



KL1100 RFID - Programming and Operating Instructions

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ABOUT KL1100 RFID

The KL1100 RFID can operate in Standalone Mode or in Remote Card Authorisation (RCA) Mode. RCA Mode gives the ability to remotely set-up and allocate cards to locks or lock groups with our offline or cloud based software.

STANDALONE MODE

Standard Programming

Standard programming operations include: First Use (Initialisation), setting Private/Public Function, adding User/Technician Cards and Factory Reset.

Additional Programming

The KL1100 Programmer (sold separately) is required to perform additional programming operations such as Auto-Unlock, Maximum Locked Period, Dual Authorisation and more. Before each programming operation this will need to be plugged into the micro USB port at the bottom of the lock and the Master Card must be presented for authorisation. When the Programmer is unplugged the Red LED will flash once within 5 seconds to indicate it is out of programming mode.

Functions

Before programming, select the most appropriate function for the application: **Private Function** or **Public Function**.

Private Function

This function is used where the same pre-registered User Cards are repeatedly used, auto-locking after each opening. Up to 50 individual User Cards, 10 individual Technician Cards and 1 Master Card can be registered per lock.

This function supports Dual Card Authorisation, where 2 cards (either User or Technician) must be presented within 5 seconds of each other to unlock.

Public Function

The user presents a compatible card to an available open lock, this locks the lock and only that User Card, or a Master Card can be used to unlock the lock, the lock then remains open

ready for the next user. A registered Technician Card will open the lock to check contents, the lock re-locks for the previously registered User Card. This function is used for short-term, multi-occupancy applications, e.g. hot desking in an office or a locker in a sports club.

This function supports Auto-Unlock, where the lock can be set to unlock at a specific time or after a defined time period.

A maximum of 10 individual Technician Cards and 1 Master Card can be registered per lock.

THE BASICS

Standalone Access

The lock supports a maximum of: Master Card (1), Technician Cards (10) and User Cards (50).

Penalty Time

Presenting an unregistered card 3 times will incur a 10 second time delay before any further use is possible.

Batteries

The KL1100 RFID uses 4 x AA batteries. Always use high quality batteries. Dispose of old batteries according to local authority recommendations.

When battery power is low, the Red LED will flash 3 times before any locking/unlocking. Batteries have up to 100 operations remaining and should be changed as soon as possible.

Override Code

Programmer required (sold separately)

The default 4 digit emergency Override Code can be used to unlock the lock via the Programmer when the Master Card is unavailable. It is recommended that the default Override Code is changed upon setting up the lock, see page 9 for instructions.

Card Types

Master Card

- Opens the lock (deletes current User Card in Public Function)

- All programming including Technician and User Card registration

Technician Card

- Opens the lock (retains current User Card in Public Function)

User Card

- Opens the lock
- Locks the lock (in Public Function)

RCA Registered Card Clients

Technician and User RCA Card Clients can be registered with up to 20 individual locks each
Can only be used with RCA initialised locks

IMPORTANT

Once a Master Card is registered, it should be kept in a safe location. The Master Card is required for all programming operations and setting the lock Override Code.

FIRST USE (INITIALISATION)

Upon powering up the lock, it will be in an unlocked state and the LED will flash Purple.

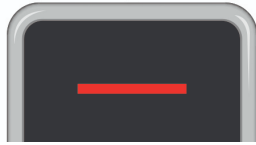
For Private Use:

1. Present a card to the lock. This is now the Master Card. **Keep this safe.**
2. The Blue LED will flash twice to confirm acceptance.
3. Wait 5 seconds for the Blue LEDs to stop flashing and for the latch to engage, the lock will now be in Private Function.

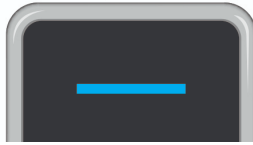
For Public Use:

1. Present a card to the lock. This is now the Master Card. **Keep this safe.**
2. The Blue LED will flash twice to confirm acceptance.
3. Present a second card within 5 seconds while the Blue LED is flashing. This is now a Technician Card.
4. Repeat step 3 to add additional Technician Card. Up to 10 can be active on the lock at any given time.
5. Wait 5 seconds for the Blue LEDs to stop flashing and for the latch to retract. The lock will now be in Public Function.

Red LED
Command Rejected



Blue LED
Command Accepted



Standard Programming/Use

KL1100 RFID

PRIVATE FUNCTION

Adding / Removing User Cards

1. Present the Master Card to the lock.
2. Present a new User Card immediately. The Blue LED will start to flash for 5 seconds indicating it is waiting for more cards:
 - a. If the card is not already registered it will be added and the Blue LED will flash. This is now a User Card.
 - b. If the card is already registered, it will be removed and the Red LED will flash.
3. Repeat step 2 to continue adding/removing User Cards. A maximum of 50 User Cards can be added at any one time.
4. Wait 5 seconds for the Blue LEDs to stop flashing.
5. The Red LED will flash once within 5 seconds to confirm the exit of programming mode.

Note : While adding User Cards, if the Master Card is presented to the lock it will cancel the program and the User Cards added so far will not be saved.

PUBLIC FUNCTION

The lock will remain open until the next user touches a compatible card to the front of the lock. Once locked, the lock will only be able to be opened by the same card that was used to lock the lock, the Master Card or the Technician Card.

If the Master Card is used to open the lock, the lock is cleared for use with another card. However, if the original card is found it cannot be used with another lock until it is cleared (re-paired and released) from that original lock. If the Technician Card is used to open the lock, the existing User Card will be retained and after 5 seconds, the lock will re-lock.

FACTORY RESET

The KL1100 RFID can be factory reset using the button in the latch unit.

Via Reset Pinhole Button

1. Open latch unit battery compartment and remove 1 battery.
2. Using a paperclip, press and hold the reset button located in the pinhole.
3. Replace battery and then release the reset pinhole button. The Blue LED will flash twice.
4. Once you see the Purple LED flash, press the reset pinhole button three times in quick succession.
5. The motor will engage and the LED will flash Purple to indicate the lock has reverted to factory settings and is waiting for initialisation. All registered cards are removed.

TROUBLESHOOTING

Low Battery

When the battery power is low the Red LED will flash 3 times before the Blue LED flashes to signal acceptance of the card. Batteries should be changed as soon as this happens.

The lock will operate for approximately 100 times with low battery.

Battery Failure Override

The KL1100 RFID has been designed so that a 5V (max.) mobile power bank can be used to open the lock to allow access to the batteries so they can be replaced should they fail.

1. Plug a compatible power bank into the micro USB port at the bottom of the lock, it will power up.
2. Present the Master Card to the lock.
3. When the latch retracts, open the door and replace the batteries found in the latch unit. Lock and user settings will be retained.

Additional Programming

with KL1100 Programmer

CHANGE THE MASTER CARD

1. Plug the Programmer into the lock.
2. Present the Master Card to the lock.
3. Press: # •• 01 •• 01 ••
4. Present the new Master Card to the lock within 5 seconds while the Blue LED is flashing.
5. To exit programming mode, unplug the Programmer. The Red LED will flash once within 5 seconds to confirm.

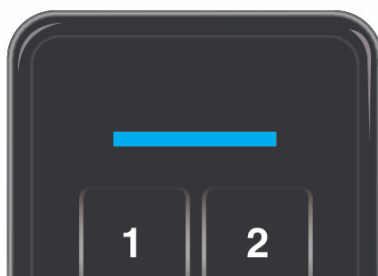
CHANGE THE FUNCTION

To change between Public and Private Functions:

1. Plug the Programmer into the lock.
2. Present the Master Card to the lock.
3. On the Programmer enter either:
 - a. Public Function: # •• 24 •• 24 ••
 - b. Private Function: # •• 26 •• 26 ••
4. To exit programming mode, unplug the Programmer. The Red LED will flash once within 5 seconds to confirm.

Programmer

The Blue LED will flash upon each button press.



PROGRAMMING THE LOCK: PRIVATE FUNCTION

Adding/Removing User Codes

1. Present the Master Card to the lock.

2. Present a new User Card immediately. The Blue LED will start to flash for 5 seconds indicating it is waiting for more cards:
 - a. If the card is not already registered it will be added and the Blue LED will flash. This is now a User Card.
 - b. If the card is already registered, it will be removed and the Red LED will flash.
3. Repeat step 2 to continue adding/removing User Cards. A maximum of 50 User Cards can be added at any one time.
4. Wait 5 seconds for the Blue LED to stop flashing.
5. To exit programming mode, unplug the Programmer. The Red LED will flash once within 5 seconds to confirm.

Note : While adding User Cards, if the Master Card is presented to the lock it will cancel the program and the User Cards added so far will not be saved.

Remove all User Cards

1. Plug the Programmer into the lock.
2. Present the Master Card to the lock.
3. Press: # •• 03 •• 03 ••
4. To exit programming mode, unplug the Programmer. The Red LED will flash once within 5 seconds to confirm.

Add/Remove a Technician Card

1. Plug the Programmer into the lock.
2. Present the Master Card to the lock.
3. Press: # •• 04 ••
4. Present a card to the lock within 5 seconds while the Blue LED is flashing:
 - a. If the card has not already been added to the lock, the Blue LED will flash and it will be added. This is now a Technician Card. Repeat this step up to 10 times to add more.
 - b. If the card has previously been added, the Red LED will flash and it will be removed.
5. Wait 5 seconds for the Blue LEDs to stop flashing.
6. To exit programming mode, unplug the Programmer. The Red LED will flash once within 5 seconds to confirm.

Remove all Technician Cards

1. Plug the Programmer into the lock.
2. Present the Master Card to the lock.
3. Press: # •• 05 •• 05 ••
4. To exit programming mode, unplug the Programmer. The Red LED will flash once within 5 seconds to confirm.

Re-lock Delay

Note : The default re-lock delay is 4 seconds. The re-lock delay can be set to between 2 and 30 seconds.

1. Plug the Programmer into the lock.
2. Present the Master Card to the lock.
 - **Press :** # •• 06 •• Length of Time (Seconds) ••
 - **Example :** # •• 06 •• 14 ••
3. Result: The lock will wait 14 seconds after unlocking before re-lock.
4. To exit programming mode, unplug the Programmer. The Red LED will flash once within 5 seconds to confirm.

Dual Authorisation

This feature requires any 2 registered cards (either User or Technician) to be presented within 5 seconds of each other for the lock to unlock.

1. Plug the Programmer into the lock.
2. Present the Master Card to the lock.
3. To enable
 - Press: # •• 3 •• 1 ••
 - To disable
 - Press: # •• 13 •• 0 •• (Default)
7. To exit programming mode, unplug the Programmer. The Red LED will flash once within 5 seconds to confirm.

Important Note: When the first card has been presented, the Blue LED will flash for 5 seconds indicating it is waiting for the second.

PROGRAMMING THE LOCK: PUBLIC FUNCTION

The lock will remain open until the next user touches a compatible card to the front of the lock. Once locked, the lock will only be able to be opened by the same card that was used to lock the lock, the Master Card or the Technician Card.

If the Master Card is used to open the lock, the lock is cleared for use with another card. However, if the original card is found it cannot be used with another lock until it is cleared (re-paired and released) from that original lock. If the Technician Card is used to open the lock, the existing User Card will be retained and after 5 seconds, the lock will re-lock.

Add/Remove a Technician Card

1. Plug the Programmer into the lock.
2. Present the Master Card to the lock.
3. Press: # •• 04 ••
4. Present a card to the lock within 5 seconds while the Blue LED is flashing:

- a. If the card has not already been added to the lock, the Blue LED will flash and it will be added. This is now a Technician Card.
 - b. If the card has previously been added, the Red LED will flash and it will be removed.
5. Wait 5 seconds for the Blue LEDs to stop flashing.
 6. To exit programming mode, unplug the Programmer. The Red LED will flash once within 5 seconds to confirm.

Note : Up to 10 Technician Cards can be registered at any one time, per lock.

Remove all Technician Cards

1. Plug the Programmer into the lock.
2. Present the Master Card to the lock.
3. Press: # •• 05 •• 05 ••
4. To exit programming mode, unplug the Programmer. The Red LED will flash once within 5 seconds to confirm.

Locked LED Indication

When in a locked state, the Red LED will flash every 5 seconds by default. This can be disabled to improve battery life.

1. Plug the Programmer into the lock.
2. Present the Master Card to the lock.
3. To disable
 - Press: # •• 08 •• 00 ••
 - To enable:
 - Press: # •• 08 •• 01 ••
7. To exit programming mode, unplug the Programmer. The Red LED will flash once within 5 seconds to confirm.

Public Pairing

Public Pairing is an automatic setting that prevents a User Card from locking multiple locks at the same time. Pairing is achieved by the original lock writing a small amount of data onto the User Card. On occasion, for example if a card has been lost and then handed in, it may be necessary to free that paired card in order for the card to be reused.

To free a paired User Card:

1. Plug the Programmer into any lock.
2. Present the Master Card to the lock.
3. Press: # •• 09 ••

4. Present the User Card to the lock within 5 seconds while the Blue LED is flashing. This card can now be assigned to another lock.
5. To exit programming mode, unplug the Programmer. The Red LED will flash once within 5 seconds to confirm.

Set a Maximum Locked Period

1. Plug the Programmer into the lock.
2. Present the Master Card to the lock.
3. Press : # •• 10 •• Length of Time (Hours) ••
 - **Example** : # •• 10 •• 04 ••
 - **Result** : The lock will open 4 hours from when it is locked by a User Card.
4. To exit programming mode, unplug the Programmer. The Red LED will flash once within 5 seconds to confirm.

Note : The length of time until the lock opens can be set to between 1 and 23 hours. Time periods less than 10 hours should be prefixed with a '0' as shown in the example above.

Disable Maximum Locked Period

1. Plug the Programmer into the lock.
2. Present the Master Card to the lock.
3. Press: # •• 10 •• 00 ••
4. To exit programming mode, unplug the Programmer. The Red LED will flash once within 5 seconds to confirm.

Auto-Unlock at a Set Time

Note : The time and date must be set first to use this function. See page 8 for instructions.

1. Plug the Programmer into the lock.
2. Present the Master Card to the lock.
3. Press: # •• 11 •• Unlock Time ••
 - **Example** : # •• 11 •• 0230 ••
 - **Result** : The lock will unlock at 02:30.
4. To exit programming mode, unplug the Programmer. The Red LED will flash once within 5 seconds to confirm.

Disable Auto-Unlock

1. Plug the Programmer into the lock.
2. Present the Master Card to the lock.
3. Press: # •• 11 •• 2400 ••

4. To exit programming mode, unplug the Programmer. The Red LED will flash once within 5 seconds to confirm.

TIME BASED FEATURES

Important Note: If the lock's power is interrupted the current time and date will be lost and will need to be set again. The Red LED will flash twice every 5 seconds for a maximum of twenty times as a reminder that this must be done.

Note: Daylight Savings Time is not automatically applied.

Set the Time and Date

This must be completed to use time based features.

1. Plug the Programmer into the lock.
2. Present the Master Card to the lock.
3. Press: # •• 12 •• yyMMddHHmm •• Week Day: 1-7 (Mon-Sun) ••
 - **Example :** # •• 12 •• 2008121250 •• 1 ••
 - **Result :** The lock is set to Monday 12th August 2020 at 12:50.
4. To exit programming mode, unplug the Programmer. The Red LED will flash once within 5 seconds to confirm.

Disable Time, Date and Time Based Features

1. Plug the Programmer into the lock.
2. Present the Master Card to the lock.
3. Press: # •• 12 •• 0000000000 ••
4. To exit programming mode, unplug the Programmer. The Red LED will flash once within 5 seconds to confirm.

OVERRIDE CODE

This 4 digit code can be used to unlock in the event that the Master Card is not available. The default Override Code is: # # 2244.

Set Override Code

1. Plug the Programmer into the lock.
2. Present the Master Card to the lock.
3. Press: # •• 98 •• New Override Code •• Repeat New Override Code ••

4. To exit programming mode, unplug the Programmer. The Red LED will flash once within 5 seconds to confirm.

Use Override Code

1. Plug the Programmer into the lock.
2. Press: # # •• Override Code ••
3. The lock will unlock.

RCA MODE

Functions

Before programming, select the most appropriate function for the application: Public RCA Function, Private RCA Function or RCA into Standalone Function.

Note: A single User or Technician Card Client can be registered on up to 20 individual locks or lock groups.

RCA Private Function

This function is used when the lock is to be used by the same pre-registered users.

This function supports Dual Card Authorisation, where 2 Card Clients, either User or Technician, must be presented within 5 seconds of each other to unlock.

RCA Public Function

The user touches a RCA registered User Card Client to an available lock, this locks the lock and only that card can be used to unlock the lock. This function is used for short-term, multi-occupancy applications.

This function supports Auto-Open, where the lock can be set to unlock at a specific time or after a defined timescale.

Master and Technician Card Clients can always be used to unlock public function locks.

RCA into Standalone Function

An RCA initialisation Card Client can be used to initialise and put a lock or lock group into Standalone Public or Private function.

Only Master, Initialisation, Block and Audit Card Clients can be created using the RCA method, all others must be created via the Standalone method to function.

There is no limit on RCA initialised Master Card Clients, but only 1 Standalone Master Card Client can be registered per lock at any one time.

Codelocks Desktop Client (CDC) - Offline Software (Recommended)

Codelocks Desktop Client is an offline solution software application used for the management of the KL1100 RFID KitLock when operating in Remote Card Authorisation (RCA) Mode. This solution is aimed at small business's or small scale solutions such as a Bed and Breakfast or small office.

For instructions on how to use the Office Based Software click [here](#).

FACTORY RESET

The KL1100 RFID can be factory reset using the button in the latch unit, or via the Programmer.

Via Reset Pinhole Button

1. Open latch unit battery compartment and remove 1 battery.
2. Using a paperclip, press and hold the reset button located in the pinhole.
3. Replace battery and then release the reset pinhole button. The Blue LED will flash twice.
4. Once you see the Purple LED flash, press the reset pinhole button three times in quick succession.
5. The motor will engage and the LED will flash Purple to indicate the lock has reverted to factory settings and is waiting for initialisation. All registered cards are removed.

Via Programmer

1. Plug the Programmer into the lock.
2. Present the Master Card to the lock.
3. Press: # •• 99 •• 99 ••
4. The motor will engage and the LED will flash Purple to indicate the lock has reverted to factory settings and is waiting for initialisation. All registered cards are removed.

DIAGNOSTIC/SERVICE FUNCTIONS

Battery Level Check

1. Plug the Programmer into the lock.
2. Present the Master Card Client to the lock.
3. Press: # •• 87 ••

Both the • Red / • Blue LED will flash to indicate the current battery status. The lock will then return to normal mode.

Battery Life	Indicator
More than 80%	••••••
50% - 80%	••••
20% - 50%	•••
Less than 20%	••

Indicate Firmware Version

1. Plug the Programmer into the lock.
2. Present the Master Card.
3. Press: # •• 88 ••
4. The LED will flash to indicate firmware version;
 - a. A single Red LED flash indicates 10.
 - b. A single Blue LED flash indicates 1.
 - **Example:** If the lock flashed Red 5 times and Blue 6 times, this would indicate that it is running on version 56.
5. Press any button or wait 30 seconds to return to normal mode.

Indicate Real Time Clock Data

1. Plug the Programmer into the lock.
2. Present the Master Card.
3. Press # •• 89 ••
4. Then:

Press '1' to indicate the Year

Press '2' to indicate the Month

Press '3' to indicate the Day

Press '4' to indicate the Hour

Press '5' to indicate the Minute

Press '6' to indicate the Day of the Week

Press '0' to exit

Note: The Red LED will flash to indicate multiples of 10 and the Blue LED will indicate individual digits.

TROUBLESHOOTING

Low Battery

When the battery power is low the Red LED will flash 3 times before the Blue LED flashes to signal acceptance of the card. Batteries should be changed as soon as this happens.

The lock will operate for approximately 100 times with low battery.

Battery Failure Override

The KL1100 RFID has been designed so that a 5V (max.) mobile power bank can be used to open the lock to allow access to the batteries so they can be replaced should they fail.

1. Plug a compatible power bank into the micro USB port at the bottom of the lock, it will power up.
2. Present the Master Card to the lock.
3. When the latch retracts, open the door and replace the batteries found in the latch unit.

Important Note: After power loss, you will need to reset the time and date, if applicable, see page 8 for instructions. Lock and user settings will be retained.

REGULATORY COMPLIANCE

The device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by 1 or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

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