



### ADR Plus v6.04 Firmware

Quixote Traffic is pleased to announce the release of Version 6.04 firmware for the ADR Plus Product Line. This update for the ADR Plus firmware adds AxleLight laser sensor functionality to the ADR line. The AxleLight is a new, non-invasive laser-based vehicle sensing system that was brought to the vehicle counting and classification markets by Quixote Traffic in the Spring of 2007.

**Product** ..... **Firmware for the ADR Plus Product Line**  
**Version**..... **Version 6.04**  
**Release Date** ..... **July 9th, 2007**

#### Product Compatibility

This firmware upgrade is compatible with all **ADR-1000 Plus**, **ADR-2000 Plus**, and **ADR-3000 Plus** automatic data recorders. This firmware will not work with the older, non-“Plus” ADR-1000, ADR-2000, and ADR-3000 units. This update is not typically performed as a field upgrade. It is normally installed during manufacturing or during factory repair work. Version 6.04 of the firmware can be installed with one of the following language files installed: American, American/Spanish, or American/Canadian French.

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In order to use the AxleLight laser sensors with this firmware, the ADR Plus unit must have an SC-514P Contact Closure Board installed to function as the connection point between the ADR Plus and the laser sensor(s).

This product is compatible with **TOPS™**, Quixote Traffic’s Windows-based ADR data retrieval software. The update requires version 3.6 or higher of the TOPS software.



**Note** It is recommended that this firmware should not be used with any version of TOPS older than version 3.6. Additional information stored in the ADR files starting with the version 5.53 firmware may cause unpredictable results when used with older versions of TOPS.

## Protocol Support

This version of the firmware supports the standard Quixote ADR protocol. It can be used with any software package that is compatible with this protocol.



**Note** ADR Plus devices running **Version 6.04** firmware may no longer be fully compatible with TDP.

## Support for the StopWatch+ Add-on Module

**Version 6.04** firmware continues to support Quixote Traffic's StopWatch+ add-on module for the ADR 3000 Plus. StopWatch+ expands the functionality of an ADR-3000 Plus; retaining the full historical data collection features of the standard ADR-3000 Plus, while adding simultaneous real-time data gathering capabilities. These StopWatch+ functions can be used to assess the performance of roadway systems during emergency and disaster situations. For more information about StopWatch+, including how to purchase the package, contact your nearest Quixote Traffic distributor. For the nearest distributor in your area, call 1-800-245-7660.

## Updating the Firmware in an ADR Plus Unit

To update the firmware in an ADR Plus unit in the field via a direct connection, you will need the following items:

- Notebook or portable PC that has Quixote Traffic's **ADR Firmware Upload Utility** installed
- DB-9 to CPC-8 direct-connect serial cable (p/n 81-321) (**ADR-1000 Plus and ADR-2000 Plus**)  
or  
DB-9 to DB-9 direct-connect serial cable (p/n 81-296A) (**ADR-3000 Plus**)
- the ADR **Version 6.04** firmware update file:

**Table 1** — Version 6.04 firmware files

Firmware version	Filename
v6.04 firmware - American English	V604-A_97-508-D.bin
v6.04 firmware - American / Spanish	V604-AS_97-508-A.bin
v6.04 firmware - American / Canadian French	V604-AC_97-508-E.bin

If you need additional assistance to perform the ADR Plus firmware update, contact the Quixote Traffic Technical Service Center using the contact information provided on page 5 of these release notes.

## Enhancements

Several new features and functions have been added to the ADR in firmware Version 6.04. Most, but not all, of these enhancements are in support of the new AxleLight functionality of the ADR Plus units.

**Table 2 – New features included in Version 6.04 of the ADR Plus firmware**

Feature	Description
Laser Autocalibration	Enhanced this feature to be selectable between AutoREV and AutoFWD using the left and right arrow keys. AutoREV will configure the lane offsets such the lane 1 will be the farthest lane from the laser sensor. AutoFWD will configure the lane offsets such that lane 1 will be the closest lane to the laser sensor.
Laser Monitor	Enhanced this feature to use a more robust way to indicate the current laser ranges.
Laser Monitor	Modified the user interface to not allow editing the lane width and offset in the Laser Monitor Menu. The lane width is now only editable through the Laser Autocalibration menu.
Axle Axle classification algorithm	Improved the operation of the Axle Axle classification algorithm.
Classification Scheme	Modified the default classification scheme to better classify 3 axle and 4 axle cars/pickups towing trailers. The new scheme is identified by the description "DefADR2 HiBit 062007"

## Issues Addressed in this Release

The following are known issues that existed in previous releases of the ADR Plus Firmware which have been rectified in Version 6.04:

**Table 3 – Issues fixed in the Version 6.04 release**

Issue	Resolution	Case #
V06.02 firmware introduced a bug where the Axle Array would not show up in the Type Of Array prompt unless an SC514 Contact Closure board was present.	The Axle Array will now be available in the Type Of Array selection as long as there are at least two axle sensor inputs on the ADR.	2906
ADR did not send out command to wake up laser sensor after stepping through Custom Setup.	The ADR will now send out the wake-up command to the laser sensor.	3029

## Additional Guidance

These are some other sources of information on the ADR Plus series of automatic data recorders.

### Documentation

These documents are available for the ADR Plus products and other related products available from Quixote Traffic.

**Table 4** — Additional documentation available for ADR Plus products and related hardware

Document	Part Number
ADR Plus User's Manual	99-133
StopWatch+ Release Notes	99-348
TOPS Installation Manual*	81-896
TOPS Operating Manual*	81-897
TOPS v3.6 Release Notes*	99-291
ADR-1000/ADR-2000 Getting Started Guide	119c/507

### Technical Support

In order to receive customer support on your ADR unit, you must register it with Quixote Traffic. This contact information will connect you with the ADR technical support staff of Quixote Traffic Corporation, should you require additional help concerning this firmware update.

#### Quixote Traffic Corporation - ADR Technical Support

2511 Corporate Way  
 Palmetto, FL 34221  
 toll free in the U.S.: 1.800.245.7660  
 tel: 1.941.845.1200  
 fax: 1.941.845.1504  
 email: [tech.support@quixotecorp.com](mailto:tech.support@quixotecorp.com)

\* The TOPS Installation CD also includes copies of these documents in PDF format.