GE Measurement & Control

# Druck DPI 620 Genii

# Advanced Modular Calibrator

## Quick Start Guide




7 March 2013

K0542

GE Measurement & Control

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## 1 Overview

The Druck DPI620 Genii is a battery-powered instrument for electrical measure and source operations and HART® communications. The Druck DPI 620 Genii also supplies the power and user interface functions for all optional items. The touch-screen displays up to six different parameters.

## 2 Equipment in the Box

The following items are supplied with the Druck DPI 620 Genii:

- DC power supply/battery charger unit.
- Li-polymer battery.
- Set of six test leads.
- AC Probe.
- Quick Start Guide.
- Stylus.

## 3 Optional Items

The items that follow are optional items which can be used with the Druck DPI 620 Genii:

- **Pressure Module Carrier, MC 620**, this attaches directly to the Druck DPI 620 Genii to make a fully integrated pressure instrument.
- **Pressure Module, PM 620**, this attaches to the pressure module carrier (MC 620) or a pressure station (PV 62X) to enhance the pressure measurement functionality.
- **Pressure Stations, PV 62X**, if the Druck DPI 620 Genii is installed in a pressure station, it becomes a fully integrated pressure calibrator.

# WARNING

### 3.1 Electrical warnings

- To prevent electrical shocks or damage to the instrument, do not connect more than 30V CAT I between the terminals, or between the terminals and the ground (earth).
- External circuits should have appropriate insulation to the mains.
- To prevent electrical shocks, use only the GE specified AC probe (Part: IO620-AC) to measure AC voltages that are more than 20 Vrms. Do not connect more than 300V CAT II between the IO620-AC leads, or between the leads and the ground (earth). Attach it to the specified connections only.
- This instrument uses a Lithium-Polymer (Li-Polymer) battery pack. To prevent an explosion or fire, do not short circuit, do not disassemble, and keep it safe from damage.
- To prevent an explosion or fire, use only the GE specified battery (Part: 191-356), power supply (Part: 191-339) and battery charger (Part: IO620-CHARGER).
- To prevent battery leakage or heat generation, only use the battery charger and power supply in the temperature range 0 to 40°C (32 to 104°F).
- The power supply input range is 100 – 240Vac, 50 to 60Hz, 250mA, installation category CAT II.
- Position the power supply so not to obstruct the supply disconnecting device.
- To make sure the display shows the correct data, disconnect the test leads before power is set to on or change to another measure or source function.
- To prevent a dangerous release of pressure, make sure that all the related pipes, hoses and equipment have the correct pressure rating, are safe to use and are correctly attached.

## 4 Install the Battery

1. Remove the five Pozidriv screws (**A**) (Ref: Fig 1, Rear View).
2. Remove the battery cover.
3. Check the connections on the battery line up with the connections in the battery compartment.
4. Place the battery in the battery compartment.
5. Replace the battery cover.
6. Secure the cover with the five Pozidriv screws.

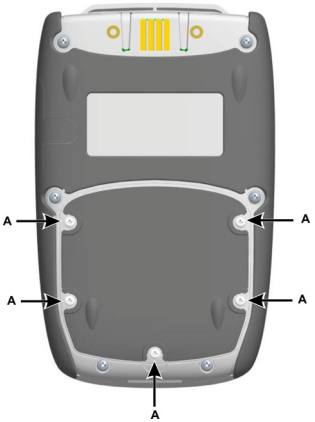



**Fig 1 Rear View**

## 5 Charge the Battery

1. Connect the DC power supply/battery charger unit in to the $+5V_{DC}$ connection on the side of the unit (Ref: Fig 2 Side View).
2. The battery can also be charged using the USB connections (Ref: Fig 2 Side View).
3. The unit can be On or Off when charging. Charging times maybe longer if charging when the unit is On.

### 5.1 Battery Charging

| Charging Connection | Charge Time |
|---|---|
| DC Power Supply | 6.5 Hours |
| External Battery Charger | 6.5 Hours |
| Mini USB Connection | 13 Hours. |

# 6 Basic Modes

## 6.1 Power On.

From OFF – press the power button (Ref: Fig 2, Side View) until the dashboard is displayed.

## 6.2 Power Off.

Press and hold power button until the screen is blank.

## 6.3 Sleep Mode.

Press and release power for sleep mode.

## 6.4 Power up from Sleep Mode.

Ref: 6.1 Power On.

When powered-up from sleep mode the instrument always opens the last screen shown before going into sleep mode.

## 6.5 Themes

Two themes are available GE Dark and GE Light, select the correct theme for the light level. Select the Settings icon to access Themes.

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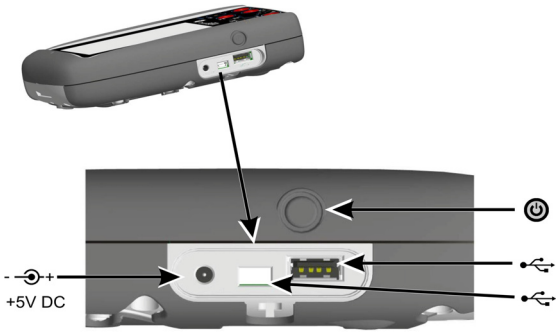



**Fig 2 Side View**

## 7 Druck DPI 620 Genii, Modes (Ref: Fig 3, Dashboard)

The Druck DPI 620 Genii can be used as follows:

- Calibrator (with independent functions on each of six channels).
- HART® Communicator
- Foundation Field-bus Communicator
- Scope
- Meter
- Calibrator.

### 7.1 The Dashboard navigation.

The dashboard is navigated by swiping a finger from top to bottom while touching the screen.

Functions screens are navigated by swiping a finger from right to left while touching the screen.

### 7.2 Set Date, Time and Language

Select the Settings icon to access Date, Time and Language menus.

### 7.3 Druck DPI 620 Genii Manual

Select the Manual icon on the Dashboard to access the manual. All the information required to operate the Druck DPI 620 Genii is in the manual section of the Dashboard.

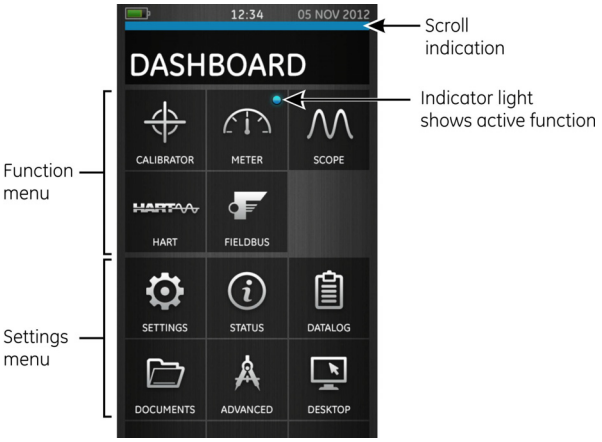



**Fig 3 Dashboard - Touch Screen**

**Note:** *Field-bus is not installed on all units.*

# 8 Example Dashboard Functions

## 8.1 Calibrator

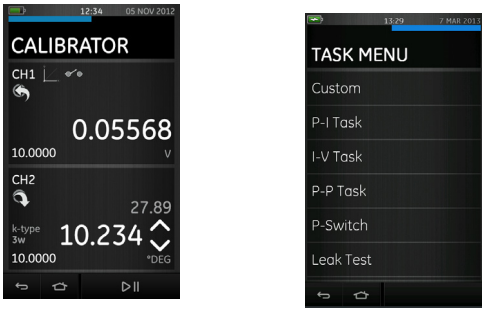



**Fig 4 Calibration Screens**

Use this application to compare the output of a test device/system with the input.

Advanced calibrator features

- Data logging capabilities. Store test results.
- Documenting capabilities. Perform automatic procedures and store the results.

## 8.2 HART®

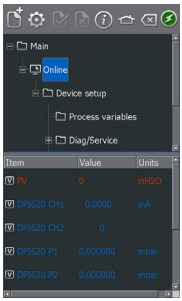



**Fig 5 HART® Screen**

Use the HART® application to do the following:

- Communicate with HART® protocol devices
- Read and change HART® device settings
- Trim and calibrate HART® device variables.

## 9 Over-voltage Categories

The following summary of installation and measurement over-voltage categories come from IEC61010-1. The four over-voltage categories, are CAT I to CAT IV, which indicate the severity of an over-voltage transient.

| Over-voltage Category | Description |
|---|---|
| CAT I | This is the least severe over-voltage transient. CAT I equipment cannot be directly connected to the mains power. An example of CAT I equipment is a process loop powered device. |
| CAT II | This is for single phase electrical installation. Examples are appliances and portable tools. |

## 10 General Specification

Refer to Data Sheet.

## 11 Environmental Conditions

Refer to Data Sheet.

## 12 Customer Service

www.ge-mcs.com

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