

TROUBLESHOOTING GUIDE

Problems that can occur out in the field when reading 3G installed routes:

1. No transmission from unit (3G under the glass, universal 3G single or dual switch, and WR clip on).
2. Transmitter number mismatches.
3. Receiver failure.
4. Cable failure: Antenna cable between the receiver and antenna, USB cable or RS 232 cable between the receiver and PC.
5. Reads not matching: PC read to odometer read.
6. Wrong user codes



No Transmission from unit or weak transmission:

1. List of things to check.
 - a) Check cable connection between receiver and computer is not loose
 - b) Check the antenna connection to the receiver is not loose.
 - c) Check that the receiver is on, and the led is blinking orange or solid orange.
 - d) Check that the stop button in your route management software wasn't accidentally clicked.
 - e) Make sure you've imported the correct route.
 - f) Make sure you are close to the pit of transmitting register if trouble shooting.
 - g) Check the pit status, it can be filled with dirt or water which can at times attenuate RF signals
 - h) Cross check the transmitting number on the register or Universal to the number and address it corresponds to in the route.
 - i) Try communicating with another unit then try the problematic unit once more.
 - j) Query the unit using the 3G technician software for TX ON/OFF; if TX is of, activate unit. If TX is ON check Transmission interval; the transmission interval for a drive-by system should be 10 seconds and for fixed area network, Sub-metering only, it should be 300 seconds.
 - k) If the unit is transmitting, check the user code and make changes if it is different.
 - l) If all above is checked and the unit is not responding replace register or WR. Note; when replacing the 3G register on a bottom load meter you don't have to turn the water off and take the meter out of the pit. Refer to 3G register change out guide. If you are replacing WR, refer to the WR installation guide.



Transmitter number mismatches:

When a transmitting number doesn't match the number in the route management software, you will get a no response meaning the number/address will not clear from the list in the bottom window of your Route management software; it could be possible that the number assigned to the particular address may in fact be transmitting from another location. It is always good to cross check numbers in your software to the transmitting number for verification when ever you are confronted with an unusual read or no read. If numbers are mismatched, make necessary corrections in local data base.

Receiver failure:

Make sure the receiver is fully charged at all times; when charging, make sure the receiver is turned off. When using in drive-by, make sure the power is always plugged.

Cable failure:

Cables are very important components of the system. Be careful when handling, plugging, unplugging, and installing cables to your receiver and computer.
Typical failures of cables are: loose connections, cuts in the cable, tangled cables, and end connections stripped from the cable.



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Reads not matching: PC read to odometer read.

This is identified when there is an abnormal difference in usage in the reports printed from the reads.

Note: before any changes verify that the number in the route is the same as the transmitter number you are trouble shooting.

1. In this case you need to compare the pc read to the odometer read of the meter with the problem using the 3G technician software.
2. If the read difference is more than 3 pulses, this means that the register is not registering properly, if this is the case replace register.
Refer to register change out guide.

Alerts/statuses:

Leak (Alarm), CCW, and Tamper are the three statuses transmitted from the 3G register.

Leak (Alarm): This means that there is a leak at that location on the customer's side. This will appear on your screen only if water is being used continuously for 24 hours. Locations with leaks need to be double checked to verify the leak status. Some leaks will not be noticeable. The register is very sensitive and will detect the slightest movement in the line. It will detect a leak as small as a commode leak in the bathroom. If it is a temporary leak the alarm will reset itself.

CCW: This means counter clockwise read. This will appear on your screen if water flows in the opposite direction as much as 30 gallons or more, or if the meter was installed in the wrong direction. When you receive a CCW status you can interrogate the unit to see how much water passed through the meter CCW. You can reset the status and the CCW read to zero any time after problem is taken care of. CCW is also helpful in installations. If a meter is installed facing the wrong direction, once 30 gallons of water passes through the meter, it will send a CCW status

Tamper: This will appear on your screen when meter is tampered with a magnet.

