PG3 PROGRAMMER TRAINING T27.2

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B&D DOORS,46 BRAEBURN DRIVE,CHRISTCHURCH

PG3 Training

Purpose

To provide a guide to the use of the PG3 Programmer and how to Upgrade the Firmware in the ATA/B&D suite of openers.

The PG3 programmer is a supplementary tool for the recording and upgrading the performance parameters of ATA and B&D Openers and accessories.

The Unit.

The PG3 is supplied in a foam lined case for protection. The kit also contains a short connection lead to enable the unit to connect to the Powerhead.
There is an extension cable that makes it easier to use by allowing it to be read at ground level.

Batteries

The PG3 has 4x AA Batteries in a tray within the acrylic case. These should be changed from time to time. The batteries, although Alkaline can leak and damage the unit

There is also a CR1023 Battery on the circuit board to maintain memory and clock functions. If this is flat, then the PG3 will not work.

If the unit is dropped or shaken, it is possible that a jumper may be displaced inside the case (you can hear it rattle!). This will also stop it working. It is easily replaced

Connecting to the Device.

Ensure the power is OFF to the device, and PG3 is OFF

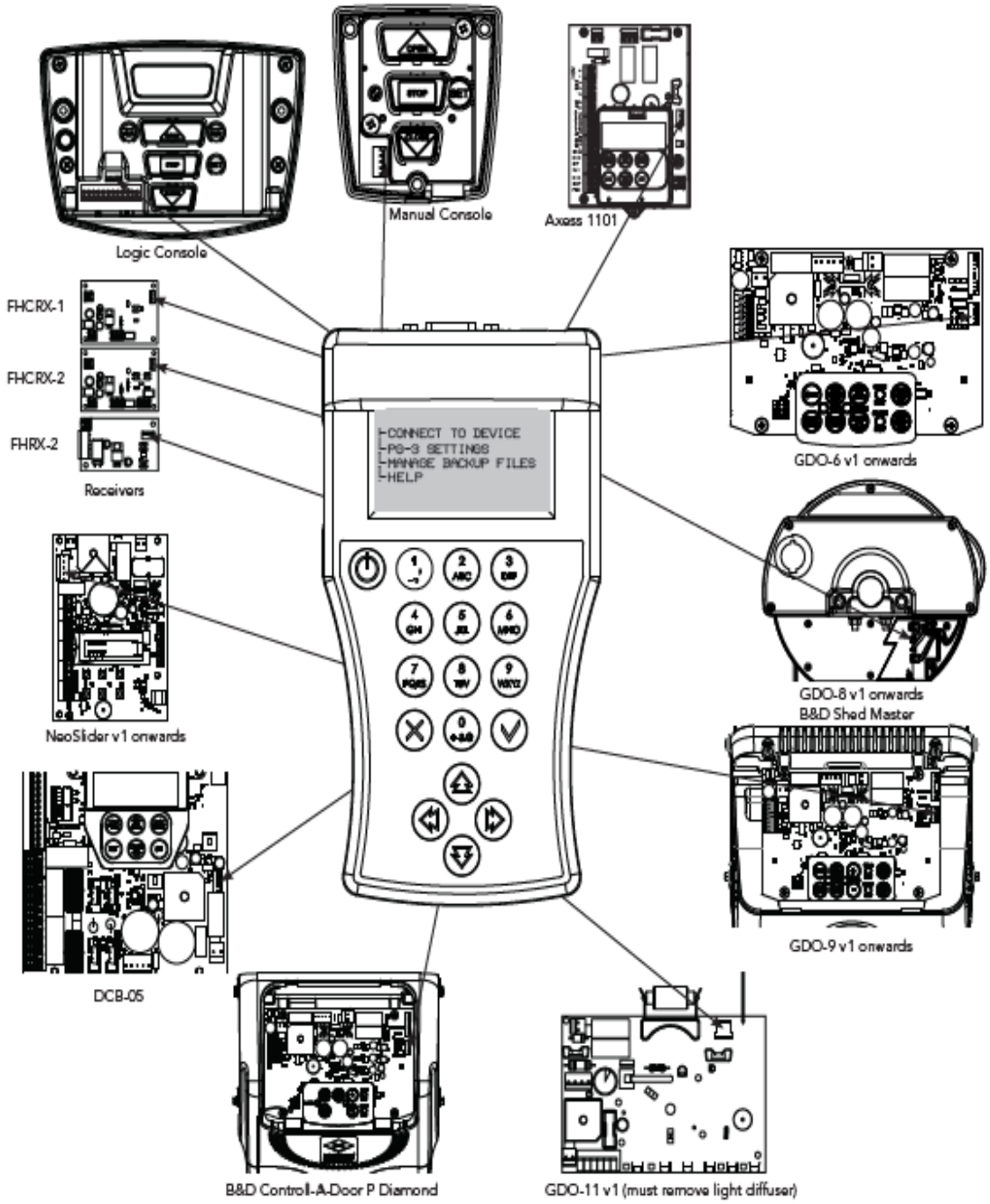
Each compatible device has a connector on the circuit board, marked ‘PROGRAMMER’, connect the white 5 pin plug to this.

Plug the 9 pin plug into the top of the PG3, or alternatively, into the end of the extension cord, and the other end into the PG3.

Turn device ON then Press and release the “ON’ button, a start menu will appear. All should have ticks against the index and the Firmware version on the SD card is displayed

If it fails to load it will have a ‘X’ against the failure.

Locations of 5 Pin PG3 Connector on Circuit Boards



Main Menu

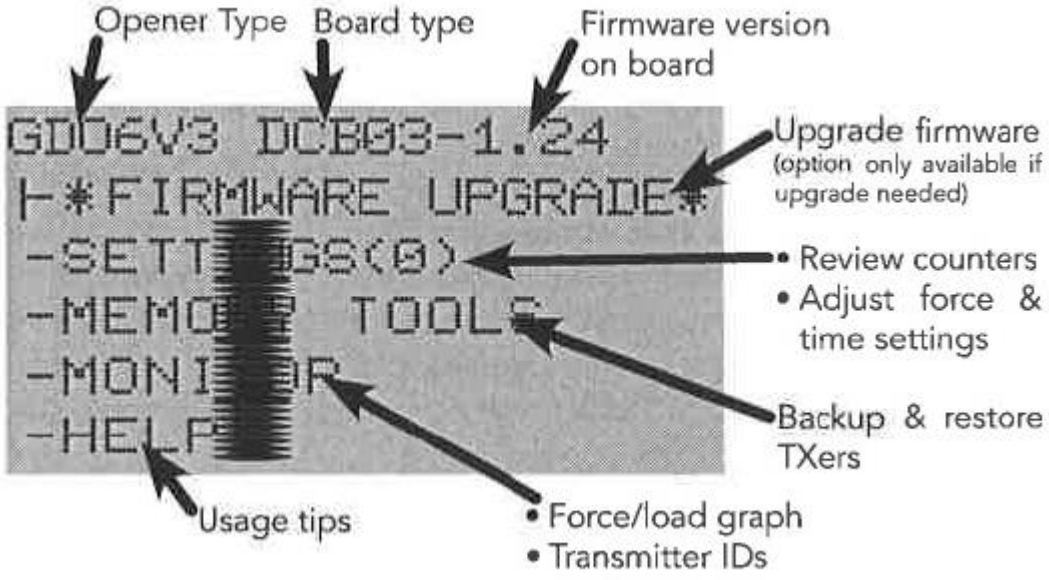
Select '***Connect to Device***' and press the ✓(bottom right of keypad)

The PG# unit will attempt to identify the opener and check if it is supported. The type and software version loaded will read at the top of the screen.

If the main screen reads "Firmware Upgrade" then it will not proceed until this process is completed.

The opener details are shown on the top row.

IMPORTANT: These should be written down at this point.



Definition: Firmware is a version of the software embedded in a Hardware device, enabling it to perform its function. From time to time there is a need to upgrade the Firmware.

In New Zealand the PG3 user can download the latest Update from the published From Mid-June 2020 it is Update 55

Firmware Upgrades and Transmitter Backup

If 'FIRMWARE UPGRADE'is the first option, then;

1. Ensure the Transmitters (TX'ers) are backed up

2. Select ‘Memory Tools’ then BACKUP TX’ers

a) Enter a filename less than 8 Characters long, must start with a letter e.g. BILL123
b) After entering a file name, a longer amount of information can be entered using SMS style Txt on the keypad, such as address etc.
c) Press (TICK) and TXERS will be saved

Check that you have a record of the existing firmware number. VERXXXXX. This is also written on the main chip on the circuit board. (This is the original firmware #)

This is required in case of a data transfer failure for Data Recovery.

Follow the screen prompts.

When the upgrade starts a counter will appear on screen and start counting as the upgrade progresses. It will count to approx. 5000 files

UPGRADE FAILURE

If it stops counting before it reads **UPGRADE COMPLETE’** or the power is interrupted, then the upgrade has **failed** and the original program needs to be recovered.

This is why the ‘Version’ is written down before we started.

To Recover the original firmware, we need to follow the prompts

1 Tick the “RECOVER” on the bottom line

Enter the version number of original software and tick.

It will reload the original software and then try again.

IMPORTANT

If the UPGRADE COMPLETE message is displayed, press the TICK' A full factory reset of the opener should now have been done.

If that is the upgrade completed Turn the power off to the powerhead and turn the PG3 off before dis-connecting

Then turn the unit back on and CONNECT TO DEVICE"

Error Message "Firmware Not Supported"

If a Firmware Upgrade was indicated, and the following message 'Firmware Not supported' is displayed, this means that the programmer version of the Firmware in the PG3 is below that already loaded in the Device. A firmware Upgrade of the PG3 SD Card is required.

ALWAYS back up TXERS before a Firmware Upgrade is performed.

See" Memory Tools"

PG3 Firmware Upgrade

An SD Card Reader is required to upgrade the firmware.

The Firmware Upgrade of the PG3 is via an Upgrade to the SD Card located in the LH side of the PG3.

It is good practice to rename the SD Card with the Update number each time it is changed, so that the Update version is easily recognised.

e.g **Update 55**

Never remove or insert an SD card with the PG3 Turned ON

The Firmware Upgrade is accessed by pasting the following address in the URL bar. https://bnd.co.nz/pg3

There is no longer a requirement for the ATA website ‘Dealer Login’ credentials**.**

(New) SD Card Set Up

NOTE

If setting up a new SD card, it <u>MUST</u> have a <u>maximum</u> of 2 GB memory. The PG3 will not work with larger cards.

1. Select ‘**Download the latest Firmware’** and on the next screen, ‘Download’ A warning may appear on the LH lower screen, select the up chevron and “keep”
2. The screen will change to the contents of the Zip file. It is in alpha order, scroll to the 7z file” PG3Update##”.

3. Insert the SD Card into the reader and select My Computer and then SD Card reader. This will be on ‘E’ drive or similar

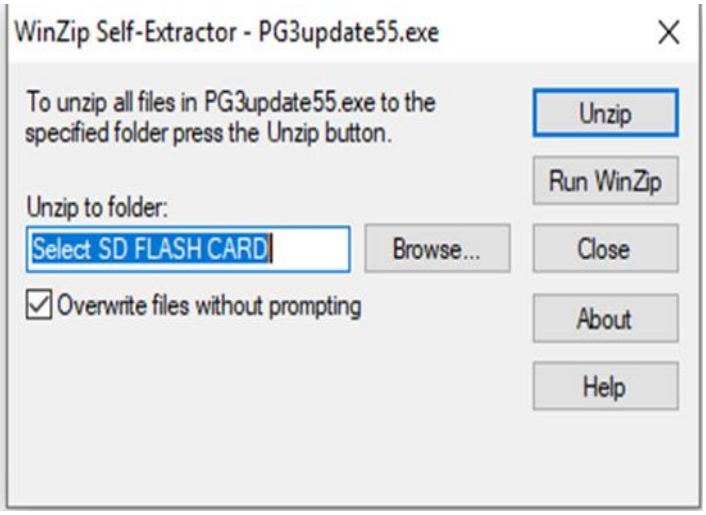
4.Right Click and select **Format** from the dropdown menu

5 Make sure that FAT **Not** FAT32 is selected as file system

6.Press **Start.** When complete, select **Rename** from the menu and insert new name ‘Update XX’

Downloading Firmware

1. There is a WIN unzip file that opens.” Select SD Flash card’ Browse the drop down menu for the location of the SD Card reader (e.g E Drive) and then go to UNZIP.
2. When complete, press the CLOSE button and remove the card.



Updating PG3

1.Check that the PG3 is turned **Off** and insert the flashcard.

2.Turn PG3 **On,** this will now automatically update The files will count up **and when complete, be ready for use.**

Settings

Note. When using the PG3, the ON button (Press) is also the OFF button (Press and Hold). The unit will also shut itself down after 2-3 minutes of non-use.

The “Settings” menu can be used to display and edit the devices settings.

When the first setting is displayed, you can navigate to the sub-menu using the arrow keys.

When the settings details are displayed, the detail and current value are displayed ⬅ (Left) and ➡ (Right) arrows are used to show the next parameter in settings.

❌ can be used to go back to the previous menu.

✔ On the bottom line shows that the setting can be edited.

Edit Mode (Settings)

Depending on the type of setting, the last line will show the options available when editing. Please see below.

ICON	Function
← (LEFT)	Moves cursor left
→ (RIGHT)	Loads the default value
↑ (UP)	For numeric settings: Enters a decimal point For mode settings: Selects the next mode
↓ (DOWN)	For numeric settings: Enters a minus sign For mode settings: Selects the next mode
✗ (CROSS)	Exits without saving
✓ (TICK)	Saves new setting

Access Mode (Settings)

Where a setting is not normally adjusted, it should be altered with caution. To enable the edit option and also to select some advanced settings, the access level must be raised from **0** to **1**

1.Return to Connect to Device screen. Select **Settings**
2.The current access level is shown against it in the Menu **Settings (0)**
3.To change the access level, press and hold the Power button just prior to selecting the **Settings** menu item.
4. This change will remain active until the PG3 is turned off.

Settings Menu items

1. **Obstruction Margin**. Adjusts the force margin Open and Close cycles
2. **Time Settings.** How to adjust PE Auto Close, Std Auto Close and Light times.
3. **Motor Settings.** Adjustments available open and close cycles.
4. **Receiver Settings.** Adjustments available to Vacation Mode.
5. **Event Counter.** Gives details of events recorded on the device

6. **Install Info.** How to flag Limits Set and IR beam Info.

Memory Tools

Provides tools to manage Transmitters(TX'ers)

Menu

1.Backup Tx'ers. This creates a copy of the transmitter information stored in the device. This information is stored on the SD card and a prompt will ask for a file name (at least 3 letters). It is important to use the description as it will help identify the contents. E.g. name

2.Restore TX'ers. This will restore an exact copy of the file saved in the Back-up file to the devices memory.

This procedure can only be done when the **same number** of TX'ers are in the back up file and the connected device.

All TX'ers in the device memory will be overwritten.

When the menu item is selected, a screen with the backup files is displayed. Press **0** to give details of highlighted file**.**

Use the  to move through the list, to select desired back up file. Use  to start the **Restore** process.

Add TX'ers

This tool is used to add stored TX'ers into the memory of a device.

NOTE.

This process does not overwrite existing TX'ers. They are then stored in empty locations or until there are no more TX'ers in Back up files. This allows TX'ers stored in several back up files to be combined into the devices Memory

When the menu item is selected, a screen with the backup files is displayed. Press **0** to give details of highlighted file**.**

Use the ←, →, ↑, ↓ to move through the list, to select desired back up file. Use ✓ to start the **Add** process.

Edit TX'ers

This is used to view and edit TX'ers stored in the devices memory.

When selected the first TX storage location is displayed with the information below.

Item	Information
TX: ###	Storage location number
SN: ##########	Transmitter serial number
NAME: aaaaaaaa	Transmistter name
BUTT: 1,2,3,4	Transmitter button function

1.When **Edit** is selected, the options on the bottom line change and the cursor appears on the name field of the record.

2.The selected field can be changed with the ← (left), → (right)

3.The value of the field can be altered using ↑ (up) and ↓ arrows

4.Changes are saved by pressing ✓ ,or discarded by pressing ✗

BACKUP DATA TABLES

This allows the limits and Auto close data from the device to be saved to the SD card

BACKUP SYSTEM DATA/ SAVE SERVICE DATA

This feature provides a copy of all the connected devices settings This info can be useful to ATA service staff when diagnosing problems.

MONITOR

This menu item displays the operating percentages in terms of the door load. It also provides the ability to monitor individual TX’ers via their individual ID

The Monitor function is also a useful device for analysing the door profile as determined by the motor load.

It will give a load reading and a corresponding Trip position. This is the Force Margin

The intersection of the trip and load graphs will cause the door to stop. This is because the margin is breached, but it shows the load as a %age of full load and the force Margin Trip as a %age of full load also

Position is the position of the motor in its travel

Voltage is the % of full voltage (24V) that the motor is set in Motor settings.