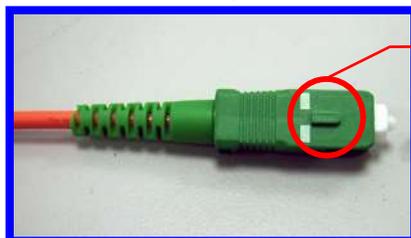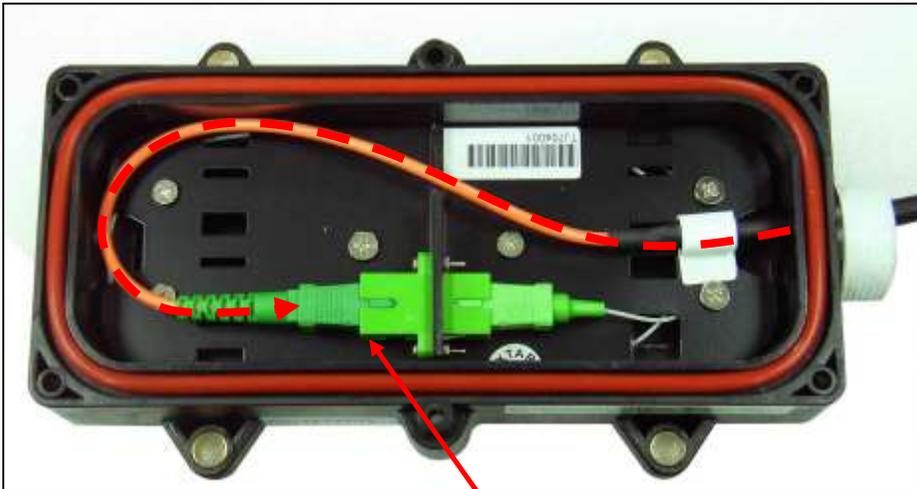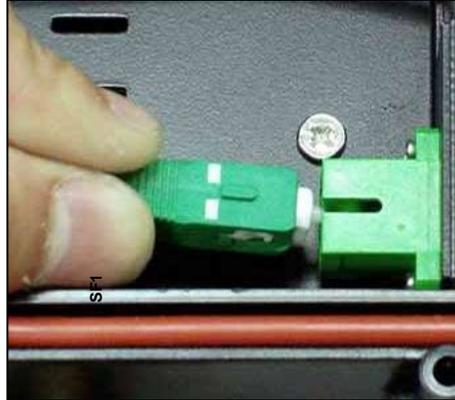
Place branch head

Remove the cap of the connector

Brach head is located at red point.

Terminal Junction Box Installation

Step 4 Clean connector and it peripheral surfaces with alcohol, and then insert connector to adaptor horizontally. Keep the surface of the connector head clear from any objects, and it must not be touched by hands when being inserted to adaptor.
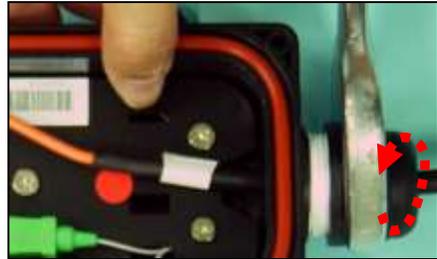
Facing onward，insert it horizontally

Terminal Junction Box Installation

Step 5 Clean fiber and the bottom of the rubber with alcohol, and then tighten cap in clockwise way with a 27mm spanner.
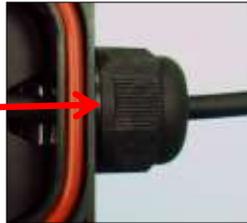

Clean fiber and the surface of rubber with alcohol

Tighten the cap in a clockwise way with spanner

Stop tightening the cap once the joint is seamless.
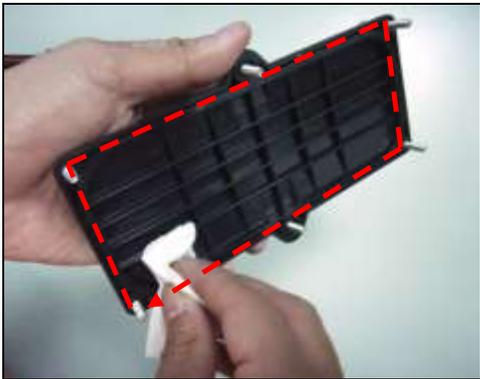

Enlargement

Step 6 All fiber should be tucked gently into box. No remaining fiber should be exposed.
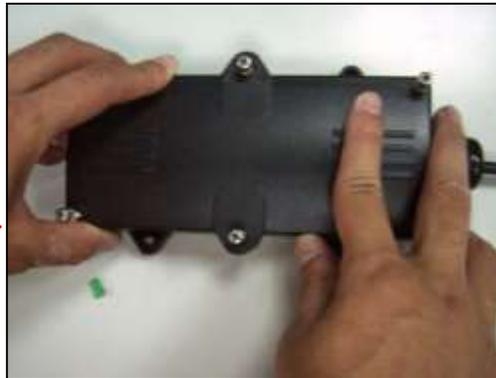

Fiber is in the right position.

Terminal Junction Box Installation

Step 7 Clean the O-ring and the joint of the upper cover with alcohol. Before sealing the cover, beware that fiber and tag should not be exposed.
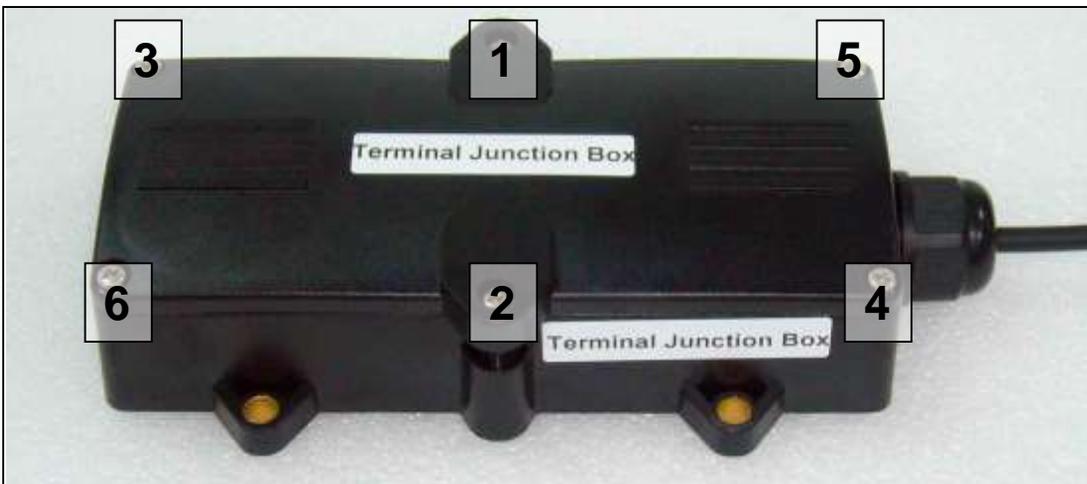
Clean the O-ring and the joint of the upper cover with alcohol.

Seal the cover

Step 8 Tighten the cover with a screw driver or electric screwdriver in the sequence as shown below. Check whether the box is seamless.

Junction Box Installation

Cleaning Of Connectors

Use only Kimtech Science KIMWIPES (or similar) And 99% Alcohol to clean all Connectors.

Apply the alcohol onto the Kimwipes and clean the SC/ APC connectors thoroughly. Take note as not to touch the wet part of the Kimwipes with your hand