OPERATOR'S MANUAL

MCI AUTO KICKER
GRAIN TESTER\ANALYZER
# EASON CONTROLLER

## TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Written Information of Operation of the Eason Controller</th>
<th>Page 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operation Flow Chart of the Eason Controller</td>
<td>Page 4</td>
</tr>
<tr>
<td>The Eason Face Plate in the Off Position and Welcome</td>
<td>Page 5</td>
</tr>
</tbody>
</table>

**The Following Are Face Plate Examples to Aid in Operation of the Eason Controller**

- Turn On to the Run Screen | Page 6
- Copyright Screen         | Page 7
- The Scale Alarm Screen   | Page 8
- The Loss of Vacuum Screen| Page 9
- The Pre-Start to Ready Screen | Page 10
- Scale Calibration        | Page 11
- I/O Chart and Explanation| Page 12
- Printer Enable and Disable| Choose Mode | Page 13
- Making a Mode Choice     | Page 14
- Machine in Operation and Machine Stop Screen            | Page 15
- Choosing a Lot Number | Page 16
- The Setup Screen | Page 17
- Order of Operations with Password Instructions | Page 18
- Order of Operation Explanation | Page 19
- Timer Settings | Page 20
- Timer Settings of Various Functions | Page 21
- Choose Computer "PC" and Protein Analyzer "PA" Screen | Page 22
- Choosing When to Set the Sample Signal in the Program | Page 22
- Parameter Settings Explanation | Page 23
- Total Dock Function Choices | Page 24
- Hopper Gate I/O Numbers Used in the Program | Page 25
- Field Wiring Instructions for the Eason and Auto Kicker | Page 26
- Parts Drawing and Identification Sheet | Page 27
- Part Numbers with Identification Listing | Page 28
- Screen Sizes, Air Setting and Flowing Setting Chart | Page 29
- Several Pages of Screen Location for Various Grains | |
- Warranty Page for the MCI Auto Kicker Grain Tester | |

Entire contents updated 5/30/97

---

*Items with a line through them are no longer a part of the Eason program, but may be valid for older systems.*
HOW THE EASON CONTROLLER WORKS

THE MCI AUTO KICKER IS CONTROLLED BY A HIGH TECH INDUSTRIAL SINGLE BOARD COMPUTER. THE PURPOSE OF THIS PAPER IS TO TRY TO EXPLAIN IN SOME DETAIL THE OPERATION OF THE EASON CONTROLLER. A CHART IS ALSO PROVIDED TO SHOW SOME OF THE PROCEDURES TO GET THE MACHINE IN OPERATION.

THE FIRST THING YOU DO IS TURN ON THE PANEL SWITCH. THIS POWERS THE MCI AUTO KICKER SYSTEM. THE SCALE SHOULD BE POWER ON AT ALL TIMES.

THE SCREEN OF THE EASON WILL SHOW A NUMBER OF COMMANDS. THE COMMANDS ARE DIRECTLY OVER THE "F" KEYS ON THE KEYBOARD. PRESS THE RUN KEY [F1] TO START THE PROGRAM. ON THE NEXT SCREEN YOU MAY PRESS THE [F3] BUTTON ON THE KEYBOARD TO ALLOW YOU ACCESS TO THE I/O (INPUT AND OUTPUT) CONTROLS, TO OPERATE AN OUTPUT, CURSOR THE ARROW UNDER THE NUMBER OF THE I/O AND PRESS 'O' FOR ON, OR '1' FOR OFF. IF YOU WANT TO OPERATE A CYLINDER, MAKE SURE YOU HAVE STARTED THE VACUUM PUMP. WHEN YOU WANT TO LEAVE THIS SCREEN YOU SIMPLY PRESS [F7]. ALL I/O'S WILL RETURN TO THEIR DEFAULT SETTINGS. THIS OPERATION IS PRIMARILY FOR TESTING IF A PROBLEM OCCURS.

IF YOU ARE GOING STRAIGHT IN TO THE PROGRAM YOU PRESS THE "F1" OR RUN KEY. A SCREEN WILL APPEAR THAT INFORMS YOU THE PROGRAM IS BEING LOADED IN TO THE SYSTEM. THIS TAKES ABOUT 10 SECONDS. NOW YOU CAN PRESS "PRESTART", "SCALE", OR "READ". THE PRESTART IS A FEATURE TO "DRY RUN" THE MACHINE. THIS IS DONE WHEN IT IS SUSPECT THAT GRAIN OR DUST MAY BE IN THE KICKER AFTER A PERIOD OR INACTIVITY. THE "SCALE" BUTTON IS PRESS WHEN YOU WANT TO CHECK THE SCALE OF ACCURACY. THE SCALE CAN BE ZERED AND A KNOWN WEIGHT ADDED TO READ THE SCALE FROM THE SCREEN OF THE EASON. FOR THE MOST PART YOU WILL PRESS "READ" AND PROCEED TO THE CHOOSE GRAIN SCREEN.

NOW YOU MAY CHOOSE THE GRAIN YOU ARE GOING TO RUN BY PRESSING THE KEY UNDER THE GRAIN DESIRED. IF YOU HAVE THE PARAMETERS SET, THEN ALL YOU HAVE TO DO IS PRESS "START". YOU WILL NOTICE THAT ON THIS SCREEN YOU HAVE THE OPPORTUNITY TO SET THE LABEL NUMBER OR LOT NUMBER. PRESS "F6" OR "LABEL", NOW YOU MAY ENTER LOT NUMBER AND/OR ENTER IF YOU WANT THE LOT NUMBER TO INCREASE BY ONE EACH TIME A SAMPLE IS TAKEN. WHILE THE KICKER IS RUNNING YOU MAY PRESS "F8" TO MONITOR THE SCALE READ OUT.

IF THE PARAMETERS AND TIMERS NEED SETTING, PRESS "SETUP" AND CHOOSE THE FEATURE YOU WANT. WE'LL START WITH THE TIMER. THIS WILL SET THE LENGTH OF TIME THE SAMPLER WILL BE ACTIVE AND THE LENGTH OF TIME THE GATE OF EACH FRACTION WILL BE OPEN BEFORE THE SCALE READS THE WEIGHT. ALSO A TIMER SETTING IS REQUESTED TO RUN THE KICKER TO CLEAN THE SCREENS AFTER ALL GRAIN HAS RUN THROUGH. THIS TIME SHOULD BE LONGER ON SMALL AND LIGHT GRAINS. THIS REQUIRES SOMEONE CHECKING THE KICKER AND MAKING SURE ALL GRAIN IS OFF THE SCREENS.

THE PARAMETERS BUTTON CAN BE PRESSED TO ALLOW YOU TO SET THE PERCENTAGE OF EACH FRACTION TO A HI AND LOW VALUE AS WELL AS AN ERROR RANGE TO ALERT SOMEONE IN CASE THE PARAMETERS ARE EXCEEDED. IF THE PARAMETERS EXCEED THE ERROR RANGE THE AUTO KICKER WILL STOP AND AN ALARM CAN BE MADE TO SOUND. WHEN THIS HAPPENS THE AUTO KICKER CAN BE RESTARTED BY SIMPLY PRESSING THE START "F1" BUTTON. ON INBOUND, THE ERROR MAY WANT TO BE SET WIDE TO KEEP THE MACHINE FROM STOPPING. YOU WILL ALSO FIND THE QUESTION OF WHAT YOU WANT TO BE FIGURED INTO TOTAL "DOCKAGE" OR "FM". YOU CHOOSE THE FRACTIONS BY PRESSING THE KEY BELOW EACH FRACTION GATE TO EITHER A Y OR N. THIS GROUP OF FRACTIONS INDICATED BY Y, ALSO HAVE A PARAMETER CALLED TOTAL DOCK.


THE "PRINT" KEY WILL ASK YOU WHEN YOU WANT A PRINTOUT OF FRACTIONS AND WHEN YOU WANT THE EASON TO AVERAGE THE SAMPLES RUN SINCE THE LAST AVERAGE. YOU MAY EXTEND THE PRINTOUT AND AVERAGE TO AS MANY AS 60 SAMPLES.

NOTICE. IF A SCREEN DOESN'T RETURN TO THE PREVIOUS SCREEN, PRESS "F7".
OPERATION FLOW CHART OF THE CONTROLLER AND THE MCI AUTO KICKER
EASON MODEL 1100

FOLLOW THE DARK LINE FOR NORMAL DAY TO DAY OPERATION

TURN "ON" THE MCI AUTO KICKER

[F] (PRESS) either

[F1] [RUN]

MCI AUTO KICKER POWERING UP

[F1] [PRESTART] Feature used to clean out machine

[F2] [SCALE] read to calibrate

[F6] [READY]

CHOOSE MODE

PRESS [F1] THRU [F6].

i.e. MODE 1, MODE 2, MODE 3, MODE 4, MODE 5.

[F1] [START] Starts machine program

[F6] [SETUP] PASS WORD PROTECTED

[F3] [LABEL] Change lot number

[F7] [PARAMETERS]

NOTE: PRESS [F7] TO RETURN TO THE PREVIOUS SCREEN WHENEVER THERE IS NOT AN EXIT OR AUTOMATIC RETURN

[F2] [PRINT]

Print frequency, how many prints before averaging

[F3] [ORDER]

sample expelling sequence

[1] Dump all at once

[2] Dump each clean & SB at a time

[3] Dump all at once

[F1] [TIMER]

[ENTER] each time for gates to open, screens to clean, how long to sample, when to sample, and how long before over riding fill sensor.

Parameters are no longer a part of the Eason program

In the event the parameter error range is exceeded, the system will go to a hold status until [START] is pressed again. Either something is wrong with the kicker or the grain has exceeded expectations.

Printing is no longer a part of the Eason program

Labels are no longer a part of the Eason program
THANK YOU FOR PURCHASING THE MCI AUTO KICKER. THE FOLLOWING IS INFORMATION TO HELP YOU OPERATE THE CONTROLLER SYSTEM.

THIS IS THE EASON CONTROLLER IN OFF POSITION. ROTATE SWITCH TO ON POSITION AND FOLLOW THE ENCLOSED INFORMATION.
MODEL 1100

Eason Technology Basic
Version: 3.34
Power Failed!
READY

NOTE: THE OTHER BUTTONS ARE FOR COMMANDS OTHER THAN NORMAL OPERATION. THEY EXIST SOLELY FOR THE PURPOSE OF SERVICE.

THIS SCREEN WILL APPEAR EACH TIME THERE IS A LOSS OF POWER, EITHER BY TURNING THE MCI AUTO KICKER OFF OR BY LOSS OF ELECTRICAL CURRENT.
MCI AUTO KICKER POWERING UP

MCI Auto Kicker
Laboratory Grain Cleaner
Mid Continent Industries, Newton, Ks.
Program Copyright 1992

THIS SCREEN APPEARS TO LET YOU KNOW THE CONTROLLER PROGRAM IS BEING BOOTED. THIS TAKES ABOUT 10 SECONDS. IF ALL ELECTRONIC FUNCTIONS ARE CORRECT, YOU WILL AUTOMATICALLY SEE THE MCI AUTO KICKER SCREEN.

YOU WILL NOTICE THIS IS A COPYRIGHT PROGRAM. ANY ATTEMPT TO COPY OR ALTER THE PROGRAM WITHOUT WRITTEN PERMISSION IS ILLEGAL.
ALARM!
SCALE NOT FUNCTIONAL
Check scale. Press F6 to acknowledge.

WE HOPE YOU DON'T SEE THIS SCREEN, BUT IF IT DOES....

IF THIS SCREEN APPEARS, IT INDICATES THE SCALE HAS EITHER LOST POWER OR HAS FAILED TO TURN ON THE ELECTRONIC CIRCUIT.

PRESS TO "REBOOT" THE SCALE.

IF THIS FAILS, CHECK POWER TO THE SCALE CABLE CONNECTION ON BACK OF THE EASON CONTROLLER (YOU WILL NEED TO OPEN THE PANEL DOOR) AND ON THE SCALE. CAUTION: DUE TO A POSSIBLE ELECTRICAL SHOCK, THIS SHOULD BE DONE BY A QUALIFIED SERVICE TECHNICIAN.

OR CALL MID CONTINENT INDUSTRIES INC. AT 1-800-279-6812
Vacuum Check is no longer a part of the Eason program

WE HOPE YOU NEVER SEE THIS SCREEN, BUT IF YOU DO

MAKE SURE THE VACUUM PUMP MOTOR IS RUNNING.
CHECK ALL HOSE AND HOSE CONNECTIONS.
CHECK THE VACUUM SWITCH IN THE VALVE PANEL. (THE SWITCH AND CYLINDER BOTH MUST BE OPERABLE.)
PRESS TO "DRY RUN" MACHINE TO CLEAN OUT ANY RESIDUE. THIS IS RECOMMENDED TO BE DONE BEFORE STARTING EACH DAY.

PRESS TO CHECK SCALE. THE VACUUM PUMP WILL START.
PRESS [ZERO] ADD TEST WEIGHT TO SCALE HOPPER

PRESS TO ENTER THE I/O (INPUT/OUTPUT) CHART. THE INSTRUCTIONS FOR OPERATION APPEAR ON THE I/O PAGE OF THIS MANUAL.

PRESS TO ORDER THE PRINTER TO RUN OR NOT

PRESS TO CONTINUE TO THE NEXT SCREEN. THIS IS THE NORMAL PATH OF OPERATION.
MODEL 1100

(THIS IS A TYPICAL WINDOW FOR CHECKING SCALE CALIBRATION)

15.6 GRAMS

PRESS TO ZERO THE SCALE. THE WORD "OK" WILL APPEAR ABOVE THE WORD "ZERO".

NOTE: IT MAY TAKE A FEW MINUTES FOR THE SCALE TO STAY AT ZERO. DON'T BE ALARMED. MAKE SURE THERE IS NOT A BREEZE ON THE SCALE HOPPER.

WHEN THE SCALE STABILIZES, ADD A CALIBRATION WEIGHT IN THE SCALE HOPPER AND CHECK THE READING.

PRESS TO STOP; RETRIEVE THE TEST WEIGHT, AND RETURN TO THE "MCI AUTO KICKER SCREEN."
The document contains a diagram of an I/O test for a MID-CONTINENT INDUSTRIES INC. device. The diagram includes a list of I/O indicators and their corresponding functions:

1. OUT INLET HOPPER
2. OUT ASPIRATION
3. OUT OVERS
4. OUT SHRUNKEN
5. OUT FOREIGN MAT.
6. OUT CLEAN GRAIN
7. OUT THRU'S
8. OUT BOTTOM DIVERTER
9. OUT SCALE ON
10. READY TO SAMPLE
11. OUT CONVEYOR TIMER
12. IN FILL SENSOR
13. OUT VACUUM PUMP
14. OUT KICKER MOTOR & FAN
15. OUT SAMPLER

The user is instructed to use the arrow keys to move the cursor under the I/O indicator and press '0' to turn on or '1' to turn off. The diagram also includes a notice to press certain keys to navigate back to the main screen.
MODEL 1100

PRINTER FUNCTION

The Printer is Currently DISABLED

- Press to enable (allow for a printer to be connected to the Eason controller, if not connected to a computer). If a computer is connected, this command will cause the computer to "lock up".

- Press to disable the printer command. This is imperative if a computer is connected.

- Press to return to the setup screen.

Printing is no longer a part of the Eason program.
CHOOSE MODE

Press on F-key (F1-F5) to select the Mode which you will sample

EXAMPLE:

PRESS TO CHOOSE AN OPERATION "MODE". (THE MODES HAVE BEEN FACTORY SET. THE FOLLOWING PAGES ARE FOR YOUR INFORMATION TO ALLOW YOU TO CHANGE THE CONTENTS OF A "MODE" AFTER YOU HAVE CONSULTED THE FACTORY FOR ADVICE.) THE PROGRAM THEN TAKES YOU TO THE START, SETUP, AND LABEL SCREEN FOR THAT GRAIN.
MODEL 1100

MODE 1 (2,3,4, or 5)

Press F1 to begin sampling
Press F3 to setup items
Press F5 to label Lot Nos.

STARTS THE MCI AUTO KICKER PROGRAM AND MACHINE.
YOU SHOULD SEE ON THE SCREEN "WAITING ON PC" IF A COMPUTER IS CONNECTED.

ALLOWS ENTRY TO PARAMETERS, TIMERS, ORDER OF OPERATION, AND PRINTER FREQUENCY SETTINGS. THIS INFORMATION IS DETAILED IN THE FOLLOWING PAGES. A PASSWORD IS NEED TO ACCESS "SET UP".

ALLOWS THE CHANGE OF LOT NUMBERS AND CHOICE OF INCREMENT SAMPLE NUMBERS.

NOT USED ON THE MCI AUTO KICKER GRAIN ANALYZER WHEN A COMPUTER IS PRESENT.
MID-CONTINENT INDUSTRIES INC.
1801 SE 9th St. NEWTON, KS 67114
PHONE 316-283-9648

MODEL 1100
EASON TECHNOLOGY

MACHINE IN OPERATION

This screen appears when [shift F1] is pressed on the computer keyboard.

- The machine will stop after this cycle.
- NOT an E-STOP

Press F6 to stop the machine after this cycle.

- F1
- F2
- F3
- F4
- F5
- F6
- F7
- F8

Press to stop machine after this sample.

MACHINE IN OPERATION

This screen will appear after [shift F6] has been pressed on the computer keyboard. The machine will stop at the end of the sample run.

- F1
- F2
- F3
- F4
- F5
- F6
- F7
- F8

F6 has been pressed.
The machine will stop after this cycle.

- When the machine stops, the "wait on PC" screen will reappear. You can press F-7 to return to the "mode" screen or press shift F-1 on the computer keyboard to begin again.
MODEL 1100

ENTER LOT NUMBER

Enter the Lot Number which displayed on the grain pro
Lot Number 1

INCREMENT YES

INCH

Lot Number is no longer a part of the Eason program

HAS BEEN
PRESSED
FROM THE
"MODE"
SCREEN

NOT USED WHEN USING PC

TO INCREMENT THE LOT NUMBER, PRESS [F6] TO
TOGGLE FROM 'YES' TO 'NO'.

AFTER MAKING THE SELECTED LOT NUMBER (UP TO 99),
PRESS [ENTER].

PRESS [F7] TO RETURN TO SETUP SCREEN.
(TO SEE THIS SCREEN YOU WILL NEED THE PASSWORD)

**SETUP**

- **F1**: TO SETUP TIMERS
- **F2**: PRINT SETUP
- **F3**: PARAMETER SETUP
- **F5**: ORDER SETUP
- **F6**: TOT. DK

**Has been pressed in "Mode" screen**

- **F1**
- **F2**
- **F3**
- **F4**
- **F5**
- **F6**
- **F7**
- **F8**
- **F9**
- **N**
- **O**
- **4**

**Note:** To discover the feature of each of the highlighted keys, turn to the appropriate page in this manual.

**F1**: Press to set timers on hopper gates and operation times. Pages 20, 21, 22.

**F2**: Press to change printer setup. This command is used only if a PC computer is not connected to the Eason controller.

**F3**: Press to setup or change sample fraction parameters. Page 23.

**F5**: Press to change the order of dumping sequence of sample fractions. Page 19.

**F6**: Press to choose the parts of the sample added together to obtain total dockage. Page 24. This command is used only if a PC computer is not connected to the Eason controller.

**F7**: Press to return to the mode screen.

Crossed out items are no longer a part of the Eason program.
PASSWORD ENTRY

PASSWORD #1 IS REQUIRED TO ACCESS

(INSTRUCTION TO ENTER PASSWORD)

- Press and continue to hold the "SHIFT" key while pressing the letter keys to spell "MCI" then release the "SHIFT"

- Press while pressing "SHIFT"

- Press while pressing "SHIFT"

- Press while pressing "SHIFT"

- Release "SHIFT" key and press the corresponding number key for the password asked for, such as 1, 2, 3, or 4.

- Press and you will be in "SETUP" screen
ORDER SETUP

ENTER A VALUE FOR THE ORDER. (1, 2, OR 3) 1

OR 4

PRESS THE NUMBER DESIRED FOR THE ORDER OF OPERATION AS PER PREVIOUS INSTRUCTIONS.

HAS BEEN Pressed IN "SETUP" SCREEN

SEQUENCE #1. DUMP ALL SAMPLE FRACTIONS TOGETHER AND THEN DISCHARGE THE SAMPLE ONCE.

SEQUENCE #2. DUMP CLEAN GRAIN, THEN ALL OTHER FRACTIONS TOGETHER. (USED WITH MOISTURE TESTER AND PROTEIN ANALYZER). USED MOSTLY FOR FEED GRAINS.

SEQUENCE #3. DUMP THE SHRUNKEN AND BROKEN FRACTION IN WITH THE CLEAN GRAIN AND DISCHARGE THOSE SEPARATE FROM ALL OTHER FRACTIONS. USED FOR TEST WEIGHT FOR WHEAT.

PRESS [ENTER] AFTER ORDER # IS ENTERED. YOU WILL THEN BE RETURNED TO THE SETUP SCREEN.

Order 4 has been added to this screen. It allows for 2 less hoppers to dump and weigh, and is primarily used for Ethanol installations.
MODEL 1100

TIMER SETUP

All times are in seconds.

Enter how long to sample 4

TIMERS ARE FACTORY PRESET!! BEFORE CHANGING ANY TIMES, CALL THE FACTORY!!! IF THE WRONG TIME IS INSTALLED FOR THE WRONG DEVICE, PROBLEMS WILL OCCUR.

PRESS A NUMBER FOR THE TIME YOU LIKE AND PRESS ENTER. IF THE TIME IS SATISFACTORY, PRESS ENTER.

THE LINE REFERRING TO THE TIME TO CLEAN THE SCREENS, IS ASKING HOW MUCH TIME YOU WANT TO ADD AFTER THE BULK OF THE GRAIN HAS PASSED THROUGH THE MACHINE TO ASSURE THE SCREENS HAVE TIME TO SELF CLEAN. PAGE 21

NOW TURN THE PAGE FOR MORE EXPLANATION.
TIMER SETUP
All times are in seconds.

ENTER THE EXTENDED RUN TIME NEEDED TO CLEAN SCREENS 20

THE LINE REFERRING TO THE TIME TO CLEAN THE SCREENS, IS ASKING HOW MUCH TIME YOU WANT TO ADD AFTER THE BULK OF THE GRAIN HAS PASSED THROUGH THE MACHINE TO ASSURE THE SCREENS HAVE TIME TO SELF CLEAN.

TIMER SETUP
All times are in seconds.

ENTER HOW LONG TO DUMP THE FILL HOPPER 4

TIMER SETUP
THE DOCKAGE AND SB GATES TIMES ARE APPROXIMATELY THE SAME AS THE ABOVE

THE WORD FM MAY APPEAR INSTEAD OF DOCK, DEPENDING ON THE MODE

TIMER SETUP
All times are in seconds.

ENTER HOW LONG BETWEEN SAMPLES SECONDS BEFORE PROGRAM IS REACTIVATED 10

REMEMBER TO PRESS ENTER AFTER EACH ENTRY AND TO MOVE TO THE NEXT COMMAND.

IF A MISTAKE IS ENTERED, PRESS THE [DEL] KEY TO REMOVE THE WRONG NUMBER, THEN PRESS THE WANTED VALUE.

GO TO THE NEXT PAGE TO LEARN ABOUT THE COMMAND OF WHEN TO SAMPLE
TIMER SETUP
Enter when to sample (1, 2, or 3)
   After dumping fill hopper (1)
   After sample is complete (2)
   Manual start (3)

PRESS THE SELECTION NUMBER AND PRESS [ENTER]

WHEN YOU CHOOSE (1), THE SIGNAL WILL BE TRANSMITTED TO A
SAMPLER AND THE SAMPLE WILL BE WAITING IN THE HOPPER TO
START IMMEDIATELY AFTER THE PREVIOUS SAMPLE IS RAN.
THIS COULD SAVE TIME IF THE SAMPLE IS COMING FROM A LONG
WAY.

WHEN YOU CHOOSE (2) THE SAMPLE SIGNAL WILL NOT ACTIVATE
UNTIL THE PRESENT SAMPLE HAS COMPLETED.

WHEN YOU CHOOSE (3) THE OPERATOR WILL NEED TO PRESS [F1]
(or [SHIFT + F1] IF A COMPUTER IS USED) TO START THE
MCI AUTO KICKER GRAIN ANALYZER FOR EACH SAMPLE RAN.
THIS COMMAND IS NORMALLY USED FOR "IN BOUND" ANALYSIS.
TIMER SETUP
Enter whether Remote PC is used (1 or 2)
No PC is used (1)
Yes a PC is used (2)

INSTRUCTIONS BELOW

TIMER SETUP
Enter whether Protein Analyzer is used (1 or 2)
No PA is used (1)
Yes a PA is used (2)

This has been modified to: 2. PA with bottom diverter, 3. PA without bottom diverter

1 PRESS IF THE ANSWER IS NO

2 PRESS IF THE ANSWER IS YES

PRINT FOR ENTER
PRESS AFTER INSTALLING ANSWER OR IF ANSWER IS CORRECT
WHEN YOU PRESS ENTER FOR THE PA ANSWER YOU WILL BE RETURNED TO THE "SETUP" SCREEN
MODEL 1100

PARAMETER SETUP

Enter the high & low values for each hopper weight. All values are percents.

- Dock 1 hopper Hi 4.5
- Dock 1 hopper Lo 1.5
- Dock 1 Range .5

Parameters are no longer a part of the Eason program.

HAS BEEN
PRESSED
IN
"SETUP"
SCREEN

F9 N 4 P 5 Q 6 R DEL
S T U 1 V 2 W 3 X INS
SHIFT Y Z 0 SP +/-- ENTER

IF USING A COMPUTER, MAKE ALL "HI" S "001"
ALL "LO" S 0, AND ALL "RANGE" S 0

YOU MUST PRESS [ENTER] AFTER EACH VALUE CHANGE OR TO GO TO THE NEXT COMMAND.

DOCK 2, SB, DOCK 3, CLEAN, AND TOTAL DOCK ALL WORK THE SAME WAY.

IF A MISTAKE IS MADE DURING ENTRY, PRESS THE [DEL] KEY AND REENTER THE VALUE.

HOPPER "HI" INDICATES THE MAXIMUM TOLERABLE PERCENTAGE OF PRODUCT WANTED. HOPPER "LO" INDICATES THE MINIMUM TOLERABLE PERCENTAGE OF PRODUCT WANTED. "RANGE" INDICATES THE ABSOLUTE ALLOWABLE PERCENTAGE, ABOVE AND BELOW THE MAXIMUM AND MINIMUM PERCENTAGE. THE PROGRAM IS DESIGNED TO STOP THE AUTO KICKER AT THE END OF THE SAMPLE IF THE PARAMETER IS OUT OF "RANGE". AT THIS TIME A DOUBLE STAR WILL BE PRINTED IN THE FRACTION COLUMN TO DENOTE THE PROBLEM. AN ALARM CAN SOUND, ALERTING THE OPERATOR OF POSSIBLE TROUBLE WITH EQUIPMENT.

WHEN A COMPUTER IS USED, THE DEFAULT SETTINGS ARE "HI"=100%, "LO"=0%, AND "RANGE"=0%.
Total Dockage is no longer a part of the Eason program

This feature is not used when in the PC mode

This screen is designed to allow the operator to choose the various separations to be added together to obtain a percentage for total dockage or FM.

By pressing a respective [F#] key, you may toggle either "Y" for Yes, or "N" for No, to be added into the 'Total Dockage' column.

Upon completion of this task, you must press [F7] to return to the "Setup" screen.
THE ABOVE CHART IS HELPFUL TO UNDERSTAND THE GATE LABELING IN THE PROGRAM AND THE I/O LOCATION CHART. THE IDENTIFICATION LABELS ARE FOR EACH SEPARATING SCREEN LOCATION. ACTUALLY THE CLEAN GRAIN IS BEING HELD IN THE SCALE HOPPER. SOME MACHINES HAVE DIVERTERS AT BOTH TOP AND BOTTOM, DEPENDING ON THAT PARTICULAR INSTALLATION.
FIELD WIRING

CONTROL BOX

<table>
<thead>
<tr>
<th>OPTO BOARD</th>
<th>(place wire color here)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 INLET HOPPER</td>
<td>←</td>
</tr>
<tr>
<td>1 ASPIRATION</td>
<td>←</td>
</tr>
<tr>
<td>2 OVERS</td>
<td>←</td>
</tr>
<tr>
<td>3 SHRUNKEN</td>
<td>←</td>
</tr>
<tr>
<td>4 FOREIGN MAT.</td>
<td>←</td>
</tr>
<tr>
<td>5 CLEAN</td>
<td>←</td>
</tr>
<tr>
<td>6 THRU'S</td>
<td>←</td>
</tr>
<tr>
<td>7 P.A. Diverter</td>
<td>←</td>
</tr>
<tr>
<td>8 B. DIVERTER</td>
<td>←</td>
</tr>
<tr>
<td>9 SCALE ON</td>
<td>←</td>
</tr>
<tr>
<td>10 READY TO SAMPLE</td>
<td>←</td>
</tr>
<tr>
<td>11 CONVEYOR TIMER</td>
<td>←</td>
</tr>
<tr>
<td>12 FILL SENSOR</td>
<td>←</td>
</tr>
<tr>
<td>13 VACUUM PUMP</td>
<td>←</td>
</tr>
<tr>
<td>14 KICKER MOTOR</td>
<td>←</td>
</tr>
<tr>
<td>15 SAMPLER</td>
<td>←</td>
</tr>
<tr>
<td>16 12VDC +</td>
<td>←</td>
</tr>
<tr>
<td>17 12VDC -</td>
<td>←</td>
</tr>
<tr>
<td>18 110VAC NUE.</td>
<td>←</td>
</tr>
<tr>
<td>19 110VAC LINE (fused 1 amp)</td>
<td>←</td>
</tr>
</tbody>
</table>

VALVE BOX

<table>
<thead>
<tr>
<th>BARRIER TERM. STRIP</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 INLET HOPPER</td>
</tr>
<tr>
<td>1 ASPIRATION</td>
</tr>
<tr>
<td>2 OVERS</td>
</tr>
<tr>
<td>3 SHRUNKEN</td>
</tr>
<tr>
<td>4 FOREIGN MAT.</td>
</tr>
<tr>
<td>5 CLEAN</td>
</tr>
<tr>
<td>6 THRU'S</td>
</tr>
<tr>
<td>7 P.A. Diverter</td>
</tr>
<tr>
<td>8 B. DIVERTER</td>
</tr>
<tr>
<td>9 not used with Explorer Series</td>
</tr>
<tr>
<td>10 READY TO SAMPLE</td>
</tr>
<tr>
<td>11 CONVEYOR TIMER</td>
</tr>
<tr>
<td>12 FILL SENSOR</td>
</tr>
<tr>
<td>13 TO MOTOR</td>
</tr>
<tr>
<td>14 STARTERS</td>
</tr>
<tr>
<td>15 SAMPLER</td>
</tr>
<tr>
<td>16 12VDC +</td>
</tr>
<tr>
<td>17 12VDC -</td>
</tr>
<tr>
<td>110VAC NEU.</td>
</tr>
<tr>
<td>110VAC LINE (fused 15 AMP)</td>
</tr>
<tr>
<td>SPLITTER RELAY</td>
</tr>
<tr>
<td>CONVEYOR RELAY</td>
</tr>
<tr>
<td>SCHEMATIC</td>
</tr>
<tr>
<td>DUMP BOX from 15 SAMPLER</td>
</tr>
</tbody>
</table>


WIRE INLET HOPPER SENSOR:
BLACK TO # 12
BROWN TO 12 VDC+
BLUE TO 12 VDC-

JUMPER STRAP ON OPTO BOARD IS PLACED ON THE EVEN #S OF TERMINALS EXCEPT FOR SENSOR INPUTS

MOTORS:
FAN 110 VOLT 6 AMP 1/3 HP-(EXPLOSION PROOF ONLY)

KICKER 110 VOLT 9.7 AMP 1/2 HP TOGETHER ONE CONNECTOR, TWO OVERLOADS

PUMP 110 VOLT 7 AMP 1/3 HP

PAGE 26
## MCi AUTO KICKER PARTS LIST

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
<th>PART NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Aspirator Fan 4 Inch</td>
<td>41-5142</td>
</tr>
<tr>
<td>2</td>
<td>Drive Motor ½ HP/120 Volt</td>
<td>41-5135</td>
</tr>
<tr>
<td>3</td>
<td>Drive Belt/Motor</td>
<td>41-5275</td>
</tr>
<tr>
<td>4</td>
<td>Drive Belt/Scalp</td>
<td>41-5270</td>
</tr>
<tr>
<td>5a</td>
<td>Shaker Mount Bearing (2 required)</td>
<td>41-5240</td>
</tr>
<tr>
<td>5b</td>
<td>Pitman Bearing (2 required)</td>
<td>41-5245</td>
</tr>
<tr>
<td>5c</td>
<td>Pitman Crank Assm</td>
<td>41-4805</td>
</tr>
<tr>
<td>5d</td>
<td>Pitman Drive Bar UHMW (3/4” thick)</td>
<td>41-4809AK</td>
</tr>
<tr>
<td>5e</td>
<td>Pitman Drive Shaft</td>
<td>41-4804</td>
</tr>
<tr>
<td>6</td>
<td>Scalp Drive Bearing (2 required)</td>
<td>41-5240</td>
</tr>
<tr>
<td>6a</td>
<td>Scalp Drive Shaft</td>
<td>41-4815</td>
</tr>
<tr>
<td>7</td>
<td>Cam Roller</td>
<td>41-5235</td>
</tr>
<tr>
<td>8</td>
<td>Idler/Drive Belt</td>
<td>41-5340</td>
</tr>
<tr>
<td>9</td>
<td>Shaker Pivot Arm (UHMW)</td>
<td>41-4820</td>
</tr>
<tr>
<td>10</td>
<td>Scalp Pivot Arm (UHMW)</td>
<td>41-4819</td>
</tr>
<tr>
<td>11</td>
<td>Feeder Adjusting Knob</td>
<td>41-5145</td>
</tr>
<tr>
<td>12</td>
<td>Air Damper Assy. 4-Screen</td>
<td>41-4032A</td>
</tr>
<tr>
<td>13</td>
<td>Pulley/Scalp Shaft Driven</td>
<td>41-5255</td>
</tr>
<tr>
<td>14</td>
<td>Pulley/Scalp Lower Drive</td>
<td>41-5250</td>
</tr>
<tr>
<td>15</td>
<td>Pulley/Shaker Lower Shaft Driven</td>
<td>41-5260</td>
</tr>
<tr>
<td>16</td>
<td>Pulley/Drive Motor</td>
<td>41-5265</td>
</tr>
<tr>
<td>18</td>
<td>Door &amp; Screen Clamp</td>
<td>50-7295</td>
</tr>
<tr>
<td>19</td>
<td>Scalp Cam and Shaft Assembly</td>
<td>41-5335</td>
</tr>
<tr>
<td>203</td>
<td>Vacuum Pump/ New Style</td>
<td>50-7105</td>
</tr>
<tr>
<td>204</td>
<td>Motor Vacuum Pump 1/2HP, 120 Volt (old style)</td>
<td>50-7155</td>
</tr>
<tr>
<td>205</td>
<td>Digital Weighing Scale</td>
<td>50-7300</td>
</tr>
<tr>
<td>206</td>
<td>Vacuum Cyl. 1 1/16&quot; Dia. (7 used, includes fittings)</td>
<td>50-7230</td>
</tr>
<tr>
<td>207</td>
<td>1 1/16 Cylinder Clevis &amp; Pin</td>
<td>50-7245</td>
</tr>
<tr>
<td>208</td>
<td>Clevis Pin Keeper</td>
<td>50-7246</td>
</tr>
<tr>
<td>209</td>
<td>Vacuum Fitting - Elbow</td>
<td>50-7185</td>
</tr>
<tr>
<td>209A</td>
<td>Vacuum Fitting - Straight</td>
<td>50-7190</td>
</tr>
<tr>
<td>215</td>
<td>Power Supply for Aspirator Fan</td>
<td>50-7126</td>
</tr>
<tr>
<td>220</td>
<td>Vacuum Pump Drive Coupler (old style)</td>
<td>50-7133</td>
</tr>
<tr>
<td>300</td>
<td>Balls/Cleaning (72 required)</td>
<td>41-5195</td>
</tr>
<tr>
<td>SCROLL LOCATION</td>
<td>SCALP</td>
<td>SECOND</td>
</tr>
<tr>
<td>-----------------</td>
<td>--------</td>
<td>--------</td>
</tr>
<tr>
<td>Wheat</td>
<td>JGS</td>
<td>Blank NH</td>
</tr>
<tr>
<td>*7</td>
<td>12 RD</td>
<td>5 RD NH</td>
</tr>
<tr>
<td>Barley (Feed)</td>
<td>9 x 3/4</td>
<td>6 RD NH</td>
</tr>
<tr>
<td>*1</td>
<td>9 TR</td>
<td>5 x 3/4</td>
</tr>
<tr>
<td>Corn</td>
<td>32 RD</td>
<td>Blank NH</td>
</tr>
<tr>
<td>*2</td>
<td>36 RD</td>
<td>14 RD</td>
</tr>
<tr>
<td>*6</td>
<td>26 RD</td>
<td>Blank NH</td>
</tr>
<tr>
<td>Soybeans</td>
<td>24 RD</td>
<td>8 RD NH</td>
</tr>
<tr>
<td>*6</td>
<td>26 RD</td>
<td>Blank NH</td>
</tr>
<tr>
<td>Corn/Soy Combo</td>
<td>32 RD</td>
<td>8 RD NH</td>
</tr>
<tr>
<td>* for Splits separation</td>
<td></td>
<td>10 or 9 x 3/4</td>
</tr>
<tr>
<td>Sorghum</td>
<td>12 RD</td>
<td>Blank NH</td>
</tr>
<tr>
<td>*5</td>
<td>9 x 3/4</td>
<td>5 RD NH</td>
</tr>
<tr>
<td>Oats</td>
<td>9 x 3/4</td>
<td>5 RD NH</td>
</tr>
<tr>
<td>*4</td>
<td>10 x 3/4</td>
<td>8 TR</td>
</tr>
<tr>
<td>Millet</td>
<td>12 RD</td>
<td>Blank NH</td>
</tr>
<tr>
<td>*3</td>
<td>6 x 3/4</td>
<td>10 TR</td>
</tr>
<tr>
<td>Flower “O”</td>
<td>18 RD</td>
<td>Blank NH</td>
</tr>
<tr>
<td>*8</td>
<td>24 RD</td>
<td>12 RD NH</td>
</tr>
<tr>
<td>Flower “C”</td>
<td>28 RD</td>
<td>14 RD NH</td>
</tr>
<tr>
<td>Canola</td>
<td>#000 Riddle</td>
<td>Blank NH</td>
</tr>
<tr>
<td>Flax</td>
<td>#000 Riddle</td>
<td>Blank NH</td>
</tr>
<tr>
<td>*5</td>
<td>JGS</td>
<td>5 RD NH</td>
</tr>
<tr>
<td>Safflower</td>
<td>15 RD</td>
<td>Blank NH</td>
</tr>
</tbody>
</table>

**MCi Auto Kicker for Fuel Grains**

- **Corn**
  - 32 RD
  - 12 RD
  - Blank
  - Any
  - 3 1/2
  - 1

- **Soybeans**
  - 24 RD
  - 8 RD NH
  - 10 x 3/4
  - Blank
  - 3 1/2
  - 1

- **Sorghum**
  - 12 RD
  - 5 RD NH
  - 4 x 1/2
  - Blank
  - 2
  - 5

- **Corn/Sorg Combo**
  - 12 RD
  - 5 RD NH
  - Blank
  - Any
  - 3
  - 4

---

*Optional screen sizes are on the second row below the grain name. Optional 3rd & 4th screens can be placed in SECOND slot, if handle is removed, to obtain desired results. NH stands for NO HANDLE.

*The AIR setting is only a guide. Depending on the test weight of the grain, it may need to be opened more or less.

*To increase the air takeout, CLOSE the damper more.

**NOTICE:** Recommendation for screens used in the MCi KICKER are based upon extensive lab work and verification of users. The suggested screens allow the fastest and most accurate method to achieve the fairest results. According to FGIS, almost any method may be used by “commercial” grain handlers to achieve Results Comparable to Official Standards. MCi AUTOKICKER screen selections may not be the same as the MCi KICKER, due to its inability of hand picking.

You should check the results of your machine with your local official testing station, then adjust the feed, screen sizes, and the air setting to obtain results comparable. Multiple machines in the same company should be checked with one another for consistent results across the local area. Mid-Continet Industries, Inc. will not be held liable for the results obtained from any grain grading process. Operators, installation locations, firmness of the floor it is placed on, etc., will affect results.

*Dockage is the total fractions of air, scalplings, and through 6 RD. FM is anything else left in the sample after process.

*BC is everything through the 12 RD & over an 8 or 6 RD

*FM is thru the 8 or 6 RD and everything other than Corn.

*Doggie is everything other than Millet.

*FM is through 5 RD and everything other than Oats.

*Only for competitor comparison, and should not be necessary.

*Splits can be checked with an 8, 9, or 10 x 3/4 slotted.

*10 x 3/4 is used the most. FM is everything through the 8 RD and everything other than Soybeans. NOTE: To match the 3-Screen Kicker, use a Blank where indicated.

*Dockage is the total fractions of air, scalplings, and through the 5 RD. SB is through the 4 x 1/2. FM is anything else left in the sample after process.

*5 RD will take out less.

*Confectionary Sunflowers can be sized as well as other grains.

Word\manual\newkicker\new-rd4screenset.doc Revised 3/29/11 ddw
FOUR SCREEN MCI KICKER/AUTOKICKER

GRAIN: WHEAT

**NOTE!: When screens are in the Optional array, then the bottom pan is Small and Broken Grain and the third pan is Dockage if it's contents is over 50% weed seed !!!!!!!!

MID CONTINENT INDUSTRIES INC.
NEWTON KS. 67114  PH. 316-283-9648
FOUR SCREEN MCI KICKER/AUTOKICKER

GRAIN: Barley

<table>
<thead>
<tr>
<th>Fraction</th>
<th>Suggested Screen Size</th>
<th>Optional Screen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dockage</td>
<td>9 X 3/4</td>
<td></td>
</tr>
<tr>
<td>Clean Grain</td>
<td>4.5 X 1/2</td>
<td>5 X 3/4</td>
</tr>
<tr>
<td>Small and Broken grain</td>
<td>10 TRI</td>
<td>9 TRI NH</td>
</tr>
<tr>
<td>Dockage</td>
<td>6 RD NH</td>
<td>6 RD</td>
</tr>
</tbody>
</table>

**OPTIONAL SCREENS CAN BE USED TO ACHIEVE DESIRED RESULTS**

The optional screens suggested are used by some operators. The options are shown in the locations suggested. Depending on the crop, AIR SETTING and/or FEED setting may need adjusting to achieve desired results.
- FM is all material Scalped, Aspirated, through 8 RD, and not Corn that remains in the processed sample.
- BC is what falls through the 12 RD and stays on top of the 8 RD.
- BCFM is BC and FM combined, including hand picked FM.
- Test Weight is determined on uncleaned sample.

optional screens can be used to achieve desired results

the optional screens suggested are used by some operators.
the options are shown in the locations suggested.
depending on the crop, air setting and/or feed setting
may need adjusting to achieve desired results.
CORN: = BC
SOYBEANS: = Material may include small beans, so DO NOT combine the entire pan amount with TOTAL FM. Hand pick the FM from this pan, adding that FM to the top pan and scale for TOTAL FM. This process is to reduce the amount of hand picking necessary for Soybeans.

NOTE: NOT RECOMMENDED FOR USE IN THE MCI AUTOKICKER!!

MID CONTINENT INDUSTRIES INC.
NEWTON KS. 67114 PH. 316-283-9648
FOUR SCREEN MCI KICKER/AUTOKICKER

GRAIN SORGHUM

Fraction I.D. | Suggested Screen Size | Optional Screen
--- | --- | ---
FEED | 12 RD | 9 X 3/4
Clean Grain | Blank NH | 5 RD NH
Small and Broken Grain – BK | 4 X 1/2 | 10 TRI
Through bottom screen | 5 RD | 2.5 RD

OPTIONAL SCREENS CAN BE USED TO ACHIEVE DESIRED RESULTS.
The optional screens suggested are used by some operators.
The options are shown in the locations suggested.
Depending on the crop, AIR SETTING and/or FEED setting may need adjusting to achieve desired results.

MID CONTINENT INDUSTRIES INC.
NEWTON KS. 67114  PH. 316-283-9648
## FOUR SCREEN MCI KICKER/AUTOKICKER

### GRAIN: OATS

<table>
<thead>
<tr>
<th>Fraction I.D.</th>
<th>Suggested Screen Size</th>
<th>Optional Screen</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 1/2 FEED</td>
<td>9 X 3/4</td>
<td>10 X 3/4</td>
</tr>
<tr>
<td>SCALP</td>
<td>5 RD NH</td>
<td>8 TRI NH</td>
</tr>
<tr>
<td>SCREEN</td>
<td>4 X 1/2</td>
<td>4 X 1/2</td>
</tr>
<tr>
<td>SECOND</td>
<td>10 TRI</td>
<td>5 RD</td>
</tr>
<tr>
<td>SCREEN</td>
<td></td>
<td></td>
</tr>
<tr>
<td>THIRD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SCREEN</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FOURTH</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SCREEN</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**OPTIONAL SCREENS CAN BE USED TO ACHIEVE DESIRED RESULTS**

The optional screens suggested are used by some operators. The options are shown in the locations suggested. Depending on the crop, AIR SETTING and/or FEED setting may need adjusting to achieve desired results.

MID CONTINENT INDUSTRIES INC.
NEWTON KS. 67114  PH. 316-283-9648
FOUR SCREEN MCI KICKER/AUTOKICKER

GRAIN: MILLET

Fraction I.D. | SUGGESTED SCREEN SIZE | OPTIONAL SCREEN
---|---|---
Dockage | 12 RD | 6 X 3/4
Dockage | Blank NH | 10 TRI NH
Dockage | 9 RD | 4 X 1/2
Clean Grain | .067 RD | 

OPTIONAL SCREENS CAN BE USED TO ACHIEVE DESIRED RESULTS
The optional screens suggested are used by some operators. The options are shown in the locations suggested. Depending on the crop, AIR SETTING and/or FEED setting may need adjusting to achieve desired results.
Four Screen MCI Kicker/Autokicker

Grain Oil Sunflower

Fraction I.D. | Suggested Screen Size | Optional Screen
---|---|---
2 1/2 Feed | 18 RD | Blank NH
          | 12 RD | 5 X 3/4
          | 8 RD  | 10 TRI

Optional screens can be used to achieve desired results. The optional screens suggested are used by some operators. The options are shown in the locations suggested. Depending on the crop, Air Setting and/or Feed setting may need adjusting to achieve desired results.

Mid Continent Industries Inc.
Newton KS. 67114  Ph. 316-283-9648
## Four Screen MCI Kicker

Grain: Sorghum & Corn Combo

**Note:** Autokicker configuration is similar to the optional screen locations. Refer to the Autokicker chart for better diagram.

### Air Setting

- **4**

### Fraction I.D.

<table>
<thead>
<tr>
<th>Sorghum - Clean Grain</th>
<th>32 RD</th>
<th>12 RD - Corn Clean - Sorghum FM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corn - Broken Corn - BC</td>
<td>5 RD NH</td>
<td>5 RD NH - FM - Both Grains</td>
</tr>
<tr>
<td></td>
<td>12 RD</td>
<td>* 4 X 1/2 - Corn FM - Sorghum Clean</td>
</tr>
<tr>
<td></td>
<td>4 X 1/2</td>
<td>* Blank - Corn FM - Sorghum BK</td>
</tr>
</tbody>
</table>

Optional screens can be used to achieve desired results. The optional screens suggested are used by some operators. The options are shown in the locations suggested. Depending on the crop, AIR SETTING and FEED setting may need adjusting to achieve desired results.
MCi AUTO KICKER

*** LIMITED WARRANTY ***

Mid-Continent Industries, Inc., hereafter known as MCi, does warrant to the original purchaser, the MCi Auto Kicker, against defective materials and workmanship, from the date of delivery, the following components and chassis.

Two Year Coverage
Frame: All Parts and Labor
All Electrical Wiring and Switches: Labor Only
NOTE: Motor(s), Fan, Computers, Electronic Equipment, are specifically covered under their manufactures’ warranty, which are available upon request.

MCi will, at its option, repair or replace the defective part(s). All warranty claims MUST be made directly to MCi, and any warranty parts must be returned to MCi for credit.

MCi will NOT be held liable for any field modifications not expressly furnished and authorized by the engineering department of MCi. Any unauthorized modifications immediately render this warranty null and void.

MCi will not be held liable for any consequential damages, nor for commercial consequential damages resulting from any breach of this warranty or any other warranty. All of which are expressly disclaimed by this warranty for any delays in performance due to causes that are beyond direct control of the manufacturer.

MCi neither assumes nor authorizes any person to create nor assume for MCi, any obligation(s) or liability(ies) in connection with MCi products, nor to undertake any responsibilities beyond those set forth in this instrument.

This warranty disclaims any liability whatsoever due to: loss of time, use of the product, anticipated profits, increased expenses or loss of operations by reason of plant shutdowns, inconveniences or any other matter(s) not specified in this warranty.

These warranties are in lieu of any other warranties, expressed or implied, including the extent that any such limitation will be limited by any state or federal law, then such portions of the limitation will be deemed null and void.

Any dispute arising out of and concerning this warranty, will be governed by the laws of the State of Kansas and venue will reside in the State of Kansas.
WE HAVE ATTEMPTED TO EXPLAIN THE OPERATION SYSTEM OF THE MCI AUTO KICKER GRAIN ANALYZER IN THIS MANUAL. YOU WILL LEARN AND UNDERSTAND THE SYSTEM IN A SHORT TIME BY USING THIS MANUAL AND BY OPERATING THE SYSTEM.

IF YOU ENCOUNTER ANY PROBLEMS, OR HAVE ANY QUESTIONS ABOUT OPERATION OR PROCEDURES WITH THE MCI AUTO KICKER, PLEASE CALL 1-800-279-6812 BETWEEN THE HOURS OF 7am TO 5pm CST. MONDAY THRU FRIDAY.
WE HAVE ATTEMPTED TO EXPLAIN THE OPERATION SYSTEM OF THE MCI AUTO KICKER GRAIN ANALYZER IN THIS MANUAL. YOU WILL LEARN AND UNDERSTAND THE SYSTEM IS A SHORT TIME BY USING THIS MANUAL AND BY OPERATING THE SYSTEM.

IF YOU ENCOUNTER ANY PROBLEMS, OR HAVE ANY QUESTIONS ABOUT OPERATION OR PROCEDURES WITH THE MCI AUTO KICKER, PLEASE CALL 1-800-279-6812 BETWEEN THE HOURS OF 7am TO 5pm CST. MONDAY THRU FRIDAY.
ASSISTANCE MANUAL FOR THE MCI AUTO KICKER GRAIN ANALYZER COMPUTER
MCi AUTO KICKER

Table of Contents for Computer Screens

TABLE OF CONTENTS FOR COMPUTER SCREENS

EXPLANATION OF ICONS & TIPS FOR ‘WINDOWS’

EXPLANATION OF MAIN DATA SCREEN

USING GRAPHS

USING UTILITIES

USING UTILITIES PRINTING

USING THE PRINT REPORT UTILITIES QUERY BY TIME

COMM SETUP & PASSWORD UTILITIES

DELETING OLD UTILITIES RECORDS

QUERY SUBLOT AVERAGE IN UTILITIES

QUERY LOAD ORDER AVERAGE IN UTILITIES

DELETING A SUBLOT IN UTILITIES

RESTORING A SUBLOT IN UTILITIES

GRAIN SETUP UTILITIES

GRAIN SETUP IN UTILITIES “HI / LO” PARAMETER EXPLANATIONS

GRAIN SETUP IN UTILITIES “SKEW” EXPLANATION

GRAIN SETUP IN UTILITIES “SCROLL DOWN”

USING CLEAN UP BOL & LOT TABLES IN UTILITIES

Items with line through them are no longer part of the MCi PC Program, but may be valid for older systems
HELPFUL HINTS TO OPERATE WINDOWS PROGRAM FOR THE MCI AUTO KICKER

THIS IS THE MOUSE POINTER. CLICKING ON THE SYMBOLS, ACTIVATES THE COMMAND. THE LEFT BUTTON IS ONE CLICK, THE RIGHT BUTTON IS DOUBLE CLICK.

CLICKING ON THIS SYMBOL WILL NORMALLY CLOSE A CHART OR PROGRAM. YOU NEED NOT USE THIS TO OPERATE THE MCI PROGRAM.

CLICKING ON THE UP ARROW HEAD WILL INCREASE THE SIZE OF THE DISPLAY ON THE SCREEN. THE "DOWN" ARROW HEAD WILL DECREASE THE SIZE OF THE DISPLAY. IT IS NOT A GOOD IDEA TO USE THESE ICONS.

CLICKING ON THE UP ARROW WILL ALLOW A SCROLL 'UP', CLICKING ON THE DOWN ARROW WILL ALLOW A SCROLL 'DOWN', ONE LINE AT A TIME. FOR RAPID SCROLL, PLACE ARROW CURSOR ON THE BLANK SQUARE, HOLDING DOWN THE MOUSE BUTTON, AND DRAG THE SQUARE DOWN (OR UP) UNTIL THE DESIRED INFORMATION IS SHOWN ON THE SCREEN. (PAGE DOWN OR PAGE UP ON THE KEYBOARD WILL DO THE SAME THING.)

YOU MAY MOVE A DISPLAY WINDOW BY PLACING THE CURSOR ON THE BLUE BAR, HOLDING DOWN THE MOUSE BUTTON, AND PLACING THE DISPLAY IN THE DESIRED POSITION.

IN MANY CASES, YOU MAY PRESS [ENTER] ON THE KEYBOARD TO ACTIVATE A COMMAND AS WELL AS CLICKING ON 'OK' WITH YOUR MOUSE.

PAGE 2
EXPLANATION OF THE MAIN DATA SCREEN

**MCI Main Data Screen**

**Grain Name.**
- Select desired grain name.

**Load Order No.**
- OK

**Sublot No.**
- Type in or select number or name.

**Sample Number**
- Will appear automatically.

**MCI Auto Kicker**
- Information on the status of the auto kicker will appear in this block along with colors to indicate the part of the operation.
- You must click on "OK" before machine operates.
- If you type letters in lot or bol, you must also place a number in the name, i.e., china or burma2. Other wise identifiers will be deleted when "clean up bol and lot tables" command is used. (See page 18).

<table>
<thead>
<tr>
<th>Sublot # / Date/Time</th>
<th>Test Weight</th>
<th>Percent Moisture</th>
<th>Temp</th>
<th>Protein</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Date time and sublot will be shown when the sample is completed.

- Sample information will appear in the above blocks as percentage numbers. The small block will indicate if a fraction of the sample is out of tolerance **" or out of range **".

- These icons are used to enhance the auto kicker program. (The explanation of the icons are found in the following pages).

- The running average of all sample fraction in a sublot will appear in the spaces below.

**Graphs**
- Shows info in graph form.

**Utilities**
- Menu for records.

**Print**
- Prints info on screen.

**Load Order Average**

**Exit MCI**
- Click on to close program.

* - Out of Tolerance
** - Out of Range

PAGE 3
Graphs are no longer part of the MCI Program.

NOTE:
Move mouse pointer to the desired graph chart for viewing. The chart will appear. You may choose any four charts to be displayed at a time.
Move the chart to desired positions on the screen by placing the mouse pointer on the blue bar and holding the mouse button while moving to the desired location.
To close the graph, click on the minus box and then choose "Close".

YOU HAVE CLICKED ON "GRAPHS".
YOU HAVE CLICKED ON THE 'UTILITIES' ICON. USING THE UTILITIES ICON

YOU MAY CLICK ON ANY OF THE ICON WINDOWS YOU WANT. THE OPERATION OF THESE ARE EXPLAINED IN THE FOLLOWING PAGES.

TO SEE COMM SETUP OR GRAIN SETUP

YOU MUST CLICK ON

Log In

YOU MUST KNOW THE PASSWORD. TYPE IT IN AND CLICK ON OK

Graphs  Utilities  Print  Load Order  Avg.  Exit MCI
MCI Auto Kicker
Samples To Print Setup

Enter the Number of Samples You Want to Collect Before They are Printed

YOU MUST HAVE "YES" ON AT "STANDARD REPORTS" IN COMM SETUP TO BE ABLE TO
PRINT. IF YOU DO NOT WANT TO PRINT ON A REGULAR BASIS, YOU EITHER SET THIS
NUMBER VERY LARGE OR CLICK "NO" AT "STANDARD REPORTS" IN COMM SETUP.

TYPE IN NUMBER OF SAMPLES TO BE RUN BEFORE THE SYSTEM AUTOMATICALLY
PRINTS THE RESULTS. (THIS NUMBER IS BETWEEN 1 AND 9999.
NOW CLICK ON "OK".

OK

Cancel
YOU HAVE CLICKED ON PRINT REPORT QUERY BY TIME (UTILITIES)

Grain Name:  
Load Order No.:  
Sublot No.:  
Sample Number:  

Date/Time:  

Beginning Date & Time:  

Thru’s:  
FM:  
Clean Grain:  
Total Back:  

Average:  

* - Out of Tolerance ** - Out

Graphs  Utilities  Print  Load Order  Exit MCI

PAGE 7
**Auto Kicker Comm Setup**

*DO NOT CHANGE ANY COMM PORT SETTINGS UNLESS YOU KNOW EXACTLY WHAT YOU ARE DOING*

<table>
<thead>
<tr>
<th>Comm Port to Host</th>
<th>Baud Rate</th>
<th>Parity</th>
<th>Data Bits</th>
<th>Stop Bits</th>
<th>Eason</th>
<th>Moisture Tester</th>
<th>Protein Analyzer</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>COM1</td>
<td>COM1</td>
<td>COM1</td>
</tr>
<tr>
<td>COM2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>COM2</td>
<td>COM2</td>
<td>COM2</td>
</tr>
<tr>
<td>COM3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>COM3</td>
<td>COM3</td>
<td>COM3</td>
</tr>
<tr>
<td>COM4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>COM4</td>
<td>COM4</td>
<td>COM4</td>
</tr>
<tr>
<td>None</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

*Write mcsamp.txt has replaced the None setting in Comm Port to Host. This generates a text file instead of doing nothing.*

*TCP/IP has been added for the Protein Analyzer*

*IF YOU WANT TO SEND DATA TO ANOTHER COMPUTER, YOU MUST ACTIVATE A COMM PORT THAT IS NOT BEING USED BY THE EASON, MOISTURE TESTER, OR PROTEIN ANALYZER.*

*CLICK ON “YES” TO ACTIVATE THE PROGRAM SO YOUR PRINTER WILL RESPOND TO YOUR PRINTING COMMANDS.*

<table>
<thead>
<tr>
<th>Standard Reports</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
YOU HAVE CLICKED ON DELETE OLD RECORDS (UTILITIES)

Grain Name.
Load Order No.
Sublot No.

MCI Auto Kicker

Delete Old Records

Enter Date Of Last Record To Keep

Last Date To Keep

Delete query will modify data. Continue anyway?

OK Cancel

STEP 1

STEP 2

STEP 3

THIS COMMAND WILL PERMANENTLY DELETE ALL RECORDS UP TO THE DATE YOU ENTERED.

THIS OPERATION SHOULD BE DONE AFTER A WEEK OR TWO, TO KEEP THE COMPUTER HARD DRIVE FROM FILLING UP.
YOU HAVE CLICKED ON  QUERY LOAD ORDER AVERAGES (UTILITIES)

Load Order Average

Click on the Drop Down list and select or type a current Load Order Number.

Load Order No.  Calculate

Grain Name

Test Weight  Moisture  Temperature  Protein  Oil  Starch

When finished, Click this OK button to close the window.

When a current Load Order has been selected, Click on this Calculate button to see the average for this Load Order.

NOTE: The proper headings will appear for this row of fields, and for the Grain Name, when you Click on the Calculate button.

NOTE: THE ICON FROM THE MAIN SCREEN IS THE SAME AS 'QUERY LOAD ORDER AVERAGES' IN UTILIES. THE PURPOSE OF THIS ICON IS TO ALLOW YOU TO VIEW THE LOAD ORDER AVERAGE FROM THE MAIN SCREEN.
YOU HAVE CLICKED ON (UTILITIES) DELETE A SUBLot

MCI Auto Kicker
Delete Sublots

This function allows you to temporarily delete one or a group of sublots to affect a load order average. Closing down the program will permanently delete the records.

Select the parameters for the transactions to delete.

Grain Name: [Input field]
Bill Of Lading: [Input field]
Lot Number: [Input field]

[OK] [Cancel]

Click on 'Grain Name' arrow then click on the appropriate text to delete a name to all three boxes, then click on "OK."
YOU HAVE CLICKED ON  (UTILITIES) RESTORE A SUBLOT

MCI Auto Kicker
Restore Sublots

This function is used to restore deleted sublots if
you have not exited MCI or shut down the computer.

Select the parameters for the transactions to restore.

Grain Name:  
Bill Of Lading:  
Lot Number:  

Click on "Grain Name" field.
Then click on the appropriate
use to delete or type in
type boxes. Then click on "OK."
**Auto Kicker/Grain Setup**

You may press enter or move cursor to each box to input information.

- **Grain Name:** Type new grain name
- **Lot Name:** Type different heading
- **BOL Name:** Type different heading

These are what you normally call “ship to,” “vessel,” “load order,” etc., and for “BOL name” things like “sublot,” “truck,” “bin,” etc.

<table>
<thead>
<tr>
<th>Description</th>
<th>HI</th>
<th>Lo</th>
<th>Range</th>
<th>Skew</th>
<th>EUG-Blank Not OK</th>
<th>Page Down or use Scroll Bar for More</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test Weight</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percent Moisture</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Temperature</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Protein</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The Grain Setup has been modified to allow for more Protein Analyzer fields, a premium identifier for Protein and Automatic incrementing of the Lot.

**Moisture Tester Calibration /page**

- Type proper page #
- Eason Mode No.

**Delete This Setup Record**

**Add a New Grain Setup Record**

**Information on “HI”, “LO”, “RANGE”, and “SKEW” are on pages 15 and 16**
**Auto Kicker/Grain Setup**

You may press [enter] or move cursor to each box to input information.

<table>
<thead>
<tr>
<th>Grain Name</th>
<th>Last Lot Number and BOL of this grain</th>
<th>Test Weight come from clean grain</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **Grain Name:**
  - Type the upper and lower values you want in the "Hi" & "Lo" for each fraction. If values are exceeded, you will be alerted in the test weight cells. If you install the "Hi" value of 60.5 and the "Lo" of 59, and if test weight is higher or lower, then you will notice a "*" along side the fraction results on the screen and on the printout.

- **Test Weight:**
  - 60.5
  - 59
  - 0.5

- **Eaxon Mode No.:**
  - Type a value in "Range". The purpose of Range is to allow an overrun of the "Hi" and "Lo" parameters and will be indicated by "*" on the MC screen and printout. If the fraction goes out of "Range", this value will not be included in the average. When a fraction goes out of "Range", normally something bad has gone wrong. You may set the "Range" value as wide as you want, so all fractions are figured in the average.

<table>
<thead>
<tr>
<th>Description</th>
<th>Hi</th>
<th>Lo</th>
<th>Range</th>
<th>Skew</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test Weight:</td>
<td>60.5</td>
<td>59</td>
<td>0.5</td>
<td></td>
</tr>
<tr>
<td>Percent Moisture:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Temperature:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Protein:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# Auto Kicker/Grain Setup

## Utility Menu Screen

### Main Data Screen

### Grain Setup

---

**Grain Name to edit:** [Box]

---

**Apply Changes to Current Grain**

---

**Description** | **Name** | **HI** | **Lo** | **Range** | **Skew**
--- | --- | --- | --- | --- | ---
Gate 1: | AIR | 60.5 | 59 | 0.5 | 1.246
Gate 2: | | | | | |
Gate 3: | | | | | |
Gate 4: | | | | | |
Gate 5: | | | | | |
Gate 6: | | | | | |

**Foreign Material Name**

---

**Skew** is a feature that allows you to match results of the MCI Auto Kicker/Grain Analyzer with your target results, whether that be your house or others. **Skew** is a multiplier that changes the actual results to the target values. Type a value in Skew that will bring the results of each fraction in line with your Target. This value is determined by dividing actual results into target results. If you want the auto kicker results to be lower, the skew number will be less than one (e.g., .5384). If the results are to be higher, the number will be greater than one (e.g., 1.53). Type at least 3 decimal places.

The skew number must be the same on all fractions that are marked added to foreign material. Normally you will not skew clean grain.
### Auto Kicker/Grain Setup

**Utility Menu Screen**

**Grain Name to edit:**

**Apply Changes to Current Grain**

**Description** | **Name** | **HI** | **Lo** | **Range** | **Skew** | **Added to Foreign Material**
---|---|---|---|---|---|---
Gate 1: | AIR | | | | | |
Gate 2: | TYPE IN THE NAME OF THE FRACTIONS IN THESE BOXES | | | | | |
Gate 3: | YOU WANT DISPLAYED IN AIR SCALP THRU 90° FIRSTS | | | | | |
Gate 4: | CLEAN TOTAL DOWAGE ETC. | | | | | |
Gate 5: | | | | | | |
Gate 6: | | | | | | |

**Foreign Material Name**

---

*Information on "HI", "LO", "Range", and "Skew" are on pages 15 and 16.*

---

*When you have finished adjusting the items in Grain Setup, you must click on "Apply Changes To Current Grain." This will return to "Utilities" screen. Now click on "Cancel" to return to the "Main" screen. The changes will occur the next sample.*
YOU HAVE CLICKED ON (UTILITIES) CLEAN UP BOL AND LOT TABLES

Set # of Samples to Print
Print Report Query by Time
Delete old Records
Query Sublot Averages

Query Load Order Averages
Set Number of Next Sample
Delete a Sublot
Restore a Sublot

Clean Up BOL and Lot Tables
Log In
Comm Setup
Grain Setup
Cancel

YOU MAY CLICK ON Clean Up BOL and Lot Tables TO REMOVE ALL MISTYPED KEY STROKES IN THE LOT AND BOL TABLES THAT DO NOT HAVE A NUMBER IN THE IDENTIFICATION BOX.

WHEN YOU CLICK ON THIS ICON, THE CLEAN UP IS AUTOMATIC AND WILL CLOSE UTILITY MENU.

Avg.

Graphs Utilities Print Load Order Avg. Exit MCI

* - Out of Tolerance
** - Out of Range