



TD 100 Transmitter



FINCH II-6W Display



Coaxial Probe

Dual Rod Probe
& Anchor
Cone

A Titan Logix system must be installed and operated in accordance with the details described in the Titan Logix manuals, application notes, and all other relevant publications.

WARNING: Only qualified personnel familiar with the installation and operation of this equipment should install, adjust, operate, or service this equipment. Failure to observe these instructions could result in bodily injury or loss of life.

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INSTALLATION GUIDE

✓	CHECKLIST
	Ensure no flammable gases and/or fumes are present before installation or repair.
	Turn the vehicle power off before any installation activity.
	Ensure the tank is drained of liquid and free of vapors.
	Observe all federal, state/provincial, and local safety standards and industry best practices.
	Ensure all required tools are available for installation.
	Secure all wires and cables with clips or cable ties and tighten all compression fittings.
	Refer to the TD100 Installation & Operation Manual (TPM 057), FINCH II Installation & Operation Manual (TD010), and the RCM installation manual (TPM 007) to view detailed procedures of any steps outlined in this Quick Reference Guide. <i>*Please note that the FINCH II-6W is NOT compatible with the TD80.</i>

Observe the following instructions during installation:

- i. Wire splices should be made inside a weatherproof enclosure or junction box to prevent premature failure due to corrosion.
- ii. The TD100 transmitter terminal wiring area forms an explosion-proof enclosure. Care must be taken when opening or closing the enclosure.
- iii. To avoid damage due to water ingress the following care must be taken:
 - o Only 1 cable should be inserted per strain relief (gland)
 - o The cable's outer diameter must be at least 0.260 inches (6.6mm)
 - o Tighten the strain relief until the cable is secure.
- iv. Every FINCH II – 6W leaves the factory with **5 strain reliefs (glands) and 3 plugs**.
 - o If the installation requires more than 5 glands, remove plugs to replace them with glands.
 - o If the installation requires less than 5 glands, replace all the unused glands with plugs before use.

1



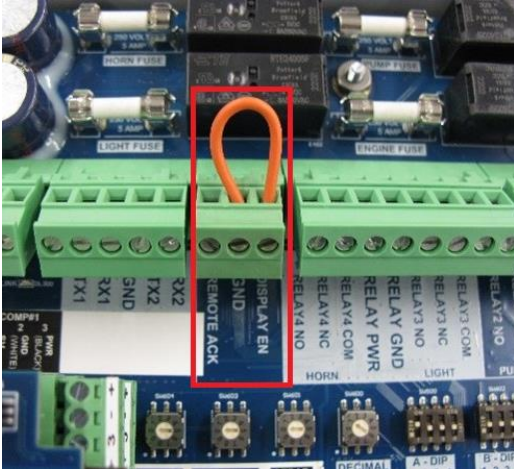
Mount the FINCH II-6W Display

- a. Attach the mounting tabs to the back of the FINCH display.
- b. Mount the display, ensuring that the unit is:
 - i. Installed in a location that does not exceed Class 1, Div. 2 hazardous area classification.
 - ii. Mounted in a protected area, shielded from wheel spray and stones.
 - iii. Not operated in temperatures less than -40°C or greater than +65°C.

2

Enable Remote Display

- To enable the display to stay ON while in use, access the FINCH II-6W circuit board and connect DISPLAY EN and GND using a jumper wire as shown.



3

Connect TD100 to FINCH II-6W

- Use the Titan-supplied explosion-proof harness (wire kit) to connect the TD100 cable to the FINCH II-6W.
- Insert wires from the explosion-proof elbow into the 1/2" thread for the connector and tighten the union nut on the TD100 (see top view).
- Make the following connections:
 - TD100 Power (PWR) to FINCH II-6W Power (PWR) - Black Wire
 - TD100 Ground (GND) to FINCH II-6W Ground (GND) - White Wire
 - TD100 SV (SV Bus) to FINCH II-6W SV (SV) - Red or Green Wire



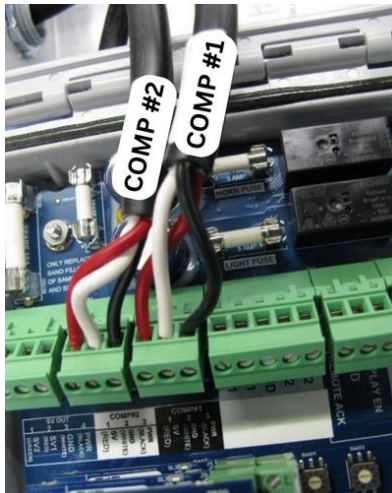
4



Connect to the Vehicle Power

- TRAILERS - connect the FINCH II power and ground to the nose box or junction box electrical connector.
TANK TRUCKS - connect FINCH II system power to a switched accessory power connection from the battery.
- Pass the power cable from a vehicle through a strain relief (gland) and connect it to power and ground as shown in the image.
- Tighten the strain relief until the cable cannot be pulled, leaving enough cable inside so the door can be opened.

5



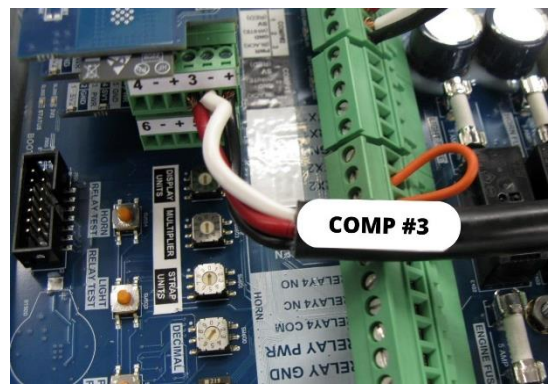
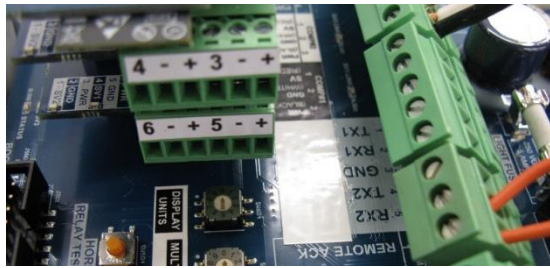
Connect to Compartments 1 and 2

- Install wire harness from TD100 on Compartment # 1 through a cable gland to COMP #1 following the colour sequence as shown in the picture.
- Install wire harness from TD100 on Compartment # 2 through a cable gland to COMP #2 following the colour sequence as shown in the picture

Note: Some wire harnesses have GREEN coloured wired instead of RED, ensure the colour sequence matches what was connected to the TD100 terminal strip.



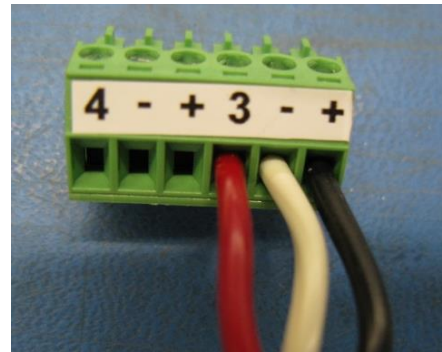
6



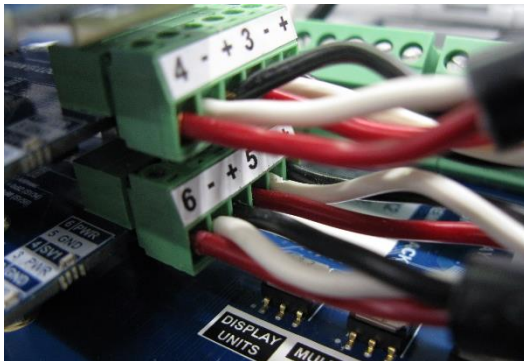
Connect to Compartments 3 and 4

- Install wire harness from TD100 through a gland to the terminal block for COMP #3 on the SV3/4 daughter card following the colour sequence as shown in the picture.
- Install wire harness from TD100 through a gland to the terminal block for COMP #4 on the SV3/4 daughter card following the colour sequence as shown in the picture.

Note: It may be easier to remove the connector from the daughter board to install the wires as shown in the image.



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Connect to Compartments 5 and 6

- Install wire harness from TD100 through a gland to the terminal block for COMP #5 on the SV5/6 daughter card following the colour sequence as shown in the picture.
- If your installation involves a Rack Control Module, then jump to step 8. If you want to connect to the sixth compartment instead, please follow through with the next step.
- Install wire harness from TD100 through a gland to the terminal block for COMP #6 on the SV5/6 daughter card following the colour sequence as shown in the picture

8

Connect to the Rack Control Module



Figure 1

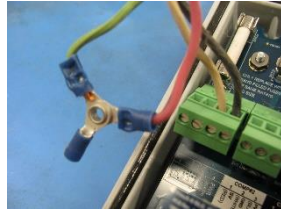


Figure 2



Figure 3

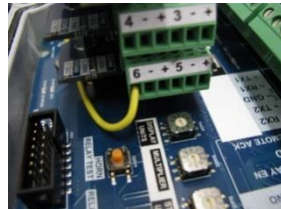


Figure 4

- If using an RCM, Install wire harness from the RCM through a gland to the SV out connector of the FINCH II.
- Connect Power and Ground (Black & White Wires) to the terminal strip and connect the Red & Green to a 3-way connector as shown in Figure 1 and Figure 2
- Connect a 3rd wire (Yellow) to the 3-way connector and install it into SV 6 of the expansion board. (Figure 3) Other wires connected to SV 3/4 and SV 5 have been removed for clarity in Figure 4.
- Make sure to wrap the 3-way connector with electrical tape to insulate the metal part from the rest of the circuitry.

Note: Currently, the FINCH II Multi Compartment display supports connections up to the total of 6 compartments or 5 compartments with the Rack Control Module (RCM v2.0).

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Complete the Installation



- Replace the FINCH II circuit board cover and any other system cover/ enclosure, ensuring all connections are secure before applying power to the TD100 system.
- Complete the programming of FINCH II following the steps described in *FINCH II Programming and Configuration Guide*.
- Visually confirm if the number of compartments displayed in the FINCH II matches the number of compartments in the truck.
- In the event error messages are observed when applying power to the system, refer to the Troubleshooting section of the TD100 Installation & Operation Manual (TPM 057).

Note: This image is for a specific installation that involves 5 compartments and a RCM. Your final product may look different based on your installation configuration.

Revision History

Revision	Author	Date	Description
1.4	Chintan Patel	30 March 23	Updated existing FINCH II images with new FINCH II-6W images
1.5	Susan Mehsuria	12 Sep 2023	Minor changes. (Removed 'series', Added v2.0 to RCM)