

# **PRODUCT ENHANCEMENT**

## **MicroLok<sup>®</sup> II**

### **Executive Software Version 8.72**

| <b>ASTS USA Part Numbers</b> |
|------------------------------|
| <b>N800101-0001</b>          |
| <b>N800101-0872</b>          |



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## Revision History

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### Revision History

| REV. | DATE     | NATURE OF REVISION |
|------|----------|--------------------|
| 1    | May 2015 | Initial Release    |
|      |          |                    |

## Executive Software Version 8.72

### 1. APPLICABILITY

Version 8.72 of the MicroLok<sup>®</sup> II Executive software has been released for general use. It supersedes and replaces all previous versions of MicroLok II Executive currently available under the generic part number N800101-0001. The MicroLok II Executive 8.72 version specific part number is N800101-0872. The executive's filename is MLKIIExec\_v872\_cs6382\_crcD506.SR.

The release of the MicroLok II Executive 8.72 includes operational improvements from Executive 8.71 that are described below.

### 2. OPERATIONAL IMPROVEMENTS

The following sections summarize the operational improvements included in the MicroLok II Executive 8.72 release.

#### 2.1. PTC DAUGHTER BOARD ENABLE

The PTC driver has been modified to read Switch 2 on the SW1 switch bank on the CPU board before enabling the PTC functionality. When a PTC daughter board is going to be used, Switch 2 must be CLOSED. If it is OPEN, the PTC daughter board will not get application bit information and the front panel PTC LED will remain off.

Switch 2 can be CLOSED without the daughter board installed only when using the N17007601 version of the CPU board, the CPU with front panel Ethernet ports.

Switch 2 must be OPEN when using the N17001301 version of the CPU board, the CPU without front panel Ethernet ports. This is the default switch position for this CPU board.

#### 2.2. LEAP YEAR

The Executive has been modified to allow the date to be correctly set to February 29 on all leap years.

#### 2.3. COMPATIBILITY

Version 8.72 of the MicroLok II Executive is compatible with and will function properly with the 8.xx series of the MicroLok II Development System (N800102-0001).

### 3. PREVIOUS VERSIONS

#### 3.1. MICROLOK II EXECUTIVE VERSION 8.71 (N800101-0871)

The filename of Version 8.71 of the MicroLok II Executive software is MLKIIExec\_v871\_csF624\_crc7EF1.SR.

The release of the MicroLok II Executive 8.71 includes the operational improvement from Executive 8.70 that is described below.

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### **3.1.1. PTC Driver**

The PTC Application driver has been modified to prevent issues whereby the PTC daughterboard can cause a false MicroLok II critical error to occur when the PTC Locomotive Commands are being used in the PTC daughterboard application.

### **3.1.2. Compatibility**

Version 8.71 of the MicroLok II Executive is compatible with and will function properly with the 8.xx series of the MicroLok II Development System (N800102-0001).

## **3.2. MICROLOK II EXECUTIVE VERSION 8.70 (N800101-0870)**

The filename of Version 8.70 of the MicroLok II Executive software is MLKIIExec\_v870\_csE45B\_crc043E.SR.

The release of the MicroLok II Executive 8.70 includes several enhancements and operational improvements from Executive 8.60 that are described below.

### **3.2.1. PEER Protocol**

The Executive has been modified to correct a weakness in the PEER protocol software. The non-trusted transmission network could cause messages over a vital PEER link to be systematically delayed, causing a condition that affects all PEER messages (in one direction or in both). The resulting risk is that stale vital data may be received and processed by a PEER station. This modification provides a way to detect and mitigate the occurrence of such delay conditions.

### **3.2.2. Track Board**

The driver for the slave side of the Track Board has been modified to prevent a critical error from occurring when an internal timer expires when a shunt occurs.

### **3.2.3. PTC Configuration Storage**

The address of the PTC configuration stored in the EEPROM has been moved to a higher address. If the wayside location is not using the default PTC application configuration settings, then the PTC configuration will need to be saved to the EEPROM (even if all data remains identical) after the MicroLok II Executive has been updated to the 8.70 executive. To save the PTC configuration, at least one configuration value will have to be changed. Then that value should be changed back to its original value and the PTC configuration should be saved once again to the EEPROM.

### **3.2.4. PTC Communication**

The PTC Communication driver has been modified to prevent issues whereby the PTC daughterboard can cause a MicroLok II critical error to occur.

### **3.2.5. Compatibility**

Version 8.70 of the MicroLok II Executive is compatible with and will function properly with the 8.xx series of the MicroLok II Development System (N800102-0001).

#### 4. RAIL TEAM

Technical questions or requests for information regarding the content of this Product Enhancement should be directed to the RAIL Team by telephone at 1-800-652-7276 or by Internet e-mail at: [railteam@ansaldo-sts.us](mailto:railteam@ansaldo-sts.us).



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