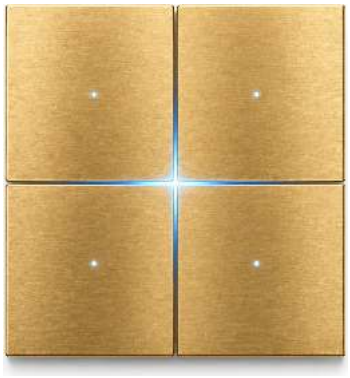
Z-WAVE PRODUCT MANUAL

SMART KEYPAD SWITCH

Z-Wave 800 Series smart keypad with metal or crystal-glass faceplates on the shared 86 x 86 mm platform. Select the With Neutral or Non-Neutral AC back unit for the installation.



CLASSIC METAL

Fixed 4-button layout

CRYSTAL GLASS

Predefined 1 to 5 touch layouts

Z-Wave 800 Series

Modern Z-Wave chipset

Short / long press

Configurable actions

OTA firmware update

Compatible controller

86 x 86 mm

Shared faceplate

WITH NEUTRAL

110-240 VAC. Four relay-switched live outputs L1-L4. Maximum 2 A continuous per output and 8 A combined. The common live path is protected by an internal 10 A fuse. Supports configured curtain mode.

NON-NEUTRAL

110-240 VAC. Four switched outputs L1-L4. Rated LED load 250 W per output, minimum 8 W. The supplied yellow bypass may be connected in parallel with Load 1 if flicker, afterglow or unstable operation occurs.

Scene position 5: the center touch position on the 5-button glass layout is a logical Z-Wave scene input only. It does not create a fifth physical switched output.

CRYSTAL GLASS FACEPLATE

One platform. Five touch layouts.

The Z-Wave glass faceplate uses predefined touch maps from 1 to 5 positions. The rear unit always provides a maximum of four physical outputs.

CRYSTAL GLASS

Predefined touch zones keep the icon positions, illumination and capacitive sensing aligned with the electronics behind the faceplate.

1-5	4	5
touch layouts	relay outputs	scene-only center

GLASS BUTTON LAYOUTS

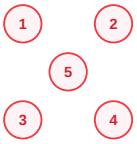
1 BUTTON

2 BUTTONS

3 BUTTONS

4 BUTTONS

5 BUTTONS



Layout summary: 1 -> 5 | 2 -> 1+4 | 3 -> 1+5+4 | 4 -> 1+2+3+4 | 5 -> all positions

Important notes

- Glass positions are predefined and should not be mechanically reassigned.
- The center position (5) is a Z-Wave scene / logical input; it does not create a fifth switched output.
- The back unit always provides a maximum of four physical outputs L1-L4.
- Default icons are supplied. Alternative icons may be selected before ordering.
- After changing the faceplate, power-cycle once to re-establish the capacitive baseline.

INSTALLATION

Prepare, wire and fit the keypad correctly.

Isolate mains power before wiring, servicing, changing the back unit or fitting the faceplate.

1 Select the back unit

Choose With Neutral or Non-Neutral. Their terminal arrangements and load requirements are different.

2 Wire the back unit

Follow the exact Z-Wave wiring page for the selected Neutral or Non-Neutral back unit.

3 Choose the glass layout

Use one of the predefined one-to-five button maps. Position 5 remains scene-only.

4 Fit icons, blanks and diffusers

Active position: icon. Unused position: black blank. Press the diffuser until it clicks.

5 Attach the faceplate

Keep the faceplate parallel to the wall. Press and release only at the corners.

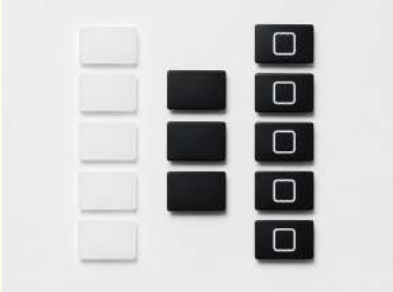
6 Power-cycle once

After final assembly, switch power off and on once to establish the capacitive baseline.

7 Add to the Z-Wave network

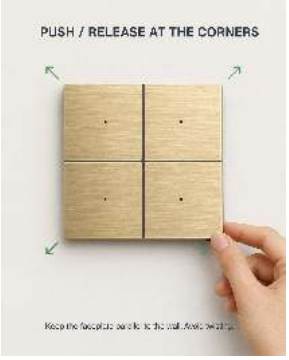
Use the controller inclusion flow and the firmware-confirmed button procedure on page 7.

GLASS FACEPLATE KIT



5 diffusers
5 default icon inserts
4 black blanks

FACEPLATE REMOVAL



Keep the faceplate parallel to the wall.

Do not insert a tool against the visible edge.

Do not twist or flex the faceplate.

Safety: 110-240 VAC is hazardous. Installation must be completed by a qualified electrician with the circuit isolated and verified de-energized.

FUNCTIONS AND SPECIFICATIONS

Z-Wave control with local intelligence.

Shared touch and scene behavior; different electrical rules for With Neutral and Non-Neutral back units.

Z-Wave 800 Series

Modern chipset platform for compatible Z-Wave networks.

OTA firmware update

Update firmware through a compatible Z-Wave controller.

Short and long press

Independent actions may be assigned by configuration.

Scene position 5

Logical Z-Wave scene input only; no fifth physical output.

Curtain mode

Paired direction outputs with interlock and break-before-make.

Configuration

Behavior is adjusted using the Z-Wave parameters on pages 8-9.

BACK-UNIT SPECIFICATIONS

WITH NEUTRAL	
Supply	110-240 VAC, 50/60 Hz
Outputs	4 relay-switched live outputs L1-L4
Per output	2 A continuous maximum
Combined	8 A continuous maximum
Protection	Common output path, internal 10 A fuse
LED load	Up to 400 W at 220-240 VAC; driver inrush applies
Resistive load	400 W recommended at 220-240 VAC; never exceed 2 A

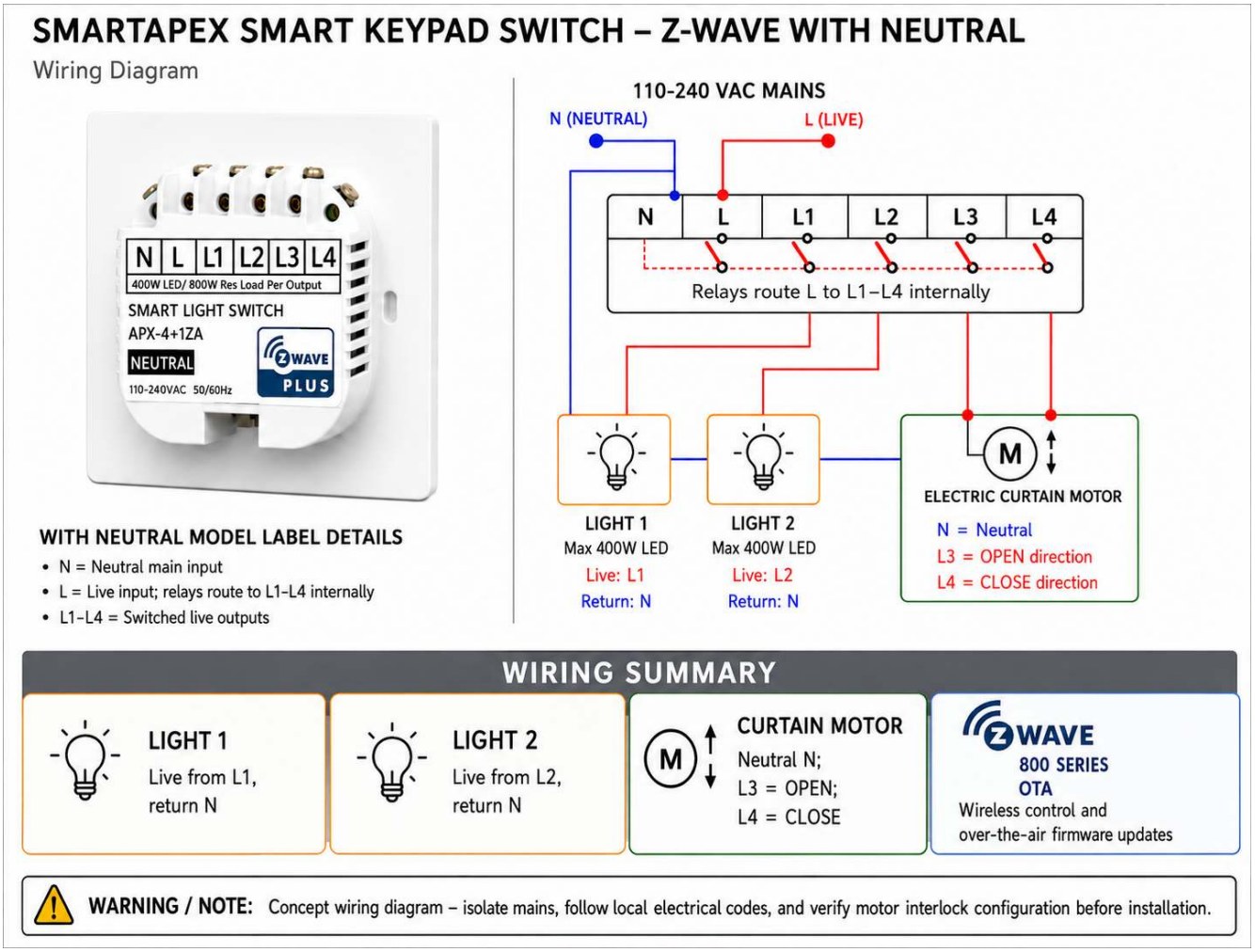
NON-NEUTRAL	
Supply	110-240 VAC, 50/60 Hz
Outputs	4 switched outputs L1-L4
Rated LED load	250 W per output
Minimum load	8 W
Bypass	Across Load 1, only when needed
Typical symptoms	Flicker, afterglow or unstable operation
Neutral terminal	Not used / not present

Rating note: The controlling limit is 2 A per output. At 230 VAC, 2 A equals 460 W theoretical maximum; this manual therefore specifies 400 W as the recommended resistive rating at 220-240 VAC.

AC WIRING - WITH NEUTRAL

Lighting and curtain connection.

Use the Z-Wave terminals exactly as shown. Neutral returns directly to the loads; Live is switched internally to L1-L4.



Published operating limits

Maximum continuous current: **2 A per output**. Maximum combined continuous current: **8 A** across L1-L4. The common live path is protected by an internal 10 A fuse; the fuse rating is not a permissible per-output load.

At 220-240 VAC, use 400 W as the recommended resistive ceiling per output. LED-driver inrush may require a lower practical load.

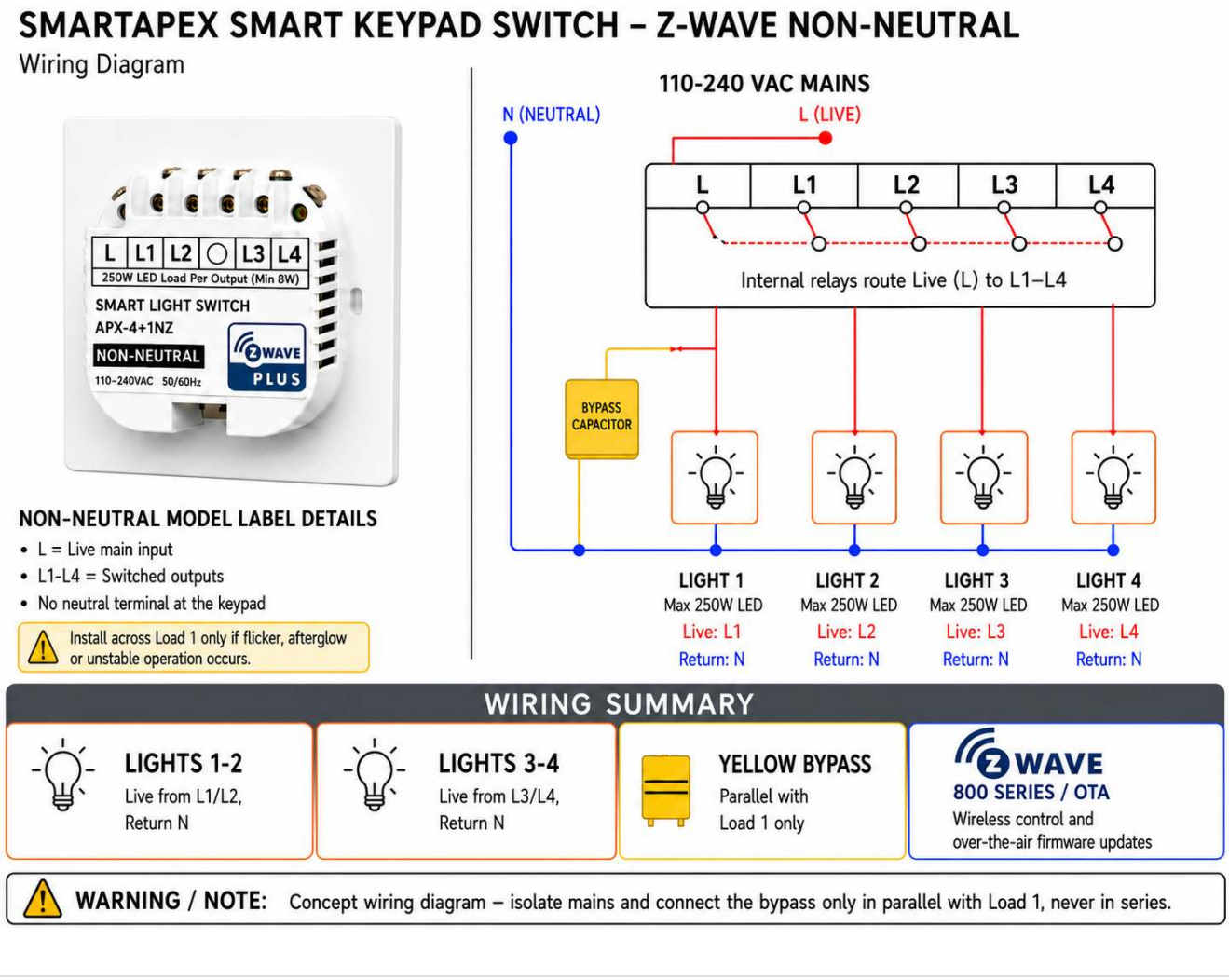
Curtain mode

Use a configured relay pair for OPEN and CLOSE. The controller must apply motor interlock and break-before-make so both directions can never be energized simultaneously.

AC WIRING - NON-NEUTRAL

Four outputs and Load 1 bypass.

The keypad has no neutral terminal. The supplied yellow bypass capacitor is connected in parallel with Load 1 only when required.



When to install the yellow bypass

Use it if Load 1 flickers, glows while off, fails to switch reliably, or the keypad behaves unstably. If operation is normal, the bypass is not required.

The bypass is used only with the Non-Neutral back unit and must be wired in parallel with Load 1 - never in series.

Load requirements

250 W LED maximum per output; minimum connected load 8 W. Test the actual LED driver before handover.

Z-WAVE COMMISSIONING

Add, remove, reset and update.

Follow the controller workflow and keep mains power stable throughout network operations and firmware updates.

ADD TO Z-WAVE NETWORK

1. Connect the keypad to the correct mains supply.
2. Ensure the status LEDs are steady.
3. Place the Z-Wave controller in inclusion mode.
4. Touch and hold the selected commissioning button for approximately 4 seconds until the blue LEDs blink.
5. Wait for the controller to confirm successful inclusion.

REMOVE FROM Z-WAVE NETWORK

1. Ensure the keypad is powered.
2. Place the Z-Wave controller in exclusion mode.
3. Touch and hold the selected commissioning button for approximately 12 seconds until the red LEDs blink.
4. Wait for the controller to confirm removal.

FACTORY RESET

1. Hold the selected commissioning button for approximately 12 seconds until the red LEDs blink, then release.
2. Hold the same commissioning button again for approximately 12 seconds.
3. The keypad restarts and clears its Z-Wave network data.
4. Use factory reset only when the primary controller is unavailable.

OTA FIRMWARE UPDATE

1. Start the OTA update from a compatible Z-Wave controller.
2. Keep mains power stable throughout the transfer and installation.
3. Do not remove the faceplate or cycle power during the update.
4. After completion, verify control, parameters and associations.

COMMISSIONING BUTTON BY FACEPLATE

1 BUTTON	2 BUTTONS	3 BUTTONS	4 OR 5 BUTTONS
BUTTON 1	BUTTON 2	BUTTON 3	BUTTON 4

Use this selected button for Join, Remove and both stages of Factory Reset. Keep the keypad continuously powered during network operations.

After commissioning or OTA update, verify local control, relay outputs, scenes, parameters and status reports before handover.

CONFIGURATION PARAMETERS

Power state and LED colours.

Parameters 0-10 for the verified NEWPCB five-button build. Colour values are listed below the table.

NEWPCB BUILD PROFILE **HAS_5BUTTON=1 | RC=4 | THER=0 | DIMMER=0 | NEW_PCB=1**

All listed parameters are 1-byte unsigned integers.

No.	Parameter	Default	Range	Description
0	**Relay state when powering on**	2	0-2	After power restore: 0=All off, 1=All on, 2=Restore last state.
1	**Off Color LED Button 1**	6	0-7	LED colour for Button 1 while its relay/button state is OFF.
2	**Off Color LED Button 2**	6	0-7	LED colour for Button 2 while its relay/button state is OFF.
3	**Off Color LED Button 3**	6	0-7	LED colour for Button 3 while its relay/button state is OFF.
4	**Off Color LED Button 4**	6	0-7	LED colour for Button 4 while its relay/button state is OFF.
5	**Off Color LED Button 5**	6	0-7	LED colour for scene/keypad Button 5 while its state is OFF; no relay output.
6	**On Color LED Button 1**	5	0-7	LED colour for Button 1 while its relay/button state is ON.
7	**On Color LED Button 2**	5	0-7	LED colour for Button 2 while its relay/button state is ON.
8	**On Color LED Button 3**	5	0-7	LED colour for Button 3 while its relay/button state is ON.
9	**On Color LED Button 4**	5	0-7	LED colour for Button 4 while its relay/button state is ON.
10	**On Color LED Button 5**	5	0-7	LED colour for Button 5 while its scene/pressed state is ON.

LED colour values

- **0 Off**
- **1 Red**
- **2 Green**
- **3 Yellow**
- **4 Blue**
- **5 Purple**
- **6 Cyan**
- **7 White**

CONFIGURATION PARAMETERS

Brightness, lock, blind mode and relays.

Parameters 11-22 for the verified NEWPCB five-button build. Changes must remain within the published ranges.

NEWPCB BUILD PROFILE **HAS_5BUTTON=1 | RC=4 | THER=0 | DIMMER=0 | NEW_PCB=1**

All listed parameters are 1-byte unsigned integers.

No.	Parameter	Default	Range	Description
11	Standby brightness	20	0-99	LED brightness in standby. Set lower than Working brightness.
12	Working brightness	100	1-100	LED brightness after touch/activity. Set higher than Standby brightness.
13	Buzzer sound level	5	0-10	Touch buzzer level: 0=Off, 10=Maximum.
14	Lock all touch buttons	0	0-1	0=Unlocked, 1=Locked. Local scenes and relay actions are blocked while locked.
15	Blind motor channels	0	0-3	0=Disabled, 1=CH1&2, 2=CH3&4, 3=Both pairs. Keep 0 for normal lights.
16	Blind run timeout	30	0-120	Blind/shutter auto-stop timeout in seconds; 0=Disabled. Used only with Parameter 15.
17	Relay 1 enable	1	0-1	0=Disable physical relay output, 1=Enable. Z-Wave state/scenes may still operate.
18	Relay 2 enable	1	0-1	Enables physical relay 2 output: 0=Disabled, 1=Enabled.
19	Relay 3 enable	1	0-1	Enables physical relay 3 output: 0=Disabled, 1=Enabled.
20	Relay 4 enable	1	0-1	Enables physical relay 4 output: 0=Disabled, 1=Enabled.
21	Report status	1	0-1	0=Do not send normal relay status reports, 1=Send reports. Central Scene is separate.
22	Long press time	20	5-40	Scene hold / dimming start delay. Units of 100ms in steps of 5 (0.5-4.0 s).

Firmware notes

Faceplate parameters are intentionally omitted: Faceplate and Faceplate LED colour parameters are not active in this NEWPCB 5-button build.

Button 5 is a scene/keypad input only and does not create a fifth physical relay output. For standard lighting, keep Blind motor channels (Parameter 15) at 0.