

# Smart Construction Pilot UPD Manual

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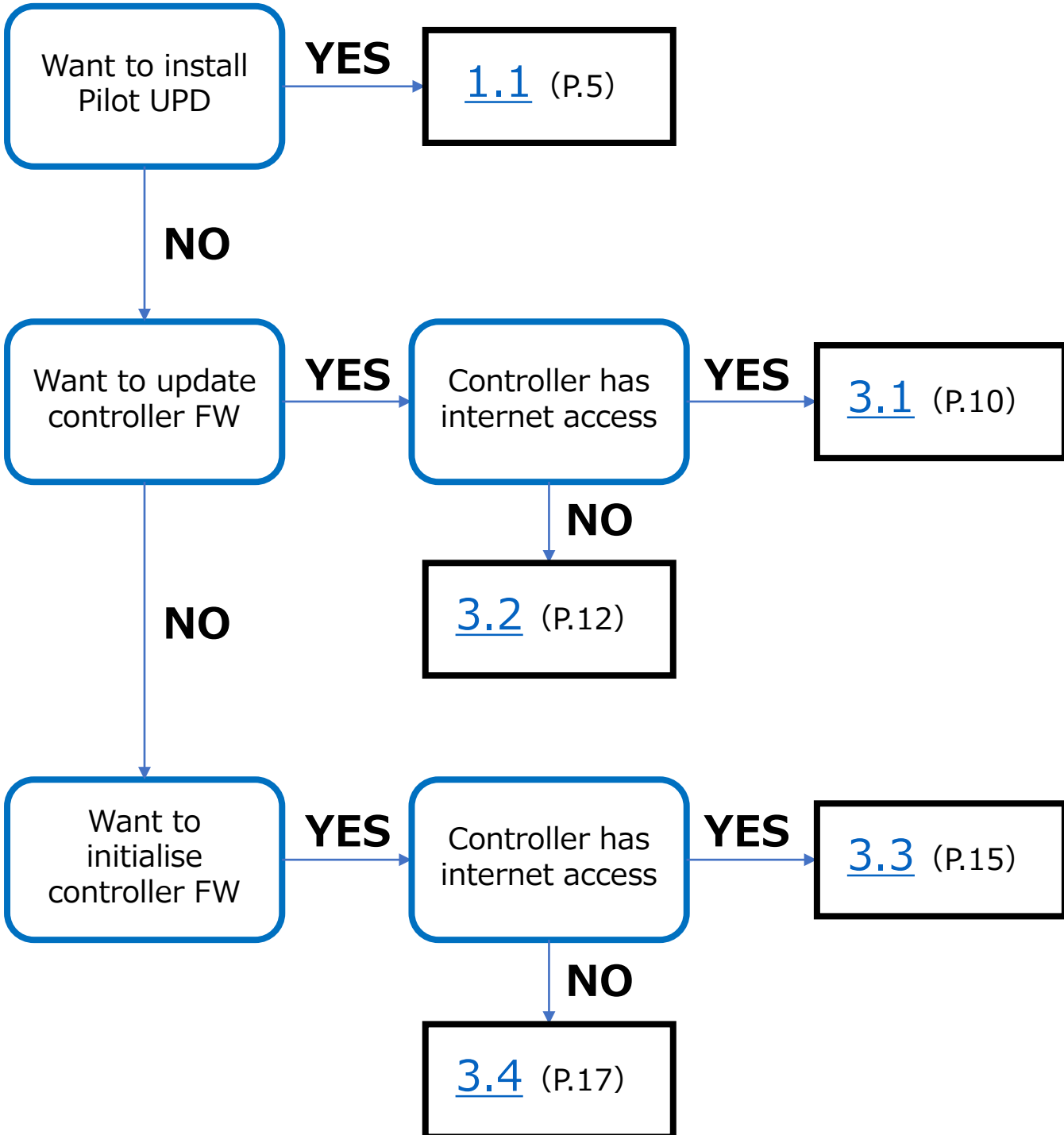


2023 Jun

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# 01

## Chapter

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### Preparation

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# 1.1 Install App

1. Enter "sc pilot upd" in the search window of "Google Play Store".
2. Tap icon
3. Tap install button.
4. After installation is complete, an icon will appear on the home screen..



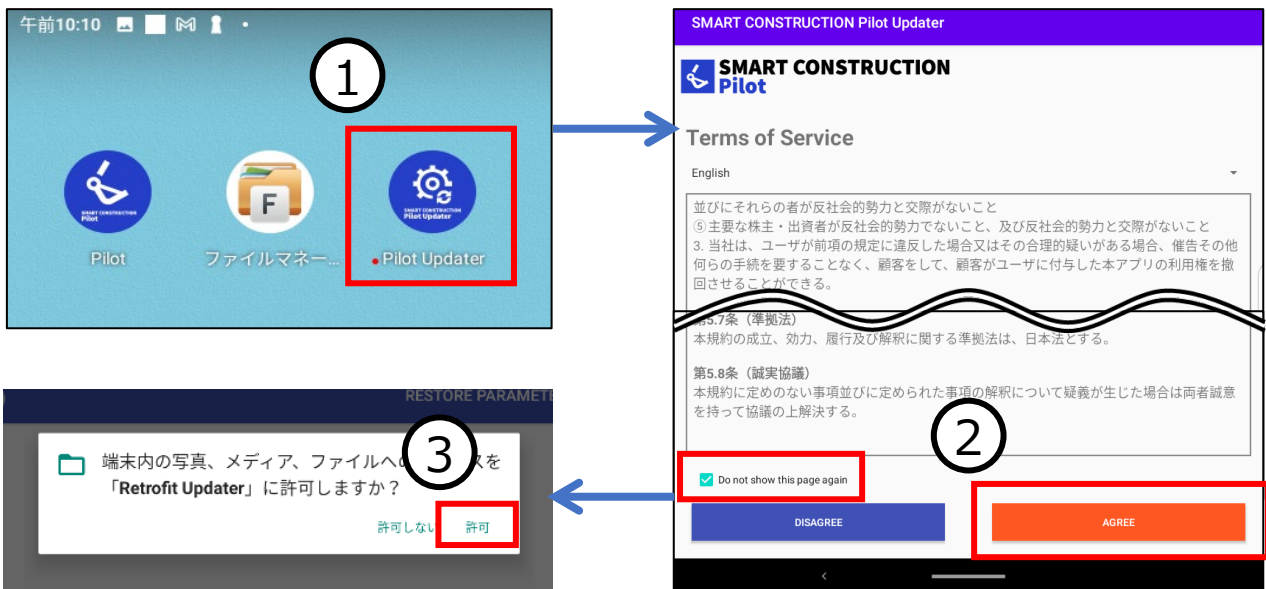
## < Supplement >

※The application is available free of charge.

※This app is only available for android devices. It can be used with tablets currently used in retrofit kits.

# 1.2 Launching app

1. Tap Pilot UPD icon
2. The first time you start up, the Terms of Use will be displayed, scroll down to confirm the contents and tap AGREE. (If you do not want the Terms of Use to be displayed on subsequent launches, tick ✓ under 'Do not show this page again' and tap AGREE.)
3. When you first start up, a pop-up will appear giving you permission to access photos, media and files on your device, select 'Allow'.
4. After launching the application, a menu screen is displayed.



## < Supplement >

- ※ The "Terms of Use" will be displayed when the application is launched for the first time, so be sure to read the contents.
- ※ To use the application, you must agree to the Terms of Use.
- ※ Access permission to the media is required to use the application.

# 02

## Chapter

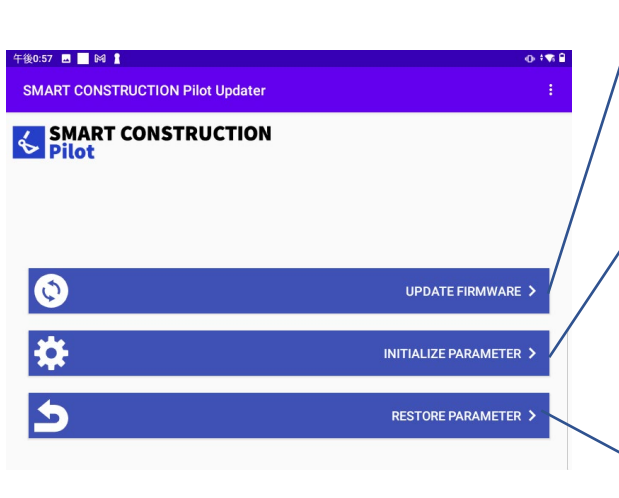
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# Overview

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# 2.1 Function list

Smart Construction Pilot UPD has 3 functions.



**1) Update controller firmware to the latest version.**

**2) Initialise controller parameter file.**

**3) Restore the controller parameter file.**

No.	Function	Contents
1)	UPDATE FIRMWARE	This function updates the controller firmware to the latest version. The latest firmware version is automatically downloaded from the server when the application is started. The work can be performed even when out of network range.
2)	INITIALIZE PARAMETER	This function initialises the controller parameter files. Parameters such as vehicle calibration, bucket files, etc. are initialised to their factory defaults.
3)	RESTORE PARAMETER	This function restores the configuration file after updating the latest version of the controller firmware. <b>This function is under development, It is not available at this time.</b>

※2) and 3) are not required for normal firmware update operations.  
They do not need to be used unless there is a specific reason.



# 03

## Chapter

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# How to use

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### **3.1 Update controller firmware to the latest version**

※For normal controller firmware updates, only carry out this work.

### **3.2 Firmware update in network offline**

### **3.3 Initialise controller parameter file**

### **3.4 Initialise in network offline**

※This work is not required for normal updates.You do not need to use this service unless there is a specific reason.

### **3.5 Restore controller parameter file 【under development】**

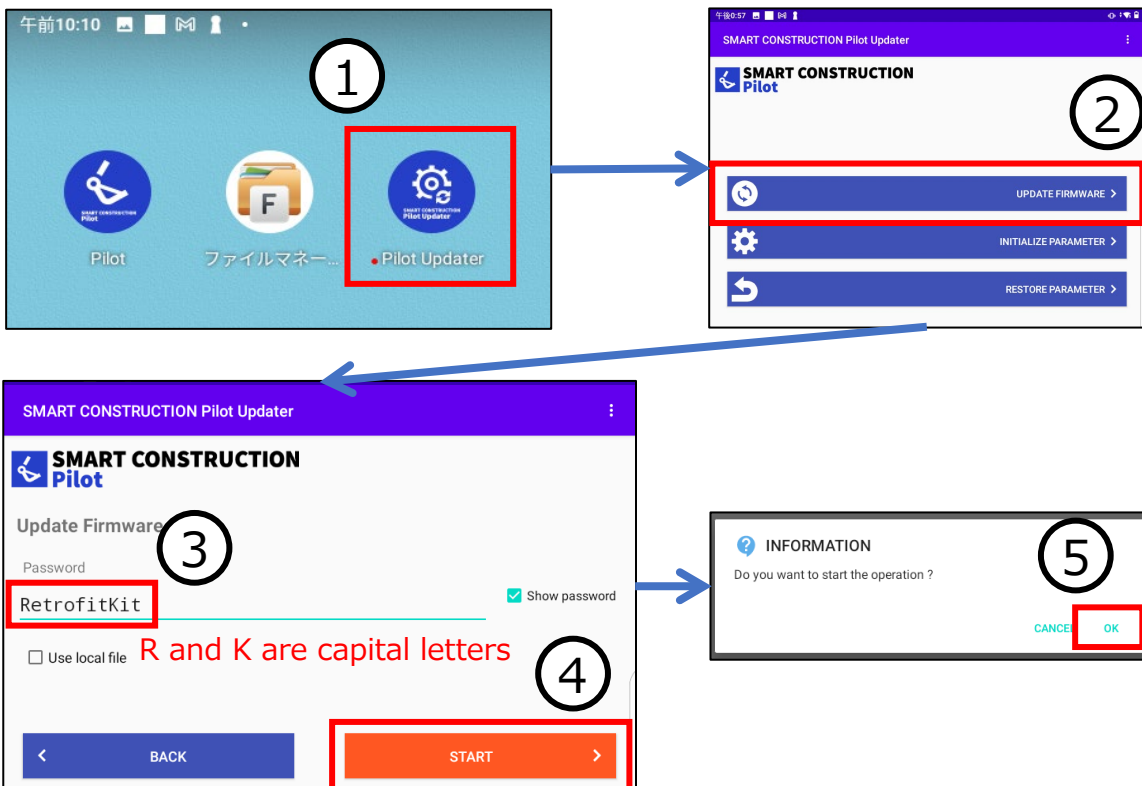
※ This function is under development and is not available at this time.

# 3.1 Update controller firmware to the latest version①

## <Caution>

The controller must be under an internet connection. If it is out of internet range, Refer to the following section "3.2 Firmware update in network offline" for further work.

1. After connecting the tablet to the WiFi connection used by the retrofit, start the Pilot UPD. If the Pilot UPD is not already installed, please refer to section "01 Preparation" to install it.
2. Tap UPDATE FIRMWARE on the Pilot Updater menu screen.
3. Enter 【 RetrofitKit 】 (\*R and K are capital letters) in the password input box.
4. After entering the password, tap START.
5. A confirmation pop-up is displayed, tap OK. (Go to next page)



# 3.1 Update controller firmware to the latest version②



6. The controller firmware version currently connected (Current Version) and the latest firmware version in the tablet (Target Version) are displayed.

<Caution>

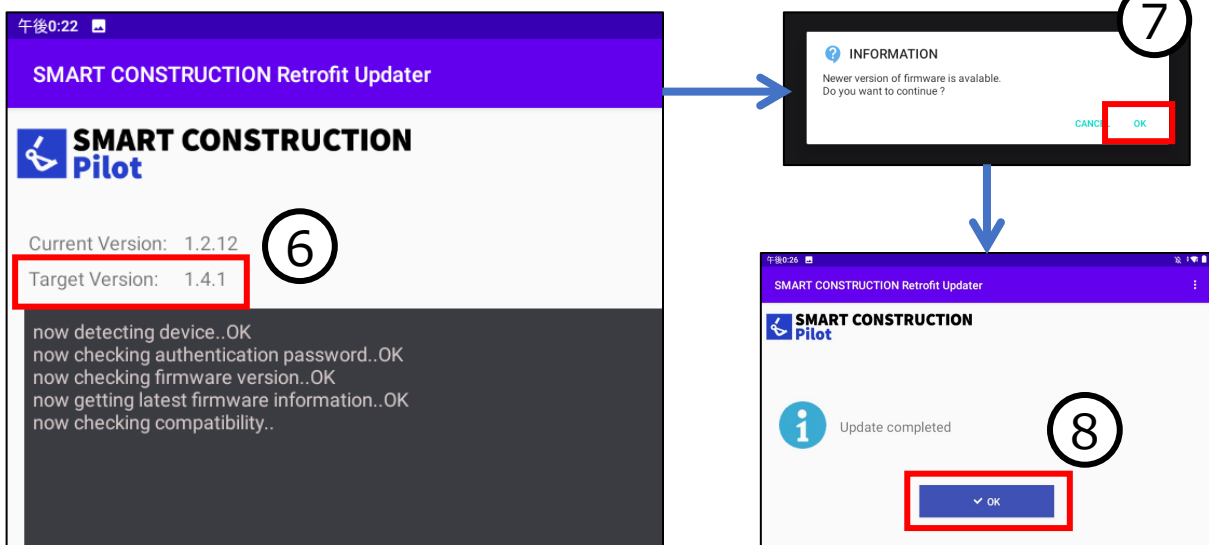
If the application cannot connect to the controller, an error is displayed. In this case, please check the connection status of the controller and Android devices, please check the connection status to the WiFi router.

7. If the latest version of the firmware exists, a confirmation screen will appear asking if you want to update. Tap 'OK' to update the firmware to the Target Version.

<Caution>

If the latest version of the firmware is already installed, tapping OK will reinstall the same latest version of the firmware in the controller.

8. After the update is complete, tap OK to return to the menu screen.  
That's all there is to the operation.

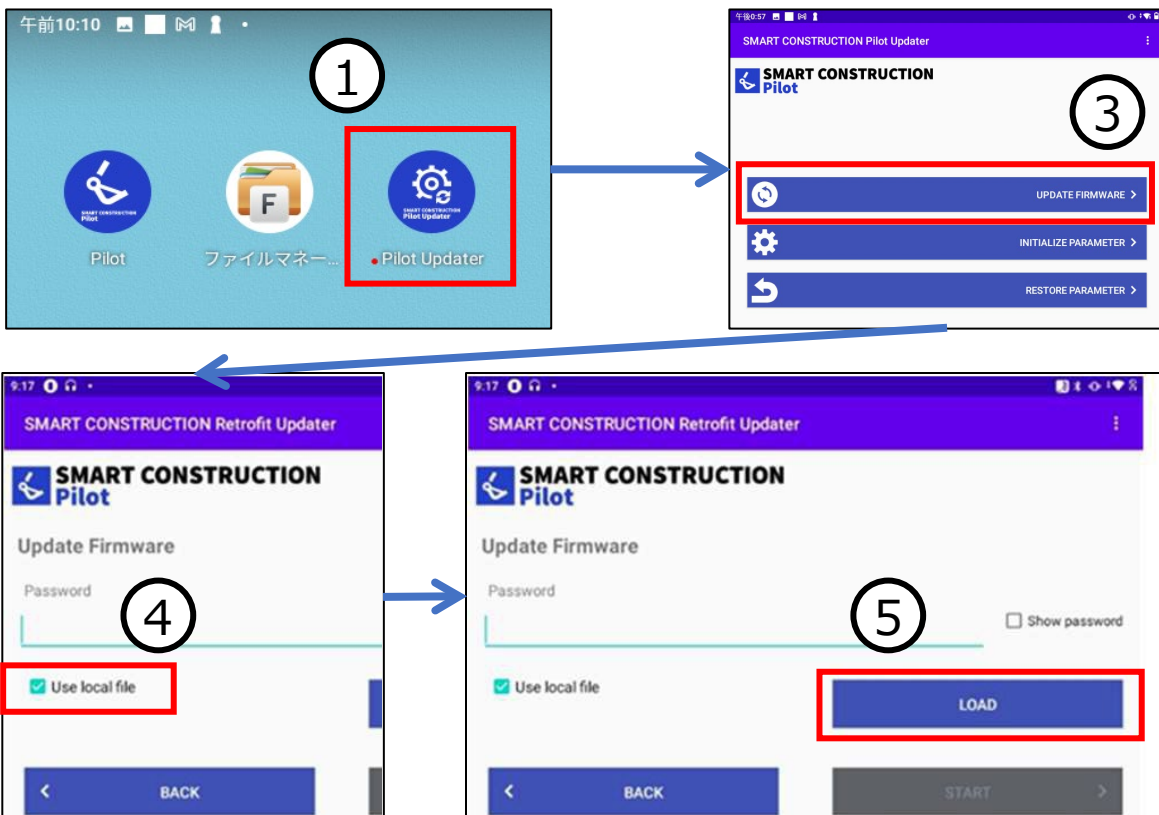


## 3.2 Firmware update in network offline①

### <Caution>

If the controller is out of internet range, proceed with the update as per the following instructions.

1. Connect the tablet to the internet (e.g. at an office in the area) and start the Pilot UPD; the latest version of the controller firmware will be downloaded when the Pilot UPD is started. If the Pilot Updater is not installed, please refer to section "01 Preparation" to install it.
2. Connect the tablet to the WiFi used by Retrofit and power on the controller.
3. Tap UPDATE FIRMWARE on the Pilot Updater menu screen.
4. Tap Use local file and tick the box.
5. Tap 'Load' to display the file selection screen. (Go to next page)



# 3.2 Firmware update in network offline②

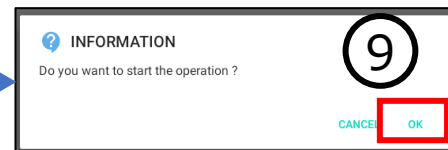
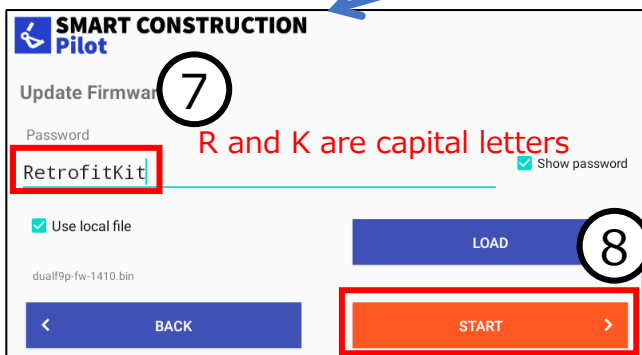
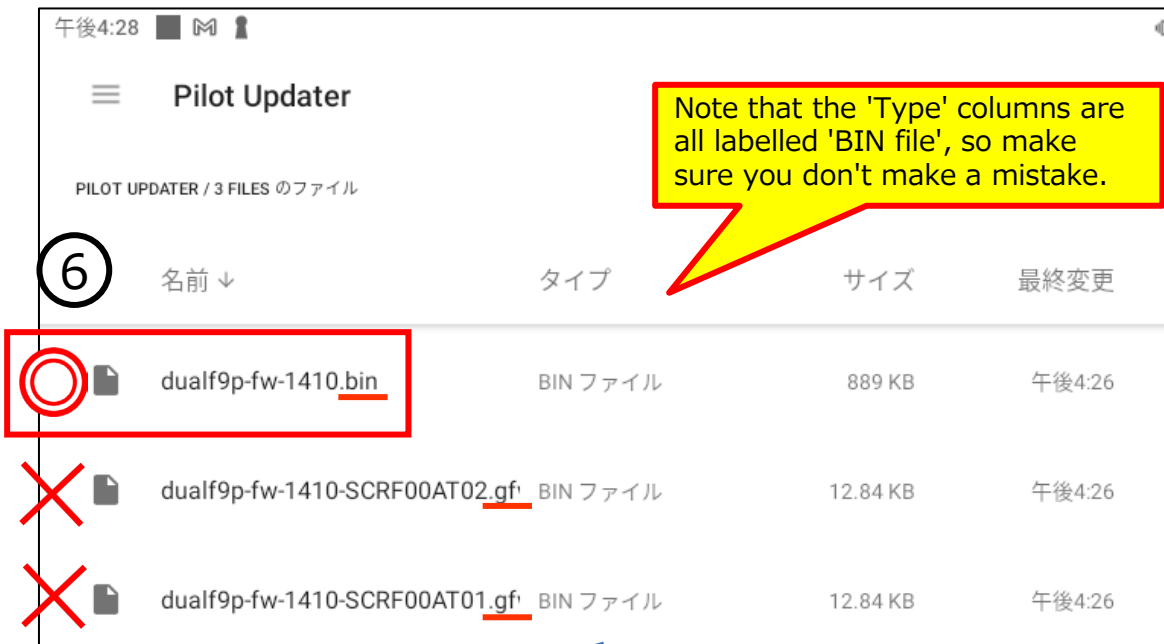
6. Tap the latest version of the firmware file (**.bin file**).

**【Caution】**  
If you select a file with the gfw extension, the controller will be initialised. Make sure that the file has the bin extension before tapping it.

7. Enter 【 RetrofitKit 】 (\*R and K are capital letters) in the password input box.

8. After entering the password, tap START.

9. A confirmation pop-up is displayed, tap OK. (Go to next page)



## 3.2 Firmware update in network offline ③

10. The controller firmware version currently connected (Current Version) and the latest firmware version in the tablet (Target Version) are displayed.

<Caution>

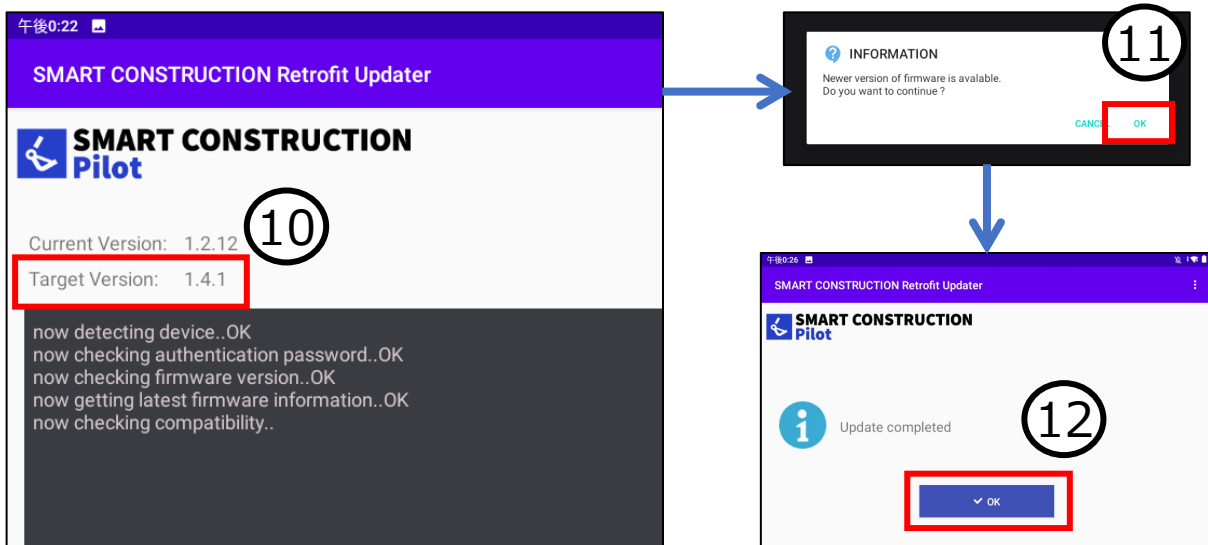
If the application cannot connect to the controller, an error is displayed. In this case, please check the connection status of the controller and Android devices, please check the connection status to the WiFi router.

11. 最新版のファームウェアが存在する場合、アップデートするかどうかの確認画面が表示されます。「OK」をタップすると、ファームウェアがTarget Versionに更新されます。

< Caution >

If the latest version of the firmware is already installed, tapping OK will reinstall the same latest version of the firmware in the controller.

12. After the update is complete, tap OK to return to the menu screen.  
That's all there is to the operation.



# 3.3 Initialise controller parameter file①

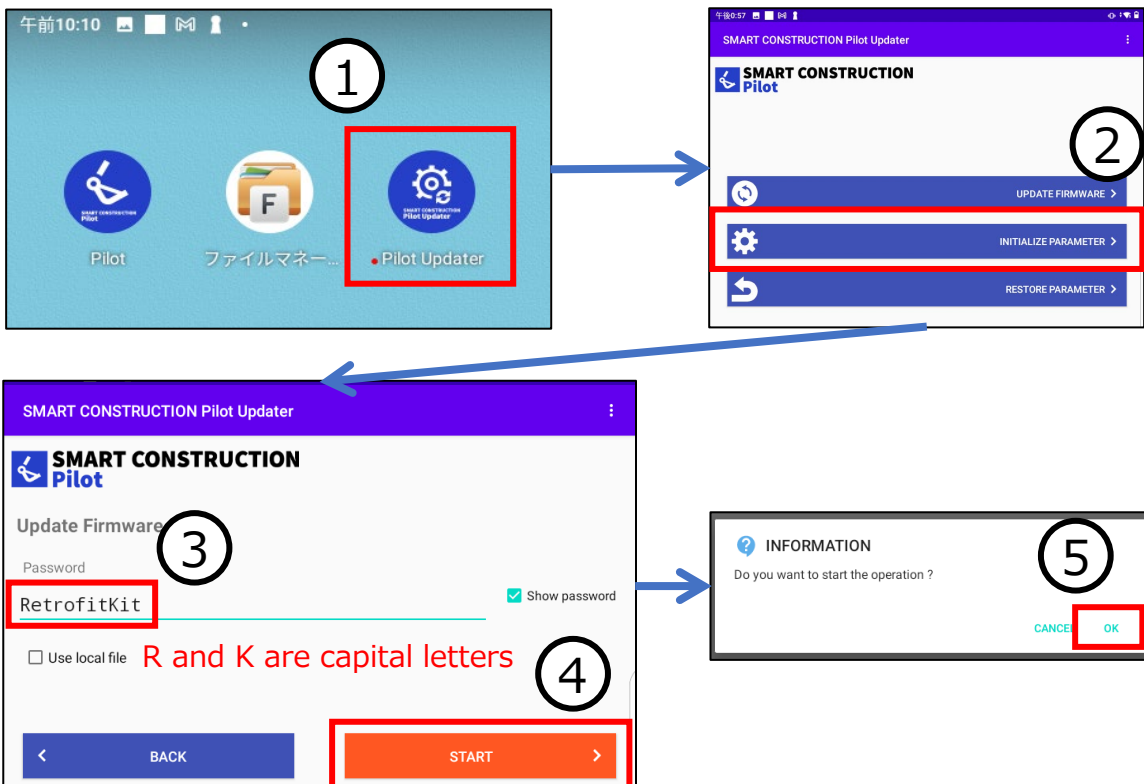
## [Important]

Initialising the controller's parameter file will erase the parameters (e.g. calibration information) stored in the controller.

### <Caution>

• The controller must be under an internet connection. If it is out of internet range, Work with reference to the following section "3.4 Initialise in network offline".

1. After connecting the tablet to the WiFi connection used by Retrofit, start the Pilot Updater. If the Pilot Updater has not been installed, please refer to section "01 Preparation" to install the Pilot Updater.
2. Tap INITIALIZE PARAMETER on the Pilot Updater menu screen.
3. Enter 【 RetrofitKit 】 (\*R and K are capital letters) in the password input box.
4. After entering the password, tap START
5. A confirmation pop-up is displayed, tap OK. (Go to next page)



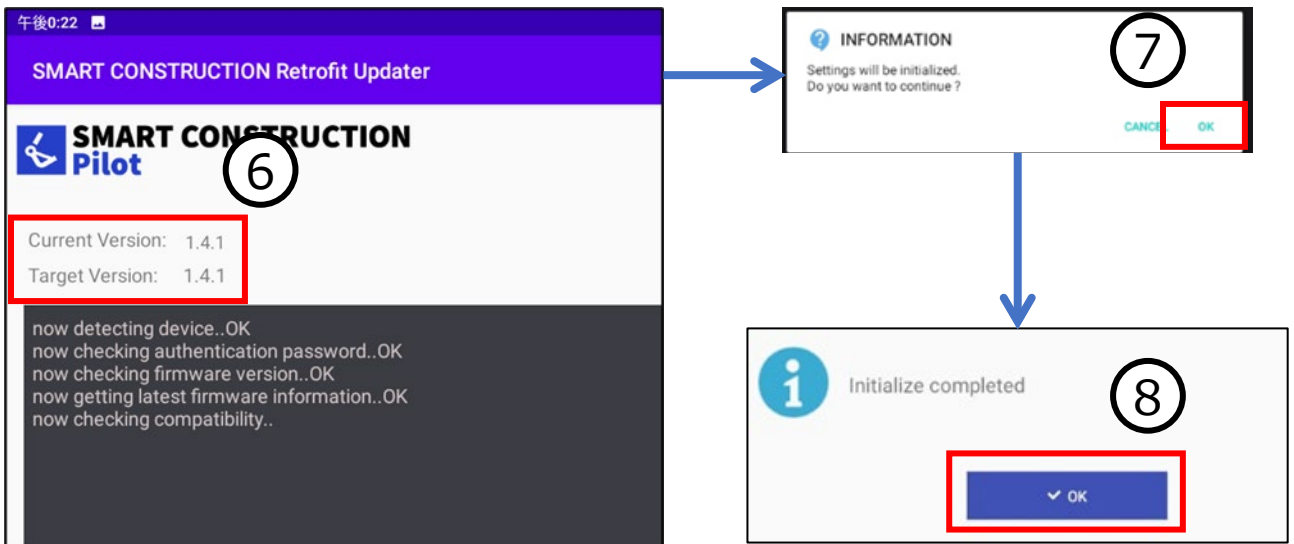
# 3.3 Initialise controller parameter file ②

- 6. The controller firmware version currently connected (Current Version) and the latest firmware version in the tablet (Target Version) are displayed.

<Caution>

When initialising the parameter file, please make sure that the firmware is up-to-date. Check that the Current Version and Target Version are the same.

- 7. A confirmation of the execution of the parameter file initialisation is displayed, tap OK. The parameter file is initialised.
- 8. After initialisation is complete, tap OK to return to the menu screen.  
That's all there is to the operation.





# 3.4 Initialise in network offline①

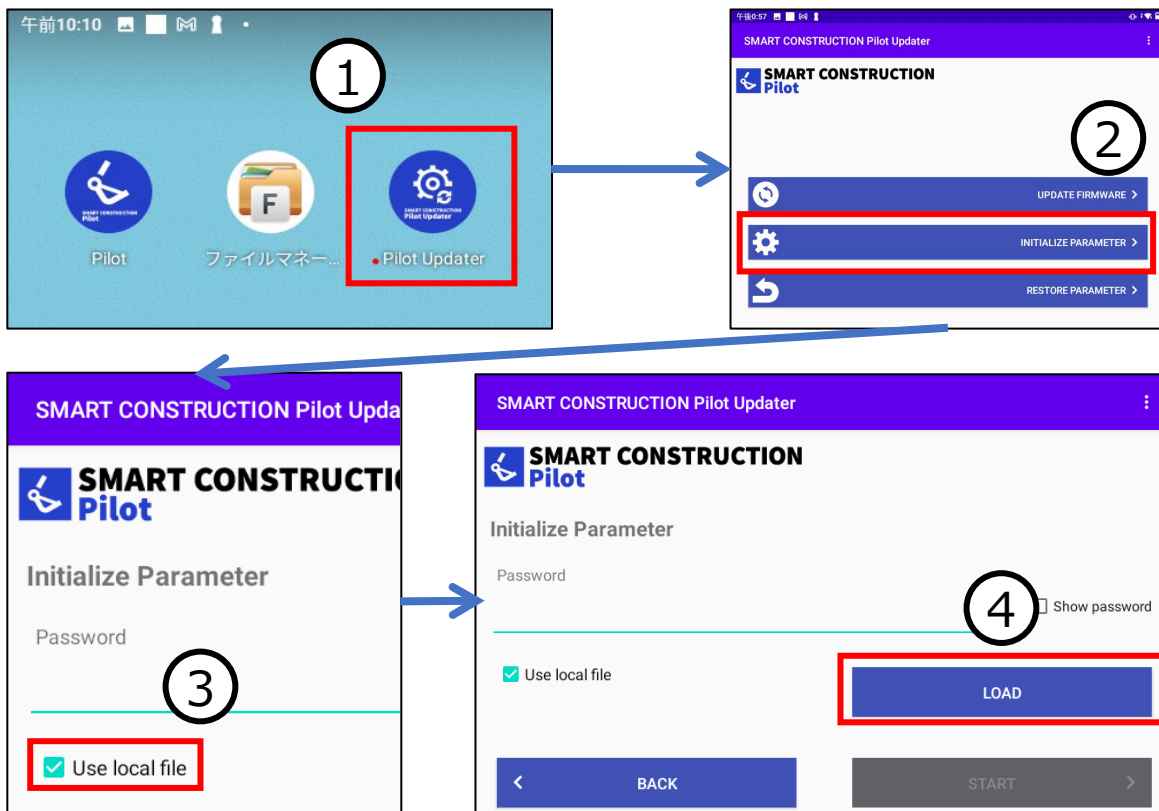
## [Important]

Initialising the controller's parameter file will erase the parameters (e.g. calibration information) stored in the controller.

### <Caution>

If the controller is out of internet range, proceed with the initialisation according to the following procedure. The controller firmware must be the latest version to initialise the parameter file. If an update is required, refer to "3.1 Updating the controller firmware to the latest version" or "3.2 Updating the firmware in an offline environment". If the firmware update is required, refer to "3.1 Updating the controller firmware to the latest version" or "3.2 Updating the firmware under offline conditions".

1. After connecting the tablet to the WiFi connection used by Retrofit, start the Pilot Updater. If the Pilot Updater has not been installed, please refer to section "01 Preparation" to install the Pilot Updater.
2. Tap INITIALIZE PARAMETER on the Pilot Updater menu screen.
3. Tap Use local file and tick the box.
4. Tap 'Load' to display the file selection screen. (Go to next page)



# 3.4 Initialise in network offline ②

5. Tap the parameter file (.gfw file) for initialisation.

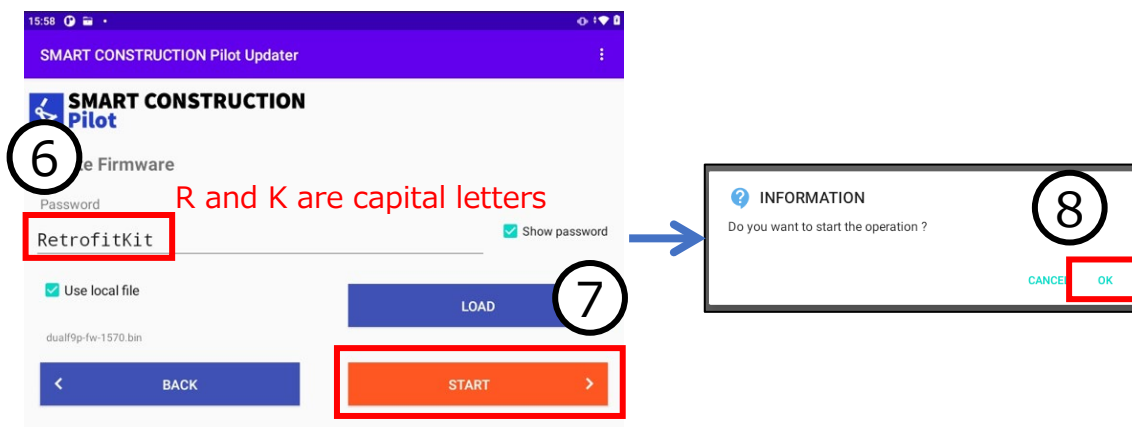
<Caution>

If you accidentally tap the .bin file, an error message will be displayed.

6. Enter 【 RetrofitKit 】 (\*R and K are capital letters) in the password input box.

7. After entering the password, tap START.

8. A confirmation pop-up is displayed, tap OK. (Go to next page)



## 3.4 Initialise in network offline ③

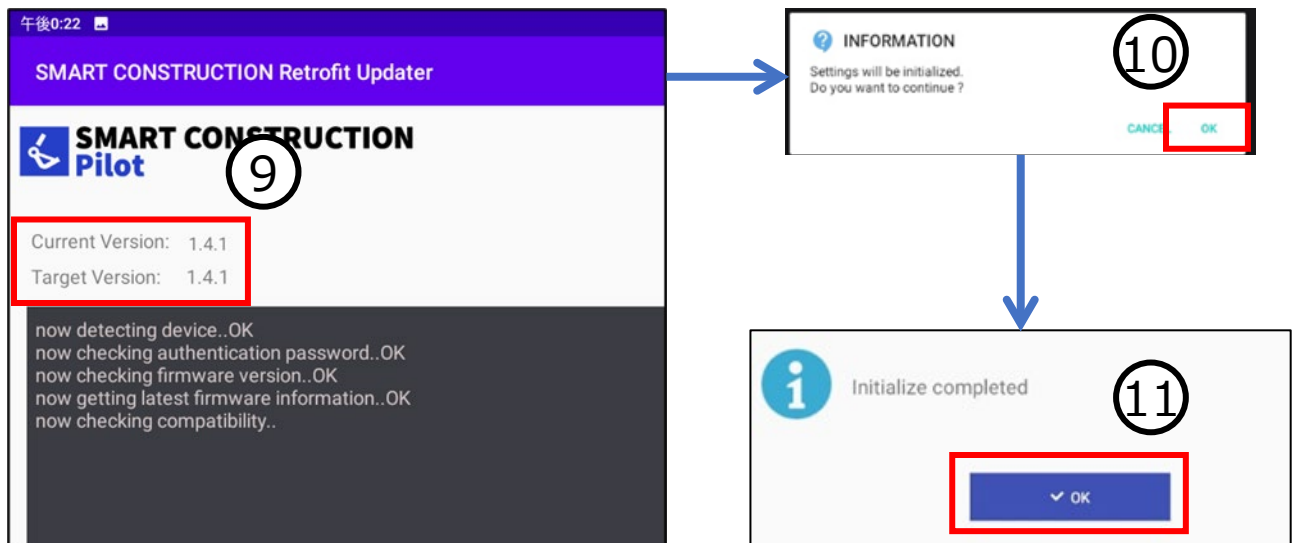
9. The controller firmware version currently connected (Current Version) and the latest firmware version in the tablet (Target Version) are displayed.

<Caution>

When initialising the parameter file, please make sure that the firmware is up-to-date. Check that the Current Version and Target Version are the same.

10. A confirmation of the execution of the parameter file initialisation is displayed, tap OK. The parameter file is initialised.

11. After initialisation is complete, tap OK to return to the menu screen.  
That's all there is to the operation.



## 3.5 Restore controller parameter file

This function is under development.  
It is not available at this time.

# 04


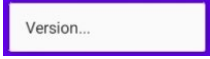
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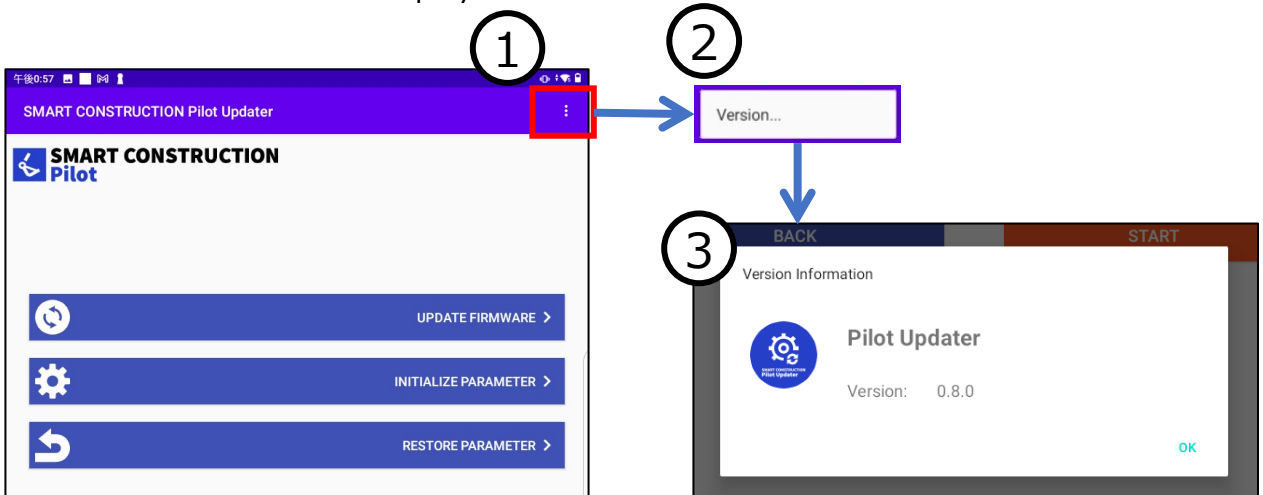
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# Other

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# 4.1 Check app version

1. Tap  in the top right-hand corner of the Pilot UPD menu screen.
2. The display in the top right-hand corner of the screen changes to ,
3. Version information is displayed.



## Product enquiries

EARTHRAIN Ltd.

Support site :

<https://support.smartconstruction.com/hc/ja/requests/new>

The link leads to an enquiry form.