



Operator's Guide

Electronic Code Switch Module (ECS)

» **Software Device Profile 1.1.0.0** «



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 Read Instructions Carefully!

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1 – OVERVIEW

The Electronic Code Switch module (ECS) ensures that only authorized operators can access vehicles. You log on to ECS by entering a user ID and PIN code or by swiping a tag. Once you have logged onto ECS, you can operate a vehicle and manage your tag and PIN code.

Note: In this manual, the word *tag* refers to the card, fob, etc., that you use to access a vehicle.





Figure 1
The Electronic Code Switch (ECS)

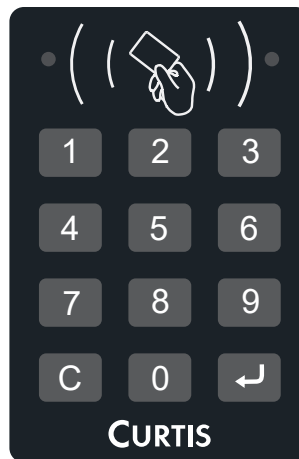
ABOUT THIS MANUAL

This manual describes how vehicle operators use ECS. This chapter describes the keypad, LEDs, and buzzer sounds. [Chapter 2](#) describes how to access ECS to operate a vehicle and to change your PIN code and/or tag.

Note: This manual covers only the features that are used by vehicle operators. There is a separate manual for technicians and the ECS supervisor. See the [Input Devices](#) page on the Curtis Instruments website.

Keypad

The ECS keypad consists of buttons for the numbers 0–9, as well as  and  buttons:








- The  button is used to submit entries. For example, press  after you enter a menu number.
- The  button is used to perform various tasks. Whether you press or press and hold  depends upon the task. The following table describes how the  button is used.

Table 1: C Button Usages

Task	Press or Press and Hold?
Log on to work with the Supervisor Management or User Management menu.	Press and hold the button until you hear the Push button sound, the red LED flashes once per second, and the green LED is off. You can then swipe your tag or enter your user ID and PIN code.
Log off from driving.	Press and hold the button until you hear the Return sound, the red LED is off, and the green LED flashes once per two seconds.
Log off from the Supervisor Management or User Management menu.	Press the button. The buzzer sounds the Return sound, the red LED is off, and the green LED flashes once per two seconds.
Return to the previous menu.	Press the button. The buzzer sounds the Return sounds, the red LED remains on, and the green LED flashes the menu number once per two seconds.
Clear data that you've entered since accessing a menu.	Press the button. The buzzer sounds the Clear Data sound, the red LED remains on, and the green LED continues to flash the menu number. You can then enter data.

LEDs

ECS has green and red LEDs that indicate information such as the current menu, status, and fault codes. The following table summarizes the typical usages of the LEDs:

Table 2: LED Notifications

ECS Operation	LEDs
ECS is idle.	The green LED flashes once per two seconds and the red LED is off.
A user is logged on to operate the vehicle.	The red LED is off and the green LED is on.
A fault occurs.	The LEDs flash the fault code. Faults typically are handled by a technician.
A user is logged on and working with the Supervisor Management or User Management menu.	The red LED is on and the green LED is off.
A user is working with a sub-menu.	The red LED is on and the green LED flashes the menu number every two seconds.
The supervisor is adding or deleting users with the Add/Delete Users menu.	The red LED flashes the user status every two seconds and the green LED is on.

In this manual, LED flash sequences are described with tables that contain red and green circles. When an LED periodically flashes, the number of flashes are indicated twice, with periods separating the sequences. In the following example, the red LED is on without flashing, and the green LED flashes twice per two seconds:








Red LED	Green LED
●	● ● ● ●

When an LED is off, the table will not include a circle for the LED.

Buzzer

ECS has a buzzer that indicates whether user entries and RFID tag swipes are valid. The following table describes the buzzer sounds.

Table 3: Buzzer Notifications

Sound	Description	Play Audio
Push button	You pressed a button.	
Clear Data	You pressed  to clear data that you entered while working on a menu.	
Return	You pressed  to return to the previous menu or to log off.	
Error	You entered invalid data or an invalid menu number.	
Success	You logged on, entered valid data, or pressed a valid menu number.	

Note: If you don't hear the buzzer, it means that a technician has programmed ECS to be mute.


2 – USER OPERATION

ECS ensures that only authorized users can access a vehicle. If you are authorized, the ECS supervisor will provide you with a user ID and PIN code and/or a tag. The supervisor might also provide you with a username code.

The following sections describe how to use ECS to operate a vehicle and to create or change your tag, PIN code, and/or username code.


OPERATE A VEHICLE

To operate a vehicle equipped with ECS, log on by taking one of the following steps:

- Place your user tag in front of ECS.
- Enter your user ID and PIN code, then press .

Note: If your user ID is 1–9, enter 0 before the digit. For example, if the user ID is User 3, enter 03.

If your tag or user ID and PIN code are valid, the buzzer sounds the Success sound and you can operate the vehicle. The green LED remains on, without flashing, until you log off.

Red LED	Green LED
	

Note: You remain logged on until you either log off, the interlock switch is off for longer than the programmed timeout interval, or another operator swipes a tag.

When you have finished operating the vehicle, log off by pressing and holding  until you hear the Return sound and the green LED starts flashing.

Red LED	Green LED
	

USER MANAGEMENT MENU

The User Management menu allows you to add or change your PIN code, tag, and/or username code. When you are on the User Management menu, the red LED is on and the green LED is off.

Red LED	Green LED
	

The User Management menu contains the following menus. To access a menu, press its menu number:

Table 4: User Management Menu

Menu Number	Description
1	Change PIN code.
2	Change user tag.
3	Change username code.

When you select a menu, the red LED is on and the green LED flashes the menu number every two seconds.

Specify Your PIN Code, Tag, and/or Username Code

Take the following steps to access the User Management menu and add or change your PIN code, tag, and/or username code.

Note: If ECS doesn't detect keypad activity for 60 seconds, ECS automatically logs off.

1. Press and hold the  button for two seconds, until you hear the Pushbutton sound and the red LED starts flashing.

Red LED	Green LED
	



2. Perform one of the following steps:
 - Place your user tag in front of ECS.
 - Enter your user ID and PIN code, then press .

Note: If your user ID is 1–9, enter 0 before the digit. For example, if the user ID is User 3, enter 03.



The buzzer sounds the Success sound. ECS then returns to the User Management menu.

Red LED	Green LED
	

3. To add or change your PIN code, take the following steps:
 - a. Press 1, then press .


Red LED	Green LED
	

- b. Enter the PIN code, which must be between 2–6 characters.

Note: The first character cannot be 0. To clear the characters you've entered since accessing the menu, press ; you can then enter the new PIN code.
- c. Press  to save the PIN code and return to the User Management menu.

Red LED	Green LED
	


4. To add or replace your tag, take the following steps:

a. Press 2, then press .

Red LED	Green LED
	


b. Place the tag in front of ECS until you hear the Success sound. ECS then returns to the User Management menu.

Note: Replacing a tag invalidates any tags previously created for the user ID.

Red LED	Green LED
	

5. To add or change your username code, take the following steps:


Note: The username code is not your user ID, is **not** required, and is not used to log on to ECS. The username code can be used for information such as an alias or an employee ID.

a. Press 3, then press .

Red LED	Green LED
	

b. Enter the username code, which can be any number between 0–9999.

c. Press  to save the username code and return to the User Management menu.

Red LED	Green LED
	

6. Press  to log off.

Red LED	Green LED
	