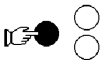
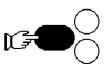
Switch Graphics

The buttons on the Thumb Switch & the instrument head allow you to program Race Data, and to move among CheckMate's various functions. Below is a brief summary of the graphics used to depict the various switch actions, **but don't press any buttons yet!**

Thumb Switches	*Instrument Head Switches*	
		*BUMP BOTTOM BUTTON* This graphic depicts a quick bump of a bottom button. This generally causes 1 of 2 actions: 1) If a digit or a word is flashing this moves you 1 digit/word to the left. (counter-clockwise) 2) If nothing is flashing it moves you to the next step.
		*SHORT HOLD BOTTOM BUTTON* A short hold takes about half a second. If something is flashing on the screen this stops the flashing and selects whatever was flashing at that time.
		*LONG HOLD BOTTOM BUTTON* A long hold lasts several seconds. While at Standby this moves you into Chec, where you can work with a race PROGRAM or CALIBRATE your wheelsize.
		*BUMP TOP BUTTON* This generally causes 1 of 2 actions: 1) If a digit is flashing on the screen the value of that digit will be increased by 1. 2) While viewing a screen with nothing flashing, bumping a top button allows you to change the contents of that screen.
		*LONG HOLD TOP BUTTON* While reviewing a PROGRAM a long hold of a top will allow you to Insert a new line, or to Delete a line in the PROGRAM.
		*BUMP MAIN BUTTON or BOTH HEAD BUTTONS* This generally causes 1 of 2 actions: 1) If a digit or a word is flashing this moves you 1 digit/word to the right. (clockwise) 2) If nothing is flashing it moves you to the previous screen.
		*SHORT HOLD MAIN BUTTON or BOTH HEAD BUTTONS* While at a new, un-entered Line# in the race PROGRAM a short hold of the main will backstep you to the previous Line#.
		*LONG HOLD BOTH BUTTONS* Standby: Goes to ShutOFF Straight Odometer: Goes to ShutOFF Race Countdown: Halt the countdown and go to an instant start Race: Goes to ShutOFF
		*LONG HOLD MAIN BUTTON* Standby: Goes to ShutOFF Straight Odometer: Goes to ShutOFF Race Countdown: Halt the countdown and go to an instant start

During a race long holding the Main on the Thumb Switch is used to Mark a checkpoint

Introduction

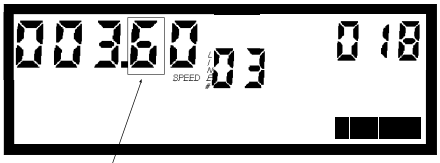
Your CheckMate has 4 distinct modes:

• Standby	Either with or without a PROGRAM in memory, this is the hub. You WakeUp to here, can start a race, use as a odometer or go into CHEC.
• CHEC	Here is where you enter, review, receive, send or delete your race PROGRAM, view INFO, CALIBRATE your wheelsize or adjust your AHEAD setting.
• Straight odometer/speedometer	It runs as a odometer/speedometer if no PROGRAM is in memory.
• Race mode	A ton of great features help you make the best decisions in a race.

Button review while in CHEC

If a digit is flashing

Bumping a top increments the digit by 1



a digit is flashing

a word is flashing

If a digit or word is flashing

Bumping a bottom moves the flashing 1 place to the left . (Counter-clockwise)

Bumping the Thumb Switch Main or Both on the instrument moves the flashing 1 place to the right. (Clockwise)

Short holding a bottom moves you to the ENTER screen, where you review the numbers on the current screen before entering.

If nothing is flashing

Bumping a top allows you to change the numbers currently on the screen.

Bumping a bottom moves you to the next screen.

Bumping the Thumb Switch Main or Both on the instrument moves you to the previous screen.(Backstep)

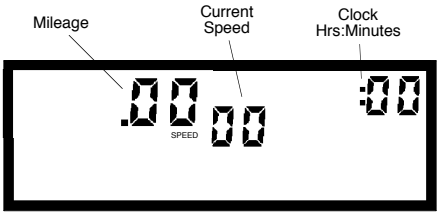
WakeUp

Connect the Thumbswitch and short hold any button on the ThumbSwitch or the instrument head. The CheckMate will wake up to the Standby mode. There is no Race PROGRAM in memory, so it's ready to run as a straight odo/speedo. In the left is your current mileage, the center displays current speed & the right is hours & minutes.

Bump any button to WakeUp

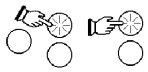
If you began riding right now the instrument would automatically start the clock at 0:00 and would begin incrementing your distance and showing your current speed.

Standby, with no PROGRAM in memory

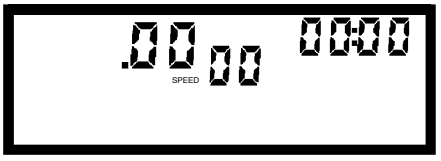


Set Odo Clock

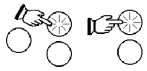
Before you begin riding you can adjust the clock to match real clock time. Let's say it's 8:30. Bump the top button on the thumb switch to begin and the far right 0 will be flashing.



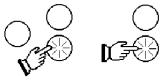
Bump either top to begin adjusting clock



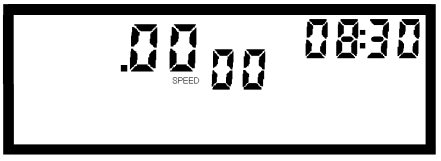
Now use a top button to increment the flashing digit until it reads what you need, then bump a bottom button to move one digit to the left. Repeat until the entire number is correct.



Bump either top to increment the digit.....



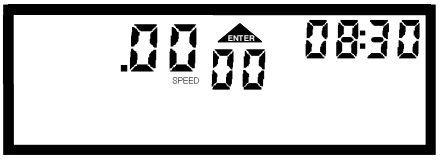
...bump a bottom button to move 1 digit left

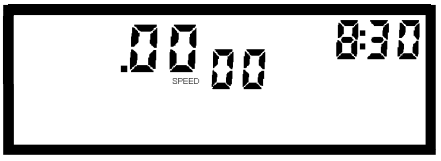


Once the entire number is correct short hold a bottom to move to the ENTER screen.

ENTER

Here's where you look over the numbers on the screen. If they are all correct a short bump of a bottom enters that screen, while a bump of a top allows changing the numbers. Bump a bottom if all is correct.

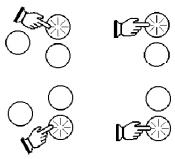


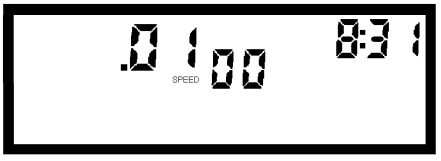


The clock is now running in hours & minutes, with the colon flashing. If you began riding right now the instrument would begin incrementing your distance and showing your current speed.

Adjust distance

Once the clock is running each bump of a top button will increase the mileage by .01. Each bump of a bottom will decrease by .01. Hold a button to fast increment or decrement. Long holding a button and incrementing past .20 will increase the increment speed.

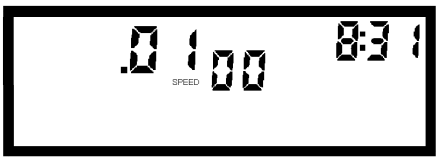




Lap Timer

Once you are running in straight odo/speedo you can switch to a Lap Timer screen. Bump the Main button to toggle to Lap Timer.

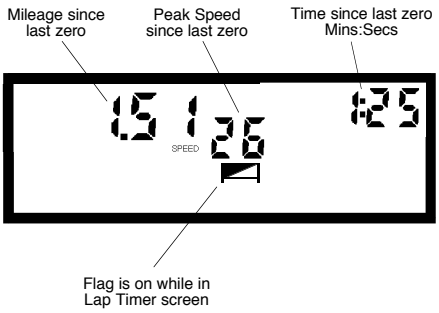
Bump the main to toggle to Lap Timer



In the left is the distance, the center has the top speed you reached and the right is minutes & seconds. This is very useful for:

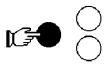
- Capturing your time thru a section
- Measuring point-to-point distances while play riding
- Capturing your top speed while trying different combos

Lap Timer screen

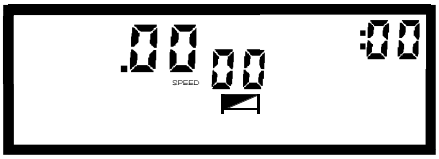


Zeroing the Lap Timer

You can zero all 3 screen numbers by short holding the Main button. Upon release of the button the stop watch in the right will start.



Hold the main to zero to Lap Timer

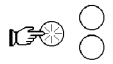


Zero the Lap Timer as many times as you wish while play riding.

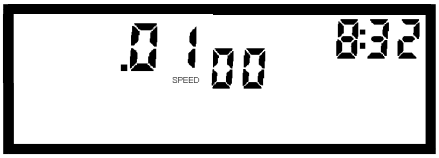
TIP: While in the Lap Timer screen the top and bottom buttons do not adjust the distance on the screen.

Back to odo/speedo

Bump the Main to toggle back to odo/speedo. Toggle as many times as you wish.



Bump the main to toggle back to straight odo/speedo



Shut OFF

After each use be sure to Shut OFF to conserve battery life. The high energy lithium battery will provide at least 400 hours of ON time, plenty for several years of enduros. Long hold both head buttons to Shut OFF.
Try it.

Long hold both on head to Shut OFF

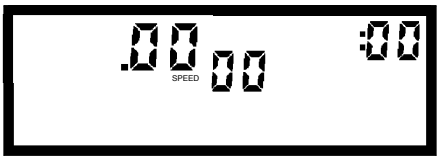
Automatic Shut OFF

After 120 minutes of no wheel movement, or of no buttons being pressed, your CheckMate will automatically shut itself off. 120 minutes of no activity is very unlikely in a race, but be aware of any real long periods of nothing going on.

WakeUp

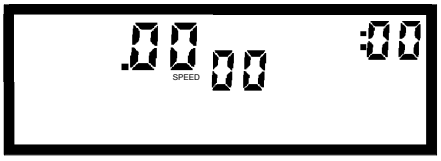
Bump any button to wake up to Standby mode.

Bump any button to WakeUp



Demo Screens

While at Standby, either with or without a race in memory, long holding the top button on the instrument head moves you to the DemoScreens.
Hold the top button on either until the screen changes, then release. Then use either bottom button to step through each screen.

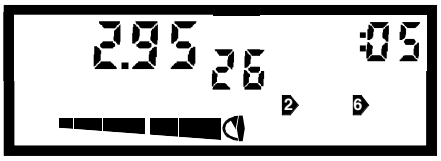


Demo Screen 1

The instrument mileage is at 1.51. The bar at the bottom represents your Late/Early. The tick in the middle is perfect schedule, to the left is Late, to the right is Early. Each square equals 5 seconds. We're about 19 seconds late, so the bar stops 3 short of the middle. The Check Seconds shows 31.

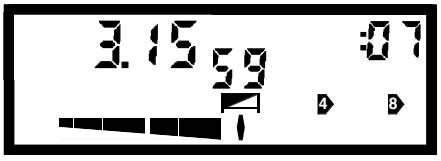
Demo Screen 2

We're at 2.95 and within ± of perfect schedule. Note how the bars build to the exact center. The Check Seconds show 26. Now the first two Possible Checks are showing -- one is about 2/10 of a mile ahead and the other is about 6/10 ahead.



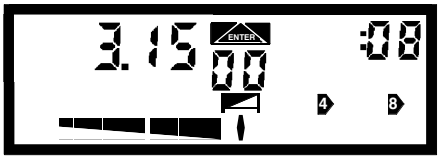
Demo Screen 3

For now let's assume we're at a timed check. All you want to know right now is "do I go in?". Not yet!



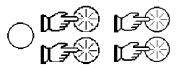
Demo Screen 4

This is it! The ENTER is now lit. Enter the check at whatever Check Second you want! Also note the black rectangle around ENTER is lit, indicating you are "in your minute". If you become more than 1 minute late, the rectangle will go off while the Enter triangle stays lit. *(Who ever gets late?)*

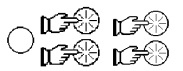


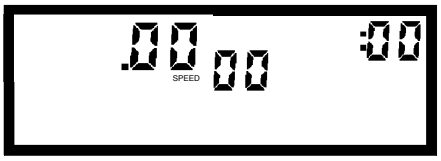
Demo Screen 5

We've marked the check at 3.20 and are now 5.34 out. We're over a minute early -- but don't worry -- there are no Possible Checks within a mile of our current distance. Marking the check has deleted all possibles within 3.00. Stay on the gas!



Standby, with no race in memory.

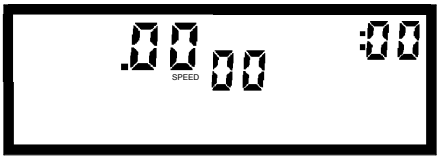




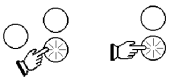
CALIBRATE

Now we're back to Standby. Let's go into CHEC and look at the wheel circumference in CALIBRATE. Hold the Thumbswitch bottom button or the bottom button on the instrument head until all the words in the right block are turned on, then release.

Hold any bottom to goto CHEC

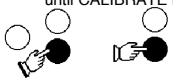


Here's the CHEC menu. You can select PROGRAM to manually enter a race, RECEIVE PROGRAM for InfraRed transfer, view useful INFO, CALIBRATE your wheel size, adjust your AHEAD setting, or EXIT CHEC to go back to Standby.



Bump any bottom until CALIBRATE flashes

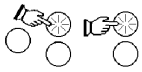
Bump the main button to BACKSTEP over to CALIBRATE, or bump a bottom to rotate the flashing word counter-clockwise. Short hold the bottom to select & goto CALIBRATE.



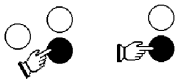
Short hold any bottom to select CALIBRATE

At the right is the wheelsize that will be used when you leave the start of the next race. (See Measure WheelSize on Sheet 12) At the left is the AutoCal wheelsize at the finish of your previous race. After each race check this number and if it's consistently above or below the wheelsize at the right you may want to adjust it towards that direction.

Any time you are in Chec and viewing numbers on the screen, bumping either top button enables changing the numbers. For practice lets change the wheelsize from "84.5" to "85.1". Bump a top & the "5" will flash. Bump a top until a "1" is displayed, then bump a bottom to move to the next digit. Bump a top until "5" is displayed. Now short hold a bottom to stop the flashing and goto the ENTER screen.



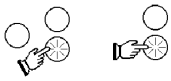
Bump any top to adjust the numbers



Short hold any bottom to goto the ENTER screen

ENTER

Here's where you look over the numbers on the screen. If they are all correct a short bump of a bottom enters that screen, while a bump of a top allows changing the numbers. Bump a bottom if all is correct.

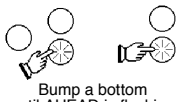


Bump any bottom to enter the new wheelsize

We are back to the right side word group with CALIBRATE flashing.

AHEAD

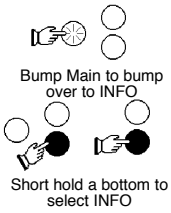
The AHEAD setting is for you to start the instrument at an exact number of minutes prior to your row leaving the start. You can set the AHEAD from 0 to 9 minutes. Bump a bottom until AHEAD is flashing, then short hold to select AHEAD.



At this screen you could bump a top button to change 1:00, but for now leave it at 1:00 & bump a bottom to return to the right side word group.

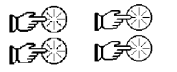
INFO

Bump the main button to BACKSTEP over to INFO, or bump a bottom to rotate the flashing word counter-clockwise. Then short hold a bottom to select INFO. Here's where some useful info is shown.



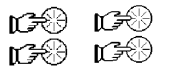
BATTERY CONDITION

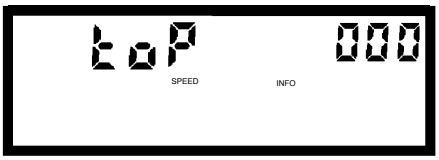
The total numbers of hours that the instrument has been turned on. The bar indicates the remaining percentage of the 400 hours of battery life.



TOP SPEED

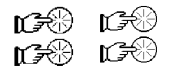
The highest miles per hour reached during the last ride.

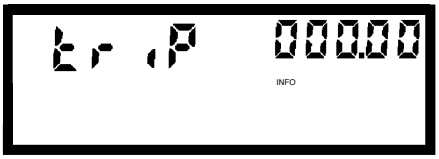




TRIP DISTANCE

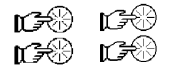
The distance traveled during the last ride.

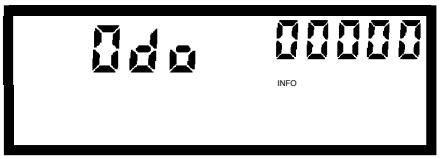




ODO DISTANCE

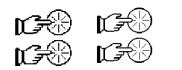
The total distance of all rides with the instrument turned on.





ICO phone number

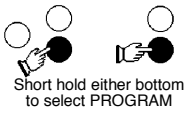
Here's ICO's tech phone number in case you have any questions.



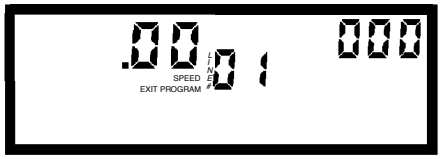
Back to the right side word group, with INFO flashing.

Entering an enduro race PROGRAM

Bump the main or a bottom until PROGRAM is flashing, then short hold a bottom to select PROGRAM.



Each time you go to PROGRAM with no PROGRAM in memory you first enter Line# 01, which must be a SPEED at start distance .00. Select SPEED to begin or EXIT PROGRAM to go back to the CHEC menu.



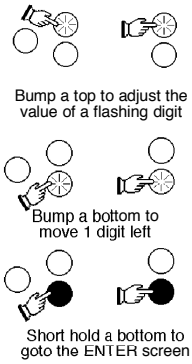
PROGRAM Screen

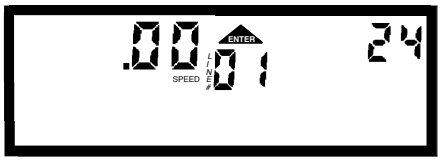
The number at the left is the mileage where each line entry takes place. The number at the right is the value for that type of entry.

Type	number in right
SPEED	MPH
RESET	2nd half of the RESET
PAUSE	Number of minutes for a free time or layover
KNOWN	A Control with no timed checks allowed 2 or 3 miles before it. Select either 2.00 or 3.00 for the before. 3.00 after is automatically entered into the PROGRAM.
FREE ZONE	Special case where the club declares "no checks" within a range of mileage
LEAP	The mileage the LEAP jumps to

Sample race:

Line#	Type	start distance	number in right
01	SPEED	.00	24
02	RESET	3.30	3.75
03	SPEED	3.60	18
04	PAUSE	14.10	10:00
05	KNOWN	30.20	2.00





Line# 01 SPEED .00 24

A SPEED at start distance .00 MUST always be the entry for Line# 01 in any PROGRAM, so that's what we'll enter now. The far right digit is flashing. Bump a top button until the number is "4", then bump a bottom button to move to the next digit. Once "24" is on the screen short hold a bottom to goto ENTER. Bump a bottom to enter "24" & move to a new Line#.

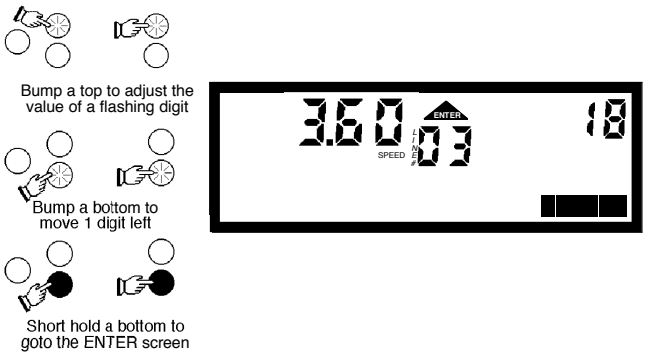
Line# 02 RESET 3.30 3.75

Notice that 6 squares show up at the bottom of the screen after entering Line# 01. This denotes that a PROGRAM is in memory.

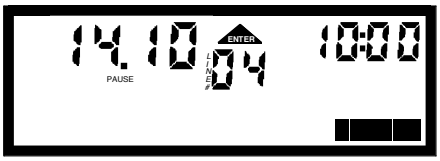
These squares light up when a PROGRAM is in memory.

Bump a bottom button once so RESET is flashing, then short hold bottom to select RESET. First we adjust the left number to "3.30", using a top to increment, a bottom to move to the next digit left, or the main to move to the next digit right. Next move over to the right number by bumping either a bottom or main button until the desired digit is flashing. Adjust the number in the right to "3.75", then short hold a bottom to goto ENTER. Bump a bottom button to ENTER the screen and move to a new Line#.

Line# 03 SPEED 3.60 18
Repeat the steps to enter Line# 03.



Line# 04 PAUSE 14.10 10:00
Different circuits may use the word layover or free time for points along the course where they give you some number of minutes. Select PAUSE for these situations, with the right number representing the number of minutes.



Line# 05 KNOWN 30.20 2.00
Known controls may be declared by a club, where there can be no timed checks less than 2.00 or 3.00 miles BEFORE the KNOWN, and less than 3.00 miles past the KNOWN. Our example would be a gas stop at 30.20. NOTE: You do not have to enter the 3.00 Free Zone at the start; CheckMate automatically deletes all possibles less than 3.00 course miles from the start, or less than 3.00 miles past a KNOWN.

EXIT PROGRAM
Bump a bottom or the main until EXIT PROGRAM is flashing, then short hold a bottom to select it.

TIP: While at a new, un-entered Line# a short hold of the main button will move you to the previous Line# (The last one you entered)

TIP: You must enter each line in the order which it occurs. IE: A PAUSE at 14.10 must be entered before a KNOWN at 30.20. Your CheckMate will not allow you to enter a line whose mileage is less than the previous line (Exception - RESET to 0.00)

TIP: If multiple things take place at the same mileage they can be entered in any order. IE: A RESET to 0.00, a PAUSE and a SPEED change. Any order of entry is O.K..

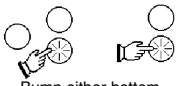
Calculate PROGRAM
Upon exiting programming your CheckMate will calculate each line in the race PROGRAM, then calculate every point in the entire race where a timed checkpoint may be legally located . These are generally called Possibles.

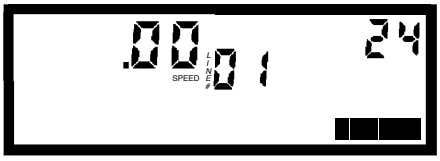
It then goes to the right side word group with PROGRAM flashing.

Reviewing a race PROGRAM

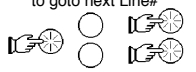
Naturally you will want to check out what you have just entered. Select PROGRAM with a short hold of the bottom.

Moving through your race PROGRAM is very easy.
Bump either bottom to goto the next Line#.
Bump the ThumbSwitch Main button to backstep to the previous Line#.


Bump either bottom to goto next Line#

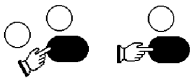


TIP: If you come across a Line# with incorrect numbers simply bump a top button to change the Type or numbers. Easy!

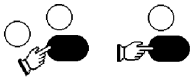

Bump ThumbSwitch Main or Both on instrument to goto previous Line#

Show ground distance & arrival time

After your PROGRAM has been calculated and you are back reviewing the race, long hold a bottom button. The ground distance (Course distance minus any RESETs or LEAPs) to that Line# will be displayed in the left. The arrival time, in hours & minutes, will be displayed in the right. The time is based on a 8:00 Key Time.


Long hold a bottom to show ground distance & time

TIP: A "F" will also be displayed if the arrival time is a fractional minute.

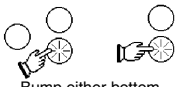

Ground distance & time is displayed while button is held

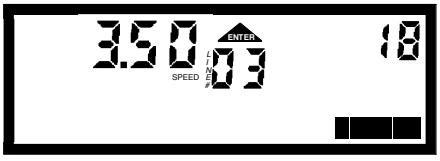
TIP: If the arrival time at the last line in your PROGRAM and the time on the club's sheet matches, you can feel quite certain that your the Speeds and Pauses in your PROGRAM are correct. However, Resets and Leaps must be checked closely, since there is no means of verifying those except by a manual review.

ERROR checking

Upon entry of each line your CheckMate checks that a SPEED change or a RESET to zero is at a possible checkpoint (See ICO's EnduroBasics sheet). If it is not then all lines from that point on will be at fractional minutes, which is against enduro rules.
Do this - go to Line# 3, bump a top button and change the line to a SPEED change at 3.50 miles, 18 MPH. Enter the line, then bump the Main on the Thumb Switch to back step to Line# 3. The ERROR message is flashing because 3.50 is not a possible at 24 MPH from the start.

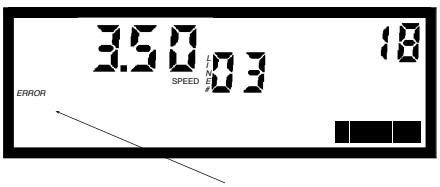
Change SPEED at 3.60 to SPEED at3.50


Bump either bottom to goto next Line#




Bump Main to go back to Line# 03

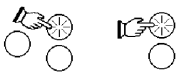
TIP: The ERROR will be at the current LINE# if the mileage is incorrect, or at the previous SPEED change if the MPH is incorrect.

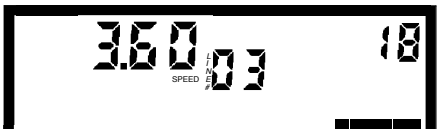


ERROR is flashing

TIP: Along with SPEEDS & RESETS to zero at non-possibles, your CheckMate also checks for other things. You will NOT be allowed to enter the following:

- Entries with the mileage less than that of the previous entry
- Backward RESETS or LEAPS, other than a RESET to 0.00
- SPEEDS of 0 MPH or greater than 999 MPH
- A KNOWN less than 3.0 miles from the start
- LEAPS to 0.00 are changed to RESET to 0.00
- More than the maximun of 99 lines of race info


Bump a top & change to SPEED at 3.60, 18 MPH



INSERT LINE

You may want to INSERT a new line into your PROGRAM. No problem. Let's go to Line# 05. Long hold a top button until DELETE LINE & INSERT LINE is displayed. Select INSERT LINE with a short hold of a bottom, bump to YES, then select YES with a short hold of a bottom.

NOTE: The new line is inserted BEFORE the Line# which was on the screen.

New line# 05 RESET 20.15 22.00

Bump over to RESET, then select RESET with a short hold of a bottom. Adjust the numbers 20.15 & 22.00, then short hold a bottom to go to the ENTER screen. If O.K. bump bottom to go to next Line#.

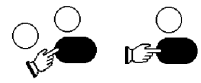
DELETE LINE

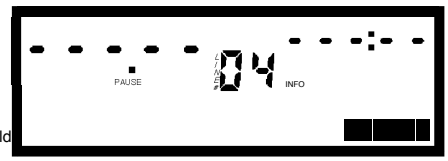
You can also DELETE a line in your PROGRAM. Go to Line# 05, then long hold a top button. Bump to DELETE LINE, then select DELETE LINE with a short hold of a bottom. Bump to YES, then select YES with a short hold of a bottom.

The RESET has been removed from your PROGRAM.

Show ground distance & arrival time

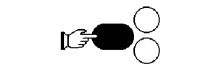
On a previous page we showed how to show ground distance & arrival time to a Line#. If you long hold a bottom now dashes will be shown. That's because the PROGRAM has been changed and it needs to be calculated.





EXIT PROGRAM shortcut

While you are at any line in a PROGRAM you can EXIT PROGRAM by long holding the main button. This is handy if you just want to look at certain lines in a long PROGRAM without stepping through all remaining lines.

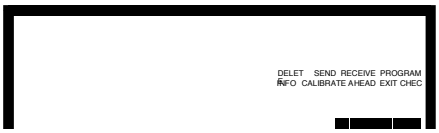


Try it now.

Since we made changes the PROGRAM will again be calculated. If no changes were made this would not take place.

You are back to the CHEC menu. From here you can go back into PROGRAM, RECEIVE a PROGRAM, SEND a PROGRAM, DELETE the entire PROGRAM, go to INFO, AHEAD, CALIBRATE or EXIT CHEC.

For now select EXIT CHEC.

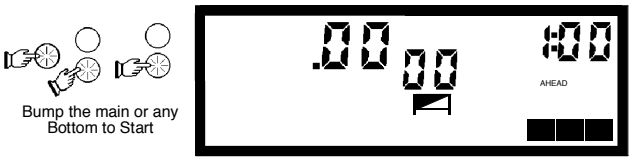


Running an enduro race

TIP: See page 21 for new race features.

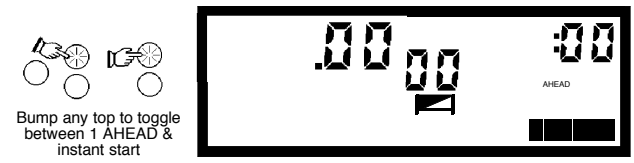
The bars at the right indicates a race PROGRAM is in memory. You're ready to start a race with a 1:00 minute AHEAD countdown. If you bumped the main or either bottom, a 1 minute countdown would begin, then upon completion it would instantly go into Race Mode.

Standby with race PROGRAM



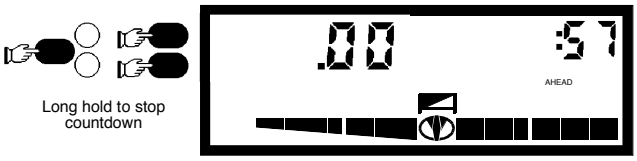
AHEAD toggle

The 1:00 minute AHEAD is for you to start the instrument at the exact instant the row ahead of you leaves the start, but if you screw up & fail to start on time simply bump either button to toggle to Standby, ready for an instant start. Bump again to toggle back to 1:00 AHEAD.



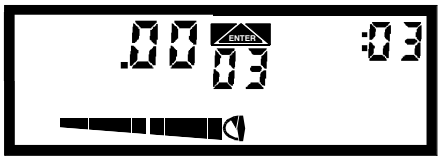
Aborting the countdown

If you start the AHEAD countdown at the wrong time simply hold the main button or Both on the instrument. It will stop counting down & goto Standby with instant start. Try it.



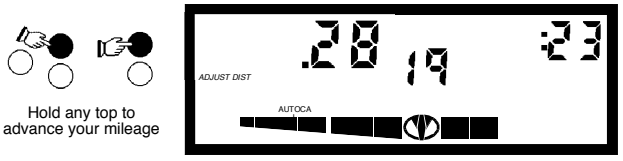
Race screen

Here's what you will see upon leaving the starting line, similar to the Demo Screens. Mileage is in the top left, the minutes & seconds you are off of perfect schedule is in the top right, and Check Seconds is in the middle. Check Seconds is what you should use to enter a check at the exact second you choose.



Flash if early

When you are ahead of perfect schedule the late/early number will flash. Hold a top button to adjust the mileage. Watch the late/early number decrease, then increase. Keep holding a top button. Once you are early watch the bars build past the center and the late/early begins flashing.



Manual mileage adjust

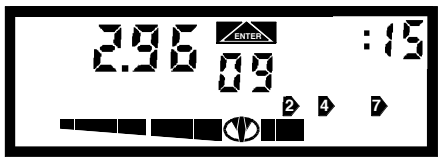
Each time you pass a mile marker do this: If your mileage does not match the marker BEGIN your adjustment while right alongside the marker. YOU DO NOT HAVE TO STOP. Then bump a top or bottom button to adjust to the number on the marker.

Frozen readout

To make it much easier to adjust while rolling, even at high speeds, once you begin any adjustment your CheckMate suspends adding the roll distance accumulated while you are adjusting. So you simply adjust to the exact mileage on the maker without worrying about how far past the marker you may have ridden since starting the adjustment. But don't worry, your CheckMate is keeping track of this roll distance!

Exiting Manual mileage adjust mode

Very simple. Once the screen mileage matches the marker do one of two things: Either bump the ThumbSwitch main or simply touch no buttons for 5 seconds. You will exit Manual adjust and any roll distance accumulated while adjusting will automatically be added to your instrument distance. Then your CheckMate will do it's AutoCal calculations.



AutoCal

ICO developed, and improved upon, AutoCal years ago as a means to continually and incrementally change the wheelsize used by the instrument until it matches the layout bike. Many safeguards are included for situations such as getting lost off the course, erratic mileage markers, etc. Don't worry, these things will not screw up your wheelsize.

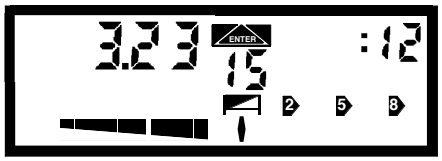
TIP: AutoCal is active only if you have at least one RESET in your race PROGRAM. If you have one or more RESETs AutoCal will be active for the entire race, in case the club used different bikes for some sections.

TIP: To use your CheckMate to lay out a course simply DELETE any PROGRAM. AutoCal will then be inactive.

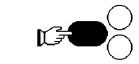
Marking a check

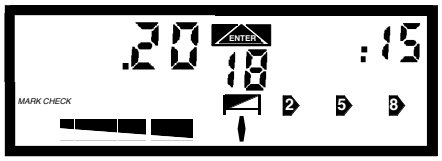
Each time you enter a timed check hold the ThumbSwitch main button. Let's use an example of a check with your mileage reading 3.23.

Run your mileage up to 3.23.



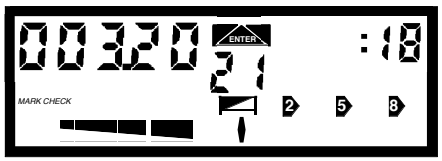
Keep holding the ThumbSwitch main and your mileage will snap to the possible checkpoint mileage which is nearest your current mileage, then it goes to the Manual Adjust Mode.



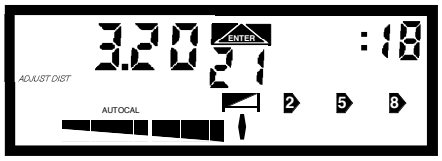


In our example it will snap to 3.20.

In most cases this will be the correct mileage for that check, but you have to glance at the screen and make sure. If not you have to BEGIN adjusting to the correct mileage within 5 seconds of Marking the check, since Manual adjust will timeout after 5 seconds of no button activity.



3.20 was the mileage posted at the check, so we can either bump the ThumbSwitch main or simply wait for 5 seconds. Note how your CheckMate erased all possibles less than 3.00 course miles from 3.20! Gas it!!!!



NOTE: Of course you do not have to remain stopped in the check for 5 seconds after Marking. Any roll distance after Marking will be added. The best way to use this feature is to make sure the mileage matches the marker, then bump the ThumbSwitch main. Watch the possibles be deleted, and see what's ahead.

CAUTION: The club may have Resets before the end of the 3.00 of Free Zone. That's why the possibles on your CheckMate screen are the GROUND distance to each possible. The next possible from the check you just entered may be only 1/10 mile ahead!

NOTE: Marking a check is disabled in Brand X & FIM use.

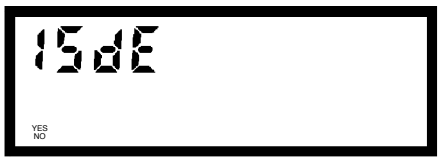
FIM race entry

If you run an ISDE qualifier event you can enter the race in FIM format, with mileage in the left and time to that distance in the right. Here's how:

Hold any top while PROGRAM is flashing

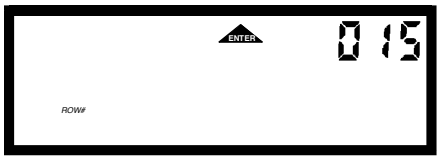
Go into CHEC. DELETE PROGRAM if one is in memory. While PROGRAM is flashing long hold a top button.

ISDE will scroll onto the screen, along with YES NO. Select YES.



First enter your starting Row number. We'll use a example of row number 15.

Adjusting the row number on the screen is identical to how you adjust mileage in run mode. IE: If the screen has 009 bumping the top increases it to 010. Bumping a bottom decreases the number. This alllows faster adjusting during a race. Bump until 015 is on the screen, then short hold a bottom to move to ENTER.



Line# 01 .00 8:00

NOTE: Times are entered direct off the race sheet. There is no need to add the number of minutes for your row to each line.

Our sample race has a 8:00 start time. Again, enter the times straight off the race sheet.

TIP: Time may be entered in either the 12 hour format (12:00, 1:00) or the 24 format (12:00, 13:00)

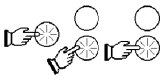
Line# 02 10.50 8:30

The next line of our sample race has a mileage of 10.50 and a time of 8:30. We'll enter only 2 lines for our sample.
Bump over and select EXIT PROGRAM.

TIP: Upon DELETE PROGRAM your CheckMate defaults back to AMA enduro race entry.

Running a FIM race

At Standby ROW# and your row number will be displayed. The AHEAD countdown works the same as in enduros. Bump a bottom or the Main to start the countdown, or bump a top to toggle to 0:00 AHEAD.

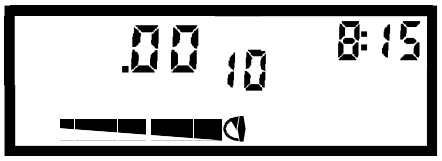

Bump the main or any Bottom to Start

While in a FIM race you can rotate among 4 screen displays. Bumping the Main on the thumb switch rotates thru the screens.

Screen #1

When you leave the start you will be in the first screen mode. The mileage from the start is in the left, the clock time plus the minutes for your row number will be in the right, and check seconds in the middle.


Bump Main to go to Screen# 02



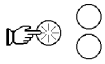
Screen #2

Bump the Main and the mileage to the next check is now in the left, the right remains clock time and check seconds remains in the middle. Note that a minus sign is displayed while in Screen #2.


Bump Main to go to Screen# 03

Screen #3

The left goes back to mileage from the start. The right now has your Mins:Secs late/early from perfect schedule.The middle remains unchanged with check seconds.


Bump Main to go to Screen# 04

Screen #4

The left has the mileage to the next check. The right and middle remains unchanged.

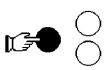
Bump the Main to rotate back to Screen #1. Try it.


Bump Main to go back to Screen# 01

NOTE: The late/early bars while in FIM are 1 minute each. This gives you a display range of 12 minutes late to 12 minutes early. Hence, if you are more than 12 minutes late no bars will be lit. If 12 minutes or more early then all bars will be lit. Right on schedule, +/- 1 minute, and the bars will be lit to the middle.

Adjust row number

There may be instances in a FIM race where you want to move to another row. Short hold the Main on the thumb switch, adjust up or down to a new number, then bump the Main to return to your race screen.


Short hold Main to goto Row# adjust

TIP: To look at your current row number simply short hold the Main on the thumb switch. Bump the Main without adjusting to go back your race screen.

Brand X race entry

Brand X rules are used in New England & Canada. The rider is assigned a row number at each check equal to his arrival minute. Your CheckMate allows you to adjust your row number at any time in the race.

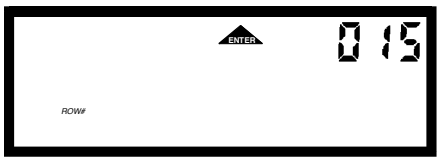

Hold any top while SPEED is flashing

Here's how to set up for Brand X use:

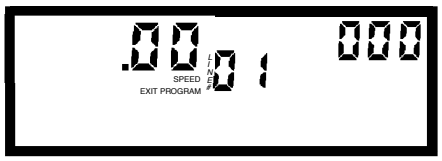
DELETE PROGRAM if any is in memory. While PROGRAM is flashing, short hold a bottom to go to the next screen. SPEED will be flashing. Long hold a top button for BRAND X and YES NO to appear on the screen. Select YES.

ROW# entry

First enter your starting Row number. We'll use a example of row number 15. Adjusting the row number on the screen is identical to how you adjust mileage in run mode. IE: If the screen has 009 bumping the top increases it to 010. Bumping a bottom decreases the number. This alllows faster adjusting during a race. Bump until 015 is on the screen, then short hold a bottom to move to ENTER.



Now enter your PROGRAM as you would a conventional enduro.

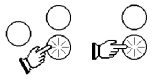


NOTE: KNOWN & FREE ZONE are disabled during Brand X entry.

TIP: Upon DELETE PROGRAM your CheckMate defaults back to AMA enduro race entry.

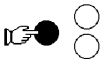
Running a Brand X race

At Standby BRAND X , ROW# and your row number will be displayed. The AHEAD countdown works the same as in enduros. Bump a bottom or the Main to start the countdown, or bump a top to toggle to 0:00 AHEAD.


Bump the main or any Bottom to Start

Adjust row number

Once in a check simply short hold the Main on the thumb switch, adjust up or down to a new number, then bump the Main to return to your race screen. CheckMate will then use the new row number for it's calculations.

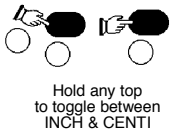

Short hold Main to goto Row# adjust

TIP: To look at your current row number simply short hold the Main on the thumb switch. Bump the Main without adjusting to go back your race screen.

Metric operation

If you need distance readout in KILOMETERS and speed in KPH here's how:

Go into CALIBRATE. Long hold a top button for CENTI and YES NO to appear on the screen. Select YES.

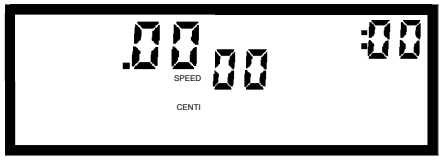


Use this to toggle between MILEAGE/MPH & KILOMETERS/KPH at any time before a race or a play ride.

⚠ Always enter your wheelsize in INCHES, regardless of your INCH/CENTI selection. If you select CENTI your CheckMate will use the inches wheelsize on the screen, internally convert it, then readout in KILOMETERS and KPH. It is not necessary to change your wheelsize when switching.

Standby with CENTI selected

If CENTI is selected it will be shown on the screen at Standby, with or without a race PROGRAM in memory.

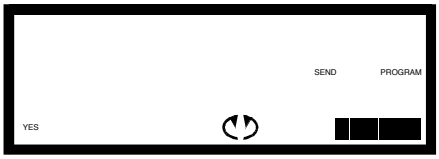


Race PROGRAM transfer

Any type of race PROGRAM may be sent from one CheckMate to another CheckMate.

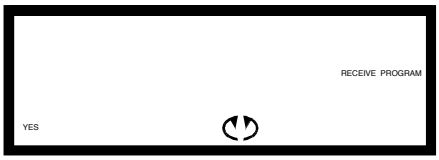
Sending instrument

Go into CHEC and select SEND PROGRAM. Select YES and the screen shown at the right will be displayed. The flashing circle indicates your CheckMate is searching for another CheckMate to talk to. It will keep looking for about a minute. If it does not get a good linkup with another CheckMate in that time it will go back to the CHEC menu.



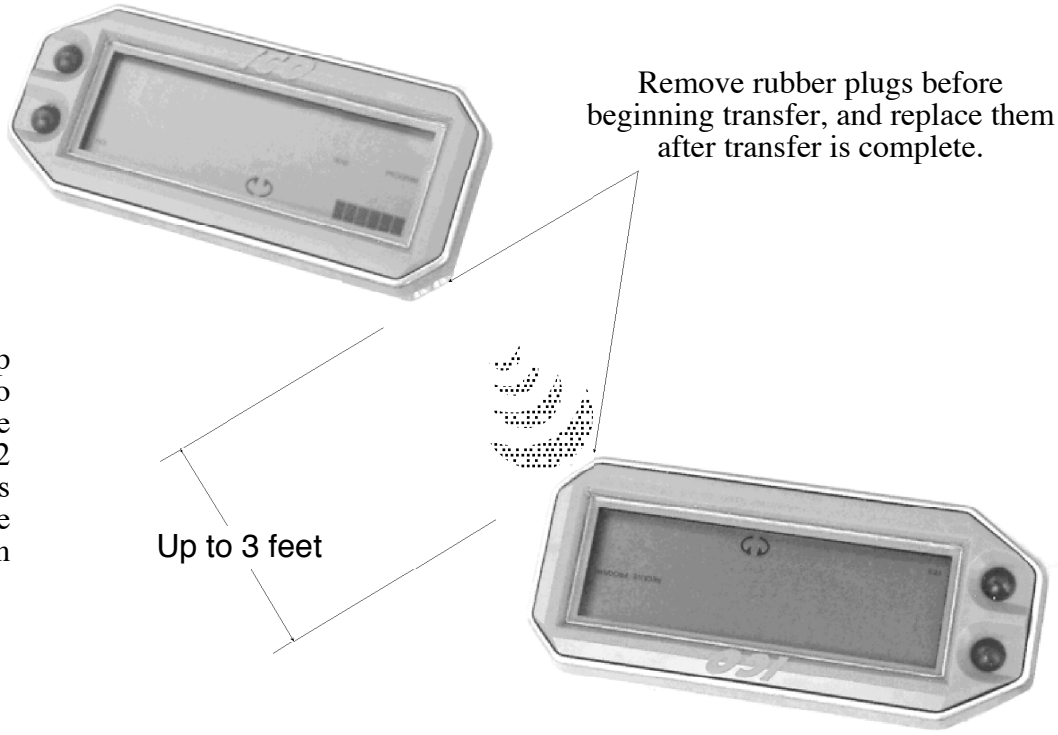
Receiving instrument

Go into CHEC and select RECEIVE PROGRAM. Select YES and the screen shown at the right will be displayed. As in SEND it will keep looking for about a minute.



TIP: There is no need for you to DELETE PROGRAM before you receive a new one. Your CheckMate will do that for you.

TIP: Bump any button to abort a SEND or RECEIVE.



Since the range of transfer is up to 3 feet there is no need to remove the instruments from the handlebars. Simply roll the 2 bikes side-by-side, cock the bars until the corners of the instruments face each other, then let them do their thing.

Linkup

The right circle on each screen flashes until communications has been established.

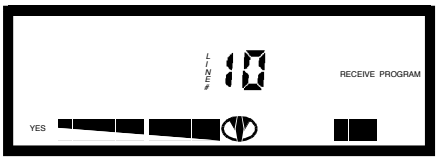
As soon as the two instruments are talking to each other, the right circle stays lit and the center tick mark blinks 3 times. Transfer then begins.

Right circle flashes while it's looking for another CheckMate.

Once they are linked up the circle stays lit & the center tick flashes 3 times. Transfer then begins.

Actual transfer

The average race program will take approx. 5 seconds to transfer all the lines in the race. Once transfer is complete, the SEND instrument will snap back to the right word group. The RECEIVE instrument will calculate the race. If an AMA enduro was transfered it will build all Possibles, then snap back to the right word group. If a Brand X or FIM race was transfered it will go to Row Number Adjust. Be sure to enter your starting row number.



TIP: Once the circles disappear on the instruments transfer has been completed. There is no longer any need to keep them aligned to each other.

NOTES:

• After sending each line the two instruments verify that the correct data has been received. If correct they move to the next line.

If the received line is not correct they will continue to SEND and RECEIVE that line until all is O.K.. If still not O.K. after about 7 seconds of trying they will abort the transfer. The program in the SEND intrument remains unaffected, while the program in the RECEIVE instrument will be DELETED.

• If the transfer is interrupted due to poor aiming or something moving between the two instruments, they will keep trying to linkup again for about 7 seconds. If they do linkup all is O.K.. They will resume transfer from that point. If still not O.K. after about 7 seconds of trying they will abort the transfer. The program in the SEND intrument remains unaffected, while the program in the RECEIVE instrument will be DELETED.

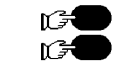
• In summary, if the instruments indicate that transfer is complete you can feel secure that the RECEIVE instrument has the same program as the SEND one. Of course, you may want to review your received program. Do so by short holding a bottom while PROGRAM is flashing.

Brand X and FIM

If the RECEIVE instrument received either a Brand X or FIM race you will next have to enter your starting row number. Adjust the number on the screen until correct, then short hold a bottom to goto ENTER. Bump a bottom to move to the right word group.

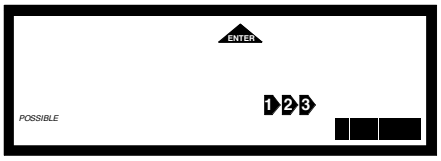
ShutOFF after a race

Once the race is over long hold both buttons on the instrument head to ShutOFF. Then go pick up your trophy!



Long hold both head buttons to ShutOFF

NOTE: If you Shut OFF after Marking checks in a race your CheckMate will again Calculate the PROGRAM before going to sleep. It does this in case you entered a Race PROGRAM, rode the practice trail and Marked checks. Calculating the PROGRAM re-loads the full set of Possibles.

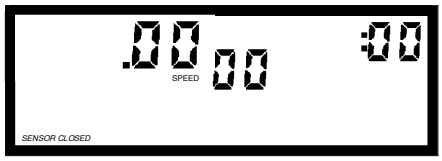


DELETE PROGRAM

Before entering a new race you must first delete the one in memory. Short hold any button to wakeup, then goto Chec by holding either bottom button. Bump until DELETE PROGRAM is flashing, then select it with a short hold of a bottom. NO will be flashing. From here you can select YES to delete or select "NO" to not delete. Select YES, then select EXIT CHEC to goto Standby with no race.

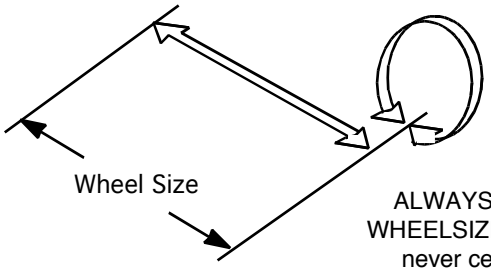
SENSOR CLOSED

Hookup the sensor to the wires coming out of the instrument head, then take the magnet out of the kit. Hold the magnet near the sensor & note how the words "SENSOR CLOSED" appears on the screen. It works while in Standby or in a race, so you can make sure everything is O.K. at any time by slowly rolling your bike & watching the display. However it does not display the message while rolling at speed, which would be distracting.



Measure wheelsize

Tire circumference is best measured by placing 2 matching chalk marks, one on your tire and another on a suitable flat surface such as a concrete slab. Roll the bike one wheel revolution WITHOUT the rider aboard, make a second chalk mark on the floor, then measure the distance between the marks. This is your actual tire circumference, however it is best to add approximately 2/10 or 3/10 inches to this to make up for the small distance not measured while the tire is sliding from hard braking.



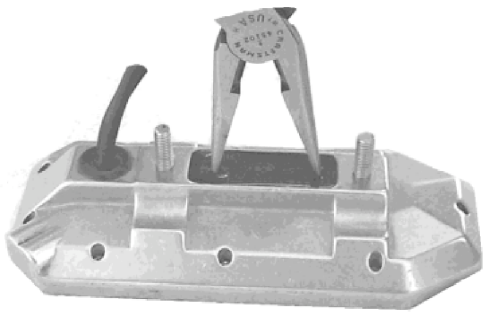
ALWAYS enter your WHEELSIZE in INCHES, never centimeters!

Shorting the battery

This should be necessary only in the very unlikely event you experience one of the following:

- The instrument does not WakeUp
- It freezes or goes blank during use

Do this - Remove the bottom plate and, using a sharp knife, cut through the 2 small plastic caps. Position a needle nose pliers as shown and push against the contacts under the plastic for approx. 2 seconds.



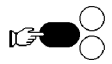
NOTE: Your wheelsize will be changed to 84.5 Adjust, if needed, by going to CALIBRATE.

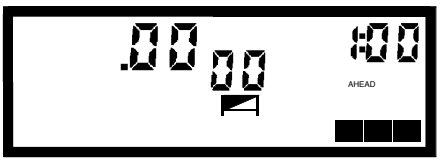
New Race Features

Two new features have been added.

Hot Start (LEAP at Start)

If you failed to start your CheckMate at the starting line you can still recover. Ride some distance into the race, say the 2.9 marker.

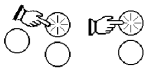

Long hold main to go to LEAP

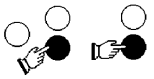


While at Standby long hold the ThumbSwitch main button. "LEAP" will build on the display, then 00:00.

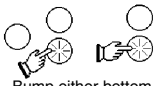
Using some other clock source, which is set to KeyTime, calculate how many minutes into the race you wish to LEAP.

IE: If another rider on your row is coming up on 8:00 minutes into the race then bump the top until 8:00 is displayed. If your clock source is on another row then subtract 1:00 for each row number earlier, or add 1:00 for each row later then yours.

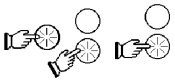

Bump any top to adjust to 8:00

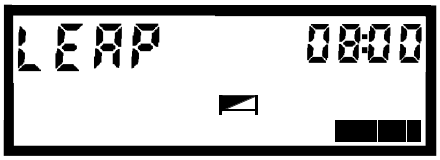

Short hold any bottom to select ENTER

Adjust readout to 8:00, go to ENTER, then bump to go to LEAP Standby.


Bump either bottom to ENTER 8:00

At the instant your clock source rolls over your minute start the CheckMate.


Wait for the minute to roll over, then bump the main or any bottom to Start



You're now running the same as if you properly started at the line. Adjust your mileage as needed.

TIP: While at Standby, any mileage you have traveled since you woke up the CheckMate will be inserted into the mileage readout. Unless you did a lot of extra riding while at Standby this should put you fairly close to the mile marker.

You're up & running, adjust the mileage readout as needed

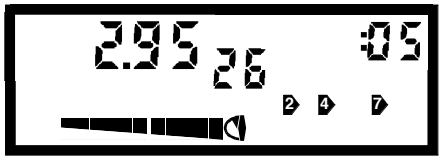
Secondary Race Screen

At any time during a race you can view:

Exact ground dist to next possible
Speed average of your current section
Minutes & seconds from the start

Bump the main on the thumbswitch, followed quickly by a long hold. Kinda like double clicking, then holding a PC mouse button. Once the button is released the display reverts back to the normal mode. Try it.


Bump Main, then quickly hold main .....

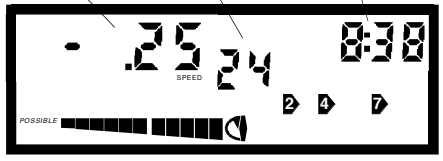


Ground mileage to next possible

Speed average for this section

Mins:Secs since start


..... keep holding to view secondary screen



More useful tips

Please practice starting

Try to spend a little time in the garage or campground practicing starting the CheckMate. It's very easy to do, but we see riders panicking at the start if anything goes wrong. Just remember:

* If you fail to start when the row ahead leaves just bump either top button, then start the instrument when your row leaves.
* If you start it at the wrong time simply hold the thumbswitch main, then start it when your row leaves.
* If you forget to start at the line then ride up the trail until the most convenient time, stop, long hold the main for a LEAP Start, enter the correct number of minutes then start when that minute rolls over.

Practice all the combinations before you go to the start. You can't hurt anything by bumping buttons.

Practice using it before a race

While still in the garage or campground, and with a PROGRAM loaded, start your CheckMate. Run the mileage up & down while watching the late/early bars, possibles, etc.. Mark checks, access the secondary race screen, press all the buttons. Again, you can't hurt anything or erase the PROGRAM. You'll be ready when you go to the start.

Possibles

Using a patented software algorithm, your CheckMate maps out all Possible Checkpoints within 1.0 GROUND miles ahead of your current mileage. Any RESET distances between you and the Possibles are removed. IE: If you're at 4.10 in a 30 MPH section from the start there are two Possibles within 1.0 ahead, one at 4.50 and another at 5.00 course miles. But, say there is a RESET from 4.10 to 4.20. For this example the next Possible is .30 GROUND miles ahead and the other is .80 GROUND miles ahead. The .10 RESET distance was removed, and the 3 & 8 markers would be the only ones on the display. This may sound confusing at first but to map out how far your front wheel has to roll to reach the Possibles, rather than using course mileage, is much simpler and easier to understand while in a race.

LEAP

Occasionally a club will want you to jump your mileage from one point on the course to a higher value. This differs from a RESET in that there is no clock time inside of this jump. To enter this into your PROGRAM select LEAP from the PROGRAM Menu.

EnduroBasics sheet

If you don't have one of these then go to our website at www.icoracing.com, select the Manuals page and download these sheets. They have a lot of useful info about enduro rules.

LOW BATTERY

All batteries output lower voltages when cold. Sometimes a CheckMate will display a LOW BATTERY message if woke up on a cold day. This message has no effect on the operation of the instrument. If LOW BATTERY shows for several wake ups in a row then it may be time to think about sending the instrument in for battery replacement, but don't panic. There is enough reserve power for about 5 to 10 races.

Loop the sensor wire at the top of the brake hose

Use electrical tape to secure the wire up the straight section of the brake hose until it reaches the curved section. From there simply loop the wire around the hose until it reaches the master cylinder. Tape it there, then use a Velcro strap to secure the connector to the handlebar or crossbar. Use the other Velcro strap to secure the thumbswitch connector.

Fully taping the wire in the curved section is bad, in that it does not allow the wire freedom of movement each time your forks compress.