

Double Messenger Installation Method



Introduction

The Double Messenger Installation Method is designed for safe, efficient aerial cable installation across long and inaccessible spans such as rivers, ravines, and highways. This method eliminates the need for linemen to ride directly on the wire with the use of an Aerial Messenger Basket or Bosun type chair. This is done by utilizing a pre-tensioned carrying messenger and a sled-guided bundle of conductors. This guide outlines the process step-by-step and aligns with training visuals and video content.

Safety Information

- All crew members must wear appropriate PPE: helmets, harnesses, gloves, eye protection.
- Always use tension monitoring tools such as a dynamometer (G).
- Follow local grounding standards using component (N).
- Maintain visual and radio communication between all crew members during the pull.
- Verify site and equipment stability before installation begins.

Required Tools and Materials

The following components are grouped into categories to simplify staging and identification. Reference codes (A-R) are used throughout the instructions.

Hendrix Aerial Cable System Parts

Ref	Part	Purpose
A	Carrying Messenger Wire	Supports the initial pull across the span
B	System Messenger Wire	Becomes the permanent support line with the conductors
C	Covered Conductors (x3)	Covered Phase Conductors
D	Pulling Sled	Guides and aligns conductors and messenger during pull
E	Three-Sheave Block	Directs the three conductors beneath the crossarm
F	Running Block	Used to bundle the conductors as they enter the pull
K	Rolling Spacers	Maintains wire separation and alignment every 30 feet

General Utility Installation Tools

Ref	Part	Purpose
G	Dynamometer	Ensures accurate tensioning of messengers
H	Strandwise Dead Ends	Anchors and secures messenger ends at each pole
L	Bucket Trucks & Trailers	Provides access to poles and manages reel deployment
M	PPE	Ensures crew safety during all stages of installation
N	Grounding Equipment	Protects crew and site with electrical grounding practices

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Other Materials

Ref	Part	Purpose
I	Pulling Rope	Pulls the sled along the span under the carrying messenger
J	Tape Markers	Marks spacer install points at 40' and every 30' to ensure spacers are installed uniformly across span

QRS-02 (Pulling Sled)

The QRS-02 is the lead pulling sled used for installing Hendrix Spacer Cable Systems and can be used for both the Roll-By and Pole-By-Pole installation methods. The messenger rollers can be detached from the main pulling sled via a set of disconnect pins for use with the Pole-By-Pole method.

Additionally, the sled has a set of weighted tails that helps to stabilize the cables when stringing around corners by keeping them right side up and is designed to smoothly fit through the 3SB-02 (three sheave stringing blocks) for the Pole-By-Pole installation method.

QRS-02 Parts

Ref	Part	Purpose
O	Messenger Rollers	Used to roll the sled across the carrying messenger during the pull
P	Pulling Rope Attachment	Pulling rope attachment point
Q	Conductor Attachments (x3)	Conductor attachment points
R	2nd Messenger Attachment	Attachment point for the system messenger

QRS-02 Application



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Initial Setup

- Confirm all materials listed above are on site and in good condition.
- Set up reel trailers (L) and grounding equipment (N).
- Ensure bucket truck (L) access to both dead-end poles.
- Review site safety and communication protocols.

Step-by-Step Instructions

1: Install Carrying Messenger

- Install the carrying messenger (A) across the span.
- Use a dynamometer (G) to achieve proper tension. Refer to the Hendrix supplied Messenger tensioning table.
- Secure ends using strandvice or wrap on dead ends (H), confirming bracket compatibility.



2: Install Pulling Rope

- Rig the pulling rope (I) slightly below the carrying messenger (A) on both poles.



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3: Prepare Wire and Blocks

- On a temporary or permanent crossarm, Install three-sheave block (E) for conductors and running block (F) for system messenger (B). Running block will be situated on the top of the crossarm, and the three sheave block will be situated underneath. This will give separation of the conductors and messenger for ease of installation of each specially designed spacer.



4: Mark Spacer Locations

- Using tape markers (J), mark 40 feet from the dead end for the first spacer (K). This will be a marker for the installing Lineworker to install spacers.
- Install a tape marker 30 feet out from the 40 foot mark, if possible. This will serve as a marker to start and stop the pull to install new spacers. Once an installed spacer reaches this tape marker, stop the pull and install the next spacer. If it's impossible to get this tape marker on the carrier Messenger, the lineman must estimate the 30 ft mark for each spacer.



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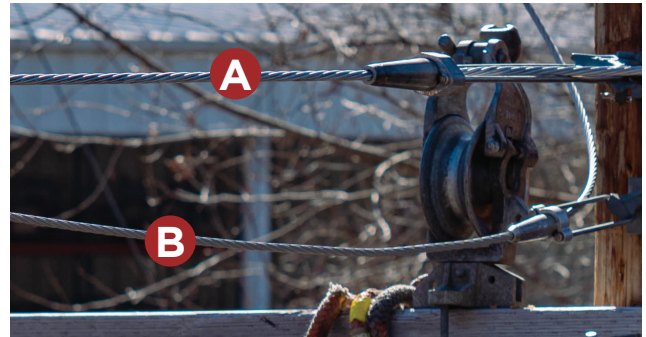
5: Initiate Pull

- Begin the pull at a slow, controlled pace.
- Stop the sled (D) every 30 feet to install a rolling spacer (K) onto the the carrying messenger.



6: Final Tensioning and Dead Ending

- At the far pole (Puller Tensioner end of pull), soft-side the conductors (C) and system messenger (B).
- Match the sag of the system messenger (B) to equal that of the carrying messenger (A). The weight of the spacers and cables should remain on the carrying messenger.
- Dead end the conductors on the trailer side of the pull and tie together messengers (A and B) for grounding continuity.



Conclusion

With the Double Messenger Installation Method, Hendrix Aerial Cable Systems provides a reliable solution to installing conductor bundles over inaccessible spans safely and efficiently. Following these instructions ensures proper setup, secure installations, and minimized field risk.

Scan to view video installation guide on YouTube



Contact Information

For training, technical support, or installation assistance:

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Additional Information and Resources at marmonutility.com/long-span