FUYLTower Software Upgrade - Instructions

Overview

This instructional is intended for those wishing to upgrade their FUYL Tower software. This procedure may be required from time to time when significant features become available in a new software release, when the operating system is updated, or when important security enhancements become available.

The FUYL Tower is controlled by an embedded computer board. The software components which control its actions are completely contained within a removable SD flash memory card, which is slotted into the main control board in a socket.

Access to the compute board and its SD card is safe and simple, and does not require tools or special skills.

Looking a little more closely, the SD card comprises five major software components:

- The operating system
- A software package which controls the locks
- A software package which controls the FUYL Tower hardware (display, keypads etc)
- A software package which provides the FUYL Tower Management Portal functionality
- A software package which contains a database holding data relating to configuration and locker status

We have two means of upgrading software:

- **Manual upgrade**: where the SD card (with all its packages and the operating system) is physically swapped on the computer board.

- **Software upgrade**: where any (or all) of the four software packages (Management Portal, Firmware and Database, Locks) are downloaded from a local computer via the Management Portal from a web browser. Note that the operating system cannot be upgraded in this manner – this can only be done through a manual upgrade.

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FUYLTower Software Upgrade - Instructions

CONTENTS

FUYLTower Software Upgrade - Instructions

DO I NEED TO UPGRADE?

Upgrading software is only necessary when:

1. A security vulnerability in the Operating System has been discovered, and PC Locs/LocknCharge has recommended an upgrade.

2. A software issue has arisen, and PC Locs/LocknCharge has recommended an upgrade.

3. A new and useful feature has been developed which you would like to make use of.

PC Locs/LocknCharge will contact you by email when any or all of these scenarios eventuate. You will be advised on which upgrade method to use – whether by Manual SD card exchange, or by Management Portal file download.

WHAT DO I NEED?

You will need to know how to access the Admin menu from the front panel, as well as how to access the Management Portal. Instructions on how to perform these actions may be found in the *Fuyl Tower User Manual* and *Management Portal User Manual*. These manuals may be downloaded from the support website at:

https://www.pclocs.com.au/support/, https://www.lockncharge.com/eu/support/ or https://www.lockncharge.com/support/

To perform a **manual upgrade** involving the physical exchange of the SD card, you will need the following:

- New SD flash card with latest firmware (requested from PC Locs/LocknCharge)
- key for control panel access

To perform a **software upgrade** using the FUYL Tower Management Portal to upload a package file, you will need the following:

- Package file(s) to upgrade (requested from PC Locs/LocknCharge) installed on the computer you will connect with
- A FUYL Tower with ROM version V1.09 or later (see section Software Upgrade via Management Portal below)
- Computer with browser
- Ethernet cable – connects computer to the LAN or (for a direct connection) directly to the FUYL Tower.
- Control panel Admin key
- Password for Management Portal access

FUYLTower Software Upgrade - Instructions

BEFORE YOU START!

WARNING:

1. The software upgrade process may result in all FUYL Tower lockers being opened. All valuables should be removed and secured prior to the upgrade.

2. Software upgrades must be allowed to complete without interruption. Powering down while the upgrade is in progress may result in corruption of the SD card, requiring its replacement.

3. An upgrade may result in the loss of configuration data for the FUYL Tower, and it may be advisable to record any previous settings by accessing the Management Portal. Retain these settings for entry when the upgrade is completed.

4. An upgrade may result in the Administrator and Management Portal passwords reverting to defaults. Be sure to reset these on completion!

5. An upgrade may result in the IP address changing. You may need to check the new number from the FUYL Tower panel using the Administrator key. See the *FUYL Tower Management Portal Manual* for instructions (available online).

FUYLTower Software Upgrade - Instructions

MANUAL UPGRADE BY SD CARD

One means of upgrading the software is to replace the SD card in the FUYL Tower:

1. Remove and secure all items currently stored in the FUYL Tower.

2. Record all current configuration settings by accessing the Management Portal

3. Power down the FUYL Tower

4. Open the middle access control panel (black door with the LCD screen) using the larger of the two access keys provided

5. Locate the black SD card which is socketed into the lower circuit board – the end of it will be just visible protruding from the edge of the circuit board which is closest to the door hinge
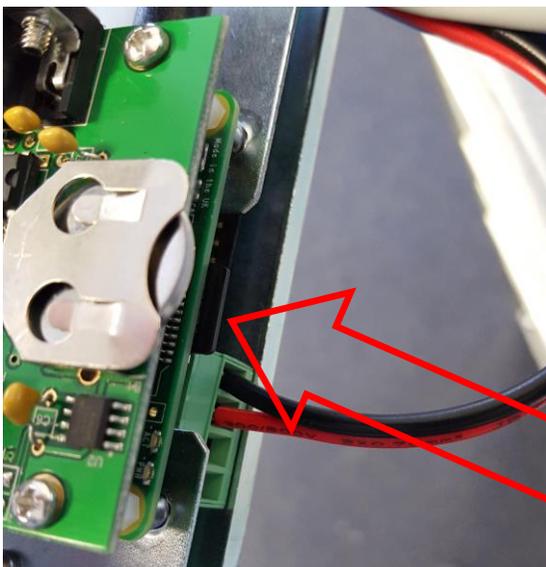
The SD card is located on the edge of the lower board, below the lithium clock battery.

Press and release to remove or insert card.

6. Push gently on the black SD card – it will spring out of its socket a few millimetres, and may now be removed – observe the orientation of the card, which will have gold contact pads facing upwards. NOTE: place this in a safe location as a backup!

   NOTE: more recent control boards do not have a spring-loaded SD card socket. Remove the card by pulling the card gently towards the door hinges.

7. Insert the new SD card, being careful to orient it with the gold contacts facing upwards

8. Lock the control door

9. Power up the FUYL Tower - wait 2-3 minutes for the FUYL Tower to start up.

10. The diagnostic test will commence – follow instructions provided on the LCD display till completion:

    a. LCD test: If the displayed characters are readable, press OK.

    b. Keypad test: Press each key as prompted.

    c. Door / Lock test: Close all doors as requested. Each door will be unlocked sequentially.
    As each door opens press OK to confirm.

    d. Admin key test: Rotate the admin keyswitch as prompted.

    e. Nameplate S/N: Enter the last 4 digits of the plate attached to the base of the tower and press OK.

FUYLTower Software Upgrade - Instructions

11. Reset the Admin PIN access code. Access the Admin menu using the Admin key on the FUYL Tower control panel. Note that the Admin PIN code will have reverted to the default of 23350743. Reset this.

12. Select Admin menu item 6. Record the IP address, which may have been re-allocated.

13. From your computer browser, access the Management Portal from the browser using the recorded IP address.

14. Perform the setup / configuration from the Management Portal, re-entering the previously recorded configuration details.

15. Reset the Management Portal password.

16. Power off for more than ten seconds.

17. Power up

18. Test locker access

19. Test Management Portal access using the new IP address recorded during the upgrade.

FUYLTower Software Upgrade - Instructions

SOFTWARE UPGRADE VIA MANAGEMENT PORTAL

Another means of upgrading software is to download one or more package files obtained from PC Locs/LocknCharge using the FUYL Tower Management Portal. Files will typically have names such as:

> portal-fuyltower_1.04_all.deb
> firmware-fuyltower_1.09_all.deb
> database-fuyltower_1.03_all.deb

1. Ensure that the computer you will use to access the FUYL Tower Management Portal has access to the package file you will install.

2. Remove and secure all items currently stored in the FUYL Tower.

3. Connect the computer to the FUYL Tower. This may be a direct connection (only the FUYL Tower and the computer connected with Ethernet cable) or a LAN connection.

4. Open the web browser and type the FUYL Tower IP address into the URL bar at the top of the screen. eg:
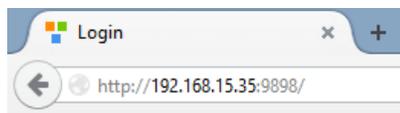
   Note: if you do not know the IP address, please refer to the *FUYL Tower User Manual* (available online) for instructions on how to obtain it.

5. The login page should be displayed. Log in using your Administrator password. The default credentials are as follows (you should have changed yours!):

   > Username: **admin**
   > Password: **uberbasket**

6. Confirm whether this is the appropriate upgrade method. This type of upgrade is only relevant for FUYL Towers with a ROM version which is V1.09 or later. Check the ROM version listed at the bottom of the FUYL Tower Management Portal home page is V1.09 or later:
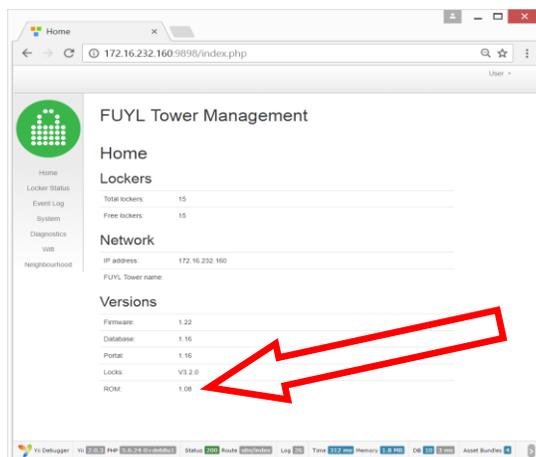
   If you have an earlier version installed (such as V1.08 above), **do not continue** - you will instead need to upgrade by manually swapping the SD card, which may be requested from PC Locs/LocknCharge.

pg. 7

FUYLTower Software Upgrade - Instructions

7. The upgrade process requires that the package file you are installing has a version which is later than your FUYL Tower's currently installed version. Check the currently installed package version (Firmware, Database, Portal) on the FUYL Tower Management Portal home page:
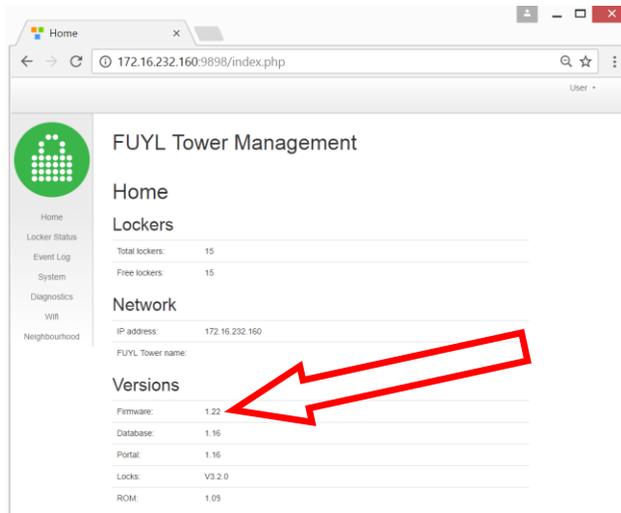
The version number of each package file you will receive is embedded in its name. So for example you may have received a Management Portal package file for upgrade which is named:

*fuyltower_firmware_**1.23**_all.deb*

In this case the version is 1.23, which would be acceptable to install for the above FUYL Tower, which has V1.22 Firmware installed.

8. Click on the side-panel System link:

9. Click on the Update button – the Firmware Upload page appears:
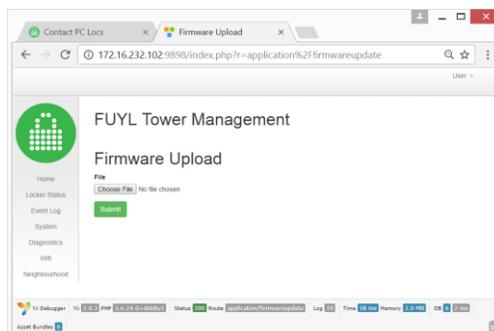
FUYLTower Software Upgrade - Instructions

10. Click the Choose File button, and navigate to the folder where your package file is located. Select and Open the file.

11. Click the Submit button and **wait until the operation has completed.** This may take 15 minutes or longer for some packages. The process should not be interrupted.

12. **When a message informs that the operation is completed**, power off the FUYL Tower for more than ten seconds.

13. Power up the FUYL Tower

14. If the Diagnostic test begins, follow all instructions on the LCD display.

15. Reset the Admin PIN access code. Access the Admin menu using the Admin key on the FUYL Tower control panel. Note that the Admin PIN code will have reverted to the default of 23350743. Reset this.

16. Select Admin menu item 6. Record the IP address, which may have been re-allocated.

17. From your computer browser, access the Management Portal from the browser using the recorded IP address.

18. Perform the setup / configuration from the Management Portal, re-entering the previously recorded configuration details.

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FUYLTower Software Upgrade - Instructions

TROUBLESHOOTING

When I reboot, the LCD display has a single row of black across the top.	It may take some minutes for the FUYL Tower to initialise. Check again in 5 minutes. The SD card may not be full inserted. Power down and ensure that it is oriented correctly, and that it is firmly inserted in the control-board socket as described above. If this occurs after a Software download from the Management Portal, the download may have been interrupted, causing a corruption of the SD flash card. A new card will need to be requested and installed.
Can't connect to the FUYL Tower using the Management Portal	Are you using the old IP address to access the FUYL Tower? A new address is often re-issued by DHCP servers after upgrade. Follow instruction in your User manual to determine the new IP address. The DHCP server may take some time to issue an address to the tower. Try again in a few minutes If you were previously using WiFi to access the FUYL Tower, you may need to configure it from the Management Portal.