Event Data Recorder Use in Traffic Crash Reconstruction Level 1 MITSUBISHI Data Retrieval and Analysis

Version November 2019

UNF
UNIVERSITY of NORTH FLORIDA

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MITSUBISHI (0.5% market share)

- Mitsubishi originally released an EDR tool based on their dealership tool that included a Panasonic Toughpad. Cost $6380 + tax. Software updates $700/yr?
- The kit is made to work only on vehicles with a functioning electrical system thru the DLC.
- Mitsubishi uses the interior fuse box (ETACS module) as a gateway. Direct to module cable rigs with an ETACS can be built if module mating connectors can be located.
- Bosch CDR began partial coverage in mid-2019 as the 19th manufacturer – software version 19.0

Mitsubishi EDR Access

Green = Bosch CDR, Yellow/Gold= Mitsu Proprietary Tool

Model		2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
	F-00K-108-228													
Eclipse (PS Platform)			Part MU141170 4/2005 to 8/2011		Proprietary EDR Tool		Production ends 8/2011							
Eclipse Spyder Conv.				?	Data in deployments only?									
Endeavor SUV (PS Platform)				?			Production ends 8/2011 replaced by Outlander							
Galant (PS Platform)				?				Production ends 8/2012						
iMiEV	F-00K-			Not sold in US				No gateway module					?	
Lancer				2.3 sec@0.1 deploys only		Part 288 11-12 read w CDR as Caliber		ETACS gateway. Part A307-308 thru 201					Production	
Lancer Evolution				?	or send to Mitsu								Ends	
Lancer Sportback				?										
Mirage (subcompact)	F-00K-			Not in production				No gateway module						
Outlander SUV (GF platform)	F-00K-108-228	Gen 3 starts in 2012		A208 Read w/CDR as Caliber		A208/A304 mix. A208 5 sec@0.1. Deploy only. Read as 09 Caliber.		ETACS g	838 Bosch CDR Supported					
Outlander Sport, RVR, ASX						838 Bosch CDR Support								
Raider pickup (Dodge Dakota sister)		Bosch CDR supported cable 228				Not in production								

Mitsubishi EDR's- pre 2013

Information before 2013 is incomplete and compiled from reports from users

Model	2007	2008	2009	2010	2011	2012
Eclipse (PS Platform)		Part MU141170 4/2005 to 8/2011		Proprietary EDR Tool		Production e
Eclipse Spyder Conv.			?	Data in deployments only?		
Endeavor SUV (PS Platform)			?			Production e
Galant (PS Platform)			?			
iMiEV			Not sold in US			
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Outlander Sport					Bosch CDR	
Raider pickup (Dodge Dakota sister)	Bosch CDR supported cable 228				Not in production	

Mitsubishi not covered by CDR

- Mitsubishi has assisted law enforcement in the past. If you are law enforcement, ask Mitsubishi for help and see what they say.
- I am only aware of two other organizations who have the Mitsu specific tool besides Ruth Consulting.
- The Mitsubishi software license agreement is VERY restrictive – it excludes renting, or even loaning, the kit to another party.
- There is an instruction guide included on the toughpad.

Mitsubishi EDR Kit

resistant

- **USB 3.0, 2nd USB port & HDMI port**
- **802.11a/b/g/n/ac Wi-Fi**

The MUT-III Tool Package Kit MITFZG101-EDR includes the following:		
	Part No.	QTY
MUT-III Scan Tool Kit	MUT3AMKIT	1
Panasonic Toughpad®		1
Vehicle Communication Interface (VCI-Lite)		1
EDR Software		1
MUT-III Main Harness A-L		1
MUT-III Main Harness B-L		1
Mini USB Cable (S)		1
Attachment Kit - Velcro		2
MUT-III 1 Year Update Subscription		1
		$6,372.00

* In accordance with US regulation, Part 563.

** Can be used on 2011 and 2012 Outlander and 2012 iMiEVs.

Promotion # MI15-177

Please Note:

- Additional yearly subscriptions, (MITFZG101-EDR-SUB) are available for purchase for the Panasonic FZ-G1 Toughpad®
- MUT-III supports CAN vehicle protocol
- MUT-III updates via update USB Thumb Drive
- Mitsubishi Motors North America reserves the right to change to internet subscription at a later date

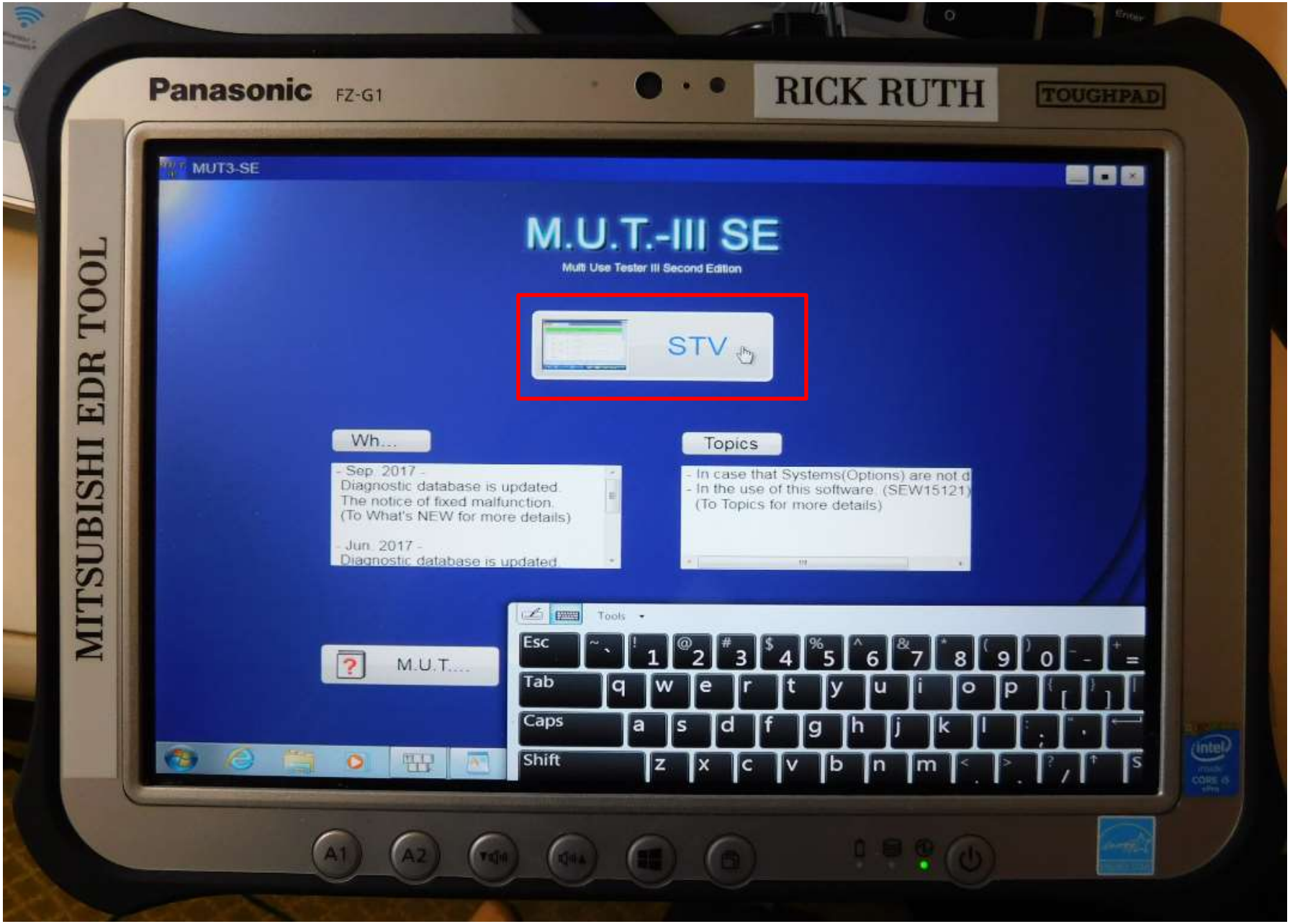
Order Today
Toll Free 1.888.727.6672

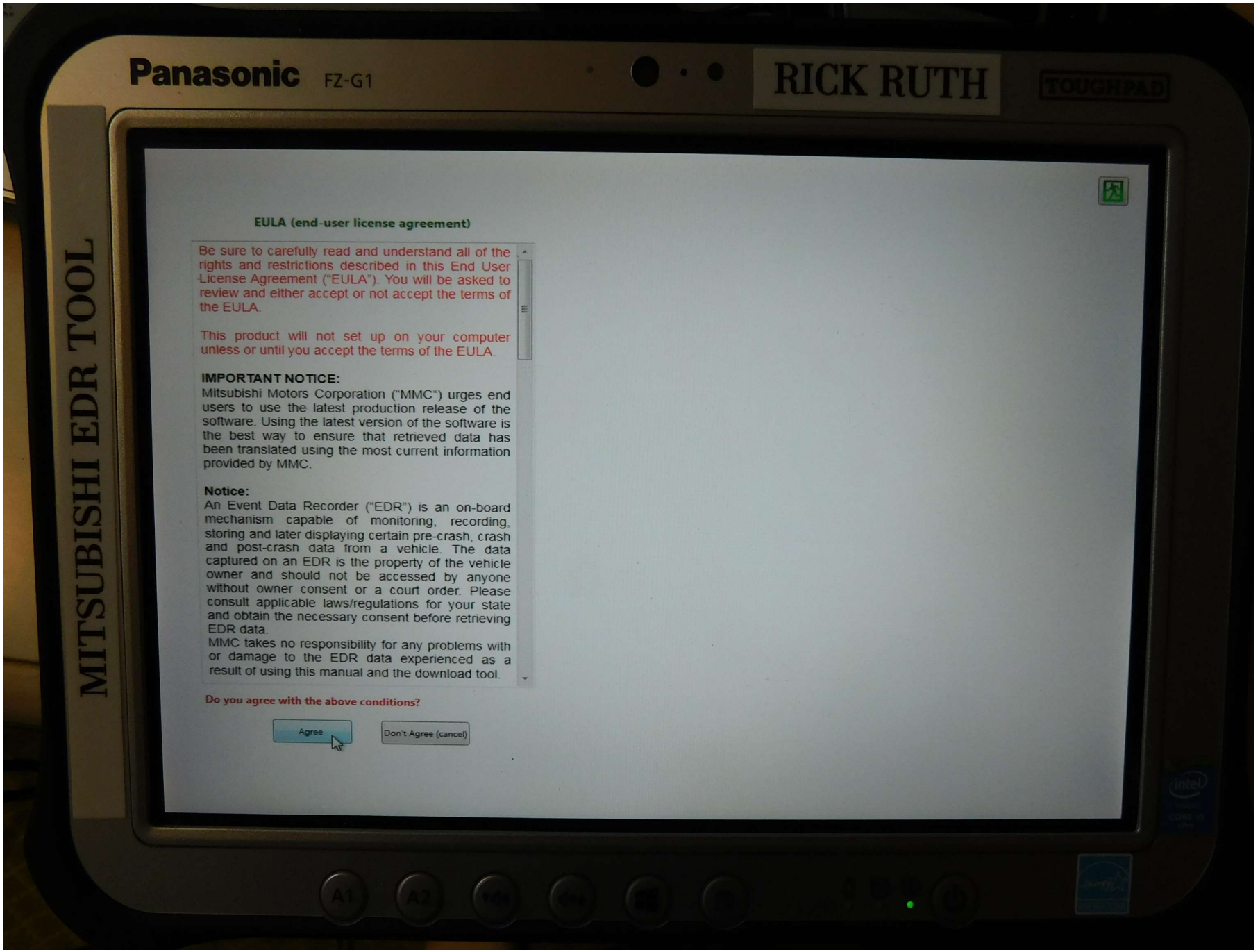
Bosch Automotive Service Solutions

655 Eisenhower Drive
Owatonna, MN 55060-0995
Phone 888-727-6672
Fax 586-578-7375

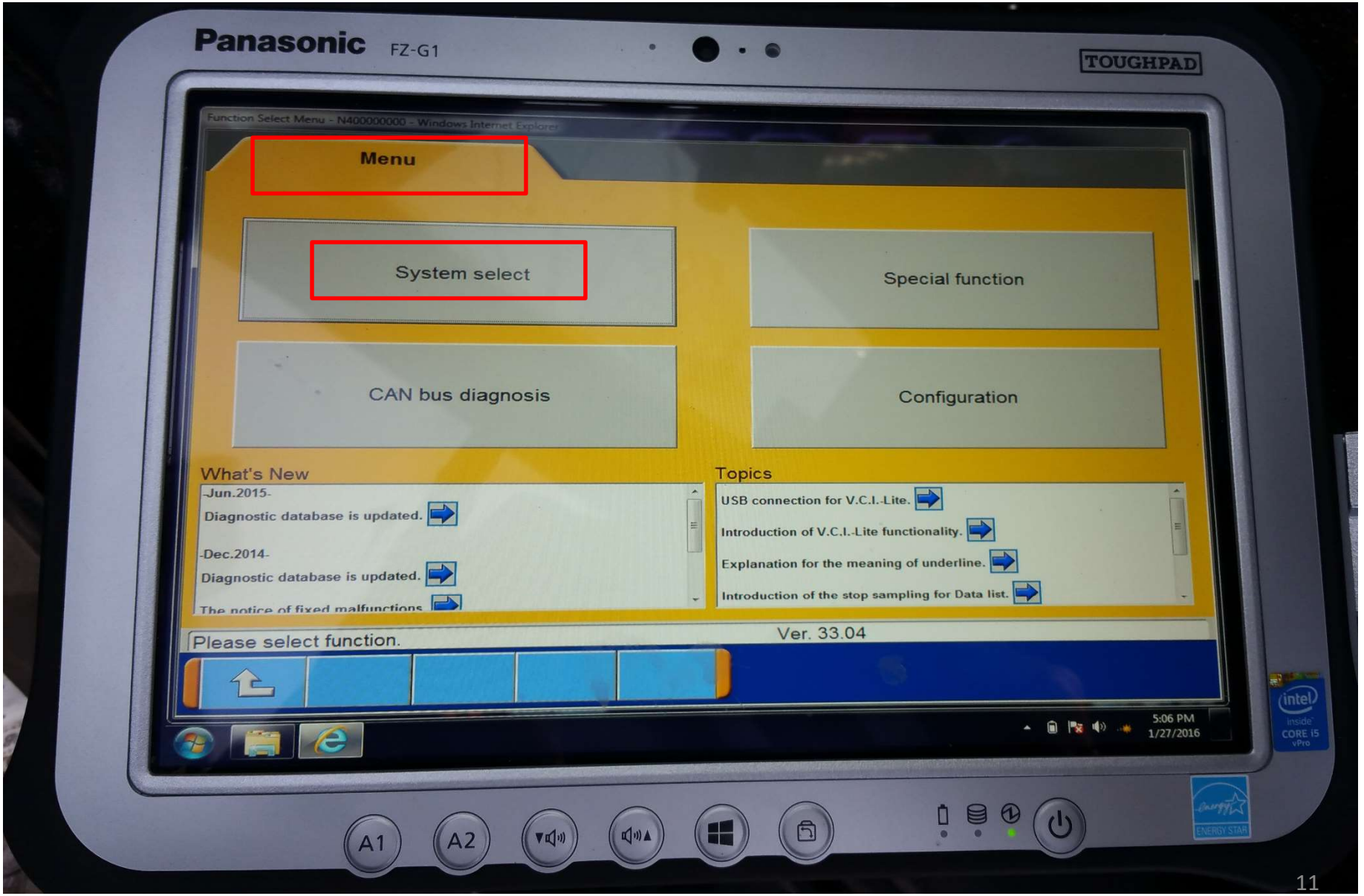
Select MUT3-SE (NOT MUT-3)

Select STV

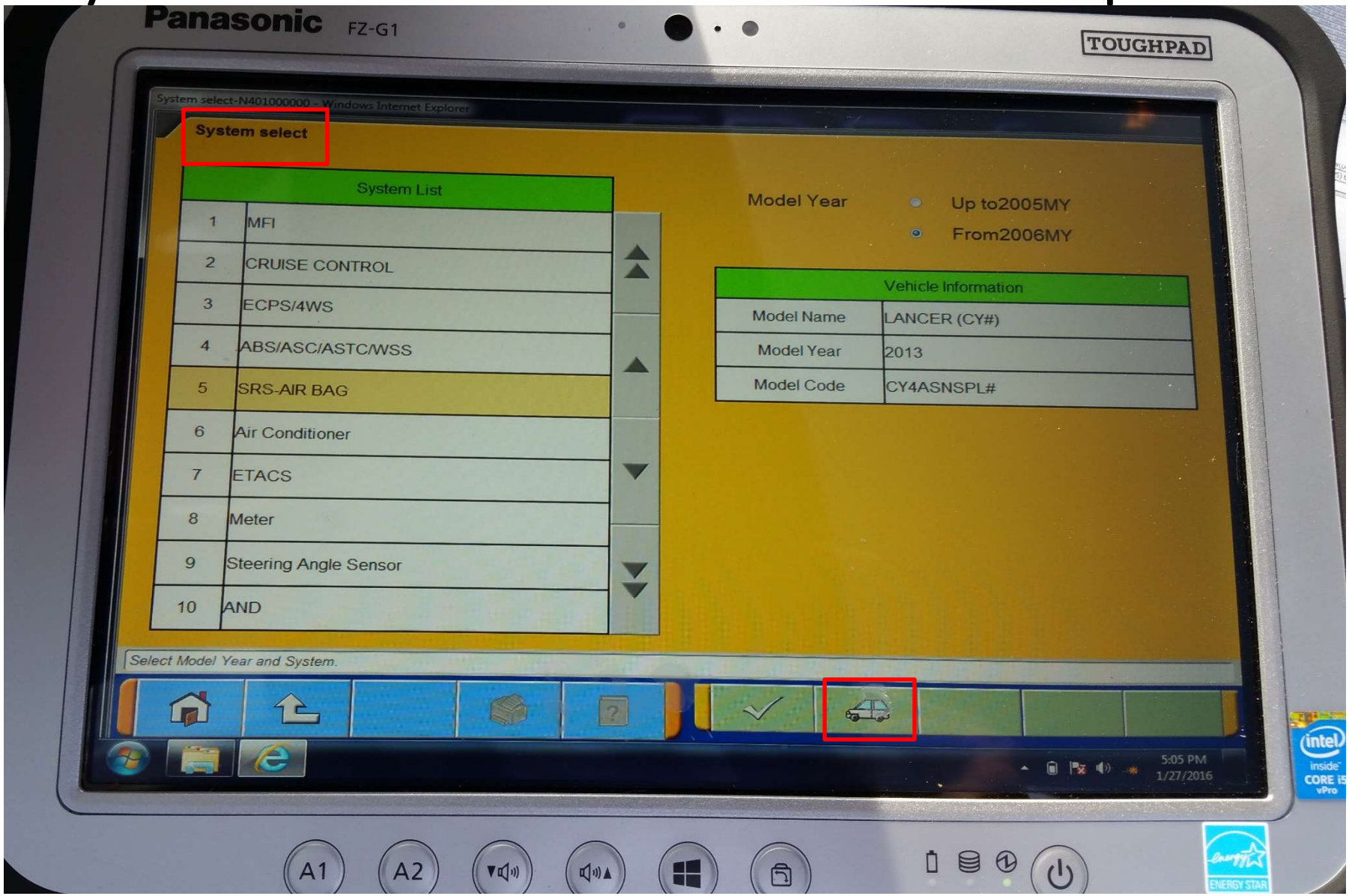

Panasonic FZ-G1
RICK RUTH
TOUGHPAD
MITSUBISHI EDR TOOL
MUT3-SE
M.U.T.-III SE
Multi Use Tester III Second Edition
STV
Wh...
- Sep. 2017 -
Diagnostic database is updated.
The notice of fixed malfunction.
(To What's NEW for more details)
- Jun. 2017 -
Diagnostic database is updated.
Topics
- In case that Systems(Options) are not d
- In the use of this software. (SEW15121)
(To Topics for more details)
M.U.T....
Tools
Esc
Tab
Caps
Shift
A1
A2


Panasonic FZ-G1
RICK RUTH
TOUGHPAD
MITSUBISHI EDR TOOL
EULA (end-user license agreement)
Be sure to carefully read and understand all of the rights and restrictions described in this End User License Agreement ("EULA"). You will be asked to review and either accept or not accept the terms of the EULA.
This product will not set up on your computer unless or until you accept the terms of the EULA.
IMPORTANT NOTICE:
Mitsubishi Motors Corporation ("MMC") urges end users to use the latest production release of the software. Using the latest version of the software is the best way to ensure that retrieved data has been translated using the most current information provided by MMC.
Notice:
An Event Data Recorder ("EDR") is an on-board mechanism capable of monitoring, recording, storing and later displaying certain pre-crash, crash and post-crash data from a vehicle. The data captured on an EDR is the property of the vehicle owner and should not be accessed by anyone without owner consent or a court order. Please consult applicable laws/regulations for your state and obtain the necessary consent before retrieving EDR data.
MMC takes no responsibility for any problems with or damage to the EDR data experienced as a result of using this manual and the download tool.
Do you agree with the above conditions?
Agree
Don't Agree (cancel)

Choose System Select

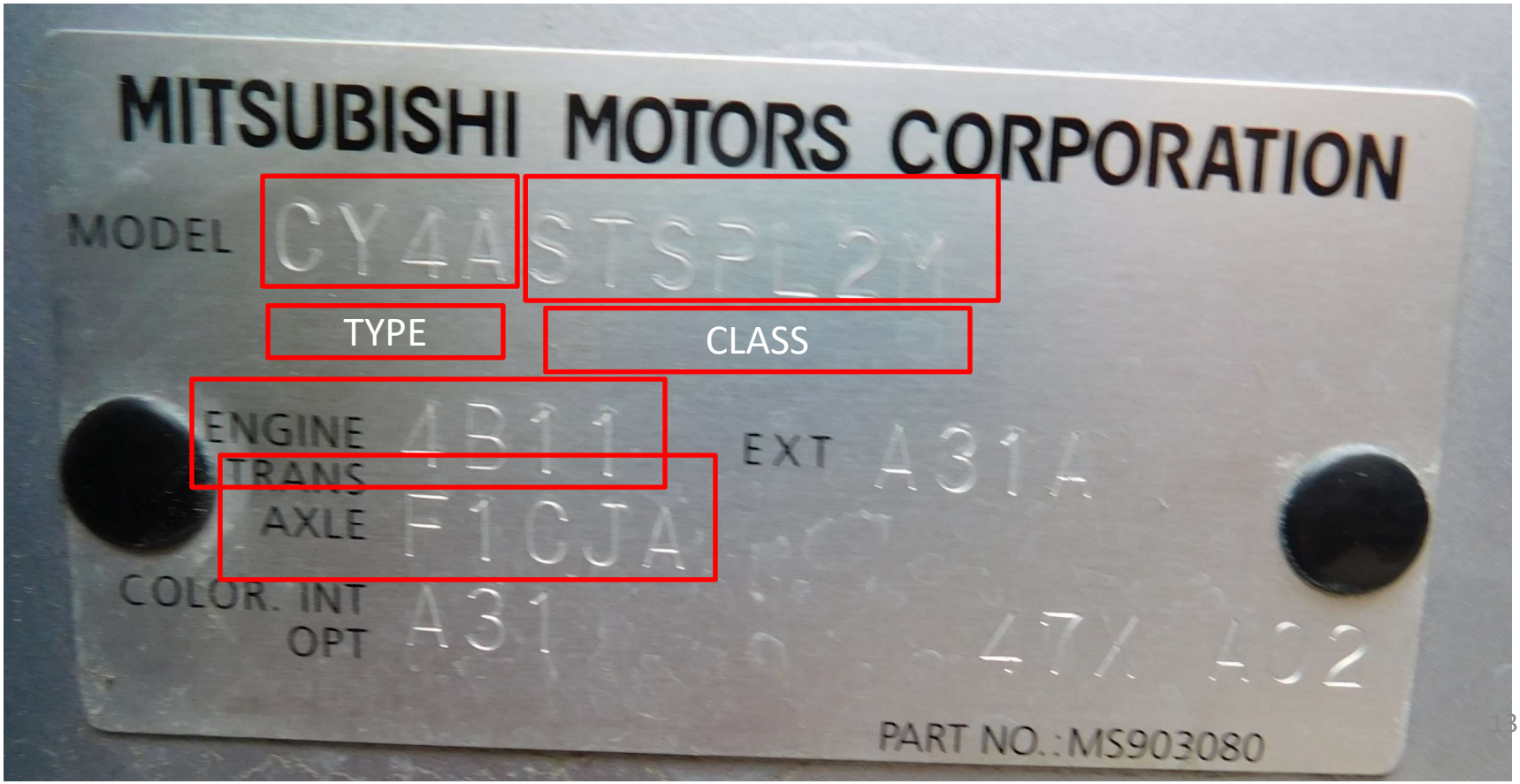


System select – select Vehicle Description

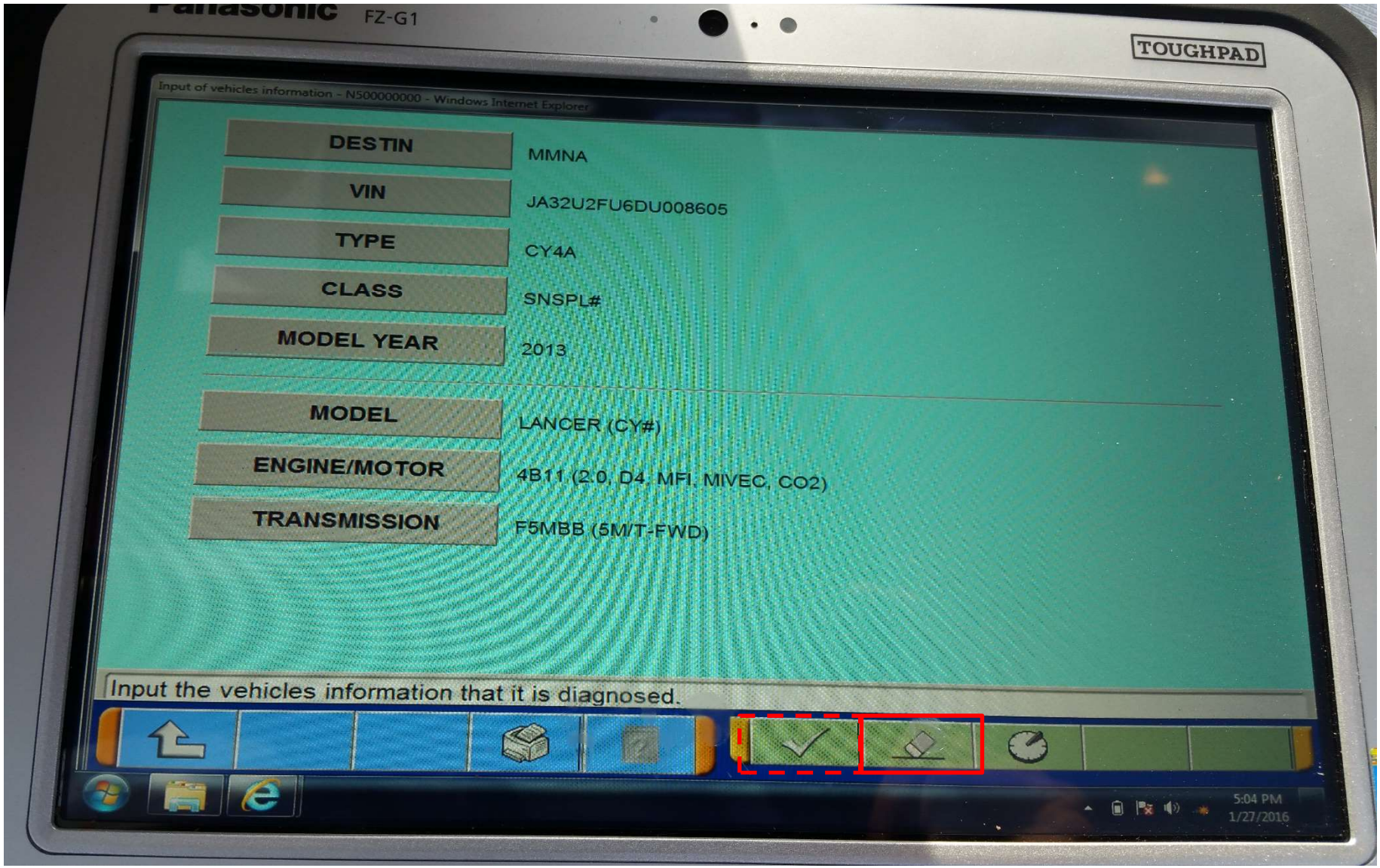


Find Vehicle Description plate on passenger B pillar front door side

Note Model Code & eng/trans codes

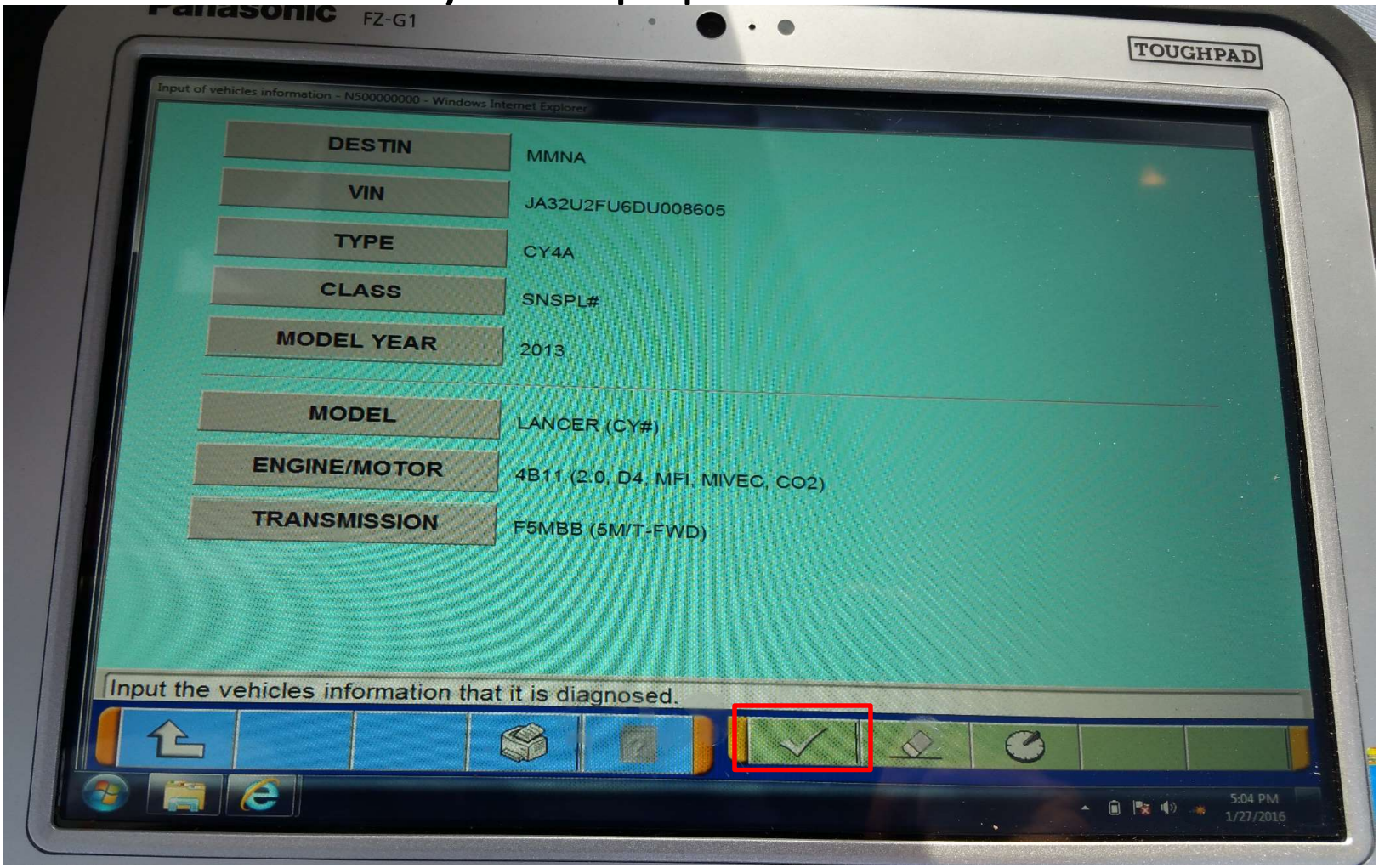


Erase prior vehicle selection

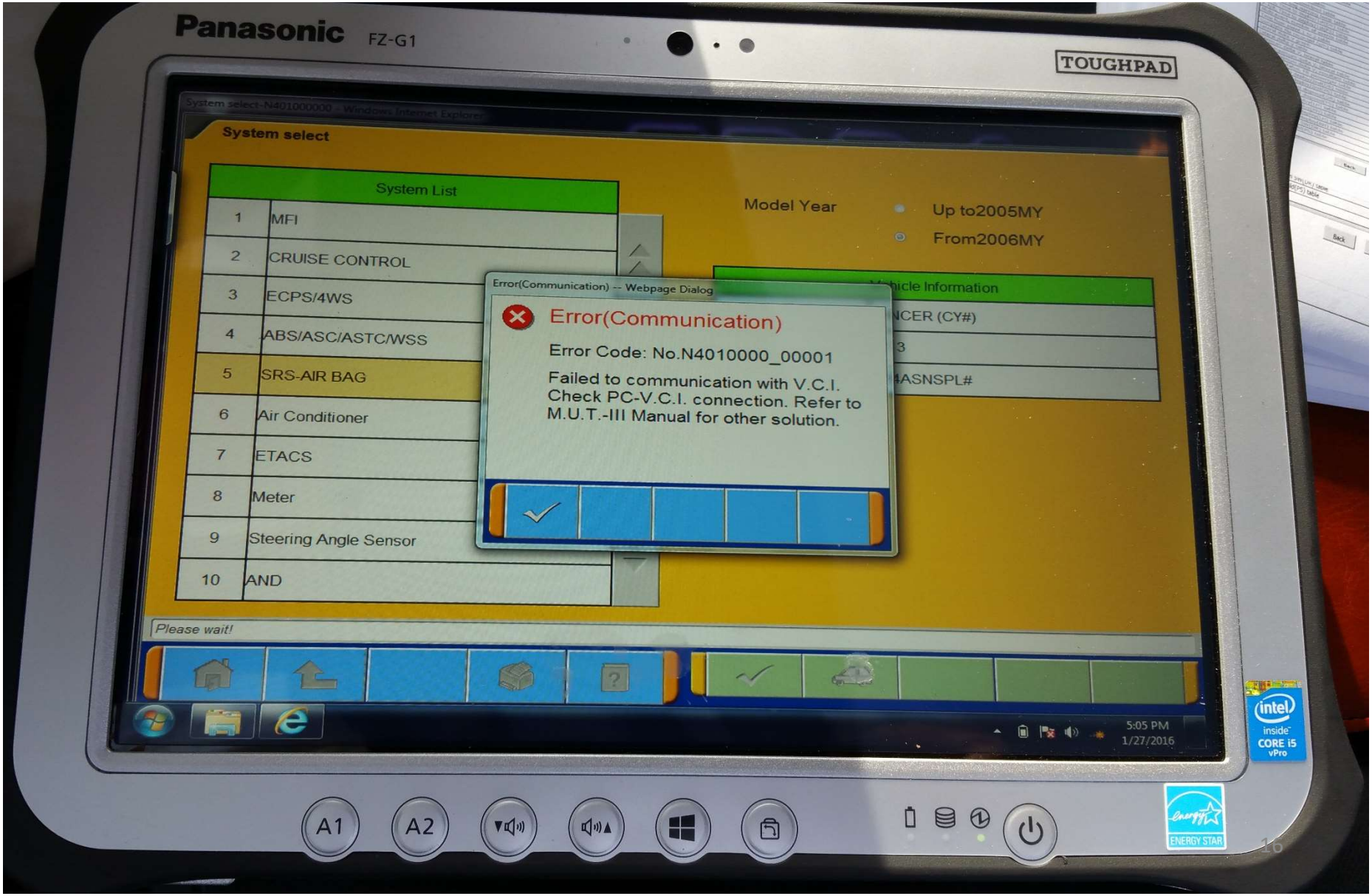


Insert VIN first some will populate Enter remainder then accept

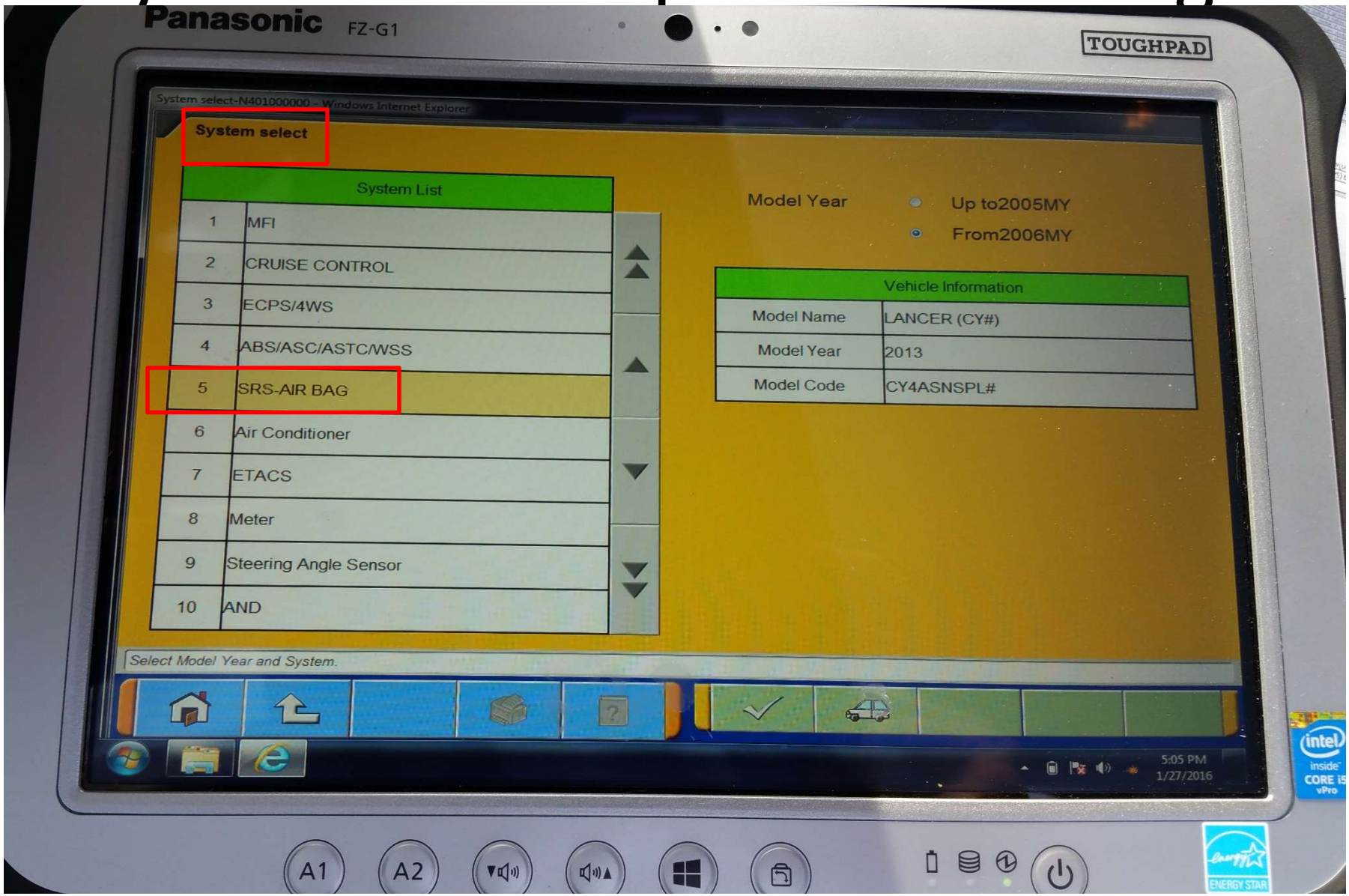
May auto populate from ECM



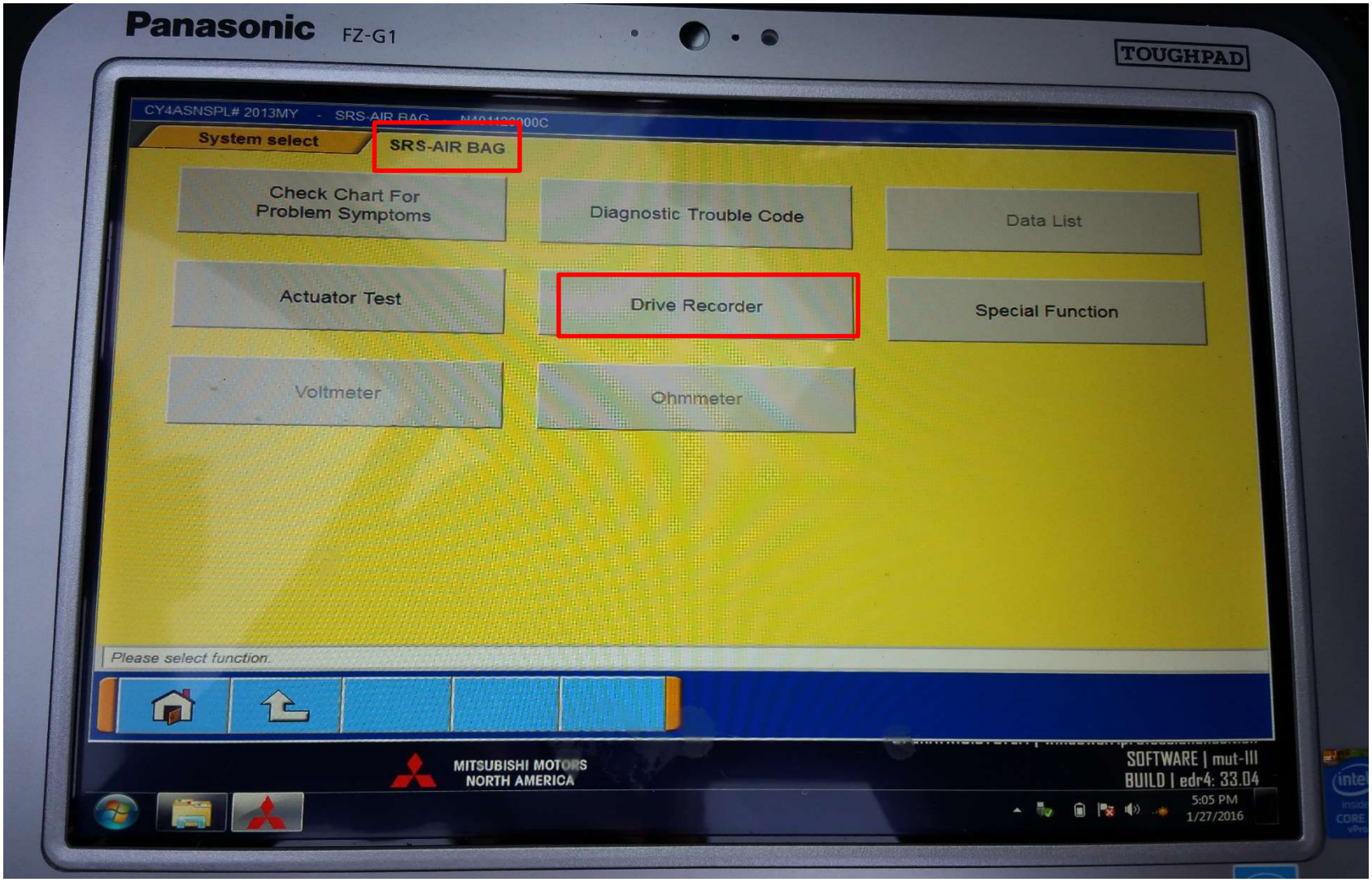
Debug if necessary. 12V needed in DLC & Ignition to ACM.
Make sure you are in MUT3-SE not MUT3 software



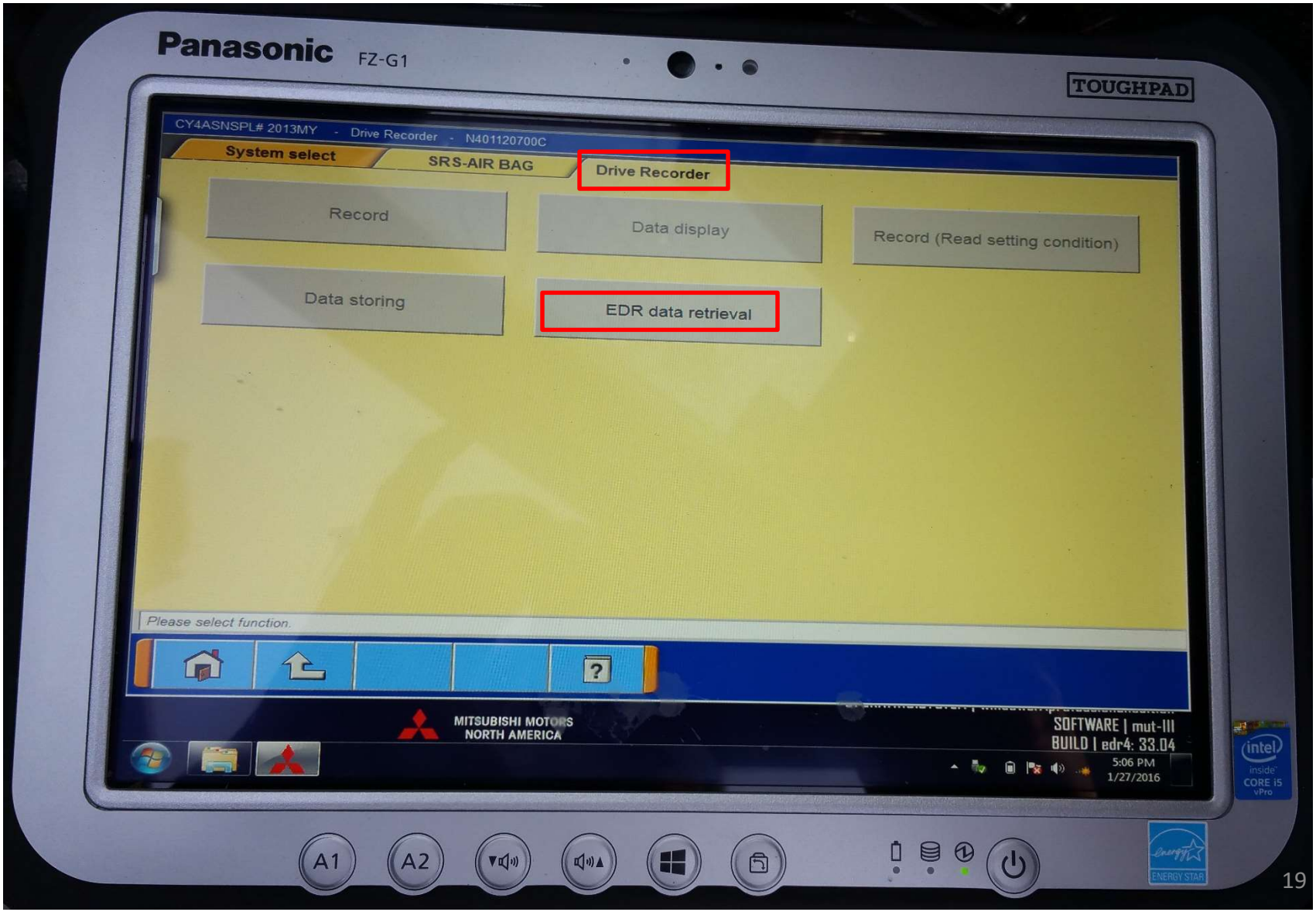
System select – pick SRS Air Bag



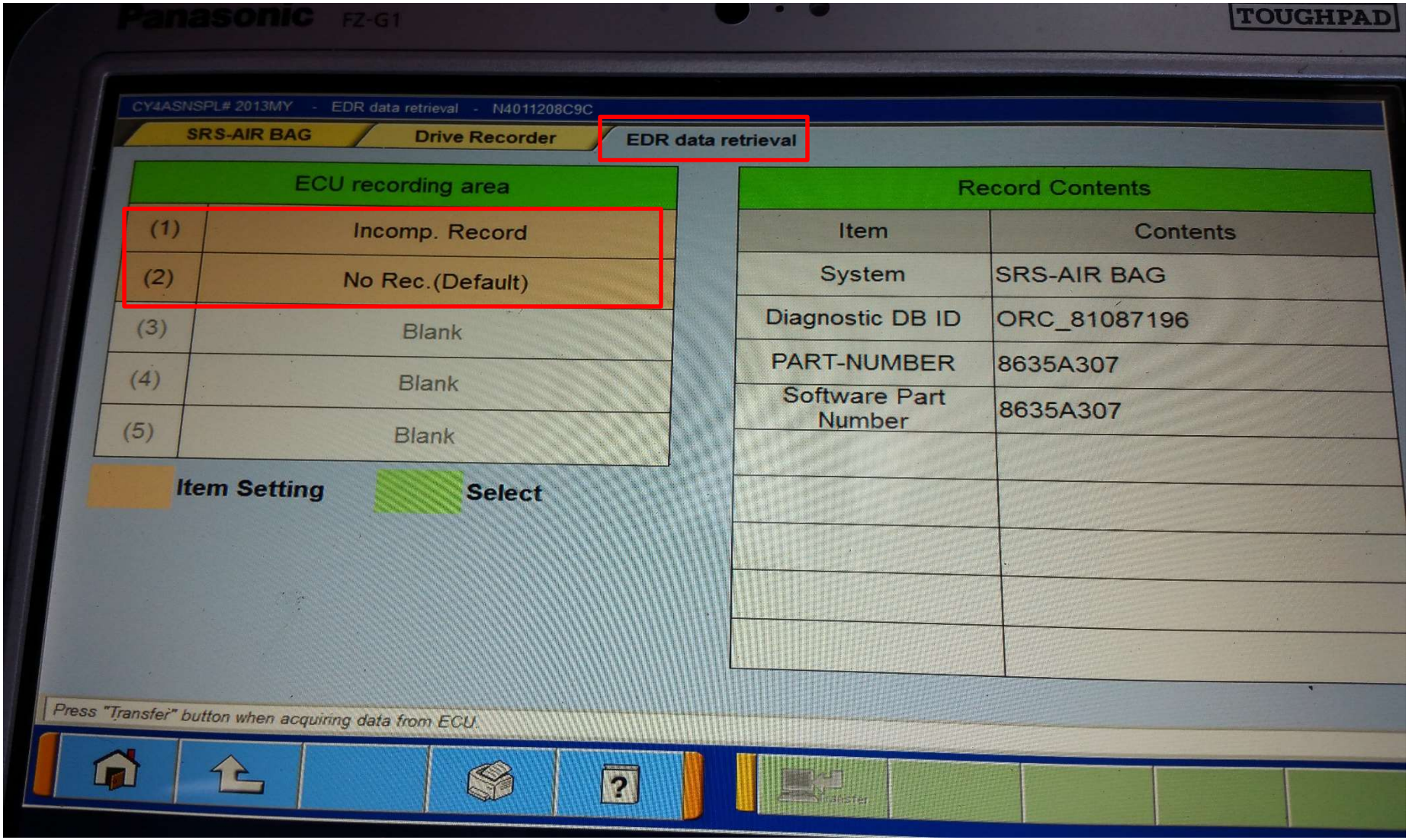
Within Air Bag, select drive recorder



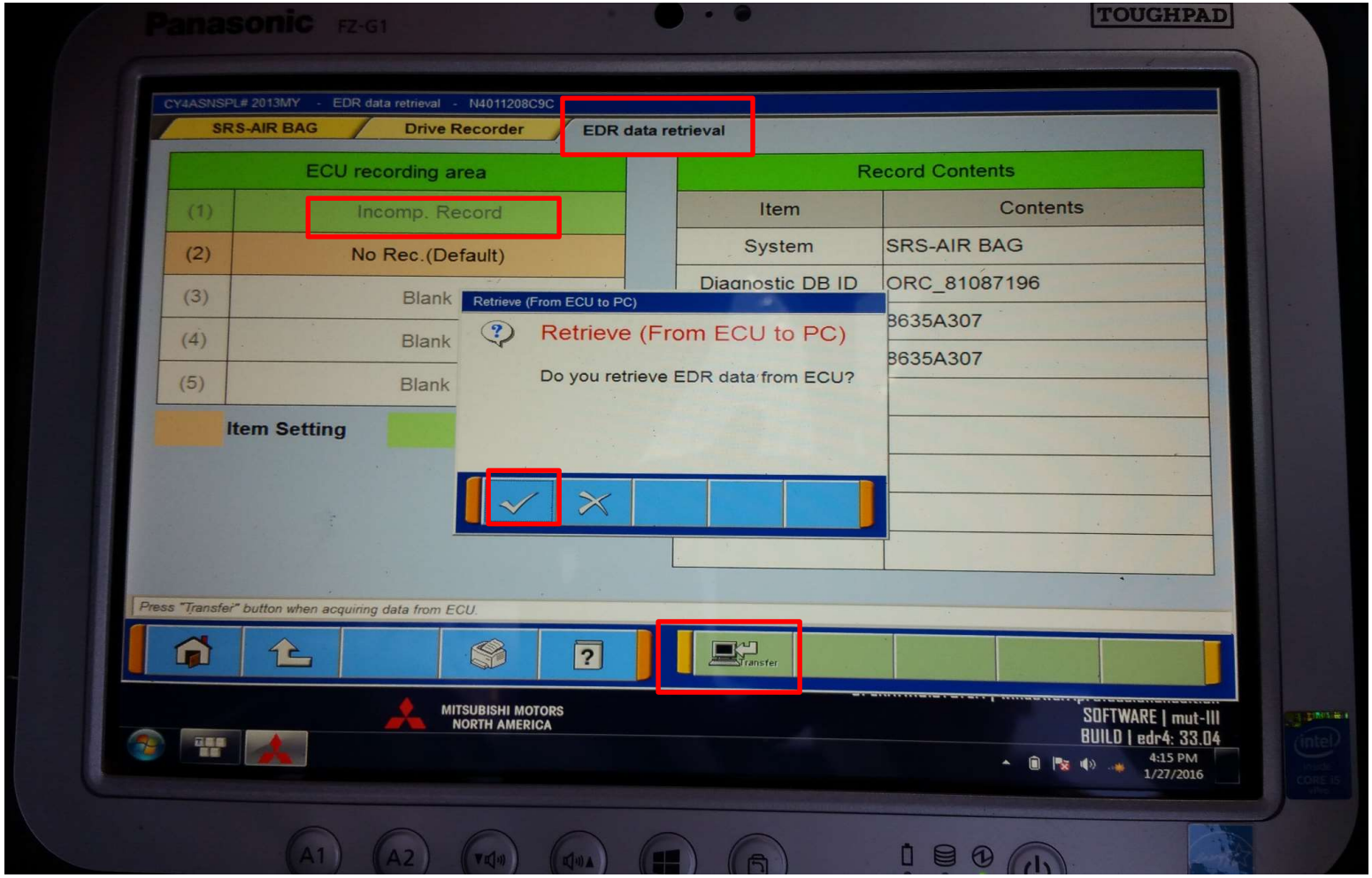
Within drive recorder, select EDR



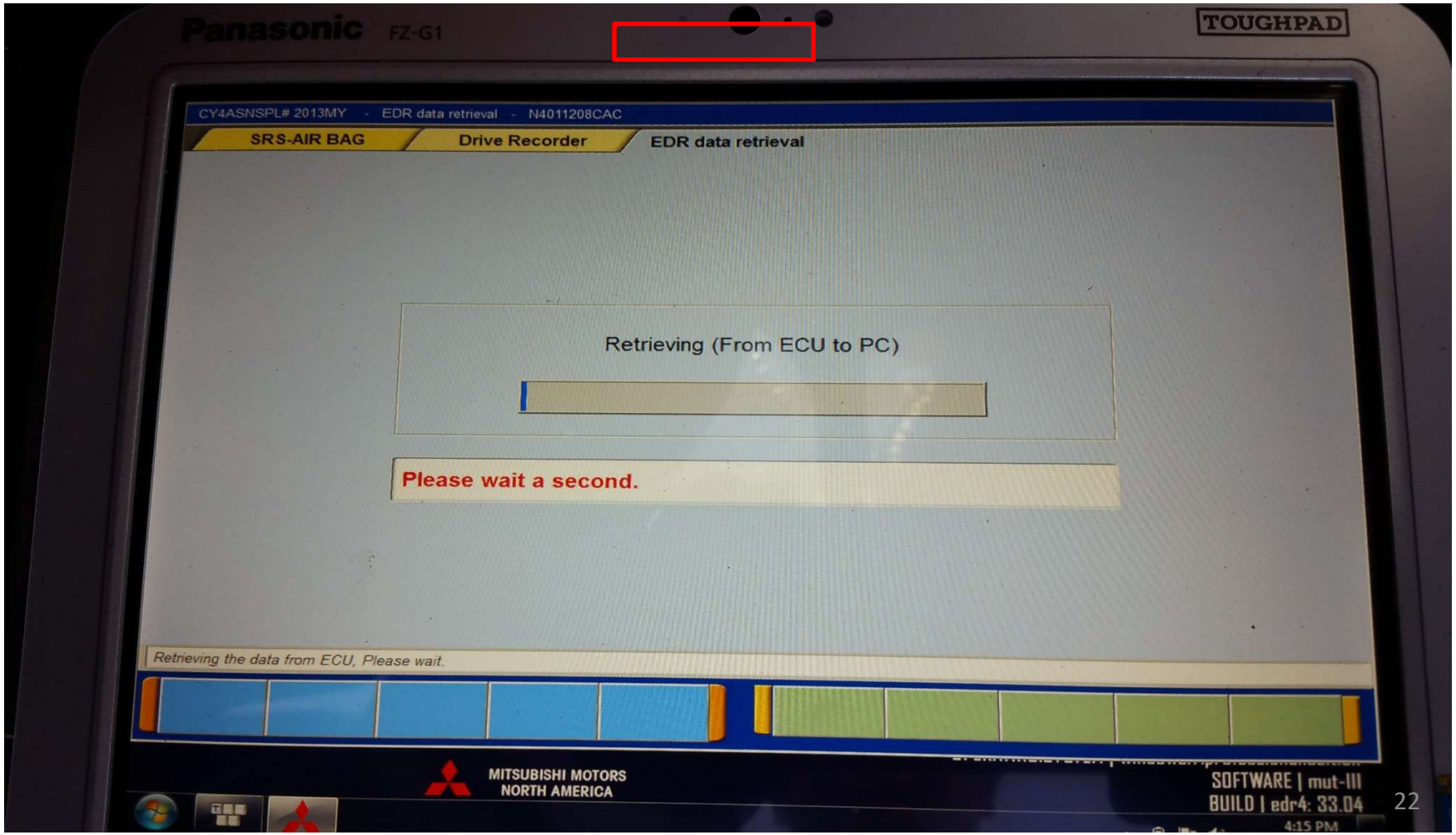
Events captured shown



Select Record, Select Transfer to get popup in center, click check

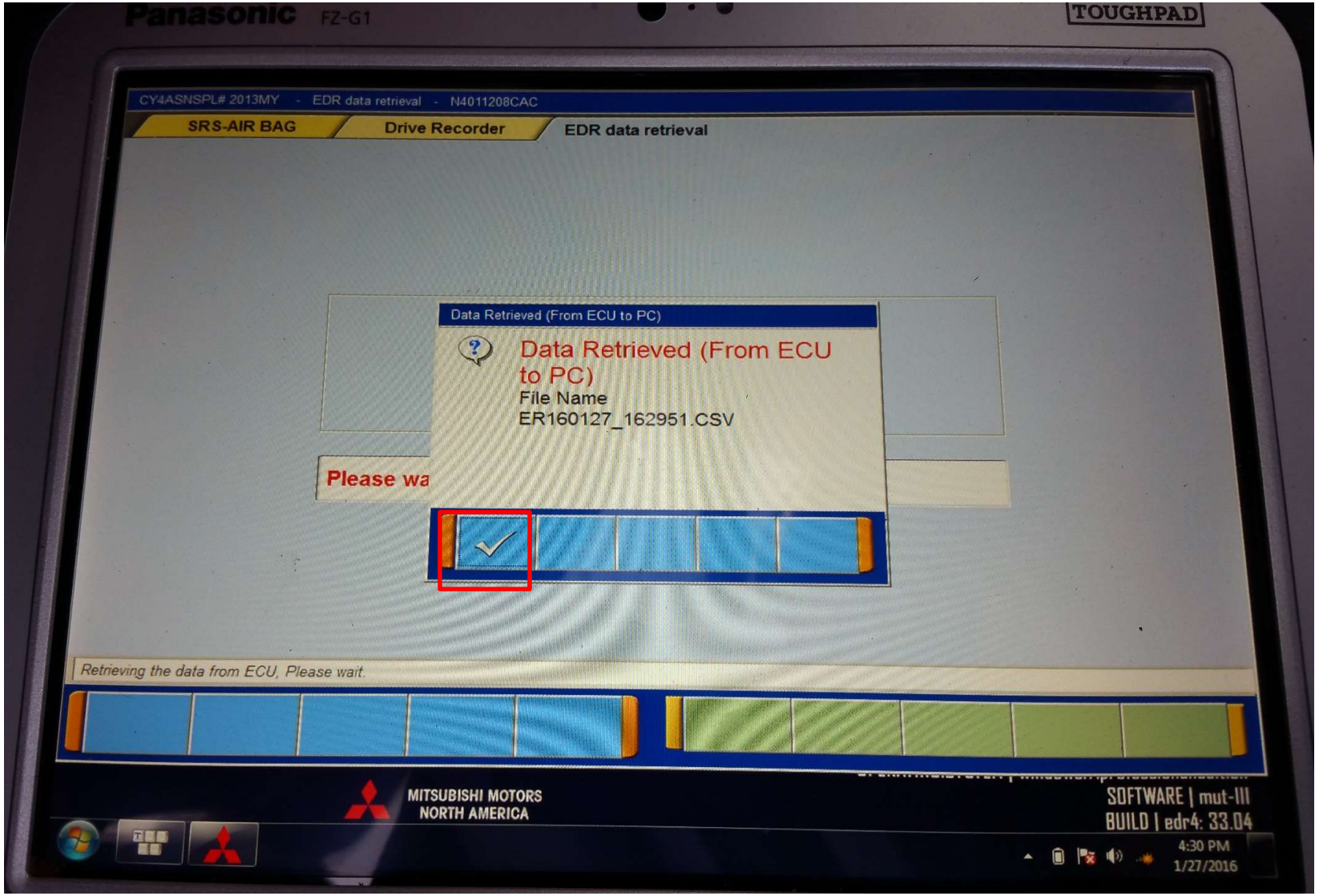


Scroll Bar during data retrieve
Early Software took up to 15 min
After recent software update, much faster

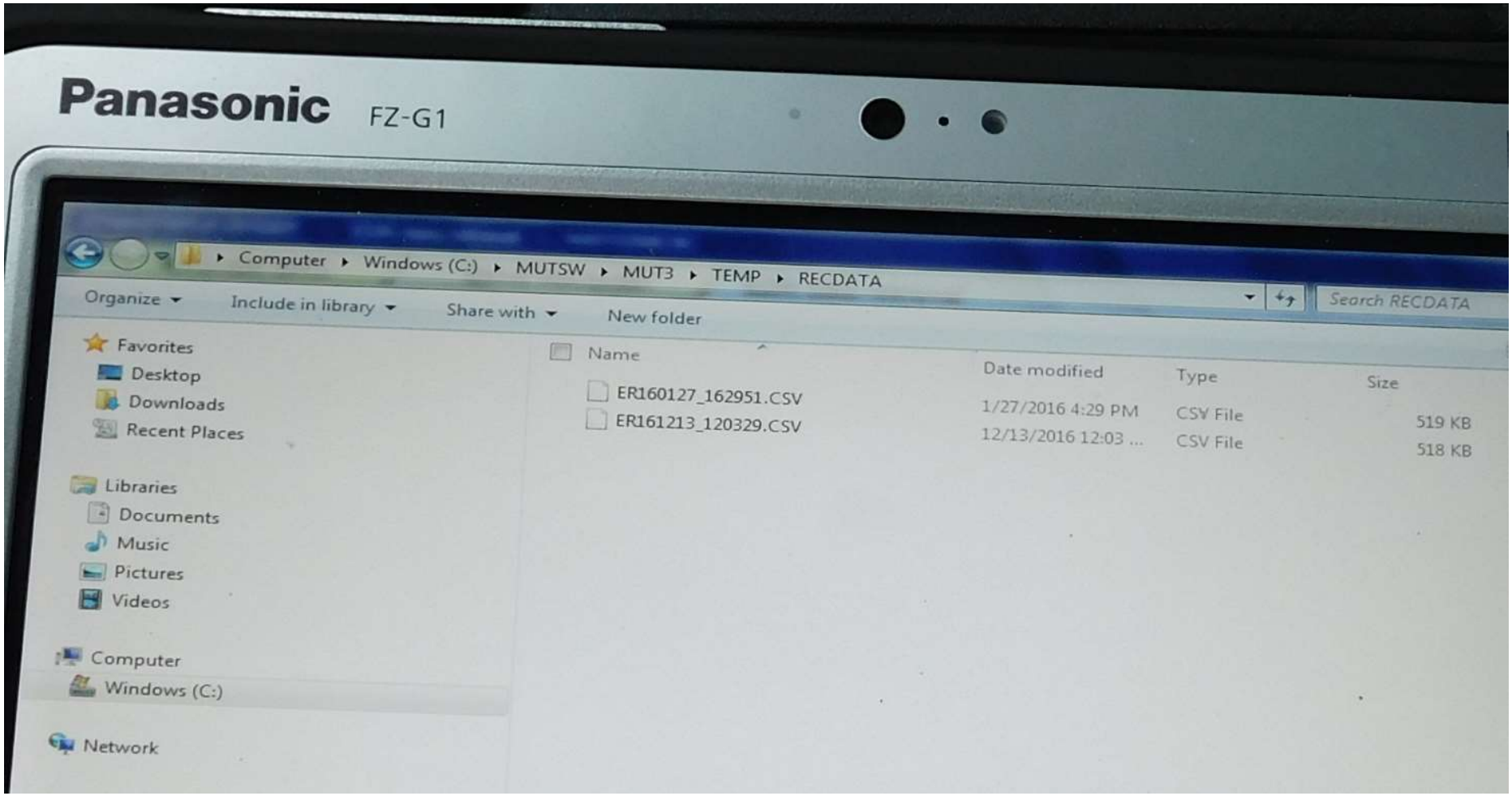


Accept or change recommended file name.

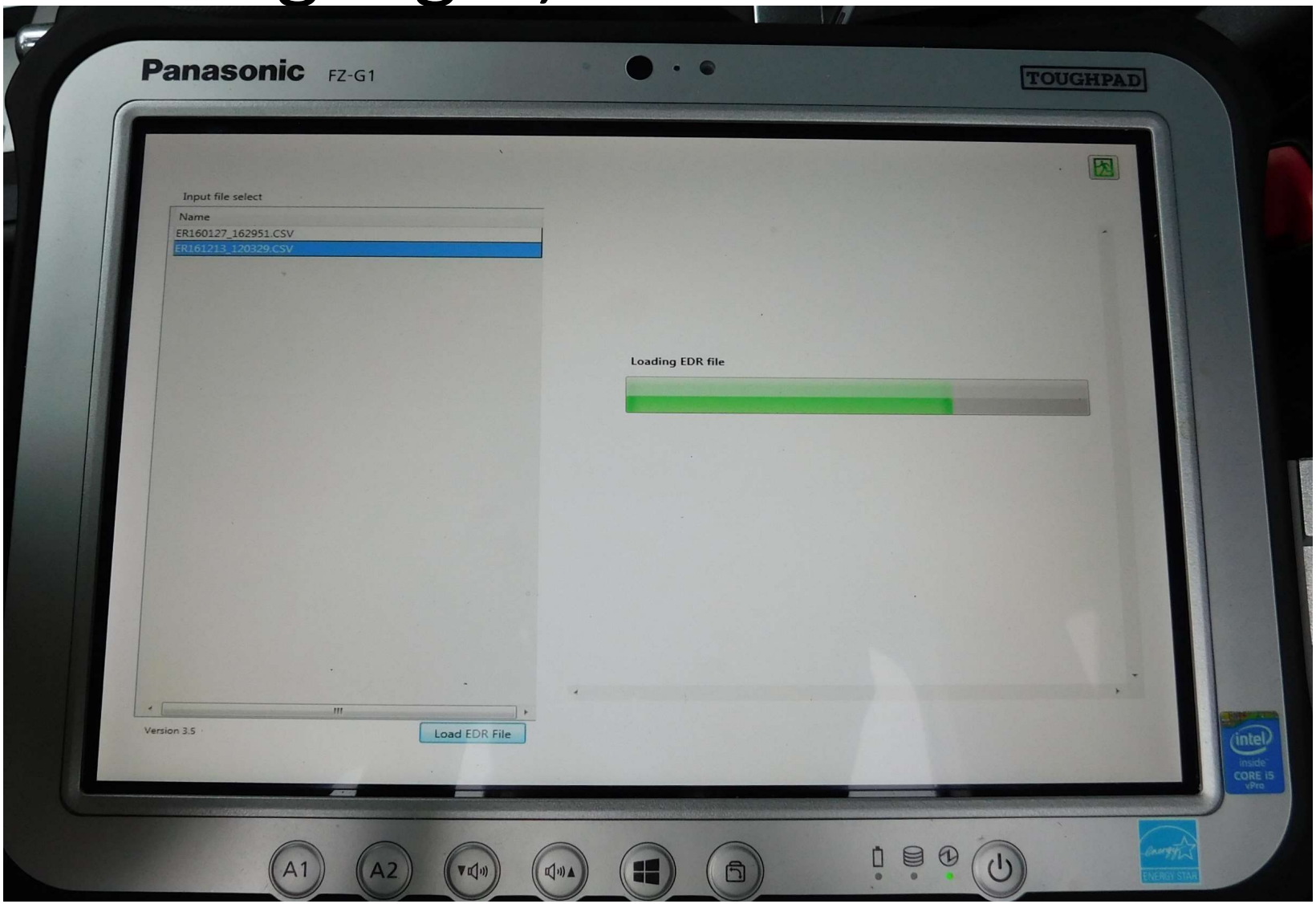
Default is year/month/day_time from computer clock



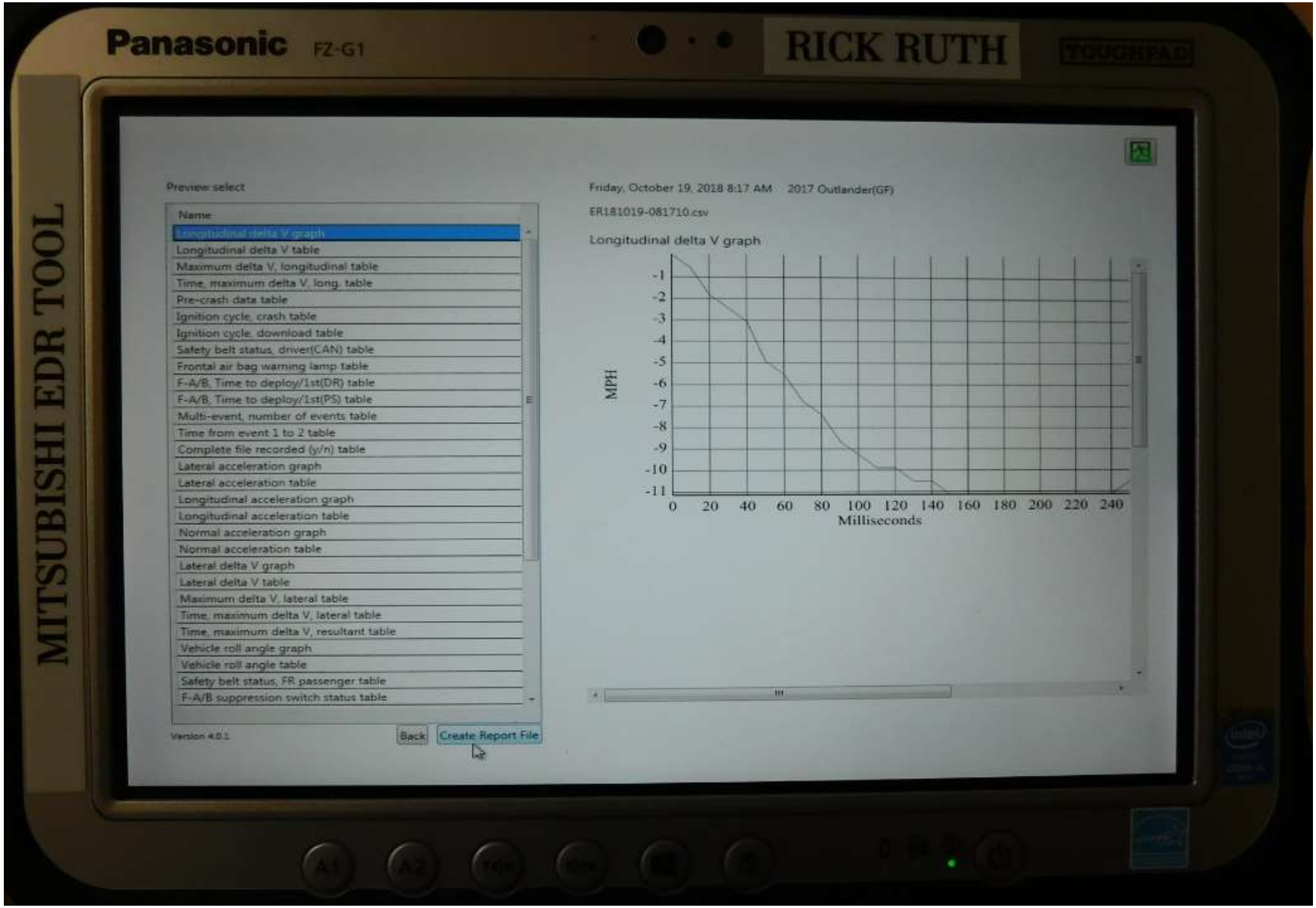
Use file explorer to navigate to CSV file just saved New software may be different



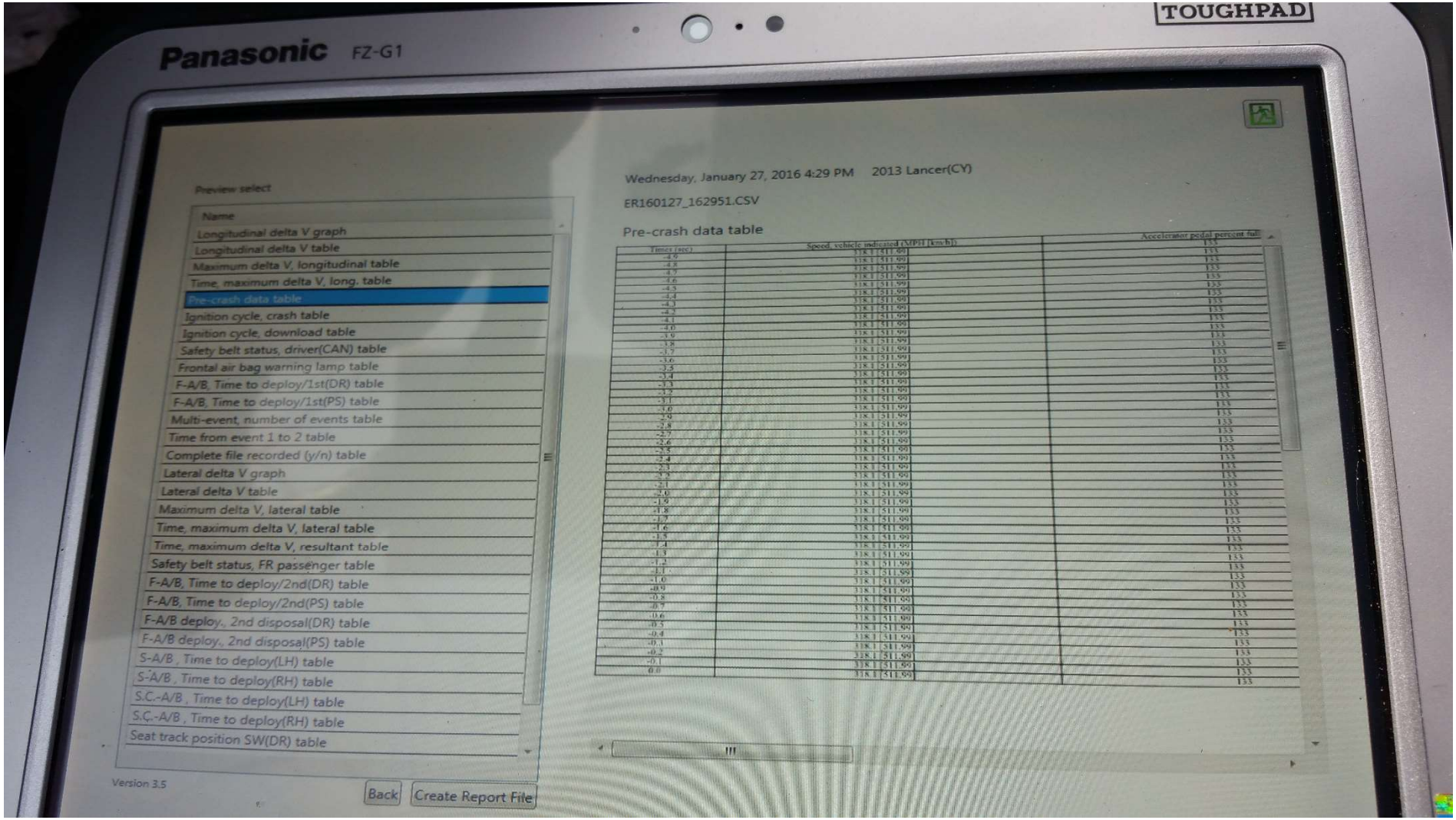
Highlight, Click Load File



View Data Output by data element



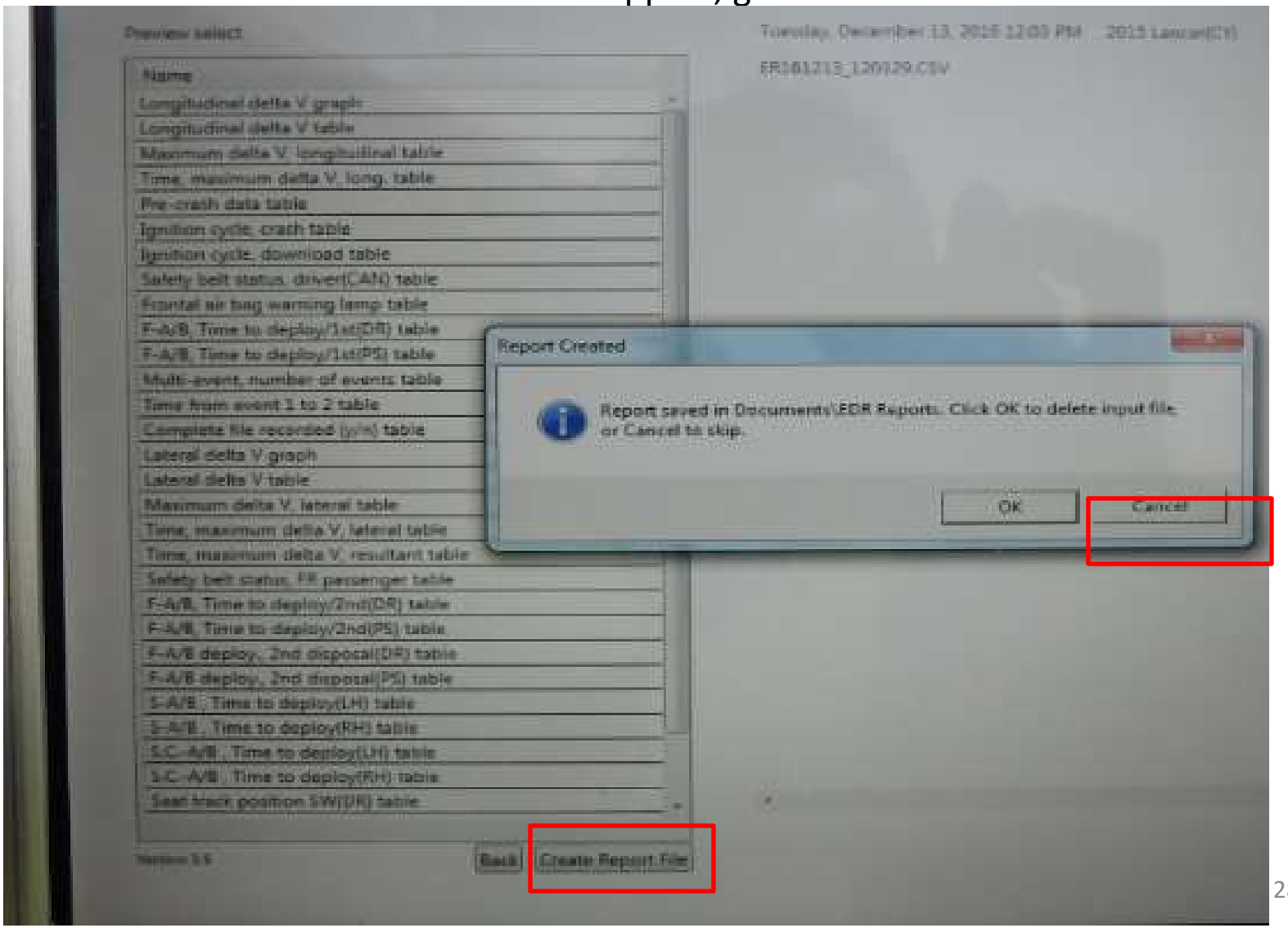
View Data by Output element



Click Create Report File.

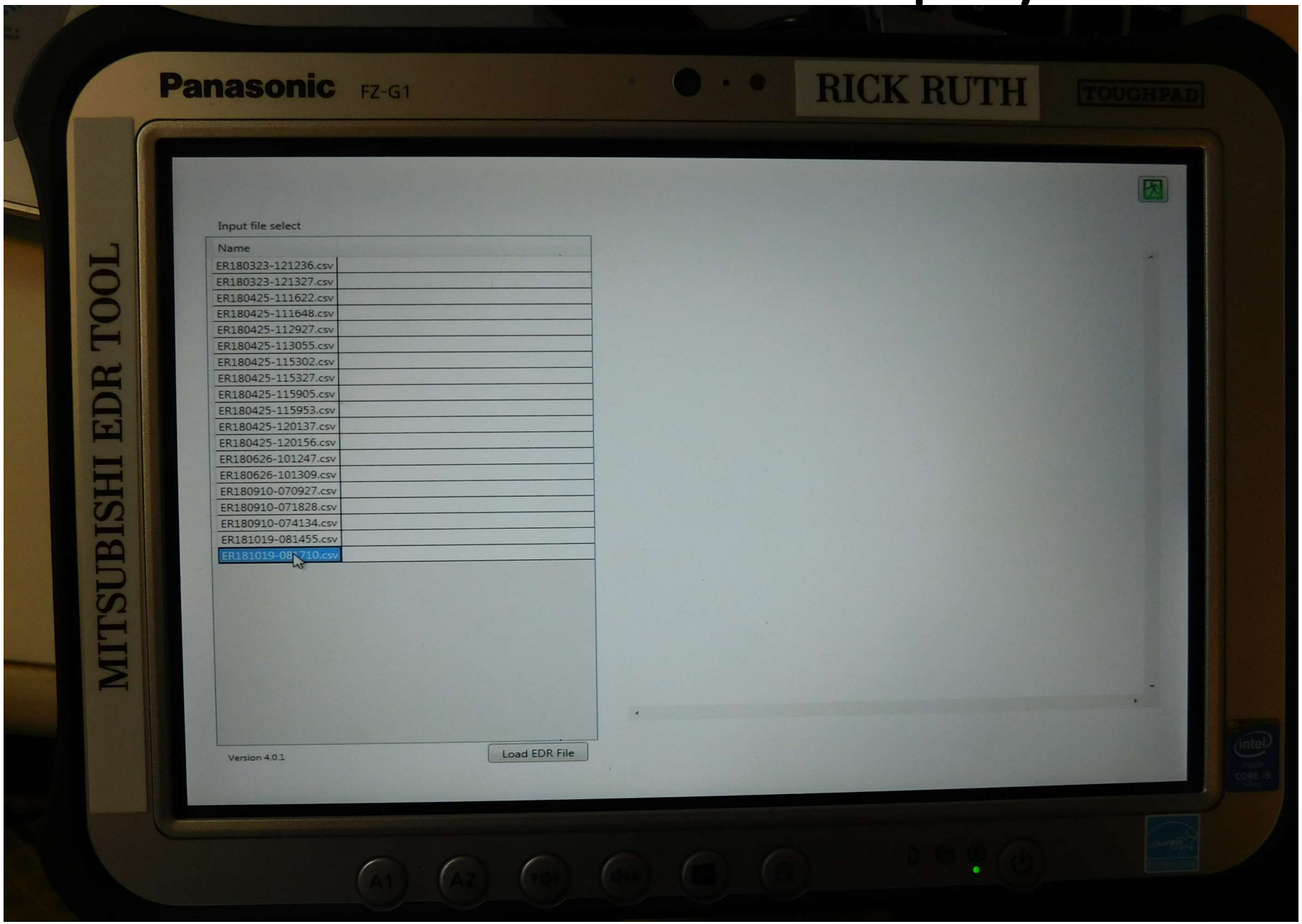
Cancel deleting input file.

If this button does not appear, go to next slide



New: Select “EDR Tool” (PDF Maker)

Newer software will display list



Navigate to saved PDF and open

File name same as CSV except extension

Insert thumb drive into Toughbook and save to thumb drive

EdrTool

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File Information

EDR Data Download Date	Tuesday, December 13, 2016 12:03 PM
EDR Part Number	8635A307
EDR Data Area	1
Software Build Date	Tuesday, August 05, 2014

PART 563 - EVENT DATA RECORDERS

Comments

Vehicle: 2015 Lancer(CY)

Notice

An Event Data Recorder ("EDR") is an on-board mechanism capable of monitoring, recording, storing and later displaying certain pre-crash, crash and post-crash data from a vehicle. The data captured on an EDR is the property of the vehicle owner and should not be accessed by anyone else without owner consent or a court order. Please consult applicable laws/regulations for your state.
Mitsubishi Motors takes no responsibility for any problems with or damage to EDR data experienced as a result of using this manual and the download tool

Tool Use Field Feedback

- The total number of files collected is still very small – about 10.
- About half of the files said they were interrupted recordings and had no useful data in them. This seems unusual for a part 563 recorder that must make recordings after a 30 mph barrier crash. More experience is needed before reaching any conclusions.
- Default data is 318.1 mph (511.99 kph), 65535 rpm, 30720 steering, and brake off.

Anomalies

- A 2015 Lancer file read with software version 33 had longitudinal and lateral Delta V and steering polarities backwards, and accel pedal displayed 114% for some data points.
- Another 2015 Lancer read with software version 34 had the polarities correct. A 2014 Mirage had polarities correct.
- Review data against physical evidence before reaching any conclusions

Mitsubishi Recap

- Bosch CDR covers a few models starting mid-2019 and is expected to eventually cover more legacy modules.
- In the meantime the dedicated Mitsubishi DLC-only tool is required for some models.
- DTM readouts are possible by Mitsubishi and by Brad Muir who built a special rig (not shippable – you must send module to them)