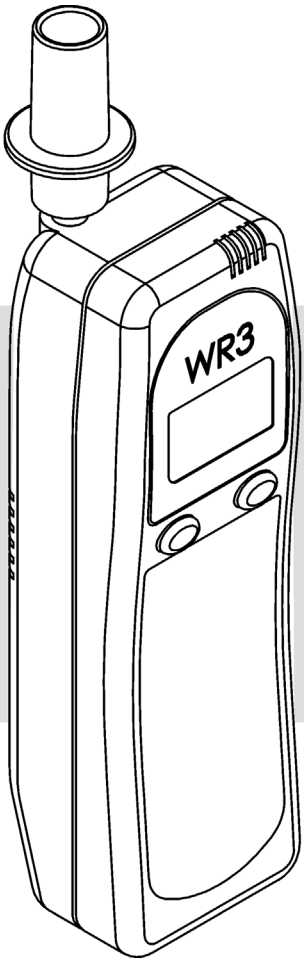

SERVICE CENTER INTERNAL USE ONLY

WR3™

Alcohol Interlock

Trouble-Shooting Guide

GUIDE

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Recall Codes

Recall Code	Description
0	Failed stopped test
1	Failed running test
2	Tach fault (No tach signal for 3 minutes)
3	Sanction test
4	Consecutive fails
5	Missed retest
6	Retest time lapse fail
7	Start violation
8	Power disconnect 5 mins x 3
9	Consecutive humming aborts
10	Log full (90%)
11	Emergency override activated
12	Ignition fault (engine running with no ignition)
13	Emergency override no code
14	15 min. power disconnect
15	TPM code used
16	Key violation (key left on for 6 mins. without starting)

Note: Not all recalls apply to your jurisdiction. Please contact your Program Service Coordinator to confirm what recalls apply.

Service Dates/Lockout Dates

Immediate or early recalls will occur when the interlock detects a program violation or when the vehicle or interlock are functioning abnormally.

When a recall is activated, the handset will display either an immediate or early recall, followed by the recall number (refer to Page 1) and the future date on which the permanent lockout will occur.

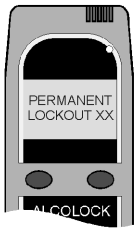
Note: please contact your Program Service Manager to confirm early/immediate periods.

Permanent Lockout

Permanent lockouts occur when:

- The service date and grace period have expired.
- A recall has been activated and the recall date has expired.

When a permanent lockout has been activated, the handset will display:



- **Permanent Lockout (0,1,2, ... ,16)**

Where (0,1,2, ... , 16) corresponds to a recall number

- **Permanent Lockout 64**

Which indicates that the service date and grace period have expired

- **Permanent Lockout (65,66,67, ... ,71)**

Indicates reset/sub code (91:XX - 97:XX) Lockout date has expired

- **Permanent Lockout 72**

Indicates reset/sub code (98:XX) Lockout date has expired

- **Permanent Lockout 80**

Indicates reset/sub code (01:XX - 90:XX) Lockout date has expired

Note: when a permanent lockout occurs, please contact your Program Service Coordinators for instructions.

Vehicle Battery Malfunction

If the interlock system is functioning abnormally, try the following:

- Visually inspect the battery posts for corrosion or loose terminal connections.
- Use a voltmeter to verify that the battery is around 12.66V.
- If the voltmeter displays 10V or below, then the battery needs to be replaced.
- If the battery has been discharged more than twice, then the integrity of the battery has decreased.

Note: Check all wiring connections between the interlock system and the vehicle, including proper grounding.

Handset Exchange Procedure

1. Obtain a new handset, plug it into the Calibration/Download station. Calibrate the handset and complete a **HS Exchange** transaction under the client's name.

2. Plug the new handset into the vehicle and press button to activate.

3. Once the new handset has been activated, the original handset **must be** connected to the Calibration/Download station so that a **Handset Return** transaction can be completed under the client's name.

   Note: If the Handset Return transaction cannot be completed for whatever reason, immediately send back the handset to ACS, and label the handset ***DATA IN****.*

Interface Module Exchange Procedure

1. With the original handset plugged in, enter the service code, and select **Maintenance** in the service menu.

2. Once selected, wait for **Maintenance Completed** to appear on the screen then disconnect the handset.

3. Plug the handset into the Calibration/Download station and complete an **Interlock Maintenance** transaction.

4. With a new Interface Module in a client's vehicle, perform an install procedure with either a new handset or the original handset.

5. Once an install procedure is completed, plug the handset back into the Calibration/Download station and complete an **Interlock Exchange** transaction.

6. Activate the handset in the client's vehicle.

Handset Messages Troubleshooting

The following error display messages may occur, the possible causes and solutions of the errors are listed in the following tables. For other problems, contact your Program Service Coordinator.

Invalid Sample Messages

Message Displayed	Description	Possible Cause	Solution	Alternate Solution
Invalid Sample 01	Inadequate humidity rise	- Possible machine/ compressed air blow - Humidity sensor requires recalibration	- Perform a handset exchange procedure - Return the old handset to ACS	
Invalid Sample 02	Front flow sensor abort	- Exhaust vents at rear of handset are blocked - Sensor requires recalibration	- Verify the vents are not blocked, and hold the handset at the bottom while performing the test	- Perform a handset exchange procedure - Return old handset to ACS
Invalid Sample 03	Back flow sensor abort	- Air is being forced into vents while the test is being performed	- Turn off car vents - Roll up the windows to avoid air coming in to vents	- Perform a handset exchange procedure
Invalid Sample 04	Humidity sensor defective	- Defective humidity sensor	- Perform a handset exchange procedure - Return the old handset to ACS	

Note: An invalid sample may occur due to excessive moisture in the handset. To speed up the drying process, remove the mouthpiece from the handset and "whip" the handset as if you were drying off a water bottle or a paint brush.

Abort Messages

Message Displayed	Description	Possible Cause	Solution	Alternate Solution
Abort 10	FC Temperature	- Possible circumvention	- Perform a handset exchange procedure - Return the old handset to ACS	
Abort 30	Blowtube temperature	- Possible circumvention-drop abort	- Perform a handset exchange procedure - Return the old handset to ACS	
Abort 40	Piston fires but does not return to reset position	- Dirty pump - Weak vehicle battery	- Unplug handset and shake to loosen piston inside pump - Try to boost the vehicle battery	- Perform a handset exchange procedure - Return the old handset to ACS
Abort 45	Piston in pump stuck in rest position	- Dirty pump - Weak vehicle battery	- Unplug handset and shake to loosen piston inside pump - Try to boost the vehicle battery	- Perform a handset exchange procedure - Return the old handset to ACS
Abort 50	Piston in pump stuck in middle position	- Dirty pump - Weak vehicle battery	- Unplug handset and shake to loosen piston inside pump - Try to boost the vehicle battery	- Perform a handset exchange procedure - Return the old handset to ACS - boost car battery

Battery and RTC Error Messages

Message Displayed	Description	Possible Cause	Solution
HS Lithium Battery Error	Handset battery error	- Defective handset battery	- Perform a handset exchange procedure - Return the old handset to ACS
HS RTC Error	Handset real time clock error	- Real time clock not running	- Perform a handset exchange procedure - Return the old handset to ACS
IM Lithium Battery Error	Interface module battery error	- Defective IM battery	- Perform an interface module (IM) exchange procedure - Return the old IM to ACS
IM RTC Error	Interface module real time clock error	- Real time clock not running	- Perform an interface module exchange procedure - Return the old IM to ACS

Technical, Communication and Voltage Error Messages

Message Displayed	Description	Possible Cause	Solution
Communication Error	Handset not communicating with interface module	- Broken pins on handset - Bad install cable	- Perform a handset exchange procedure - Perform a cable test (using cable tester P/N: 79-007169)
HS Voltage Too High	Handset voltage too high	- Vehicle alternator	- Check alternator voltage while vehicle is running
IM Voltage Incorrect	Interface module voltage too high	- Bad ground connection - Bad battery - Defective interface module	- look for a good ground source - Perform an interface module exchange procedure
Technical Error	Interface module analog fuse blown	- Voltage spike from 12V source	- Perform an interface module exchange procedure - Return the old IM to ACS

Other Troubleshooting

Vehicle Battery Issues

Message Displayed	Possible Cause	Solution
Blank display - LED is not blinking - Just shows ACS on the screen	-Vehicle's battery is weak or dead	- Boost or charge the vehicle's battery
Start Motor	-Engine cranks but wont start	- Boost or charge vehicle's battery - If the battery does not work, ask the client to take their car to a mechanic so that the problem can be diagnosed
Stuck in Wait	- Vehicle's battery is weak or dead - bad cable	- Boost or charge the vehicle's battery - If that did not fix the issue, change the cable
Screen displays nothing, but the LED is blinking	- Unit is in sleep mode, or the LCD is defective	- Press any button to try and wake the handset up, if the handset does not respond, unplug the handset from the connector and plug it back in. - If the issue is still not solved, replace the handset.

WR3 CPC LED Colors

Note: The CPC LEDs are on only if the handset is not connected.

State	CPC
Stopped	Green
Fault	Red
Warn	Yellow
Start	Green flashing
Run	Green flashing
Standby/warm-up	Off
Retest	Yellow flashing
Missed retest	Yellow flashing
Failed retest	Red flashing
Stall protect	Green flashing
Key off	Red flashing
Timed lockout red	
Sleep	Off
Service	Off
Activation	Off
Digital fuse	Red+Yellow flashing

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ACS

ALCOHOL COUNTERMEASURE SYSTEMS

TSG-ENG-60-000138-A