

Clock Mode Programming

If the Clock Mode is not enabled via the Analyst Personal Computer Interface the following screens will not be visible nor accessible by Touch Programming. When the Clock Mode is enabled, the Clock Menu Screen will be the first screen that is displayed when in Touch Programming.

Programming the Clock Time and Alarm settings follows the same sequence as Touch Programming.

Clock Main Menu Selection



Bridge Contacts 1 & 2 with wetted fingers to access Clock Mode..

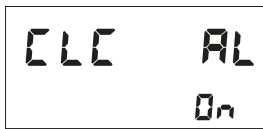
Clock Alarm Off



Short Contacts 1 & 2 with a Coin or other highly conductive metal object to access Clock time setting screen.

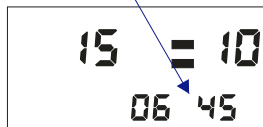
Bridge Contacts 1 & 2 with wetted fingers to toggle Clock Alarm on/off.

Clock Alarm On



Short Contacts 1 & 2 with a Coin or other highly conductive metal object to access Clock Alarm setting screen.

Setting Alarm Time

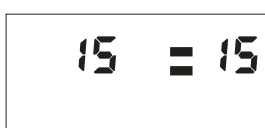


Short Contacts 2 & 3 with Coin to increment digit value. (Digit being programmed flashes)

Short Contacts 1 & 2 with a Coin selects the next programming option.

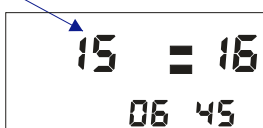
Bridge Contacts 1 & 2 with wetted fingers to select next digit.

Setting Time w/Alarm



Bridge Contacts 1 & 2 with wetted fingers to select next digit.

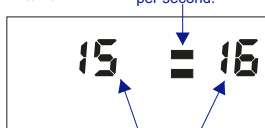
Short Contacts 2 & 3 with Coin to increment digit value. (Digit being programmed flashes)



Short Contacts 1 & 2 with a Coin selects the Clock Mode.

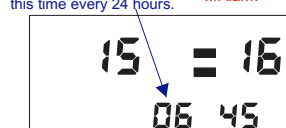
Bridge Contacts 1 & 2 with wetted fingers to select next digit.

Clock Mode w/Alarm



Clock and Alarm times are displayed using a 24 hour Clock. 15:16 = 3:16 pm.

Flashes once per second.



Alarm will sound and TacLite will flash for one minute at this time every 24 hours.

Clock Mode w/Alarm

Clock Mode must be exited before commencing a Dive.

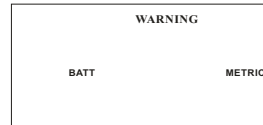
5

TYPES OF AUDIBLE WARNINGS

Most Warnings are issued for five seconds and repeated every two minutes

- Single Beep: Depth Alarm, two minutes of NDC Time Remaining, Entering Decompression, Oxygen Toxicity (CNS, OTU, PO2).
- Double Beep: Sensor Malfunction.
- Two Tone: Ascent Rate (Continuous).
- High to Low Sweep: Depth Shallower than Decompression Ceiling (Continuous).
- Low to High Sweep: Depth Shallower than Decompression Ceiling (Continuous).

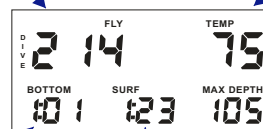
Any time the "WARNING" legend is on and/or flashing, some parameter is out of bounds. Look for the offending parameter that is flashing on and off every second.



When 'METRIC' legend is on, the unit is computing in Metric variables and displaying data in Metric units.

Any time the 'BATT' legend is on, battery voltage is below 2.5 volts and batteries should be changed. When 'BATT' legend is flashing, battery voltage is below 2.2 volts and batteries MUST be changed.

Dive Number & Time to Fly (Never Flash)



Temperature (Flashes if less than 20 or greater than 99 degrees F, or sensor is malfunctioning)

Bottom Time (Never Flashes)

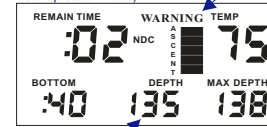
Surface Interval (Never Flashes)

Max Depth (Never Flashes)

NDC Time Remain (Flashes when two minutes or less remain before entering Decompression mode)

Ascent Rate Bar Graph (Flashes when ascending too fast based on Ascent rate alarm setting via Analyst)

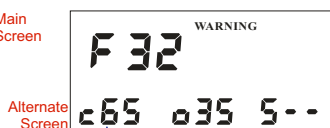
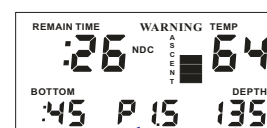
Temperature (Flashes if less than 20 or greater than 99 degrees F, or sensor is malfunctioning)



Depth (Flashes when user set maximum depth is exceeded.)

Depth (Flashes when 327 feet is exceeded or sensor is malfunctioning)

Sensor Failure (Sensor malfunction, 'T' is Temp Sensor, '-' is Depth Sensor)

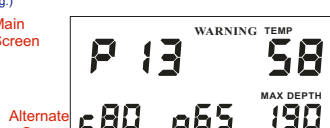


PO2 (Flashes when user set maximum PO2 value is exceeded.)

Depth (Flashes when user set maximum depth or 327 feet is exceeded or sensor is malfunctioning.)

CNS (Flashes when user set maximum value is exceeded.)

Sensor Failure (Sensor malfunction, 'T' is Temp Sensor, '-' is Depth Sensor)



Ceiling (Flashes if depth is less than ceiling.)

Depth (Flashes when depth is less than Ceiling.)

OTU (Flashes when user set maximum value is exceeded.)

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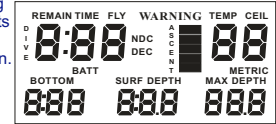
Cochran
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Fax 972.644.6286 877.288.3483 (US)

DISPLAY SCREENS
EMC-20H
Two Blend Nitrox

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"CardEMC20H_2FO2" 28November06

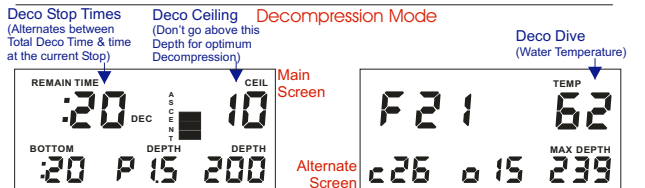
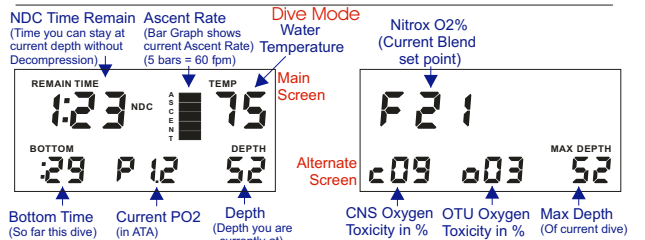
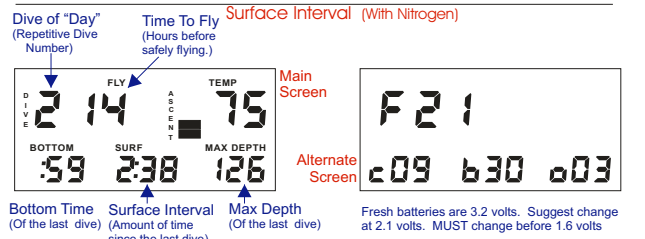
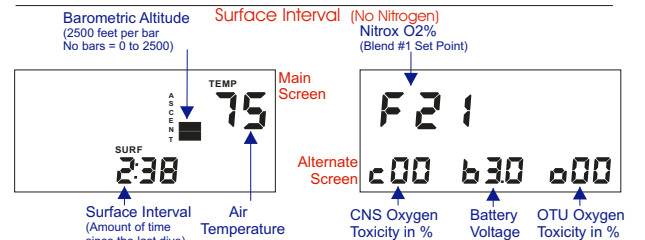
Diagnostic Mode (Unit Turning on)

Turn on by touching closest two Contacts on the side with wetted finger or coin.



Unit automatically turns off one hour after a dive or one hour after being turned on. Bridging contacts 1 & 2 will make unit stay on for another hour.

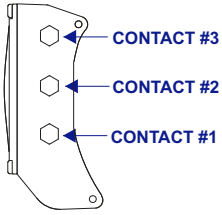
Tap Unit at any time to enable the Alternate Screen and Fiber Optic back light.



Unit can be Upgraded to PO2 for Rebreather Diving.

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Touch Programming



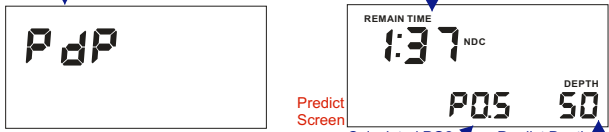
- To activate touch programming, the unit needs to be in a Normal Surface Interval.
- Shorting contacts 1 & 2 with a coin changes the top level menu selection.
- Shorting contacts 1 & 2 with wet finger takes you into that menu selection.
- The digit that is flashing is the one that is going to be incremented.
- Shorting contacts 2 & 3 with a wet finger or coin increments the digit that is flashing.

- Shorting contacts 1 & 2 with a wet finger makes the next digit flash.
- Touch Programming is automatically terminated after 5 minutes of no activity.
- Touch Programming is automatically terminated after a dive is started.
- Always scroll back through data to ensure it was entered and stored as desired.
- CLOCK comes from the factory disabled. If enabled, "CLC" will be the first screen seen in Touch Programming. See back page for details.

PreDive Prediction Main Menu Selection

Bridge Contacts 1 & 2 with wetted fingers to access PreDive Prediction.

Predict Time (h:mm) (Programmed FO2 or PO2 value influences time).



Short Contacts 1 & 2 with a Coin selects the next programming option.

Predict Screen

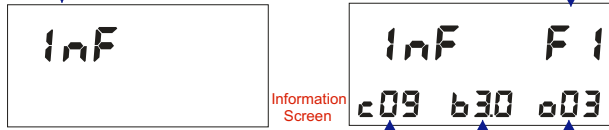
Calculated PO2 (Computed from FO2 Blend #1 Set Point for predict depth).

Predict Depth (Bridge Contact 1 & 2 with wetted finger to increment depth).

Information Screen Main Menu Selection

Bridge Contacts 1 & 2 with wetted fingers to access Information.

Mode/Blend Identifiers (F0=Air only, F1=1 FO2 F2=2 FO2, P1=1 PO2, P2=2 PO2).



Short Contacts 1 & 2 with a Coin selects the next programming option.

Information Screen

CNS Oxygen Toxicity in %

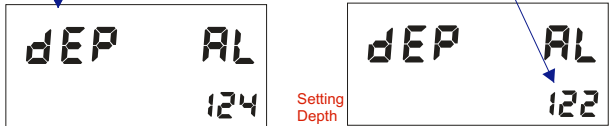
Battery Voltage

OTU Oxygen Toxicity in %

Depth Alarm Main Menu Selection

Bridge Contacts 1 & 2 with wetted fingers to access Depth Alarm.

Short Contacts 2 & 3 with Coin to increment digit value. (Digit being programmed flashes)



Short Contacts 1 & 2 with a Coin selects the next programming option.

Depth Alarm can be set from 0 to 410 Feet

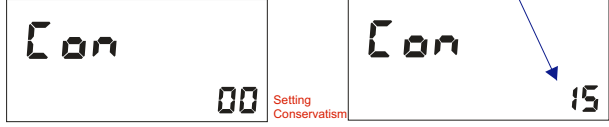
Setting Depth

Bridge Contacts 1 & 2 with wetted fingers to select next digit.

Conservatism Main Menu Selection

Bridge Contacts 1 & 2 with wetted fingers to access COnservatism.

Short Contacts 2 & 3 with Coin to increment digit value. (Digit being programmed flashes)



Short Contacts 1 & 2 with a Coin selects the next programming option.

Conservatism can be set from 0 (no conservatism) to 50 (Maximum conservatism)

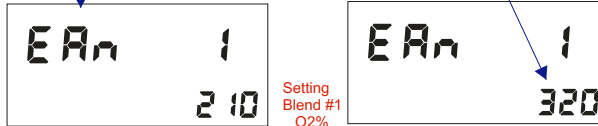
2

Use only fresh 3.0 volt Lithium batteries (CR12600SE)
Rinse the unit with clean fresh water after each dive.
Do not put the EMC-20H away while wet.
Do not subject unit to compressed air.
Do not remove the lens from the unit.
Do not use a screwdriver to remove the battery cap.

Set Blend #1 Main Menu Selection

Bridge Contacts 1 & 2 with wetted fingers to access Blend #1 O2%.

Short Contacts 2 & 3 with Coin to increment digit value. (Digit being programmed flashes)



Short Contacts 1 & 2 with a Coin selects the next programming option.

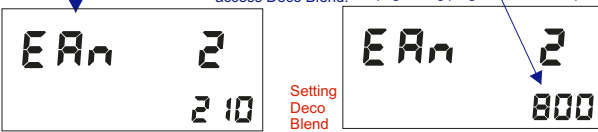
Bridge Contacts 1 & 2 with wetted fingers to select next digit.

Blend #1 O2 percentage can be set from 21.0 to 50.0%

Set Deco Blend Main Menu Selection

Bridge Contacts 1 & 2 with wetted fingers to access Deco Blend.

Short Contacts 2 & 3 with Coin to increment digit value. (Digit being programmed flashes)



Short Contacts 1 & 2 with a Coin selects the next programming option.

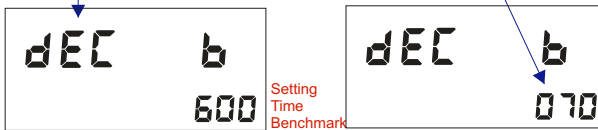
Bridge Contacts 1 & 2 with wetted fingers to select next digit.

Deco Blend O2 percentage can be set from 21.0 to 99.9%

Set Deco Blend Time Benchmark Main Menu Selection

Bridge Contacts 1 & 2 with wetted fingers to access Time Benchmark.

Short Contacts 2 & 3 with Coin to increment digit value. (Digit being programmed flashes)



Short Contacts 1 & 2 with a Coin selects the next programming option.

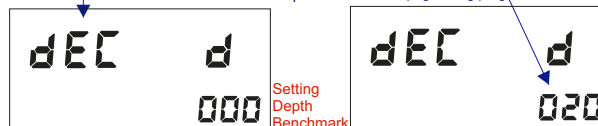
Bridge Contacts 1 & 2 with wetted fingers to select next digit.

Deco Blend Bottom Time Benchmark can be set from 10 to 999 minutes

Set Deco Blend Depth Benchmark Main Menu Selection

Bridge Contacts 1 & 2 with wetted fingers to access Depth Benchmark.

Short Contacts 2 & 3 with Coin to increment digit value. (Digit being programmed flashes)



Short Contacts 1 & 2 with a Coin selects the next programming option.

Bridge Contacts 1 & 2 with wetted fingers to select next digit.

Deco Blend Depth Benchmark can be set from 0 to 400 feet

Tactile Dwell Time Main Menu Selection

Bridge Contacts 1 & 2 with wetted fingers to access Tactile on Time.

Short Contacts 2 & 3 with Coin to increment digit value. (Digit being programmed flashes)



Short Contacts 1 & 2 with a Coin selects the next programming option.

Bridge Contacts 1 & 2 with wetted fingers to select next digit.

Tactile delay time can be set from 1 to 98. 0 = Tactile always off. 99 = Tactile always on.

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Dive Logbook Main Menu Selection

Bridge Contacts 1 & 2 with wetted fingers to access Logbook.



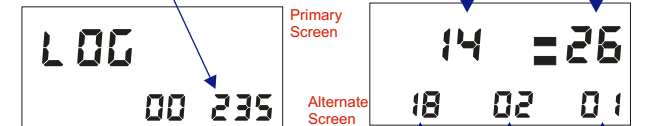
Short Contacts 1 & 2 with a Coin selects the next programming option.

Menu Screen W/Dive #

Dive Number. (Most recent displayed first, then next previous)

Hour 00 to 24

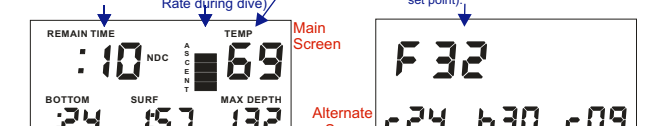
Minutes 00 to 59



Bridge Contacts 1 & 2 with wetted finger to select next dive.

Date (Of the dive) Month (Of the dive) Year (Of the dive)

NDC Time Remain (Amount of NDC time) Ascent Rate (Maximum Ascent Rate during dive) Water Temperature Nitrox O2% (Of current Blend set point)

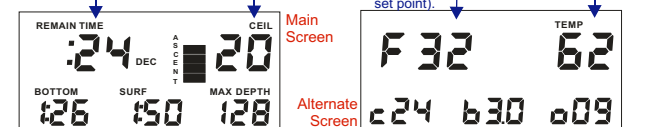


Bottom (Of the dive) Surface Interval (Amount of time prior to the dive) Max Depth (Of the dive)

CNS Oxygen Toxicity in % Battery Voltage OTU Oxygen Toxicity in %

Normal Dive

DEC Time Remain (Max amount of Deco time) Max Deco Ceiling Nitrox O2% (Of current Blend set point) Deco Dive (Water Temperature)



Short Contacts 1 & 2 with a Coin exits programming.

CNS Oxygen Toxicity in % Battery Voltage OTU Oxygen Toxicity in %

Deco Dive

Ascent Rate Bar Graph in Feet Per Minute (fpm)

Via the Analyst, the Ascent Bar Graph can be set to:

- Variable-by-depth where Bar value determined by depth: 60 feet and deeper - 60 fpm, 59 to 30 feet - fpm equal to depth, Less than 30 feet - 30 fpm
- Proportional Each Bar is 20% of selected rate
- Fixed (Speed) Each bar is 10 fpm
- Sensitivity from 0 to 7 (See Manual)

Greater than 60 Feet Per Minute, WARNING and top bar of graph will flash.

Current factory settings for the Ascent Rate Bar Graph are: Variable-by-depth, Proportional, with a Sensitivity of '3' (Nominal). Subject to change without notice.

	Fixed at 60 fpm	Variable-by-depth and Proportional Selected	
A	50 fpm or more	Depth less than 30 ft	50 fpm or more
S	40 To 49 fpm		40 To 49 fpm
C	30 To 39 fpm		30 To 39 fpm
E	20 To 29 fpm		20 To 29 fpm
N	10 To 19 fpm		10 To 19 fpm
T			

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