



Service Manual

Service Tools

Table of Contents

1. IMPORTANT SAFETY INSTRUCTIONS	1
2. LIST OF ABBREVIATIONS AND ACRONYMS	3
3. SERVICE TOOLS USED BY SERVICE EMPLOYEES	5
3.1 All CPG Service Employees	5
3.2 RV/Portable Service Employees.....	5
3.3 Home Standby Service Employees	5
3.4 1 MW (Megawatt) or Smaller Commercial Genset Service Employees.....	6
3.5 1 MW (Megawatt) or Larger Commercial Genset Service Employees.....	6
3.6 ESB Service Employees.....	6
3.7 Marine Service Employees	6
3.8 Controls Service Employees.....	7
3.9 Networking Service Employees	7
3.10 Switchgear Service Employees	7
3.11 CGT Service Employees.....	8
3.12 Connect Series (Arrow) Service Employees.....	8
3.13 Rental Service Employees.....	9
4. SERVICE TOOLS	11
4.1 Administrator Rights for Employee Laptop	11
4.1.1 Description	11
4.1.2 Application.....	11
4.1.3 Hardware.....	11
4.1.4 Installation	11
4.2 Adobe Acrobat Professional	11
4.2.1 Description	11
4.2.2 Application.....	11
4.2.3 Hardware.....	11
4.2.4 Installation	12
4.3 Alchemy	12
4.3.1 Description	12
4.3.2 Application.....	12
4.3.3 Hardware.....	12
4.3.4 Installation	12
4.4 Alternatiff.....	12
4.4.1 Description	12
4.4.2 Application.....	13
4.4.3 Hardware.....	13
4.4.4 Installation	13
4.5 Ammeter	13
4.5.1 Description	13
4.5.2 Application.....	13

4.5.3 Hardware.....	13
4.5.4 Installation.....	13
4.6 A-Studio.....	13
4.6.1 Description.....	13
4.6.2 Application.....	14
4.6.3 Hardware.....	14
4.6.4 Installation.....	14
4.7 Bestcom DM110.....	15
4.7.1 Description.....	15
4.7.2 Application.....	15
4.7.3 Hardware.....	15
4.7.4 Installation.....	15
4.8 Bitronics BiView.....	15
4.8.1 Description.....	15
4.8.2 Application.....	15
4.8.3 Hardware.....	16
4.8.4 Installation.....	16
4.9 Brainbox Kit (RS232 to USB Converter).....	16
4.9.1 Description.....	16
4.9.2 Application.....	16
4.9.3 Hardware.....	16
4.9.4 Ordering.....	16
4.10 Calterm III.....	17
4.10.1 Description.....	17
4.10.2 Application.....	17
4.10.3 Hardware.....	17
4.10.4 Installation.....	17
4.11 Concept 2.5XL SR2.....	18
4.11.1 Description.....	18
4.11.2 Application.....	18
4.11.3 Hardware.....	18
4.11.4 Installation.....	19
4.12 Connect Series Crankshaft Sprocket Puller.....	19
4.12.1 Description.....	19
4.12.2 Application.....	19
4.12.3 Hardware.....	19
4.12.4 Installation.....	19
4.13 Connect Series End Yolk Holder.....	19
4.13.1 Description.....	19
4.13.2 Application.....	20
4.13.3 Hardware.....	20
4.13.4 Installation.....	20
4.14 Connect Series Handle.....	20
4.14.1 Description.....	20
4.14.2 Application.....	20
4.14.3 Hardware.....	20

4.14.4 Installation	20
4.15 Connect Series Pins	20
4.15.1 Description	20
4.15.2 Application.....	20
4.15.3 Hardware.....	20
4.15.4 Installation	20
4.16 Connect Series Sprocket Stopper	21
4.16.1 Description	21
4.16.2 Application.....	21
4.16.3 Hardware.....	21
4.16.4 Installation	21
4.17 Deif Utility Software R923	21
4.17.1 Description	21
4.17.2 Application.....	21
4.17.3 Hardware.....	21
4.17.4 Installation	21
4.18 DB9 Gender Changer	21
4.18.1 Description	21
4.18.2 Application.....	22
4.18.3 Hardware.....	22
4.18.4 Installation	22
4.19 Echelon LonMaker Turbo Edition SP 4	22
4.19.1 Description	22
4.19.2 Application.....	22
4.19.3 Hardware.....	22
4.19.4 Installation	23
4.20 Echelon LonScanner FX Professional	24
4.20.1 Description	24
4.20.2 Application.....	24
4.20.3 Hardware.....	24
4.20.4 Installation	24
4.21 Echelon U10 Adapter.....	25
4.21.1 Description	25
4.21.2 Application.....	25
4.21.3 Hardware.....	26
4.21.4 Installation	26
4.22 Engineering Tool	26
4.22.1 Description	26
4.22.2 Application.....	26
4.22.3 Hardware.....	27
4.22.4 Installation	27
4.23 ExpressCard Serial Adapter (RS232).....	27
4.23.1 Description	27
4.23.2 Application.....	27
4.23.3 Hardware.....	27
4.23.4 Acquisition.....	28

4.24 FactoryTalk View Studio 6.0	28
4.24.1 Description	28
4.24.2 Application.....	28
4.24.3 Hardware.....	28
4.24.4 Installation	28
4.25 Global Control Platform Display (GCP)	29
4.25.1 Description	29
4.25.2 Application.....	29
4.25.3 Hardware.....	29
4.25.4 Installation	30
4.26 Google Earth.....	30
4.26.1 Description	30
4.26.2 Application.....	30
4.26.3 Hardware.....	30
4.26.4 Installation	30
4.27 HyperTerminal and PuTTY	31
4.27.1 Description (Hyperterminal)	31
4.27.2 Description (PuTTY).....	31
4.27.3 Application.....	31
4.27.4 Hardware.....	31
4.27.5 Installation	31
4.28 I.Lon Smartsaver 2.0 Integration Tool License.....	32
4.28.1 Description	32
4.28.2 Application.....	32
4.28.3 Hardware.....	32
4.28.4 Installation	32
4.29 Indusoft Thin Client.....	33
4.29.1 Description	33
4.29.2 CPG Application.....	33
4.29.3 Hardware.....	33
4.29.4 Installation	33
4.30 INLINE 6 (5 or 4) Adapter	34
4.30.1 Description	34
4.30.2 Application.....	34
4.30.3 Hardware.....	34
4.30.4 Installation	35
4.31 InPower Service Tool (All Types)	35
4.31.1 Description	35
4.31.2 Application.....	35
4.31.3 Hardware.....	36
4.31.4 Installation	36
4.32 InPower AMMPS Suite	36
4.32.1 Description	36
4.32.2 Application.....	37
4.32.3 Hardware.....	37
4.32.4 Installation	37

4.33 InPower ATS	37
4.33.1 Description	37
4.33.2 Application.....	38
4.33.3 Hardware.....	38
4.33.4 Installation	39
4.34 InPower GOEM.....	39
4.34.1 Description	39
4.34.2 Application.....	39
4.34.3 Hardware.....	39
4.34.4 Installation	40
4.35 InPower Lite	40
4.35.1 Description	40
4.35.2 Application.....	41
4.35.3 Hardware.....	41
4.35.4 Installation	41
4.36 InPower Onan	42
4.36.1 Description	42
4.36.2 Application.....	42
4.36.3 Hardware.....	42
4.36.4 Installation	42
4.37 InPower Pro	43
4.37.1 Description	43
4.37.2 Application.....	43
4.37.3 Hardware.....	43
4.37.4 Installation	44
4.38 INSITE Service Tool	44
4.38.1 Description	44
4.38.2 Application.....	45
4.38.3 Hardware.....	45
4.38.4 Installation	45
4.39 Java Runtime Environment.....	46
4.39.1 Description	46
4.39.2 Application.....	46
4.39.3 Hardware.....	46
4.39.4 Installation	46
4.40 John Deere Machine Interface Kit SA1001	47
4.40.1 Description	47
4.40.2 Application.....	47
4.40.3 Hardware.....	47
4.40.4 Installation	48
4.41 John Deere Service Advisor	48
4.41.1 Description	48
4.41.2 Application.....	48
4.41.3 Hardware.....	48
4.41.4 Installation	48
4.42 Lantronix Device Installer.....	49

4.42.1 Description	49
4.42.2 Application.....	49
4.42.3 Hardware.....	49
4.42.4 Installation	49
4.43 Logworks Software Service Tool	50
4.43.1 Description	50
4.43.2 Application.....	50
4.43.3 Hardware.....	51
4.43.4 Installation	51
4.44 Lonpoint Software	51
4.44.1 Description	51
4.44.2 Application.....	51
4.44.3 Hardware.....	51
4.44.4 Installation	52
4.45 L-Series Software Service Tool	52
4.45.1 Description	52
4.45.2 Application.....	52
4.45.3 Hardware.....	52
4.45.4 Installation	53
4.46 Mapics XA-Mexico (Factory Use Only).....	53
4.46.1 Description	53
4.46.2 Application.....	53
4.46.3 Hardware.....	53
4.46.4 Installation	53
4.47 Mapics XA-UK (Factory Use Only)	54
4.47.1 Description	54
4.47.2 Application.....	54
4.47.3 Hardware.....	54
4.47.4 Installation	54
4.48 Megger (Insulation Test Meter).....	54
4.48.1 Description	54
4.48.2 Application.....	54
4.48.3 Hardware.....	54
4.48.4 Installation	54
4.49 Microsoft Office Professional	55
4.49.1 Description	55
4.49.2 Application.....	55
4.49.3 Hardware.....	55
4.49.4 Installation	55
4.50 Microsoft Project	55
4.50.1 Description	55
4.50.2 Application.....	55
4.50.3 Hardware.....	55
4.50.4 Installation	56
4.51 Modscan32 Service Tool	56
4.51.1 Description	56

4.51.2 Application.....	56
4.51.3 Hardware.....	56
4.51.4 Installation.....	56
4.52 Modsoft.....	57
4.52.1 Description.....	57
4.52.2 Application.....	57
4.52.3 Hardware.....	57
4.52.4 Installation.....	57
4.53 Norton Ghost Product.....	58
4.53.1 Description.....	58
4.53.2 Application.....	58
4.53.3 Hardware.....	58
4.53.4 Installation.....	59
4.54 Null Modem DB9 Cable (DB9F-DB9M).....	59
4.54.1 Description.....	59
4.54.2 Application.....	59
4.54.3 Hardware.....	60
4.54.4 Ordering.....	60
4.55 Oracle Business Intelligence (OBIEE).....	60
4.55.1 Description.....	60
4.55.2 Application.....	60
4.55.3 Hardware.....	60
4.55.4 Installation.....	60
4.56 Oracle E-Business.....	60
4.56.1 Description.....	60
4.56.2 Application.....	60
4.56.3 Hardware.....	61
4.56.4 Installation.....	61
4.57 PGBU and EBU Matrix Applications (Factory Use Only).....	61
4.57.1 Description.....	61
4.57.2 Application.....	61
4.57.3 Hardware.....	61
4.57.4 Installation.....	61
4.58 PCAN Adapter.....	66
4.58.1 Description.....	66
4.58.2 Application.....	66
4.58.3 Hardware.....	66
4.58.4 Installation.....	66
4.59 PCAN Explorer.....	67
4.59.1 Description.....	67
4.59.2 Application.....	67
4.59.3 Hardware.....	67
4.59.4 Installation.....	67
4.60 Phase Rotation Meter.....	67
4.60.1 Description.....	67
4.60.2 Application.....	68

4.60.3 Hardware.....	68
4.60.4 Installation.....	68
4.61 PowerSuite Service Tool.....	68
4.61.1 Description.....	68
4.61.2 Application.....	68
4.61.3 Hardware.....	68
4.61.4 Installation.....	68
4.62 PSI Display.....	69
4.62.1 Description.....	69
4.62.2 Application.....	69
4.62.3 Hardware.....	69
4.62.4 Installation.....	69
4.63 QUEST for Gas.....	70
4.63.1 Description.....	70
4.63.2 Application.....	70
4.63.3 Hardware.....	70
4.63.4 Installation.....	70
4.64 RS232-to-RS485 Converter.....	70
4.64.1 Description.....	70
4.64.2 Application.....	71
4.64.3 Hardware.....	71
4.64.4 Installation.....	71
4.65 RSLinx Classic.....	71
4.65.1 Description.....	71
4.65.2 Application.....	71
4.65.3 Hardware.....	72
4.65.4 Installation.....	72
4.66 RSLogix Micro Software.....	72
4.66.1 Description.....	72
4.66.2 Application.....	72
4.66.3 Hardware.....	73
4.66.4 Installation.....	73
4.67 Straight thru DB9 Serial Cable.....	73
4.67.1 Description.....	73
4.67.2 Application.....	74
4.67.3 Hardware.....	74
4.67.4 Ordering.....	74
4.68 SEL-5030 acSELerator QuickSet.....	74
4.68.1 Description.....	74
4.68.2 Application.....	74
4.68.3 Hardware.....	74
4.68.4 Installation.....	74
4.69 SEL Compass.....	75
4.69.1 Description.....	75
4.69.2 Application.....	75
4.69.3 Hardware.....	75

4.69.4 Installation	75
4.70 Siebel HTIM High Interactivity Framework (TSR).....	75
4.70.1 Description	75
4.70.2 CPG Application.....	75
4.70.3 Hardware and Software	75
4.70.4 Installation	76
4.71 Tachometer or Frequency Meter	76
4.71.1 Description	76
4.71.2 Application.....	76
4.71.3 Hardware.....	76
4.71.4 Installation	76
4.72 TSR.....	76
4.72.1 Description	76
4.72.2 Application.....	77
4.72.3 Hardware.....	77
4.72.4 Installation	77
4.73 WinZip.....	77
4.73.1 Description	77
4.73.2 Application.....	78
4.73.3 Hardware.....	78
4.73.4 Installation	78
4.74 Woodward L-Series Software	78
4.74.1 Description	78
4.74.2 Application.....	78
4.74.3 Hardware.....	78
4.74.4 Installation	78
4.75 4G Display	79
4.75.1 Description	79
4.75.2 Application.....	79
4.75.3 Hardware.....	79
4.75.4 Installation	80

This page is intentionally blank.

1 Important Safety Instructions

Save these instructions.

This manual contains important information and/or instructions for installing service tool software. Improper installation can result in equipment or system problems.

Personnel engaged in the maintenance of equipment must be competent and experienced, and comply with all federal and local relevant and current statutory requirements and regulations.

Read and follow all safety precautions listed in the other manuals related to the equipment. Many accidents result from failure to observe fundamental safety rules and precautions.

This page is intentionally blank.

2 List of Abbreviations and Acronyms

TABLE 1. ABBREVIATION AND ACRONYM DEFINITIONS

Abbreviation or Acronym	Definition
CPG	Cummins Power Generation
ECM	Engine Control Module
EDIS	Engine Display Interface Software
FIFOS	First-in, First-out Sequencing
GCP	Global Control Platform
MTS	Modular Tuning System
PC	Personal Computer
PSI	Power Solutions Incorporated
QSOL	QuickServe Online
USB	Universal Serial Bus

This page is intentionally blank.

3 Service Tools Used By Service Employees

3.1 All CPG Service Employees

Adobe Acrobat Professional ([Section 4.2 on page 11](#))

Brainbox Kit (RS232 to USB Adapter) ([Section 4.9 on page 16](#))

ExpressCard Serial Adapter (RS232) ([Section 4.23 on page 27](#))

GCP Display ([Section 4.25 on page 29](#))

InPower Service Tool ([Section 4.31 on page 35](#))

- InPower AMMPS ([Section 4.32 on page 36](#))
- InPower ATS ([Section 4.33 on page 37](#))
- InPower GOEM ([Section 4.34 on page 39](#))
- Inpower Lite ([Section 4.35 on page 40](#))
- InPower Onan ([Section 4.36 on page 42](#))
- InPower Pro ([Section 4.37 on page 43](#))

Insite ([Section 4.38 on page 44](#))

Microsoft Office Professional ([Section 4.49 on page 55](#))

Microsoft Project (project management only) ([Section 4.50 on page 55](#))

Logworks ([Section 4.43 on page 50](#))

PowerSuite Service Tool ([Section 4.61 on page 68](#))

PGBU and EBU Matrix Applications (Factory use only) ([Section 4.57 on page 61](#))

RS232 to RS485 Converter ([Section 4.64 on page 70](#))

TSR (DBU, DFSE and Factory SE only) ([Section 4.72 on page 76](#))

WinZip ([Section 4.73 on page 77](#))

3.2 RV/Portable Service Employees

Brainbox Kit (RS232 to USB Adapter) ([Section 4.9 on page 16](#))

ExpressCard Serial Adapter (RS232) ([Section 4.23 on page 27](#))

InPower Onan ([Section 4.36 on page 42](#))

InPower Pro ([Section 4.37 on page 43](#))

RS232 to RS485 Converter ([Section 4.64 on page 70](#))

3.3 Home Standby Service Employees

Brainbox Kit (RS232 to USB Adapter) ([Section 4.9 on page 16](#))

ExpressCard Serial Adapter (RS232) ([Section 4.23 on page 27](#))

InPower Pro ([Section 4.37 on page 43](#))

RS232 to RS485 converter ([Section 4.64 on page 70](#))

3.4 1 MW (Megawatt) or Smaller Commercial Genset Service Employees

Brainbox Kit (RS232 to USB Adapter) ([Section 4.9 on page 16](#))

ExpressCard Serial Adapter (RS232) ([Section 4.23 on page 27](#))

GCP Display ([Section 4.25 on page 29](#))

InPower Pro ([Section 4.37 on page 43](#))

PSI Display Tool ([Section 4.62 on page 69](#))

RS232 to RS485 Converter ([Section 4.64 on page 70](#))

Woodward L-Series Software ([Section 4.74 on page 78](#))

3.5 1 MW (Megawatt) or Larger Commercial Genset Service Employees

Brainbox Kit (RS232 to USB Adapter) ([Section 4.9 on page 16](#))

ExpressCard Serial Adapter (RS232) ([Section 4.23 on page 27](#))

Inline 6 (5 OR 4) Adapter ([Section 4.30 on page 34](#))

InPower Pro ([Section 4.37 on page 43](#))

Insite Service Tool ([Section 4.38 on page 44](#))

RS232 to RS485 Converter ([Section 4.64 on page 70](#))

3.6 ESB Service Employees

Brainbox Kit (RS232 to USB Adapter) ([Section 4.9 on page 16](#))

ExpressCard Serial Adapter (RS232) ([Section 4.23 on page 27](#))

InPower Pro ([Section 4.37 on page 43](#))

QUEST for Gas ([Section 4.63 on page 70](#))

RS232 to RS485 Converter ([Section 4.64 on page 70](#))

3.7 Marine Service Employees

Brainbox Kit (RS232 to USB Adapter) ([Section 4.9 on page 16](#))

ExpressCard Serial Adapter (RS232) ([Section 4.23 on page 27](#))

InPower Pro ([Section 4.37 on page 43](#))

John Deere Machine Interface Kit SA1001 ([Section 4.40 on page 47](#))

John Deere Service Advisor ([Section 4.41 on page 48](#))

RS232 to RS485 Converter ([Section 4.64 on page 70](#))

3.8 Controls Service Employees

Administrator Rights for Employee Laptop ([Section 4.1 on page 11](#))
Brainbox Kit (RS232 to USB Adapter) ([Section 4.9 on page 16](#))
Calterm III ([Section 4.10 on page 17](#))
DB9 Gender Changer ([Section 4.18 on page 21](#))
Engineering Tool ([Section 4.22 on page 26](#))
ExpressCard Serial Adapter (RS232) ([Section 4.23 on page 27](#))
Inline 6 (5 OR 4) Adapter ([Section 4.30 on page 34](#))
InPower Pro ([Section 4.37 on page 43](#))
Insite Service Tool ([Section 4.38 on page 44](#))
Modscan32 Service Tool ([Section 4.51 on page 56](#))
PCAN Adapter ([Section 4.58 on page 66](#))
PCAN Explorer ([Section 4.59 on page 67](#))
RS232 to RS485 Converter ([Section 4.64 on page 70](#))
Straight-Thru DB9 Adapter ([Section 4.67 on page 73](#))

3.9 Networking Service Employees

Administrator Rights for Employee Laptop ([Section 4.1 on page 11](#))
Brainbox Kit (RS232 to USB Adapter) ([Section 4.9 on page 16](#))
DB9 Gender Changer ([Section 4.18 on page 21](#))
Echelon LonMaker Turbo SP 4 ([Section 4.19 on page 22](#))
Echelon LonScanner FX Protocol Analyzer ([Section 4.20 on page 24](#))
Echelon U10 Adapter ([Section 4.21 on page 25](#))
ExpressCard Serial Adapter (RS232) ([Section 4.23 on page 27](#))
Hyperterminal and Putty for Windows ([Section 4.27 on page 31](#))
I.Lon Smartserver 2.0 Integration Tool License ([Section 4.28 on page 32](#))
Lantronix Device Installer ([Section 4.42 on page 49](#))
Lonpoint Software ([Section 4.44 on page 51](#))
Modscan32 Service Tool ([Section 4.51 on page 56](#))
Null Modem DB9 Cable or Adapter ([Section 4.54 on page 59](#))
RS232 to RS485 Converter ([Section 4.64 on page 70](#))
Straight-Thru DB9 Adapter ([Section 4.67 on page 73](#))

3.10 Switchgear Service Employees

Administrator Rights for Employee Laptop ([Section 4.1 on page 11](#))
A-Studio ([Section 4.6 on page 13](#))

Bitronics BiView ([Section 4.8 on page 15](#))
Concept 2.5XL SR2 ([Section 4.11 on page 18](#))
DB9 Gender Changer ([Section 4.18 on page 21](#))
ExpressCard Serial Adapter (RS232) ([Section 4.23 on page 27](#))
Factorytalk View Studio 6.0 ([Section 4.24 on page 28](#))
Lantronix Device Installer ([Section 4.42 on page 49](#))
Modscan32 Service Tool ([Section 4.51 on page 56](#))
Modsoft ([Section 4.52 on page 57](#))
Norton Ghost Product ([Section 4.53 on page 58](#))
Null Modem DB9 Cable or Adapter ([Section 4.54 on page 59](#))
RS232 to RS485 Converter ([Section 4.64 on page 70](#))
RS Logix Micro ([Section 4.66 on page 72](#))
RS Linx Classic ([Section 4.65 on page 71](#))
SEL-5030 acSELerator Quickset ([Section 4.68 on page 74](#))
SEL Compass ([Section 4.69 on page 75](#))
Straight-Thru DB9 Adapter ([Section 4.67 on page 73](#))

3.11 CGT Service Employees

Alchemy ([Section 4.3 on page 12](#))
Alternatiff ([Section 4.4 on page 12](#))
Ammeter ([Section 4.5 on page 13](#))
Bestcom DM110 ([Section 4.7 on page 15](#))
Google Earth ([Section 4.26 on page 30](#))
Java Runtime Environment ([Section 4.39 on page 46](#))
Mapics XA – Mexico (Factory use only) ([Section 4.46 on page 53](#))
Mapics XA – UK (Factory use only) ([Section 4.47 on page 54](#))
Megger (Insulation Test Meter) ([Section 4.48 on page 54](#))
Oracle Business Intelligence (OBIEE) ([Section 4.55 on page 60](#))
Oracle E-Business ([Section 4.56 on page 60](#))
Phase Rotation Meter ([Section 4.60 on page 67](#))
Tachometer or Frequency Meter ([Section 4.71 on page 76](#))

3.12 Connect Series (Arrow) Service Employees

Brainbox Kit (RS232 to USB Adapter) ([Section 4.9 on page 16](#))
ExpressCard Serial Adapter (RS232) ([Section 4.23 on page 27](#))
InPower Pro ([Section 4.37 on page 43](#))
Crankshaft Sprocket Puller ([Section 4.12 on page 19](#))

End Yoke Holder ([Section 4.13 on page 19](#))

Handle ([Section 4.14 on page 20](#))

Pins ([Section 4.15 on page 20](#))

Sprocket Stopper ([Section 4.16 on page 21](#))

3.13 Rental Service Employees

Brainbox Kit (RS232 to USB Adapter) ([Section 4.9 on page 16](#))

RS232 to RS485 Converter ([Section 4.64 on page 70](#))

InPower Pro ([Section 4.37 on page 43](#))

Engineering Tool ([Section 4.22 on page 26](#))

Inline 6 (5 OR 4) Adapter ([Section 4.30 on page 34](#))

Insite Service Tool ([Section 4.38 on page 44](#))

Megger (Insulation Test Meter) ([Section 4.48 on page 54](#))

This page is intentionally blank.

4 Service Tools

4.1 Administrator Rights for Employee Laptop

4.1.1 Description

During troubleshooting, software that is not offered on the software shelf is sometimes required. To install the unapproved software, Administration Rights on a personal PC are needed. These rights are sometimes referred to as 'D-Accounts'.

4.1.2 Application

Administration Rights are needed to install software that is not offered from Cummins Software Shelf.

4.1.3 Hardware

Use the following hardware.

Personal Computer (Laptop / Desktop)

4.1.4 Installation

As a CPG employee

- Contact Jeremy Haug or IT Leader or Engineering IT Manager for Local Admin Rights Form
- Complete provided form with approval from your manager
- Return form to Jeremy Haug or IT Leader or Engineering IT Manager

Others

- Contact local IT Manager for Admin Rights and Policies

The software/hardware compatibilities include the following:

- Upon receiving Admin Rights, software can be installed on your computer within the policy outlined in the Policy for Local Admin Rights.

4.2 Adobe Acrobat Professional

4.2.1 Description

Adobe Acrobat Professional is an application software and web service developed by Adobe Systems to view, create, manipulate, print and manage files in Portable Document Format (PDF).

4.2.2 Application

Cummins Inc. uses Adobe Acrobat Professional to build and edit PDF forms for use in various different publications and documents, as well as convert PDFs for use with PowerPoint presentations.

4.2.3 Hardware

N/A

4.2.4 Installation

Adobe Acrobat Professional can be acquired in the following manners:

For employees with access to the Cummins intranet, Adobe Acrobat Professional can be downloaded from the Cummins Software Shelf:

- Keyword: "Acrobat"
- Software version: 11
- Language: Select appropriate language.

The software will automatically install once it has been approved.

For employees that don't have access to the Cummins intranet, Adobe Acrobat can be downloaded from the Vendor's website at the following location:

<http://www.adobe.com/products/acrobatpro.html>

Once purchased, the website will assist you in installing Adobe Acrobat Professional onto your PC.

4.3 Alchemy

4.3.1 Description

Alchemy Search allows a digital search of documentation that was originally in a paper format.

4.3.2 Application

Alchemy Search is used to locate order sheets for generators built prior to 2000.

4.3.3 Hardware

N/A

4.3.4 Installation

Alchemy can only be acquired in the following manner

Cummins software shelf:

- Keyword: "Alchemy"
- Software version: 8.3

The software will automatically install once it has been approved.

4.4 Alternatiff

4.4.1 Description

Alternatiff is a web browser add-on (ActiveX control or plug-in) that displays most of the common types of TIFF (.tif) image files.

4.4.2 Application

Alternatiff is a web browser add-on (ActiveX control or plug-in) that displays most of the common types of TIFF (.tif) image files.

4.4.3 Hardware

N/A

4.4.4 Installation

To obtain Alternatiff, logon to the Cummins Software Shelf.

- Keyword: "Alternatiff"
- Software version: 2.06

The software will automatically install once it has been approved

4.5 Ammeter

4.5.1 Description

The clip-on-ammeter is a tool used to measure the amperage (current) present in a power source. The ammeter clips around each phase of the power source and measures the current present for that phase.

4.5.2 Application

The ammeter is used to measure the amperage present in the phases of a customer's supplies of power (either their utility or their generator-supplied power source).

4.5.3 Hardware

N/A

4.5.4 Installation

N/A

4.6 A-Studio

4.6.1 Description

Advantech Studio TM (or A-Studio) is a powerful, integrated tool that exploits key features of Microsoft® Windows® NT/2000/XP and Windows® CE and enables you to build full-featured SCADA (Supervisory Control And Data Acquisition) or HMI (Human-Machine Interface) applications for Industrial Automation business.

A-Studio applications consist of animated operator-interface screens, drivers (configurable for PLCs or other I/O devices to be controlled), a database of application tags, and optional modules such as alarm monitors, logic, trend charts, recipes, schedulers, and a security system. A-Studio applications interface with industrial I/O systems and other Windows applications in the run-time environment using ODBC, DDE, NetDDE, OPC, or TCP/IP protocols.

4.6.2 Application

A-Studio software is used by CPG to program Advantech Touch Panel Computers models TPC-1560 and TPC-1570 which are found on Digital Master Controls (DMC), Series PCIL and PCUL, manufactured since 2004.

4.6.3 Hardware

Use the following hardware.

Ethernet cable, should be minimum twisted pair CAT V cable with RJ45 connectors. Recommended CPG P/N is 0335-0198-02 (A000Y479).

For the previous HMI version (like TPC-1560) you might need an Ethernet crossover cable.

4.6.4 Installation

A-Studio version 6.0 SP1 64K tag development license is available in software shelf.

Also, you can order A-Studio version 6.0 SP1 from:

Automation, Inc.

Henry O'Donnell

Email: hodonnell@automationinc.com

Phone: +1-763-231-4315

Part Number to Order Advantech 6.0 SP1 64K tag development license is:

XAUT75-CM-64520-DE (This is the one used for all Cummins applications)

The system requirements for A-Studio 6.0 are:

- IBM-compatible computer with an Intel® Pentium IV-compatible processor or higher
- Windows 2000/XP/2003 server operating system
- Windows NT/2000/XP or Windows CE v3.00 operating system for runtime
- Minimum of 256MB random-access memory (RAM) (512GB or higher recommended)
- MS Internet Explorer 6.0 or higher
- Minimum of 500MB free hard disk space to install the product and the application (the history files/databases will demand additional disk space)
- Ethernet adapter
- 100% IBM-compatible VGA or SVGA display adapter with 64MB Video RAM (VRAM) or higher
- Microsoft-compatible pointing device (such as a mouse, trackball, or touch-screen)
- Standard keyboard with function keys **F1** through **F12**
- CD-ROM drive (*optional*)
- 3.5-inch floppy drive (*optional*)
- Parallel printer port (*optional*)
- USB port (*optional*)
- Serial COM ports and adapters (*optional*)

4.7 Bestcom DM110

4.7.1 Description

BESTCOM DM110 is used to program the DM110 voltage regulator manufactured by Basler.

4.7.2 Application

CPG uses BESTCOM DM110 to program the DM110 voltage regulators that are used in select Stamford and AVK generators.

4.7.3 Hardware

- DM110 Voltage Regulator
- RS – 232 Cable
- Brainbox

4.7.4 Installation

Bestcom can be acquired in the following manner:

For employees with access to the Cummins intranet, Bestcom DM110 can be downloaded from the Cummins Software Shelf:

- Keyword: “DM110”
- Software version: 1.05.00

The software will automatically install once it has been approved.

Bestcom’s minimum computer requirements:

- IBM compatible PC, 486DX2 or faster
- Windows 2000, XP or Vista
- CD-ROM Drive (internal or external)
- Serial Port or conversion to serial interface

4.8 Bitronics BiView

4.8.1 Description

Bitronics BiView is a Windows® based software program which displays the register contents of 70 Series IEDs when legacy or fixed register sets are selected. This gives a live data view from the instrument. BiView can be used to transfer record files and allows some remote configuration and reset of the devices. It supports Telnet, FTP, Modbus, Modbus Plus, and DNP3 protocols, can access multiple instruments connected to the same port, and is free with the purchase of any 70 Series IED.

4.8.2 Application

Cummins Inc. uses Bitronics BiView to perform the initial configuration on the Bitronics M572 transducers used in some of our switchgear products. The initial configuration is performed via the Ethernet connections on the transducer.

4.8.3 Hardware

Bitronix BiView is used in conjunction with an Ethernet cable to perform calibration via an engineer or technician's laptop.

4.8.4 Installation

Follow the instructions below to obtain Bitronics BiView.

We acquire this tool and support for this tool directly from the vendor for this product, NovaTech Bitronics Instruments.

The vendor's website is below:

<http://www.novatechweb.com/utility/bitronics-electric-power-measurement-recording-products/>

The vendor operates a specific FTP site to provide us with the BiView Software:

<ftp://support.novatechps.com/bitronics>

You'll need to log in to use the FTP site. The username and password are as follows:

Username: its2\Bitronics.support

Password: b@7PaBth

The specific software we need can be found in the following folder on the FTP site:

70 Series Utility Software/ Install_Uilities_v3_08B.exe

4.9 Brainbox Kit (RS232 to USB Converter)

4.9.1 Description

USB to Serial adapter provides one RS232 serial port. Data transfer rates up to 921,600 baud rates and the 128 byte deep transmit and 256 byte receive first-in, first-out, sequencing (FIFOS), coupled with 1Mbit line drivers deliver uncompromising performance on your laptop/PC. Drivers for Windows 32 bit and 64 bit Operating Systems including Windows XP, Server 2003, Vista, Server 2008, Windows 7 and Windows 8 with additional drivers for both Mac OS X and Linux.

4.9.2 Application

This is used for communication between CPG employee's laptops and CPG product control boards (to monitor and change programs via the InPower program).

4.9.3 Hardware

This is sometimes sold with USB extension cord. Typically used in conjunction with RS232-to-RS485 converter, Straight-Thru DB9 cable, and the 5-pin to DB9 cable

4.9.4 Ordering

The converter can either be ordered by CPG employees with access to the Cummins intranet at the following location:

My Cummins home page > Hardware Shelf > US Peripherals and Accessories > USB to Serial Adapter

The converter can be acquired by dealers and CPG employees without access to the Cummins at the following location:

<http://www.brainboxes.com/product/items/us-101>

4.10 Calterm III

4.10.1 Description

Calterm III is an engineering tool used during calibration development by VPI and CPS teams. It is an extended version of INSITE that allows for more functionality and data collection in the field by service engineers.

4.10.2 Application

Calterm is most often used by CPG service when working with G-drive products. This is typical with a G-drive engine sold to a generator set OEM where there is no Cummins PowerCommand Control. Calterm is used for fault identification and can be used to capture additional performance information that INSITE is not able to see.

Calterm includes the following functionality:

- Online capability (connected to an ECM)
 - Calibration Download and Upload
 - Data monitoring and logging
 - Executing commands/operations
 - Editing parameters
- Offline capability
 - Editing Parameters
 - Releasing calibrations to SPEED
 - Comparing calibrations

4.10.3 Hardware

- Cables/wires
- Inline 5 or 6 adapter

4.10.4 Installation

Calterm III can only be sourced through the Cummins Software Shelf.

- Keyword: Calterm
- Version 3.4 and higher

***Access to Calterm requires approval from engineering. The request form for Calterm III access is found at the following location:

<http://www.ctg.cummins.com:8005/display/Calterm/Calterm>

Minimum Requirements

The following describes the minimum and recommended requirements.

Requirement	Recommended	Minimum
Platform	IBM or 100% Compatible PC	Same
OS	Windows 7	Windows XP SP3
RAM	3 GB	1 GB Windows XP, 2 GB Windows Vista
Hard Drive	10 GB free	1 GB free
Microsoft .Net framework 4.0	Full version (includes extended and client profile)	Required for Calterm III v 3.5.2 and above

4.11 Concept 2.5XL SR2

4.11.1 Description

Concept is a software configuration and application programming tool established as an MS Windows application. Concept is the unified projection tool for Quantum, Compact, Momentum, Atrium and SoftPLC products. It uses familiar, standardized editors bundled in a single application to create and integrate PLC control, communication and diagnostic logic.

4.11.2 Application

Concept is used by CPG as a programming tool for the Quantum and Momentum PLCs commonly installed on Digital Master Controls (DMC), Series PCIL and PCUL, manufactured after 2004. This application is currently used on PS4 PCs via a Windows 7 virtual machine.

4.11.3 Hardware

You should connect to the PLC through Modbus Plus protocol. If a Quantum NOE Module is in place and the PLC Ethernet communication is working properly, then you can also connect to the PLC through Ethernet. The hardware needed is:

- For Modbus Plus Communication:
 - Modbus Plus / USB converter, Schneider P/N TSX C USB MBP
 - Modbus Plus Ruggedized Tap Programming Cable, Schneider P/N 990 NAD 218 10 (straight connector) or 990 NAD 211 10 (elbowed connector)

In addition you should have a DB9 – DB9 Serial Straight through cable handy.

- If Concept is installed on a legacy computer with slot for PCMCIA card, you need:
 - MB+ PCMCIA Type3 PNP Card, Schneider P/N 416NHM21234 (for Windows 95, 98, or NT; not supported for DOS or Windows 3.1)
 - Modbus Plus Ruggedized Tap Programming Cable, Schneider P/N 990 NAA 215 10

All accessories should be purchased through a Schneider dealer.

- For Ethernet Communication:
 - Ethernet cable, should be minimum twisted pair CAT V cable with RJ45 connectors. Recommended CPG P/N is 0335-0198-02 (A000Y479)

4.11.4 Installation

Concept 2.5XL SR2 is available in software shelf:

- Keyword: Concept
- Software Version: 2.5XL SR2 VF

Also, you can order Concept from:

Border States Electric - MPL, Phone: 1-763-425-5500

Contact person is: Mark Skinner, email: MSkinner@borderstates.com, Phone: 1-763-315-9462

The minimum system requirements for Concept 2.5XL SR2 are:

- x86-based personal computer (Pentium platform recommended)
- Win98, Win2000, or WinNT 4.0 Service Pack 3 or higher (Y2K compatibility requires SP5) Win95 is no longer qualified. Win3.1x is no longer supported.
- 24 MB application RAM (or higher)
- CD-Rom drive
- 150 MB hard disk space
- VGA graphics adapter and screen (minimum resolution: 800x600)
- Microsoft compatible mouse

Note: Concept 2.5 was released before Windows XP and was not certified for XP, but does run correctly under XP installation. Also, it is known that Concept 2.5 runs on Windows 7; however, you might need to research by yourself about installation and use since Schneider does not support this.

4.12 Connect Series Crankshaft Sprocket Puller

4.12.1 Description

The crankshaft sprocket puller is used to remove the crankshaft sprocket from the end of the crankshaft.

4.12.2 Application

Cummins uses this tool to remove the crankshaft sprocket from the end of the crankshaft.

4.12.3 Hardware

N/A

4.12.4 Installation

N/A

4.13 Connect Series End Yolk Holder

4.13.1 Description

The end yoke holder is used in conjunction with the pins to hold the camshaft sprocket in place while tightening/loosening the camshaft sprocket bolt.

4.13.2 Application

Cummins uses this tool to hold the camshaft sprocket in place while tightening/loosening the camshaft sprocket bolt.

4.13.3 Hardware

Used in the installation of camshaft sprocket pins, CPG P/N A044J065 (pins).

4.13.4 Installation

N/A

4.14 Connect Series Handle

4.14.1 Description

The handle is used in conjunction with the crankshaft rear oil seal installer to press-fit the rear engine oil seal in the rear oil seal case.

4.14.2 Application

Cummins uses this tool to press-fit the rear engine oil seal in the rear oil seal case.

4.14.3 Hardware

This tool is used in the installation of the rear oil seal, CPG P/N A044J303 (crankshaft rear oil seal installer).

4.14.4 Installation

N/A

4.15 Connect Series Pins

4.15.1 Description

The pins are used in conjunction with the end yoke holder to hold the camshaft sprocket in place while tightening/loosening the camshaft sprocket bolt.

4.15.2 Application

Cummins uses these pins to hold the camshaft sprocket in place while tightening/loosening the camshaft sprocket bolt.

4.15.3 Hardware

CPG P/N A044H741 (end yoke holder).

4.15.4 Installation

N/A

4.16 Connect Series Sprocket Stopper

4.16.1 Description

The sprocket stopper is used to hold the counterbalance shaft sprocket in place while tightening/loosening the counterbalance shaft sprocket bolt.

4.16.2 Application

Cummins uses this tool to hold the counterbalance shaft sprocket in place while tightening/loosening the counterbalance shaft sprocket bolt.

4.16.3 Hardware

N/A

4.16.4 Installation

N/A

4.17 Deif Utility Software R923

4.17.1 Description

Deif Utility Software R923_0 is used as a service data tool to configure/adjust the Deif AGC-4 controller used on Cummins Inc. ESB generator sets.

4.17.2 Application

Deif Utility Software R923_0 is used as a service tool on Cummins Inc. ESB generator sets using the Deif AGC-4 controllers.

4.17.3 Hardware

Use the following hardware:

Standard A-B USB cable

4.17.4 Installation

To obtain Deif Utility Software R923_0, use the following steps:

As a Cummins Inc. employee with access to the Cummins intranet order through Cummins Software Shelf.

4.18 DB9 Gender Changer

4.18.1 Description

The DB9 Gender Changer is an adapter that connects to one end of a DB9 cable. There are two types of this device. The first is a female-to-female DB9 gender changer. The second is a male-to-male gender changer.

4.18.2 Application

The DB9 Gender Changer is used to change a DB9 cable end from one “sex” to the opposite. If the DB9 cable end is a female plug, then the user would use a male-to-male DB9 Gender Changer to allow the user to plug the cable into a female port. If the cable end is a male plug, then the user would use a female-to-female DB9 Gender Changer to allow the user to plug the cable into a male port.

4.18.3 Hardware

The DB9 gender changer is used with cables that utilize the DB9 port configuration.

Example: Cummins Part # 4918418 (DB9M to DB9F 6FT Cable)

4.18.4 Installation

For Cummins Inc. employees, the DB9 Gender Changers can be sourced through the “Buy It Now” link on the MyCummins home page:

<http://mycummins.cummins.com/wps/portal/EmployeePortal/Home>

Users external to Cummins Inc. can source these DB9 Gender Changers through L-com at the link below:

<http://search.l-com.com/search?keywords=DB9+gender+changer>

4.19 Echelon LonMaker Turbo Edition SP 4

4.19.1 Description

The LonMaker Integration Tool, Turbo Editions SR4, is a software package for designing, installing, operating, and maintaining multi-vendor, open, interoperable LonWorks networks. Based on Echelon’s LNS network operating system, the LonMaker tool combines powerful client-server architecture and a user-friendly Microsoft Visio interface. The result is a tool that is sophisticated enough to design and commission a control network, yet economical enough to be left behind as an operations and maintenance tool. This tool is a LONWORKS® network tool that runs on the LNS® client/server network operating system and uses Microsoft Visio® (Professional or Standard 2003) as a graphical user interface.

4.19.2 Application

Cummins uses LonMaker Turbo to setup, commission and troubleshoot LonWorks compatible CPG network devices (PCNCM, PCATS, FT-10 Annunciator, DIM Module, iWatch 100 etc.)

Cummins FT-10 network is a LonWorks based peer to peer network. Each device has a Neuron ID, a Node ID and at least one Logical Functional Block. An application image exists for Each Device (NXE or APB) and an external interface file (XIF), which are found under Import Folder.

Detailed information on using LonMaker to design, create, install and maintain networks, using Plug-Ins, monitoring and controlling devices, and using LonMaker shapes and stencils is included in the Echelon LonMaker User’s guide that is available at Echelon’s home page (www.echelon.com), PowerCommand Network Installation and Operation Manual (900-0529B), as well as individual CPG LonWorks network devices.

4.19.3 Hardware

CPG devices that are physically connected to the LonWorks FT-10 Bus can be connected into LonWorks via two methods:

1. **Echelon FT-10 U-10 Network Interface USB Adapter:** The U10 and U20 USB network interfaces for PCs connect LNS®-enabled integration and development tools to LonWorks® networks.

2. **Remote Network Interfaces:** If the customer's FT-10 network consists of an iWatch 100, iLON 1000 or iLON 600, the network can be connected via the Remote Network Interface capability of these devices, provided the PC that has LonMaker tool and the RNI Device are in the same LAN Connection. Please refer LonMaker User Guide from www.echelon.com for more details.

4.19.4 Installation

LonMaker Turbo can be sourced in one of two ways:

1. As a Cummins Inc. employee with access to the Cummins intranet:
 - Keyword "LonMaker"
 - Version 3.2 SR4 with Visio 2010
2. As a dealer or Cummins Inc. employee without access to the Cummins intranet, contact the local IT staff to request them to coordinate the installation of the software from Echelon website (www.echelon.com) or Echelon store. Special instructions need to be followed in order for the software to work with CPG Products

Special Note for CPG Employees:

1. Please have a certified I.T. professional install or troubleshoot LonMaker software. Please make sure the entire LonMaker core and supporting files are installed under "D" drive to avoid problems. Cummins I.T. and engineering recommends LonMaker to be installed under D drive.
2. Also note that for this software to work correctly with CPG Applications, other supporting files need to be installed as well (Open LDV Drivers, Microsoft Visio 2010 and Cummins Plug-ins).
3. LonMaker Turbo requires 3 different Cummins support folders (including subfolders) inside the LonWorks main folder in order to work properly. The required folders are: **Import, LonMaker and Types**.

Operating System:

- Microsoft® Windows® 7 (64-bit or 32-bit), Windows Vista® (32-bit), Windows Server 2008 R2 (64-bit), Windows Server 2008 (32-bit), Windows Server 2003 (32-bit), or Windows XP

Minimum Hardware:

- Intel Pentium® III 500MHz processor
- 2GB RAM for Windows 7, Windows Vista, Windows Server 2008, or Windows Server 2003
- 512MB RAM for Windows XP
- CD-ROM or DVD-ROM drive
- 1,024 x 768 or higher-resolution display with at least 256 colors
- Mouse or other Windows compatible pointing device
- 2 GB free hard-disk space
- Compatible LNS or IP network interface

Maximum Limits per Network:

- Active LonMaker tools: 5
- Application devices: 32,385
- Application device types: 32,385
- Routers: 1000

4.20 Echelon LonScanner FX Professional

4.20.1 Description

The LonScanner FX Protocol Analyzer is an easy-to-use Windows tool that lets manufacturers, system integrators, and end users observe, analyze, and diagnose the behavior of LonWorks networks. It provides the advanced productivity features common in data network analyzers, adapted to the unique needs of control networks.

LonScanner FX simplifies network maintenance by collecting, time-stamping, and saving all network communications into log files that can be viewed and analyzed. Multiple logs and network interfaces can be active at the same time, making it easy to collect packets from multiple sources in a multichannel network, or from multiple networks.

4.20.2 Application

CPG Technicians and users will use LonScanner FX software to monitor and troubleshoot CPG FT-10 Network and devices commissioned in a network. It captures, analyzes, characterizes, and displays LON network packets in a simple format so users can pinpoint network or device faults and identify potential solutions. CPG Techs also use LonScanner:

- To monitor local or remote networks when using the iLON 100 (iWatch 100), or iLON 600 LonWorks/IP Server with other CPG FT-10 Network Devices (generator set or ATS NCM Cards, Digital I/O Modules, Annunciators etc.)
- To display network loading and error rate data in long-term trend graphs so techs can easily identify excessive network traffic or errors
- To save the packet log for future reference, comparison, troubleshooting and sending to the factory as a request for support along with the support request (TSR)

For full description and details, please refer to LonScanner FX Manual from www.echelon.com.

4.20.3 Hardware

CPG devices that are physically connected to the LonWorks FT-10 Bus can be monitored through LonScanner FX via two methods:

1. Echelon FT-10 U-10 Network Interface USB Adapter: The U10 and U20 USB network interfaces for PCs connect LNS®-enabled integration and development tools to LonWorks® networks.
2. Remote Network Interfaces: If the customer's FT-10 network consists of an iLON 100 (iWatch 100), iLON 1000 or iLON 600, the network can be connected via the Remote Network Interface capability of these devices, provided the PC that has LonScanner tool and the RNI Device are in the same LAN Connection. Please refer LonScanner and LonMaker User Guide from www.echelon.com for more details.

4.20.4 Installation

As a CPG Employee with access to the Cummins intranet, obtain LonScanner FX as follows:

1. Go to software shelf and login with your Cummins WWID and Password:
<http://cidcn20011.cidc.cummins.com/SwShelf.nsf/Home?OpenFrameset>
2. Fill up the requirement information in the form
3. Search for LonScanner
4. Select LONSCANNER FX box version 4.0
5. Add to card and submit

As a dealer or CPG Employee without access to the Cummins intranet, obtain LonScanner FX as follows:

- Contact the local IT staff to request them to coordinate the installation of the software from Echelon website (www.echelon.com) or Echelon store. Special instructions need to be followed in order for the software to work with CPG Products.

For IT Staff:

1. Call or email the Local Echelon office or distributor that is listed under Echelon website to request a purchase of Echelon LonMaker copy:

<http://www.echelon.com/support/contact.htm>

<http://www.echelon.com/company/contact/offices.htm>

2. Visit Echelon Online Store or contact the store

<http://store.echelon.com/lonscanner.asp>

Software Compatibilities:

- Operating System: Microsoft® Windows® 7 (64-bit or 32-bit), Windows Vista® (32-bit), Windows Server 2008 R2 (64-bit), or Windows Server 2008 (32-bit)
- Minimum Hardware
 - Intel Pentium® III 800MHz processor
 - 2GB RAM
 - CD-ROM or DVD-ROM drive
 - 1,024 x 768 or higher-resolution display with at least 256 colors
 - Mouse or other Windows compatible pointing device
 - 10 MB free hard-disk space
 - Compatible Open LDV, LNS, or IP network interface
- Network Interface (Open LDV, LNS, or IP compatible) including:
 - SmartServer, i.LON® 100 Internet Server, or i.LON 600 LonWorks/IP-852 Router
 - PCC-10 PC, PCLTA-20 or 21 PCI Card, or U10 or U20 USB Network Interface (Protocol Analyzer or standard version)
 - Card Network Interface

4.21 Echelon U10 Adapter

4.21.1 Description

The U10 USB network Interfaces are a low-cost, high-performance LonWorks interface connects to a TP/FT-10 Free Topology Twisted Pair (ANSI/CEA-709.3) LonWorks channel through a removable connector, and is fully compatible with link powered channels. The U10 interfaces are ideal for industrial control, building automation, process control, home automation, and transportation applications.

4.21.2 Application

This adapter is used to connect CPG FT10 network devices (example: PCC 2100 NCM, 3100 GCM, 3201 GLC) to commission, configure, and troubleshoot the devices in a configuration that can be used at CPG. Refer to Manual 'Power Command Network and Installation' 0900-0529

The adapter is used in conjunction with LonMaker or LonScanner software.

4.21.3 Hardware

- ECHELON TP/FT-10 USB connector
- Basic wire to connect unit Refer to Manual Power Command Network and Installation Manual 0900-0529 section 2
- USB cable

The hardware can be purchased at: <http://store.echelon.com/75010R.asp>

4.21.4 Installation

The Echelon U10 adapter can be acquired in three ways:

1. As a CPG factory employee, Contact Jeremy Haug via email with WWID, recipient name, location, computer name, mailing address and phone number.
2. As a CPG factory employee, Visit the Cummins Hardware Shelf under US Workstation Kit with Options.
3. As a CPG distributor or certified dealer, Hardware can be purchased at <http://store.echelon.com/75010R.asp>.

Software requirements:

- Operating system: Windows XP, 2000, and Server 2003 or later
- Refer to Echelon website for specific details.
- Refer to Echelon website for compatible applications.
- Used with LonMaker or LonScanner software.

4.22 Engineering Tool

4.22.1 Description

Engineering Tool is a Windows-based diagnostic tool. This tool is very similar to the InPower service tool, but Engineering Tool provides more functionality. Engineering Tool allows the user to view and/or change trims and settings that cannot be done using the InPower service tool. This tool provides electronic service functions including:

- Adjustments of trims and settings
- Saving of device trims and settings to a file for replication to similar systems
- Monitoring
- Strip Chart
- Data logging
- Fault viewing
- Report generation

4.22.2 Application

Engineering Tool is used to by factory Cummins personnel to change trims and settings that are normally not required to be changed by field technicians.

4.22.3 Hardware

Use the following hardware:

Brainbox (USB) or Brainbox Express Card:

<http://cidcn20011.cidc.cummins.com/CBS/Powersweep/HDSHelf.nsf/main?OpenFrameset>

- For Power Product applications:
 - 0541-1374 (kit - includes 0324-0021)
 - 0338-0431
 - 0338-4732
 - A026D934
- For Power System and Power Solution applications:
 - 0338-4590 (PCC1300, 1301, 1302, 2300, 3300, MCM3320)
 - 3163768 (PCC3100, 2100, 3200 (DB9-DB9))
 - 3163156 (PCC3200 (DB9-9 pin Deutsch))
 - 3164721 (PCC3100 (MON))

4.22.4 Installation

Engineering Tool can only be sourced by Cummins Inc. employees through Software Shelf:

- Keyword: "Engineering"
- Software version: 10.5 Patch 10.5.1.0

Engineering tool can also be sourced from the MyCummins home page listed below:

<http://mycummins.cummins.com/wps/portal/EmployeePortal/Home>

4.23 ExpressCard Serial Adapter (RS232)

4.23.1 Description

The ExpressCard provides one RS232 serial port. ExpressCard is 34mm wide and fits 34mm or 54mm slots. Data transfer rates up to 921,600 baud rates and the 128 byte deep transmit and 256 byte receive FIFOs, coupled with 1Mbit/s line drivers deliver uncompromising performance on your laptop. Drivers for Windows 32 bit and 64 bit Operating Systems including Windows XP, Server 2003, Vista, Server 2008, Windows 7 and Windows 8.

4.23.2 Application

The card is used for communication between CPG employee's laptops and CPG product control boards (to monitor and change programs via the InPower program).

4.23.3 Hardware

Typically used in conjunction with RS232-to-RS485 converter, Straight-Thru DB9 cable, and the 5-pin to DB9 cable.

4.23.4 Acquisition

The converter can be acquired two ways:

1. My Cummins home page > Hardware Shelf > US Peripherals and Accessories > ExpressCard to Serial Adapter
or
2. <http://www.brainboxes.com/product/items/vx-001>

4.24 FactoryTalk View Studio 6.0

4.24.1 Description

FactoryTalk View Studio is an HMI software product designed to help speed HMI application development and training time. This offers you a common development environment, application reuse, and architecture so you can increase productivity, reduce operation costs, and improve quality.

With FactoryTalk View Studio, you can:

- Configure a single operator station or configure an entire distributed application from one location.
- Access tags from OPC servers throughout the system via a tag browser that presents direct PLC tags and HMI tags in a logical hierarchy.
- Remotely configure RSLinx and FactoryTalk View Site Edition servers.
- Create displays using a full-featured graphics editor

4.24.2 Application

FactoryTalk View Studio is used to create and maintain HMI programs for switchgear applications that use Rockwell (or Allen Bradley) touchscreens and HMIs as the interface for their switchgear.

Specific switchgear products that use Rockwell HMIs are the DMC 200, DMC 300 and the DMC 1500.

4.24.3 Hardware

The following hardware/software is required to connect your computer with the HMI to upload or download programs using the FactoryTalk View Studio software.

- An Ethernet cable to connect between the HMI and your personal computer, or an Ethernet hub if used.

4.24.4 Installation

FactoryTalk View Studio can be acquired in one of the two following ways:

As a Cummins Inc. employee with access to the Cummins intranet:

- Cummins Software Shelf
 - Keyword "Factorytalk"
 - Software version 6.0

As a dealer or Cummins Inc. employee without access to the Cummins intranet:

The software can also be acquired from your local Allen Bradley (Rockwell Software) distributor. To find your local distributor, please use the following link:

<http://www.rockwellautomation.com/rockwellautomation/distributor-locator/sales-locator.page>

Basic hardware system requirements for installing RSLinx software package

- An Intel Pentium II or greater microprocessor
- 128MB RAM (256MB with windows XP)
- 100MB of available hard disc space
- A CD ROM drive
- 1.4MB disc drive
- Any windows compatible mouse or other pointing device.

4.25 Global Control Platform Display (GCP)

4.25.1 Description

The Global Control Platform (GCP) display software package provides a diagnostic and calibration interface to the generator set's Engine Control Module (ECM). Aside from acting as a calibration interface, the GCP software performs the following capabilities:

- Ability to reflash an ECM with a MOT file
- Ability to graphically plot variables and metrics
- Ability to log data variables and metrics to PC memory
- Ability to retrieve and display fault code information

4.25.2 Application

This is used with certain models of the V10 6.8L Ford Engine including the engine application on these generator sets:

- GGHG, GGHH (Spec L and later)
- GGHJ (All Specs)

4.25.3 Hardware

The GCP Tool uses the "ECOM" Interface Cable (part number: A047A982) sold through www.cancapture.com.



4.25.4 Installation

GCP can be sourced in the following way:

- Cummins Software Shelf
 - Keyword “GCP”
 - Version 255A

When logging into the GCP software application, a prompt is generated asking for a password.

The password for Ford V10 models is: **OLXX – 0B1S – 334Q – O3UT**

The password for Cummins 2.4L models and certain 5.9L generator set models (C45N6, C50N6 and C60N6) is: **DD3F-OSHY-VJLV-IPGC**

For any information on GCP usage, please refer to the E-Controls Engine Display Interface Software (EDIS) training manual (A035C608), which is available through the QSOL website.

4.26 Google Earth

4.26.1 Description

Google Earth lets you fly anywhere on Earth to view satellite imagery, maps, terrain, 3D buildings, from galaxies in outer space to the canyons of the ocean.

4.26.2 Application

Google Earth is used to locate the nearest distributor. It also give directions and distances.

4.26.3 Hardware

N/A

4.26.4 Installation

Google Earth can be acquired in the following manners:

For employees with access to the Cummins intranet, Google Earth can be downloaded from the Cummins Software Shelf:

- Keyword: “Google”
- Software version: 7.1.2.2041

The software will automatically install once it has been approved.

For employees that don't have access to the Cummins intranet, Google Earth can be downloaded from the Vendor's website at the following location:

<http://www.google.com/earth/download/ge/agree.html>

Once installed go to MyCummins and search 'kmz.' You'll find a result that reads “MyCummins: Worldwide Distributor.” Open the KMZ file that appears and that will open google earth on your computer with all of the distribution locations around the globe

4.27 HyperTerminal and PuTTY

4.27.1 Description (Hyperterminal)

HyperTerminal is a computer networking assistance program for the Microsoft Windows operating system from version 3.1 to Vista. From Windows versions 3.1 to XP, HyperTerminal was included free. It was not included with Windows Vista and Windows 7, but was available to be purchased separately from another company.

- HyperTerminal was designed to remotely connect to other computers as well as to provide diagnostic tools to the local computer system.
- HyperTerminal is a text based program, as opposed to a graphical one, and uses text commands to perform functions.

4.27.2 Description (PuTTY)

PuTTY is a free and open-source terminal emulator, serial console and network file transfer application. It supports several network protocols, including SCP, SSH, Telnet and rlogin.

- Putty allows Windows users to connect to remote systems over the internet via Telnet and SSH.
- While both Telnet and SSH allow you to connect to remote systems, SSH, supported in Putty, provides for a "Secure Shell", encrypting information before it is transferred. This way, it is harder for others to intercept passwords and other private information than if you were to just use Telnet.

4.27.3 Application

Hyper Terminal/Putty software is used by Cummins Inc. to view, edit or change several network settings, configuration and parameters for networking devices that support putty or hyperterminal interface through Telnet port or a serial port. The software is also used to format, install software packages, or program the network devices. For example, CPG uses this software to configure most common networking devices like iWatch 100 device, Echelon routers like iLON 600 and iLON 1000, Loytec Linx-100 device, and many more.

For most of the CPG Networking devices that support Hyperterminal/Putty interface, this software could serve as a back door access or a secondary access to the software and configuration of the device. Thus, if the primary interface fails, then this would be very useful to recover or re-install the software packages so that the device can be re-used again.

4.27.4 Hardware

Putty can be used with Raw, Telnet, Rlogin, SSH and Serial Interface. Most common used ones are Telnet and Serial.

For Telnet, you will just need the I.P. address of the device that you are connecting to which supports Telnet access and which has Telnet port enabled. Please note that your computer and the device should be in the same network and have same network (IPV4) configurations.

For Serial interface, you will need a Null Model Serial cable. The one that I use is Cummins Part # 3163786. Any Null Model Serial cable from hardware or electronic store like Radio Shack or Best Buy would work. You can add those vendor part numbers if you would like.

4.27.5 Installation

HyperTerminal can be downloaded in two ways:

1. For internal customers, HyperTerminal can be acquired from Cummins Software Shelf.
 - Keyword: "Putty"

- Software version: 1.81
2. For people outside of Cummins network, it can be downloaded from <http://www.putty.org>, or directly from the developer's webpage, <http://www.chiark.greenend.org.uk/~sgtatham/putty>.
It is a free software and documentation is found online.

4.28 I.Lon Smartsaver 2.0 Integration Tool License

4.28.1 Description

The I.Lon Smartserver 2.0 Integration tool license is part of the Smartserver Service pack. The service pack provides updates to the Smartserver 2.0 license. The service pack requires a prior installation of the Smartserver 2.0 software. This license allows the user access to all of the current software updates (available from the Echelon website) for the Smartserver 2.0 that will assist in commissioning and maintaining the Smartserver throughout its service life.

4.28.2 Application

Cummins Inc. uses the Smartserver Integration tool license for commissioning, maintaining and troubleshooting the I.Lon Smartservers used for switchgear system networks.

4.28.3 Hardware

The Smartserver Integration tool is loaded onto your PC and is configured the I.Lon Smartserver 2.0 via the Echelon U10 USB network interface. It works directly with Lonmaker Integration tool professional turbo edition 3.2 SR4.

4.28.4 Installation

SEL Compass can be sourced in one of two ways:

For Cummins Inc. employees with access to the Cummins Intranet:

- Cummins Software Shelf
- Search keyword: "Smartserver"
- Select version: 4.03

For those who don't have access to the Cummins Intranet:

- The license can be downloaded directly from Echelon at the following website: <http://www.echelon.com/support/downloads/login.aspx?ReturnUrl=%2fsupport%2fdownloads%2fdefault.aspx>
- You will be required to create an account before the software can be accessed and downloaded to your PC.
- Once at the download page, select the following options:

SmartServer 2.0 Service Pack 4 (SmartServer 2.2)	31 December 2013	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
SmartServer 2.2 Update 1	20 February 2014	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

4.29 Indusoft Thin Client

4.29.1 Description

Indusoft Thin Client is a powerful, integrated tool that exploits key features of Microsoft® Windows® NT/2000/XP and Windows® CE and enables you to build full-featured SCADA (Supervisory Control And Data Acquisition) or HMI (Human-Machine Interface) applications for Industrial Automation business.

Indusoft Thin Client applications consist of animated operator-interface screens, drivers (configurable for PLCs or other I/O devices to be controlled), a database of application tags, and optional modules such as alarm monitors, logic, trend charts, recipes, schedulers, and a security system. Indusoft applications interface with industrial I/O systems and other Windows applications in the run-time environment using ODBC, DDE, NetDDE, OPC, or TCP/IP protocols.

4.29.2 CPG Application

Indusoft Thin Client software is used by CPG to program Advantech Touch Panel Computers models TPC-1560 and TPC-1570 which are found on Digital Master Controls (DMC), Series PCIL and PCUL, manufactured since 2014.

4.29.3 Hardware

Use the following hardware:

- Ethernet cable, should be minimum twisted pair CAT V cable with RJ45 connectors. Recommended CPG P/N is 0335-0198-02 (A000Y479).

For the previous HMI version (such as TPC-1560) an Ethernet crossover cable may be required.

4.29.4 Installation

Indusoft Thin Client version SP3 Patch 4 64K tag development license is available in software shelf:

- Keyword: "Indusoft"
- Software Version: 7.1 SP3 Patch 4

Also, you can order Indusoft Thin Client from:

Automation, Inc.

Henry O'Donnell

Email: hodonnell@Indusoft.com

Phone: +1-763-231-4315

Part Number to Order an Indusoft Thin Client 7.1 SP3 patch 4 development license is:

XAUT75-CM-64520-DE (This is the one used for all Cummins applications)

The system requirements for Indusoft Thin Client are:

- IBM-compatible computer with an Intel® Pentium IV-compatible processor or higher
- Windows 2000/XP/2003 server operating system
- Windows NT/2000/XP or Windows CE v3.00 operating system for runtime
- Minimum of 256MB random-access memory (RAM) (512GB or higher recommended)
- MS Internet Explorer 6.0 or higher

-
- Minimum of 500MB free hard disk space to install the product and the application (the history files/databases will demand additional disk space)
 - Ethernet adapter
 - 100% IBM-compatible VGA or SVGA display adapter with 64MB Video RAM (VRAM) or higher
 - Microsoft-compatible pointing device (such as a mouse, trackball, or touch-screen)
 - Standard keyboard with function keys **F1** through **F12**
 - CD-ROM drive (*optional*)
 - 3.5-inch floppy drive (*optional*)
 - Parallel printer port (*optional*)
 - USB port (*optional*)
 - Serial COM ports and adapters (*optional*)

4.30 INLINE 6 (5 or 4) Adapter

4.30.1 Description

The INLINE 6 (5 and 4) Data Link Adapter is the primary interface with CAN-enabled generator sets and engine platforms via the Engine Control Module (ECM). It is the only genuine Cummins adapter that is certified to be 100% compatible with all features of the latest Cummins ECM's and software applications.

4.30.2 Application

The INLINE 6 Data Link Adapter is the hardware interface used to connect your laptop/PC to the ECM via the appropriate engine service software tool (i.e. INSITE). Once connected, the software tool can be used to monitor engine parameters, update calibrations, and troubleshoot (see [Section 4.38](#) for more details on INSITE tool). The INLINE 6 (5 or 4) adapter is required for any Cummins service representative who works with CAN Data Link enabled (i.e. J1939) generator sets or engine platforms. This includes most full-authority-electronic (FAE) Cummins engines.

4.30.3 Hardware

INLINE 6 Data Link Adapter Kit (p/n 2892092)

- INLINE 6 data link adapter (p/n 2892093)
- USB cable, 14 feet (p/n 2892176)
- J1939 backbone adapter (p/n 3163096)
- J1939 gender change adapter (p/n 3163597)
- Data link cable (DB25F 9-Pin Deutch connector) (p/n 4919780)
- Storage case (p/n 4918913)
- INLINE 6 software CD (p/n 2892095)
- INLINE 6 ruggedized protective boot (p/n 2892096)
- DB25F/2-pin Weather-Pack/2-pin Weather-pack/3-pin Deutsch cable (p/n 3165141)

Optional cables (not included in kit)

- DB25F/3-pin Deutsch/3-pin Deutsch/2-pin Weather-pack cable (p/n 4919797)
- DB25F 8-Pin Amp connector (p/n 3824440)

- DB9F-DB9M serial cable (p/n 4918418)
- DB25F/6-pin Deutsch cable (p/n 3165160)

4.30.4 Installation

For all INLINE questions, support, purchasing, software updates, technical information, and service manuals, please go to the INLINE website:

<http://inline.cummins.com>

NOTICE

The INLINE series adapters require a software driver. The driver download and installation instructions can be found at:

<http://inline.cummins.com/downloads/i6driver.html>

INLINE 6 Minimum Computer System Requirements:

- Intel Pentium 500MHz microprocessor
- 2GB RAM
- CD Drive
- Operating System – Windows 7, Vista, or XP SP3
- INSITE v7.5.1 and later

4.31 InPower Service Tool (All Types)

4.31.1 Description

The InPower service tool is a windows-based, maintenance and diagnostic tool. This tool provides electronic service functions including:

- Adjustment for trims and settings
- Saving of device trims and settings to a file for replication to similar systems
- Monitoring
- Strip chart
- Data logging
- Fault viewing
- Report producing capability

4.31.2 Application

Depending on the user and the functionality required by the user, Inpower is released in multiple versions. The versions of Inpower are:

1. InPower Lite: Service tool for customers supporting all generator set and automatic transfer switch products
2. InPower Pro: Service tool for customers supporting all generator set and automatic transfer switch products. Provides all of the capability of InPower Lite plus the ability to perform initial and update calibrations to control software
3. InPower Onan: Service tool for consumer product (RV, Marine) customers

4. InPower GOEM: Service tool for OEM customers
5. InPower ATS: Service tool for automatic transfer switch customers
6. InPower AMMPS: Service tool for military customers to support Advanced Medium Mobile Power Sources (AMMPS) generator sets.

4.31.3 Hardware

Use the following hardware:

- Brainbox (USB) or Brainbox Express Card:
<http://cidcn20011.cidc.cummins.com/CBS/Powersweep/HDSshelf.nsf/main?OpenFrameset>
- For Power Product applications:
 - 0541-1374 (kit – includes 0324-0021)
 - 0338-4731
 - 0338-4732
 - A026D943
- For Power System and Power Solution applications:
 - 0338-4590 (PCC1300, 1301, 1302, 2300, 3300, MCM3320)
 - 3163768 (PCC1300, 2100, & 3200(DB9-DB9))
 - 3163156 (PCC3200 DB9 – 9 pin Deutsch)
 - 3164721 (PCC3100 (MON))

4.31.4 Installation

InPower can be sourced in a number of ways:

- Cummins Software Shelf
 - Keyword “InPower”
 - Select “InPower Pro (PGBU and EBU only)” from the list of options
- Order from your local Cummins Distributor. Contact your local distributor at the following link:
http://buyinpower.cummins.com/contact_us.aspx

For those installing InPower themselves, refer to the proper instruction sheet in QSOL (<https://quickserve.cummins.com>) for InPower service tool installation instructions and the appropriate software user manual for the specific version of InPower being used.

Each copy of the InPower service tool is packaged and installed separately. Only one InPower service tool product can be installed on the same PC at any given time.

4.32 InPower AMMPS Suite

4.32.1 Description

InPower AMMPS service tool is a Windows-based diagnostic tool. The suite includes InPower AMMPS and AMMPS Remote Monitor Tool. This tool provides electronic service functions including:

- Viewing of generator set configuration and settings
- Adjustment of generator set control hours and maintenance timers

- Strip chart data monitoring
- Data logging
- Fault viewing
- Viewing usage history
- Update and initial calibrations
- Remote monitoring of operating generator sets

4.32.2 Application

InPower AMMPS is intended for use on military Advanced Medium Mobile Power Sources (AMMPS) generator sets by military and factory personnel. It provides the user with limited InPower capabilities to perform viewing of generator set parameters, performing initial and update calibrations, and adjustments to generator set hours and maintenance timers after replacement. Easy export of fault, maintenance, and operations data log files is provided to assist with analysis and troubleshooting.

The AMMPS Remote Monitor Tool allows the user to remotely monitor connected generator set and to perform emergency stopping and Battle Short switch activation. Engine, alternator, contactor, switchbox, winterization kit status, and mode parameters are displayed.

4.32.3 Hardware

Use the following hardware:

- Brainbox (USB) or Brainbox Express Card
- RS232-485 converter 0324-0021*
- Local Control Cable P/N A029C064
- Remote Control Cable P/N A043N433

4.32.4 Installation

One copy of the InPower AMMPS Suite is included with each AMMPS generator set. InPower AMMPS can also be obtained by purchasing P/N A041B093.

Installation instructions are included with the CD.

The current HMI and Main Control calibration files for use with InPower AMMPS are controlled items and not publically released.

4.33 InPower ATS

4.33.1 Description

InPower ATS is a version of the InPower software. It is a Windows-based service, maintenance, and diagnostic tool. This tool provides the following electronic service functions for monitored equipment:

- Direct connection capability from a personal computer to PowerCommand generator set controls, transfer controls, and system controls.
- Allows the monitored equipment to send alarm information to a connected computer.
- Configurable for units of measurement, and level of user access (read only, read/change values, administrator).
- Adjustment of nearly every adjustment parameter within the connected control system, including parameters such as voltage and frequency levels, gains, protection set-points and other values.

-
- Convenient programming of configurable inputs in the controllers.
 - Viewing of equipment history, fault codes, and data associated with fault codes.
 - Generates reports of monitored data
 - Allows released firmware upgrades on Power Command generator set controls.
 - Plot critical parameters in a strip chart format, and export data to 3rd party software tools for manipulation and viewing.
 - Simulate fault conditions in generator set controls in compliance to NFPA 110 requirements to demonstrate functionality of the controller and monitoring equipment in a facility.

4.33.2 Application

InPower ATS is intended for use by Certified Distributors. It is a service tool that provides customer support for all automatic transfer switch products/customers and Wingoal customers only.

4.33.3 Hardware

The InPower ATS uses the following hardware:

- Brainbox (USB) or Brainbox Express Card
- 9 pin RS232 - 485 converter: 0324-0021*
- For Power Product applications:
 - 0541-1374 (Kit – includes 0324-0021)
 - 0338-4731
 - 0338-4732
 - A026D943
- For Power System and Power Solution applications:
 - 0338-4590 (PCC1300, 1301, 1302, 2300, 3300, MCM3320)
 - 3163768 (PCC1300, 2100, & 3200(DB9-DB9))
 - 3163156 (PCC3200 DB9 – 9 pin Deutsch)
 - 3164721 (PCC3100 (MON))
- Recommended PC
 - IBM PC or 100% compatible PC
 - Windows XP Pro, Vista, or 7
 - Windows Vista capable or Windows Vista Premium ready
 - Microsoft Internet Explorer version 5.5 or higher
 - SVGA (1024x768) color display
 - Windows compatible pointing device and 101 key enhanced keyboard
 - 16X CD-ROM
 - One free serial communications port
 - Windows compatible printer (optional)

4.33.4 Installation

InPower ATS can be sourced in the following way:

- Order from your local Cummins Distributor. Contact your local distributor at the following link: http://buyinpower.cummins.com/contact_us.aspx.
- For internal customers, InPower can be gotten from Cummins Software Shelf.

Each copy of the InPower service tool is packaged and installed separately. Only one InPower service tool can be installed on the same PC at any given time.

4.34 InPower GOEM

4.34.1 Description

InPower GOEM is a version of the InPower software. It is a Windows-based service, maintenance, and diagnostic tool. This tool provides electronic service functions including:

- Adjustments for trims and settings
- Capture files
- Monitoring
- Strip chart
- Data logging
- Viewing faults
- Report producing capability
- Saving of device trims and settings to a file for replication to similar systems

4.34.2 Application

InPower GOEM is intended for use by Certified Distributors. It is one of the InPower service tool software that is used to provide support to all OEM customers.

4.34.3 Hardware

The InPower GOEM uses the following hardware:

- Brainbox (USB) or Brainbox Express Card
- 9 pin RS232 - 485 converter: 0324-0021*
- For Power Product applications:
 - 0541-1374 (Kit – includes 0324-0021)
 - 0338-4731
 - 0338-4732
 - A026D943
- For Power System and Power Solution applications:
 - 0338-4590 (PCC1300, 1301, 1302, 2300, 3300, MCM3320)
 - 3163768 (PCC1300, 2100, & 3200(DB9-DB9))
 - 3163156 (PCC3200 DB9 – 9 pin Deutsch)

- 3164721 (PCC3100 (MON))
- Recommended PC
 - IBM PC or 100% compatible PC
 - Windows XP Pro, Vista, or 7
 - Windows Vista capable or Windows Vista Premium ready
 - Microsoft Internet Explorer version 5.5 or higher
 - SVGA (1024x768) color display
 - Windows compatible pointing device and 101 key enhanced keyboard
 - 16X CD-ROM
 - One free serial communications port
 - Windows compatible printer (optional)

4.34.4 Installation

InPower GOEM can be sourced in the following way:

- Order from your local Cummins Distributor. Contact your local distributor at the following link: http://buyinpower.cummins.com/contact_us.aspx.
- For internal customers, InPower can be gotten from Cummins Software Shelf.

For those installing InPower GOEM themselves, refer to the InPower GOEM Owner's Manual – 0901-0113 on QSOL (<https://quickserve.cummins.com>) for additional information.

Each copy of the InPower service tool is packaged and installed separately. Only one InPower service tool can be installed on the same PC at any given time.

4.35 InPower Lite

4.35.1 Description

InPower Lite is a version of the InPower software. It is a Windows-based service, maintenance, and diagnostic tool. This tool provides the following electronic service functions for monitored equipment:

- Direct connection capability from a personal computer to PowerCommand generator set controls, transfer controls, and system controls.
- Connection to generator set or transfer switch controls via modem or to multiple controls.
- Allows the monitored equipment to send alarm information to a connected computer.
- Configurable for units of measurement, and level of user access (read only, read/change values, administrator).
- Adjustment of nearly every adjustment parameter within the connected control system, including parameters such as voltage and frequency levels, gains, protection set-points and other values.
- Convenient programming of configurable inputs in the controllers.
- Viewing of equipment history, fault codes, and data associated with fault codes.
- Generates reports of monitored data
- Plot critical parameters in a strip chart format, and export data to 3rd party software tools for manipulation and viewing.

4.35.2 Application

InPower Lite is intended for use by Certified Distributors. It is a service tool that provides customer support on all generator sets and automatic transfer switch products.

4.35.3 Hardware

The InPower Lite uses the following hardware:

- Brainbox (USB) or Brainbox Express Card
- 9 pin RS232 - 485 converter: 0324-0021*
- For Power Product applications:
 - 0541-1374 (Kit – includes 0324-0021)
 - 0338-4731
 - 0338-4732
 - A026D943
- For Power System and Power Solution applications:
 - 0338-4590 (PCC1300, 1301, 1302, 2300, 3300, MCM3320)
 - 3163768 (PCC1300, 2100, & 3200(DB9-DB9))
 - 3163156 (PCC3200 DB9 – 9 pin Deutsch)
 - 3164721 (PCC3100 (MON))
- Recommended PC
 - IBM PC or 100% compatible PC
 - Windows XP Pro, Vista, or 7
 - Windows Vista capable or Windows Vista Premium ready
 - Microsoft Internet Explorer version 5.5 or higher
 - SVGA (1024x768) color display
 - Windows compatible pointing device and 101 key enhanced keyboard
 - 16X CD-ROM
 - One free serial communications port
 - Windows compatible printer (optional)

4.35.4 Installation

InPower Lite can be sourced in the following way:

- Order from your local Cummins Distributor. Contact your local distributor at the following link:
http://buyinpower.cummins.com/contact_us.aspx.
- For internal customers, InPower Lite can be sourced from Cummins Software Shelf.

For those installing InPower Lite themselves, refer to the InPower Lite Owner's Manual – 0901-0108 on QSOL (<https://quickserve.cummins.com>) for additional information and/or (<http://buyinpower.cummins.com/products/default.aspx>).

Each copy of the InPower service tool is packaged and installed separately. Only one InPower service tool can be installed on the same PC at any given time.

4.36 InPower Onan

4.36.1 Description

InPower Onan service tool is a Windows-based diagnostic tool. This tool provides electronic service functions including:

- Adjustment for generator set configuration and settings
- Strip chart data monitoring
- Data logging
- Fault viewing
- Viewing usage history
- Update and initial calibrations

4.36.2 Application

InPower Onan is intended for use by Dealers only. It provides the Dealer with limited InPower capabilities to perform basic troubleshooting and generator set adjustments.

4.36.3 Hardware

Use the following hardware:

- Brainbox (USB) or Brainbox Express Card:
- RS232-485 converter 0324-0021*
- RV/CM/Home Standby Harness: 0541-1374* (includes 0324-0021)
- RV/CM Harness: 0541-1287*
- Marine Harness Kit: 0541-1289* (includes 0324-0021)
- Harness Kit: 0541-1389 (contains parts marked*)
- PCC 1301/1302 Harness: 0541-1199 (includes 0324-0021)

4.36.4 Installation

InPower Onan can be sourced in one of two ways:

1. InPower Onan can be downloaded from the Cummins Software Shelf (CPG employees with access to the Cummins Software Shelf): Cummins Software Shelf.
 - Keyword "Inpower Onan"
 - Select "InPower Onan - (X32/X64)" from the list of options
2. InPower Onan can also be acquired through a local Cummins Distributor. A local Cummins distributor can be located by using the following website:

http://buyinpower.cummins.com/contact_us.aspx

Refer to the InPower Onan Operator Manual (0901-0112) on QSOL for additional information.

Dealers: Contact your local distributor's Dealer Coordinator for any additional questions.

Each copy of the InPower service tool is packaged and installed separately. Only one InPower service tool product can be installed on the same PN at any given time.

4.37 InPower Pro

4.37.1 Description

InPower Pro is a Windows-based service, maintenance, and diagnostic tool. This tool provides electronic service functions including:

- Direct connection capability from a personal computer to PowerCommand generator set controls, transfer controls, and system controls.
- Connection to generator set or transfer switch controls via modem or to multiple controls.
- Allows the monitored equipment to send alarm information to a connected computer.
- Configurable for units of measurement, and level of user access (read only, read/change values, administrator).
- Adjustment of nearly every adjustment parameter within the connected control system, including parameters such as voltage and frequency levels, gains, protection set-points and other values.
- Convenient programming of configurable inputs in the controllers.
- Viewing of equipment history, fault codes, and data associated with fault codes.
- Generates reports of monitored data
- Allows released firmware upgrades on Power Command generator set controls.
- Plot critical parameters in a strip chart format, and export data to 3rd party software tools for manipulation and viewing.
- Simulate fault conditions in generator set controls in compliance to NFPA 110 requirements to demonstrate functionality of the controller and monitoring equipment in a facility.

4.37.2 Application

InPower Pro is intended for use by Certified Distributors only. It is a service tool that provides customer support on all generator sets and automatic transfer switch products. It also offers all the capability of InPower Lite, and the ability to perform initial and update calibrations to control software.

4.37.3 Hardware

The InPower Pro uses the following hardware:

- Brainbox (USB) or Brainbox Express Card
- 9 pin RS232 - 485 converter: 0324-0021*
- For Power Product applications:
 - 0541-1374 (Kit – includes 0324-0021)
 - 0338-4731
 - 0338-4732
 - A026D943
- For Power System and Power Solution applications:
 - 0338-4590 (PCC1300, 1301, 1302, 2300, 3300, MCM3320)
 - 3163768 (PCC1300, 2100, & 3200(DB9-DB9))
 - 3163156 (PCC3200 DB9 – 9 pin Deutsch)
 - 3164721 (PCC3100 (MON))

- Recommended PC
 - IBM PC or 100% compatible PC
 - Windows XP Pro, Vista, or 7
 - Windows Vista capable or Windows Vista Premium ready
 - Microsoft Internet Explorer version 5.5 or higher
 - SVGA (1024x768) color display
 - Windows compatible pointing device and 101 key enhanced keyboard
 - 16X CD-ROM
 - One free serial communications port
 - Windows compatible printer (optional)

4.37.4 Installation

InPower Pro can be downloaded in a number of ways:

- Order from your local Cummins Distributor. Contact your local distributor at the following link: http://buyinpower.cummins.com/contact_us.aspx.
- For internal customers, InPower Pro can be gotten from Cummins Software Shelf.
 - Search keyword: “InPower Pro”
 - Select “InPower Pro (PGBU and EBU only)” from the list of options

For those installing InPower Pro themselves, refer to the InPower Pro Owner’s Manual – 0901-0110 on QSOL (<https://quickserve.cummins.com>) for additional information and/or (<http://buyinpower.cummins.com/products/default.aspx>).

Each copy of the InPower service tool is packaged and installed separately. Only one InPower service tool can be installed on the same PC at any given time.

4.38 INSITE Service Tool

4.38.1 Description

INSITE is a Windows-based electronic service application that is used to adjust, monitor, and troubleshoot the electronic aspects of Cummins Engines. INSITE also provides access to a library of service documentation and diagrams to assist in alleviating all aspects of supporting Cummins engine products.

INSITE can be used for:

- Trip and vehicle information
- Parameter and feature adjustment
- Accessing complete wiring diagrams and sensor location maps
- Acquiring fault related information
- Using fault code and symptom-based diagnostics
- Accessing engine diagnostic tests
- Access to tools to create engine group templates
- Enhanced Electronic Control Module (ECM) security.
- Accessing built-in help applications

- Calibration downloading capability
- Graphical monitoring

4.38.2 Application

Depending on the user and the functionality required by the user, INSITE is released in multiple versions. The versions of INSITE are:

- INSITE Basic: Read-only application for viewing engine feature settings as well as viewing service documentation related to a specific engine application.
- INSITE Lite: Provides all of the capabilities of INSITE Basic but adds the capability to create and adjust setting templates, set and adjust features and parameters and set or clear fault codes.
- INSITE Pro: Provides all of the capabilities of INSITE Basic and Lite but adds the capability to load, retrieve and read calibrations as well as install new features and upgrades to existing equipment.

4.38.3 Hardware

Use the following hardware: Inline 5 datalink adapter kit (part number: 4918416).

4.38.4 Installation

INSITE can be sourced in a number of ways.

- Cummins Software Shelf
 - Keyword "Insite"
 - Select "Insite-SCCM Install from Network" from the list of options
- Order from your local Cummins Distributor. Contact your local distributor at the following link:
<http://wsl.cummins.com/ServiceLocator/jsp/controller.jsp?action=servicelocator>

There are minimum PC requirements that must be met in order for INSITE to operate. The minimum PC requirements are:

- Platform: IBM or 100% compatible
- Operating Systems: Windows XP (SP3 or greater), Windows Vista, Windows 7 (32- and 64-bit version for all OS)
- Processor: XP – 1Ghz, Vista – 1Ghz, 7 – 2Ghz
- RAM: XP – 512MB, Vista – 1GB, 7 – 2GB
- Hard Drive: 2 GB of available disc space
- Media Device (needed for installation and InCal): DVD-ROM
- Other Software: Adobe Acrobat Reader 7.0 or higher, Microsoft .NET framework v2.0

The recommended PC requirements are:

- Platform: IBM or 100% Windows capable
- Operating System: Windows 7 (32-Bit)
- Processor: 2 GHz or greater (dual-core)
- Hard Drive: 4 GB or greater
- Media Device: DVD-ROM
- Other Software: Adobe Acrobat Reader v8.0 or higher, Microsoft .NET framework v3.5

4.39 Java Runtime Environment

4.39.1 Description

The Java Runtime Environment (JRE) provides the libraries, the Java Virtual Machine, and other components to run applets and applications written in the Java programming language.

4.39.2 Application

The Java Runtime Environment (JRE) provides the libraries, the Java Virtual Machine, and other components to run applets and applications written in the Java programming language. This update version is predominately used in conjunction with Cummins Generator Technologies applications.

4.39.3 Hardware

N/A

4.39.4 Installation

Java Runtime Environment can be acquired in the following manner:

For employees with access to the Cummins intranet, Java Runtime Environment can be downloaded from the Cummins Software Shelf:

- Keyword: "Java Runtime"
- Software version: 1.7.0_65

The software will automatically install once it has been approved.

For employees that don't have access to the Cummins intranet, Java Runtime Environment can be downloaded from the Vendor's website at the following location:

<http://www.oracle.com/technetwork/java/javase/downloads/java-archive-downloads-javase7-521261.html#jre-7u65-oth-JPR>

On this webpage, you will need to choose the following option (circled in red).

Java SE Runtime Environment 7u65		
<p>You must accept the Oracle Binary Code License Agreement for Java SE to download this software.</p> <p> <input type="radio"/> Accept License Agreement <input checked="" type="radio"/> Decline License Agreement </p>		
Product / File Description	File Size	Download
Linux x86	31.56 MB	jre-7u65-linux-i586.rpm
Linux x86	46.18 MB	jre-7u65-linux-i586.tar.gz
Linux x64	32.07 MB	jre-7u65-linux-x64.rpm
Linux x64	44.83 MB	jre-7u65-linux-x64.tar.gz
Mac OS X x64	48.54 MB	jre-7u65-macosx-x64.dmg
Mac OS X x64	44.51 MB	jre-7u65-macosx-x64.tar.gz
Solaris x86	52.25 MB	jre-7u65-solaris-i586.tar.gz
Solaris x64	16.14 MB	jre-7u65-solaris-x64.tar.gz
Solaris SPARC	54.93 MB	jre-7u65-solaris-sparc.tar.gz
Solaris SPARC 64-bit	18.13 MB	jre-7u65-solaris-sparc64.tar.gz
Windows x86 Online	0.88 MB	jre-7u65-windows-i586-iftw.exe
Windows x86 Online	28.06 MB	jre-7u65-windows-i586.exe
Windows x86	39.97 MB	jre-7u65-windows-i586.tar.gz
Windows x64	29.58 MB	jre-7u65-windows-x64.exe
Windows x64	41.68 MB	jre-7u65-windows-x64.tar.gz

[Back to top](#)

In the event that an employee wants to download the application, a java user account will need to be created (a login screen will generate in the event that a download is attempted).

As well, in the event that employees are attempting to download this application to a Cummins PC, D-Account administrative rights are required. Without D-Account administrative rights, successful downloading of this application cannot be completed.

4.40 John Deere Machine Interface Kit SA1001

4.40.1 Description

The John Deere Machine Interface Kit SA1001 is used to connect a PC to a John Deere ECU for diagnostic and monitoring purposes. The required software (Service ADVISOR) is available on the software shelf. This is intended only for distributors only per service agreement with Deere.

4.40.2 Application

Cummins-Onan MDDCx (35-99 kW) Marine generator sets use the John Deere PowerTech 4045T and 6068T engines.

4.40.3 Hardware

Electronic Data Link Mini Machine Interface Kit (SA1001)

The kit includes:

- (1) - Storage Box

- (1) - W1 Connector Cable
- (1) - Electronic Data Link (EDL)
- (1) - 16 ft USB Cable

4.40.4 Installation

All sales of this interface kit for Cummins Inc. are purchased from North Star Power. To order the kit, email Steve Martley at martleysteve@northstarpowerllc.com.

4.41 John Deere Service Advisor

4.41.1 Description

Service ADVISOR is software produced by John Deere that enables you to connect and interface your PC with the Deere ECU in order to perform engine diagnostics and adjustments. This is intended only for distributors, and only per service agreement with Deere.

4.41.2 Application

Cummins-Onan MDDCx (35-99 kW) Marine generator sets use the John Deere PowerTech 4045T and 6068T engines.

Service ADVISOR is used for engine diagnostics on this model of marine generator set.

4.41.3 Hardware

Electronic Data Link Mini Machine Interface Kit (SA1001)

The kit includes:

- (1) - Storage Box
- (1) - W1 Connector Cable
- (1) - Electronic Data Link (EDL)
- (1) - 16ft USB Cable

To order the kit, email Steve Martley at:

martleysteve@northstarpowerllc.com

*Note: This kit is for diagnostic purposes only. It has no ECM reprogramming capabilities.

4.41.4 Installation

For Cummins Inc. employees with access to the Cummins Intranet:

- Cummins Software Shelf
 - Key word "Service Advisor"
 - Select Version 4.0

The software is available on the Cummins Software Shelf. Cummins IT automatically sends quarterly updates.

4.42 Lantronix Device Installer

4.42.1 Description

The Lantronix Device Installer is a Windows-based GUI application that provides an easy way to install and configure specific Lantronix device server products.

Using Lantronix Device Installer, the user can:

- Load the appropriate firmware on a Lantronix device
- Assign IP and other network specific addresses
- Load custom web pages
- Load custom web pages
- Enable web-based configuration of the device server
- Ping or query the attached device(s) over the network
- Allow Telnet communication with the device(s)
- View specific device data files

4.42.2 Application

CPG Technicians and users will use Lantronix Device Installer software to configure Lantronix UDS-1100 IAP device. This device is used with switchgear and BMS applications as a MODBUS/TCP converter.

It is used to configure UDS-1100 IAP, which converts MODBUS Serial RS-232/RS-485 data into data over Ethernet to access, monitor and control equipment over the Ethernet for such applications.

For full description and details, please refer to Lantronix Device Installer manual from www.lantronix.com.

4.42.3 Hardware

CPG uses Lantronix device installer to configure Lantronix UDS-1100 IAP device. Primarily, we use Lantronix UDS-1100 IAP device, which allows the CPG MODBUS Controlled devices and FT-10 Network Devices data (generator set or ATS NCM Cards, Digital I/O Modules, Annunciators etc) over the Ethernet (TCP/IP) through MODBUS to LonWorks converter (MODLON II or Linx-100 from Loytec) for switchgear or BMS applications.

The cable depends upon the device used. UDS-1100 IAP hardware can be set up locally using Device Installer through its serial port using a Serial to USB cable or Ethernet port, or remotely using Telnet or web browser.

4.42.4 Installation

As a CPG Employee with access to the Cummins intranet, do the following to procure the Lantronix Device Installer:

1. Go to software shelf and login with your Cummins WWID and Password:
<http://cidcn20011.cidc.cummins.com/SwShelf.nsf/Home?OpenFrameset>
2. Fill up the requirement information in the form
3. Search for “device installer”
4. Select **DEVICE INSTALLER VERSION 4.4** (or the latest version available)
5. Add to card and submit.

As a dealer or CPG Employee without access to the Cummins intranet, do the following to procure the Lantronix Device Installer:

- Contact the local IT staff to request them to coordinate the installation of the software from Lantronix website (www.lantronix.com). Special instructions need to be followed in order for the software to work with CPG Products, so please check with your Local Network Support person to ensure correct application. The software can be downloaded in Lantronix website and Sales representative confirmed it was a free software via their hotline.

For IT Staff:

1. Call or email the Local Lantronix office or distributor that is listed under Lantronix website to request a copy of Lantronix Device installer (<http://www.lantronix.com/about/contact.html>).
2. Download directly from the Lantronix website and install to the user's computer (http://ltxfaq.custhelp.com/app/answers/detail/a_id/644).

Software Requirements:

The following items are required to run Device Installer:

- X86: XP/2003 Server/Vista/Windows 7/Windows 8/2008 Server x64: Vista/Windows 7/Windows 8/2008 Server
- Microsoft .NET Framework v4.0
- Microsoft Internet Explorer 5.1, or later
- 30MB free hard drive space

The "Internet Connection Firewall" must be disabled, or else UDP Port 30718 must be available. Otherwise, you will not be able to detect or communicate with any devices on the network.

To configure, go to the Control Panel, go to Network Settings, select the corresponding network adapter, choose Properties, and go to the Advanced tab. To configure the firewall, see the Microsoft Knowledgebase article for your version of Windows under www.windows.microsoft.com.

For most current Lantronix device servers, only port 30718 must be added as an Exception. If you are using the Device Installer with legacy device servers such as the MSSs, add exceptions for 43282 and 43283.

If the connection is between two different sites you may also need to allow these ports access through the corporate firewall. As Device installer only detects units on the local subnet.

Please note that Device Installer does not include firmware

To download firmware for your Lantronix product, go to <http://lantronix.com/support/download/index.html>.

4.43 Logworks Software Service Tool

4.43.1 Description

Logworks is a software application that interfaces with Innovate Modular Tuning System (MTS) products. It is used to record, save, display, and analyze engine data. It enables easy analysis and manipulation of engine data acquired by MTS components and allows the user to view engine data in real time via the on-screen virtual gauges.

4.43.2 Application

Logworks is used as an interface to analyze and save air and fuel data on GGLA/GGLB as well as GGHE/GGHF/GGHG and GGHH generator sets.

4.43.3 Hardware

Use the following hardware: LM-2 Air-Fuel Meter

- Available at <http://www.innovatemotorsports.com>
- Tailpipe adaptor recommended

4.43.4 Installation

Logworks is sourced directly from the software developer:

<http://www.innovatemotorsports.com/support.php>

There are minimum PC requirements that must be met in order for Logworks to operate. The minimum PC requirements are:

- Operating Systems: Windows 98 or later
- Processor: Pentium (600 MHz or greater)
- RAM: 100 Mbyte or greater
- Hard Drive: 100 Mbyte or greater
- Other: 1 free serial port or USB to serial adapter

4.44 Lonpoint Software

4.44.1 Description

PowerCommand Lonworks router is an Echelon router designed to integrate new and legacy sensors and actuators, as well as lonmarker devices into cost-effective, interoperable, control systems for building and industrial applications. In contrast to traditional control networks, which use a hierarchical architecture based on costly, proprietary controllers, the PowerCommand Lonworks router offers a flat system architecture in which every point performs some control processing. Distributing the processing throughout the network lowers the overall installation and life cycle costs, increases reliability by minimizing single points of failure, and provides the flexibility to adapt the system to a wide variety of applications.

4.44.2 Application

A Powercommand Lonworks router is used to extend the physical Lon bus length and/or increases the number of nodes required in an installation. Each Lon segment is limited to 500 meters or 64 nodes.

In CPG installations that have Lon segments exceeding 500 meters between system components or when there are more than 64 nodes used in a segment, a PowerCommand Lonworks router can be installed to provide an additional 500 meters of length or provide an additional 64 nodes. This will enable Lon communications to be sent throughout the customer's power system without compromising the spatial requirements set forth in the customer's requirements.

A maximum of 20 PowerCommand Lonworks routers can be used in one system.

4.44.3 Hardware

Works in conjunction with LonMaker Turbo 3.2 SR4 (available on the software shelf).

4.44.4 Installation

Powercommand Lonworks routers can be ordered through the normal Cummins ordering process by ordering the following part numbers (depending upon application):

Ordering information

Part number	Description
0300-4919-00	PowerCommand LonWorks Router Kit (w/enclosure) (TP-78 to TP-78)
0300-4919-01	PowerCommand LonWorks Router Kit (w/enclosure) (TP-78 to FT-10)
0300-4919-02	PowerCommand LonWorks Router Kit (w/enclosure) (FT-10 to FT-10)
0300-5670-03	PowerCommand LonWorks Router (no enclosure) (FT-10 to FT-10)

PowerCommand routers can also be purchased directly from a local Echelon sales office. To find the local Echelon sales office in your area, please use the following link:

<http://www.echelon.com/company/contact/offices.htm>

When ordering, please use the following Echelon guide to ensure that the correct router is ordered:

Name	Model	Channel Types
LPR-10	42100R	TP/FT-10 to TP/FT-10
LPR-11	42101R	TP/FT-10 to TP/XF-78
LPR-12	42102R	TP/FT-10 to TP/XF-1250
LPR-13	42103R	TP/XF-78 to TP/XF-78
LPR-14	42104R	TP/XF-78 to TP/XF-1250
LPR-15	42105R	TP/XF-1250 to TP/XF-1250

4.45 L-Series Software Service Tool

4.45.1 Description

Woodward L-Series software is a software application used in conjunction with generator sets that use Woodward electronic governors. The L-Series software is used to configure, adjust, monitor, and troubleshoot issues that occur with an L-Series control.

The L-Series software is run from a PC and communicates with the L-Series control via a serial connection.

4.45.2 Application

L-Series software is used to control the Woodward fuel trim valve that is used on GGLA/GGLB as well as GGHE/GGHF/GGHG and GGHH generator sets.

4.45.3 Hardware

Use the following hardware: Woodward L-Series service tool kit (Woodward part number 8923-1061).

4.45.4 Installation

L-Series software can be sourced in a number of ways.

- Cummins Software Shelf
 - Keyword “L-Series”
 - Select the version from the list of options
- Order from the software developer:

<http://www.woodward.com/InteriorTemplate.aspx?id=2147490414>

There are minimum PC requirements that must be met in order for the L-Series software to operate. The minimum PC requirements are:

- Platform: IBM or 100% compatible
- Operating Systems: Windows 2000, Windows XP, Windows Vista, Windows 7 (or Greater)
- RAM: 32MB

4.46 Mapics XA-Mexico (Factory Use Only)

4.46.1 Description

Mapics Mexico is used for locating the Bill of Materials and Parts for generators built in the Mexico.

4.46.2 Application

Mapics Mexico is used for locating the Bill of Materials and Parts for generators built in the Mexico.

4.46.3 Hardware

N/A

4.46.4 Installation

To obtain Mapics, go to the Cummins software shelf and enter the following:

- Keyword: “Newage”
- Software version: 650

To install the program go to the following website:

<http://cisen20000.cise.cummins.com/nwg/cpgapps.nsf/aacpgf?OpenForm>

Once there fill in your WWID, your name, your line manager, and your email then select add. After selecting add software options will appear. Select MAPICS XA, then select continue.

For application information select your job title and fill out the reason that you are requesting the software.

Submit the application and wait for approval.

Note: Multiple application requests can be made at the same time. However Mapics XA – UK and Mapics XA- Mexico must be submitted separately.

Note: When opening the application you will need to open multiple sessions in order to be logged into both Mapics XA – UK and Mexico at the same time.

4.47 Mapics XA-UK (Factory Use Only)

4.47.1 Description

Mapics UK is used for locating the Bill of Materials and Parts for generators built in the UK.

4.47.2 Application

Mapics UK is used for locating the Bill of Materials and Parts for generators built in the UK.

4.47.3 Hardware

N/A

4.47.4 Installation

To obtain Mapics, go to the Cummins software shelf and enter the following information:

- Keyword: "Newage"
- Software version: 650

To install the program go to the following website:

<http://cisen20000.cise.cummins.com/nwg/cpgapps.nsf/aacpgf?OpenForm>

Once there fill in your WWID, your name, your line manager, and your email then select add. After selecting add software options will appear. Select MAPICS XA, then select continue.

For application information select your job title and fill out the reason that you are requesting the software.

Submit the application and wait for approval.

Note: Multiple application requests can be made at the same time. However Mapics XA – UK and Mapics XA- Mexico must be submitted separately.

Note: When opening the application you will need to open multiple sessions in order to be logged into both Mapics XA – UK and Mexico at the same time.

4.48 Megger (Insulation Test Meter)

4.48.1 Description

A Megger is used to test the insulation properties of motor and electric wiring, high power antenna mounts, and other similar items.

4.48.2 Application

A Megger is used to test the insulation resistance on electrical components.

4.48.3 Hardware

N/A

4.48.4 Installation

N/A

4.49 Microsoft Office Professional

4.49.1 Description

Microsoft Office Professional gives you access to Word, Excel, OneNote, Outlook, PowerPoint, Publisher, and Access.

4.49.2 Application

Microsoft Office Professional gives you access to Word, Excel, Infopath, OneNote, PowerPoint, Publisher, and Visio. These programs are used in multiple processes throughout the support of our products.

4.49.3 Hardware

N/A

4.49.4 Installation

Microsoft Office Professional can be acquired in the following manners:

For employees with access to the Cummins intranet, Microsoft Office Professional can be downloaded from the Cummins Software Shelf:

- Keyword: "Office Professional"
- Software version: 2013
- Language: Select appropriate language.

The software will automatically install once it has been approved.

For employees that don't have access to the Cummins intranet, Microsoft Office Professional can be downloaded from the Vendor's website at the following location:

<http://office.microsoft.com/en-us/buy-microsoft-office-professional-2013-FX102918381.aspx?WT%2Emc%5Fid=PS%5FBing%5FOffice%5FOnline%5F%20office%5Fonline%5FText&WT%2Eintid1=ODC%5FENUS%5FFX102759646%5FXT103926341>

Once purchased, the website will assist you in installing the suite of Microsoft office tools onto your PC.

4.50 Microsoft Project

4.50.1 Description

Microsoft Project is a powerful desktop tool to analyze and plan resources, budgets, timelines, and what-if scenarios. Easily measure progress and anticipate resource needs with out-of-the box reports.

4.50.2 Application

Microsoft Project is used by Cummins Inc. to analyze and plan resources and budgets in relation to projects being supported (VPI &VPC, Common Global Process, and Functional Excellence projects for example).

4.50.3 Hardware

N/A

4.50.4 Installation

To obtain Microsoft Project follow the instructions below:

For employees with access to the Cummins intranet, Microsoft Project can be downloaded from the Cummins Software Shelf:

- Keyword: "Project"
- Software version: 2013

The software will automatically install once it has been approved.

For employees that don't have access to the Cummins intranet, Microsoft Project can be downloaded from the Vendor's website at the following location:

<http://office.microsoft.com/en-us/project/try-or-buy-project-management-and-ppm-software-and-services-microsoft-project-FX103797290.aspx?WT%2Emc%5Fid=PS%5FBing%5FOffice%5FOnline%5F%20office%5Fonline%5FText&WT%2Eintid1=ODC%5FENUS%5FFX102759646%5FXT103926341&WT%2Eintid2=ODC%5FENUS%5FFX103472268%5FXT103993060>

Once purchased, the website will assist you in installing Microsoft Project onto your PC.

4.51 Modscan32 Service Tool

4.51.1 Description

ModScan32 is a Windows-based shareware application which operates as a Modbus master for protocol testing and performing Modbus serial and TCP/IP data collection by polling at user-defined intervals down to milliseconds. It allows the user to access and change data points in a connected slave device using either the RTU or ASCII Transmission mode.

ModScan32 is ideally suited for quick and easy compliance testing of the Modbus protocol and its built-in display of serial traffic allows effective troubleshooting of field connections.

4.51.2 Application

Modscan32 is being used for setup and troubleshooting MODBUS communications on generator sets that are using the PowerCommand 1.x, 2.x, and 3.x control boards, as well as the DMC 1000 and DMC 1500 systems (which incorporate the use of the MCM3320 control board).

4.51.3 Hardware

Use the following hardware:

- Brainbox (USB) or Brainbox Express card:
<http://cidcn20011.cidc.cummins.com/CBS/Powersweep/HDSHelf.nsf/main?OpenFrameset>
- Straight-through DB9 cable (for connections using a ModLon interface).
- Null-Modem DB9 cable (for direct Modbus connections).

4.51.4 Installation

Modscan32 can be sourced in a number of ways.

- Cummins Software Shelf
 - Keyword "Modscan"
 - Select the version 8.A00-10 from the list of options

NOTICE

The PS4 PCs are 64-bit, while Modscan is a 32-bit application designed to work in a VM (Virtual Machine) application. This may work outside of the application. If it does not, the 64-bit option on the software shelf will need to be selected.

- Order from the software developer:
 - <http://www.win-tech.com/html/modbus1.htm>
 - Click on one of the “order online” icons
 - Select “MBS32-SUL” and complete the order process

4.52 Modsoft

4.52.1 Description

Modsoft Programming Software is a DOS-based software which serves as an integrated tool for programming, testing, and documentation of Modicon Programmable Logic Controllers (PLCs). The applications include graphic and text editors, configuration utilities, facilities for transferring code and data to and from the controller, documentation, and online help for the user.

4.52.2 Application

Modsoft software is used by CPG to program Modicon series Quantum PLC commonly installed on Digital Master Controls (DMC), Series PCIL and PCUL, manufactured before 2005.

4.52.3 Hardware

You can connect to the PLC through Modbus or Modbus Plus protocol. The following hardware is necessary:

- For Modbus Communication
 - Programming cable for Modbus interphase: Schneider P/N 990 NAA 263 20
- For Modbus *Plus* Communication. If Modsoft is installed on a legacy computer with slot for PCMCIA card, you need:
 - MB+ PCMCIA Type3 PNP Card, Schneider P/N 416NHM21234 (for Windows 95, 98, or NT; not supported for DOS or Windows 3.1)
 - Modbus Plus Ruggedized Tap Programming Cable, Schneider P/N 990 NAA 215 10
- If Modsoft is configured to work with USB ports, you need:
 - Modbus Plus / USB converter, Schneider P/N TSX C USB MBP
 - Modbus Plus Ruggedized Tap Programming Cable, Schneider P/N 990 NAD 218 10 (straight connector) or 990 NAD 211 10 (elbowed connector).

In addition you should have a common DB9 – DB9 Serial Straight trough cable handy. All of the aforementioned accessories should be purchased through a Schneider dealer.

4.52.4 Installation

Modsoft was discontinued by Schneider years ago. It's no longer available from software shelf. Contact your local Schneider Electric to order Modsoft.

The minimum hardware required for Modsoft is: 486 CPU, 8 MB extended RAM space, and 20.5 MB of hard disk space.

Operating system requirement is: MSDOS version 5.0 or greater, and Windows 3.0 or higher (Windows 95, 98, or NT) if using Windows.

Note: Modsoft may run on Windows XP with Modbus Plus communications, however you will have to consult outside sources regarding installation and use since Schneider no longer supports the software.

4.53 Norton Ghost Product

4.53.1 Description

Norton Ghost provides advanced backup and recovery for your computer. Protect your documents, financial records, presentations, photos, music, videos, historical documents, or any other kinds of data you keep on your computer by making a backup of your computer's entire hard disk. Or, limit your backup to include only those files and folders that mean the most to you.

You can schedule backups to capture your changes automatically as you work from day to day. Or start a backup manually at any time. You can also easily configure Norton Ghost to run a backup in response to specific events. For example, a backup can be started when a particular application is started, or when a specified amount of new data has been added to the drive.

When you experience a problem with your computer, you can restore a file, folder, or an entire drive, to return your computer to a previous, working state with the operating system, applications, and data files intact. Or if you accidentally delete a personal file, get it back with a few simple steps.

Using easy-to-follow wizards, set up fast and reliable backups that run while you continue to work. Or schedule your backups to run after hours when you are no longer using your computer.

When disaster strikes, Norton Ghost helps you recover your computer from the effects of many common problems, including:

- Virus attacks: Damage might be done before a virus is quarantined
- Faulty software installations: Some software can negatively affect your computer's performance, slowing it down to the point that opening programs or documents can require too much time. But once installed, uninstalling a product might not recover unintentional damage done during an install
- Hard drive failure: Data can become corrupted on your system drive (typically C), making it impossible to start your operating system
- Files accidentally deleted or overwritten: Accidental deletion of files is common, but often costly
- Corrupted files: Individual files and folders can become corrupted by viruses, or when a program used to modify them encounters an error

4.53.2 Application

In CPG, Norton Ghost software is used to back up and restore switchgear software applications at customer sites.

After commissioning of gear, Norton Ghost is used to create a full backup of the software installed. And in the situation where the software is corrupted, Ghost is used to restore the programs that were corrupted.

4.53.3 Hardware

No extra Hardware tools are required to Install Norton Ghost. It can be installed through CD or through Software shelf if it is available.

4.53.4 Installation

This software tool is not available in Cummins software shelf. A Similar software is available in Software shelf which is less version compare with Norton Ghost called as GHOST SOLUTION SUITE 2 (INCLUDES GHOST EXPLORER).

Symantec Ghost Solution Suite 2.0 (Ghost 11.0)

Ghost Solution Suite 2.0 was released in November 2006. This version provides significant improvements in performance, as well as the ability to edit NTFS images. This version also adds support for Windows Vista, x64 versions of Windows, and GUID Partition Table (GPT)-based disks (although the software does not yet fully support systems with Extensible Firmware Interface (EFI)-compliant firmware). Running Live Update from Ghost Explorer will update Ghost to 11.0.2.1573. Ghost 11.0 supports saving and restoring from native Ghost image format (.GHO, .GHS) and raw images (.IMG, .RAW).

Installation procedures might vary, depending on work environment and which installation options is choose. Most of the customers install the full version of Norton Ghost from the installation CD. Before installation of Norton Ghost, ensure that computer meets the system requirements. Review the Readme file on the installation CD for any known issues.

Norton Ghost software can be purchased from **Norton website Or Any local seller.**

4.54 Null Modem DB9 Cable (DB9F-DB9M)

4.54.1 Description

Null modem cable, DSUB 9-pin female to DSUB 9-pin male.

TABLE 2. PIN CONFIGURATION

DB9F	DB9M
1	4
2	3
3	2
4	1
5	5
6	6
7	7
8	8
9	9
Shield	Shield

4.54.2 Application

Used for communication between CPG employee's laptops and CPG networking products and switchgear products.

4.54.3 Hardware

The null modem cable is typically used in conjunction with RS232-to-RS485 converter, the 5-pin to DB9 cable, and a serial adapter for the laptop.

4.54.4 Ordering

These cables are generic and can be found in many locations, one such location is Digikey: <http://www.digikey.com/product-detail/en/AK142-3-R/AE9880-ND>

4.55 Oracle Business Intelligence (OBIEE)

4.55.1 Description

The Oracle Business Intelligence Foundation Suite provides the industry's best in class platform for business intelligence, including ad hoc query and analysis, dashboards, enterprise reporting, mobile analytics, scorecards, multidimensional OLAP, predictive analytics, on an architecturally integrated business intelligence foundation.

4.55.2 Application

OBIEE is used for sale order numbers, invoicing, warranty analysis, reliability data and other various functions within CPG.

4.55.3 Hardware

N/A

4.55.4 Installation

To install the program go to the application access website:

<http://ftdcn20000.ced.corp.cummins.com/Departmental/IS/cpgapps.nsf/aacpgf?OpenForm>

Once there fill in your WWID, your name, your line manager, and your email then select add. After selecting add software options will appear. Select OBIEE (Oracle Business Intelligence), then select continue.

For application information select your CPG Business Unit and region. Then fill out the reason for your request.

Submit the application and wait for approval.

4.56 Oracle E-Business

4.56.1 Description

Oracle E-Business Suite family of Customer Relationship Management applications provides a single, global basis of information that ensures all selling channels are aligned with corporate objectives.

4.56.2 Application

Oracle E-Business is used for warranty, parts, bills of materials, pricing, and other various functions within CPG.

4.56.3 Hardware

N/A

4.56.4 Installation

To use Oracle E-Business, the following applications will need to be downloaded from the Cummins software shelf:

- Keyword: "Oracle Client 11G"
- Software Version: 11G R2
- Keyword: "Oracle Client 11G Drivers"
- Software Version: 11.2.0.1.0

To install the program go to the following website:

<http://cisen20000.cise.cummins.com/nwg/cpgapps.nsf/aacpgf?OpenForm>

Once there fill in your WWID, your name, your line manager, and your email then select add. After selecting add software options will appear. Select Oracle E-Business, then select continue.

For application information select your country and your job title. Then fill out the reason for your request.

Submit the application and wait for approval.

4.57 PGBU and EBU Matrix Applications (Factory Use Only)

4.57.1 Description

The PGBU and EBU Matrix Applications are the online gateways (i.e. databases) that allow Cummins employees to access the Cummins Product Lifecycle Management (PLM) system. The PLM system will be used differently depending on the employee's individual role and the application access level (i.e. role) will be chosen accordingly. On the whole, the Matrix Applications will allow an employee to access information for any Cummins Business-Unit-specific product that has been assigned a part number.

The Power Generation Business Unit and Engine Business unit have separate – yet similar in function – Matrix applications (i.e. PLM access points).

4.57.2 Application

The functionality and use of both the PGBU and EBU Matrix Applications will vary significantly depending on the role of the individual Cummins Inc. employee as well as the "role" selected during the application access request process. From a high-level perspective, the Matrix Applications will allow a Cummins Inc. employee to access, view, and (in some cases) modify Cummins engineering drawings as well as monitor engineering, manufacturing, and supply-chain change information.

4.57.3 Hardware

Both the PGBU and EBU Matrix applications are database tools only (i.e. engineering documentation). There is no hardware associated with either tool.

4.57.4 Installation

These tools are applicable to PGBU and EBU employees only. They are not applicable to DBU employees (i.e. distributor or dealer personnel).

PGBU Matrix

Follow the steps below for new 'Matrix Account' registration at <http://ftdcn20000.ced.corp.cummins.com/Departmental/IS/cpgapps.nsf/aacpgf?OpenForm&Seq=4>.

1. Check that your Request Name and WWID are correct and click Continue.

Cummins Application Access Control

See Status of Previously Submitted Access Requests

* Indicates mandatory field.

Requestor Information:

Requestor Name:
Requestor WWID:
* Phone Number:

Recipient Information:

(Recipient must have a valid WWID PRIOR to submitting this request. Enter the correct WWID, and hit Continue Button to proceed.)

* WWID: **Continue**

2. Fill out the required information including Manager Name using the Address Book applet.

Requestor Information:

Requestor Name:
Requestor WWID:
* Phone Number:

Recipient Information:

(Recipient must have a valid WWID PRIOR to submitting this request. Enter the correct WWID, and hit Continue Button to proceed.)

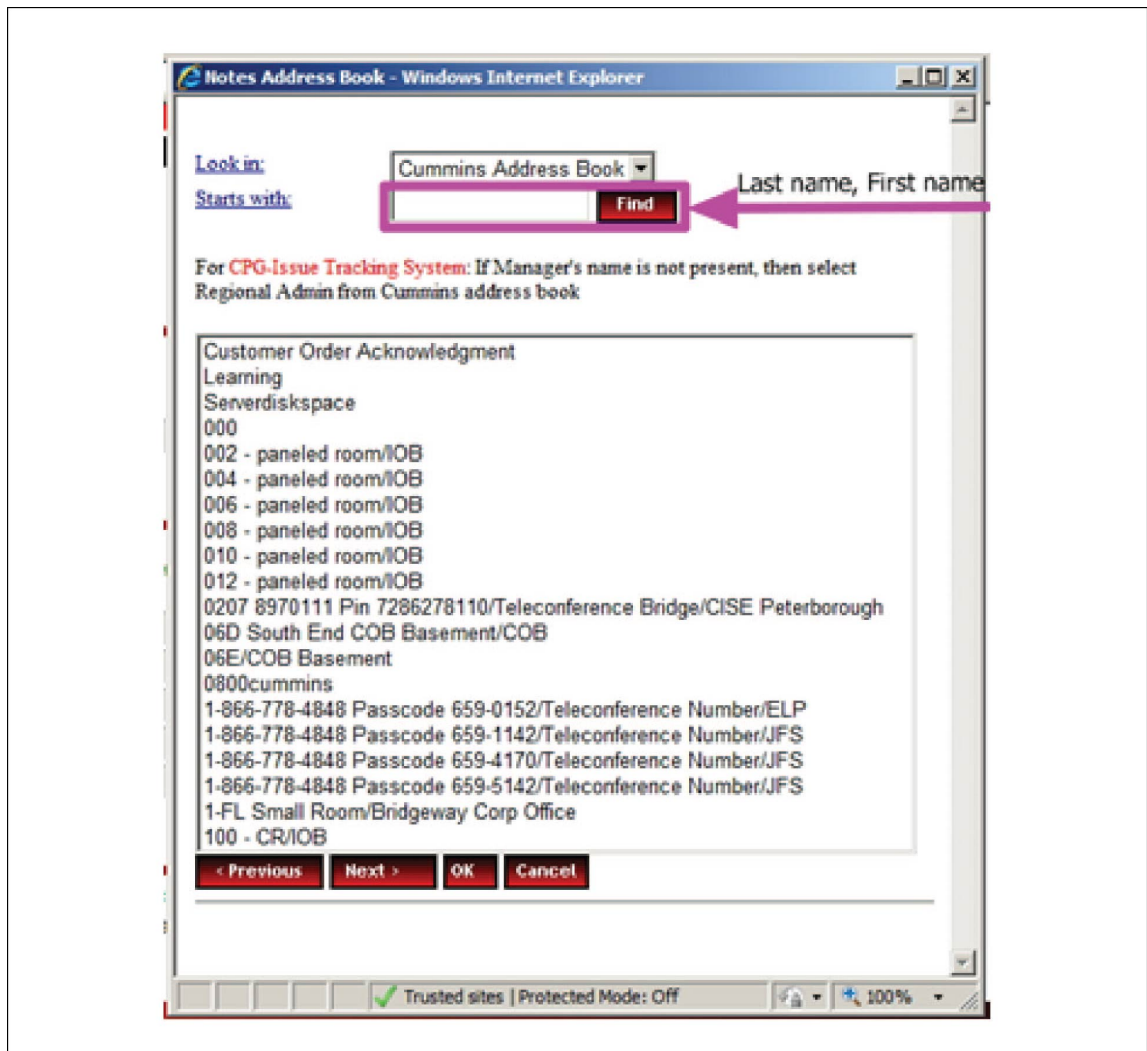
* WWID: **Continue**

* Full Name:
* Email:
* Job Title:
* Manager Name: **Address Book**

Click to launch Applet

Please make your selection:

* Application Access: Add Delete (Select Add for new access request. Select Delete to remove current access.)



NOTICE

Search for your Manager using the above Applet using *Last Name, First Name* format.

- 3. Click "Add" Application Access and subsequently select the "Matrix Application".



NOTICE

You may choose to apply for access to multiple applications at one time.

4. Fill in your role-specific information and click “Submit to Access Administrator” to complete your PGBU Matrix access Request.

Application information:

* Indicates mandatory field.

Selection for Cummins Power Generation

Matrix User Request Form

Requested By:

General -


- Function:**
- Responsible Design Organization(s):**
Accessories
ATS
Commercial High Range Genset
- Site:**
- Matrix Group(s):**

[Matrix Role Help](#)

- Matrix Role(s) -**
Note - You can select multiple Roles using Ctrl key.

Drawing View-Only
ECR Chairman
ECR Coordinator

Comments for Account Creation -

 **Submit to Account Administrator**

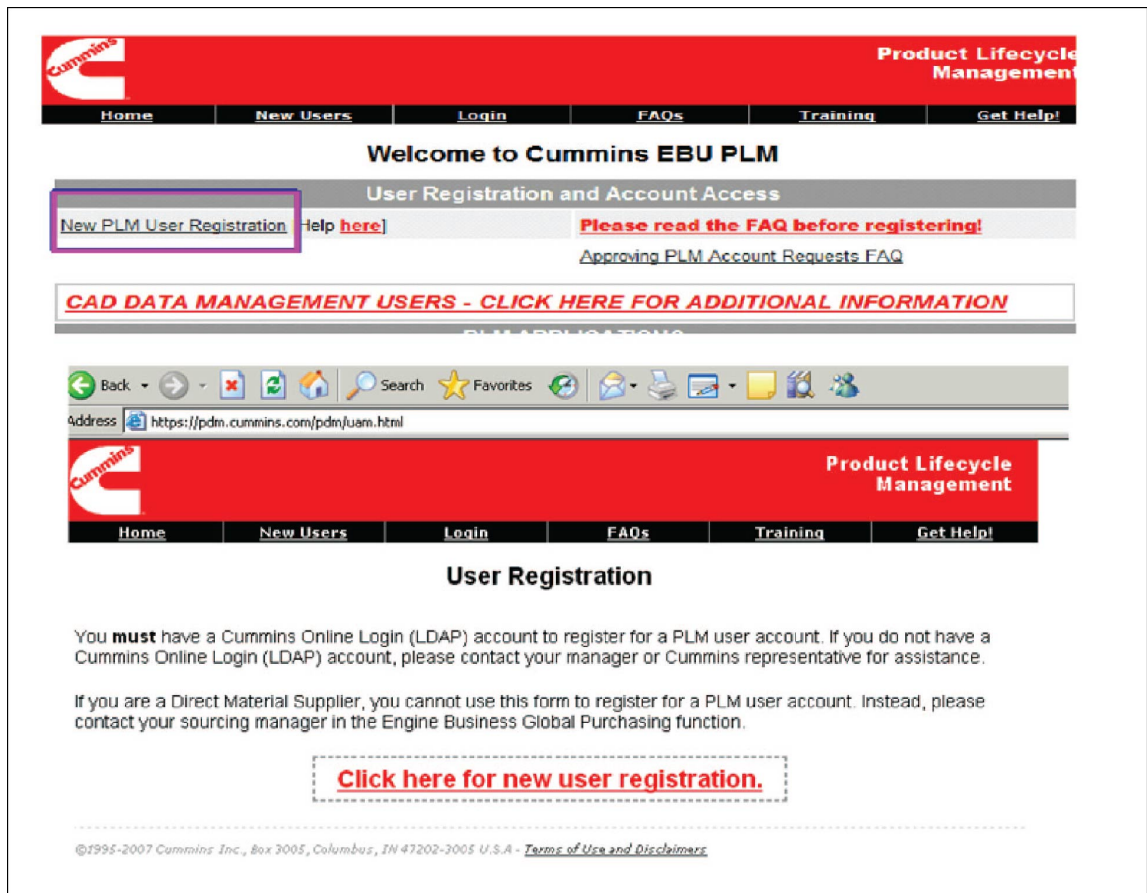
NOTICE

Once the request is submitted, it goes to your supervisor for approval and once approved, you will be getting access to Matrix.

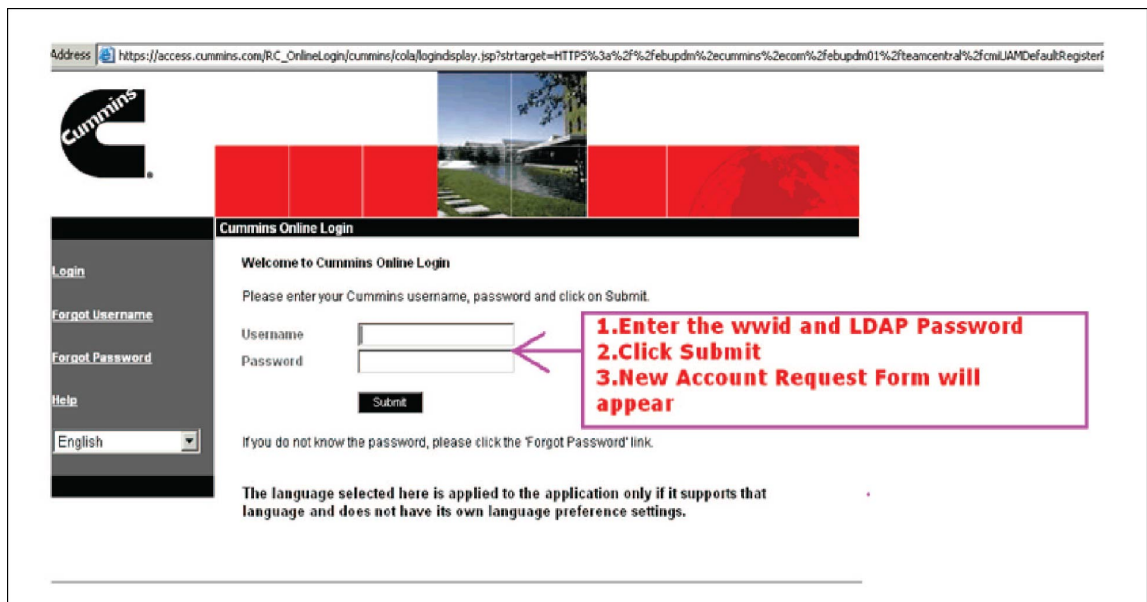
EBU Matrix

Follow the steps below for new 'PDM Account' registration at <https://pdm.cummins.com/pdm/>.

1. Click the NEW PLM User Registration.



- 2. Page will appear to enter your WWID and LDAP password Credentials.



- 3. Enter your WWID, hit 'tab', the supervisor details will be filled in. Complete the rest of the form and click Next.

New User Registration

Fields in red italics are required.

New User Account Request

User Information
 WWID: (i.e. aa999)
 (if one has been assigned to you)
 Name:
 E-mail:
 (if not on Cummins Notes mail system)

Cummins Relationship Manager/Supervisor Information
 WWID: (i.e. aa999)
 Name:
 E-mail:

If you find any of the details displayed here is incorrect, Plz enter comments and click 'Report Error'

Business Unit
Location

Cummins Affiliation: Please verify your primary affiliation with Cummins

Cummins Employee
 Contractor/Contingent Worker
 Alliance Partner
 Distributor
 Supplier
 Specialty Services

Select Alliance Identify your joint venture
 Select Category
 Select Application
 Enter your Distributor Company name

Contact your Sourcing Manager in the Engine Business Global Purchasing function. If you are a contingent worker/Contractor, please record the additional information in comments by clicking on report error.

Supplier / Consultants provide highly specialized skills, professional knowledge, a product, or service which is typically not available at Cummins. They are used when needed, or on a temporary or limited basis.

Comments

Report Error Next Cancel

NOTICE

Once the request is submitted, it goes to your supervisor for approval and once approved, you will be getting access to PLM.

4.58 PCAN Adapter

4.58.1 Description

The PCAN-USB adapter enables simple connection to CAN networks. Its compact plastic casing makes it suitable for mobile applications.

The opto-decoupled version guarantees galvanic isolation of up to 500 Volts between the PC and the CAN side.

The adapter is used in conjunction with PCAN Explorer software.

4.58.2 Application

Cummins Inc. uses this in conjunction with generator sets utilizing SAE J1939 protocol. It is used for viewing communication on the control backbone for Troubleshooting. It is also used as an interface for Engine Protection Witness Testing on FAE engines.

4.58.3 Hardware

The adapter is used in conjunction with PCAN Explorer software. It is also used in conjunction with RS-232 to RS-485 converter (CPG part number 0324-0021).

4.58.4 Installation

The PCAN adapter can be sourced in one of the two following ways:

CPG employees with access to the Cummins intranet can acquire this tool from the Cummins Software Shelf:

- Search Keyword: "Peak"
- Select version: 3.1

CPG employees without access to the Cummins intranet can acquire this tool from Grid Connect at <http://www.c-a-n.com> or a comparative source.

4.59 PCAN Explorer

4.59.1 Description

PCAN-Explorer is a universal tool for monitoring data traffic on a CAN network. For easy and clear allocation of the individual messages, these can be identified as so-called symbols. The integrated VBScript support allows the creation of macros to automate complex tasks. The integrated data logger means that the data traffic of a bus can be recorded, analyzed, and stored. PCAN-Explorer is designed as automation server and can therefore be remote controlled through scripts.

4.59.2 Application

Cummins Inc. uses this tool (in conjunction with the PCAN Adapter) on generator sets utilizing SAE J1939 protocol. It is used for viewing communication on the control backbone for Troubleshooting. It is also used as an interface for Engine Protection Witness Testing on FAE engines.

4.59.3 Hardware

The explorer is used in conjunction with the PCAN Adapter tool. It is also used in conjunction with RS-232 to RS-485 converter (CPG part number 0324-0021).

4.59.4 Installation

The PCAN adapter can be sourced in one of the two following ways:

1. CPG employees with access to the Cummins intranet can acquire this tool from the Cummins Software Shelf:
 - Search Keyword: "PCAN"
 - Select version: 5.3.0
2. CPG employees without access to the Cummins intranet can acquire this tool from Grid Connect at <http://www.c-a-n.com> or a comparative source.

4.60 Phase Rotation Meter

4.60.1 Description

A Phase Rotation Meter is a device which uses six terminal leads to compare the rotational phase of two different three phase connections.

4.60.2 Application

Cummins Inc. uses phase rotation meters to determine the phase sequence and phase rotation for the output of our generator sets and switchgear during installation. This meter is also used to match the output of the generator sets and switchgear to the phase sequence and phase rotation of the facility that they are being attached.

4.60.3 Hardware

N/A

4.60.4 Installation

Phase rotation meters can be purchased from any major tool vendor (such as Grainger).

4.61 PowerSuite Service Tool

4.61.1 Description

PowerSuite is a software application that uses a single user interface for access to the individual product selection tools and document libraries that are contained within the suite.

4.61.2 Application

The individual tools contained within PowerSuite are:

- **GenSize:** A comprehensive, easy-to-use generator set sizing software application that allows the user to quickly determine the best CPG generator set for the customer's application needs. The user enters the project requirements and applied loads, and GenSize calculates generator loading, required generator performance, and suggests product recommendations.
- **Transfer Products:** A comprehensive, easy-to-use transfer switch selection software application that allows the user to quickly determine the best CPG ATS for the customer's application needs. The user enters the switch requirements and amperage, and Transfer Products suggests product recommendations based on the requirements entered.
- **Library:** The Library is a product database that provides the user access to relevant product documentation. The documentation includes product specification and data sheets, drawings, and other relevant technical data files. The Library is integrated to the GenSize and Transfer Products applications that allow access to the data files related to the product recommendations made by the two applications.

As well as accessing the data based on product recommendations, the user can print or save the data files for electronic delivery.

As well as access to the above mentioned tools, PowerSuite also provides news and product updates within Cummins Inc.

4.61.3 Hardware

None.

4.61.4 Installation

PowerSuite is sourced directly from the PowerSuite website:
<https://powersuite.cummins.com/PSWEB/login.action>

1. Register to gain access to the site.

2. Click the **Request A Free Account** tab on the screen.
3. Choose a registration method based on whether the user has a Cummins Worldwide ID.

4.62 PSI Display

4.62.1 Description

The Power Solutions Incorporated (PSI) display software package provides a calibration interface to the generator set's Engine Control Module (ECM). Aside from acting as a calibration interface, the PSI software performs the following capabilities:

- Ability to extract a calibration from an ECM
- Ability to upload a calibration to an ECM
- Ability to reflash an ECM with a MOT file
- Ability to graphically plot variables and metrics
- Ability to log data variables and metrics to PC memory
- Ability to retrieve and display fault code information

4.62.2 Application

The display software package applies to generator set models with the GM 8.1L Engine including:

- GGLA and GGLB

4.62.3 Hardware

The E-Controls interface cable and software are available through the PSI parts department 1-888-331-5769. PSI P/N 101-554.



4.62.4 Installation

PSI can be sourced in two ways.

1. For employees with access to the Cummins Intranet, use the Cummins Software Shelf.
 - Keyword "PSI"
 - Version E1622001A.1

2. For employees without access to the Cummins intranet (dealers & employees in other countries) call PSI Parts department 1-888-331-5769 Part: "PSI Engine Diagnostic Software".

NOTICE

When logging into PSI Display, a prompt will appear for a password. Depending on which version of the software you have, the password may be one of the following:

- NQUX-VK2M-FF3K-XDCJ
- BRYX-VK0M-GF3L-JCCN
- NVWW-ZKMN-NVWK-TDIN

NOTICE

Reference the E-Controls Engine Display Interface Software Training Manual (A035C608) which is available on the QuickServe Online Website.

4.63 QUEST for Gas

4.63.1 Description

Quantum Electronic Service Tool (QUEST) for Gas is used as a service data tool to monitor engine ECM sensors and trims. Also it can pull up graphical data, as well as active and inactive faults.

4.63.2 Application

QUEST for Gas is used as a service data tool to monitor engine ECM sensors and trims on Cummins Inc. ESB generator sets using the Quantum Series engines (specifically the QSK19/38/50/60).

4.63.3 Hardware

Use the following hardware.

INLINE 6 Data Link Adapter (<http://www.inline.cummins.com/>)

4.63.4 Installation

To obtain QUEST for Gas, use the following steps:

As a Cummins Inc. employee with access to the Cummins intranet:

- Cummins Software Shelf
 - Keyword: "quest"

Software version: 2.1.0

4.64 RS232-to-RS485 Converter

4.64.1 Description

The RS232-to-RS485 is a port-powered two channel converter. It converts TD and RD RS-232 lines to balanced half-duplex RS-485 signals. The converter has DB-9 female connectors on both the RS-232 side and the RS-485 side.

4.64.2 Application

The RS232-to-RS485 converter is used to permit communication between the operator PC and the PCC control on the Generator. The RS232 male side of the converter is connected to the DB9 female side on the Brainbox.

4.64.3 Hardware

Use the following hardware:

- Brainbox (USB) or Brainbox Express Card
(<http://cidcn20011.cidc.cummins.com/CBS/Powersweep/HDSHelf.nsf/main?OpenFrameset>)
 - For Power Product applications:
 - 0541-1374 (kit - includes 0324-0021)
 - 0338-0431
 - 0338-4732
 - A026D934
 - For Power System and Power Solution applications:
 - 0338-4590 (PCC1300, 1301, 1302, 2300, 3300, MCM3320)
 - 3163768 (PCC3100, 2100, 3200 (DB9-DB9))
 - 3163156 (PCC3200 (DB9-9 pin Deutsch))
 - 3164721 (PCC3100 (MON))

4.64.4 Installation

For Cummins Inc. employees, the RS232-to-RS485 (P/N: 0324-0021) can be sourced through the “Buy It Now” link on the MyCummins home page:
<http://mycummins.cummins.com/wps/portal/EmployeePortal/Home>

Users external to Cummins Inc. can source this tool through B&B Electronics at the link below:
<http://www.bb-elec.com/Products/Serial-Converters/Port-Powered-RS-232-to-RS-485-Converters/485SD9R.aspx>

The RS232-to-RS485 is compatible with computers using the Inpower and Engineering Service Tools.

4.65 RSLinx Classic

4.65.1 Description

RSLinx Classic is the communication server software that is used as a gateway application to provide the ability to program controllers, flash firmware and batch sequencing.

RSLinx provides a communication interface between Allen Bradley programmable logic controllers and the user's personnel computer.

4.65.2 Application

RSLinx Classic is used to provide a gateway between the user's laptop and the Allen Bradley Micrologix programmable logic controllers used both in the DMC1500 and some select DMC300 builds.

The software provides a link to the programmable logic controllers so that software can be uploaded and downloaded into the units. The actual uploading and downloading of the software is performed through RSLogix, but RSLinx Classic is required to create the interface between the devices.

4.65.3 Hardware

The following hardware/software is required to connect your computer with the PLC to upload or download programs using the RSLinx application.

- An Ethernet cable to connect between the RSLogix programmable logic controller and personal computer, or an Ethernet hub if used.
- RSLogix will need to be installed on the computer, and running in conjunction with RSLinx Classic.

4.65.4 Installation

RSLinx Classic can be acquired in one of the two following ways:

As a Cummins Inc. employee with access to the Cummins intranet:

- Cummins Software Shelf
 - Keyword “RSLinx”
 - Software version 2.57.00

As a dealer or Cummins Inc. employee without access to the Cummins intranet:

RSLinx classic can be downloaded from the vendor website at the following link:

<http://compatibility.rockwellautomation.com/Pages/MultiProductDownload.as>

In the product search box, type “RSLinx” and you will choose the first resulting option.

The software can also be acquired from your local Allen Bradley (Rockwell Software) distributor. To find your local distributor, please use the following link:

<http://www.rockwellautomation.com/rockwellautomation/distributor-locator/sales-locator.page>

Basic hardware system requirements for installing RSLinx software package

- An Intel Pentium II or greater microprocessor
- 128MB RAM (256MB with windows XP)
- 100MB of available hard disc space
- A CD ROM drive
- 1.4MB disc drive
- Any windows compatible mouse or other pointing device.

4.66 RSLogix Micro Software

4.66.1 Description

Allen-Bradley’s RSLogix is programming software that allows creation, modification and monitoring of application programs for the Allen-Bradley MicroLogix family of controllers. Designed with features to reduce time and increase productivity, RSLogix maximizes performance, saves project development time, and reduces the total cost of ownership of one’s system.

4.66.2 Application

RSLogix software is used to upload, download, create, and modify the software that is used in the Allen Bradley programmable logic controllers that are installed in our Digital Master Control (DMC) 1500 product, as well as in select DMC 200 and 300 products.

Depending on the product, you will need to choose the version of RSLogix software that works with the DMC in question. RSLogix Micro is used with the DMC1500 and RSLogix 500 is used with the DMC 200 and 300 products.

This software works in conjunction with the RSLinx Classic software to provide the user to monitor and manipulate the programmable logic controller's software directly from their personal computer.

4.66.3 Hardware

The following hardware/software is required to connect your computer with the PLC to upload or download programs using the RSLogix application:

- An Ethernet cable to connect between the RSLogix controller and personnel computer, or an Ethernet hub if used.

RSLinx Classic will need to be installed on the computer, and running in conjunction with RSLogix.

4.66.4 Installation

RSLinx Classic can be acquired in one of the two following ways:

As a Cummins Inc. employee with access to the Cummins intranet:

- Cummins Software Shelf
 - Keyword "RSLogix"
 - Software version (8.30 or 8.40 – Depending on the DMC application)

As a dealer or Cummins Inc. employee without access to the Cummins intranet, RSLinx classic can be downloaded from the vendor website at the following link:

<http://compatibility.rockwellautomation.com/Pages/MultiProductDownload.as>

In the product search box, type "RSLogix" and you will choose the resulting option that pertains to your needs.

The software can also be acquired from your local Allen Bradley (Rockwell Software) distributor. To find your local distributor, please use the following link:

<http://www.rockwellautomation.com/rockwellautomation/distributor-locator/sales-locator.page>

Basic hardware system requirements for installing RSLinx software package

- An Intel Pentium II or greater microprocessor
- 128MB RAM (256MB with windows XP)
- 100MB of available hard disc space
- A CD ROM drive
- 1.4MB disc drive
- Any windows compatible mouse or other pointing device.

4.67 Straight thru DB9 Serial Cable

4.67.1 Description

This is a connection cable for 9-Pin serial interface with molded hoods on either end. Typically, the cable will have a male connection on one end and a female connection on the other end. The cable will vary in length from 1-15 feet.

4.67.2 Application

This is used for communication between CPG employee's laptops and CPG product control boards (to monitor and change programs via the InPower program). May also be needed as an accessory for other service tools.

4.67.3 Hardware

This is typically used in conjunction with RS232-to-RS485 converter, the 5-pin to DB9 cable, and a serial adapter for the laptop.

4.67.4 Ordering

These cables are generic and can be found in many locations such as Digikey (<http://www.digikey.com/product-detail/en/AK129-2-R/AE9869-ND/>).

4.68 SEL-5030 acSELerator QuickSet

4.68.1 Description

AcSELerator QuickSet (a product of the Schweitzer corporation) is an easy-to-use yet powerful tool with template design capabilities for easy, consistent settings and applications to help you get most out of your SEL device. With acSELerator QuickSet you have the ability to manage relay settings, manage integrated devices, access remote relays, view waveforms and automatically check interrelated settings.

4.68.2 Application

SEL acSELerator Quickset is used by Cummins Inc. to implement the required settings to the Schweitzer protective relays that are used in our switchgear lineups.

4.68.3 Hardware

Use the following hardware:

Used in conjunction with the SEL communication cable, CPG part number 0338-4590.

4.68.4 Installation

SEL Compass can be sourced in one of two ways:

For Cummins Inc. employees with access to the Cummins Intranet:

- Cummins Software Shelf
- Search keyword: "acselerator"
- Select version: 5.16.0.2

For those who don't have access to the Cummins Intranet:

- Go to the SEL software website at <https://www.selinc.com/support/?v=2>
- Select your specific area to find contact information for local SEL sales representatives

4.69 SEL Compass

4.69.1 Description

SEL Compass (a product of the Schweitzer corporation), is a highly intuitive interface platform for easy notification of product updates as well as download and sharing of the many products and information that SEL provides. SEL Compass provides the ability to download new product updates, literature, and marketing material according to your selection.

4.69.2 Application

SEL Compass is used by Cummins Inc. to acquire product updates and information related to the Schweitzer protective relays that are used in the switchgear lineups.

4.69.3 Hardware

Use the following hardware.

Used in conjunction with the SEL communication cable, CPG part number 0338-4590.

4.69.4 Installation

SEL Compass can be sourced in one of two ways:

For Cummins Inc. employees with access to the Cummins Intranet:

- Cummins Software Shelf
- Search keyword: "Compass"
- Select version: 2.0.16.1

For those who don't have access to the Cummins Intranet:

- Go to the SEL software website <https://www.selinc.com/support/?v=2>
- Select your specific area to find contact information for local SEL sales representatives.

4.70 Siebel HTIM High Interactivity Framework (TSR)

4.70.1 Description

High interactivity framework (TSR) is designed to provide users of Siebel applications with an experience similar to that of traditional GUI-based Windows applications. It is also designed to help businesses deliver more-efficient customer service. This application provides optimal resource deployment, speedy issue resolution, one-and-done request handling, and powerful tracking and analytics capabilities. As a result, businesses can increase customer satisfaction while cutting costs at all touch points around the globe.

4.70.2 CPG Application

TSR is used to document all service and parts related issues in the field. Through TSR users can enter a new user request versus directly contacting the service engineering contact center. This request will be used to document the service issue from submission to resolution of the issue (including all communications and attachments related to the issue).

4.70.3 Hardware and Software

No other hardware or software tools are required for use of the TSR application.

4.70.4 Installation

TSR training is required prior to site access being granted.

TSR training is available from the Cummins Learning Center website.

From the MyCummins website, go to the Cummins Learning Center and request to take the following course:



Once training is successfully completed, the user will need to complete a request to access TSR (Siebel CRM User Setup Application: <http://siebeluserportal.cummins.com:8080/apex/f?p=104>).

Software application requirements for installation of the TSR application are:

- Intel i5 CPU, 2.4 GHz or faster
- Microsoft Windows 7 or newer (32-bit)
- Microsoft Internet Explorer 8

4.71 Tachometer or Frequency Meter

4.71.1 Description

A tachometer is an instrument measuring the rotation speed of a shaft or disk, as in a motor or other machine.

4.71.2 Application

A tachometer is an instrument measuring the rotation speed of a shaft or disk, as in a motor or other machine.

4.71.3 Hardware

N/A

4.71.4 Installation

N/A

4.72 TSR

4.72.1 Description

High interactivity framework (TSR) is designed to provide users of Siebel applications with an experience similar to that of traditional GUI-based Windows applications. As well, is designed to help businesses deliver more-efficient customer service. This application provides optimal resource deployment, speedy issue resolution, one-and-done request handling, and powerful tracking and analytics capabilities. As a result, businesses can increase customer satisfaction while cutting costs at all touch points around the globe.

4.72.2 Application

TSR is used to document all service and parts related issues in the field. Through TSR users can enter a new user request versus directly contacting the service engineering contact center. This request will be used to document the service issue from submission to resolution of the issue (including all communications and attachments related to the issue).

4.72.3 Hardware

N/A

4.72.4 Installation

TSR training is required prior to site access being granted.

TSR training is available from the Cummins Learning Center website.

From the MyCummins website, go to Cummins Learning Center and request to take the following course:



Once you successfully complete the training, the user will need to complete the following requests for access to TSR:

1. Siebel CRM User Setup Application
 - <http://siebeluserportal.cummins.com:8080/apex/f?p=104>
2. TSR platform (from the Cummins Software Shelf):
 - Keyword: "Siebel"
 - Software version: 8.1.1.3 QF03CL

Software application requirements for installation of the TSR application are:

- Intel i5 CPU, 2.4 GHz or faster
- Microsoft Windows 7 or newer (32-bit)
- Microsoft Internet Explorer 8

4.73 WinZip

4.73.1 Description

WinZip is a shareware file archiving and compressing tool for Windows and Mac OS that allows its user to archive and compress files so that you can store or distribute them more efficiently. This reduces the time and space required to store and share information with others.

4.73.2 Application

CPG uses WinZip to compress generator, generator set, and switchgear files for storage and distribution of files to our distribution network. Archived files are zipped to reduce the amount of storage space required, and files that are being sent between distribution and the factory are zipped to reduce the time required to transmit the files.

4.73.3 Hardware

N/A

4.73.4 Installation

All Cummins Inc. provided computers are preloaded with WinZip before they are provided to their intended user.

If you need to install a copy of the software to your computer, or upgrade the existing copy of software loaded on your computer, you can acquire the software directly from the vendor at the following location: <http://www.winzip.com/win/en/index.htm>

4.74 Woodward L-Series Software

4.74.1 Description

Woodward L-Series software is a software application used in conjunction with generator sets that use Woodward electronic governors. The L-Series software is used to monitor and troubleshoot issues that occur with an L-Series control.

The L-Series software is run from your PC and communicates with the L-Series control via a serial connection.

4.74.2 Application

The Woodward L-Series Service Software is required to perform diagnostics and repair on generator set models including:

- GGMA, GGMB, GGMC
- GGPA, GGPB, GGPC
- GGLA, GGLB
- GGHE, GGHF
- GGHG and GGHH Before Spec L

4.74.3 Hardware

The Woodward L Series interface cable can be ordered using Cummins Inc. P/N 0338-4987.

4.74.4 Installation

The Woodward L Series Service Software can be sourced in one of two ways:

1. For Cummins Inc. employees with access to the Cummins Intranet:
 - Cummins Software Shelf
 - Keyword "L Series"

- Version 2.6.0.4

2. For those who don't have access to the Cummins Intranet:

- Directly from Woodward

<http://www.woodward.com/InteriorTemplate.aspx?id=2147490414>

4.75 4G Display

4.75.1 Description

The 4G display software package provides a calibration interface to the generator set's Engine Control Module (ECM). Aside from acting as a calibration interface, the 4G software has the following capabilities:

- Extracting a calibration from an ECM
- Loading a calibration to an ECM
- Re-flashing an ECM with a MOT file
- Graphically plotting variables and metrics
- Data logging variables and metrics
- Display/retrieve fault code information

4.75.2 Application

This is used with the Cummins QSJ5.9G and QSJ8.9G engine applications on the following generator set models:

- C70 N6, C80 N6, C100 N6, C125 N6 and C150 N6

4.75.3 Hardware

The 4G Display tool uses the "ECOM" interface cable sold through cancapture.com.



4.75.4 Installation

4G Display can be sourced in the following way:

- Cummins IT Software Shelf, keyword "4G"
- For non-Cummins employees, or anyone who doesn't have access to the Cummins IT software shelf, the software and drivers can be downloaded from channelone.cummins.com. An access request will have to be completed if it hasn't already been done in the past.

When logging into the 4G Display software application, a prompt is generated asking for a password.

The password is GLTX-0BIS-534R-SVUX

For any information on 4G Display usage, please refer to the E-Control 4G Ending Display Interface Software (EDIS) introduction and usage manual, literature number A052G032, which is available through the QSOL website.

power.cummins.com

Copyright © 2017 Cummins Inc. All rights reserved.

Cummins, the "C" logo, PowerCommand, AmpSentry, and InPower are trademarks of Cummins Inc.

Other company, product, or service names may be trademarks or service marks of others.

Specifications are subject to change without notice.

