



TOW ASSIST™
ABS & SWAY MITIGATION SYSTEM

Powered by  **BOSCH**

OWNER'S MANUAL

- Introduction2**
 - Anti-Lock Braking System (ABS).....2
 - Trailer Sway Mitigation (TSM).....2
 - Lane Change Control (LCC)2
 - Trailer Brake Monitoring.....2
 - Trailer Odometer Feature2
 - Configuration2
- Operation.....3**
 - Initialization3
 - Shutdown/Sleep3
- Brake System Monitoring4**
 - Brake Magnets.....4
 - Wheel Speed Sensors4
 - Power Supply4
 - External Simulated Load4
- Tow Assist Compatibility Guidelines4**
- Dexter Phone App4**
- Troubleshooting.....5**
 - Fault Diagnosis: Diagnostic Interface Method5
 - Fault Diagnosis: Light Flash Method5
- Service Instructions.....6**
- Reference7**
 - Light Module Operations7
 - Service Diagnostic Action.....8
- Notes.....11**
- Limited Warranty12**
- Locations13**

Introduction

The Dexter Tow Assist™ system brings automotive intelligence and technology to the trailer industry by providing Anti-Lock Braking (ABS), Sway Mitigation, and a towable odometer. The product will make trailer driving safer for both novice and professional drivers while also helping to reduce the costs associated with trailer downtime.

Anti-Lock Braking System (ABS)

Anti-lock Braking System (ABS) will operate when one or more wheels are determined to be slipping to a level to require ABS intervention. The main goal of the trailer ABS feature is to maintain lateral stability of the trailer on a surface where the trailer wheels become locked (typically lower friction surfaces, wet asphalt, gravel, snow, ice).

ABS ensures the braking system can achieve maximum braking power without the associated risk of locked wheel trailer instability. ABS is the foundation of a safe braking system.

Trailer Sway Mitigation (TSM)

Trailer sway is increasing oscillations of a trailer swaying due to incorrectly loaded trailers or external forces such as high winds, road conditions or extreme driver steering. TSM function will only activate at speeds 40 MPH and above.

TSM improves safety by using advanced monitoring and braking algorithms to ensure the trailer stops with the most effective level for the sway rate, road surface, brake efficiency and trailer weight. Paired with ABS, trailer sway mitigation is extremely effective in adapting to all trailers irrespective of the weight, loading, braking efficiency or wheel & tire choice.

Lane Change Control (LCC)

Lane change instability differs from trailer sway. LCC is caused by a sudden change in the tow vehicle's direction rather than an increasing the sway of the trailer while the vehicle is traveling straight. The Tow Assist Lane Change Control (LCC) monitors for sudden vehicle swerving and extreme trailer movement to stabilize the trailer early.

Trailer Brake Monitoring

Drivers know they can rely on Tow Assist; it is a safety system that continually monitors components and provides up to date notification through the indicator light. For this reason, the customer benefits from a monitoring system. Monitoring of trailer components includes electrical brake mechanisms, wheel speed sensors, power source monitoring and trailer braking issues (see 2.4 Tow Assist External Components Monitoring).

Trailer Odometer Feature

Tow Assist offers the feature of recording trailer mileage. Trailer mileage tracking plays an important role in ensuring trailers are serviced at correct intervals, improving safety. Additionally, it can improve the resale value of trailers by offering the buyer the trailer mileage and service history.

Configuration

The installer of your Tow Assist system configured it to your specific trailer with the number of axles and tire size from original delivery. Significant changes in the size may slightly affect odometer accuracy.



Scan to visit the Tow Assist Website



Scan to view video about the Tow Assist System

Operation

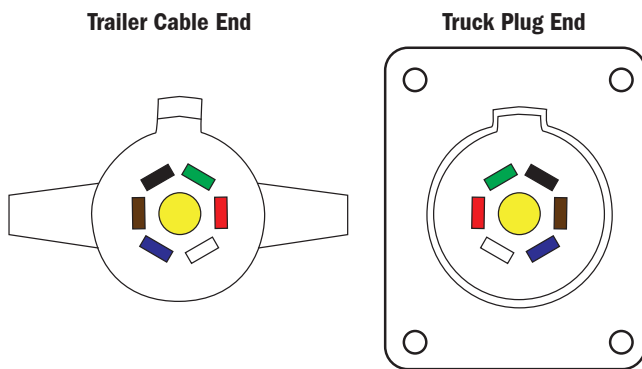
The Tow Assist system works in collaboration with an in-vehicle Electric Trailer Brake Controller to improve the safety and stability of trailer braking.

The primary trailer braking control remains the responsibility of the Electric Brake Controller and the vehicle driver. Tow Assist will intervene when it determines the safety of braking is compromised and the system can improve the situation.

The goal of the Tow Assist system is to improve the safety of the trailer braking and stability, while also ensuring trailer braking efficiency or reliability is not reduced.

The Tow Assist system requires a 7-way (or similar) tow vehicle connector. This connector must have Auxiliary +12V Power wired at position 4, which is typically a black wire. This connection is how the Tow Assist system is powered. The system will not work without power from this connection. Your tow vehicle may have the 7-way connector without the +12v terminal activated. Please consult your vehicle's owner's manual or a qualified service center to verify that your connector has the proper power connection.

Figure 1: Most Common Factory Installed Wiring Arrangement (Front Face of Connectors)



Position	Color	Description
0	Yellow	Auxiliary Lights
1	Green	Tail Lights
2	Red	Left Turn/Brakes
3	White	Ground
4	Black	+12 V
5	Brown	Right Turn/Brakes
6	Blue	Trailer Brakes

Initialization

The Tow Assist will startup when power is first applied through the 7-way plug connection. During Tow Assist startup, audible clicking may be heard from the Tow Assist ECU performing a self-check. The light will flash briefly as part of the self-check.

After startup, the Tow Assist light will remain off until a valid brake signal is detected. A brake signal is generated by the driver pressing the brake pedal or pressing the brake override lever of the electric trailer brake control. By waiting for this signal, Tow Assist ensures it has detected a valid trailer braking signal and that the driver has correctly connected the tow vehicle to the trailer.

Brake controllers will vary somewhat on the exact signal produced while at a standstill. Tow Assist requires a strong brake controller signal to wake-up the unit. Available brake controllers vary on actual output created from each controller setting. It is recommended to set the controller gain setting of "2" or higher to ensure there is enough signal created to wake-up the Tow Assist. The Tow Assist indicator light will illuminate, indicating the system is on. If Tow Assist does not go into normal operation do the following until the system indicator light is green:

- Press and hold the brake pedal for at least 2 seconds.
- Press and hold the brake override switch for at least 2 seconds.
- Increase the gain setting slightly.
- If Tow Assist does not become active, check trailer plug connections, wire and power supply to the Tow Assist and repeat the steps above.

Tow Assist will wake-up from a sleep state when power and a valid signal is detected from the brake input.

Normal operation will commence when a brake signal is detected by the system. The system status will also be displayed on the light module.

- Green operational light display only indicates the system is good and completely operational.
- Amber warning light display only indicates the system has a fault and is shutdown. It will not operate in this state. Note that regular braking is still available. Use your Tow Assist app or contact Dexter to have this corrected.
- Operational and warning light displays on together (green and amber) indicates the system is operating in a reduced state due to a detected fault. Some level of ABS and Sway Mitigation is available. Use your Tow Assist app or contact Dexter to have this corrected.

A detailed list of light states is listed in the reference section under light Module Operations.

Shutdown/Sleep

Tow Assist will turn off the light module illumination after 20 minutes of trailer standstill without a braking signal detected. Tow Assist will go into low power sleep mode after 120 minutes of trailer standstill without a braking signal detected. Tow Assist will shut down if there is no power by removing the 7-way plug, unless an on-board battery powers system. Note: Anytime the light module is not illuminated, the driver must assume the Tow Assist is off and not operational.

Fault Monitoring

Tow Assist will perform periodic system status checks. On start-up, the system will perform a detailed review of the system and the connected braking components.

While operating, Tow Assist is constantly monitoring and reviewing the failure status of the ECU and supporting components.

If the Tow Assist has an active fault, the system will continue to perform fault checks once at a standstill. Periodic checks are a sequence of 5 minutes after standstill, then at 15 minutes after standstill and then every 30 minutes until such time the fault is corrected and no longer detected.

Brake System Monitoring

Brake Magnets

Brake Magnets are monitored for a range of faults including open circuit on magnet connection, shorts to Ground Level, shorts to Positive Battery Level, and incorrect wiring detected on the brake magnets. These checks are performed at Tow Assist start-up and during active Tow Assist operation (ABS, TSM, LCC).

Wheel Speed Sensors

Wheel Speed Sensors are checked for a range of faults including wheel speed signal and supply faults, tone wheel damage and a range of plausibility checks between different wheels.

Power Supply

Tow Assist Power Supply is checked for conditions in standby and active operation including:

- Under voltage when Tow Assist not actively braking
- Under voltage levels when actively braking
- Over voltage level

External Simulated Load

If the electric brake controller is not satisfied with the Tow Assist internal load simulator, warnings will display on your tow vehicle dash display. These warnings are dependent on specific conditions on certain tow vehicles and should not happen in most configurations. If needed, an external simulated load can be added to the harness and enabled. This feature must be activated through proprietary software. Please contact towassistsupport@dexteraxle.com for more information.

Tow Assist Compatibility Guidelines

CAUTION

It is the responsibility of the end user to ensure that their electric brake controller is compatible with the Dexter Tow Assist System. Dexter attempts to provide compatibility with most controllers available but is unable to anticipate design changes that might be introduced by the various controller manufacturers.

Information on Tow Assist Compatibility Guideline are available in instruction sheet 059-A23-00 available at www.dexteraxle.com.

**Scan to view the Tow Assist
Compatibility Guidelines**

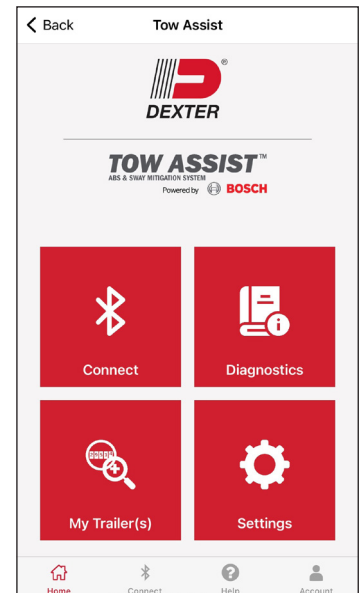
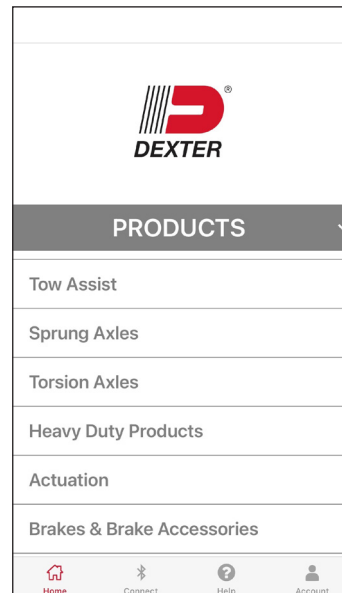


Dexter Phone App

The Dexter app has many features, including access to product information, manuals, instructions, and a dedicated section for the Tow Assist system. The app is available in both Google Play™ store or the Apple App Store®.

The Tow Assist interface portion of the app allows users to

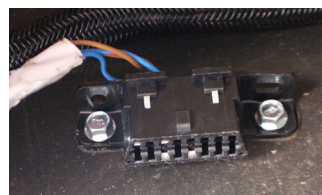
- Create and manage account
- Manage multiple trailers
- Read trailer odometer
- Diagnose and learn about system faults
- Save information about readings and faults
- Reset the Tow Assist Controller (ECU)



The Tow Assist portion of the phone app requires the supplied Bluetooth communication adapter (Dexter Part Number 058-037-00) to communicate with the Tow Assist System. Plug the Bluetooth adapter into the OBD2 harness connector located near the front of your trailer. Contact your trailer manufacturer if the OBD2 connector if it is not easily visible. See the images below for reference. Remove the adapter when not in use to protect from environmental extremes.

Please note that the app is meant to read information from the Tow Assist ECU only. Only the trailer manufacturer can write to the ECU with specialized software.

OBD2 Harness Connection and Bluetooth Adapter



Troubleshooting

A correctly installed and fully operational Tow Assist will display an operation light (green) on and warning light (amber) off.

If the system detects a fault, the warning light will be on. Perform the following steps:

1. Wait for more than 5 minutes at standstill or power cycle the Tow Assist ECU. The Tow Assist ECU will perform a self-check.
2. If the warning light remains on after 5 minutes at a standstill or power cycle, carefully drive off and stop again (generating a brake signal by pressing the brake pedal or pressing the brake override lever of the electric trailer brake control).
3. If the warning light remains on, perform fault diagnosis in one of the next two sections.

Fault Diagnosis: Diagnostic Interface Method

The Tow Assist App contains a diagnostic code log that provides the cause and repair for each fault. The full description of the possible diagnostic codes is listed in the reference section in this manual. To extract the diagnostic fault codes from the Tow Assist, the user can use an OBD2 Bluetooth® adapter and the Tow Assist App.

Fault Diagnosis: Light Flash Method

An alternative basic troubleshooting method is available, however, it will not offer the same high level of troubleshooting detail that a connection to the diagnostic interface will. Diagnostic fault codes are mapped to Light Flash Codes which can be accessed by the installer, service representative and the user.

To activate the light Fault Display Mode the following actions must be performed:

1. The trailer must be stationary, electric brake controller connected and the Tow Assist powered on.
2. The electric brake controller gain should be greater than 50% of its scale.
3. The driver must not press the brake pedal.
4. The driver must Apply (short press) the manual override switch on the electric brake controller with 10 short pulses within a 15 second period to commence the Fault Display Mode.

If these requirements are met then the Tow Assist will flash the fault codes as per the table in the reference section under light Module Diagnostics.

Fault code flashing sequence will operate in the following manner:

1. Fault Code (First Fault) (e.g. fault number 25)
2. Flash Warning light (amber) number of times as the 1st digit. (e.g. 2 flashes)
3. Flash Operation light (green) number of times as the 2nd digit. (e.g. 5 flashes)
4. All light off for 1 second (signifies 1st fault finished and will start 2nd fault)
5. Fault Code (Second Fault) (e.g. fault number 45)

6. Flash Warning light (amber) number of times as the 1st digit. (e.g. 4 flashes)
7. Flash Operation light (green) number of times as the 2nd digit. (e.g. 5 flashes)
8. All light off for 1 second (signifies 2nd fault finished and will start next fault)
9. Fault Code (maximum 10 available)

Both lights off for 3 seconds (signifies all faults finished and will start the sequence again).

The entire flashing sequence will repeat for 10 cycles before returning to normal light operation.









The light Fault Display Mode will cancel and return to standard light operation if the trailer is towed at any time or if power is removed from the Tow Assist controller.

Service Instructions

<p>Brake Magnet Service Instructions</p>	<p>Check/Inspect</p> <ol style="list-style-type: none"> 1. Inspect condition of brake magnet for damage or incorrect installation. 2. Inspect condition of brake magnet cable shielding and wire. 3. Check the brake Magnet is correctly connected/plugged into wiring harness. 4. Inspect condition of wiring from magnet connection to ECU for damage. 5. Check ground connection of brake magnet return wire. (Must have a common ground with ECU). <p>Repair/Resolve Actions</p> <ol style="list-style-type: none"> 1. Damaged wiring harness should be replaced or repaired correctly. Contact Dexter for questions about Tow Assist parts or service. 2. Brake magnet should be replaced or installation corrected if fault persists. 3. If fault persists once brake magnet replaced and harness is confirmed, contact Dexter for assistance.
<p>Speed Sensor Service Instructions</p>	<p>Check/Inspect</p> <ol style="list-style-type: none"> 1. Inspect condition of wheel speed sensor for damage or incorrect installation. 2. Check the wheel speed sensor is mounted securely. 3. Inspect condition of tone wheel for damage or missing teeth. 4. Check tolerance between tone wheel and wheel speed sensor. 5. Check if wheel speed sensor is correctly plugged into wiring harness. 6. Inspect condition of wiring from wheel speed sensor to ECU for damage. <p>Repair/Resolve Actions</p> <ol style="list-style-type: none"> 1. Damaged wiring harness should be replaced or repaired correctly. Contact Dexter for questions about Tow Assist parts or service. 2. Wheel speed sensor should be replaced or installation corrected. 3. Hub Drum should be replaced or repaired if damage is found. 4. If fault persists once wheel speed sensor replaced and harness is confirmed, contact Dexter for assistance.
<p>Power Supply Service Instructions</p>	<p>Check/Inspect</p> <ol style="list-style-type: none"> 1. Check power supply voltage while charging. 2. Check power supply voltage when not being charged. 3. Check wiring and connection between the power supply and the ECU <p>Repair/Resolve Actions</p> <ol style="list-style-type: none"> 1. Charge power supply to a good service level and check power supply response under heavy braking (100% Manual Override). 2. Ensure power supply is charged from tow vehicle and all power connections are of sufficient power capacity. 3. Ensure power supply is rated sufficiently to support all power load on trailer. 4. Replace power supply with new batteries if unable to maintain suitable power supply level.

Reference

Light Module Operations

	Light State	System Status	Possible Causes	Driver Action
	All light Off	ECU Powered Off/ Sleep/ No Brake Signal	System has no power or has gone into sleep mode.	Connect power to system, press brake pedal, press brake controller manual override.
	Operations light On Low Intensity Warning light Off	Full System Available (Pass-through Braking)	System is in full operation and brake signal has been detected.	No action necessary by driver.
	Operations light On High Intensity Warning light Off	Full System Available	System is in full operation and ABS, TSM, or LCC control is operating.	No action necessary by driver. The high intensity light will return to low intensity about 3 seconds after a ABS or sway event concludes
	Operations light On Low Intensity Warning light On	Reduced System Available (Pass-through Braking)	System fault has occurred and the system can only offer reduced ABS, TSM, LCC control	Expect reduced operation from the system and adjust their driving/braking accordingly. Stop for 5 minutes, then carefully drive off and stop again. The system will then preform a self-check. If the warning light remains on, see troubleshooting.
	Operations light On High Intensity Warning light On	Reduced System Available (ABS / TSM / LCC active)	System is in reduced operation and ABS, TSM, or LCC control is operating	Expect reduced operation from the system and adjust their driving/braking accordingly. Stop for 5 minutes, then carefully drive off and stop again. The system will then preform a self-check. If the warning light remains on, see troubleshooting.
	Operations light Off Warning light On	System NOT Available (Pass-through Braking)	System fault has occurred and the system cannot offer any control (ABS, TSM, LCC).	Expect no operation from the system and adjust their driving/braking accordingly. Stop for 5 minutes, then carefully drive off and stop again. The system will then preform a self-check. If the warning light remains on, see troubleshooting.
	Operation light Intermittent Warning light On	Operation light Failed (System Available)	System is in full operation, however the green light has detected as faulty	System status can't be reliably reported to driver. Driver should expect no operation from the system and adjust their driving/braking accordingly. Stop for 5 minutes, allowing the system to preform a self-check. Read fault codes through the App. Repair or replace light module.
	Operations light Off Warning light Intermittent	Warning light Failed (System Available)	System is in full operation, however the amber light has been detected faulty	System status can't be reliably reported to driver. Driver should expect no operation from the system and adjust their driving/braking accordingly. Stop for 5 minutes, allowing the system to preform a self-check. Read fault codes through the App. Repair or replace light module.

Service Diagnostic Action

DT Code	Fault Service Description	# Amber Flashes	# Green Flashes	Fault Service Detail
0561	Battery condition warning	2	1	Refer to the Power Supply Service Instructions on page 6.
0562	Battery under voltage fault	2	1	
0563	Battery over voltage	2	1	
0564	ECU voltage reference plausibility fault	2	8	<ul style="list-style-type: none"> Internal brake voltage reference plausibility fault Refer to the Brake Magnet Service Instructions and Power Supply Service Instructions on page 6.
4031	Front Axle, Left Wheel Speed Sensor Fault	1	2	<ul style="list-style-type: none"> Locate the wheel speed sensor on front axle, left or right wheel brake assembly backing plate.
4032	Front Axle, Left Wheel Tone Wheel or WSS Mount	5	2	
4034	Front Axle, Right Wheel Speed Sensor Fault	1	3	<ul style="list-style-type: none"> Refer to the Wheel Speed Sensor Service Instructions on page 6.
4035	Front Axle, Right Wheel Tone Wheel or WSS Mount	5	3	
4037	Rear Axle, Left Wheel Speed Sensor Fault	1	4	<ul style="list-style-type: none"> Locate the wheel speed sensor on rear axle, left or right wheel brake assembly backing plate.
4038	Rear Axle, Left Wheel Tone Wheel or WSS Mount	5	4	
403A	Rear Axle, Right Wheel Speed Sensor Fault	1	5	<ul style="list-style-type: none"> Refer to the Wheel Speed Sensor Service Instructions on page 6.
403B	Rear Axle, Right Wheel Tone Wheel or WSS Mount	5	5	
4063	Yaw Rate Measurement Fault	5	1	<p>Check/Inspect</p> <ol style="list-style-type: none"> Check ECU mounting surface is rigid to ensure the ECU cannot be easily vibrated Check ECU mounting hardware to ensure ECU is securely mounted and is in the correct orientation Check ECU is protected from oncoming projectiles by the trailer frame or fitted shield <p>Resolve/Repair</p> <ol style="list-style-type: none"> Correct all ECU mounting issues and clear the faults Perform a test drive to evaluate if problem has been resolved If fault persists, ECU should be returned to dealer for investigation
406A	ECU Inertia Sensor Fault	5	1	
4091	Center Axle, Left Wheel Speed Sensor Fault	1	6	<ul style="list-style-type: none"> Locate the wheel speed sensor on center axle, left or right wheel brake assembly backing plate.
4092	Center Axle, Left Wheel Tone Wheel or WSS Mount	5	6	
4094	Center Axle, Right Wheel Speed Sensor Fault	1	7	<ul style="list-style-type: none"> Refer to the Wheel Speed Sensor Service Instructions on page 6.
4095	Center Axle, Right Wheel Tone Wheel or WSS Mount	5	7	
40B0	Front Axle, Left Wheel Brake Magnet Fault	2	2	<ul style="list-style-type: none"> Locate the brake magnet within front axle, left wheel brake assembly. Refer to the Brake Magnet Service Instructions on page 6.
40B1	Front Axle, Right Wheel Brake Magnet Fault	2	3	<ul style="list-style-type: none"> Locate the brake magnet within front axle, right wheel brake assembly. Refer to the Brake Magnet Service Instructions on page 6.
40B2	Rear Axle, Left Wheel Brake Magnet Fault	2	4	<ul style="list-style-type: none"> Locate the brake magnet within rear axle, left or right wheel brake assembly. Refer to the Brake Magnet Service Instructions on page 6.
40B3	Rear Axle, Right Wheel Brake Magnet Fault	2	5	

DT Code	Fault Service Description	# Amber Flashes	# Green Flashes	Fault Service Detail
40B4	Center Axle, Left Wheel Brake Magnet Fault	2	6	<ul style="list-style-type: none"> · Locate the brake magnet within center axle, left or right wheel brake assembly. · Refer to the Brake Magnet Service Instructions on page 6.
40B5	Center Axle, Right Wheel Brake Magnet Fault	2	7	
40F1	External Simulated Load Fault	2	9	<p>External simulated load function is enabled, but physical load not detected, possibly open circuit.</p> <p>Check/Inspect</p> <ol style="list-style-type: none"> 1. Check if external simulation load is fitted to ECU. 2. Check connections and wiring between the simulated load and ECU. <p>Resolve/Repair</p> <ol style="list-style-type: none"> 1. Repair any connection or wiring between ECU and external simulation load.
4218	Operational light Fault	No Lamp	No Lamp	<p>Light module failure, system has detected a fault with the operational light.</p> <p>Check/Inspect</p> <ol style="list-style-type: none"> 1. Check any connection of the ECU light module. 2. Check connection and wiring between light module and the ECU. <p>Resolve/Repair</p> <ol style="list-style-type: none"> 1. Repair any connections or wiring between light module and ECU. 2. If fault persists, replace light module.
4226	Warning light Fault	No Lamp	No Lamp	<p>Light module failure, system has detected a fault with the warning light</p> <p>Check/Inspect</p> <ol style="list-style-type: none"> 1. Check any connection of the ECU light module. 2. Check connection and wiring between light module and the ECU. <p>Resolve/Repair</p> <ol style="list-style-type: none"> 1. Repair any connections or wiring between light module and ECU. 2. If fault persists, replace light module.
5000	Trailer Factory Settings Not Programmed	3	1	<p>Dealer programmable trailer variant settings are not entered correctly.</p> <p>Resolve/Repair</p> <ol style="list-style-type: none"> 1. If fault persists, ECU should be returned for investigation.
5050	Factory Mode Enabled	No Lamp	No Lamp	<p>Non-Serviceable fault. Contact Dexter for investigation.</p>

DT Code	Fault Service Description	# Amber Flashes	# Green Flashes	Fault Service Detail
5091	General Wheel Speed Fault	1	8	<p>ABS, TSM, or LCC system activation has detected as activating for an implausible amount of time.</p> <p>Check/Inspect</p> <ol style="list-style-type: none"> 1. Check ECU mounting for rigidity correct orientation and protection from oncoming projectiles. 2. Check wheel brakes and bearings for high friction components causing wheel rotation drag. <p>Resolve/Repair</p> <ol style="list-style-type: none"> 1. Correct all ECU mounting issues and clear faults. 2. Ensure all wheel bearings are running with minimal rolling resistance. Ensure all brake components are not causing rolling resistance when not actively Applied. 3. Perform a test drive to evaluate if problem has been resolved. 4. If fault persists, ECU should be returned for investigation.
5200	Wiring Harness Feedback Fault	3	8	<p>Fault detected with the wiring harness connection on the ECU.</p> <p>Check/Inspect</p> <ol style="list-style-type: none"> 1. Check any new wiring connections made on the trailer to the brake assemblies. <p>Resolve/Repair</p> <ol style="list-style-type: none"> 1. Review trailer electrical circuit for correctness and remove any incorrect wiring to brake magnet.
5300	Service Brake Signal Plausibility Fault	3	9	<p>ECU internal brake service monitoring failure.</p> <p>Check/Inspect</p> <ol style="list-style-type: none"> 1. Check electrical brake controller operations and wiring. 2. Check wiring and connection between electrical brake controller and ECU. <p>Resolve/Repair</p> <ol style="list-style-type: none"> 1. If fault persists, ECU should be returned for investigation.
5137	ECU Internal hardware Fault	5	8	<p>Check/Inspect</p> <ol style="list-style-type: none"> 1. Check condition of ECU, it's mounting and wiring. <p>Resolve/Repair</p> <ol style="list-style-type: none"> 1. If fault persists, ECU should be returned for investigation.

Note: All flash codes above represent active faults in the ECU system. If a fault has been set previously and has since healed, a history flash code will be available the same fault code as listed below with an additional 5 flash counts added to the Warning Flashes (e.g. Front Left Brake Magnet active fault flash code = 2 & 2, Front Left Brake Magnet history fault code = 7 & 2).

What Products Are Covered

All Dexter® Axle Company (“Dexter”) trailer axles, suspensions, and brake control systems manufactured on or after September 1, 2016, excluding Dexter 6000 series Manufactured Housing Axles. Additional exclusions include the following brands: Silent Drive by Dexter, Kodiak, Dexter’s Door and Ventilation Products, and Heavy Duty Steering and Lift Axles, which are covered by separate warranties specific to those products.

Limited 1 Year Warranty

Grease & oil seals (FOR ALL PRODUCTS), couplers, and Dexter DX6.6 Surge Actuator have a one (1) year limited warranty to the original purchaser from the date of original retail purchase.

Limited 2 Year Warranty

Dexter warrants to the original purchaser that its electric over hydraulic actuators (DX Series and BrakeRite®), Airflex® air supply components, and Tow Assist™ electronic components shall be free from defects in material and workmanship for a period of two (2) years from the date of original retail purchase.

Limited 5 Year Warranty

Dexter warrants to the original purchaser that its sprung axles, sprung suspension systems, Versa~Flex™ axles, Eliminator™ axles, hydraulic surge actuators (except Dexter DX6.6 Surge Actuator), and Dexter Genuine Replacement Parts shall be free from defects in material and workmanship for a period of five (5) years. The warranty period shall begin from the date of original retail purchase.

Limited 6 Year Warranty

Dexter warrants to the original purchaser that its Vortex™ and Vault® high performance lubrication systems shall be free from defects in material and workmanship for a period of six (6) years from the date of original retail purchase.

Limited 7 Year Warranty

Dexter warrants to the original purchaser that its Predator Series® electric brake controllers shall be free from defects in material and workmanship for a period of seven (7) years from the date of original retail purchase.

Limited 10 Year Warranty

Dexter warrants to the original purchaser that the suspension components of its Torflex® axles shall be free from defects in material and workmanship for a period of ten (10) years from the date of original retail purchase.

Exclusive Remedy

Dexter will, at its option, repair or replace the affected components of any defective axle, repair or replace the entire defective axle, or refund the lesser of the original purchase price and the then-current list price of the axle or components. In all cases, a reasonable time period must be allowed for warranty repairs to be completed. Allowance will only be made for installation costs specifically approved by Dexter.

What You Must Do

In order to make a claim under these warranties:

1. You must be the original purchaser of the trailer and/or Dexter Genuine Replacement Parts.
2. You must promptly notify Dexter after detection of any defect, but in any case within the applicable warranty period of such defect, and provide us with the axle or applicable component serial number and any substantiation of such defect which may include, but is not limited to, the return of part(s) that we may reasonably request.
3. The axles, suspensions and components must have been installed and maintained in accordance with good industry practice and

any specific Dexter recommendations, including those specified in Dexter’s current manuals.

Exclusions

These warranties do not extend to and do not cover defects caused by:

1. The connecting of brake wiring to the trailer wiring or trailer wiring to the towing vehicle wiring.
2. The attachment of the running gear to the frame.
3. Parts not supplied by Dexter.
4. Any damage whatsoever caused by or related to any alteration of the axle including welding supplemental brackets to the axle.
5. Use of an axle on a unit other than the unit to which it was originally mounted.
6. Normal wear and tear.
7. Improper alignment.
8. Improper installation.
9. Unreasonable use (including trailer overloading or improper loading and failure to provide reasonable and necessary maintenance as specified in Dexter’s current manuals including required maintenance after “Prolonged Storage”).
10. Improper torque values and torqueing of wheel nuts. (The proper torqueing procedure and torque values are contained in Dexter’s current manuals).
11. Improper or lack of maintenance.
12. Cosmetic finish or corrosion.

Limitations

1. **In all cases, Dexter reserves the right to fully satisfy its obligations under the Limited Warranties by refunding the lesser of the original purchase price and the then-current list price of the defective axle (or, if the axle has been discontinued, of the most nearly comparable current product).**
2. Dexter reserves the right to furnish for any substitute replacement component or product in the event an axle or any component of the axle is discontinued or is otherwise unavailable.
3. These warranties are nontransferable.

General

THE FOREGOING WARRANTIES ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, WHETHER WRITTEN, ORAL OR IMPLIED, IN FACT OR IN LAW (INCLUDING ANY WARRANTY AGAINST INFRINGEMENT OR OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE).

These warranties give you specific legal rights, and you may also have other rights which vary from state to state.

DEXTER HEREBY EXCLUDES INCIDENTAL AND CONSEQUENTIAL DAMAGES, INCLUDING BUT NOT LIMITED TO, LOSS OF TIME, INCONVENIENCE, LOSS OF USE, TOWING FEES, TELEPHONE CALLS, COST OF MEALS OR LODGING, FOR ANY BREACH OF ANY EXPRESS OR IMPLIED WARRANTY.

Some states do not allow limitations on how long an implied warranty lasts, or the exclusion or limitation if incidental or consequential damages, so the above exclusion or limitation may not apply to you.

Inquiries regarding these warranties should be sent to:

Dexter Axle Company
P.O. Box 250
Elkhart, IN 46515

Note: Current Dexter manuals can be found at www.dexteraxle.com.

Genuine Dexter axles and components are available nationwide from our plant locations listed below or through our network of distributors. Check our website for the distributor nearest you.



Dexter - Headquarters

2900 Industrial Parkway East ■ Elkhart, Indiana 46516
 Phone: 574-295-7888 ■ Fax: 574-295-8666
www.dexteraxle.com

Dexter - Plant 12

301 West Pearl Street
 Fremont, Indiana 46737
 Phone: 260-495-5100
 Fax: 260-495-1701

Dexter - Plant 13

500 South 7th Street
 Albion, Indiana 46701
 Phone: 260-636-2195
 Fax: 260-636-3030

Dexter - Plant 15

500 Southeast 27th Street
 El Reno, Oklahoma 73036
 Phone: 405-262-6700
 Fax: 405-262-9089

Dexter - Plant 21

199 Perimeter Road
 Monticello, Georgia 31064
 Phone: 706-468-6495
 Fax: 706-468-2966

Dexter - Plant 23

5600 Bucknell Drive SW
 Atlanta, Georgia 30336
 Phone: 404-477-6899
 Fax: 470-443-1715

Dexter - Plant 24

135 Sunshine Lane
 San Marcos, California 92069
 Phone: 760-744-1610
 Fax: 760-744-1616

Dexter - Plant 25

1041 Baxter Lane
 Winchester, Tennessee 37398
 Phone: 931-967-5101
 Fax: 877-457-9861

Dexter - Plant 39

902 South Division Street
 Bristol, Indiana 46507
 Phone: 574-848-4491
 Fax: 574-848-4825

Dexter - Plant 51

347 King Street West
 Ingersoll, Ontario N5C 2K9
 Phone: 226-242-5291
 Fax: 226-444-0474

Silent Drive by Dexter - Plant 54

1300 Arizona Place SW
 Orange City, Iowa 51041
 Phone: 712-737-4865
 Fax: 712-737-2865

Dexter - Plant 61

21611 Protecta Drive
 Elkhart, Indiana 46516
 Phone: 574-294-6651
 Fax: 574-295-6626

Dexter - Plant 62

301 North Kennedy Street
 Shawnee, Oklahoma 74801
 Phone: 405-273-9315
 Fax: 405-273-1054

NO PART OF THIS MANUAL MAY BE REPRODUCED WITHOUT DEXTER'S PERMISSION. ALL PART NUMBERS, DIMENSIONS AND SPECIFICATIONS IN THIS MANUAL ARE SUBJECT TO CHANGE WITHOUT NOTICE.



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