Part 573 Safety Recall Report 23E-076

Manufacturer Name : Transfer Flow Inc - Chico, CA
Submission Date : NOV 27, 2023
NHTSA Recall No. : 23E-076
Manufacturer Recall No. : NR

Manufacturer Information :

Manufacturer Name : Transfer Flow Inc - Chico, CA
Address : 1444 Fortress Street
Chico CA 95973
Company phone : 8935209

Population :

Number of potentially involved : 4,240
Estimated percentage with defect : 100 %

Equipment Information :

Brand / Trade 1 : Transfer Flow, Inc.
Model : TRAX 4
Part No. : 070-CM-34375
Size : 16 x 11 x 4 inches
Function : Contol Module
Descriptive Information : 100% of TRAX 4™ modules manufactured and sold between 8/28/2020 and 10/03/2023 contain a firmware defect. All firmware versions prior to 4.78 are affected and need to have their firmware updated. The firmware version can be verified using the corresponding app. The number of affected units is approximately 4172.
Production Dates : AUG 28, 2020 - OCT 03, 2023

Brand / Trade 2 : Transfer Flow, Inc.
Model : TRAX 4
Part No. : 070-CM-34418
Size : 3.8125 x 5.125 x 1.125 inches
Function : Contol Module
Descriptive Information : 100% of TRAX 4 modules manufactured and sold between 8/28/2020 and 10/03/2023 contain a firmware defect. All firmware versions prior to 4.78 are affected and need to have their firmware updated. The firmware version can be verified using the corresponding app. The number of affected units is approximately 4172.
Production Dates : AUG 28, 2020 - OCT 03, 2023

Description of Defect :

Description of the Defect :	It has been determined that a vehicle parked under certain rare conditions might experience a voltage backflow that could cause the auxiliary fuel tank control module to pump fuel into the primary fuel tank. In certain circumstances, this could overfill the primary tank and cause diesel fuel to overflow. This condition might occur if a trailer is hooked up to the tow vehicle. A trailer might create a path for back-feed voltage to travel through the trailer's electrical hookup and into the tow vehicle. Not all back feed voltage poses a potential for inadvertent auxiliary tank pump activation. The defect manifests itself when the back-fed voltage elevates the voltage at the OBDII connector from 12 volts to 13.2 volts or above. If the voltage exceeds 13.2 volts while the vehicle is not running with the ignition key off, the TRAX 4™ module may come out of sleep mode. If the module comes out of sleep mode, some vehicles' OBDII systems may communicate an incorrect fuel level or not respond to a fuel level request. If the reported data point or last reported data point is within the allowable pump transfer range, the TRAX 4™ module will activate the pump and transfer fuel, potentially leading to overfilling of the main tank. Additionally, it has been determined that certain vehicles in a remote start condition could cause that vehicle's OBDII system to communicate an incorrect fuel level or not respond to a fuel level request. If the reported or last reported data point is within the allowable pump transfer range, the TRAX 4 module will activate the pump and transfer fuel, potentially leading to overfilling the main tank. However, it is unlikely a vehicle would be running under a remote start for more than a few minutes. Thus, unless the primary tank happened to be close to full capacity, it would not result in a fuel overflow. Nevertheless, this potential has been discovered and remediated with this software reflash.
FMVSS 1 :	301 - Fuel system integrity
FMVSS 2 :	NR
Description of the Safety Risk :	Transfer Flow TRAX 4 firmware versions prior to version 4.78 can activate the fuel pump and transfer fuel unexpectedly; this issue can occur during a remote start session or when an auxiliary power system back-feeds voltage to the truck's battery systems, potentially causing fuel spillage and the risk of a fire.
Description of the Cause :	Certain TRAX 4™ module firmware did not reference an RPM signal/vehicle speed sensor reading to begin fuel transfer. Adding these features will prevent the inadvertent activation of modules in remote start/parked or activation of the pump due to backflow voltage above a threshold voltage limit. To update the modules, a software improvement will be added to the new firmware version that will require a reading from the vehicle speed sensor >0 since the last key off and RPMs went to zero or no RPM response event. Additionally, the software will require an RPM>0. All conditions must be met to initiate fuel transfer. This would require that the vehicle is running, placed into gear, and moved since the last ignition cycle, which assures the vehicle is fully started and not merely in a remote start condition.

Identification of Any Warning that can Occur :	Customers may identify an improper fuel transfer if they observe the fuel transfer light installed on the dash illuminate, see in the mobile phone app that fuel is transferring, or hear the fuel pump turn on. Of course, a customer might see fuel starting to overflow if it reaches that point, and the other indicators have not been noticed first. However, customers will be notified to immediately avoid situations, such as trailers remaining connected while the vehicle is at rest, the use of remote starters, or the use of battery chargers/tenders, until such time as the firmware has been properly updated.

Involved Components :

Component Name :	TRAX 4™ Module Firmware
Component Description :	Auxiliary fuel tank computer control module firmware
Component Part Number :	070-CM-34418

Supplier Identification :

Component Manufacturer

Name :	InterMotive Vehicle Controls
Address :	12840 Earhart Ave. Auburn California 95602
Country :	United States

Chronology :

The chronology will be uploaded separately.

Description of Remedy :

Description of Remedy Program :	New firmware requiring the module to receive an engine RPM value >0 from the vehicle's computer for the pump to turn on. Additionally, upon initial start-up of the truck, the module will require a speed sensor value >0 from the vehicle computer. This change prevents the pump from running until the module sees the appropriate engine RPM and vehicle speed readings. For the sake of clarity, but at the expense of redundancy, this requires the TRAX 4™ module to receive an RPM value, the vehicle must be running, and to get a speed value, the truck must have at least moved, which means it is no longer in a remote start mode. For further clarification, in remote start mode, you cannot put the vehicle in gear or move it until it is fully started. In summary, the pump only runs when the truck is on and has moved. Thus, it receives accurate data corresponding to the primary fuel tank level.
How Remedy Component Differs from Recalled Component :	The updated TRAX 4™ module will be issued a sticker indicating the TRAX 4™ module has had its firmware updated to version 4.78 or above. The firmware version is also verified in the TRAX 4™ app under "diagnostic data."
Identify How/When Recall Condition was Corrected in Production :	The firmware update was corrected in production by ensuring all future modules contain the newest firmware, 4.78 or greater, by October 13, 2023. All modules in inventory will be pulled and reflashed with the latest firmware version, 4.78 or greater. Every reflashed module will be labeled with a sticker noting it has been updated to version 4.78 or greater. An additional label will be placed on the outside of every kit box so that it can be identified that it has been updated to the newest version.

Recall Schedule :

Description of Recall Schedule :	November 1st, 2023 through November 30th, 2023.
Planned Dealer Notification Date :	NOV 01, 2023 - NOV 30, 2023
Planned Owner Notification Date :	NOV 01, 2023 - NOV 30, 2023

Purchaser Information :

The following manufacturers purchased this defective/noncompliant equipment for possible use or installation in new motor vehicles or new items of motor vehicle equipment:

Name :	NR
Address :	NR
	NR
Country :	NR
Company Phone :	NR

* NR - Not Reported