



# 51180

## ECHO™ MOBILE BRAKE CONTROL INSTALLATION MANUAL

### BEFORE YOU BEGIN

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

- The vehicle must have +12V, ground and turn signals connected to the 7-way socket. Brake output to the 7-way socket is not required.
- See below for 'Vehicle-Specific Requirements'. Go to [curtmfg.com/part/51180](http://curtmfg.com/part/51180) for up-to-date vehicle compatibility.
- An existing aftermarket or factory brake control will not function if Echo brake control is installed.
- No special wiring or connectors are required for use.

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

**⚠ WARNING** Do not mount the Echo™ 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™.

**NOTICE** If your vehicle comes with a trailering app on the vehicle console, make sure its trailer function is enabled so the Echo™ will have power at the 7-way connector of the vehicle. See the vehicle owner's manual to enable this feature.

- The Echo brake control uses the 7-way connector's +12V connection to power the brakes, and it shares this power with the trailer. Ensure the fuse for this connection is rated for 30 amps. See the vehicle owner's manual to determine the fuse location.
- 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 control.
- Clean and store the Echo in a safe, dry place when not in use. We recommend applying dielectric grease to the terminals.

### VEHICLE-SPECIFIC REQUIREMENTS

If the LED on the Echo™ does not light when plugged into the 7-way 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 your vehicle is equipped with a towing prep package, it may be necessary to activate a tow / haul mode using a push-button or dash screen.

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)

- Requires tow / haul mode activation and / or load detection on 7-way before the +12V output is activated on the 7-way 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 7-way 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'.

- 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'.

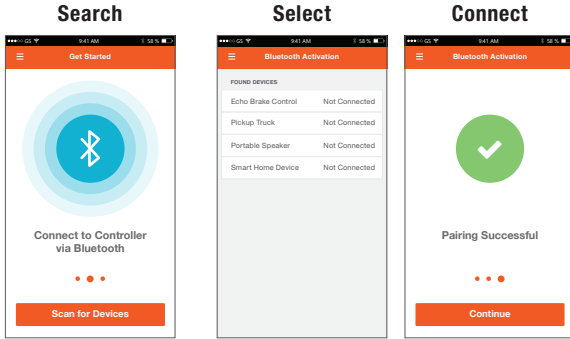
1. Insert the Echo™ brake control into the 7-way vehicle socket. The LED will flash blue. The Echo™ is now ready to pair with the mobile application.

- For first time use of the Echo, connection to the mobile application is required. Bluetooth connection is not required if previously paired, but recommended when possible.

**Continued on page 2**

## INITIAL SETUP FOR BLUETOOTH CONNECTION (CONTINUED FROM PAGE 1)

2. Enable Bluetooth in your mobile device settings.
3. Launch the app and scan for the Echo™. Once the 'Echo™ Brake Control' is visible, select it. You will then be prompted to enter the six-digit PIN, found under the cap of the brake control unit or on the provided quick reference card. Once pairing is complete, the LED light will be solid blue.



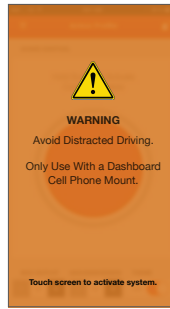
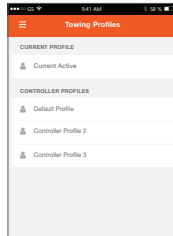
4. Plug the trailer's 7-way connector into the Echo™ brake control while parked on a level surface. With the brake control inserted and the vehicle started, the LED light on the Echo™ will flash yellow for five to eight seconds while calibration occurs. Once the device is calibrated the LED will turn solid green.

- If the calibration takes longer than eight seconds remove and reinsert Echo into the vehicle's 7-way socket.
- If the LED does not light up, the 7-way may not have +12V power. Refer to the 'Vehicle-Specific Requirements' on page one and the 'Troubleshooting Guide' on page four of this manual.

## APPLICATION SETUP

After pairing with the Echo™, 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.

Setting configuration is required when trailer conditions change or the brake control is being used for a different trailer or vehicle.



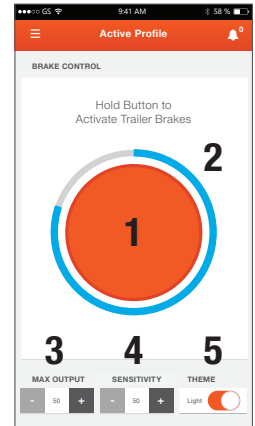
**WARNING** Avoid distracted driving. Only make adjustments when the vehicle is stationary.

## CONFIGURING PROFILE SETTINGS

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

- 1. Manual Brake Activation:** Activate manual brake control by pressing and holding the orange button.
- 2. Current Brake Level:** The blue ring indicates current brake output level.
- 3. Max Output:** The maximum level of the brake is set by the 'Max Output' setting.
- 4. Sensitivity Level:** The sensitivity of the braking power is set by the 'Sensitivity' setting.
- 5. Screen Theme:** Select the look of your screen for day or night.

**Note:** 'Max Output' and 'Sensitivity Level' are adjustable in increments of five.



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

## Manual Brake Activation

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

The manual control can be set up to apply 100% of the unit's power to the trailer brakes or to limit power to the output control setting.

Echo™ is factory-set with the switch in the 'limited to the output control' position. This can be changed in the app settings menu.

## Max Output

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.

## Sensitivity Level

The sensitivity level adjusts trailer aggressiveness when activated during braking, not manual override. Sensitivity adjustment has no effect on the manual brake control. The sensitivity can be adjusted for individual driver preference, trailer load changes or changing road conditions.

## 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 25 mph, apply the vehicle's brakes. If trailer braking is insufficient, increase the max output setting in the brake control 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 25 mph 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 control 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

A single LED on top of the Echo™ shows the status of the brake control unit. Refer to the icons and descriptions below.



Device not paired,  
no trailer connected  
(flashing blue)



Device paired,  
no trailer connected  
(solid blue)



Calibrating  
Echo™  
(flashing yellow)



Device not paired,  
trailer connected  
(flashing green)



Device paired,  
trailer connected  
(solid green)



Wiring error  
(flashing red)



Hardware fault  
(solid red)



No power  
(no light on)

Indicator	Status
Flashing blue	Device not paired, no trailer connected
Solid blue	Device paired, no trailer connected
Flashing yellow	Calibrating Echo
Flashing green	Device not paired, trailer connected
Solid green	Device paired, trailer connected
Flashing red	Wiring error
Solid red	Hardware fault

## TROUBLESHOOTING GUIDE

Condition	Problem Cause	Possible Solution
LED does not light	No power to brake control, no ground on vehicle 7-way	Check vehicle power and ground wiring Trailer mode not activated for vehicle Vehicle requires trailer to activate 7-way power
Unable to connect to mobile devices	No power to brake control, no ground on vehicle 7-way 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 control 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 7-way connector Improper or corroded trailer wiring Weak or missing ground	Confirm vehicle and trailer 7-way connections
No trailer brakes, pedal or manual (device notification of error)	Loss of trailer connection, unplugged or bad wiring	Confirm vehicle and trailer 7-way connections
No response on manual override or brake output	Mis-wired 7-way connector Improper or corroded trailer wiring No or intermittent power to brake control Weak or missing ground Wireless connectivity error	Confirm vehicle and trailer 7-way 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 7-way connections Check Bluetooth and application settings Increase max power or sensitivity settings
Trailer brakes on all the time (LED shows red)	Mis-wired 7-way trailer connector	Confirm vehicle and trailer 7-way connections
App signals 'low voltage'	Low battery voltage	Check vehicle battery and replace if needed Confirm vehicle 7-way connections and wiring
App signals a 'disconnect'	Trailer connector is disconnected	Reconnect the trailer connector Confirm vehicle 7-way connections and wiring
App signals 'overload'	Trailer brakes are overloaded	Reconnect the trailer connector Confirm vehicle 7-way connections and wiring Check trailer brake wiring for short circuits
Wireless disconnect	Mobile device disconnected while driving No or intermittent power to brake control	Stop the vehicle and reconnect to mobile device Confirm vehicle 7-way connections

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[warranty.curtgroup.com/surveys](https://warranty.curtgroup.com/surveys)

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