

Network Irrigation Controller
“NIC”
Cropping & Areas
Version EM.6
CHEAT SHEET

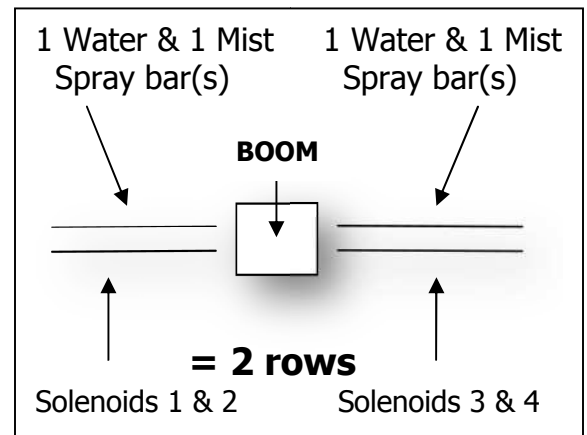


Key Concepts

***** Read this First! *****

Row:

A run in the greenhouse; usually left or right of the center aisle. It can also be defined as the number of solenoid "groupings" that are in the bay. If there are 4 bench runs across the width of the bay, then each bench could be assigned its own row (1 mist & 1 water solenoid per row). In the example on the right, there are two rows in the bay with an end walkway.



Area:

An Area is a given distance within the bay (example: 0.00 Ft to 110.00 Ft) that needs to be watered or misted by the boom. Areas are programmed by the user depending on the needed requirements. See example below, page 5:

Crop:

Just as the name suggests! This allows the user to combine multiple "Areas" into one "Crop" to minimize information input. In the Example, Areas 1 and 3 on the right side (Row 1) might be a crop.

Time Zone:

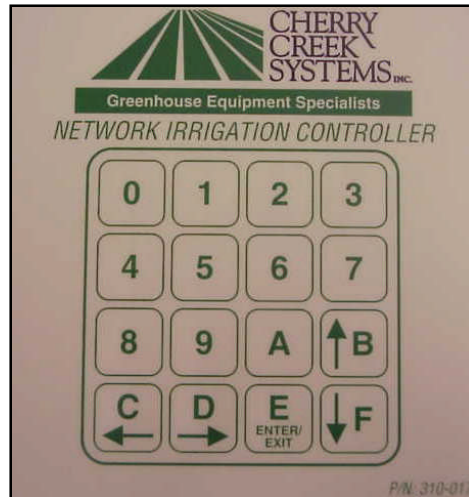
This is a given period of time. Your NIC uses a 24 hour format:

1:00 PM = 13:00
12:00 AM = 00:00

10:00 AM = 10:00
10:00 PM = 22:00

Keypad:

- 0-9** = Data Entry
- E** = Enter or Exit
- B** = Up / Increase
- F** = Down / Decrease
- C** = Left / Forward
- D** = Right / Back

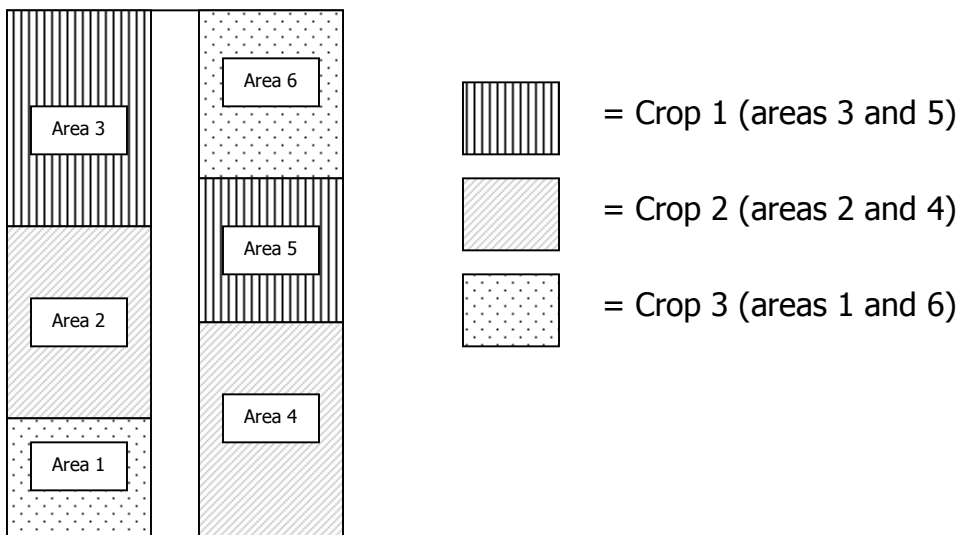


Set Up and Cropping:

Basically, there are 4 steps:

1. Set up how many rows you have
2. Set up areas in each row
3. Assign a crop to each area
4. Give the boom crop watering instructions

It's easy!



Let's say you have 3 Crops, as laid out in the greenhouse above. *Even though Crop 1 is in 2 different areas, you don't have to input 2 different programs.* You simply give Crop 1 watering instructions, and both programmed areas under Crop 1 will be receiving the same watering regimens!

Operations

Crops

(Main, 3, 1, 1, Crop #)

**Quick Menu/
Keypad Number
Reference**

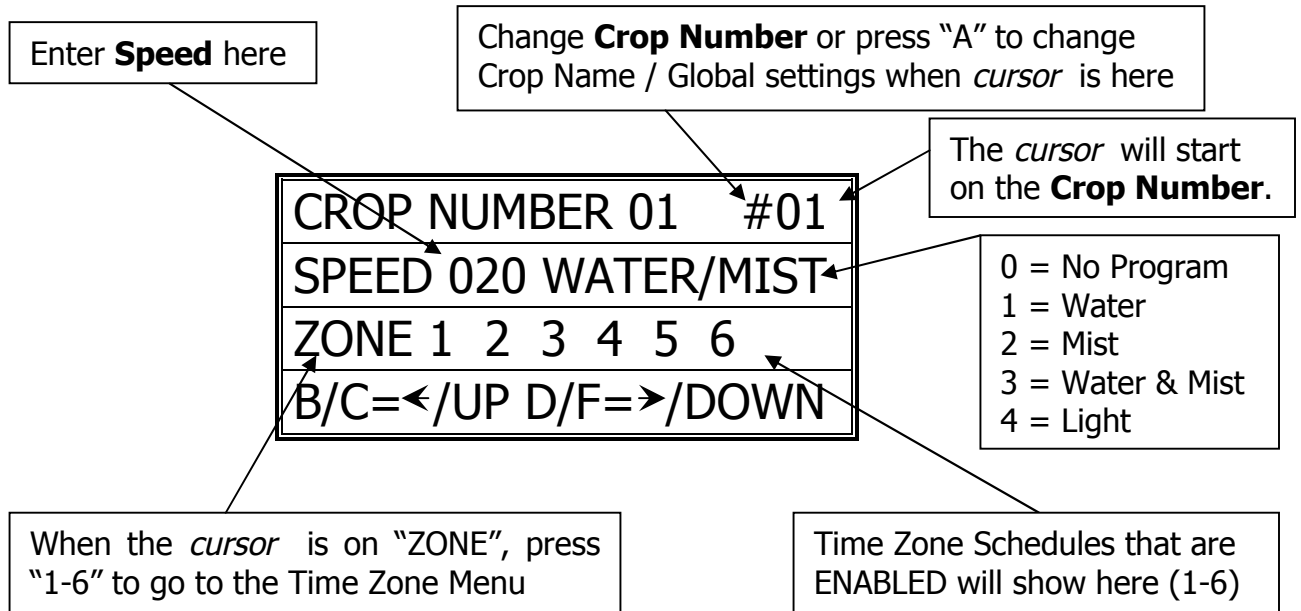
*** The Bay Length and Rows (Configuration) must be programmed before you can set up any **Crops** (see previous sections) ***

1. From the Main Menu press 3
2. From the Setup Menu press 1
3. From the Crops menu press 1
4. Enter the Crop Number (#1-16) to change any of the Crop information.

ENTER CROP NUM. 1-16
'A' KEY TO EDIT CROP
NAME/GLOBAL OR S-S-W
WHEN CURSOR ON ITEM

1. Enter the Crop Number (1-16) to be modified.
2. Use the "B/C" & the "D/F" keys to scroll through the Crop Menu.
3. To change the Crop Name, press "A" when the cursor is on the Crop Number to enter the Crop Name / Global Menu. Use the "C/D" keys to scroll, use the "B/F" keys to change the Crop Name. Press "A" to enter the "Global Solenoid Menu".

Exploded view of the **Crop** Screen:



4. Press "E" to Save and Exit.

Global Solenoids

(Main, 3, 1, 1, Crop #, A)

*** The normal operation of the boom is to water one Area at a time. Even if those Areas are next to each other. For example, the same Crop is under 2 rows from end to end. Instead of watering row 1 and then row 2, enabling the Global Solenoid feature will water both sides at once. ***

1. From the Main Menu press 3
2. From the Setup Menu press 1
3. From the Crops menu press 1
4. Enter the Crop Number (#1-16)
5. Press A when cursor is over the Crop Number

CHANGE CROP NAME #1
A=GLOBAL SOL. B/F=CHAR
C/D = CURSOR E = EXIT
CROP NUMBER 01

6. Press "A" to enter the Global Solenoids Menu.

CROP NUMBER 01
#01 G SOL = 1 2 3 4 5 6 7 8
ALL G SOL =
B/C/D/F = SEL E = EXIT

7. Press the 1-8 keys to toggle the solenoids on and off of Global.
8. Scrolling to All Global (ALL G SOL) and enabling solenoids 1-8 will activate those solenoids to Global for all Crop Numbers.
9. Press "E" to Exit and Save

Time Zones (Auto Programming)

(Main, 3, 1, 2, Crop #, Curser over Zone, 1-6)

Time Zone = A time zone is a specific period of time.

Each Crop can have up to 6 different time zones.

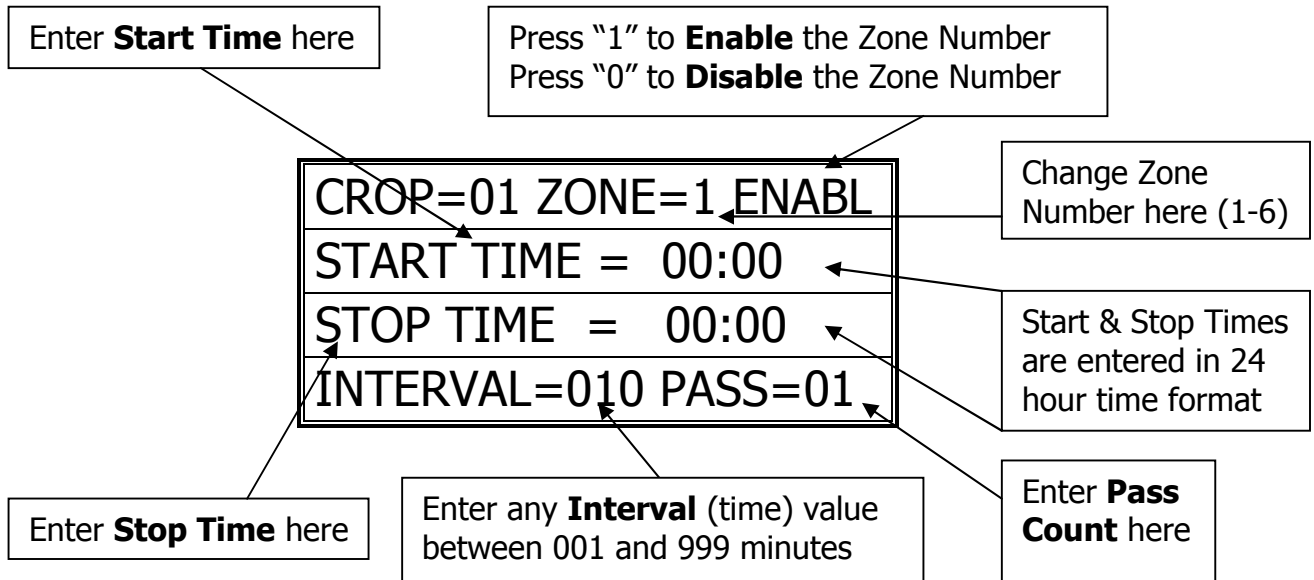
Interval = How many minutes between passes.

Pass = 1 time over Crop.

1. From the Main Menu press 3
2. From the Setup Menu press 1
3. From the Crops Menu press 1
4. Enter the Crop Number (1-16)

5. Move cursor over Zone and press 1-6 to scroll through the 6 Time Zones

*Exploded view of the **Time Zone** Screen:*



6. Cherry Creek recommends that the User press "00" on Crop and clear out the information that appears on the screen, in Zones 1-6. This is a "bug".
7. Press "E" to Save and Exit.

Areas (Distances)

(Main, 3, 1, 3, Row #)

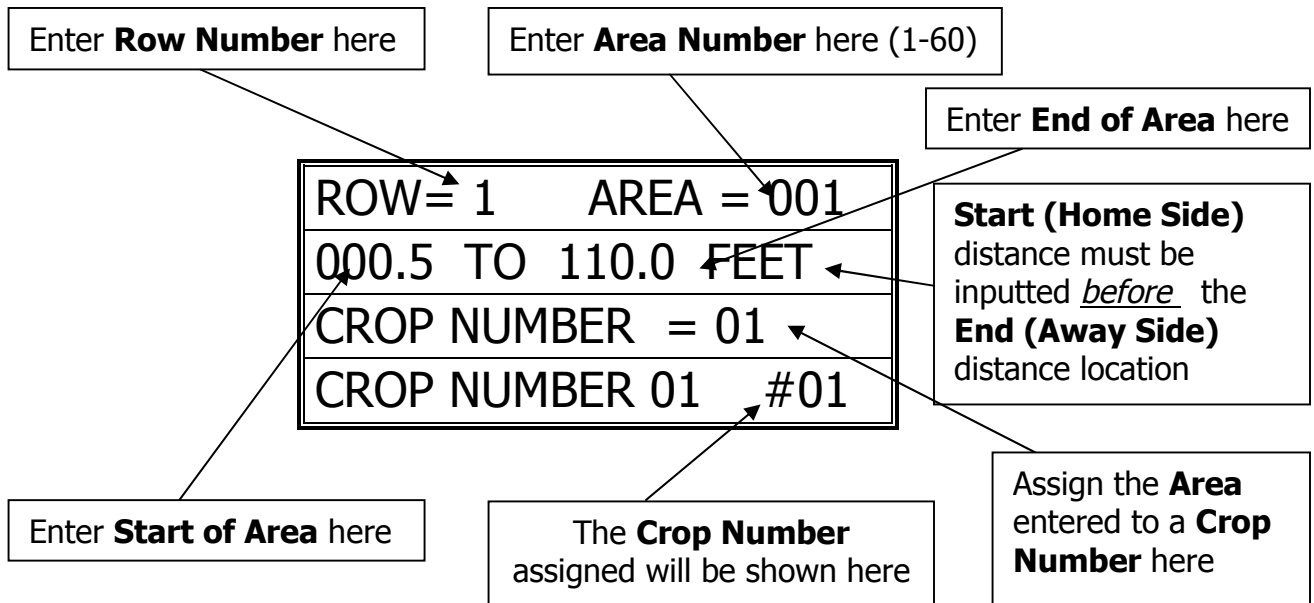
**** The Bay Length and Rows (Configuration) must be programmed before you can set up any **Areas** (see previous sections) ****

1. From the Main Menu press 3
2. From the Setup Menu press 1
3. From the Crops Menu press 1
4. Enter the Row Number (1-4)

PRESS KEY 0 THRU 9
TO SELECT A ROW
THEN SELECT AREA TO
VIEW OR CHANGE DATA

5. The Area Assignment screen will appear:

Exploded view of the **Area Assignment** Screen:



6. Each Row has 60 Areas that can be assigned to any of the 16 Crop Numbers. This gives the ability to program up to 240 Areas!
7. Press "E" to Save and Exit.

Manual Run

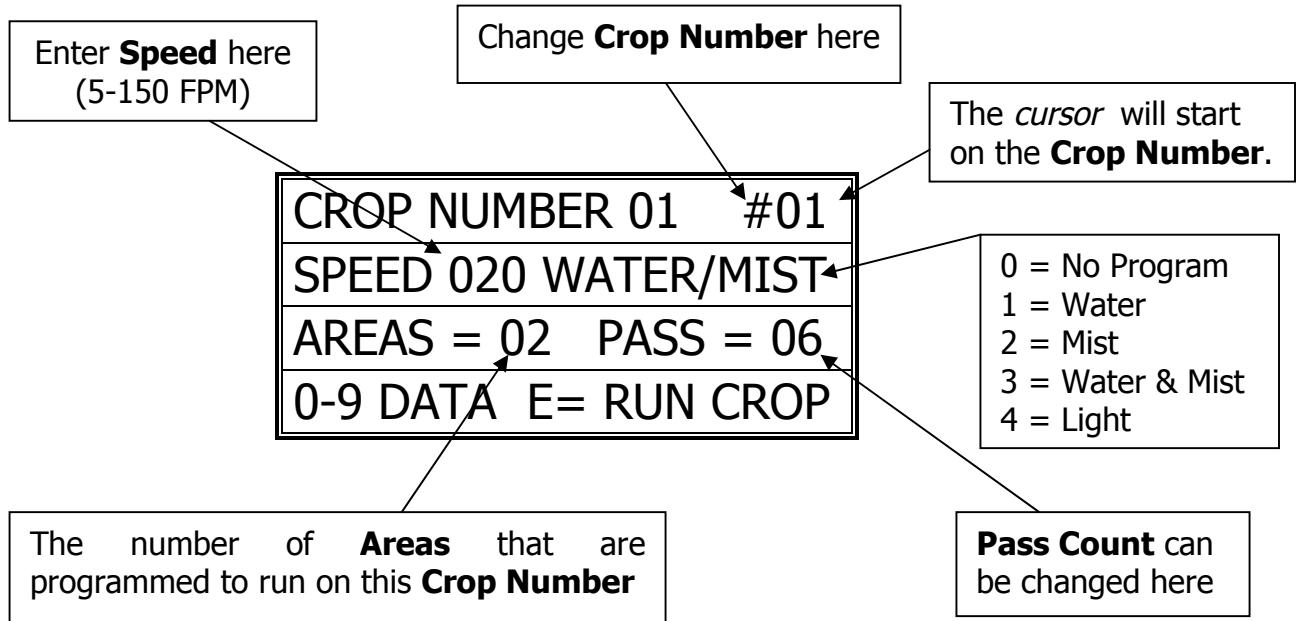
(Main, 2, Crop#)

1. From the Main Menu press 2.
2. From the Manual Menu enter crop #
3. The Manual screen will appear:

ENTER CROP NUMBER 01
A = WALK & WATER
C = CROP AREA VIEWER
E = EXIT MENU

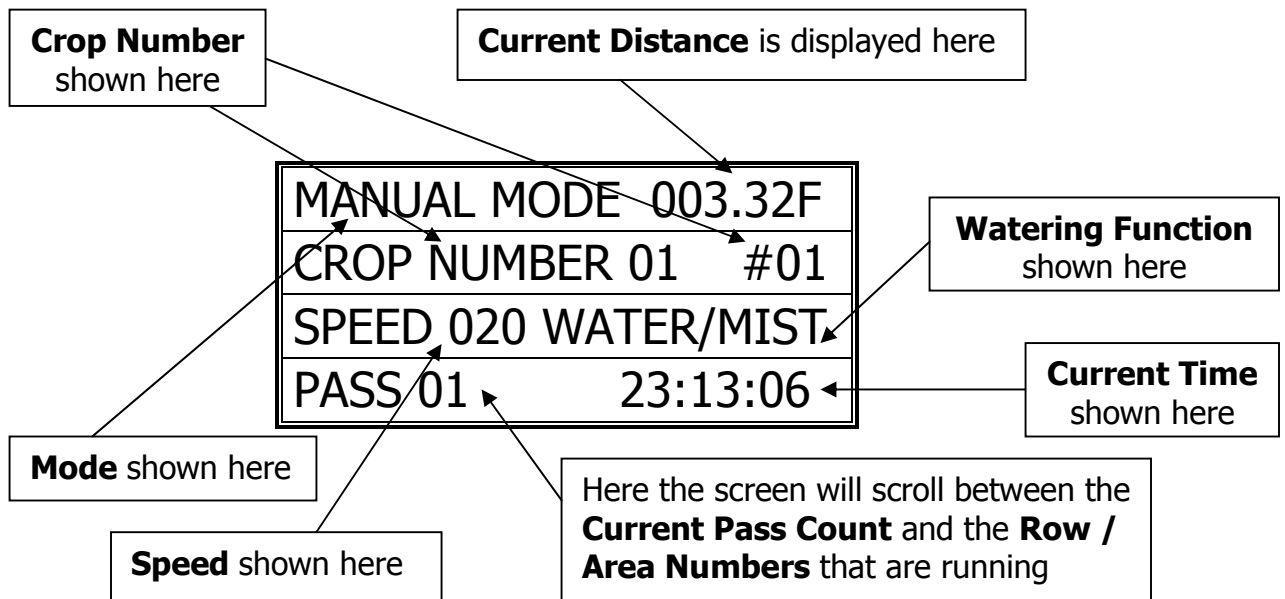
4. Enter the Crop Number to be Manually Started
5. The Manual Start screen will appear:
6. Use the "B/C" & the "D/F" keys to scroll through the Manual Start Menu. Use 0-9 keys to input the necessary data.
7. The Crop Number, Speed, Watering Function, and Pass Count can be changed before Pressing "E" to Run Crop. Changing any of these factors will *only* take effect on this Manual Run. To make permanent changes to the Crop factors, go to Crop Set-Up Menu, reprogram factors, then exit and save.

Exploded view of the **Manual Start** Screen:



8. Press "E" to Run Crop.
9. The "Manual Run" screen will appear:

Exploded view of the **Manual Run** Screen:



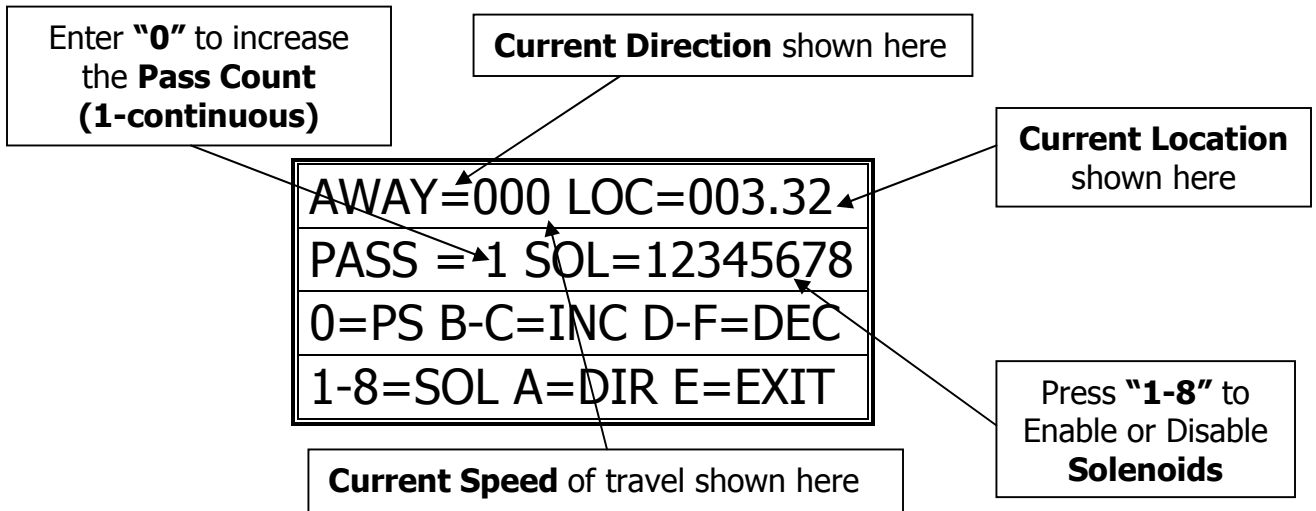
10. The Boom will Run the Manual Program, stop, and await its next command. The Boom will stop at the Start Distance.

Walk and Water

(M, 2, A)

1. From the Main menu press 2
2. Press A for Walk & Water

Exploded view of the **Manual Start** Screen:



3. Press "0" to increase the Pass Count (1-continuous).
 - i. Continuous Mode will run the whole length of the bay, back and forth, from Home & Away, until the user stops the boom
4. Press "A" to change Direction. Press "B/C" to increase speed and "D/F" to decrease speed and come to a stop. Press 1-8 to enable/disable solenoids.
5. Press "E" to Exit to the Main Menu.

Crop Area Viewer

(Main, 2, C)

1. From the Main Menu press 2
2. From the Manual Menu press C

ENTER CROP NUMBER
A = WALK & WATER
C = CROP AREA VIEWER
E = EXIT MENU

3. Enter the Crop Number (1-16) to View the Areas & Rows assigned:

CROP #=01	#AREAS=02
R1	A001 000.5 – 110.0F
R2	A002 005.0 – 078.8F
R4	A005 072.3 – 110.0F

4. Press "E" twice to Exit and go back to the Main screen.

Auto Run (Time Based)

(Main, 1)

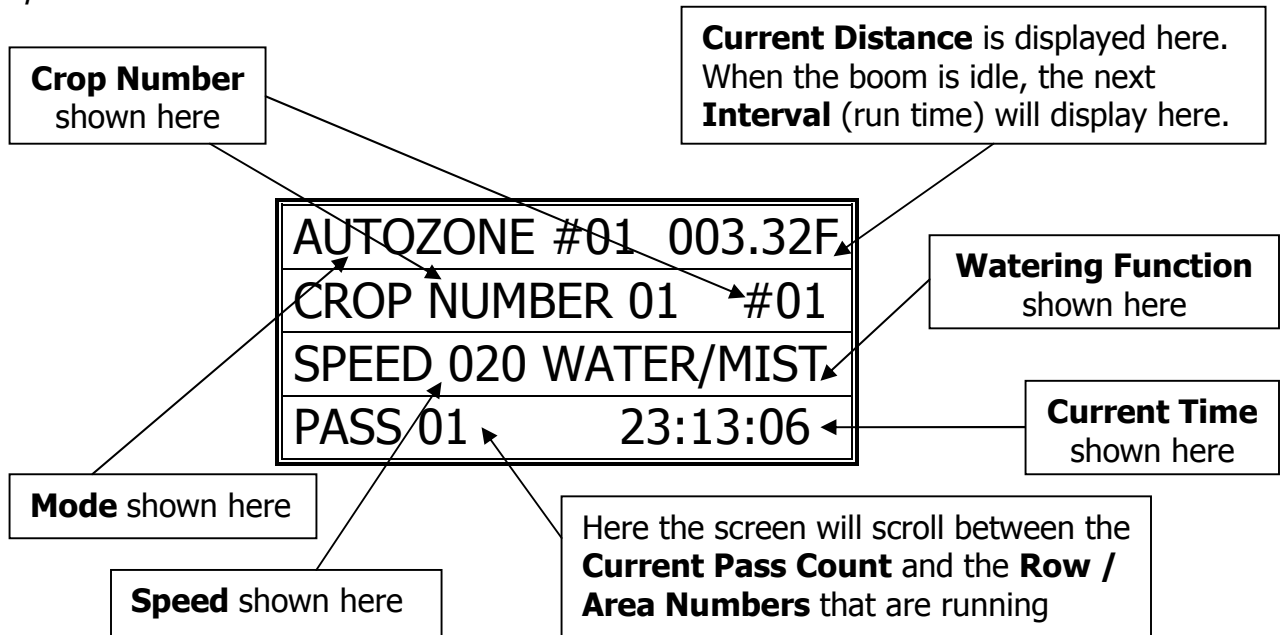
*** If not already done, set up Time Zones and Enable the Zones as needed.

See "**Time Zones (Auto Program)**" section ***

1. To start Auto programs go to **Main Menu & press 1**
2. Press "E" while in the Auto Mode to Exit

1=AUTO	2=MANUAL
3=SETUP CROPS & SITE	
4=GLOBAL NET CROPS	
NIC-EM.6	23:59:59

Exploded view of the **Auto Run** Screen:



Step / Stop / Water

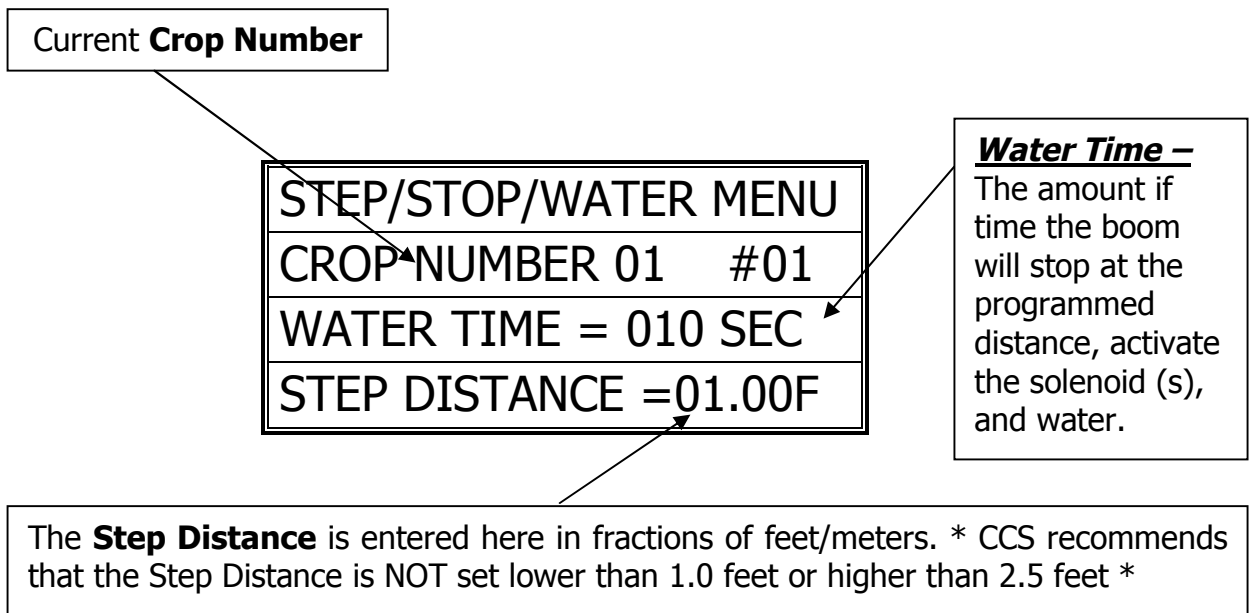
(Main, 3, 1, 1, Crop #, 00 when cursor is on Speed)

1. From the Main Menu press 3
2. From the Setup Menu press 1
3. From the Crops menu press 1
4. Enter the Crop Number (#1-16) to change any of the Crop information.

ENTER CROP NUM. 1-16
'A' KEY TO EDIT CROP
NAME/GLOBAL OR S-S-W
WHEN CURSOR ON ITEM

5. Enter the Crop Number (1-16) to be modified.
6. Use the "B/C" & the "D/F" keys to scroll through the Crop Menu.
7. To enable the Step / Stop / Water feature press "00" when the cursor is on the Speed.
8. Press "A" when the cursor is on the Step/Stop/Water to change the S/S/W settings. Use the "B/F" keys to scroll through the Menu and change info.

Exploded view of the **Step / Stop / Water** Screen:



9. Change the Water Time and the Step Distance the desired settings.
10. Press "E" to Exit, Save and Return to the Crop Menu.

***** Before calling Tech Service, please try to RESET the Controller by pressing the RESET button on the board (shown in the Mother Board diagram on the “Wiring Diagrams” pages). If there is not a button, there will be two pins; jump them together with the tip of a flathead screwdriver and that will RESET the controller as well. This will sometimes solve problems and is an easy step to correcting the problem before calling Tech Service. If the NIC is “locked-up”, this will typically take care of it and get the Controller functional again. Otherwise contact CCSI. *****

TECHNICAL ASSISTANCE: If you have any questions regarding the use of this program or any other Cherry Creek Systems Product please call us at

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