



# ***Inspection Instructions***

## ***Troubleshooting Guide***

## ***Lift Connect™***

Part No. 1295927GT  
Rev B  
August 2019

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# Troubleshooting

## Section 1

### Visual Inspection

Inspect the M7 module for the following items:

- physical damage
- loose or missing fasteners
- disconnected wires / harnesses
- burnt, chafed or pinched wires and harnesses
- damaged harness connectors
- terminal corrosion in harness connectors
- water in harness connectors

## Section 2

### Equipment Controls Fault Message

If applicable, to determine if the M7 is present on the machine, Lift Connect **Installed** must be selected on the machines **Models and Options** menu setting.

Genie Controls implements proprietary security measures to ensure the installed M7 operates properly with Genie controls. If the M7 fails or is disconnected the **Telematics Not Detected** fault is displayed.

Control System	Telematics Not Detected Fault Code
ALC600, ALC1000, Plus1	56-13
SmartLink	C078

# Troubleshooting

## Section 3

### M7 Troubleshooting Table

Description	Probable Cause	Corrective Action
Control Panel Displays "Telematics Not Detected" Fault Code	M7 Missing / Disconnected	<p>Locate the M7 and verify it is connected to the Telematics Ready Connector.</p> <hr/> <p><b>M7 module not installed:</b> Install M7 module. Go to <b>Models &amp; Options</b> settings, select <b>Lift Connect</b>, select <b>Not Installed</b>.</p> <hr/> <p>To order replacement parts go to <a href="http://www.gogenielift.com">www.gogenielift.com</a> or call 1-800-536-1800.</p> <hr/> <p>For technical support contact your local Genie Dealer. For help finding a dealer go to, <a href="https://www.genielift.com/en/support/service">https://www.genielift.com/en/support/service</a>.</p> <hr/> <p>Refer to Section 2 for fault details.</p> <hr/> <p>For M7 installation and activation refer to <a href="https://www.genielift.com/en/genie-lift-connect-resources">https://www.genielift.com/en/genie-lift-connect-resources</a></p>
Unit Does Not Check In / Not Available On Map	Unit Not Activated	<p>Contact your Lift Connect Product Specialist to confirm the M7 is activated. Or email <a href="mailto:AWP.LiftConnect@terex.com">AWP.LiftConnect@terex.com</a> or call 888-681-1812.</p>
	M7 not powering on	<p>Check M7 LED's. Refer to Section 4 for LED status indicators.</p> <hr/> <p>Check power connections / wiring. Refer to the TRC Function Pin Out in the Lift Connect Service Manual Supplement.</p> <hr/> <p>Check in-line fuse to Pin 1 of the Telematics Ready Connector. Verify there is 12VDC or 24VDC. (models may vary) Replace the M7 if necessary.</p> <hr/> <p>Verify power connections are on. (Un-Switched)</p>
	Faulty M7 module	Replace M7 module.
	Antenna line of site to GPS satellites obstructed	Move machine to area that is free of obstructions.

# Troubleshooting

## M7 Troubleshooting Table (cont.)

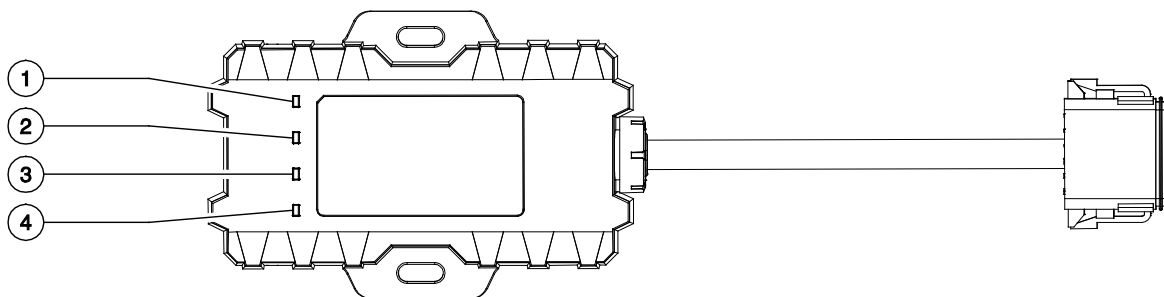
Description	Probable Cause	Corrective Action
Repeated In-line Fuse Failure	Damaged harness	Replace harness.
	Faulty M7 module	Replace M7 module.
No CAN Bus values	CAN Bus not communicating	Refer to TRC Function Pin Out of the SAE J1939 wiring section of the Lift Connect Service Manual Supplement. May need to reverse CAN (+) and CAN (-) signal wires on terminal strip.
	Termination resistance missing	Termination resistor may be disconnected or faulty. Verify terminal plug is properly installed. Terminal plug should measure 120 ohms resistance.
	Control panel issue	If CAN Bus did communicate, but no longer does, refer to machine control panel guide.
Incomplete CAN Bus data	Incorrect M7 configuration	Contact your Lift Connect administrator if you need assistance.
	Customer ECU issue	
Engine is running but M7 data indicates engine not running	Engine data not transmitting	Verify equipment has CAN controlled engine installed. Inspect J1939 harness for connection and/or damage.
	No CAN Bus data	Refer to J1939 wiring section of the M7 Installation Guide to check connections required.

# Troubleshooting

## Section 4

### LED Status Indicators

The M7 is equipped with four status LEDs, one each for GPS, wireless COM, Bluetooth and Diagnostics. The LEDs use the following blink patterns to indicate service:



1. Red

2. Blue

3. Green

4. Orange

#### COM “Cellular” LED (Orange) Definitions

Condition	LED
Modem off	Off
Modem on and searching	Slow blinking
Network available	Fast blinking
Registered but no inbound acknowledgment	Alternates from solid to fast blink every 1 second
Registered and received inbound acknowledgment	Solid

Table 2: Com “Cell” (Orange)

#### GPS LED (Green) Definitions

Condition	LED
GPS Off	Off
GPS On / No GPS Fix	Slow blinking
GPS Time Sync	Fast blinking
GPS Fix	Solid

Table 3: GPS LED Definitions (Green)

# Troubleshooting

## Bluetooth LED (Blue) Definitions

Condition	LED
Modem off	Off
Modem on and searching	Slow blinking
Connected to sensor	Solid

Table 4: Bluetooth LED Definitions (Blue)

## Diagnostics LED (Red) Definitions

Condition	LED
Machine input off / start up	Off
Normal operation	Blink On/Off every 4 seconds
CAN Bus disconnected	Blink On/Off every 0.5 seconds

Table 5: Diagnostics LED Definitions (Red)

## Section 5

### Unit Verification

Once all troubleshooting measures are complete, verify the M7 module is powered on and operating.

Using the **Lift Connect web portal**, verify the M7 module is communicating.

Note: The M7 module may take several minutes to establish a connection.

# Troubleshooting

## Section 6

### Diagnostic Capabilities

This section covers the messages that the M7 module will be able to provide to compatible machine controllers. The messages are intended to be used for diagnosis of the M7 module.

#### Network Status

PGN:	65507 (0xFFE3)	
Source Address:	37 (0x25)	
Destination Address:	Controller Specific	
Broadcast Frequency Interval:	TBD	
<b>Start Position</b>	<b>Length</b>	<b>Parameter</b>
0	1 byte	GPS Position Obtained and Locked (1=True, 0=False)
1	1 byte	GPS Satellites in View (0 to 255)
2	1 byte	Horizontal Dilution of Precision (Percent of 0.1 to 99.0)
3	1 byte	
4	1 byte	Satellite State (0=Not Connected, 1=Connected)
5	1 byte	Satellite Signal Strength (0=No Signal, 1=Low Signal, 5=High Signal)
6	1 byte	GPRS State (0=Not Connected, 1=Connected)
7	1 byte	GPRS Signal Bars (0=No Signal, 1=Low Signal, 5=High Signal)

#### Time Stamp

PGN:	65508 (0xFFE4)	
Source Address:	37 (0x25)	
Destination Address:	Controller Specific	
Broadcast Frequency Interval:	TBD	
<b>Start Position</b>	<b>Length</b>	<b>Parameter</b>
0	1 byte	Millennial Time Stamp – Number of seconds in the millennium
1	1 byte	(since 12:00am, Jan. 1, 2001) at the time the message was sent from the TCU
2	1 byte	
3	1 byte	
4	1 byte	(spare)
5	1 byte	(spare)
6	1 byte	(spare)
7	1 byte	(spare)



# Troubleshooting

## Diagnostic Capabilities (cont.)

### Digital I/O

PGN:	65280 (0xFF00)	
Source Address:	37 (0x25)	
Destination Address:	Controller Specific	
Broadcast Frequency Interval:	TBD	
<b>Start Position</b>	<b>Length</b>	<b>Parameter</b>
0	1 byte	Input State (0=OFF, 1=ON)
1	1 byte	
2	1 byte	(spare)
3	1 byte	
4	1 byte	(spare)
5	1 byte	
6	1 byte	(spare)
7	1 byte	

### Analog Inputs

PGN:	65286 (0xFF06)	
Source Address:	37 (0x25)	
Destination Address:	Controller Specific	
Broadcast Frequency Interval:	TBD	
<b>Start Position</b>	<b>Length</b>	<b>Parameter</b>
0	1 byte	Analog 0 – Reading in millivolts (mV)
1	1 byte	
2	1 byte	Analog 1 – Reading in millivolts (mV)
3	1 byte	
4	1 byte	Analog 2 – Reading in millivolts (mV)
5	1 byte	
6	1 byte	Analog 3 – Reading in millivolts (mV)
7	1 byte	

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