



1411 S. Roselle Rd. Schaumburg, IL 60193

Phone (847) 923-0002

Fax (847) 923-0004

www.AltronicsInc.com

Mounting DIGICAM to engine block

- Choose appropriate crank insert for engine type and place into Digicam Crank socket. Line up top groove on insert with 0.250" length set screws in crank socket and tighten.
- Slide Digicam's crank socket over snout of crankshaft. Now tighten 0.5" length brass tipped set screws on crank socket firmly to crank snout.
- Using spacer rod and bolt located in slot on Digicam, tighten into any upper timing cover bolt hole in engine block.

Note: Spacer length may need to be altered depending on engine block and/or type of cam drive (belt or chain).

Operation of DIGICAM

(Demonstration video is also available on the DIGICAM page of our website www.AltronicsInc.com)

TURN ON: Press MODE or SELECT button.

TURN OFF: Digicam will turn off automatically when there is no activity.

Turn off time can be adjusted from 1 to 15 minutes (Default 5 minutes). To adjust: When Digicam is off, Press both the MODE and SELECT keys together and display will show SLEEP followed by 1.0. Use the MODE key to adjust turn off time and press SELECT to save.

ZERO: Pressing the MODE and SELECT button together will set the current DIGICAM position to 0°

MODES: Pressing MODE button

- 1) tdc: Selecting tdc will begin Top Dead Center measurement.
- 2) Cctr: Selecting Ctdc will begin Cam Center Line measurement.
- 3) Cdur: Selecting Cdur will begin Cam Duration measurement.

General Operation:

DIGICAM will display Crank Position between 0° and 180° as crank socket is rotated. When rotation is stopped display will alternate between showing the current position in degrees followed by ATDC or BTDC (After or Before Top Dead Center) reference.

Setting DIGICAM to Piston TDC

Depending on if the cylinder head is installed, you can use a dial indicator on piston or piston stop method to find TDC.

Piston Stop method: (set on compression stroke)

- Rotate engine so cylinder #1 piston is approximately 30° BTDC and install your piston stop in cylinder #1.
- Press the MODE button on Digicam until "TDC" is displayed and press SELECT. Display will show "B→ → →" prompting you to rotate engine in Clockwise direction until piston hits piston stop. Now press the BTDC button.
- Display will show "← ← ←A" prompting you to rotate engine in Counter-Clockwise direction until piston again hits stop. Now Press the ATDC button.
- Display will now show correct piston position. Rotate piston away from the piston stop and remove piston stop. Rotate engine until display shows 0.0 and piston will be at TDC.

Dial indicator method: (set on compression stroke)

- Install dial indicator above piston #1
- Rotate engine to find max piston height and zero dial indicator.
- Press the MODE button on Digicam until "tdc" is displayed and press SELECT. Display will show "B→ → →" prompting you to rotate engine in Clockwise direction until piston reaches 0.050" BTDC. Now press the BTDC button.
- Display will show "← ← ←A" prompting you to rotate engine in Counter-Clockwise direction (You can also continue to rotate in Clockwise direction) until piston reaches 0.050" ATDC. Now Press the ATDC button.
- Display will now show correct piston position. Rotate engine until display shows 0.0 and piston will be at TDC.

NOTE: If TDC mode is selected accidentally you can exit without losing the saved TDC reference by simply pressing the opposite requested ATDC or BTDC button. (EX: if display is showing "B→ → →" press the ATDC to exit.)

Degreeing Camshaft

To determine cam centerline there are various points that the dial indicator can be attached to measure the cam lobe lift, such as on the lifter or at the valve. Procedure is the same, regardless of your preferred method.

- Install dial indicator to measure intake lobe lift on cylinder #1
- Rotate engine to find max lift and zero dial indicator.
- Rotate engine counter clockwise to approx. 0.100" before max lift.
- Press the MODE button on Digicam until "Ctr" is displayed and press SELECT. Display will show "B→ → →" prompting you to rotate engine in Clockwise direction until 0.050" before max lift. Now press the BTDC button.
- Display will show "→ → →A" prompting you to rotate engine in Clockwise direction until 0.050" after max lift. Now press the ATDC button.
- Display will show cam center line XXX.X° (Example:101.2°). Press any button to return to show crank position.

Camshaft Duration

To determine cam duration there are various points that the dial indicator can be attached to measure the cam lobe lift, such as on the lifter or at the valve. Procedure is the same, regardless of your preferred method.

- Install dial indicator to measure intake lobe lift on cylinder #1
- Rotate engine to find minimum lift and zero dial indicator (Valve Closed).
- Press the MODE button on Digicam until "Cdur" is displayed and press SELECT. Display will show "B→ → →" prompting you to rotate engine in Clockwise direction until 0.050" lift after beginning to open. Now press the BTDC button.
- Display will show "→ → →A" prompting you to continue to rotate engine in Clockwise direction until 0.050" before valve closes after max lift. Now press the ATDC button.
- Display will show cam lobe duration XXX.X° (Example:280.2°). Press any button to return to show crank position.

Change Batteries

- Remove 4 screws on main bracket shown in figure 1.
- Lift off cover from bracket. Be cautious of cable.
- Lift circuit board out of cover.
- Replace both AAA batteries.
- Reassemble.

DIGICAM INSERTS:

ALT-DCAM-SBC 1.249" ID Red
ALT-DCAM-BBC 1.603" ID Black
ALT-DCAM-LS1 1.485" ID Blue
ALT-DCAM-OLD 1.502" ID Green
ALT-DCAM-MOP 1.534" ID Orange
ALT-DCAM-PFD 1.377" ID Yellow

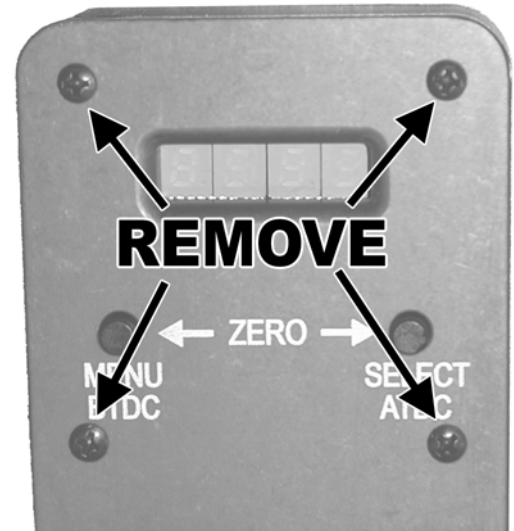


Figure 1.