# ECHO® MOBILE BRAKE CONTROLLER INSTALLATION MANUAL

Follow the instructions on page 1 that correspond to your purchased part # and then proceed to page 2. The remaining instructions will apply to both part numbers.

# 529190

POWER SOURCE: 12V - PIN 11

# **BEFORE YOU BEGIN**

**WARNING** Read and follow installation manual carefully. Failure to do so could result in damage to the brake controller unit, loss of trailer brakes or poor brake performance.

- The vehicle must have +12V on pin 11, ground and brake signals connected to the 12 pin trailer plug socket. Traditional electric brake output to the 12pin trailer plug socket is not required
- See 'Vehicle-Specific Requirements'.
- An existing aftermarket or factory brake controller will not function if Echo brake controller is installed.
- No special wiring or connectors are required for use.
- Echo Smart Control IS NOT compatible with Apple CarPlay or Android Auto. However, it will not interfere with these features.
- Echo is designed to provide a Bluetooth connection, without obstruction, up to 15m. Connection may also be limited by the Bluetooth signal of your phone.

**WARNING** Avoid distracted driving. Only make adjustments when the vehicle is stationary.

**WARNING** Do not mount the Echo<sup>®</sup> near the exhaust pipe. Failure to do so may result in heat damage, loss of functionality and risk of fire.

**NOTICE** Prior to driving, test all trailer lights while the trailer is plugged into the Echo<sup>®</sup>.

#### 12 Pin Wiring Diagram



# 529191

POWER SOURCE: 12V - PIN 2

# **BEFORE YOU BEGIN**

**WARNING** Read and follow installation manual carefully. Failure to do so could result in damage to the brake controller unit, loss of trailer brakes or poor brake performance.

- The vehicle must have +12V on pin 2, ground and brake signals connected to the 12 pin trailer plug socket. Traditional electric brake output to the 12pin trailer plug socket is not required
- See 'Vehicle-Specific Requirements'.
- An existing aftermarket or factory brake controller will not function if Echo brake controller is installed.
- No special wiring or connectors are required for use.
- Echo Smart Control IS NOT compatible with Apple CarPlay or Android Auto. However, it will not interfere with these features.
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**NOTICE** Prior to driving, test all trailer lights while the trailer is plugged into the Echo<sup>®</sup>.

#### 12 Pin Wiring Diagram



# **VEHICLE-SPECIFIC REQUIREMENTS**

**NOTICE** If your vehicle comes with a trailering app or towing prep package, it may be necessary to activate a tow / haul mode using a push button or in-dash screen menu. This allows power at the 12 pin trailer plug connector of the vehicle.

#### See the vehicle owner's manual to enable this feature.

 The Echo brake controller uses the 12 pin trailer plug connector's +12V connection to power the Echo. Ensure the fuse for this connection is rated for 30 amps. See the vehicle owner's manual to determine the fuse location.

> If the LED on the Echo does not light when plugged into the 12 pin trailer plug connector, the +12V power pin may not have power from the vehicle. Visit a CURT authorized installer to install a power wire to the battery.

- · If the phone application cannot connect to the Echo due to an incorrect or missing PIN, contact CURT Product Support. They will need the serial number located on the label of your Echo brake controller.
- Clean and store the Echo in a safe, dry place when not in use. We recommend applying dielectric grease to the terminals.

Some vehicles may require a trailer to be connected to detect a load and activate the +12V power.

Consult the vehicle owner's manual for vehicle-specific details or contact CURT Product Support if you are having trouble diagnosing the issue. Known vehicle-specific requirements are listed below:

#### Ford F-150 (2018 to Current)

 Requires tow / haul mode activation and / or load detection on 12-pin before the +12V output is activated on the 12 pin connector. Activate tow mode and connect trailer before attempting Bluetooth connection to the Echo. The LED on the Echo must be on.

#### Ford F-150 (15 - 17)

 These vehicles may turn off the +12V output to the 12 pin connector when in park or during gear shifting, making the existing vehicle wiring incompatible with the Echo. To use Echo with these vehicles, visit a CURT authorized installer to install a power wire to the battery.

# DOWNLOAD THE MOBILE APPLICATION

Mobile applications are available for Apple and Android OS. They can be accessed in the App Store or Google Play by scanning the respective QR code below or searching for 'Echo® Smart Control'.



- Apple OS Requires IOS 5 or higher
- Android OS requires Android 4.3 or higher
- · Bluetooth must be enabled on your device for pairing to occur
- After the app is installed, follow the prompts for setup

### INITIAL SETUP FOR BLUETOOTH CONNECTION

**NOTICE** The vehicle needs to be running or the ignition in the 'ON' position with the vehicle in park.

**NOTICE** At any moment during setup, if the LED on the Echo® is red, stop and refer to the 'Troubleshooting Guide'.

MARNING The Echo® App must be operating in the foreground of your cell phone applications. Operating the Echo® App in the background of your cell phone applications may cause delays in braking response when using the manual override button.

1. Enable Bluetooth in your mobile device settings.

#### **NOTICE DO NOT** pair the Echo<sup>®</sup> through your phone's Bluetooth menu. Bluetooth connection will be done through the app in step 3.

See 'Installing Safety Strap' on adjacent page. Once the strap and Echo® installed and inserted into the vehicle's 12 pin trailer plug, the LED will flash blue. The Echo® is now ready to pair with the mobile application.

- 2. Launch the app and scan for the Echo®. Once the 'Echo® Brake Controller' is visible, select it. You will then be prompted to enter the six-digit PIN, found under the cap of the brake controller unit or on the provided quick reference card. Once pairing is complete, the LED light will be solid blue.
- 3. Plug the trailer's 12 pin trailer plug connector into the Echo® brake controller while parked on a level surface. The LED light on the Echo® will flash vellow for five to eight seconds while calibration occurs. Once the device is calibrated the LED will turn solid green.



# **INSTALLING THE SAFETY STRAP**

1. Begin inserting the strap through the clasp on the  $\mathsf{Echo}^\circledast.$ 



2. Slide the strap all the way through the clasp on the Echo®.



3. Insert the  $\mathsf{Echo}^{\circledast}$  into the vehicle-side 12 pin trailer connector.



4. Stretch the strap along the cap of the vehicle-side 12 pin connector.



5. Pull the strap tight to secure the  $\mathsf{Echo}^{\circledast}$  to the vehicle.



6. Insert the retention ball into one of the holes of the strap.



7. Return to Step 2 in 'Initial Setup for Bluetooth'.

## **APPLICATION SETUP**

After pairing with the Echo<sup>®</sup>, you will be directed to the 'Towing Profiles' screen to setup your trailer's profile. You can create and save profiles for multiple vehicles, trailers and load conditions.

**Note:** Setting configuration is required when trailer conditions change or the brake controller is being used for a different trailer or vehicle.

Within the 'Towing Profiles' screen, there are two different profiles menus for you to access.

- 1. Controller Profile
- In this menu, you can access the five most recently used settings. These settings are stored within the Echo device. This option allows you or others who borrow your Echo to access pre-configured tow settings quickly and easily.
- Your active profile will display at the top of the menu (1A)

### 2. Application Profile

 In this menu, you can create an unlimited number of vehicle trailer profiles. These profiles are stored within the app on your phone.

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CURRENT PROFILE	
5TH Wheel	1A
SAVED PROFILES	
Lump trailer	
Bobcat trailer	
Let Horse trailer	
Profile 5	
1	2
Controller Profiles	Application Profiles

# **ADDING A PROFILE**

- 1. On the 'Controller Profiles' menu, select the empty 'Current Profile' seat at the top of the menu.
- 2. Name the profile with descriptive information about the trailer you're towing.
- 3. Click 'Done' to confirm. You will then be directed to the 'Active Profiles' menu to begin set-up and adjustment.
- 4. You are also able to modify an existing trailer name by swiping left on the profile.
- 5. Repeat steps 1 3 for additional trailers (up to five saved on the device).

#### **Create Profile**

#### **Edit Profiles**



To create additional profiles, 6 or more, access the 'Application Profiles' section. This menu will allow you to create and store and unlimited number of profiles within the app. Select 'Add Profile' to begin and repeat steps 1 – 3.

# **ACTIVATING A PROFILE**

- 1. Click on a profile you would like to activate.
- 2. Follow the screen prompt by selecting 'Ok'.
- 3. The profile you selected is now the active 'Current Profile'.

# **DELETING A PROFILE**

1. In the 'Application Profiles' menu, select the profile you would like to delete.

- 2. Swipe left to open menu option.
- 3. Select 'Delete' to remove.

# **CONFIGURING PROFILE SETTINGS**

In your 'Active Profile' screen you can adjust settings.

#### **1. Manual Brake Activation**

#### Activate manual braking, press and hold the orange button.

Manual brake controller activation is used in situations where a slow reduction in speed is desirable. As the manual control is activated, the Echo<sup>®</sup> begins to apply the trailer brakes. Manual output can be activated by pressing and holding the orange button in the app.

#### 2. Brake Output Indicator

#### The blue ring indicates current brake output level.

The blue ring is a visual indicator of the current level of power being applied to the trailer brakes. When the vehicle's brakes are fully applied, the level of power and position of the ring is determined by your Max Output setting.

#### 3. Max Output

#### The maximum level of the brake controller.

The output control establishes the max amount of power available to the trailer brakes when braking. The output should be adjusted during initial setup, when trailer load changes, when different trailers are used or when adjustment is needed for changing road or driving conditions.

#### 4. Sensitivity Level

#### The sensitivity of the braking power.

The sensitivity level adjusts trailer aggressiveness when activated during braking. Sensitivity adjustment has no effect on the manual brake controller. The sensitivity can be adjusted for individual driver preference, trailer load changes or changing road conditions.

#### 5. Screen Theme

#### Change from light to dark.

Under the 'Settings' menu, the option to change for day or night driving situations or application preference is available.

#### **Active Profile**



#### Screen Theme



## **CONNECTING THE ECHO® MANUAL OVERRIDE BUTTON**

Once the Echo® mobile brake controller is paired to your device, select the menu button in the upper left corner of the app. Select the 'Echo® Manual Override Button' option from this screen.

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device connected		C Sync Devices	
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		C Echo Manual Override Butte	

Select the 'Start Scan' button in the app. While the app is scanning, press and hold the manual override button to pair.

If at any point, you want to stop the scan, press the 'Stop Scan' button.



The notification 'The Echo® Manual Override Button has been added' will appear if pairing is successful. Select 'OK' to complete pairing.

If the notification 'Device Not Found' appears, pairing was unsuccessful and you will need to repeat the previous step.

Manual Override Button S CURT Connected Svnc Devices CONNECTED BUTTON The Echo Manual Override Active Profile Nickname<sup>.</sup> My Echo Wireless Button Device not found Button has been added. Echo Manual Override Button not Profile List Edit Nickn found. Try again? Controller Settings Button Status Connected YES NO Echo Manual Override Button Battery Level: Battery Type:

With the button paired to your phone, a status bar will appear on the manual override screen. You will see a green or red dot showing the connections status.

Connected 

Disconnected

The override button will continue to operate on any screen within the app or if the device screen is off, as long as the app is still running. However, you will only have visibility of the manual brake activation ring, displaying the stopping power being applied to the brakes while on the 'Active Profile' screen.

If you close and reopen the app, you must press the override button to reactivate and pair to your phone again.

As you press the override button, the brake activation ring will show stopping power being applied to the brakes. The notification 'Brakes Being Applied' will appear in the center of the ring.



To view the connection status, battery level and other details of the override button, select 'Echo® Manual Override Button' from the menu in the upper left corner of the screen.



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From the 'Manual Override Button' screen, you can change the nickname of your override button.

To edit the nickname of the button, select the 'Edit Nickname'. Type in the desired name for your override button and select 'OK' to finalize.



To disconnect the override button, select 'Disconnect / Forget' **Note:** The device can only connect to one override button at a time. If you wish to connect to another override button, you must disconnect the current button. Select 'Yes' to complete the disconnect.

The override button can only be connected to one device at a time, but it can be set up on several devices. If multiple devices in the area have a connection to the same override button, you will need to make sure the bluetooth is turned off on all undesired devices when pairing.

Reference step 5 on how to check the connection status of the override button.



Locate a suitable mounting location for the override button inside the vehicle. Clean the mounting surface prior to adhering the button.

The override button comes with a reusable adhesive sticker on the base. Peel off the protective film and mount the button in an safe and convenient place to operate while driving.

#### **WARNING**

Do not place the button over vehicle safety devices such as air bags, vehicle indicators or displays.

If you want to change the position of the button, you can remove it by peeling the button along with the adhesive off of the surface.

### NOTICE

Be sure to peel rather than pull when removing the override button and adhesive to avoid damage to the mounting surface.

To clean your reusable adhesive, remove it from the button's base and rinse with water. Rub carefully and rinse again.

#### NOTICE

Do not apply solvents, chemicals or abrasive cleaning products as this will damage the adhesive.

Let the adhesive air-dry and it will return to its initial state and be ready to adhere again.



# **TEST DRIVE & ADJUSTMENT**

Both the output and sensitivity can be adjusted to achieve smooth, firm stops. Output and sensitivity adjustments should only be made while stopped, with the transmission in park or neutral, parking brake applied, foot off the brake pedal, and no manual control actuation. **Note:** Perform the adjustments in a safe environment with minimal vehicle traffic.

Starting with the output adjustment, drive forward on a dry and level paved or concrete surface. At approximately 40 kph, apply the vehicle's brakes. If trailer braking is insufficient, increase the max output setting in the brake controller application. If the trailer brakes lock up, decrease the max output. Repeat this process until stops are firm, just short of lock up.

Once the output is set, adjust the sensitivity by driving forward at approximately 40 kph and press the brake pedal. The vehicle and trailer should make a smooth stop. If the stop seems slow and more aggressive braking is desired, increase the sensitivity level through the brake controller application. If the stop seems too aggressive, decrease the sensitivity level in the application.

Make several stops at various speeds and adjust the sensitivity until stops are smooth and firm. Slight adjustment to the output control may also be desirable. **Note:** If any problems occur during setup, refer to the 'Troubleshooting Guide' on the last page of this manual.

# LED STATUS INDICATOR

Flashing red

Solid red

A single LED on top of the Echo $^{\circledast}$  shows the status of the brake controller unit. Refer to the icons and descriptions below.



Wiring error

Hardware fault

# **CONDITION NOTIFICATIONS**





**NOTICE** If a communication error occurs between the mobile application and the brake controller, the 'Manual Brake Activation', 'Max Output' and 'Sensitivity Level' cannot be adjusted and condition notifications from the brake controller will not be sent. The brake controller will continue to function properly at the most recently programmed settings and braking operation will not be affected.

▲ WARNING If the Echo® detects an overload to the trailer brakes a warning will pop up on your screen. Safely stop the vehicle, disconnect and reconnect the trailer 12 pin trailer plug. If the message reappears, a trailer wiring inspection is recommended. ▲ WARNING The Echo® app must be operating in the foreground of your cell phone applications.

Operating the Echo® App in the background of your cell phone applications may cause delays in braking response when using the manual override button.



▲ DANGER If the trailer 12 pin trailer plug has become disconnected from the vehicle a warning will pop up on your screen. Safely stop the vehicle and reinstall your connection. Once connections has been restored, the application will resume with the most recently programmed settings.

# **TROUBLESHOOTING GUIDE**

Condition	Problem Cause	Possible Solution
LED does not light	No power to brake controller, no ground on vehicle 12 pin trailer plug	Check vehicle power and ground wiring Trailer mode not activated for vehicle Vehicle requires trailer to activate 12 pin trailer plug power
Unable to connect to mobile devices	No power to brake controller, no ground on vehicle 12 pin trailer plug Invalid Bluetooth PIN	Check Echo LED status for power Input PIN from label or quick reference card Enable Bluetooth or grant permissions Check smartphone compatibility
Solid red LED for more than 10 seconds	Hardware fault	Contact CURT Product Support
Flashing red LED	Contamination in trailer plug socket	Check for clean and dry trailer plug
	Short in trailer brake wiring	Locate and correct short
	Accelerometer error	Unplug the brake controller and plug it back in
	Short or overload in trailer brakes	Troubleshoot trailer brake circuit per brake manufacturer's instructions
No trailer brakes, pedal or manual	Mis-wired 12 pin trailer plug connector Improper or corroded trailer wiring Weak or missing ground	Confirm vehicle and trailer 12 pin trailer plug connections
No trailer brakes, pedal or manual (device notification of error)	Loss of trailer connection, unplugged or bad wiring	Confirm vehicle and trailer 12 pin trailer plug connections
No response on manual override or brake output	Mis-wired 12 pin trailer plug connector Improper or corroded trailer wiring No or intermittent power to brake controller Weak or missing ground Wireless connectivity error	Confirm vehicle and trailer 12 pin trailer plug connections Check Bluetooth and application settings
Reduced braking power on manual override or brake output	Weak or missing ground Improper max power or sensitivity settings Improper or corroded trailer wiring	Confirm vehicle and trailer 12 pin trailer plug connections Check Bluetooth and application settings Increase max power or sensitivity settings
Trailer brakes on all the time (LED shows red)	Mis-wired 12 pin trailer plug	Confirm vehicle and trailer 12 pin trailer plug connections
App signals 'low voltage'	Low battery voltage	Check vehicle battery and replace if needed Confirm vehicle 12 pin trailer plug connections and wiring
App signals a 'disconnect'	Trailer connector is disconnected	Reconnect the trailer connector Confirm vehicle 12 pin trailer plug connections and wiring
App signals 'overload'	Trailer brakes are overloaded	Reconnect the trailer connector Confirm vehicle 12 pin trailer plug connections and wiring Check trailer brake wiring for short circuits

## **PRODUCT REGISTRATION**

CURT Group stands behind our products with industry-leading warranties. Provide feedback and help us to improve our products by registering your purchase at **curtmfg.com.au/registration** 

### LET US KNOW WHAT YOU THINK!

Share the love and your experience with Echo by leaving a review on curtmfg.com.au/529190.





# **AUSTRALIA WARRANTY POLICY**

#### Australia's Consumer Law

Our goods come with guarantees that cannot be excluded under Australian consumer law. You are entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

#### **Product Warranty Coverage**

CURT Products purchased from an authorized CURT dealer or retailer are warranted to be free from defects in factory workmanship and materials for one (1) year from the date of installation. The installation date will be determined based on the invoice or receipt provided to you. This warranty applies only to the original installation, and does not apply to any products which are re-installed on a different vehicle. This warranty applies only to products sold to retail purchasers in Australia and New Zealand, and different warranty policies may apply to retail purchasers in other countries.

#### **Product Registration**

You can register your CURT Product online at https://www.curtmfg.com.au/registration. Although product registration is not necessary to make a claim under this warranty, it may assist in processing any claim which you may make, and will also allow you to provide feedback on your CURT product.

#### Warranty Exclusions

CURT does not provide warranty coverage on claims arising from wear and tear from (1) normal use; (2) improper product selection, application or maintenance; (3) modifications, including the attachment of other hardware or components, (4) any improper use, abuse, or failure to follow the product instructions, or (5) claims which are first made after the one (1) year warranty period has expired (although you may have statutory rights outside of the warranty period). Warranty coverage only applies to products purchased from an authorized CURT dealer or retailer.

#### **Remedies for Product Defects**

If a warranted defect occurs CURT will repair or replace the product (or correct any software defects), or refund the purchase price. The cost of delivery and insurance of returning the Products for repairs or replacement, are your (the customer's) sole responsibility. If you believe you are entitled to reimbursement for any expenses incurred, please contact CURT at the address below.

### **Contact Information for CURT Product Warranty Issues**

You must make a claim to receive any remedy under this warranty. To make a claim or inquiry about this warranty, you should contact the dealer or retailer you purchased the product from. You may also contact us at:

CURT Manufacturing, 6208 Industrial Drive, Eau Claire, Wisconsin USA 54702 +1-877-287-8634, 7am – 7pm (U.S. Central Time) | techsupport@curtgroup.com.au | www.curtmfg.com.au

The remedies provided to you under this warranty are in addition to other rights and remedies that may be available to you under Australian law.