

MasterMix Electronic Display



Reimer Alliance International Inc.

2/1/2011

Master Mix Electronic Display

The **Master Mix** is a processor and display designed to provide the mobile mixer operator with information related to the Mixing and Discharge of concrete. During the Mixer Calibration Procedure pertinent mix data information is entered into the Apex I to provide for real-time calculations related to concrete volume, cement weight, aggregate weight, and admixture flow rates. Cement/water ratio, water flow rate and water totalizer are also available using the optional water meter.

Operating and data input

1. **START- UP screen** : displays time and counts/pulses
 - **SCRN-** to toggle between **START-UP** and **ACTIVE-MIX** screen
 - **PRGM-** to display the Program Screen
 - **ADMIX-** to view admixture flow rates
 - **Reset** – to Zero: counts/pulses and ACTIVE-MIX screen volume. Values will be stored in the **LAST 5 MIX** screen.

2. **ACTIVE - MIX screen**
 - **MIX:** (number @ name)
 - **ST:** (stone gate setting)
 - **SA:** (sand gate setting)
 - **CNT:** (total counts/pulses between resets)
 - **MPA/PSI:** (strength)
 - **C/W:** (cement/water ratio)
 - **H2O:** (water flow rate)
 - **H2OT:** (total amount of water used between resets)
 - **RPM:** (conveyor speed)
 - **VOLUME COUNT:** (yards or meters)

3. **PROGRAM screen**
 - **OK** – return to the **ACTIVE – MIX** screen
 - **SELECT-** to choose one of the options
 - **UP-** scroll cursor up to the desired selection
 - **DOWN-** scroll cursor down to the desired selection
 - a) **MIX Select screen**
 - **UP and DOWN-** select mix 1-15
 - **SELECT-** to return to the active mix screen

 - b) **MIX ENTRY screen**
 - **MIX** – select mix that is desired for data entry
 - **SELECT-** scroll data entry line through screen
 - **UP** – increase input value
 - **DOWN** – decrease input value
 - **EXIT-** note when data entry line is under **EXIT** : Use **Door** symbol (down key) to exit program
Note: Select will only scroll from top to bottom and repeat

 - c) **SET UP PARAMETERS screen**
 - **OK-** to return to the **ACTIVE-MIX** screen
 - **SELECT** – allows programming of category selected
 - **UP-** to move the cursor up to the desired category
 - **DOWN-** to move the cursor down to the desired category

- i. **SET CONTRAST**
 scroll between **Set Contrast** and **Set Bright**
 - to decrease value
 - + to increase value
 Use the **door symbol** to **exit** this screen
- ii. **SET TIME**
 scroll between minutes and hours
UP and **DOWN** increase and decrease values
 Use the **door symbol** to **exit** this screen
- iii. **H2O PULSE/ L (liters) or G (gallons)**
 - a) **Select**- moves the cursor underneath the number indicating the pulse counts required to dispense **1** liter or **1** gallon
 - b) **Up**- increases the pulse count value
 - c) **Down**- decreases the pulse count value

Water Calibration: Active-Mix screen:

- a) Press **Reset** to zero all totals
- b) Dispense water into a container of known volume
liters or **gallons**
- c) Note the volume of water displayed at **H2OT** and compare this with the actual total

If the displayed volume is **low** the number of pulse counts required per liter or gallon must be **decreased**.

If the displayed volume is high the number of pulse counts required per liter or gallon must be **increased**.

It may be necessary to take several samples of water volume and make the appropriate adjustments to the **H2O PULSE** count in order to achieve the level of accuracy you require. Once calibrated properly no further changes should be needed.

- iv. **METRIC/IMPERIAL**

Select- used to change between metric and imperial

Note: Auger PSI and BELT PSI are for future use

4. LAST 5 MIX screen – view a log of the last 5 resets.

Each time you press the **RESET** button it will log the concrete volume and strength of the current job. *Note:* if the **RESET** button is depressed with (zero) 0 counts, (zero) 0 volume will be logged.

5. ADMIXTURE Screen - Setting Flow rates for admixture

- Enter the desired amount of admixture required per meter or yard in the appropriate line from the **MIX ENTRY** screen. The Apex I will calculate the number of counts per minute and compute the desired flow rate – L/Minute or Gal/minute to be displayed in the **ADMIX** screen.

- From the **START-UP** screen or **ACTIVE MIX** screen with the conveyor belt running press the **ADMIX** button. The **ADMIX** screen will indicate the appropriate flow rate needed for the rate at which concrete is being produced. Use the admix flow-control and flow meter for either the HI flow or Lo Flow admix pumps to make the appropriate flow rate adjustment. This process can be done while mixing. You may easily move between the **ACTIVE-MIX** screen and the **ADMIX** screen to check the display which indicates the necessary flow rate.
- **CAUTION:** The computer does **NOT** control the admix. It only displays the amount of admixture that is required using the information that has been entered when setting up the **MIX ENTRY** screen. The operator must **manually** make adjustments to the **admix flow control**.

Note: If the conveyor speed is changed you must make the necessary adjustment to the admix flow-control in order to dispense the correct amount of admixture. The display in the ADMIX screen is to be used for reference only when making these adjustments