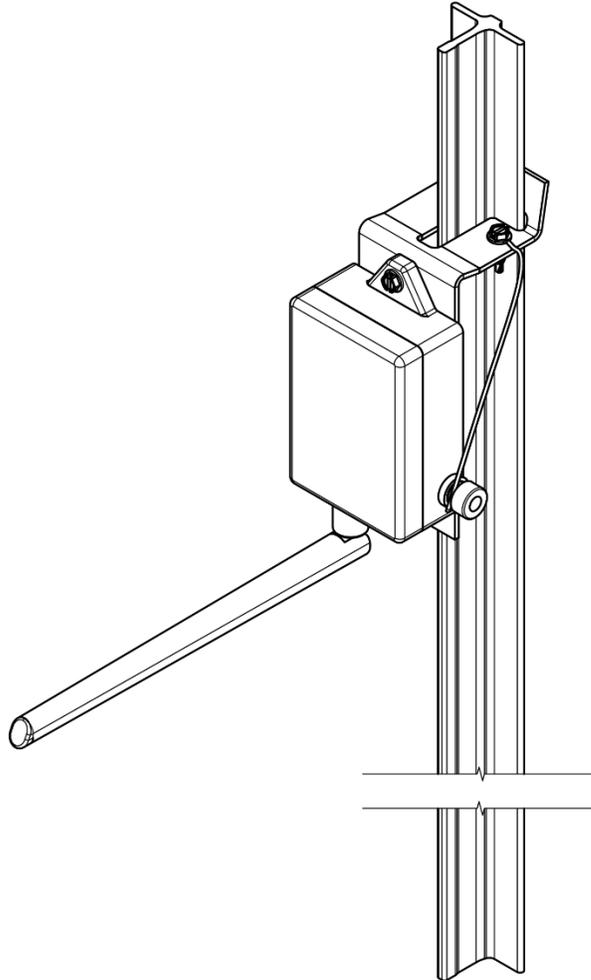




SENSORTECH



Fence D Tech Monitor

User Manual

Version 1.0

December 31, 2024

Table of Contents

Table of Contents	iii
1. Introduction.....	4
1.1 Overview.....	4
2. Account and Notifications Setup.....	5
3. Installation.....	6
3.1 Installation Considerations.....	6
3.2 Included Hardware	6
3.3 T-Post Installation	7
3.3.1 Required Materials	7
3.3.2 Installation Procedure.....	7
3.4 Wooden Post Installation	10
3.4.1 Required Materials	10
3.4.2 Installation Procedure.....	11
4. Troubleshooting and Error Messages.....	13
4.1 Troubleshooting	13
4.2 Error Messages.....	13
5. Support	15
Appendix A: Light Patterns and Meanings	16
Revision History	17

1. Introduction

This user manual provides the information necessary for effectively installing and using the Fence D Tech Monitor and the associated web platform.

1.1 Overview

The Fence D Tech Monitor monitors the performance of the electric fence and notifies the user of any changes via email or text, based on the user's preference.

The fence monitor's ultra-low power consumption ensures a battery life of several years, minimizing the need for maintenance.

The web-based user interface allows users to customize notifications and monitor the unit's health.

Users receive notification in the following scenarios: Fence Off, Fence On, Low Battery, and Device Unresponsive conditions. In addition, users can optionally receive periodic notifications confirming normal operation.

Note: Users are notified of changes in fence operation after a 30 second delay, minimizing false alarms caused by brief, temporary conditions.

2. Account and Notifications Setup



1. Scan the provided QR code or navigate to <https://dtech.sensortechllc.com/provision>.
2. Follow the instructions on the screen to start the provisioning timer.
3. Use a #1 Phillips screwdriver to remove the clear case top.
4. Connect the provided battery, ensuring it is positioned near the center at the top, with the red and green LEDs clearly visible.
5. Reinstall the clear case top, tightening it securely with the screwdriver to ensure a watertight seal. Avoid over-tightening to prevent cracking.
6. Test cellular transmission by quickly coining the monitor (rubbing a metal object against the two small screws on the top left side of the case) until red AND green LED lights begin flashing. If the transmission is successful, you will be notified via text or email within 2 minutes. If you do not receive a notification after 2 minutes, move the monitor to a higher area with greater cellular strength and repeat Step 6.



Figure 1: Case with Battery

3. Installation

3.1 Installation Considerations

The monitor should be installed near the end of the electric fence you wish to monitor, but at least 3 feet away from any other electrified fence. The monitor will detect a fence failure when it can no longer sense the periodic pulse from the electrical fence power source.

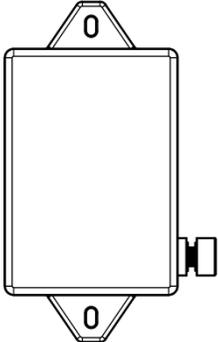
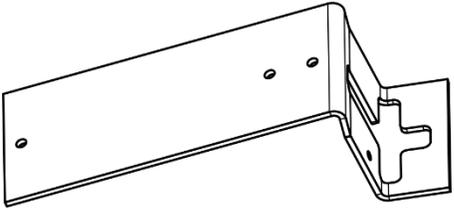
Additional monitors can be used to split the run into multiple sections for more granular detection of the point of failure in the fence. For example, positioning a monitor near the end of a run and another near the middle allows you to pinpoint whether a break is in the first or second half of the run.

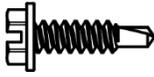
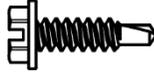
A stronger ground connection enhances the detector's sensitivity, allowing it to operate effectively from a greater distance away from the fence.

For optimal performance, position the antenna parallel to the electric fence line, maintaining a distance of 4-6 inches. While the antenna can detect pulses when perpendicular if properly grounded, parallel alignment enhances its performance.

If the voltage is below 2000V, inspect the power sources and replace them if needed, as lower voltage may reduce the monitor's ability to detect the line effectively.

3.2 Included Hardware

Ref. Number	Name	Qty.	Picture
1	Fence Monitor w/ Grounding Post	1	
2	Sensing Antenna	1	
3	T-Post Bracket	1	

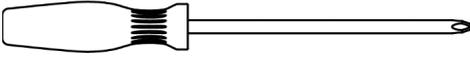
Ref. Number	Name	Qty.	Picture
4	5/8" Thread-Cutting Mounting Screw	1	
5	3/8" Green Thread-Cutting Grounding Screw	1	
6	1" Wood Mounting Screws	2	

3.3 T-Post Installation

Read all instructions prior to beginning this procedure. Refer to Figure 2 for a visual guide.

3.3.1 Required Materials

The following materials are not included but are required for completing this procedure.

Name	Image
Flat Head Screwdriver or 1/4" Socket	

3.3.2 Installation Procedure

1. Place the Fence D Tech Monitor (1) against the T-Post Bracket (3) and insert a Mounting Screw (4) through the top flange of the monitor case, into the top-most hole in the bracket.
2. Secure the Green Grounding Screw (5) into the visible grounding hole in the T-Post Bracket (3).
3. Secure the Sensing Antenna (2) onto the case by screwing it onto the exposed SMA connector.
4. Attach the crocodile terminal wire to the ground post on the side of the Fence D Tech Monitor (1) case, and then connect the crocodile clip to the Grounding Screw (5) on the T-Post Bracket (3), directly to a fence T Post, grounding rod, or other preferred ground.
5. Test cellular transmission in the field by coining the Fence D Tech Monitor (1) (quickly rubbing a metal object against the two small screws on the bottom left side of the case until you see red and green LED lights begin flashing). If the transmission is successful, you will be notified via text or email within 2 minutes. If you do not receive a notification after 2 minutes, move the monitor to a higher area with greater cellular strength and repeat Step 5.
6. Place the T-Post Bracket (3) onto the desired T-Post, ensuring the Sensing Antenna (2) is a few inches away from the electric fence but no more than 6 inches, if possible. The amber light inside the monitor should be flashing in sync with the pulses from the electric

fence. If the light is not flashing, try repositioning the T-Post Bracket (3) or Sensing Antenna (2) closer to the fence.

Note: The Sensing Antenna (2) is most effective when positioned roughly parallel to the electric fence. However, an angle of up to 45 degrees between the fence and antenna is acceptable if necessary to reduce the distance between them.

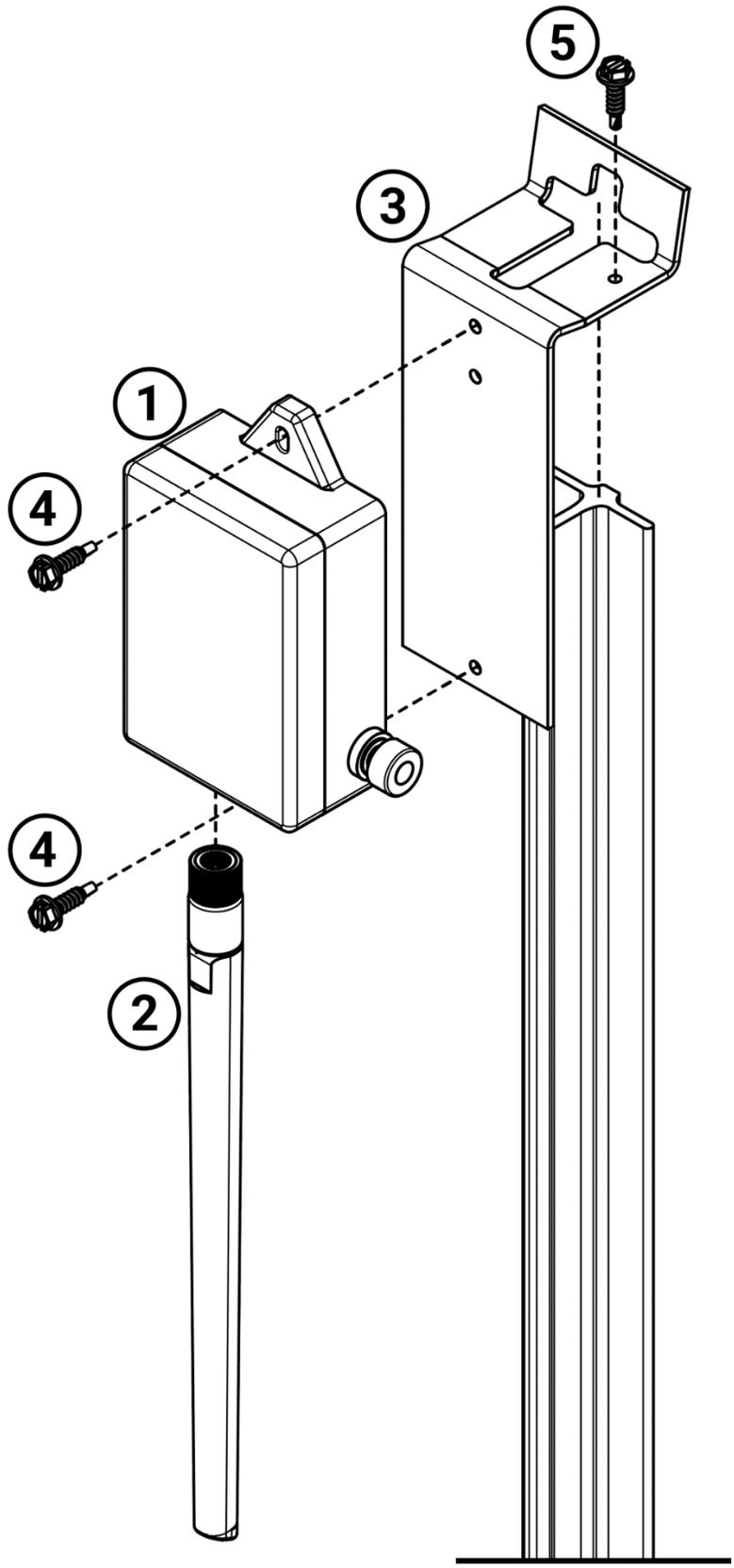


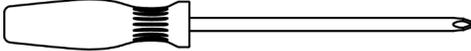
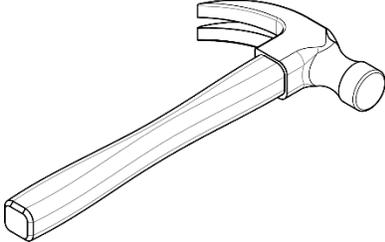
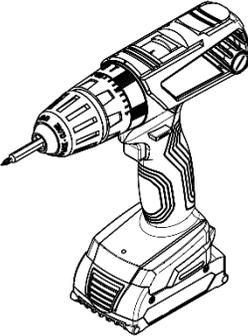
Figure 2: T-Post Installation

3.4 Wooden Post Installation

Read all instructions prior to beginning this procedure. Refer to Figure 3 for a visual guide.

3.4.1 Required Materials

The following materials are not included but are required for completing this procedure.

Name	Image
Flat Head Screwdriver or ¼" Socket	
Grounding Rod (Rebar, Copper Rod, Nearby T-Post, etc.)	(Varies)
Recommended for Ground Rod Installation	
Mallet or Hammer	
Recommended for Driling Pilot Holes (Optional)	
Drill	
1/8" Drill Bit	
Pencil or Pen	

3.4.2 Installation Procedure

1. Test cellular transmission in the field by coining the Fence D Tech Monitor (1) (quickly rubbing a metal object against the two small screws on the bottom left side of the case until you see red and green LED lights begin flashing). If the transmission is successful, you will be notified via text or email within 2 minutes. If you do not receive a notification after 2 minutes, move the monitor to a higher area with greater cellular strength and repeat Step 5.
2. Place the Fence D Tech Monitor (1) against the Wooden Post at your desired mounting location.
3. **Optional.** Drill pilot holes by first marking the center of each mounting hole with a pencil/pen. Next, use a drill equipped with a 1/8" drill bit to drill into the post at each marked hole.
4. Secure a Wood Screw (6) through the top flange of the monitor case into the wooden post.
5. Secure a Mounting Screw through the bottom flange of the monitor case into the Wooden Post.
6. Secure the Sensing Antenna (2) onto the case by screwing it onto the exposed SMA connector.
7. Attach the crocodile terminal wire to the ground post on the side of the Fence D Tech Monitor (1) case, and then connect the crocodile clip to a nearby T Post, grounding rod, or other preferred ground.
8. Ensure the Sensing Antenna (2) is a few inches away from the electric fence but no more than 6 inches, if possible. The amber light inside the monitor should be flashing in sync with the pulses from the electric fence. If the light is not flashing, try repositioning the T-Post Bracket (3) or Sensing Antenna (2) closer to the fence.

Note: The Sensing Antenna (2) is most effective when positioned roughly parallel to the electric fence. However, an angle of up to 45 degrees between the fence and antenna is acceptable if necessary to reduce the distance between them.

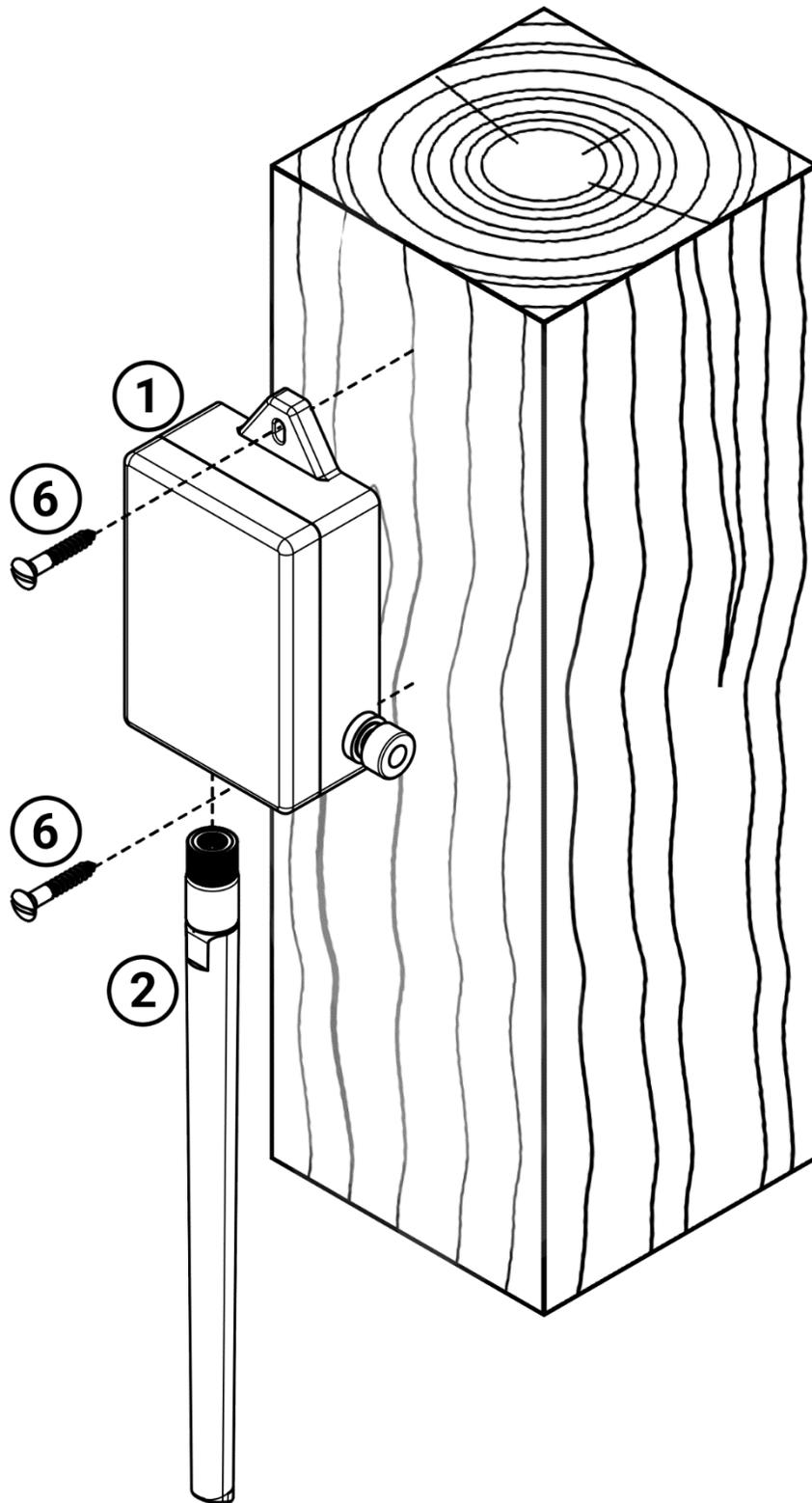


Figure 3: Wood Post Installation

4. Troubleshooting and Error Messages

4.1 Troubleshooting

Issue	Solution
The amber light is not flashing when I get close to the fence.	<ol style="list-style-type: none"> 1. The monitor uses the antenna to detect the electric pulse, and the better the ground connection, the greater its sensitivity. Try moving the antenna closer or improving your ground connection. 2. The fence charger may not be producing enough charge to sufficiently power the fence. All connections should be checked, solar panels cleaned, and batteries replaced as needed. 3. The line may be shorted. The line should be checked for tall grass, breaks, and other possible sources of shorts
Whenever the state changes, I see multiple red flashes after several seconds of alternating red and green .	The monitor is unable to establish a cellular connection. Move the box further up to improve its reception. If the problem continues, you may need to move the monitor to a location with more reliable cellular connection.
My fence broke, but the amber light is still flashing.	The unit is still picking up a significant electrical field. Verify the location of the break. Is it between the fence's power source and the unit? Is the unit near another electric fence or a significant source of electricity? Either situation could lead to the observed activity.

4.2 Error Messages

Below is a list of error messages a user may encounter. If an error occurs, a series of red flashes will display after 10 quick red flashes, indicating failed transmissions.

Number of Red Flashes	Meaning	Action Required
1	Hardware issue	Contact SensorTech, LLC Support or return the unit if within the 12-month warranty period.
2	SIM card issue	Verify SIM card is properly installed. If issue persists after several attempts, contact SensorTech, LLC Support or return the unit if within the 12-month warranty period.
3	Network error	Move the unit to a different location with better signal strength and try again. If problem persists after several attempts, contact SensorTech, LLC Support.
4	Network error	If problem persists after several attempts, contact SensorTech, LLC Support.

5	Connection error	If problem persists after several attempts, contact SensorTech, LLC Support.
6	Connection error	If problem persists after several attempts, contact SensorTech, LLC Support.
7	Low battery	Replace battery and try again.
8	Network error	If problem persists after several attempts, contact SensorTech, LLC Support.

5. Support

Please contact SensorTech, LLC for support or with any questions.

SensorTech, LLC: 316.267.2807 | support@sensortechllc.com

Appendix A: Light Patterns and Meanings

Pattern	Meaning
Flashing amber light (approx. 1 second)	The monitor is detecting pulses from the fence.
Alternating red and green flashes	The monitor is registering a change in state and will send a notification if it does not sense the fence come back within 15 - 30 seconds.
10 rapid green flashes	The monitor successfully sent a notification.
Some rapid green flashes followed by several rapid red flashes	The monitor tried to send a notification but was unable to establish a reliable signal.

Revision History

Version	Date	Description of Change
1.0	12/31/24	Initial version.