



S-Series™

**2.0 Telematics Control Unit (TCU)
Upgrade - T17 to T27**

Date: May 1, 2025
Bulletin Name: FDM-SVC-041
Model: Oshkosh S-Series
Units Affected: 2.0 Front Discharge Mixers
VIN 821990 - 827769

Purpose:

This bulletin provides instruction for installing a T27 TCU module in place of a T17 TCU module.

Notice:

- This bulletin should be read and understood in its entirety before performing this procedure.
- All procedures outlined in the bulletin must be performed by skilled service personnel. Refer to the product service manual for descriptions of maintenance procedures.

SAFETY NOTICE

Perform your company’s Lockout/Tagout procedure. If your company does not have a Lockout/Tagout procedure, follow OSHA 1910.147 and 1910.146 Confined Space as appropriate.

SAFETY NOTICE

Use appropriate Personal Protective Equipment (PPE) as required by your company.

Tools and Equipment Required

Customer to supply:

- Hand tools
- Drill and 3/16” drill bit
- Tape measure
- Torque wrench (inch pounds)

Parts Required

Item	Part Number	Description	Qty.
1	A000V858	WASH, FLT, SAE #8 X 0.44 X 0.05 SS	2
2	A000W843	SCR, BTN, SOC #8-32 X 1.12 SS	2
3	A001C246	NUT, ACRN #8-32 SS NS	2
4	A001F369	WIRE HARN, JUMPER, TELEMATICS_SVC	1
5	A001K385	MODULE ASSY, TCU, 12.0.0 X	1
6	A000E542	LOCTITE, #242	A/R

5. Disconnect cab harness connector C1530, GPS antenna connector, and cellular connector from T17 module. See Figure 2.
6. Remove screws and lock nuts securing T17 module to bottom of overhead console. See Figure 2. Screws and lock nuts will not be reused.
7. Remove T17 module from overhead console. See Figure 2. T17 module will not be reused.

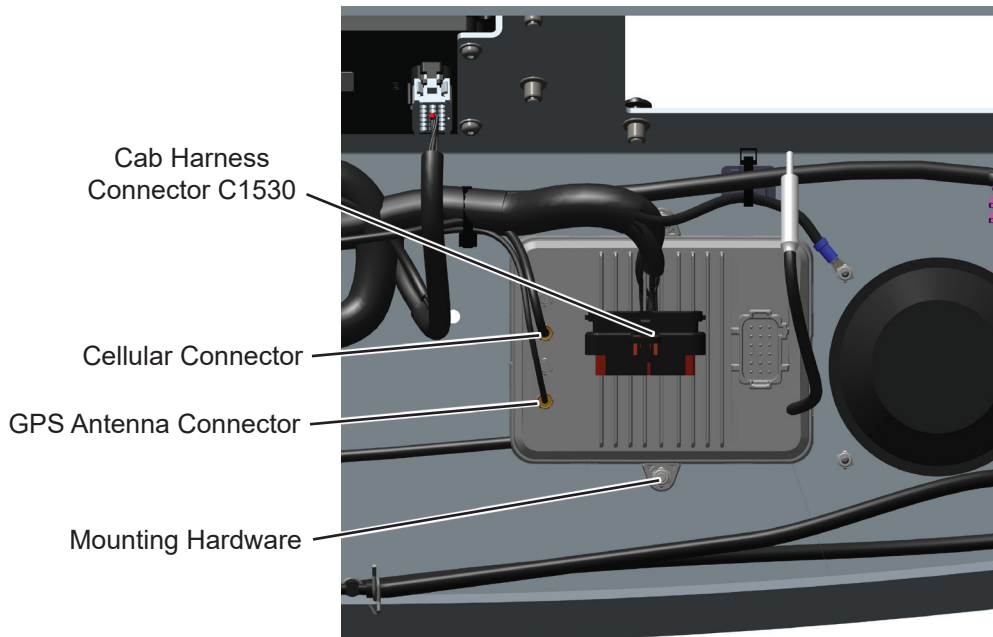


Figure 2

8. Mark and drill two 3/16 inch holes in bottom of overhead console per dimensions in Figure 3.

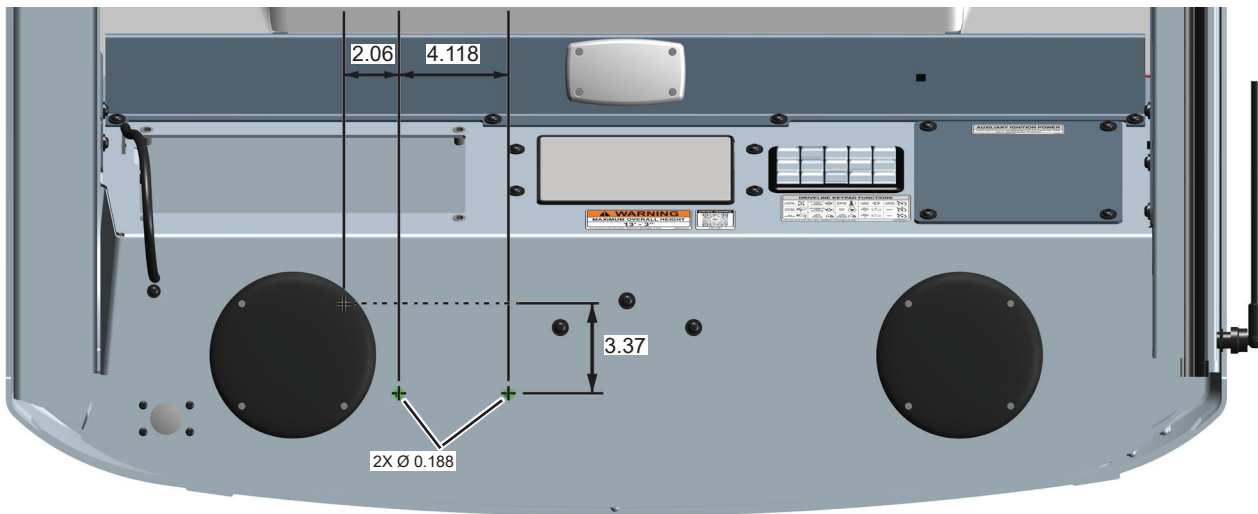


Figure 3

9. Place T27 TCU module (A001K385) in overhead console through radio panel opening. See Figure 4.
10. Apply Loctite® #242 (A000E542) to threads of mounting screws (A000W843).
11. Secure TCU module to overhead console through holes drilled in Step 8 with screws (A000W843), washers (A000V858), and acorn nuts (A001C246). See Figure 4. Install screws from top and washers and acorn nuts from the bottom, acorn nuts to be visible from driver's seat. Final tighten hardware to 17 in lbs.
12. Connect GPS antenna and cellular connectors disconnected in Step 5 to TCU module. See Figure 4.
13. Connect jumper harness (A001F369) to TCU module. See Figure 4.
14. Connect cab harness connector C1530 disconnected in Step 5 to jumper harness. See Figure 4.

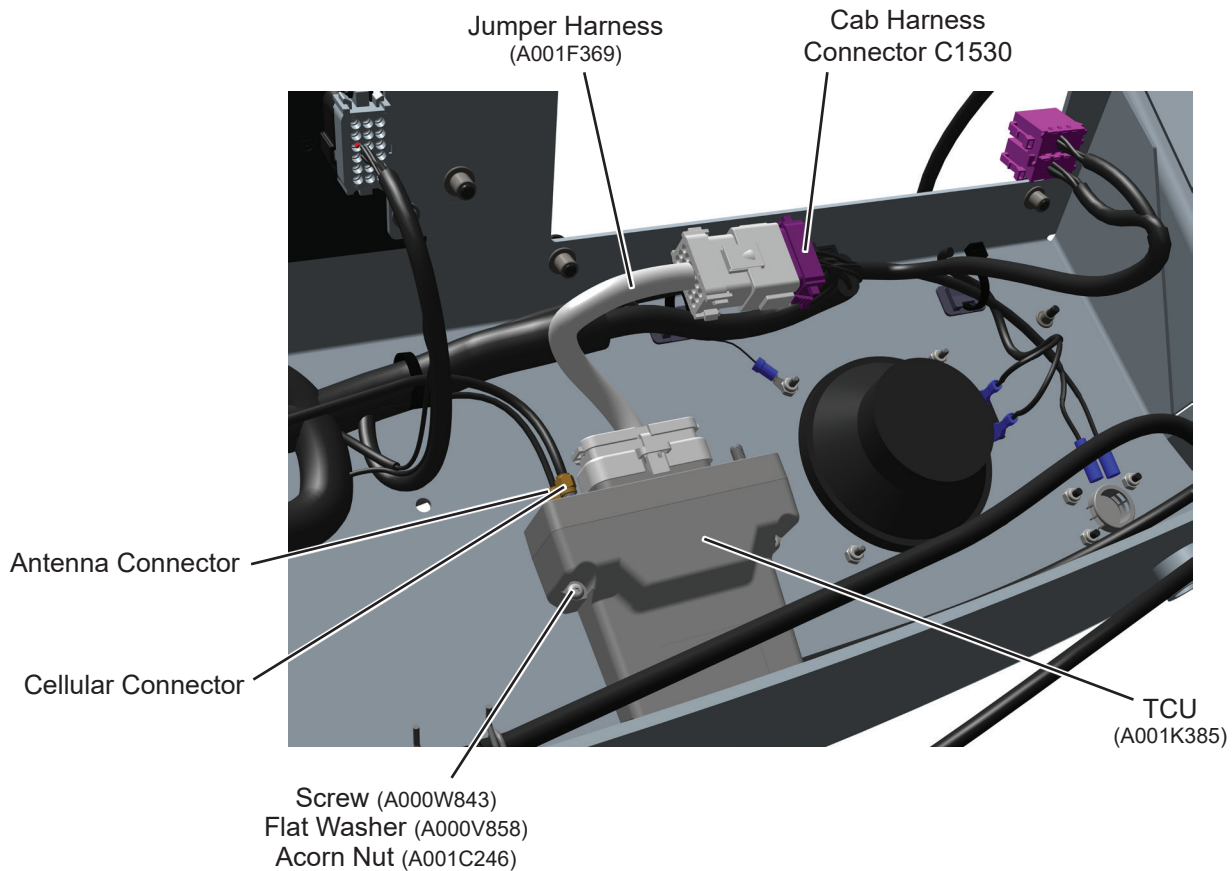


Figure 4

15. Reconnect harness connector and antenna cable disconnected in Step 4 to back of radio.
16. Reinstall radio panel to overhead console with four screws and washers removed in Step 3. Final tighten screws to 75 in lbs.
17. Remove lockout/tagout and tire chocks.

ClearSky™ Verification

18. Make sure truck is in a location with adequate cellular and GPS service. Truck may need to be outside for adequate service.
19. Turn truck ignition switch to ON position and wait until overhead display shows home screen.
20. Log into ClearSky (<https://clearsky.mcneiluscompanies.com>) See Figure 5. If an account needs to be created contact ClearSky support (clearskysupport@oshkoshcorp.com).

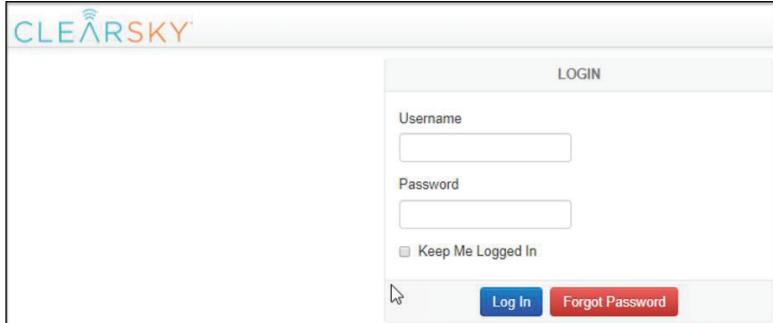


Figure 5

21. Search for truck serial number (last six digits of truck VIN) in ClearSky search window. See Figure 6.

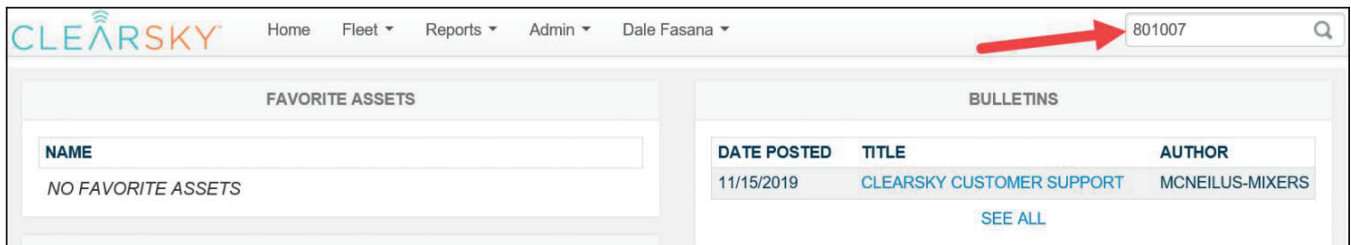


Figure 6

22. Make sure the truck's serial number appears in the search results Assets window and select the truck from the search results. See Figure 7.

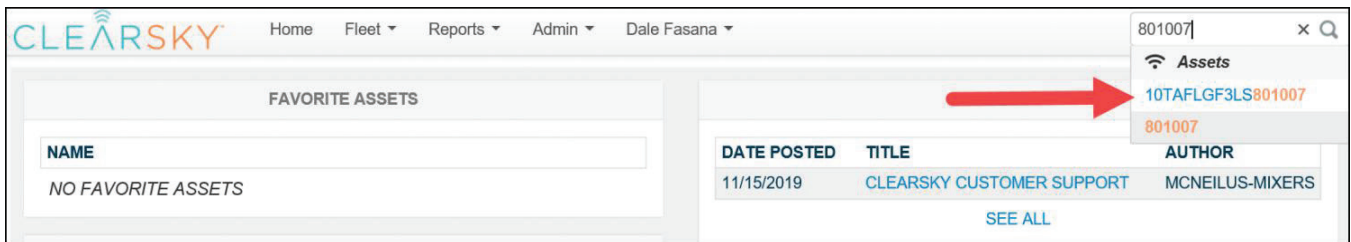


Figure 7

23. Make sure the truck VIN displayed in the information box in the upper left corner of page is correct. See Figure 8.

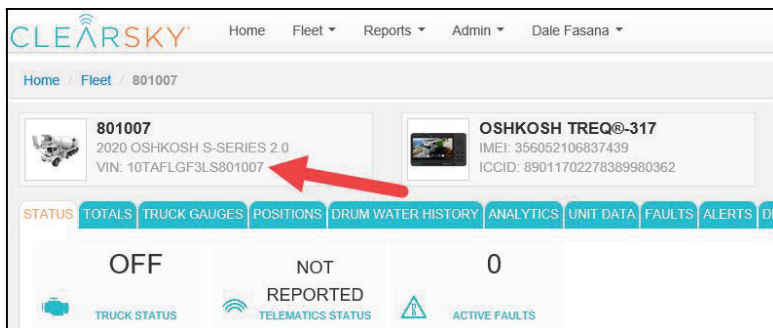


Figure 8

24. Check the GPS by clicking on the SUMMARY tab and making sure the map shows the current location of the truck. The time stamp displayed should be within 2 minutes of the current time. See Figure 9.

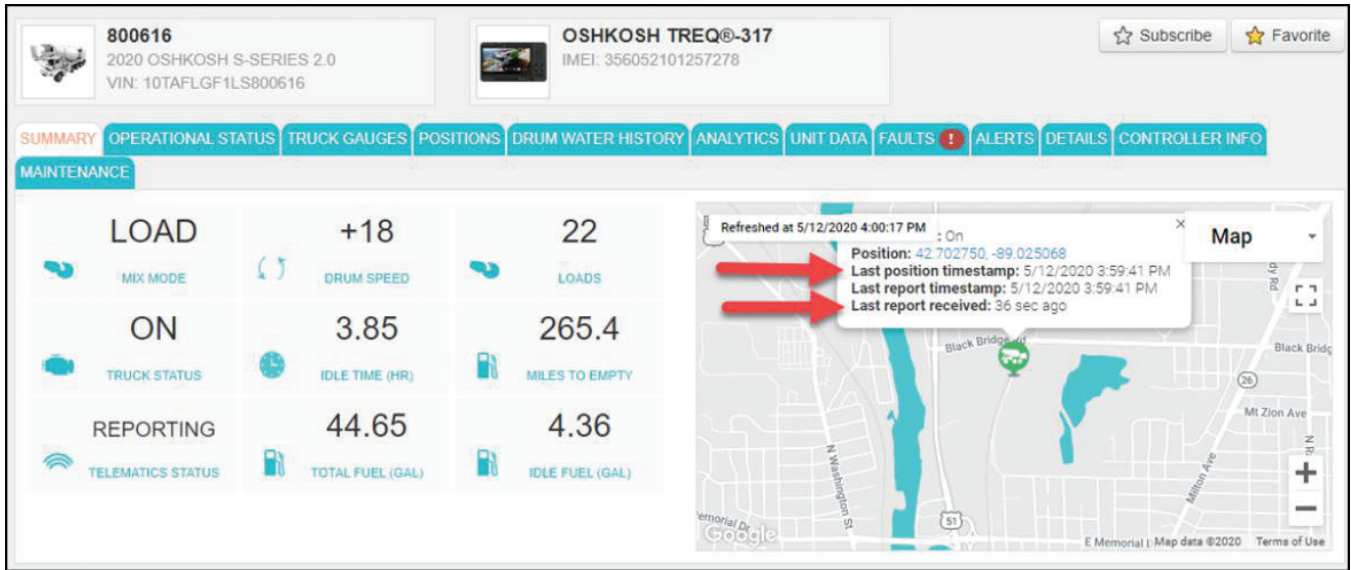


Figure 9

25. Check the ClearSky data by clicking on the TRUCK GAUGES tab and making sure the ClearSky gauges match what is shown on the gauges in the truck. See Figure 10. Gauges include fuel level, front air tank pressure, rear air tank pressure, odometer, and engine hours.

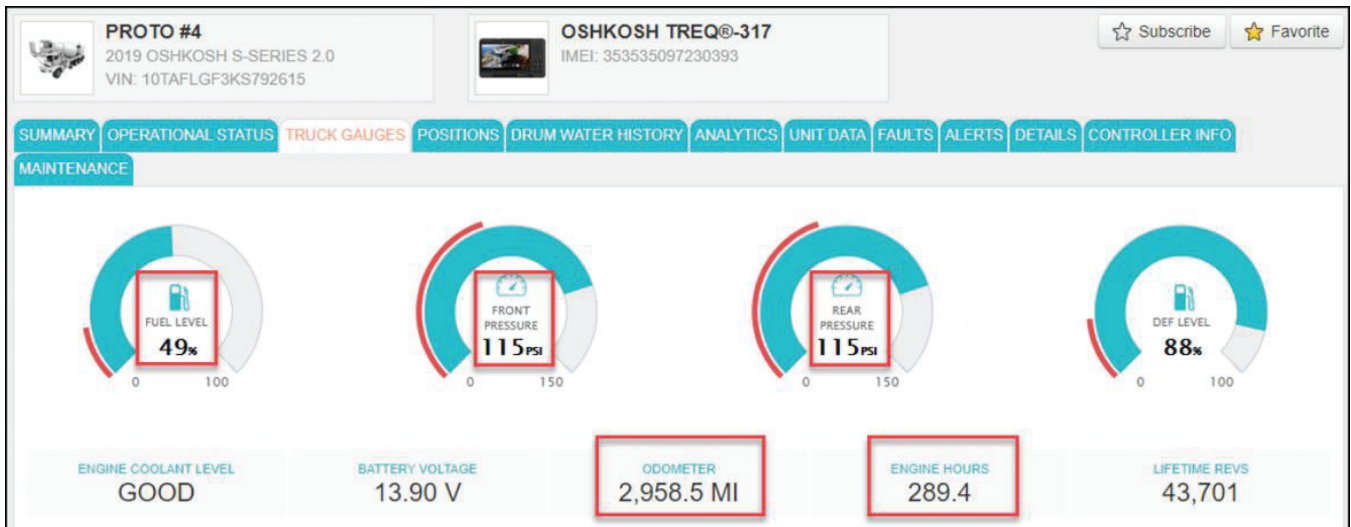


Figure 10

26. Click UNIT DATA tab and make sure a report named IGNON appears near top of REPORTS sub-tab with a DATE/TIME with the vehicle's ignition turned ON.

MAINTENANCE

REPORTS EXPORT

FROM: 5/8/2020 12:00:00 AM TIME ZONE: CENTRAL STANDARD TIME

« < 16 17 18 19 20 21 22 23 24 25 LOAD MORE

DATE/TIME	REPORT
5/14/2020 10:10:03 AM	IGNON
5/14/2020 10:10:03 AM	OPMODE
5/14/2020 10:10:03 AM	INFO
5/14/2020 10:10:01 AM	DM1
5/14/2020 10:09:59 AM	DM1
5/14/2020 10:09:13 AM	OPMODE

Figure 11

27. Click CONTROLLER INFO tab and make sure information for the following eleven parameters exist.

- VIN
- IMEI
- ICCID
- ENGINE SERIAL/SOFTWARE VERSION
- ABS SOFTWARE VERSION
- DISPLAY SOFTWARE VERSION
- FCM SOFTWARE VERSION
- RCM SOFTWARE VERSION
- TRANSMISSION SOFTWARE VERSION
- INSTRUMENT PANEL SOFTWARE VERSION
- ENGINE REFERENCE TORQUE

STATUS TOTALS TRUCK GAUGES POSITIONS DRUM WATER HISTORY ANALYTICS UNIT DATA FAULTS ! ALERTS DETAILS CONTROLLER INFO

MAINTENANCE 3 3 ACTIVITY

VIN	10TAFLGF1LS800616
IMEI	356052101257278
ICCID	89011702278389980719
ENGINE SERIAL/SOFTWARE VERSION	04384413*22503222*032019175002*61701841*G1*BII*
ABS SOFTWARE VERSION	2460030002*E454*
DISPLAY SOFTWARE VERSION	2.0.13
FCM SOFTWARE VERSION	7.4.5
RCM SOFTWARE VERSION	10.8
TRANSMISSION SOFTWARE VERSION	W19BCD_PC_8688*C19100087D88Z*
INSTRUMENT PANEL SOFTWARE VERSION	.4.4 - 3/12/20
ENGINE REFERENCE TORQUE	1991.42 FT-LB

Figure 12

ClearSky™ Troubleshooting

1. Make sure TCU version number populates in overhead display ABOUT screen. If TCU version is not populated the TCU is not communicating.
 - a. Check for a solid red LED and flashing green LED on front of TCU. See Figure 13. No lit LEDs on front of TCU indicates no power to TCU.
 - b. Make sure TCU connectors are fully seated and there are no bent or damaged pins.
2. Make sure GPS antenna and cellular cables are connected correctly.

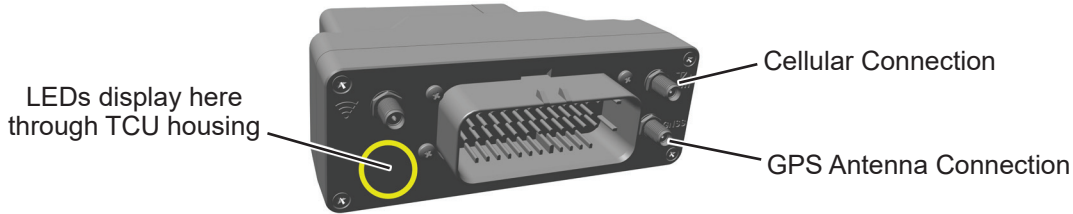


Figure 13

3. Turn vehicle's battery disconnect switch OFF and wait until LEDs on front of TCU turn off, the TCU has an internal battery which can take up to 3 hours to fully drain before LEDs go out.
4. Turn vehicle's battery disconnect switch ON.
5. Turn vehicle ignition switch ON and recheck if TCU is operating and populates the version number in overhead display ABOUT screen.
6. Contact S-Series service if these troubleshooting steps do not correct TCU operation.

Continuous Improvement:

The change included in this document is part of the McNeilus Continuous Improvement Process.

McNeilus's quality policy is providing customer satisfaction through innovative products, dedicated service, and a constant focus on continuous improvement.

McNeilus

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