



Dexter C-Series (K31 Harness Kit)
Model: DCS020ND-15EC2X-SWBCG-USX

BluKey Pulse Protocol
Installation Manual



BluKey™ Pro Pulse



BluKey™ Pulse

Model-Specific Information

Although this model is part of the Dexter C-Series platform, the installation procedure differs from the standard C-Series process due to front panel removal requirements.

Important: This machine configuration differs from standard Dexter stack washer/dryer installations that utilize a single BluKey device. Each control board requires its own BluKey connection. Therefore, because this model has two control boards per stack, two BluKey devices are required. Verify the control board layout and vend configuration before beginning installation. 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 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.
- ❑ **Required Tools:** A Torx bit set and a service key is required for this installation



Figure 1

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 2

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** (not included in kit).

BluKey Pro Model:

- Connect the **BluKey Pro** to the **C11 harness (Figure 3)**.



Figure 3

BluKey Pulse Model:

- Connect **BluKey Pulse** to the **Interface Module**.
- Connect **C11 Harness** to the other end of the **Interface Module** (See **Figure 4**)



Figure 4

Interface Module

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: Coin Audit

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

Switch 2: Machine Type

- **OFF (Washer Mode):** Payment is disabled when the machine is in use.
- **ON (Dryer Mode):** Payment is allowed at any time which enables top-off transactions.
 - **Note:** To disable top off capability on a dryer, set this switch to **OFF**.

Switch 3: Pulse Protocol

- **ON:** Required for all machines using BluKey Pulse.

Switch 4: Unused



Switch	OFF ↔ ON	
1	Audit Coin Acceptor	No Coin Auditing
2	Washer No payments when machine in use	Dryer Payment allowed at any time
3	Unavailable	Pulse
4	Unused	

Figure 5

Harness Installation:

Top Dryer Installation:

1. If not done so already:

- **Disconnect power** to the machine.
 - **Connect** the **BluKey** to the harness.
2. Use the service key(s) to **unlock** and access the control panel:
- **Front-draw style panel:** Pull the panel forward to reveal the control board (**Figure 6**).
 - **Top-cover panel:**
 - Check for screws under the detergent bin cover and remove them if present.
 - Lift the top cover.
3. Disconnect the **7-pin** and **4-pin** coin connectors from the machine's control board.
- You can **trace** the wires from the back of the coin drop mechanism to the control board to locate which pins to disconnect (see example in **Figure 7**).



Figure 6

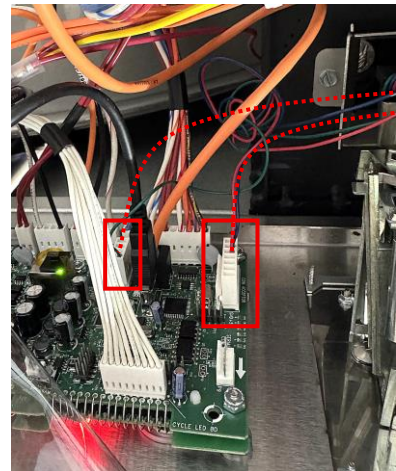


Figure 7

4. Connect the **7-pin** and **4-pin** connectors you disconnected in the previous step into the **blue C11 adapter**, see **Figure 8**.

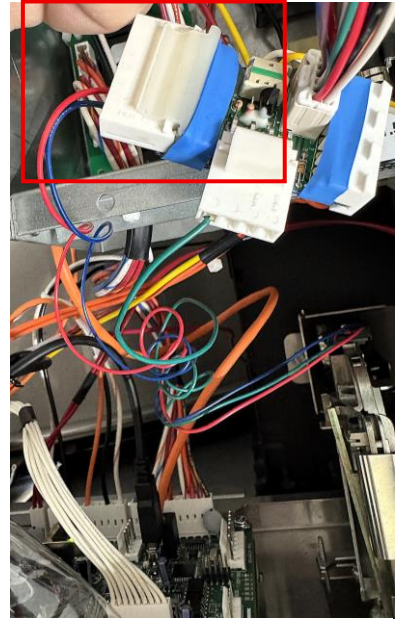


Figure 8

5. Connect the 4-pin adapter from the adapter harness (**yellow** and **white** wires) to the **4-pin** port where the 4-pin coin connector was disconnected (**Figure 9**).

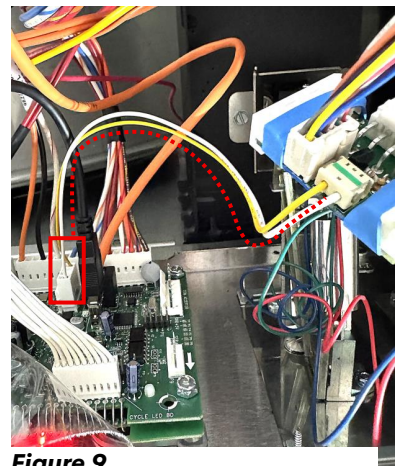


Figure 9

6. Connect the **blue C11 adapter** plug to the 7-pin port where coin connector was disconnected previously (**Figure 10**).

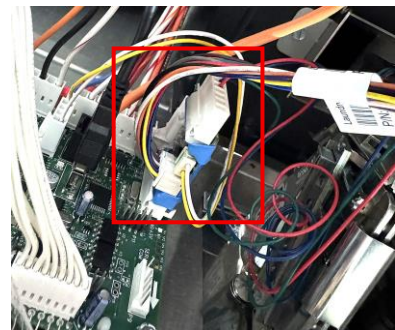


Figure 10

Bottom Washer Installation:

- Using a torx bit set, unscrew the washer's face plate screws from the front of the machine to expose the control board. The screw locations are highlighted in **Figure 12**.



Figure 11



Figure 12

- Disconnect the **7-pin** and **4-pin** coin connectors from the machine's control board.
 - You can trace the wires from the back of the coin drop mechanism to the control board to locate which pins to disconnect (see example in **Figure 13**).

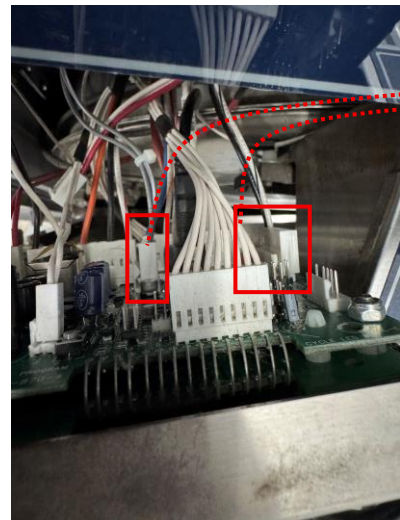


Figure 13

9. Connect the **7-pin** and **4-pin** connectors you disconnected in the previous step into the **blue C11 adapter**, see **Figure 14**.

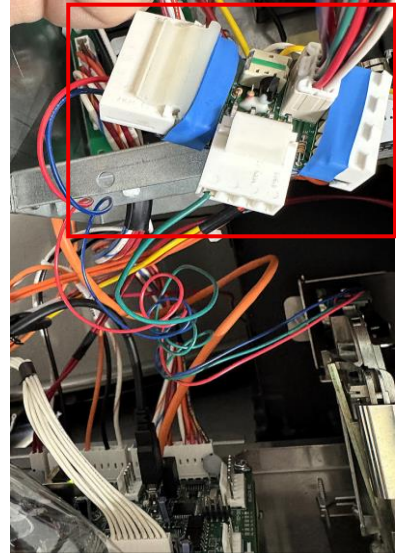


Figure 14

10. Connect the 4-pin adapter from the adapter harness (**yellow** and **white** wires) to the **4-pin** port where the 4-pin coin connector was disconnected (**Figure 15**).

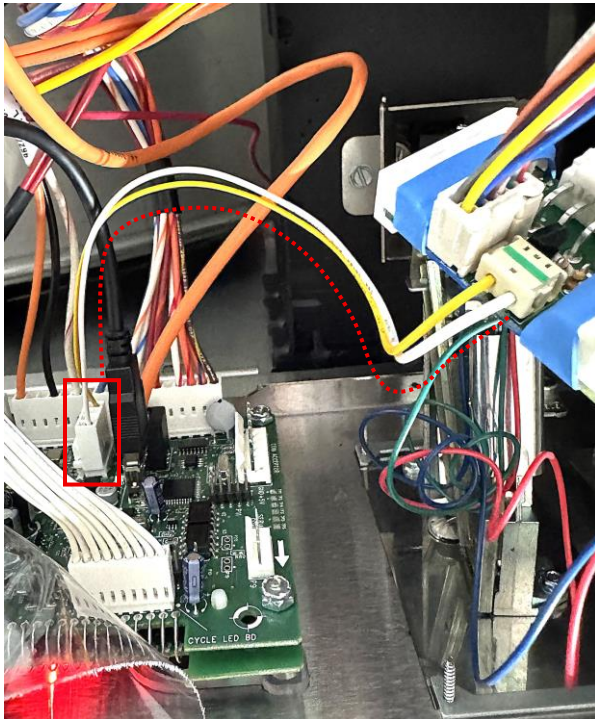


Figure 15



Figure 16

11. Connect the **blue C11 adapter** plug to the 7-pin port where coin connector was disconnected previously (**Figure 17**).

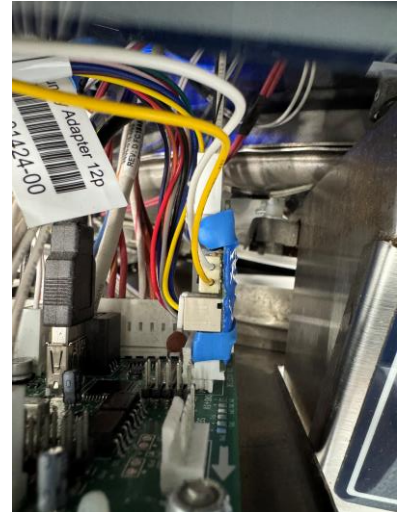


Figure 17

12. **Power on** the machine.

Affixing machine decals

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

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

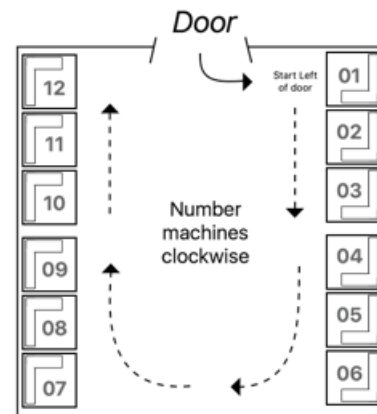


Figure 18

- For this model of Dexter stacked machines, two devices are required per stack. Therefore, apply **two decal numbers per stack**. Refer to **Figure 19** for an example.



Figure 19

Register BluKey with PayRange App.

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

- Select the **K31 harness** when prompted during registration. (**Figure 20**).
- Under Protocol, select **Pulse**.

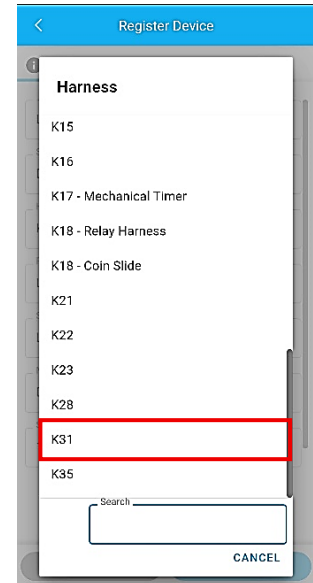


Figure 20

Test Transaction

1. On the main screen in the PayRange App, select the machine you wish to test payment.
2. Slide the **Green** arrow to the right to send a test transaction payment (**Figure 21**).
3. Verify the machine’s display shows the PayRange balance or value of free purchase code (**Figure 22**).
4. Depending on the machine type, the cycle may start automatically or may require you to press Start. If the machine does not start automatically, you may cancel the transaction by pressing the “X” in the PayRange app. Cancelled transactions are not charged to the account.
 - If the test transaction is unsuccessful, refer to the “*PayRange Troubleshooting Guide*”.

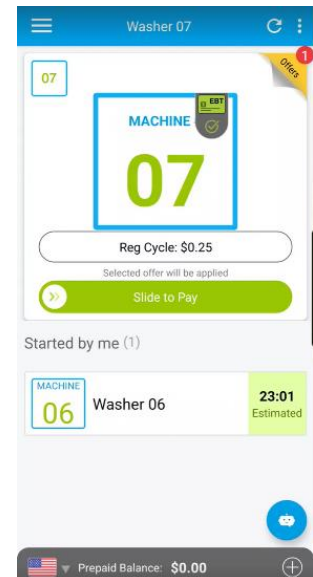


Figure 21



Figure 22

Repeat Steps for All Dexter Stack Machines Requiring the K31 Harness Kit.