ZONE

Zone Technologies inc. | *Innovation in Motion*

September 2026

Bluetooth

INSTALLATION GUIDE

FL3 - BLUETOOTH ARROW BOARD

Version 1.6

IMPORTANT

Before proceeding with the installation of this system,
you should make sure to have read and understood the instructions included in this guide.

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WARNINGS

This document provides all the necessary information for the proper and safe installation of your **Bluetooth ARROW BOARD (FL3) System**.

Before proceeding with the installation or configuration of the **Bluetooth ARROW BOARD (FL3) System**, the technician must first have read and understood the instructions in this guide.

This document contains important information to prevent the risk of serious injury to both technicians and users.

GENERAL DESCRIPTION OF THE MODULE

The Bluetooth Arrow Board (FL3) was designed to speed up the installation on your vehicle. Ideal for rental vehicles as no holes are needed to connect the keyboard to the Arrow Board which is outside. The installation is centralized at the Arrow Board, simplifies the connections of 2 strobe lights, and the motorized support directly to the Arrow Board.

TECHNICAL SPECIFICATIONS

Operating Voltage:	10Vdc to 18Vdc
Operating Temperature:	-40°C to 75°C (-40°F to 167°F)
Current Draw: **(Supply Voltage = 12.0Vdc)**	Without IGNITION / Output disabled = less than 5mA With IGNITION / Output disabled = 50mA With IGNITION / Output all activated with no load = 600mA
Output Power:	i. Motor 12Vdc, 10A ii. Strobe Light 12Vdc, 5A iii. Aux. 12Vdc, 5A

LISTE DES ÉQUIPEMENTS :

FLÈCHE BLUETOOTH
FL3

BELL-4-KIT

CLAV08BT-ALIM

CLAV08BT-0010

FUNCTIONS

Activate and deactivate the different functions offered by this Bluetooth Arrow Board (FL3) using the 8-key keyboard. It is important to ensure that the keyboard is properly connected by Bluetooth to your Arrow Board in order to activate these functions (See below, Bluetooth section).

For motorized supports, the Bluetooth Arrow Board system (FL3) automatically manages the limitation of the up and down motion of the motor with or without a clutch models. It is also possible, thanks to its GPS antenna, to automatically lower the Arrow Board whenever a certain speed is reached. Speed programming requires no additional connections.

Ignition detection is done via a reading of the battery voltage :

- Battery > 13.1Vdc → Ignition ***ON***
- Battery < 12.8Vdc → Ignition ***OFF***

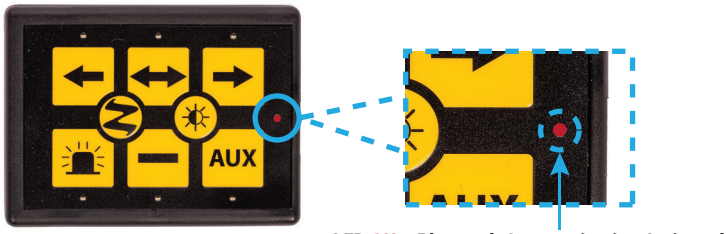
NOTE : Between 12.8VDC and 13.1VDC, ignition detection will depend on the previous ignition state. This is a buffer zone (hysteresis).

Keys	Operating mode
←	Activate/Deactivate Left Arrow
↔	Activate/Deactivate Double Arrow
→	Activate/Deactivate Right Arrow
▬	Activate/Deactivate Arrow Bar

Keys	Operating mode
	Activate/Deactivate Strobe Light (Red Wire)
AUX	Activate/Deactivate Aux. Output (Green Wire)
	Programming Menu
	Photocell Bypass (Arrow Board Lights intensity at 100%)

Bluetooth

CLAV08BT-0010



LED ON = Bluetooth Communication Activated
LED OFF = No Bluetooth Communication

This LED will automatically close when Ignition is OFF (Battery < 12.8Vdc for 30 seconds).

The reconnection between the keyboard and the Arrow Board takes place a few seconds after pressing a key (See notes below):

- A voltage above 13.1Vdc maintains active communication between the keypad and the module. However, switching from ignition (OFF) to ignition (ON) will not reactivate Bluetooth communication if it has been deactivated.

NOTE #1: The system may take 3 to 6 seconds to reconnect and activate the desired function.

NOTE #2: If reconnection does not occur automatically within 10 seconds when a key is pressed, the keyboard will emit 2 beeps and close the key. Try again in this situation.

PROGRAMMING

The Bluetooth Arrow Board system (FL3) allows the modification of different parameters. To access it, simply press and hold one of the buttons shown below in addition to the ZONE (Z) button until the LEDs activate for a moment and then turn off. Release the keys as soon as all LEDs light up.

Each press of the keys will have an impact on the options chosen. Refer to the table below for details of each menu.

To exit the programming menu, press and hold the ZONE (Z) key for 3 seconds.

NOTE : It is important to deactivate *ALL* keys and wait for the arrow descent cycle to complete *BEFORE* entering the different programming menus.

EXIT THE MENU - ZONE KEY (press for 3 sec.)
NOTE: Exiting the menu validates the settings

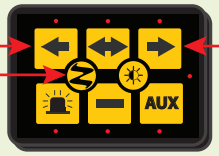
MENU :

1 Arrow Board rising/lowering time

ACCESS - Key ← + Z

Rise Time Programming:
- Press the Left Arrow Key once
- The red LED will turn off while the arrow begins its Up procedure.
- Once the arrow is at the desired position, press the ZONE Key once to record the rise time

Validation



Lowering Time Programming:
- Press the Right Arrow Key once
- The red LED will turn off while the arrow begins its Descent procedure
- Once the arrow is at the desired position, press the ZONE Key once to record the descent time

2 Arrow flashing speed rate

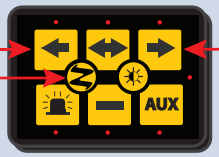
ACCESS - Key ↔ + Z

Key ↔ **&** → **Flash**

The flash rate of the key LEDs represents the flash rate of the arrow

Increases flash **SPEED**

Validation



Decrease flash **SPEED**

3 Low battery alert

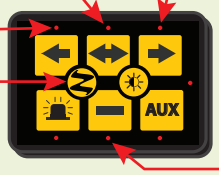
ACCESS - Key − + Z

ALERTS if **< 11Vdc**

ALERTS if **< 11.5Vcc**

ALERTS if **< 10.5Vdc**

Validation



No ALERTS

***NOTE #1:** The low battery alert beep is present only if a button is pressed or if the ignition is connected and activated to the module.

***NOTE #2:** The keyboard's beeping stops when the voltage exceeds 0.5Vdc, the trigger threshold.

***NOTE #3:** No LEDs are lit, the arrow and keyboard retain the last programmed configuration.

PROGRAMMING (cont..)

MENU :

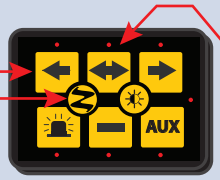
EXIT THE MENU - ZONE KEY (press for 3 sec.)
NOTE: Exiting the menu validates the settings

4 Motor type mode (with or without clutch)

ACCESS - Key + Z

LED ON = Motor output activated by **Key**
(No elevation mode = **MOT+** & **MOT-** activates depending on the Strobe Key)
LED OFF = Motor output activated by Arrow Key

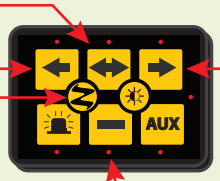
LED ON = motor **NO clutch**
LED OFF = motor **WITH clutch**



5 Vehicle speed detection mode

ACCESS - Key + Z

LED ON = 30km/h
LED ON = 20km/h
LED ON = 50km/h

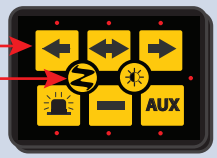


LED ON = Arrow keys deactivate if the programmed speed is exceeded
LED OFF = Keys remain active when the speed is exceeded (The arrow will go down when you exceed the programmed speed and will go up when you go below the programmed speed again)

6 Mode fonctionnement

ACCESS - Key AUX + Z

LED OFF= Ignition **OFF** functional keys
LED ON = Keys blocked ignition **OFF**



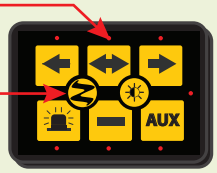
***NOTE #1:** Ignition is detected based on battery voltage reading.
Battery > 13.1Vdc → IGN ***ON***
Battery < 12.8Vdc → IGN ***OFF***

***NOTE #2:** When the keypad is configured as **ACTIVE** WITHOUT ignition, the keys do not automatically deactivate when the ignition is switched off. The connection will remain active without ignition until all the keys have been switched off.

7a Réinitialisation des paramètres de base (Reset)

ACCESS - Key ☀ + Z

Press and **hold** the key for 2 sec. to reset (***RESET***) the keyboard settings.

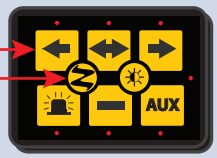


***NOTE:** When replacing a keyboard, downloading the Arrow Board data to the new keyboard is mandatory if you want to keep the same programmed parameters. Otherwise, perform a reset.

7b Téléchargement des données (Flèche > Clavier)

ACCESS - Key ☀ + Z

Press and **hold** the key for 2 sec. to download the data.



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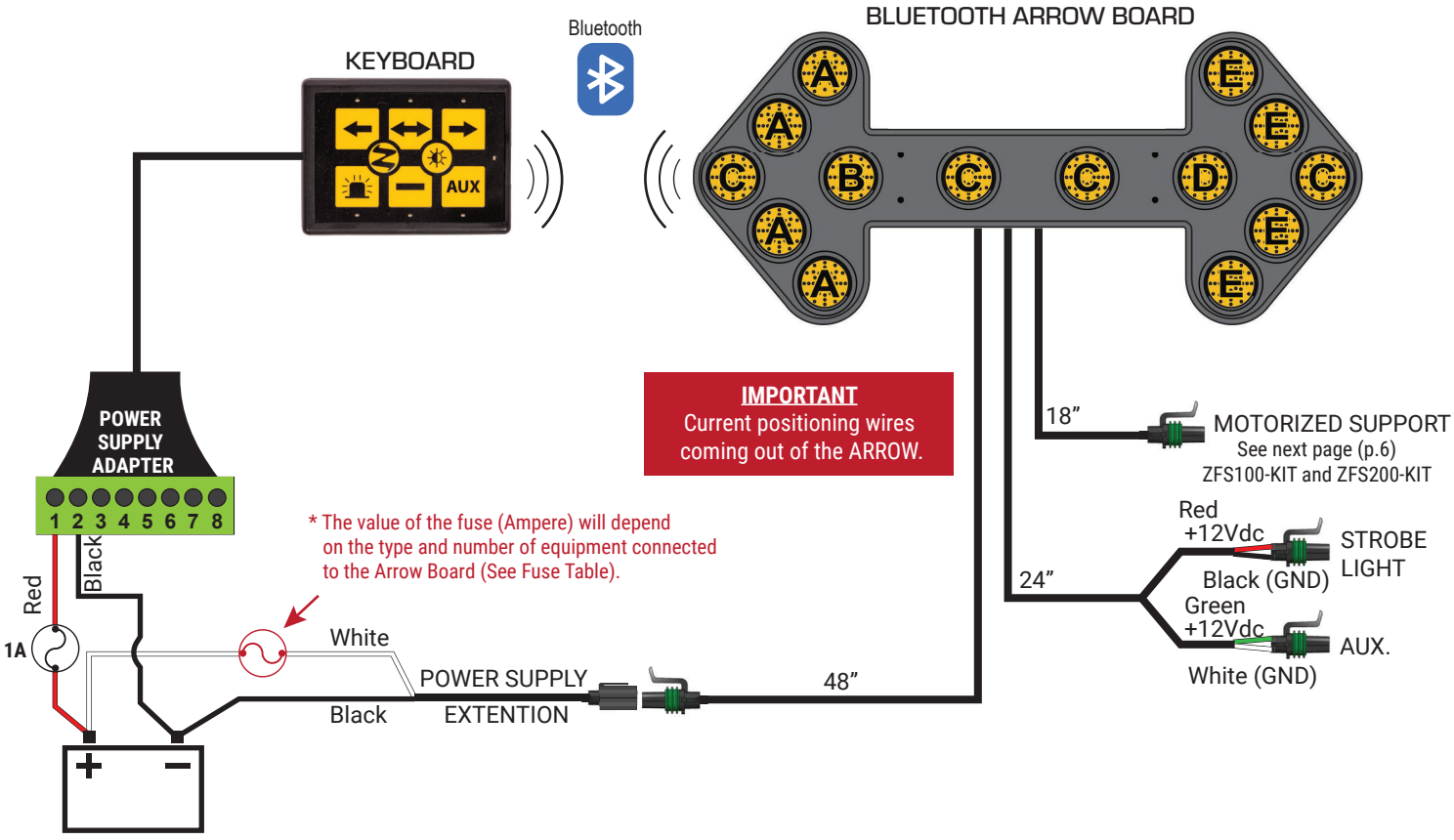
CONNECTION DIAGRAM



* Fuse Table

Arrow		Motor		Strobe		AUX.
5A	+	15A	+	5A	+	5A

NOTE : Add each of the values according to the connected accessories.
Ex. Arrow (5A) + Motor (15A) + Strobe (5A) = 25A

Gauge (AWG)

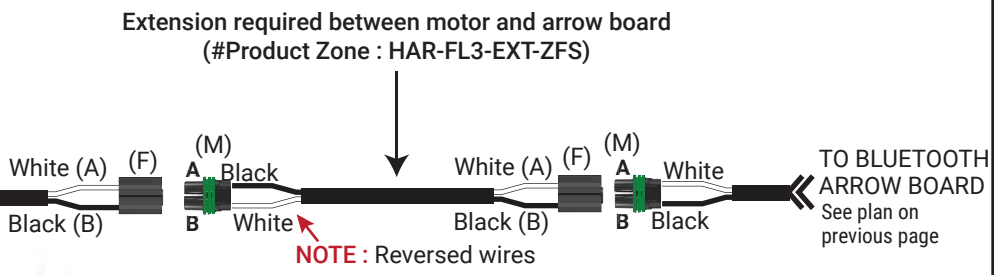
Current (A)							
30A	#10	#8	#8	#6	#6	#4	For intermediate values, use the higher value to make your choice.
25A	#12	#10	#10	#8	#6	#6	
20A	#14	#12	#12	#12	#10	#8	
15A	#14	#12	#12	#12	#10	#8	
10A	#16	#14	#12	#12	#10	#8	
	10'	20'	30'	40'	50'	60'	Length

NOTE : The basic harness provided is #12 gauge

CONNECTION DIAGRAM

Motor Type

ZFS100-KIT



ZFS200-KIT

To know if the motor is with clutch or without clutch

Find the label on the motor (see photo) which will indicate whether it has a clutch or not.

IMPORTANT : Refer to the programming menu under mode #4 Motor type if you wish to use a motor with clutch. The default programming is for the use of a no clutch motor.

LIMITED WARRANTY

Zone Technologie Électronique Inc. guarantees every component that it produces for a period of 24 months starting on the date of the purchase or of the delivery. The products of **Zone Technologie Électronique Inc.** are verified, inspected and recognize as exempt of any fabrication default.

If a product is found to be defective during the warranty period of 24 months, the product will be repaired or replace at the workshop of the **Zone Technologie Électronique Inc**. society.

All installation, using or modification of the **Zone Technologie Électronique Inc.** products which is not recommended by the manufacturer leads to a voiding of the actual warranty.

Zone Technologie Électronique Inc. can't be held liable for the damages or charges that arise because of misuse, a careless maneuver or any others attempts to repair or for any reparations made by a third party. No other warranty, written or verbal, then the one from **Zone Technologie Électronique Inc.** will be recognized.

Zone Technologie Électronique Inc. also has the right to repair or replace any defective product to its sole discretion. **Zone Technologie Électronique Inc.** can't be held liable for the charges that arise during the installation or the removal of a product that requires maintenance and/or repairing.

It is expressly specified that we shall be committed by no other warranty (express or tacit) of intrinsic quality, marketable quality or capacity in a particular use.

To contact technical support:

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