

NUMBER: 14 DATE: January 10, 1996 APPLICATION SERVICE

SUBJECT CPU-2000 TERMINAL SOFTWARE UPGRADE TO VERSION 2.00

As of 01-05-96 ALL programming of CPU-2000 ignitions should be performed using terminal software version 2.00 or greater. It is the implied responsibility of the licensed owner of this software product to remove from service all previous versions of this software. All registered users of this software will be sent upgraded versions at no charge.

The focus of this software upgrade is to provide a solution to a subtle problem with the diagnostic features of the CPU-2000. This very specific problem does not effect engine operation and results only in a combination of false diagnostic warnings always consisting of “Low Voltage A Side” and a “Primary Fault” for a cylinder near the end of the firing pattern. The root cause of this problem has been identified and can be corrected by modifying data in the application EEPROM of the ignition; with the means to do so being provided in this upgrade. To modify a unit proceed as follows:

Install version 2.00 software on your PC as described in section 2.0 of the User Instructions for the Terminal Program, FORM CPU-2000 PI 3-95.

1.) UPGRADING UNITS IN THE FIELD - Use the special utility “FIXDIAG” that is on software version 2.00. This utility will correct the program without having to reenter the user settings. This of course requires the use of a laptop at the field site that has had the upgraded version 2.00 software installed onto its hard-drive. To implement the change using this program, proceed as follows:

On the logic module, view the version number on the second screen of ignition configuration comments under the setup menu. (see section 9.0 of FORM CPU-2000 OI 1-95) The screen is depicted below.

```
-----  
I 01-01-95    12:00 I            < date and time programmed  
I By: Name    v2.00 I            < name and terminal version  
-----  
v2.00                            OK (programmed by new upgraded software)  
v1/04 v1/03 v1/02 v1/01        OK (modified using FIXDIAG)  
v1.04 v1.03 v1.02 v1.01        False Diagnostics Possible (to correct use FIXDIAG)
```

(continued)

The FIXDIAG.EXE program can be implemented as follows:

The engine must be shutdown.

The shutdown input must be grounded.

The RS-485 converter must connect between PC and CPU-2000.

Begin the program by typing "FIXDIAG" instead of "CPU2000".

Select the correct serial port from the PC.

The program will retrieve the version number.

The program will look at the critical data byte.

If the version is <2.00 and the critical data byte is 254, then the program will change the critical byte to 253, and will change the "." of the version number to a "/".

The program will end and the result will be displayed.

The engine can now be restarted.

2.) PROGRAMMING UNITS OFF-SITE - If upgrading to v2.00 on site is not possible, programming an application EEPROM chip can be done at a remote location using Terminal Program version 2.00, and can be shipped to the site to be installed. If a new chip program is generated, this upgrade requires the reentry of the user settings as outlined on the attached page. This data must be recorded and reentered after the chip is reprogrammed or replaced. User settings are reentered on the CPU-2000 Logic Unit keypad once this chip is reinstalled..

If you are experiencing these problems or would like to upgrade to version 2.00, please complete the "CPU-2000 USER SETTINGS FORM" before contacting the Altronic Distributor.

CPU-2000 USER SETTINGS FORM Date _____

Engine # _____ Location _____

Firing Code: _____ Installer: _____

BEFORE re-programming or replacing the EEPROM (configuration memory), ALWAYS record the user settings as described below so these settings can be re-entered after the basic firing pattern has been updated in the EEPROM. A copy of this form should be filled out and filed by the operator for each engine.

KEY SEQUENCE

DISPLAY:

TIMING, ↑=GLOBAL, ↑=ADJUST RETARD
ESC (when done)

MANUAL RET __. __°
↑↓ Esc XX.X°Xtdc

TIMING, ↑=GLOBAL, ↓=SELECT MODE

CURRENT LOOP RET
↓on/off↑Next Esc

NEXT

RPM RETARD MAP
↓on/off↑Next Esc

NEXT

SERIAL/DSM RET
↓on/off↑Next Esc

NEXT

ESC (when done)

1 STEP RET __. __°
↑↓ Esc XX.X°Xtdc

SETUP

MULTI. STRIKE
↓on/off↑Next Esc

NEXT

OUTPUT ENERGY
↑↓Esc e1/e2/e3

NEXT

ADJUST OVERSPEED
↑↓ Esc _____ RPM

NEXT

RESET PIN> __. __°
↑↓ Esc XX.X°Xtdc

NEXT

ESC (when done)

VALUE PROTECTION
↓on/off↑Next Esc

NOTE: Circle the selected option from the screen which is in CAPITALS