MID:COM

E:COUNT MCR-05 AND E:COUNT LT MCR-09
FIRMWARE VERSION AND REVISION NUMBERS

Determine E:Count MCR-05 & E:Count LT MCR-09 Firmware Version = Print Calibration Ticket

1. Make sure the ECount/LT is not in a Delivery and not in Calibration Mode
2. Enter the Delivery Menu: Press <MODE> ... PRCODE will be shown
3. Press and hold <MODE> until CALTKT is shown, release <MODE>
4. Press <START/STOP> on CALTKT to print the Calibration Report

Calibration Report showing the Version (E179E0) and Revision (A)

```
CALIBRATION REPORT          A

TRUCK# 0000  DRIVER# 0000
DATE 06/23/15 FTIME 15:51
FINISH  TOT.00000000047.0

USER SOFTWARE VER. E179E0
METROLOGICAL  VER. M  17A
SERIAL #            000000
SALE #              000003
PRINTER             THERML
METER RATIO              01
TMPSET 08 DEMO    ON
STAGE1 00 HOSTFX OFF
6501PF 0  CURNCY OFF
COPIES 1  HOSEPK 0
PS RQD 0  SS RST ON
TIMER  0  REGNUM 1
AIRSEN 0  PGROSS OFF
DECMAL 1  U TYPE 0
UNITS  0  PROBE  1
BRKVLV 0  KEYSON BOTHON

ADJUSTMENT EVENT # 000001
CONFIGURE  EVENT # 000001

PRODUCT # 01
PRODUCT PROPANE
CALIBRATION FACTOR 1.0125
PRESET VALVE DWELL  000.0
COMPENSATOR STATUS      ON
COMPENSATION TABLE #    01
```

Delivery Menu from the ECount E179 Quick Command Reference

Delivery Menu

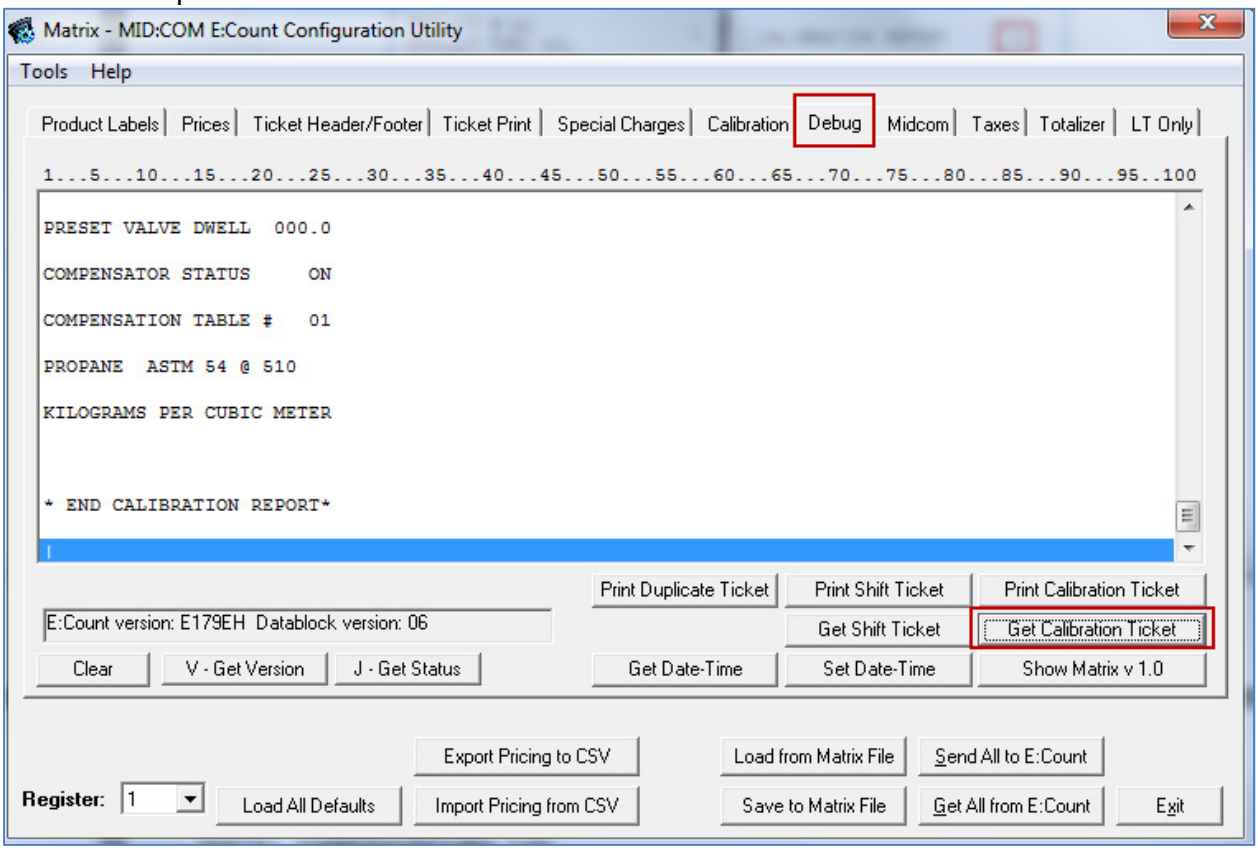
HOSEPK	OK
PRCODE	▲▼◄►
QOB	▲▼◄►
MONEY	currency menu
TIMOVR	▲▼
SHIFT	print shift report
DRIVER	▲▼◄►
TOTAL	◄►
DISVOL	▲▼
TEMP F	
TEMP C	
CALTKT	print cal report
SETUP	setup menu
EXIT	delivery mode

Delivery Menu from the LT L414 Quick Command Reference

Delivery Menu

TOTAL	◄►
QOB	▲▼◄►
TIMOVR	▲▼
SHIFT	print shift report
USER	▲▼◄►
PRCODE	
DISVOL	▲▼
TEMP F	
TEMP C	
CALTKT	print cal report
SETUP	setup menu
EXIT	delivery mode

The Matrix includes a function on the DEBUG Tab to display the Calibration Report text – Matrix Build 648 or newer is required:



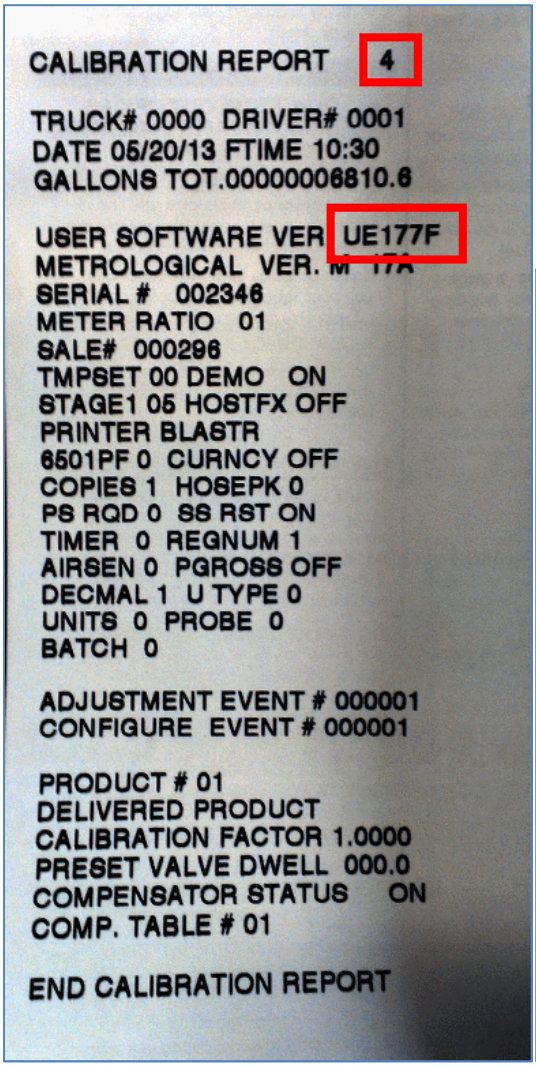
E:Count Firmware Version Numbers as of September 2014: E179E0, E179F0, E179S0

E	179	E	0
PRODUCT	**VERSION**	**LANGUAGE**	**COMPENSATION TABLE**
E = ECount	3-Digits	E=English	0 = All Tables 1-9
L = ECount LT		F=French	1 = Propane Only
		S=Spanish	2 = Fuel Oil/Diesel Only

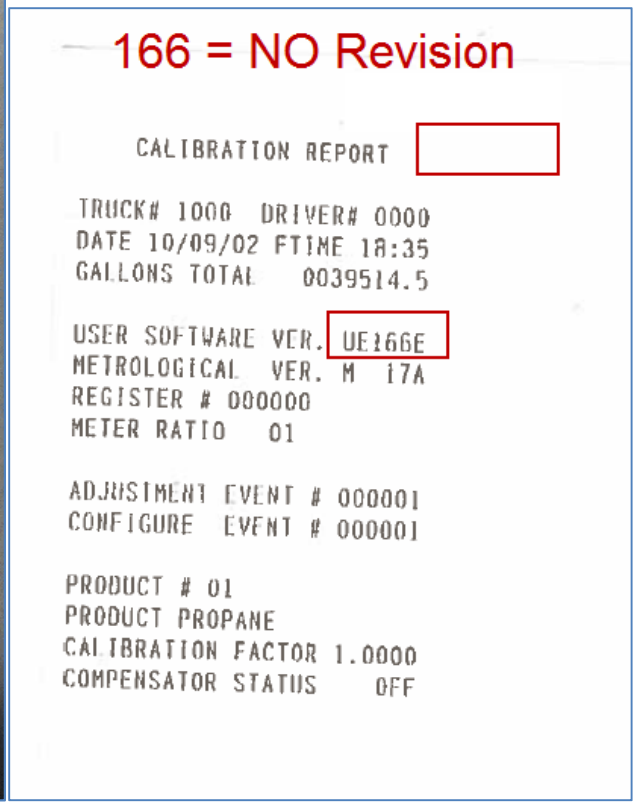
The COMPENSATION TABLE # may be other than 1-9 ... that means it is a custom version.

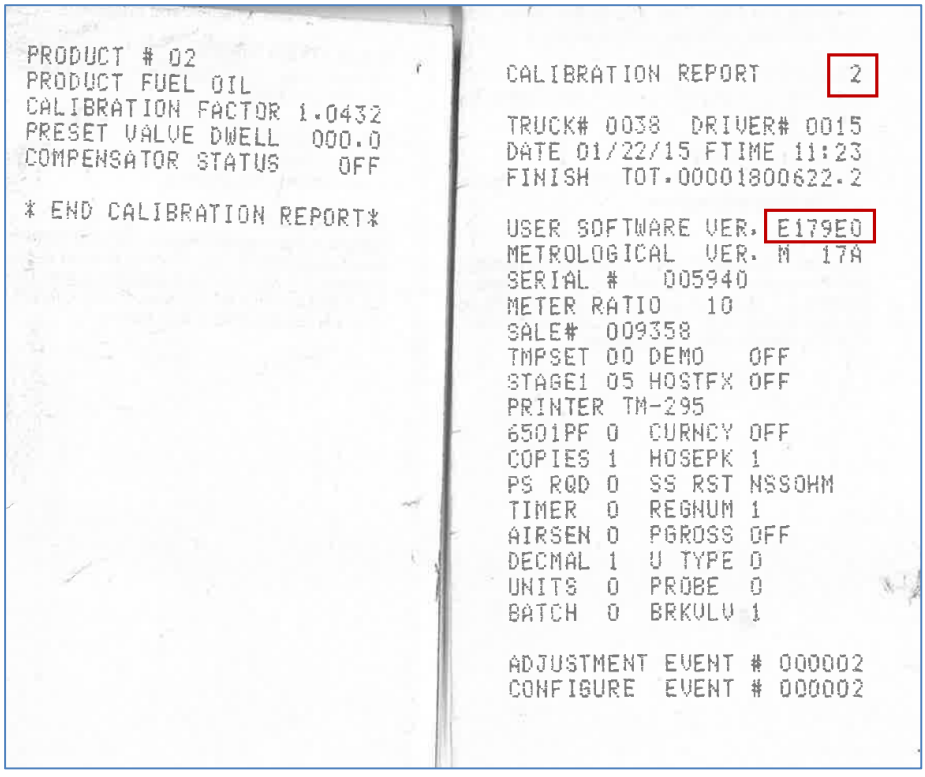
Versions used to look like this: E176F

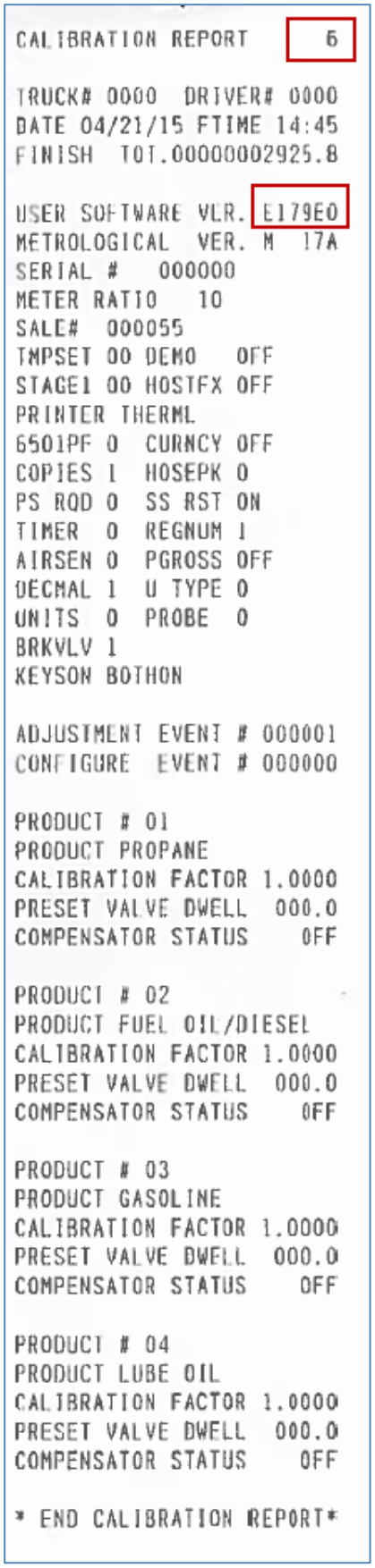
- E Ecount English (F176F = ECount French, S176F = ECount Spanish)
- 176 Version
- F Revision of Some Feature(s)



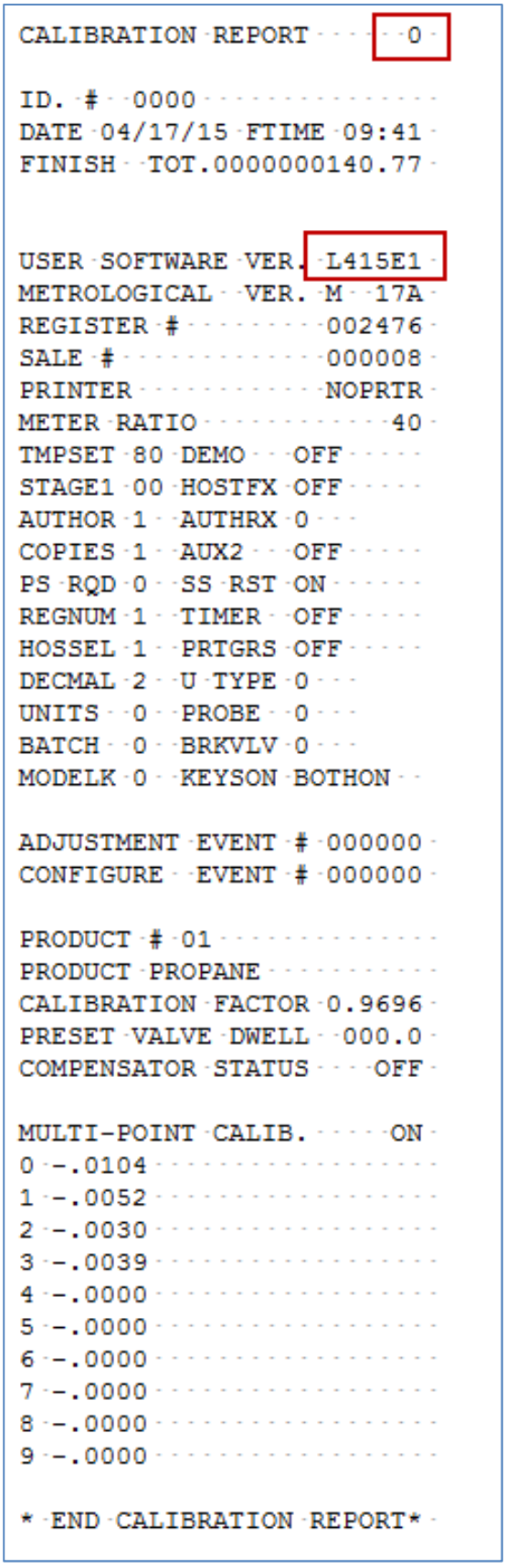
166 = NO Revision



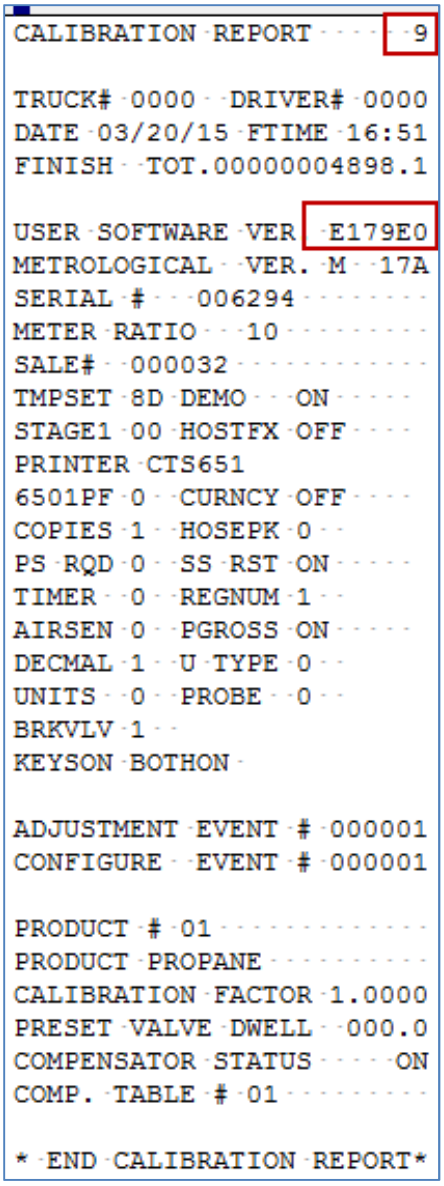




```
CALIBRATION REPORT      6

TRUCK# 0000  DRIVER# 0000
DATE 04/21/15 FTIME 14:45
FINISH  TOT.00000002925.8

USER SOFTWARE VER. E179E0
METROLOGICAL  VER. M  17A
SERIAL #   000000
METER RATIO   10
SALE#  000055
TMPSET 00 DEMO   OFF
STAGE1 00 HOSTFX OFF
PRINTER THERML
6501PF 0  CURNCY OFF
COPIES 1  HOSEPK 0
PS RQD 0  SS RST ON
TIMER  0  REGNUM 1
AIRSEN 0  PGROSS OFF
DECMAL 1  U TYPE 0
UNITS  0  PROBE  0
BRKVLV 1
KEYSON BOTHON

ADJUSTMENT EVENT # 000001
CONFIGURE  EVENT # 000000

PRODUCT # 01
PRODUCT PROPANE
CALIBRATION FACTOR 1.0000
PRESET VALVE DWELL  000.0
COMPENSATOR STATUS    OFF

PRODUCT # 02
PRODUCT FUEL OIL/DIESEL
CALIBRATION FACTOR 1.0000
PRESET VALVE DWELL  000.0
COMPENSATOR STATUS    OFF

PRODUCT # 03
PRODUCT GASOLINE
CALIBRATION FACTOR 1.0000
PRESET VALVE DWELL  000.0
COMPENSATOR STATUS    OFF

PRODUCT # 04
PRODUCT LUBE OIL
CALIBRATION FACTOR 1.0000
PRESET VALVE DWELL  000.0
COMPENSATOR STATUS    OFF

* END CALIBRATION REPORT*
```



```
CALIBRATION REPORT ····· 0

ID. # ··0000 ···············
DATE 04/17/15 FTIME 09:41
FINISH ··TOT.0000000140.77

USER SOFTWARE VER. L415E1
METROLOGICAL ··VER. M ··17A
REGISTER # ·····002476
SALE # ·····000008
PRINTER ·····NOPRTR
METER RATIO ·····40
TMPSET 80 DEMO ··OFF
STAGE1 00 HOSTFX OFF
AUTHOR 1 ··AUTHRX 0
COPIES 1 ··AUX2 ··OFF
PS RQD 0 ··SS RST ON
REGNUM 1 ··TIMER ··OFF
HOSSEL 1 ··PRTGRS OFF
DECMAL 2 ··U TYPE 0
UNITS ··0 ··PROBE ··0
BATCH ··0 ··BRKVLV 0
MODELK 0 ··KEYSON BOTHON

ADJUSTMENT EVENT # 000000
CONFIGURE ··EVENT # 000000

PRODUCT # 01 ···············
PRODUCT PROPANE ···········
CALIBRATION FACTOR 0.9696
PRESET VALVE DWELL ··000.0
COMPENSATOR STATUS ···OFF

MULTI-POINT CALIB. ····ON
0 -.0104 ··················
1 -.0052 ··················
2 -.0030 ··················
3 -.0039 ··················
4 -.0000 ··················
5 -.0000 ··················
6 -.0000 ··················
7 -.0000 ··················
8 -.0000 ··················
9 -.0000 ··················

* END CALIBRATION REPORT*
```



```
CALIBRATION REPORT ····· 9

TRUCK# 0000 ··DRIVER# 0000
DATE 03/20/15 FTIME 16:51
FINISH ··TOT.00000004898.1

USER SOFTWARE VER ··E179E0
METROLOGICAL ··VER. M ··17A
SERIAL # ···006294 ·····
METER RATIO ···10 ·····
SALE# ··000032 ·····
TMPSET 8D DEMO ···ON ····
STAGE1 00 HOSTFX OFF ····
PRINTER CTS651
6501PF 0 ··CURNCY OFF ····
COPIES 1 ··HOSEPK 0 ··
PS RQD 0 ··SS RST ON ····
TIMER ··0 ··REGNUM 1 ··
AIRSEN 0 ··PGROSS ON ····
DECMAL 1 ··U TYPE 0 ··
UNITS ··0 ··PROBE ··0 ··
BRKVLV 1 ··
KEYSON BOTHON

ADJUSTMENT EVENT # 000001
CONFIGURE ··EVENT # 000001

PRODUCT # 01 ···············
PRODUCT PROPANE ···········
CALIBRATION FACTOR 1.0000
PRESET VALVE DWELL ··000.0
COMPENSATOR STATUS ····ON
COMP. TABLE # 01 ·····

* END CALIBRATION REPORT*
```

PARSING SERIAL DATA FOR THE VERSION

SERIAL COMMUNICATIONS LOG

```
TX: 1 bytes
DEC: 086
HEX:  56
TXT:   V

TX: 1 bytes sent

RX: 17 bytes;   17 total
DEC: 086 069 049 055 057 069 072 048 054 049 049 050 051 048 048 048 124
HEX:  56  45  31  37  39  45  48  30  36  31  31  32  33  30  30  30  7C
TXT:   V   E   1   7   9   E   H   0   6   1   1   2   3   0   0   0   |
```

VIA MATRIX

```
0x1F 0x02
~V
VE179EH061123000|
E:Count version: E179EH  Datablock version: 06
E:Count Version Data =========
Software Version   :E179EH
Data Block Version :06
Register Number    :1
Register Serial #  :123000
0xFF
```

Parsing Serial Data for the Version using Host Commands

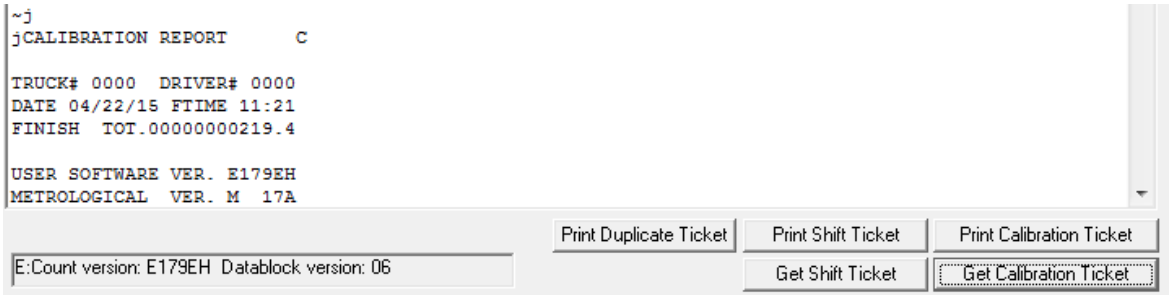
1. Send 0x1F 0x02 to connect Host to Register 1
2. Send the V, Wait for all 17 bytes of response
3. Send 0xFF
4. Parse the 6-byte version string from the response:
    a. E179EH
5. Drop the first non-numeric characters (can be 1 or 2)
6. Grab all of the next numeric characters,
7. Stop saving characters at the next non-numeric
8. Ignore everything else
    a. E176F would result in 176
    b. LT409B would result in 409
    c. E179E0 would result in 179

PARSING SERIAL DATA FOR THE REVISION

SERIAL COMMUNICATIONS LOG

```
TX: 1 bytes
DEC: 106
HEX:  6A
TXT:   j

TX: 1 bytes sent

RX: 25 bytes;   25 total
DEC: 106 067 065 076 073 066 082 065 084 073 079 078 032 082 069 080 079 082 084 032 032 032 032 032 032
HEX:  6A  43  41  4C  49  42  52  41  54  49  4F  4E  20  52  45  50  4F  52  54  20  20  20  20  20  20
TXT:   j   C   A   L   I   B   R   A   T   I   O   N       R   E   P   O   R   T

RX: 25 bytes;   50 total
DEC: 067 013 010 010 013 010 010 084 082 085 067 075 035 032 048 048 048 048 032 032 068 082 073 086 069
HEX:  43   D   A   A   D   A   A  54  52  55  43  4B  23  20  30  30  30  30  20  20  44  52  49  56  45
TXT:   C  **  **  **  **  **  **   T   R   U   C   K   #       0   0   0   0           D   R   I   V   E

.
.

RX: 25 bytes;   850 total
DEC: 010 010 013 010 010 042 032 069 078 068 032 067 065 076 073 066 082 065 084 073 079 078 032 082 069
HEX:   A   A   D   A   A  2A  20  45  4E  44  20  43  41  4C  49  42  52  41  54  49  4F  4E  20  52  45
TXT:  **  **  **  **  **   *       E   N   D       C   A   L   I   B   R   A   T   I   O   N       R   E

RX: 9 bytes;   859 total
DEC: 080 079 082 084 042 013 010 010 124
HEX:  50  4F  52  54  2A   D   A   A  7C
TXT:   P   O   R   T   *  **  **  **   |
```

VIA MATRIX



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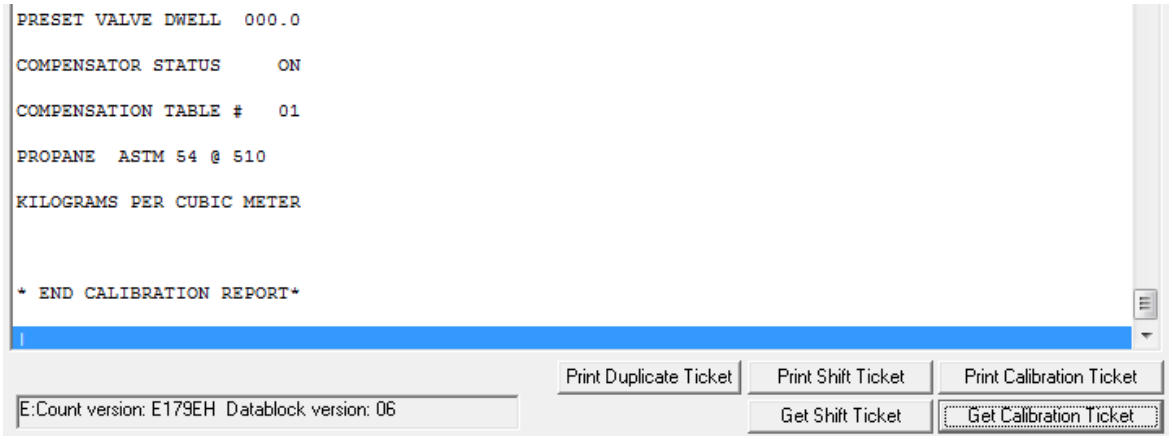

Parsing Serial Data for the Revision using Host Commands

The following assumes English

1. Send 0x1F 0x02 to connect Host to Register 1
2. Send the j, Wait for all data to be returned after the final pipe ("|")
3. Send 0xFF
4. Read the lines from the returned text looking for "CALIBRATION REPORT"
   a. The leading "j" is the echo of the command character
5. Look for the next non-space and non CR-LF character and save it
   a. Revision can be any single ASCII character 0-9, A-Z, a-z, etc...
6. If all of the bytes after the text and before the CR or LF are spaces that means the revision had not yet been implemented in this Version.
7. Ignore everything else
   a. "jCALIBRATION REPORT C" indicates Revision C
   b. "jCALIBRATION REPORT " indicates No Revision
   c. "jCALIBRATION REPORT 7" indicates Revision 7

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