



**GE**  
**Digital Solutions**

Druck Limited  
Fir Tree Lane  
Groby  
Leicester LE6 0FH  
England  
Tel: 0116 231 7100

## **SOFTWARE HISTORY**

**PACE6000**

**Pneumatic pressure controller**

**Programmable Automated  
Calibration Equipment**



**PACE6000 release Rev C12 BETA 2 software component versions**

Description	DK Number	DK Version
Instrument main code	DK0388	V02.01.15 (beta)
Instrument OS Build	DK0366	V01.10.01
Instrument Boot ROM (Programmed at manufacture time to align with hardware, no upgrade required)	DK0365	V01.03.01
Module Main Code	DK0364	V03.01.00
Module Boot ROM (Programmed at manufacture time, not upgradeable)	DK0363	V02.00.00

**CHANGES**

**DK0388**

Fixed Ethernet “Out of memory exception” error display that occurred after many open/close cycles, once this error occurs the PACE lock up is unrecoverable by power cycling.  
 Fix added max files check in Test program to prevent the creation of too many files.  
 Fix added max files check in USER SETUP to prevent the creation of too many files.  
 Add new PACE support page in the Status menu  
 Fixed DPI.exe error that occurs during analogue output option calibration.  
 Fixed lock up issue that occurred immediately after vent process completed under Ethernet control.

**APPLICABILITY OF NEW ISSUE**

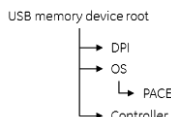
The issue of firmware should be used in production on the following series of instrument variants:  
 PACE 6000

**COMPATIBILITY**

Correct operation of the PACE6000 is supported only when DK component versions installed into the product agree with the above table, except DK0365 and DK0363 that are programmable at manufacture time.

**UNZIPPED USB MEMORY DEVICE FOLDER STRUCTURE**

Download the PACE Software and save to a USB memory device. Open the downloaded zip file and unzip to the root of the USB memory device. Once unzipped the USB memory device folder structure should be as below:



First upgrade module 1 and then module 2 if fitted. Secondly, update the OS (Operating system) and then lastly update Instrument software.

**RELEASE DATE**

5<sup>th</sup> Sept 2018



**Software releases named "beta":**

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## PACE6000 release Rev C12 BETA software component versions

Description	DK Number	DK Version
Instrument main code	DK0388	V02.01.02 (beta)
Instrument OS Build	DK0366	V01.10.01
Instrument Boot ROM (Programmed at manufacture time to align with hardware, no upgrade required)	DK0365	V01.03.01
Module Main Code	DK0364	V03.01.00
Module Boot ROM (Programmed at manufacture time, not upgradeable)	DK0363	V02.00.00

### CHANGES

#### DK0364

Fixes restricted low range issue with CM3 variants.

#### DK0388

Adds software management information to software status page:

- Vxx.xx.xx (beta) Denotes software newer than the current formal release and is released to fix a specific issue but is not yet formally realised.
- Vxx.xx.xx\* Denotes software that is older than the current formal release, in this case update to the latest version is advised as per below.

### APPLICABILITY OF NEW ISSUE

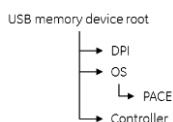
The issue of firmware should be used in production on the following series of instrument variants:  
PACE 6000

### COMPATIBILITY

Correct operation of the PACE6000 is supported only when DK component versions installed into the product agree with the above table, except DK0365 and DK0363 that are programmable at manufacture time.

### UNZIPPED USB MEMORY DEVICE FOLDER STRUCTURE

Download the PACE Software and save to a USB memory device. Open the downloaded zip file and unzip to the root of the USB memory device. Once unzipped the USB memory device folder structure should be as below:



First upgrade module 1 and then module 2 if fitted. Secondly, update the OS (Operating system) and then lastly update Instrument software.

### RELEASE DATE

19<sup>th</sup> September 2016



**Software releases named "beta":**

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**PACE6000 current release Rev B11 software component versions**

Description	DK Number	Version
Instrument main code	DK0388	V02.00.04
Instrument OS Build	DK0366	V01.10.01
Instrument Boot ROM (Programmed at manufacture time to align with hardware, no upgrade required)	DK0365	V01.03.01
Module Main Code	DK0364	V03.00.00
Module Boot ROM (Programmed at manufacture time, not upgradeable)	DK0363	V02.00.00

PACE correct operation support is only with component versions installed into the product agree with the above table, except DK0363 that is only programmable at manufacture time.

**CHANGES**

**DK0364**

Added CM3 and CM3B options.  
 Enhanced algorithm to benefit controller speed.  
 Removed ENHANCED\_SENSOR\_ERROR error message.

**DK0388**

Added CM3 and CM3B options.  
 Fixed Divider Task ‘decrement’ bug.  
 Added Reference Sensor status information.  
 Added Standard Deviation value to Calibration adjust and Calibration Check screens.  
 Fixed Test Program Dwell timer overrun issue.  
 Enhanced test program task functionality by added “If” statements and “Select VFC Relay” (VFC1:R1, VFC1:R2, VFC1:R3, VFC2:R1, VFC2:R2, VFC2:R3) statements.

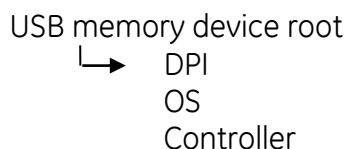
**APPLICABILITY OF NEW ISSUE**

The issue of firmware should be used in production on the following series of instrument variants:  
 PACE 6000

**COMPATIBILITY**

Correct operation of the PACE6000 is supported only when DK component versions installed into the product agree with the above table.  
 To allow correct operation of CM3 and CM3B this software release 11 or later release must be installed.

**Unzipped USB memory device folder structure**



**RELEASE DATE**

17<sup>th</sup> June 2016



## PACE6000 RELEASE 10 COMPONENT VERSIONS

Description	DK Number	Version
Instrument main code	DK0388	V01.02.09
Instrument OS Build	DK0366	V01.10.01
Instrument Boot ROM (Programmed at manufacture time to align with hardware, no upgrade required)	DK0365	V01.03.01
Module Main Code	DK0364	V02.05.02
Module Boot ROM (Programmed at manufacture time, not upgradeable)	DK0363	V02.00.00

PACE correct operation support is only with component versions installed into the product agree with the above table, except DK0363 that is only programmable at manufacture time.

### CHANGES

#### DK0364

Allows for RPT or TERPS reference sensor operation with barometer. Reference sensor not yet part of control outer loop.

Fix bias run problem for sensors with negative ADC counts.

#### DK0366

OS unused Ethernet ports blocked using firewall as result of cyber security nmap scan.

### APPLICABILITY OF NEW ISSUE

The issue of firmware should be used in production on the following series of instrument variants:  
PACE 6000 only

### COMPATIBILITY

Correct operation of the PACE5000 is supported only when DK component versions installed into the product agree with the above table.

### RELEASE DATE

30<sup>th</sup> July 2015



## PACE6000 RELEASE 9 COMPONENT VERSIONS

Description	DK Number	Version
Instrument main code	DK0388	V01.02.09
Instrument OS Build	DK0366	V01.09.00
Instrument Boot ROM (Programmed at manufacture time to align with hardware, no upgrade required)	DK0365	V01.03.01
Module Main Code	DK0364	V02.04.00
Module Boot ROM	DK0363	V02.00.00

PACE correct operation support is only with component versions installed into the product agree with the above table.

### CHANGES

#### DK0364

Gain resolution used for RPT, TERPS & PRT sensors pressure calculation increased.

### APPLICABILITY OF NEW ISSUE

The issue of firmware should be used in production on the following series of instrument variants:  
PACE 6000

### COMPATIBILITY

Correct operation of the PACE6000 is supported only when DK component versions installed into the product agree with the above table.

### RELEASE DATE

19<sup>th</sup> July 2015





## PACE6000 RELEASE 8 COMPONENT VERSIONS

Description	DK Number	Version
Instrument main code	DK0388	V01.02.09
Instrument OS Build	DK0366	V01.09.00
Instrument Boot ROM (Programmed at manufacture time to align with hardware, no upgrade required)	DK0365	V01.03.01
Module Main Code	DK0364	V02.03.10
Module Boot ROM	DK0363	V02.00.00

PACE correct operation support is only with component versions installed into the product agree with the above table.

### CHANGES

#### DK0388

Added new languages (16 languages now available).

Fixed bugs in DPI500/DPI510 emulation modes.

SCPI command INP:LOG? now returns last/open closed value of SWT as per PACE Series SCPI Manual K0472 Issue No. 3, Page 4-11.

Added support for Reference Sensor - if fitted, calibration screens and status area display are available; also added new SCPI command :SENS:PRES:REF?.

Added Barometer Calibration item to Menu.

### APPLICABILITY OF NEW ISSUE

The issue of firmware should be used in production on the following series of instrument variants:  
PACE 6000

### COMPATIBILITY

Software versions as detailed in 1 – Release Component Versions should be fitted to enable all features.

### RELEASE DATE

18<sup>th</sup> Nov 2013



## PACE6000 RELEASE 7 COMPONENT VERSIONS

Description	DK Number	Version
Instrument main code	DK0388	V01.01.33
Instrument OS Build	DK0366	V01.09.00
Instrument Boot ROM (Programmed at manufacture time to align with hardware, no upgrade required)	DK0365	V01.03.01
Module Main Code	DK0364	V02.03.10
Module Boot ROM	DK0363	V02.00.00

PACE correct operation support is only with component versions installed into the product agree with the above table.

### CHANGES

DK0363

Code made compatible with 512Mbit NAND flash devices

### APPLICABILITY OF NEW ISSUE

The issue of firmware should be used in production on the following series of instrument variants:  
PACE 6000

### COMPATIBILITY

Software versions as detailed in 1 – Release Component Versions should be fitted to enable all features.

### RELEASE DATE

18<sup>th</sup> Sept 2013



## PACE6000 RELEASE 6 COMPONENT VERSIONS

Description	DK Number	Version
Instrument main code	DK0388	V01.01.33
Instrument OS Build	DK0366	V01.09.00
Instrument Boot ROM (Programmed at manufacture time to align with hardware, no upgrade required)	DK0365	V01.03.01
Module Main Code	DK0364	V02.03.10
Module Boot ROM	DK0363	V01.01.00

PACE correct operation support is only with component versions installed into the product agree with the above table.

### CHANGES

DK0364

Correct bias run start failure bug

Correct RPT diode read error bug

### APPLICABILITY OF NEW ISSUE

The issue of firmware should be used in production on the following series of instrument variants:  
PACE 6000

### COMPATIBILITY

Software versions as detailed in 1 – Release Component Versions should be fitted to enable all features..

### RELEASE DATE

27<sup>th</sup> June 2012



## PACE6000 RELEASE 5 COMPONENT VERSIONS

Description	DK Number	Version
Instrument main code	DK0388	V01.01.33
Instrument OS Build	DK0366	V01.09.00
Instrument Boot ROM	DK0365	V01.03.01
Module Main Code	DK0364	V02.02.13
Module Boot ROM	DK0363	V01.01.00

PACE correct operation support is only with component versions installed into the product agree with the above table.

### CHANGES

#### DK0365

Change to flash memory block unlock command because of Numonyx flash memory fault  
Disable boot diagnostic output on RS232 interface to prevent problems with connected equipment

#### DK0366

Change to flash memory block/unlock command for Numonyx flash memory fault

### APPLICABILITY OF NEW ISSUE

The issue of firmware should be used in production on the following series of instrument variants:  
PACE 6000

### COMPATIBILITY

Software versions as detailed in Release Component Versions should be fitted to enable all features

### RELEASE DATE

13<sup>th</sup> February 2012



## PACE6000 SR0095 RELEASE 4 COMPONENT VERSIONS

Description	DK Number	Version
Instrument main code	DK0388	V01.01.33
Instrument OS Build	DK0366	V01.08.01
Instrument Boot ROM	DK0365	V01.02.00
Module Main Code	DK0364	V02.02.13
Module Boot ROM	DK0363	V01.01.00

PACE correct operation support is only with component versions installed into the product agree with the above table.

### CHANGES

This software is as per Release 3, just a text change to the DK0363 in SR pdf document published.

### APPLICABILITY OF NEW ISSUE

The issue of firmware should be used in production on the following series of instrument variants:  
PACE 6000

### COMPATIBILITY

Software versions as detailed in 1 – Release Component Versions should be fitted to enable all features.

### RELEASE DATE

19<sup>th</sup> August 2011



## PACE6000 SR0095 RELEASE 3 COMPONENT VERSIONS

Description	DK Number	Version
Instrument main code	DK0388	V01.01.33
Instrument OS Build	DK0366	V01.08.01
Instrument Boot ROM	DK0365	V01.02.00
Module Main Code	DK0364	V02.02.13
Module Boot ROM	DK0363	V01.01.00

PACE correct operation support is only with component versions installed into the product agree with the above table.

### CHANGES

#### DK0388

Fix memory leak problem

Added save/recall user setup files and history files to and from USB

Added support for CM0 and CM1

Added ethernet option as standard

#### DK0364

New CAN commands to support new UI features

Eliminate delay in opening isolation and vent valves

Solved 25 mbar noise problem, Valve frequency tune now precedes the bias run

### APPLICABILITY OF NEW ISSUE

The issue of firmware should be used in production on the following series of instrument variants:  
PACE 6000

### COMPATIBILITY

Software versions as detailed in 1 – Release Component Versions should be fitted to enable all features.

### RELEASE DATE

5<sup>th</sup> August 2011



## PACE6000 SR0095 RELEASE 2 COMPONENT VERSIONS

Description	DK Number	Version
Instrument main code	DK0388	V01.00.00
Instrument OS Build	DK0366	V01.08.01
Instrument Boot ROM	DK0365	V01.02.00
Module Main Code	DK0364	V02.01.20
Module Boot ROM	DK0363	V01.00.00

PACE correct operation support is only with component versions installed into the product agree with the above table.

### CHANGES

#### DK0366

Touch screen pre-calibration detect different screen types  
Allow MAC address to be changed in the application

### APPLICABILITY OF NEW ISSUE

The issue of firmware should be used in production on the following series of instrument variants:  
PACE 6000

### COMPATIBILITY

N/A.

### RELEASE DATE

18<sup>th</sup> February 2011



## PACE6000 SR0095 RELEASE 1 COMPONENT VERSIONS

Description	DK Number	Version
Instrument main code	DK0388	V01.00.00
Instrument OS Build	DK0366	V01.07.00
Instrument Boot ROM	DK0365	V01.02.00
Module Main Code	DK0364	V02.01.20
Module Boot ROM	DK0363	V01.00.00

PACE correct operation support is only with component versions installed into the product agree with the above table.

### CHANGES

N/A

### APPLICABILITY OF NEW ISSUE

The issue of firmware should be used in production on the following series of instrument variants:  
PACE 6000

### COMPATIBILITY

N/A.

### RELEASE DATE

14<sup>th</sup> September 2010

