

## ENGINEERING BULLETIN

Ref Document No.	EB15004	Issue No.	1
Subject	Caterpillar Electronic Injector Unit Trim Files		
Release Date	19 <sup>th</sup> February 2015		

### Purpose

To notify Coaltram® users of the importance loading / exchanging the applicable Caterpillar Electronic Injector Unit Trim Files into the MONEx ECUEx when an Electronic Injector Unit or an ECUEx is replaced / exchanged. This procedure is not required if **only** the MONEx Injector Solenoid is replaced / exchanged.

### Applicability

All COALTRAM®'s.

### Background

The Caterpillar Electronic Control Module (ECM), which is integral to the MONEx ECUEx, uses Trim Files in calculations to fine tune the Electronic Injector Unit during the injection phase. Caterpillar Electronic Technician (CAT ET) is used to load the Injector Trim Files into the Electronic Control Module (ECM).

### Investigations/Findings

The Coaltram® is powered by a Caterpillar C7 Engine. Coaltram® owners have reported rough running engines and high exhaust emission levels. Investigations revealed Electronic Injector Units were replaced or exchanged between cylinders without loading / exchanging the correct Caterpillar Electronic Injector Unit Trim Files into the MONEx ECUEx. Caterpillar warns that emissions could be affected if the wrong injector trim files are loaded into the Electronic Control Module (ECM).

### Recommendations

PPK recommends complying with Caterpillar's service advice.

The Caterpillar Electronic Injector Unit is supplied with a CD which contains the applicable Trim File.

The Trim File number (i.e. 3B13539723D5) can be found on a disc (Figure 1) fitted to the top of the Caterpillar Injector Solenoid (Figure 2). PPK recommend maintaining a record of the cylinder Trim Files for each Coaltram® as the disc is removed when fitting the MONEx Injector Solenoid.



Figure 1 – Trim File Disc



Figure 2 - Electronic Injector Unit

Caterpillar Electronic Technician (CAT ET) is used to load the Injector Trim Files into the Electronic Control Module (ECM).

From the default screen, select SERVICE then CALIBRATIONS (Figure 3).

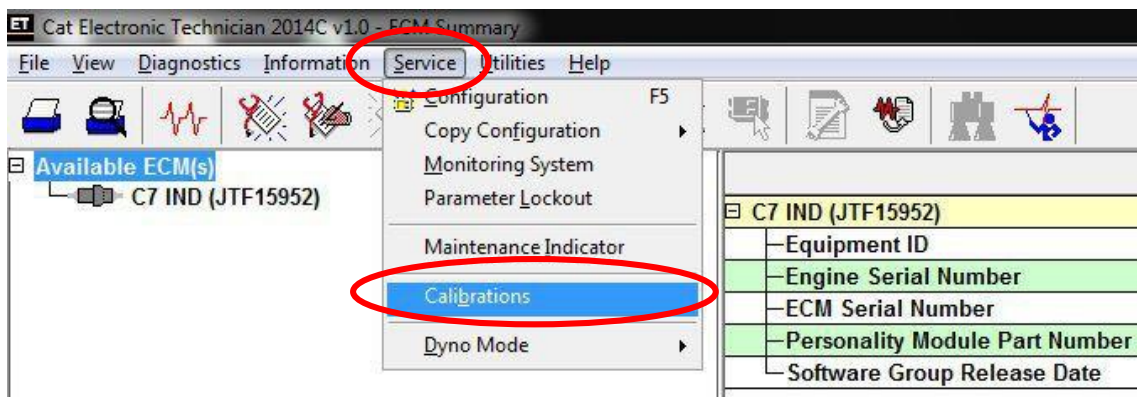


Figure 3

From the calibrations screen, select INJECTOR TRIM CALIBRATION (Figure 4).

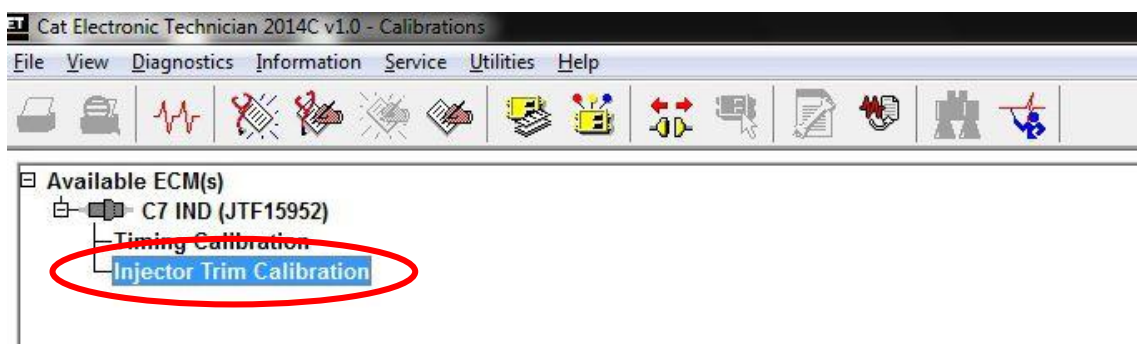


Figure 4

Select the appropriate cylinder (Figure 5). Note the old Trim File Serial Number.

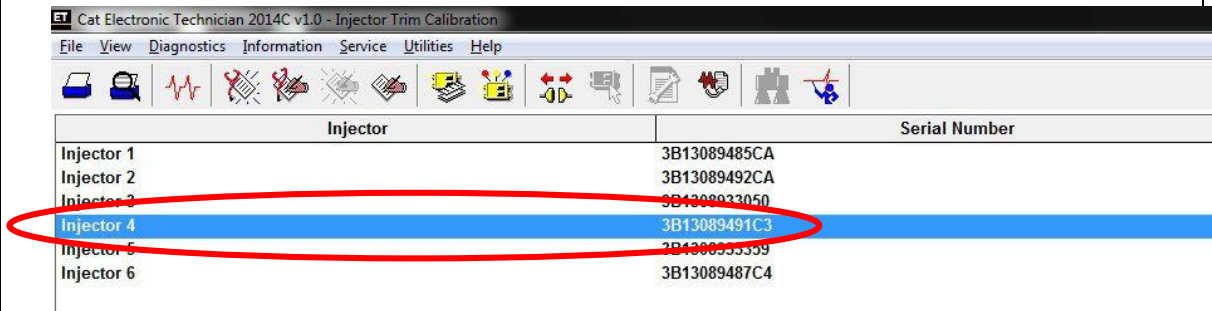


Figure 5

### INJECTOR REPLACEMENT

From the injector trim calibration screen, select CHANGE in the bottom left hand corner (Figure 6).



Figure 6

Insert the Trim File CD and select the appropriate Injector Trim File from the list (Figures 7 and 8), i.e. 3B13539723D5 as previously noted.

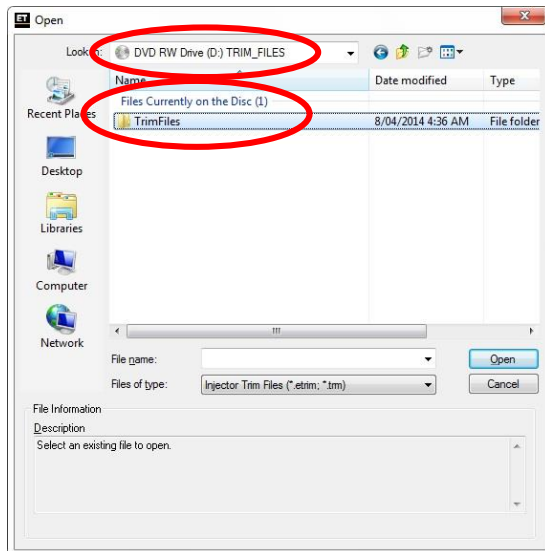


Figure 7 – Trim File CD contents

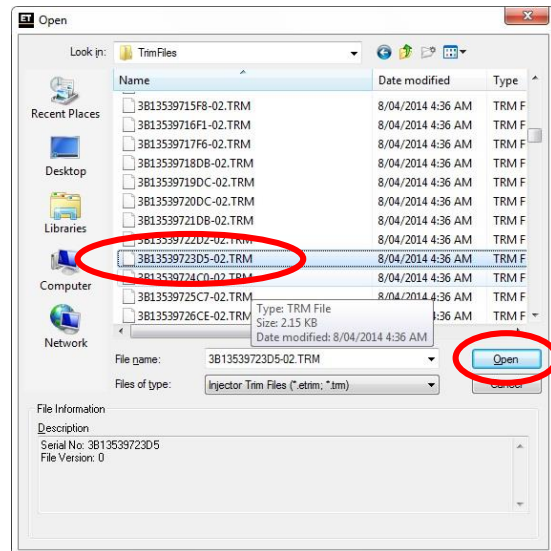


Figure 8 – Trim File Folder

Select YES to accept the Warning (Figure 9).

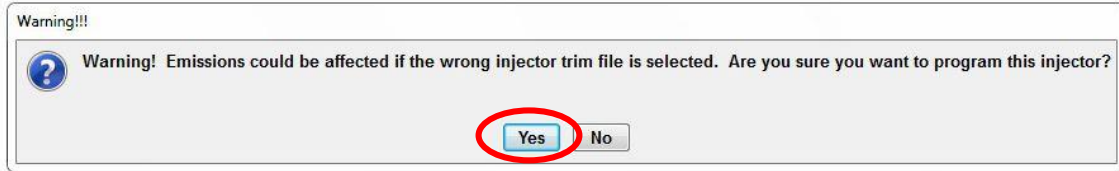


Figure 9

The new Injector Trim File Serial Number (i.e. 3B13539723D5) should be listed against the Injector number (Figure 10).

Injector	Serial Number
Injector 1	3B13089485CA
Injector 2	3B13089492CA
Injector 3	3B1308938850
Injector 4	3B13539723D5
Injector 5	3B1308938850
Injector 6	3B13089487C4

Figure 10

### INJECTOR EXCHANGE

From the injector trim calibration screen, select EXCHANGE in the bottom left hand corner (figure 11).



Figure 11

Select the EXCHANGE INJECTOR and WITH INJECTOR numbers from the drop down boxes, the select OK (Figure 12).



Figure 12

The correct Injector Trim File Serial Numbers should be listed against the Injectors.

**Michael Kearsey**  
Engine Management Systems – Manager

PPK Mining Equipment Pty Ltd  
T: +612 4964 5400  
E: [m.kearsey@ppkgroup.com.au](mailto:m.kearsey@ppkgroup.com.au)  
[www.ppkgroup.com.au](http://www.ppkgroup.com.au)