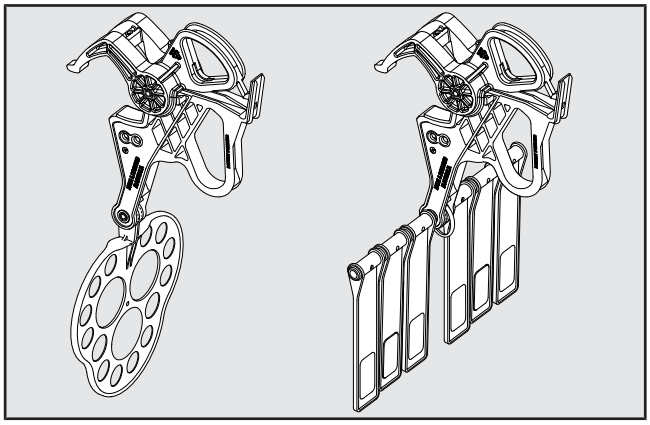
INSTALLATION INSTRUCTIONS

AVFD-DY / HCR

PII-4522-10/25

Avian Flight Diverter – Dynamic
Avian Flight Diverter – High Contrast Reflective



Insulation and Protection

Table 1: Product Information

Product Description	Application Range Ø mm (Ø in)	Dimension mm (in)	Weight g (oz)
AVFD-HCR(B10)	2 mm – 50 mm (0.08” – 1.9”)	230 mm x 250 mm (9” x 10”)	390 g (13.8 oz)
AVFD-DY(B20)	2 mm – 50 mm (0.08” – 1.9”)	280 mm x 175 mm (11” x 7”)	330 g (11.5 oz)

Table 2: Tool Description

Tool Description	Tool Information
AVFD-TOOL-ZL	Zero Load Installation and Removal Tool Attachment

For more information: te.com/energy

TE Connectivity Energy GmbH
a TE Connectivity Ltd. Company
Finsinger Feld 1
85521 Ottobrunn/Munich, Germany
Tel: +49-89-6089-0

22
PAP

Please dispose of all waste according to environmental regulations.

Table of Contents

1 Important - Read Before Starting

1.1 Before Starting

- Check to ensure that the kit you are going to use fits the conductor.
- Refer to the kit label and the title of the installation instructions.
- Components or working steps may have been modified since you last installed this product.
- Carefully read and follow the steps in the installation instructions.

1.2 Safety Instructions

⚠ DANGER

When installing electrical power system accessories, failure to follow applicable personal safety requirements and written installation instructions could result in fire or explosion and serious or fatal injuries.

⚠ DANGER

As TE Connectivity (TE) has no control over field conditions which influence product installation, it is understood that the user must take this into account and apply his own experience and expertise when installing product.

⚠ DANGER

Power distribution and transmission products must be properly selected for the intended application. It must be installed and serviced by competent personnel who have been trained and understand proper safety procedures. These instructions are written for such personnel and are not a substitute for adequate training and experience in safety procedures.

⚠ CAUTION

Read and understand the contents of these instructions before installation and follow all locally approved procedures and safety practices before installing or operating this equipment.

⚠ CAUTION

These instructions cannot cover all details or variations in the equipment, procedures, or processes described, nor provide directions for meeting every possible contingency during installation, operation, or maintenance. When additional information is desired to satisfy a problem not covered sufficiently for the user’s purpose, please contact your TE sales representative.

These instructions are not intended to supersede or replace existing safety and operating procedures.

NOTICE

Upon receipt of a product, inspect it thoroughly for damage and loss of parts incurred during shipment. If damage or loss is discovered, file a claim with the carrier immediately or contact your TE representative.

⚠ DANGER

Working around energized high voltage systems may cause serious injury or death. Installation should be performed by personnel familiar with good safety practice in handling high-voltage electrical equipment.

2 Tool, Product Information and Features

AVFD-DY / HCR Product (as supplied)

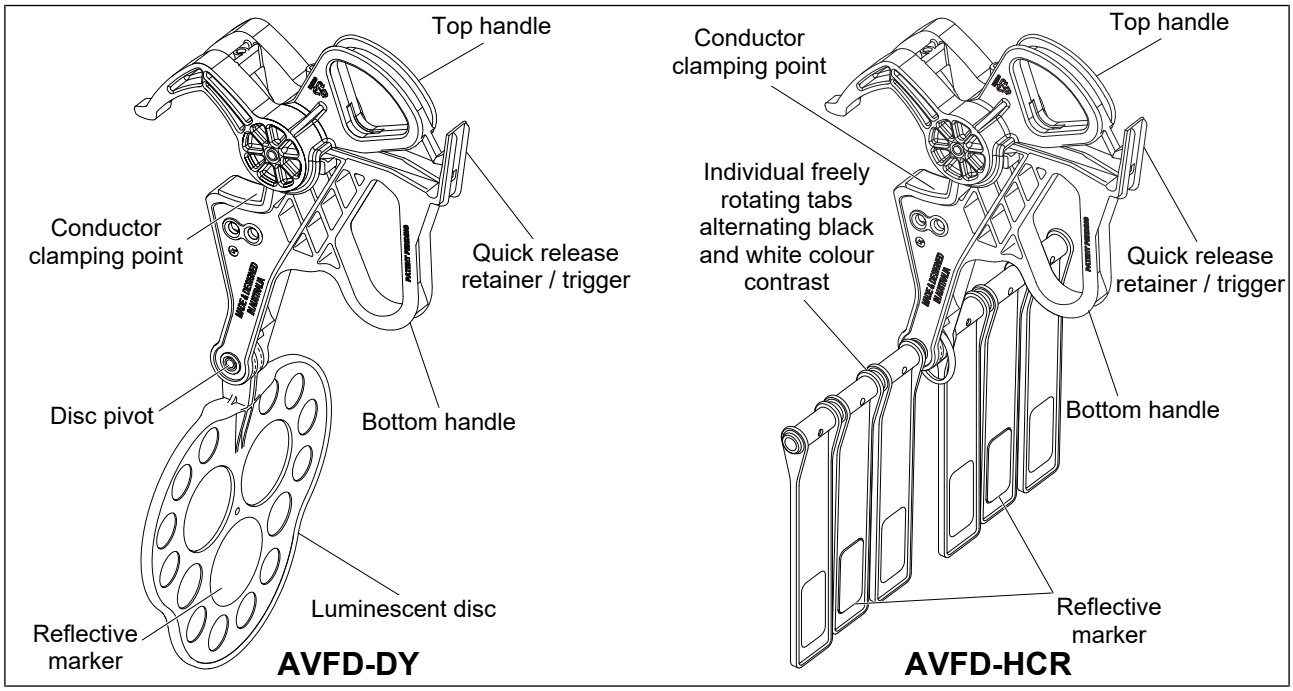


Figure 2.1

AVFD-TOOL-ZL Zero Load Installation and Removal Tool

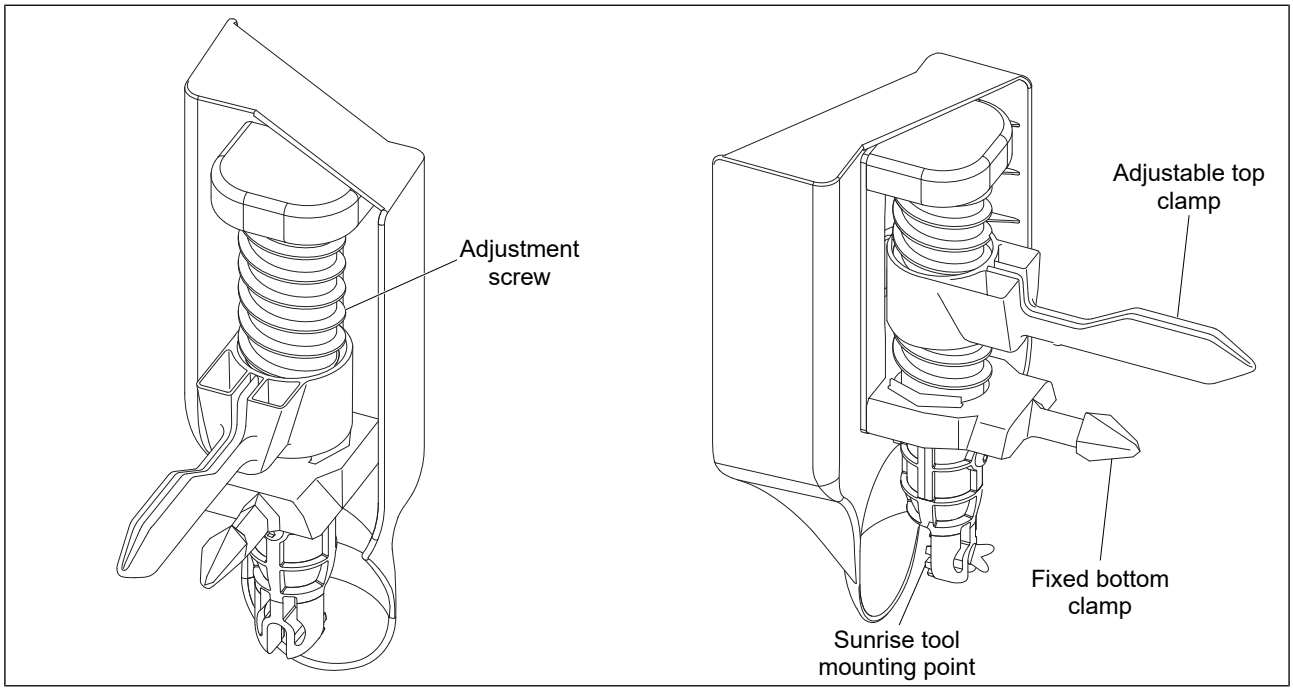


Figure 2.2

3 Installation Information

Orientation

AVFD-DY / HCR are best installed with the marker suspended vertically downwards.

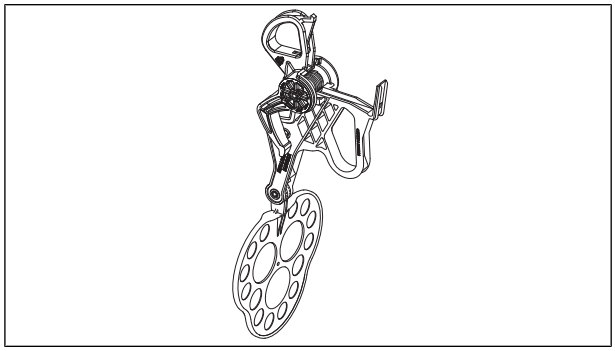


Figure 3.1

Single Conductor Placement

On a single phase/conductor it is recommended to place an AVFD-DY / HCR every 5 m (approx. 15 ft).

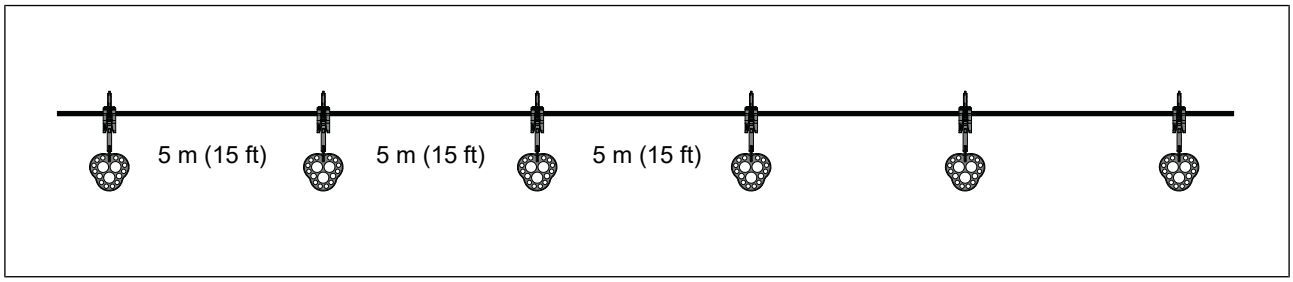


Figure 3.2

Multi-phase Conductor Placement

On a multi-phase/conductor overhead line it is recommended to place an AVFD-DY / HCR every 5 m (approx. 15 ft) when seen across all spans.

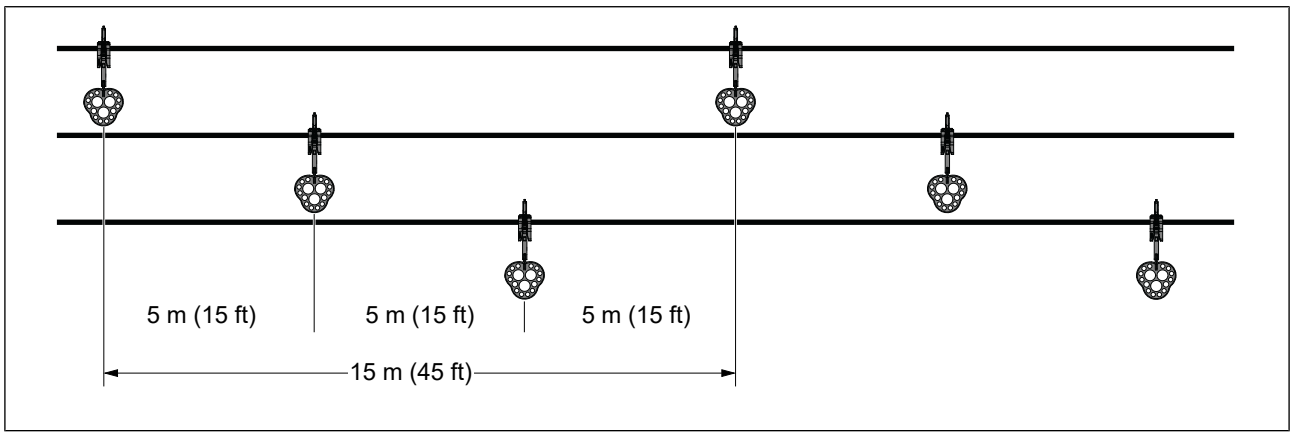


Figure 3.3

4 Clamp Fixing Principle

The diverter uses a spring-loaded clamp mechanism that grips the conductor securely using two opposing jaws lined with soft pads. The clamp with an integrated torsion-spring is held in an open position by the trigger and automatically closes around the conductor when released securing the clamp in place.

Fixing Mechanism Description

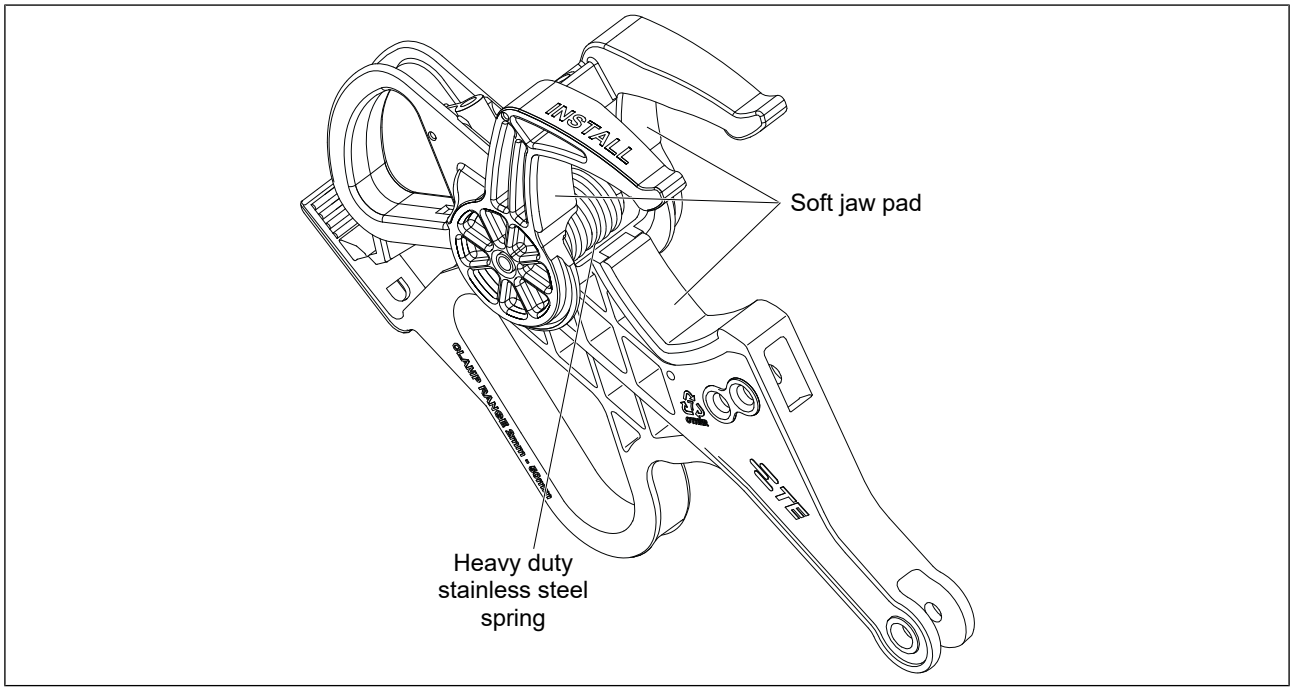


Figure 4.1

5 Installation Instruction – Hand Installation

Preparing the AVFD-DY / HCR

5.1. Carefully open the AVFD-DY / HCR using two hands in the positions shown. Rotate the top of the clamp around until the trigger latches the top jaw and holds the clamp open.

NOTICE

Do not put hands / fingers between the clamp during or once opened.

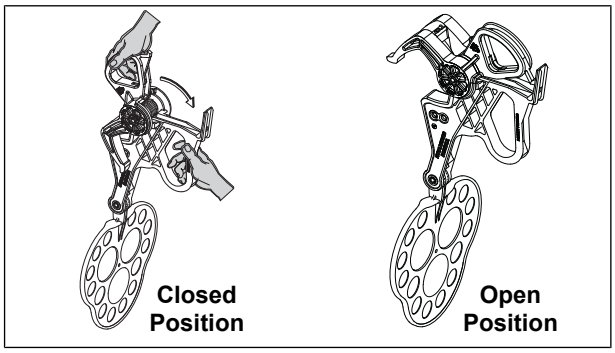


Figure 5.1

Positioning for installation

5.2. The opening of the AVFD-DY / HCR clamp jaws needs to face towards the conductor.

5.3. Move the AVFD-DY / HCR into place so that the conductor sits between the clamp jaws.

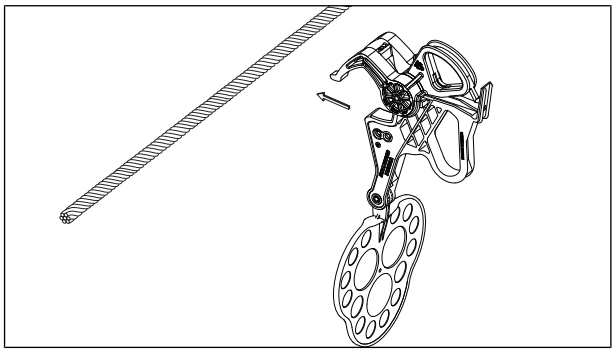


Figure 5.2

Releasing the trigger

5.4. With the AVFD-DY / HCR in position, carefully release the trigger and allow the AVFD-DY / HCR to self close around the conductor.

Installation Complete

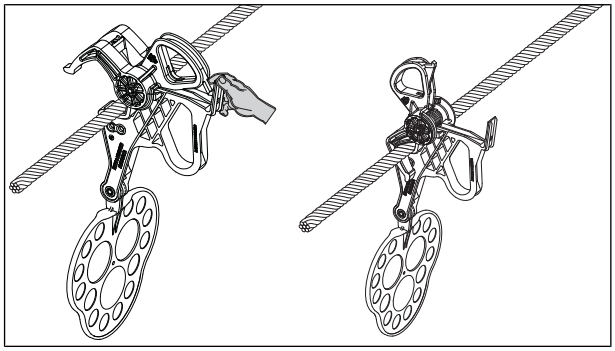


Figure 5.3

6 Installation Instruction – Clamp / Shotgun Hot-stick

Preparing the AVFD-DY / HCR

6.1. Carefully open the AVFD-DY / HCR using two hands in the positions shown. Rotate the top of the clamp around until the trigger latches the top jaw and holds the clamp open.

NOTICE

Do not put hands / fingers between the clamp during or once opened.

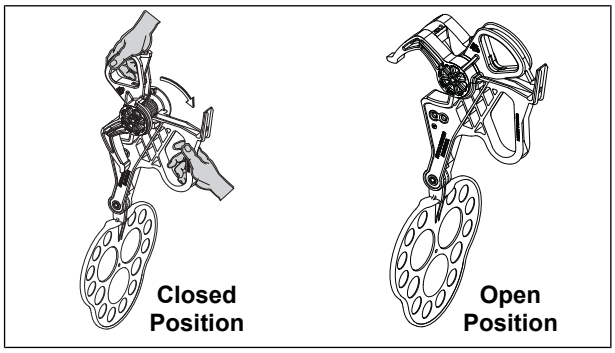


Figure 6.1

Mounting the AVFD-DY / HCR

6.2. With the AVFD-DY / HCR placed on the floor, carefully pick up the diverter with the clamp stick hook. Place the hook behind the quick release retainer / trigger.

NOTICE

Do not put hands / fingers between the clamp during this operation.

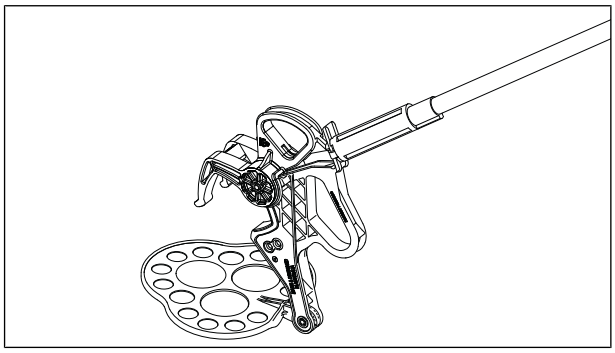


Figure 6.2

Positioning for installation

6.3. Carefully lifting the AVFD-DY / HCR, position the opening of the clamp jaws towards the conductor.

NOTICE

It is easier to orientate the product from the ground with only minor adjustments required when close to the conductor.

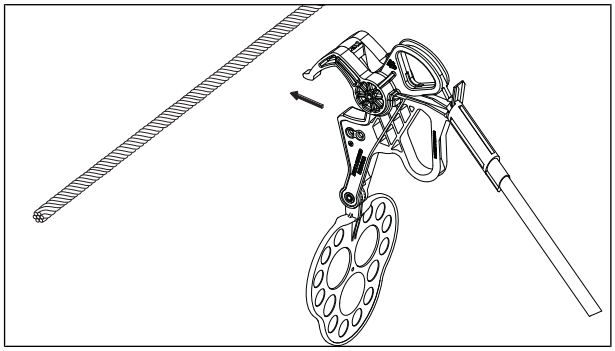


Figure 6.3

Pulling the trigger

6.4. Move the AVFD-DY / HCR into place so that the conductor sits between the clamp jaws, then push the tool up. This motion will release the trigger and the AVFD-DY / HCR clamp will automatically close around the conductor, securing itself on the overhead line.

6.5. Release the shotgun stick and remove from clamp.

Installation Complete

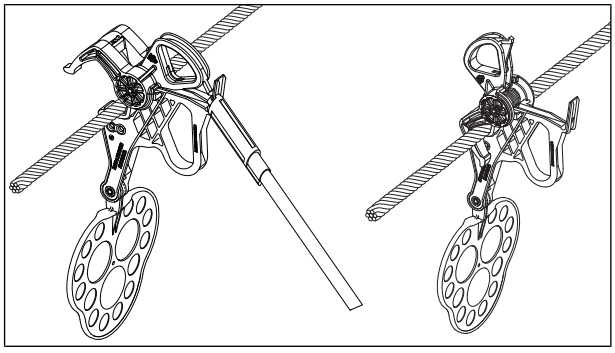


Figure 6.4

7 Installation Instruction – Zero Load Installation and Removal Tool (AVFD-TOOL-ZL)

Tool Attachment

7.1. Attach the zero load installation and removal (I&R) tool to the end of the hot stick attachment point.

NOTICE
Tighten the tool to the attachment point by hand only.

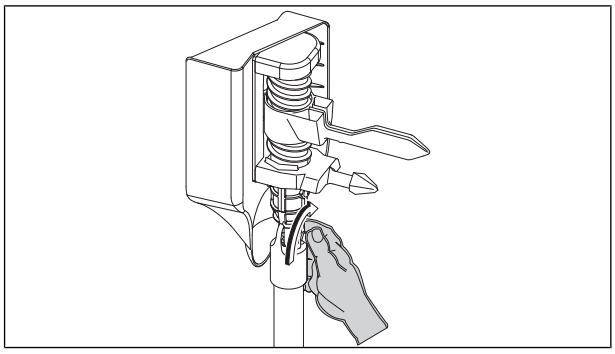


Figure 7.1

Preparing the Zero Load I&R Tool

7.2. With the tool secured on the hot stick, rotate the tool clockwise until the pins are at their closest position.

NOTICE
Do not over tighten the closing of the pins, only do this by hand.

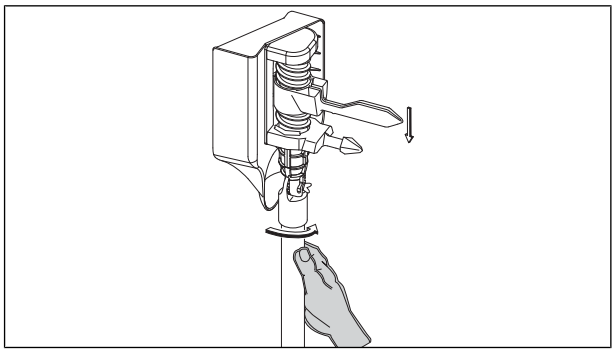


Figure 7.2

Preparing the AVFD-DY / HCR

7.3. Carefully open the AVFD-DY / HCR using two hands in the positions shown. Rotate the top of the clamp around until the trigger latches the top jaw and holds the clamp open.

NOTICE
Do not put hands / fingers between the clamp during or once opened.

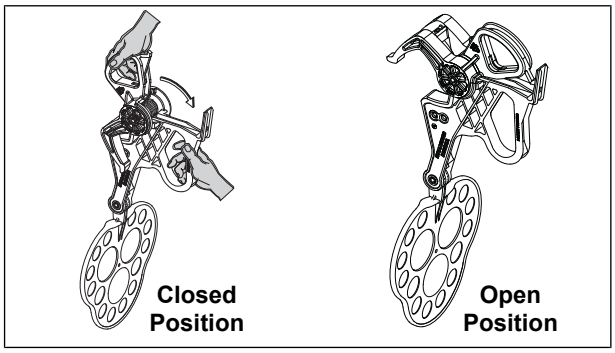


Figure 7.3

Mounting the AVFD-DY / HCR

7.4. Mount the AVFD-DY / HCR onto the Zero Load I&R tool, firstly position the tool in the orientation shown on the diagram.

7.5. Place the handle holes of the AVFD-DY / HCR over the 2x pins of the installation tool with the opening of the AVFD-DY / HCR clamp facing to the left and the marker hanging down.

NOTICE
Tooling positioning information is shown on the tools indication correct orientation.

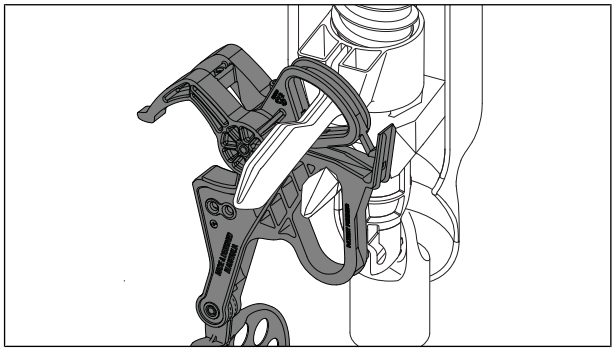


Figure 7.4

Positioning for installation

7.6. The opening of the AVFD-DY / HCR clamp jaws needs to face towards the conductor.

NOTICE

It is easier to orientate the product from the ground with only minor adjustments required when close to the conductor.

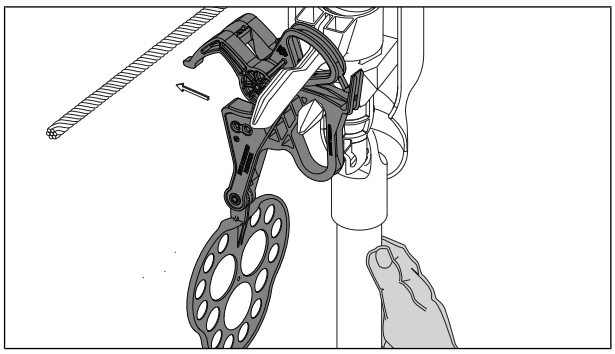


Figure 7.5

Installation

7.7. Move the AVFD-DY / HCR into place so that the conductor sits between the clamp jaws, lightly allow the top jaw of the clamp to rest of the conductor.

7.8. Rotate the hot stick anti-clockwise to open the pins which will slowly close the AVFD-DY / HCR clamp.

NOTICE

Do not pull down on the tool whilst installing and rotating.

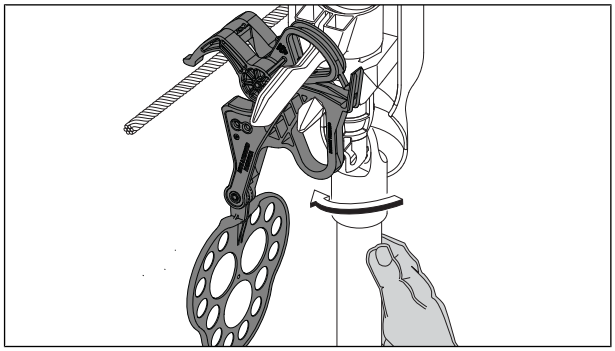


Figure 7.6

Removing the tool

7.9. Once the AVFD-DY / HCR has fully secured itself to the conductor pull the tool to the right and remove it from the AVFD-DY / HCR.

Installation Complete

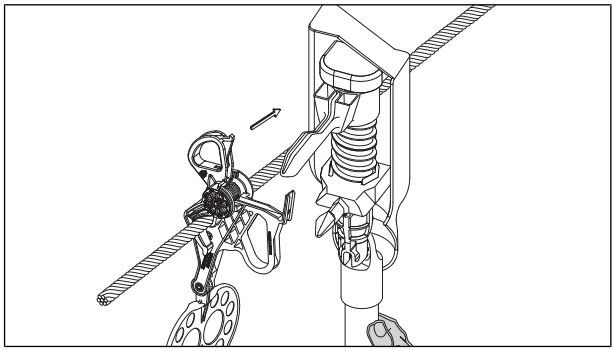


Figure 7.7

8 Removal Instruction – Zero Load Installation and Removal Tool (AVFD-TOOL-ZL)

Tool Attachment

8.1. Attach the zero load installation and removal (I&R) tool to the end of the hot stick attachment point.

NOTICE
Tighten the tool to the attachment point by hand only.

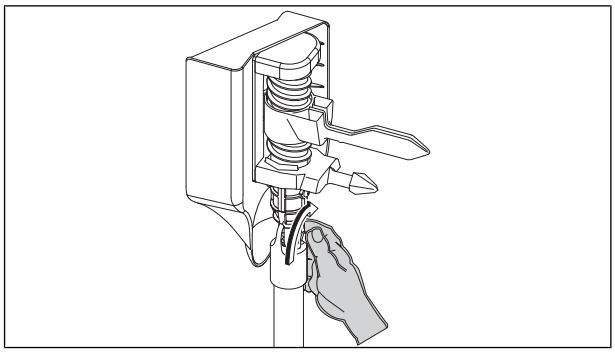


Figure 8.1

Preparing the Zero Load I&R Tool

8.2. With the tool secured on the hot stick, rotate the tool anti-clockwise until the pins are at their fully open position.

NOTICE
Do not over tighten the opening of the pins, only do this by hand.

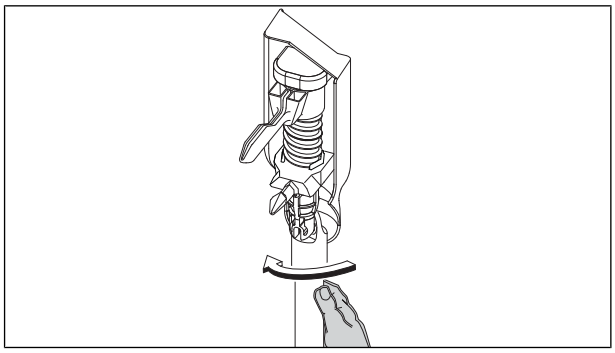


Figure 8.2

Positioning the tool

8.3. Locate the pins into the 2x holes / handles on the AVFD-DY / HCR.

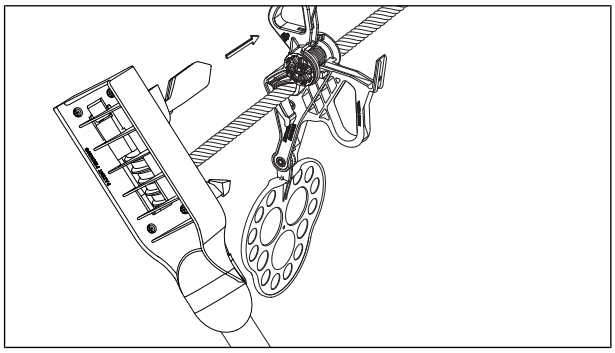


Figure 8.3

Releasing the Clamp

8.4. Rotate the tool clockwise to slowly close the pins together, this will force the AVFD-DY / HCR clamp to slowly open.

NOTICE
Do not pull down on the tool during this process.

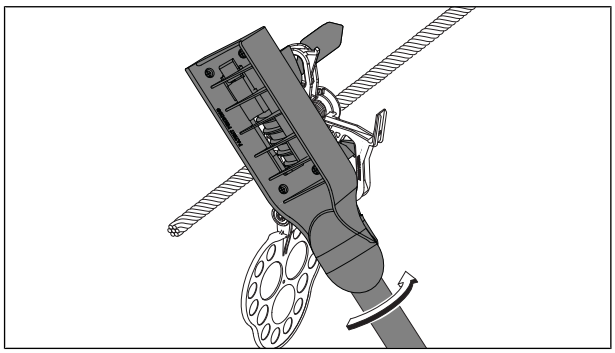


Figure 8.4

Removal from the line

8.5. Once the pins are closed and the clamp is open, remove the AVFD-DY / HCR from the conductor and away from the line.

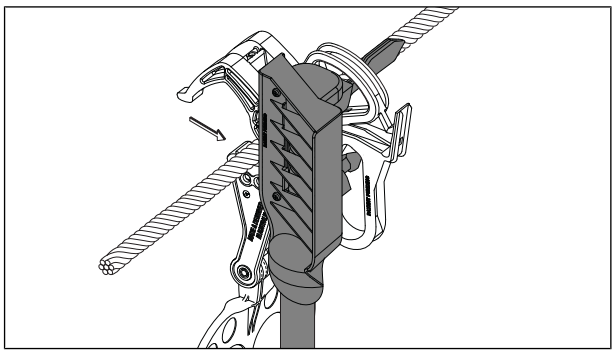


Figure 8.5

Removal from the tool

8.6. Slowly release tension on the AVFD-DY / HCR clamp by rotating the hot stick clockwise bringing the pins close together and the AVFD-DY / HCR can be removed without and spring tension.

Uninstallation and removal complete

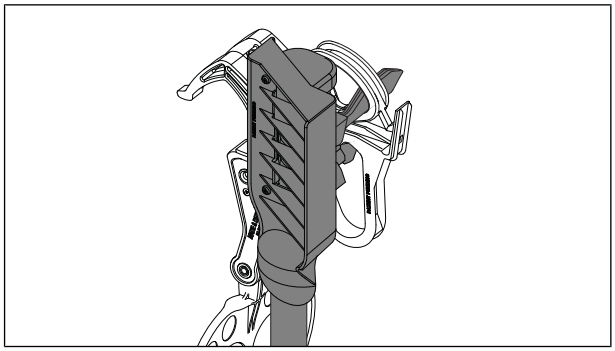


Figure 8.6

9 Installation Instruction – Drone Installation

Drone Installation Capable

The AVFD-DY / HCR has been designed for installation using a remote operated aerial vehicle (ROV) or Drone.

NOTICE

There are many types of drones, please consult with TE Connectivity with advice and guidance on installation methods and tooling options.

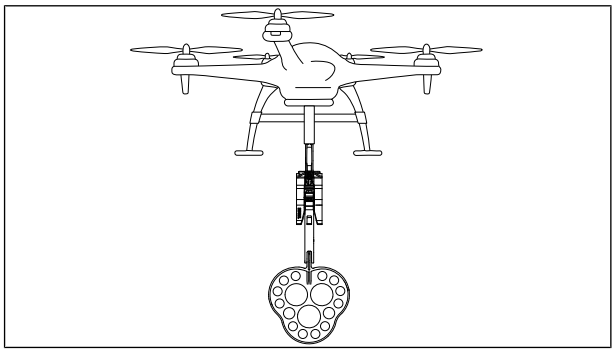


Figure 9.1