



Speed Queen Alliance ACA (C18 Harness)

BluKey Pulse and Serial Protocol

Installation Manual



BluKey™ Pro Serial
BluKey™ Pro Pulse



BluKey™ Pulse



Introduction

This manual provides installation instructions for the C18 harness used with Speed Queen ACA machines equipped with 2021 and later controller boards.

These newer control boards feature an updated design that does not include DIP switch configuration and require programming through the machine's internal menu to enable **Pulse or Serial** communication (Refer to the **Speed Queen Programming Manual** for assistance on programming the machine to the desired protocol).

The C18 harness is specifically designed for compatibility with these updated controllers, including support for the coin audit pass-through connection, which is not supported by the C2 harness on 2021 and later machines.

Identifying 2021 and Later Controller Boards

Use the reference image below to verify that the machine is equipped with a **2021 or later ACA control board** before proceeding with installation.

These control boards can be identified by:

- No DIP switch bank present
- Updated board layout with white casing
- Compatibility with the **C18 harness coin audit pass-through connection**

Refer to **Figure 1** for a labeled overview of the **C18 harness connections** and corresponding locations on the control board.

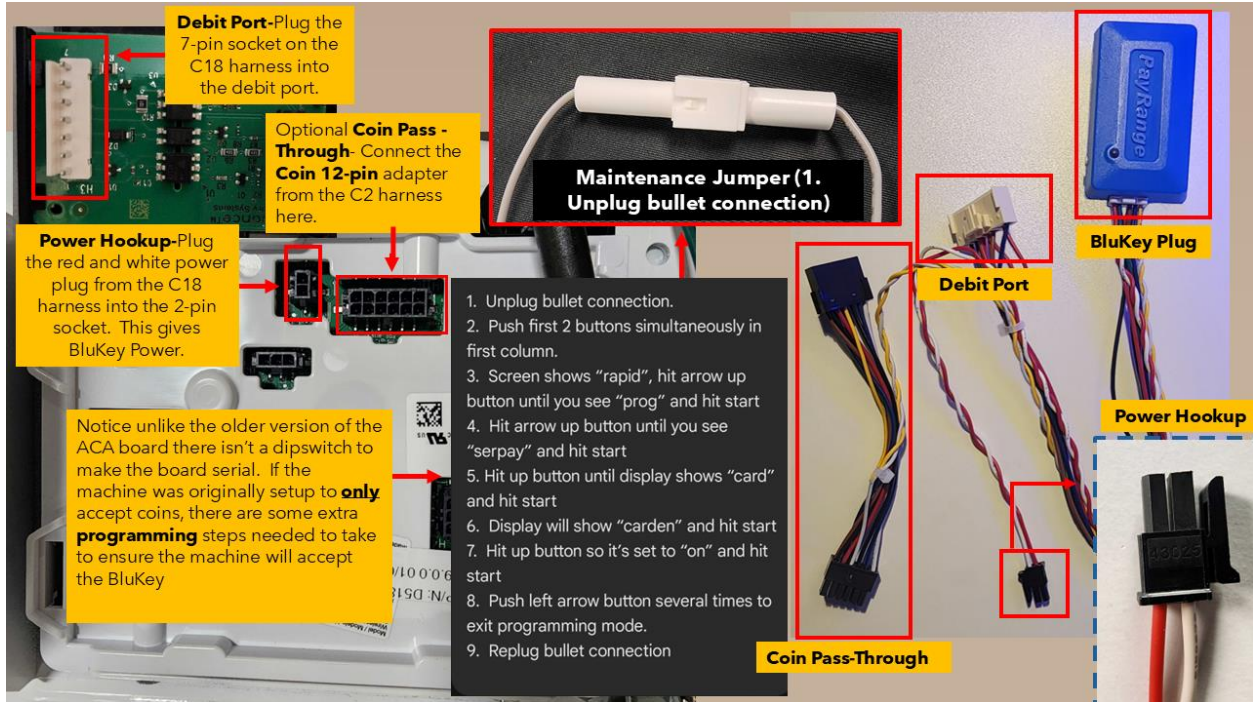


Figure 1

Preparing the Machine for Installation

- ❑ **Machine Power:** Ensure the laundry machine is disconnected from its power source.
- ❑ **Installer Connectivity:** For BluKey registration, confirm your smartphone has a stable internet connection (Wi-Fi or cellular data) to use the PayRange App.
 - PayRange service requires a data connection on a user's mobile device.
- ❑ **Required PayRange Hardware:** Ensure you have the correct harnesses and sufficient BluKey devices on hand to complete installations on all machines at the location.

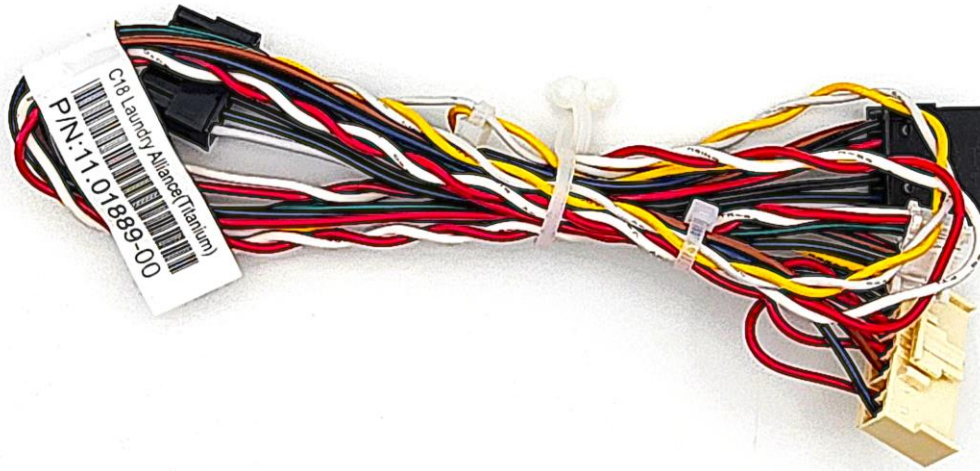


Figure 2

Machine Out of Order

- If the machine has **power**, register and connect to the BluKey and harness as usual.
- If the machine has **no power**, use another machine to power and register the BluKey. Use the Machine ID, position number, and harness type for the out-of-order machine.
- Leave the registered BluKey in the first machine. Once the broken machine is repaired or replaced, retrieve the device and install it in the correct machine.

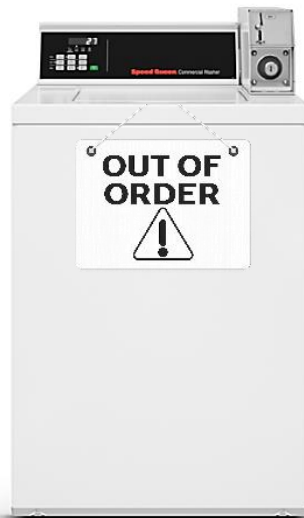


Figure 3

BluKey Configuration Steps

Pulse Mode: Use this mode when the machine is configured to accept coins or pulse signals from a coin mechanism. Pulse Mode installations are supported with either BluKey model: **BluKey Pro** or **BluKey Pulse**.

Serial Mode: Use this mode when the machine is configured to accept serial or card-based input. Serial Mode installations are supported only with the **BluKey Pro** model.

BluKey Pro Model:

- Connect the **BluKey Pro** to the **C18 harness** as depicted in **Figure 4**.

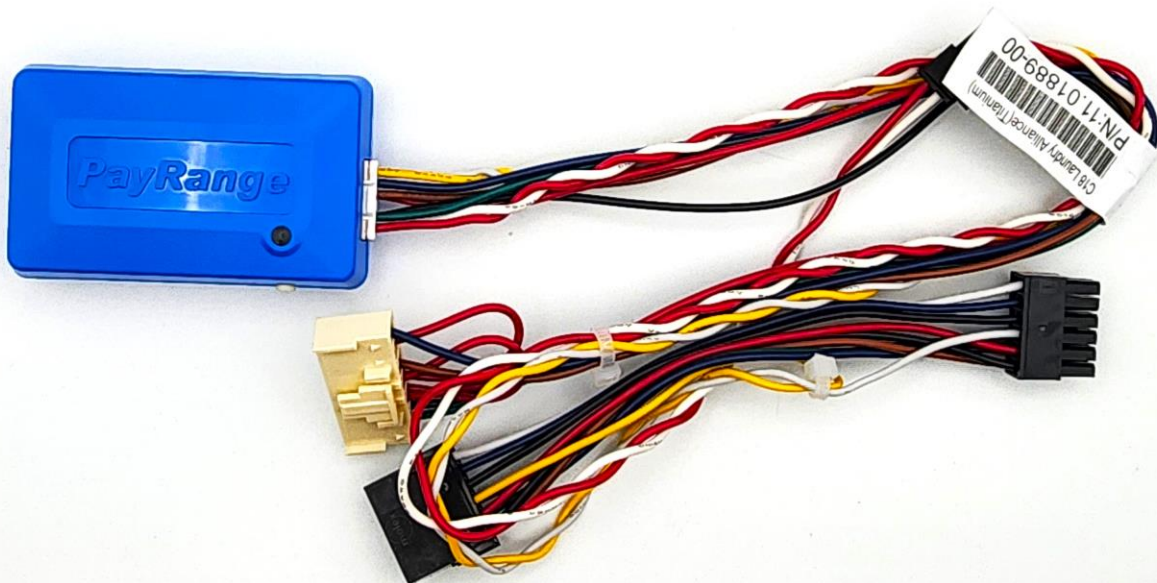


Figure 4

BluKey Pulse Model:

- Connect the **BluKey Pulse** to the **Interface Module**.
- Connect the **C18 harness** to the other end of the **Interface Module** (See **Figure 5**)

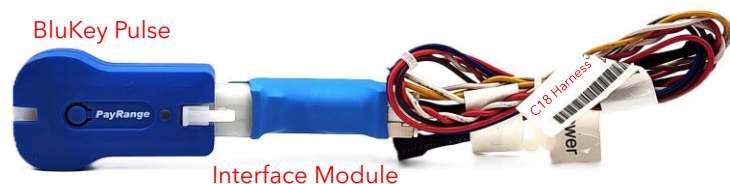


Figure 5

Configure the Laundry Interface Module for BluKey Pulse Module Only:

Important: The interface module switches must be set to match the machine's settings and programming. Incorrect switch settings may cause the BluKey to be incompatible or behave unpredictably.

Switch 1:

- **OFF**-BluKey's 12-pin coin connector will be used to audit coins.
- **ON**-Machine does not accept coins, or the coin audit function will not be used.

Switch 2:

- **OFF**- Used for Washers. Payment will be disabled when the machine is in use.
- **ON**- Used for Dryers. Payment is always allowed for top-off transactions. Set to OFF to disable top off transactions

Switch 3:

- Set to **ON** for all machines to accept BluKey Pulse.

Switch 4:

- Unused

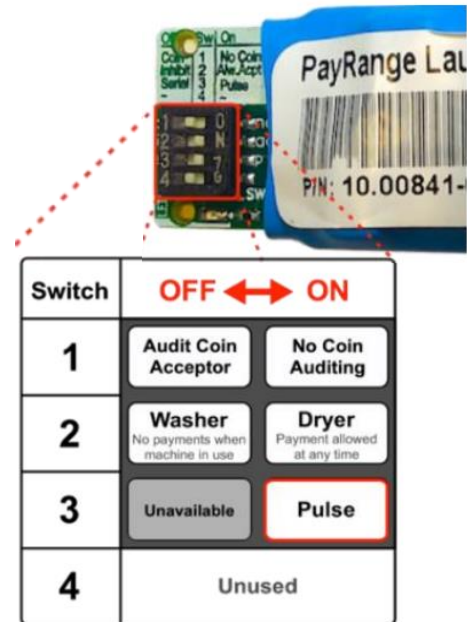


Figure 6

Debit Port Installation

1. If not done so already, **disconnect** the machine from its **power** source.
 - a. Connect the BluKey to the harness.
2. **Open** the **control panel** to access the machine's control board.

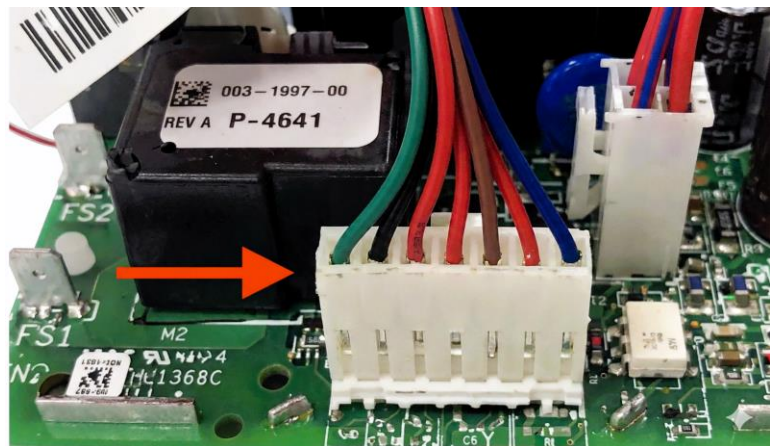


Figure 7

3. Plug the **7-pin** adapter from the C18 harness, into the machine's **Debit Port** as seen in **Figure 7**.

Optional Coin Pass-Through

The coin pass-through connection is **used for coin auditing only** and is not required for PayRange operation.

Important: Do not connect the coin pass-through if the machine:

- Does not accept coins
- Uses dual coin acceptors
- Does not require cash reporting

Installation Steps:

- I. Disconnect the 12-pin **machine coin/service harness** from the control board.
- II. Plug the **coin pass-through** connector from the **C18 harness** into the control board.
- III. Plug the 12-pin **machine coin/service harness** into the **coin pass-through** connector, as seen in **Figure 8**.



Figure 8

Power Adapter Installation

4. Locate the machine's **Power Hookup** on the control board.
5. Connect the **Power adapter** (**Figure 9**) from the C18 harness into the machine's **Power Hookup**.
6. **Power on** the machine.



Figure 9

Affixing Machine Decals

(Refer to the signage/decal placement reference guide for complete placement details)

- Number machines left-to-right and top-to-bottom to make it easier for customers to locate machines.

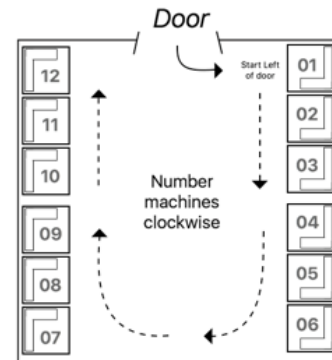


Figure 10

- For stacked machines that require two devices, the top machine should be lower number.



Figure 11

Register BluKey with PayRange App

Refer to the “*Registering the PayRange BluKey*” reference guide for the complete steps for registration.

- Be sure to select the specific harness type during registration; in this case, select **C18-Alliance** (see **Figure 12**).
- Under Protocol, select **Pulse or Serial** based on installation type.

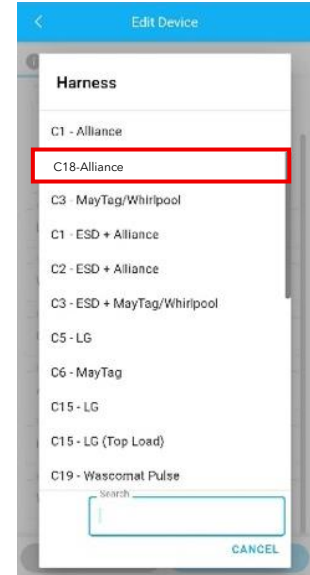


Figure 12

Test Transaction

1. On the main screen in the PayRange App, select the machine you wish to test payment on.
2. Slide the **Green** arrow to the right to send a test transaction payment (**Figure 13**).
3. Verify the machine’s display shows the PayRange balance or value of free purchase code (**Figure 14**).
4. Press Start on the machine to begin the cycle or press the X in the PayRange App to cancel the transaction. The account will not be charged for a cancelled transaction.
 - If the test transaction is unsuccessful, refer to the “*PayRange Troubleshooting Guide*”.

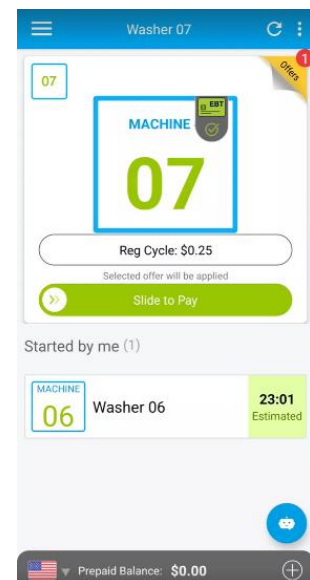


Figure 13



Figure 14

Repeat Steps for All Machines Requiring the C18 Harness.