



fusion 2.4

- Model 3110-026..... Central Control Fluid Management System
- Model 3110-028..... Distributed Control System Dispense Keypad
- Model 3110-029..... Distributed Control System Dispense Keypad w/built-in ticket printer



Thoroughly read and understand this manual before installing, operating or servicing this equipment.

Disclaimer

The user/purchaser is expected to read and understand the information provided in this manual, follow any listed Safety Precautions and Instructions and keep this manual with the equipment for future reference. The information in this manual has been carefully checked and is believed to be entirely reliable and consistent with the product described. However, no responsibility is assumed for inaccuracies, nor does Balcrank Corporation. assume any liability arising out of the application and use of the equipment described.

Product Identification Information

Record the product identification numbers from the nameplate here.

Model Number _____

Serial Number _____

Tag Number _____(if applicable)



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Specifications

Power Requirements	120V AC 50/60 Hz
RF Communications	2-way, 2.4...2.5 GHz Direct Sequence Spread Spectrum
RF Network	Self-healing Mesh Network
Operating Temperature	14...140° F (-10...60° C)

Certification

- Contains FCC ID: S4GEM35XB
- Contains IC: 8735A-EM35XB
- FCC CERTIFIED, PART 15, SUB-PART C
- CE0681 EC-R&TTE Certified

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.



WARNING

To satisfy FCC RF exposure requirements for mobile transmitting devices, a separation distance of 20 cm or more should be maintained between the antenna of this device and persons during operation. To ensure compliance, operations at closer distances than this are not recommended.



CCS Keypad Keys



The **Scroll** key selects options on the active display.



The **Home** key returns the display to the default screen.



The **Backspace** key deletes one character to the left of the cursor each time it is pressed.



The **Enter** key completes the current action then displays the next screen.



The **Space** key adds a blank space to the right of the data just entered.



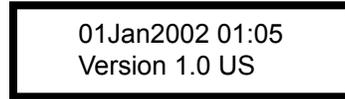
The **Alphanumeric** keys enter numbers and alpha characters (letters).

- To enter a number, press and release a key.
- To enter a letter, press and hold the key until the letter you want displays, then release the key.



Default Screen:

The default display screen shows the date/time and software version number. The default display screen alternates between the System screen and the Enter Pin Number screen.



The Enter Pin No. (Personal Identification Number) screen is used by the operator to access the system to dispense fluid.

To dispense a fluid, enter a valid 4-digit PIN number. The system validates the PIN number and allows authorized users to access the system.



Active keys:

Numeric keys,



Dispense Order Process

The following screens some of which are optional, comprise the process for initiating a job dispense.

Job No

Job No.: Enter the job or work order number: This may be alphanumeric and up to 16 digits. To access alpha characters, press and hold the appropriate key until the desired alpha character is displayed.

Enter Job No.

Active keys:

Alphanumeric keys, , , 

Action:

- Enter the up to 16-digit alphanumeric work order number and press ENTER to advance or press HOME to cancel the order and return to the main screen.

Registration (License)

The optional screen for Reg/Lic is displayed only if the setting for Registration is set to YES in the Configuration Menu, by the supervisor.

(Optional) Registration Number: Enter the Registration or License Plate number of the vehicle. This may be alphanumeric and up to 16 digits. To access alpha characters, press and hold the appropriate key until the desired alpha character is displayed.

Enter Reg. No.

Active keys:

Alphanumeric keys, , , 

Action: Enter the Registration or License number and press ENTER to advance or press HOME to cancel the order and return to the main screen

Mileage

The optional screen for mileage is displayed only if the setting for mileage is set to YES in the Configuration Menu, by the supervisor.

(Optional) Mileage: Enter the mileage of the vehicle. This is a numeric field up to 10 digits.

Enter Mileage

Active keys:

Numeric keys,  ,  , 

Action: Enter the current numeric mileage of vehicle. Press ENTER to advance or press HOME to cancel the order and return to the main screen or wait 3 seconds to advance to the next screen.

Hose

Hose: Enter a valid Hose/Meter number.

- This number is from 1-30. Only valid Hose numbers are accepted.
- The display remains on this screen if an undefined hose number is entered.
- If there is an on going dispense already in process for the selected Hose, a new dispense order for that Hose is not accepted, if this happens the message "Hose Active Hit Hose Reset" is displayed"

Enter Hose
--

Active keys:

Numeric keys,  ,  , 

Action: Enter a Hose number that has been previously created through the Initialization menu, by the supervisor, and press enter

Product

Product: The keypad automatically displays the Fluid Type associated with the previously selected Hose. There is no data entry for this screen.

Product
(Fluid Type)

Active keys:

This screen is displayed for user information, It is displayed for 3 seconds or the enter key may be pressed to advance to the next screen. Then it goes to quantity



Action: Press ENTER to advance or press HOME to cancel the order and return to the main screen or wait 3 seconds to advance to the next screen.

Quantity

Quantity: Enter the quantity to be dispensed.

- Quantity may be from 0.0 to 99.9 and 100 to 999.
- There can only be one digit after the decimal point.

Enter Quantity

Active keys:



Numeric keys,

Action: Select the quantity to be dispensed and press ENTER to advance or press HOME to cancel the order and return to the main screen.

- A quantity of 0.0 puts the RF (radio frequency) Meter in a free-dispense mode. The RF Meter does not latch. The meter dispenses fluid as long as the trigger is manually held in the open position. The user must press RESET, on the RF Meter, to exit this dispense and communicate the dispense order to the Keypad.



NOTE

A quantity of 0.0 puts the RF (radio frequency) Meter in a free-dispense mode. The RF Meter does not latch. The meter dispenses fluid as long as the trigger is manually held in the open position. The user must press RESET, on the RF Meter, to exit this dispense and communicate the dispense order to the Keypad. If the reset button is not pressed, this will reduce the life of the batteries in the control handle.

Dispense Confirmation

Dispense Confirmation: Press Enter to confirm a dispense is desired.

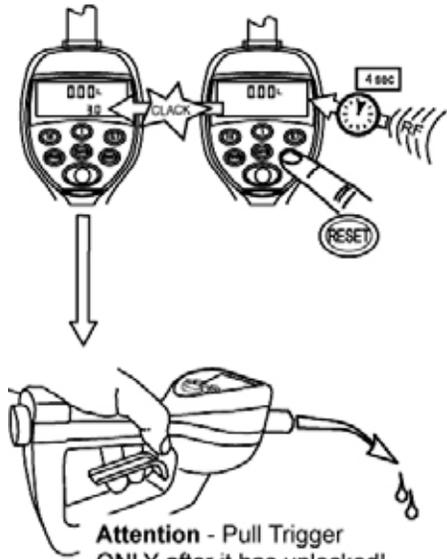
Press enter for
Dispense

Active keys:

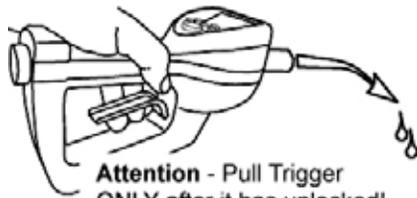


Action: Press ENTER to complete and release the job for dispensing. Press HOME to cancel the order and return to the main screen.

Meter Operation: Dispensing Fluid



TO START
DISPENSE



Attention - Pull Trigger ONLY after it has unlocked!
To dispense fluid, pull trigger up until it latches. Then release the trigger. The meter shuts off automatically when a dispense quantity is reached.



AFTER
DISPENSE,
PRESS RESET.

After entering the job at the keypad, approach the RF control handle and perform the following steps:

1. Press the RESET button on the RF control handle
2. Note the two flashing arrows on the lower right portion of the LCD, these indicate that the RF control handle is communicating with the keypad
3. Once the RF control handle successfully communicates with the keypad, a click should be heard and if a pre-set quantity was input at the keypad, it should appear in the lower center portion of the LCD. The RF control handle is now live and ready to dispense fluid.
4. Pull the trigger up until it locks into place and then release the trigger. The trigger will automatically unlock once the pre-set quantity is reached. **DO NOT CONTINUE TO HOLD THE TRIGGER!**
5. To toppoff, pull the trigger again (it will not lock) and observe the meter display to dispense the desired toppoff quantity.
6. Once dispensing is complete, press the RESET button, a click should be heard and the two flashing arrows on the lower right portion of the LCD will flash, indicating RF communication. Once the RF control handle successfully communicates with the keypad, the meter is ready for the next dispense.



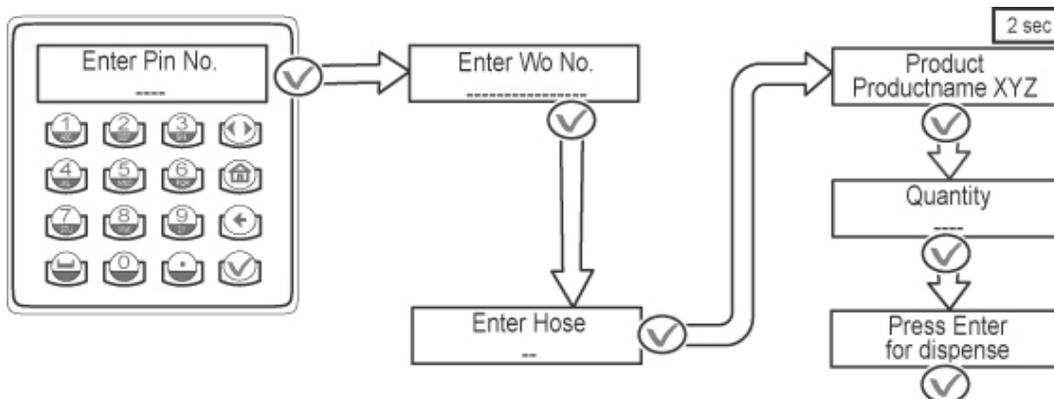
*See NOTE



NOTE

If the fluid flow needs to be stopped prior to the preset quantity being reached (or for any other reason), press the large red "emergency override" button. The override closes the valve, immediately stopping fluid flow. Batch dispensing can be resumed by pulling the trigger.

Dispense Keypad Operation:



	NOTE
This page is only for keypads with a built-in ticket printer. Models 3110-026 & 3110-029	

Dispense Order Transaction Ticket: After the completion of a dispense by the RF Meter, a ticket receipt is printed.

TRANSACTION TICKET	
DD/MMM/YYYY HH:MI	
PRODUCT	FLUID TYPE 1
QUANTITY	2.1 LTS
OPERATOR	JOHN SMITH
RF METER	ID 12
WO	1234567890123456
MILEAGE	-
REGISTRATION	-
TYPE	PRE-SET/MANUAL/OUT OF SEQUENCE
LEVEL	999999 LTS
ERROR1	1 (COMMUNICATION ERROR)
ERROR2	3 (LOW BATTERIES)
ERROR3	5 (COUNT ERROR)

- A Ticket is printed by the keypad printer.
- **Product:** Fluid dispensed
- **Quantity:** Exact quantity of fluid dispensed
- **Operator:** Operator who dispensed the fluid
- **RF Meter ID:** RF Meter/ Hose number
- **WO:** Work Order number
- **Registration:** Registration or License number. Only printed if configured YES
- **Mileage:** Mileage of vehicle. Only printed if configured YES
- **Type:** The type of dispense:
 - Pre-set: Normal Dispense Process
 - Manual: Fluid dispensed while RF Meter is in manual mode of operation. This is a degraded mode of operation.
 - Out of Sequence: Normal Dispense Process, but data is not communicated from the Hose to the Keypad immediately after the dispense. Out of Sequence quantity is only communicated through the Supervisor Menu in COM mode. This is a degraded mode of operation.
- **Level:** The remaining amount of fluid in the tank
- **Error1...3:** Dispense Error Message:
 - Communication Error: Difficulty in communications
 - Low Batteries: Change the batteries in the RF Meter/hose
 - Count Error: RF Meter had a count error, NOT AN APPROVED DISPENSE. (For PTB System ONLY)

ERROR MESSAGES

The following are error messages that can be displayed by the keypad and the associated action that should occur to reset the system.

“KEY HOSE INT RESET ON HOSE”	A communications error occurred between the keypad and meter. ACTION: Press RESET on the meter.
“KEYPAD ERROR”	An error occurred in the keypad. ACTION: Press RESET on the meter to recover data.
“HOSE ACTIVE HIT HOSE RESET”	The selected meter currently has a dispense order in process or waiting to be processed, complete the active order. ACTION: The user should clear the requested dispense by selecting MET from the Supervisor Menu.

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**For Warranty Information Visit:
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