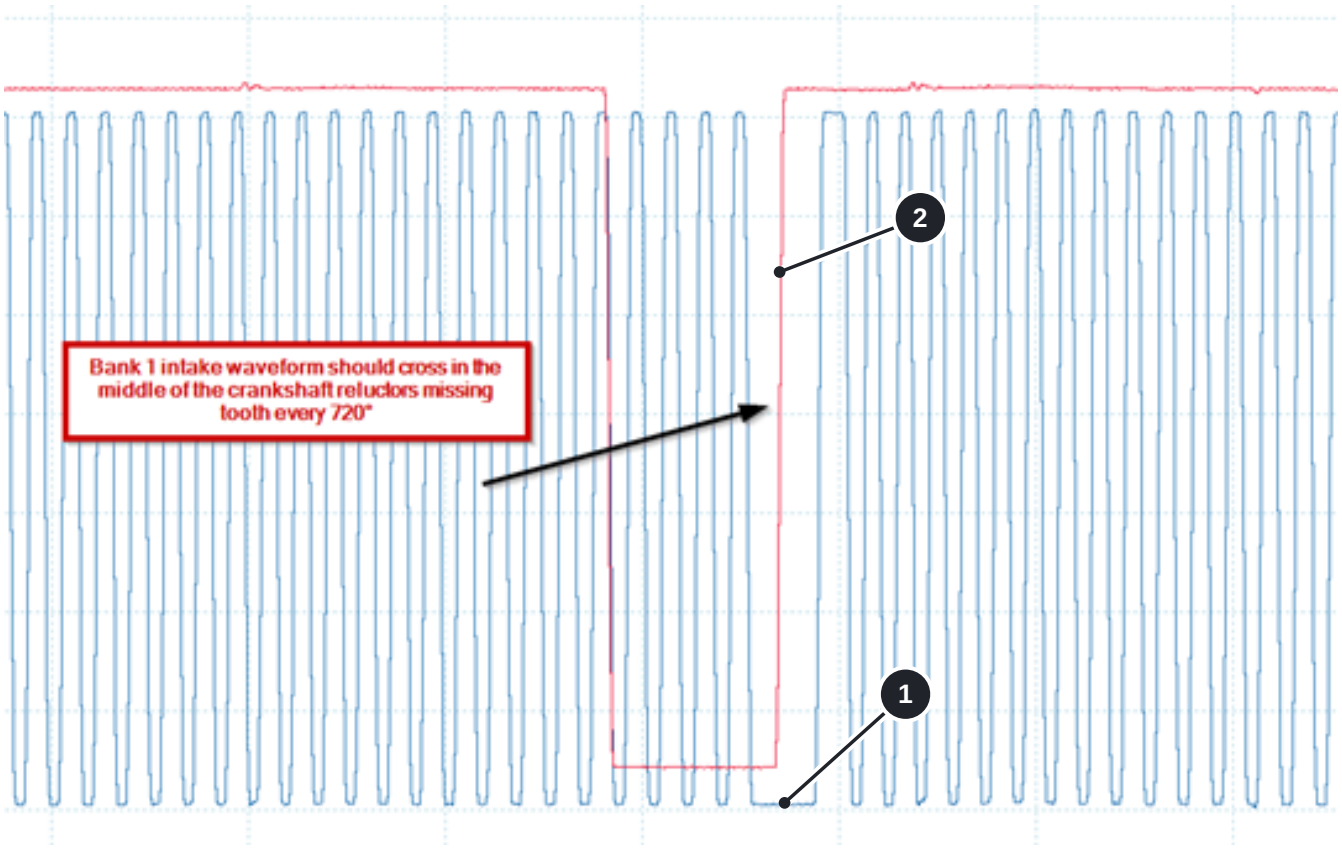
Bank 1 intake reference

Blue = crankshaft | Red = intake camshaft. Colors describe this source capture; identify your own channels.



1 - Crank reference gap. The longer low interval interrupts the regular blue pulse train.

2 - Cam rising edge. The red intake rising edge is inside the blue crank reference gap in this capture.

Use this same rising edge and the same gap when comparing a compatible capture. The other edge of the red pulse is a different reference point.

Shown reference: GoTech Traverse series after engine replacement and timing-chain work. Mike reports that the engine runs well with no check-engine light. These are teaching references, not universal GM 3.6L pass/fail specifications.

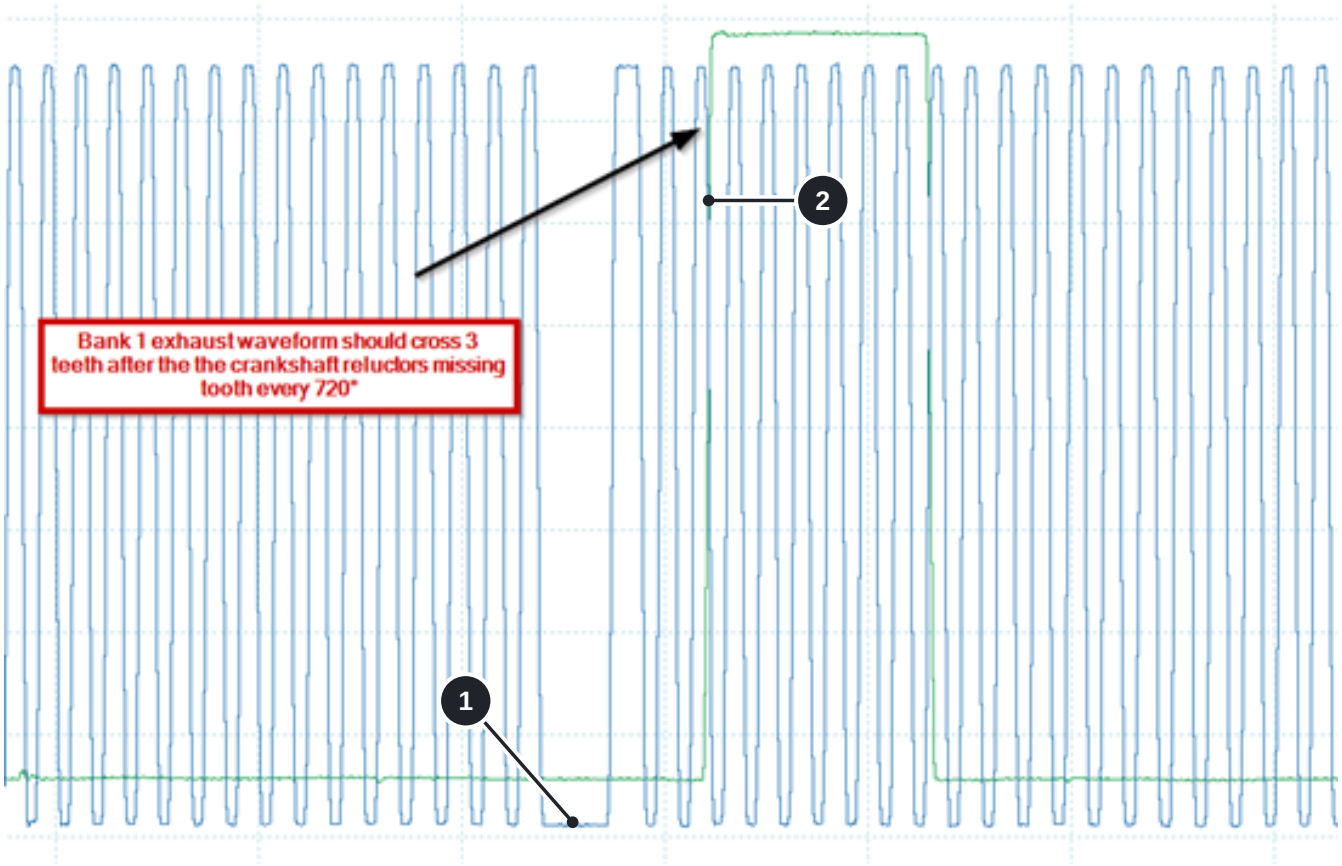
The donor engine year/RPO, exact RPM, temperature and VVT state for these image crops are not confirmed. The written guide calls for disconnected VVT solenoids; the video does not confirm that condition for the shown capture. Match the engine and the manufacturer-specified test conditions before using a reference to judge another engine.

No universal allowable offset is supplied. A repeatable difference calls for application-specific diagnosis; it does not by itself identify chain wear.

GoTech video explanation: 5:49 | Pico: comparison method and matching references

Bank 1 exhaust reference

Blue = crankshaft | Green = exhaust camshaft. Colors describe this source capture; identify your own channels.



1 - Crank reference gap. The longer low interval interrupts the regular blue pulse train.

2 - Cam rising edge. The green exhaust rising edge is about three crank pulses after the gap in this capture.

Mike describes this rising edge at 6:19-7:11. Do not use the bank 2 exhaust gap-crossing relationship for this bank.

Shown reference: GoTech Traverse series after engine replacement and timing-chain work. Mike reports that the engine runs well with no check-engine light. These are teaching references, not universal GM 3.6L pass/fail specifications.

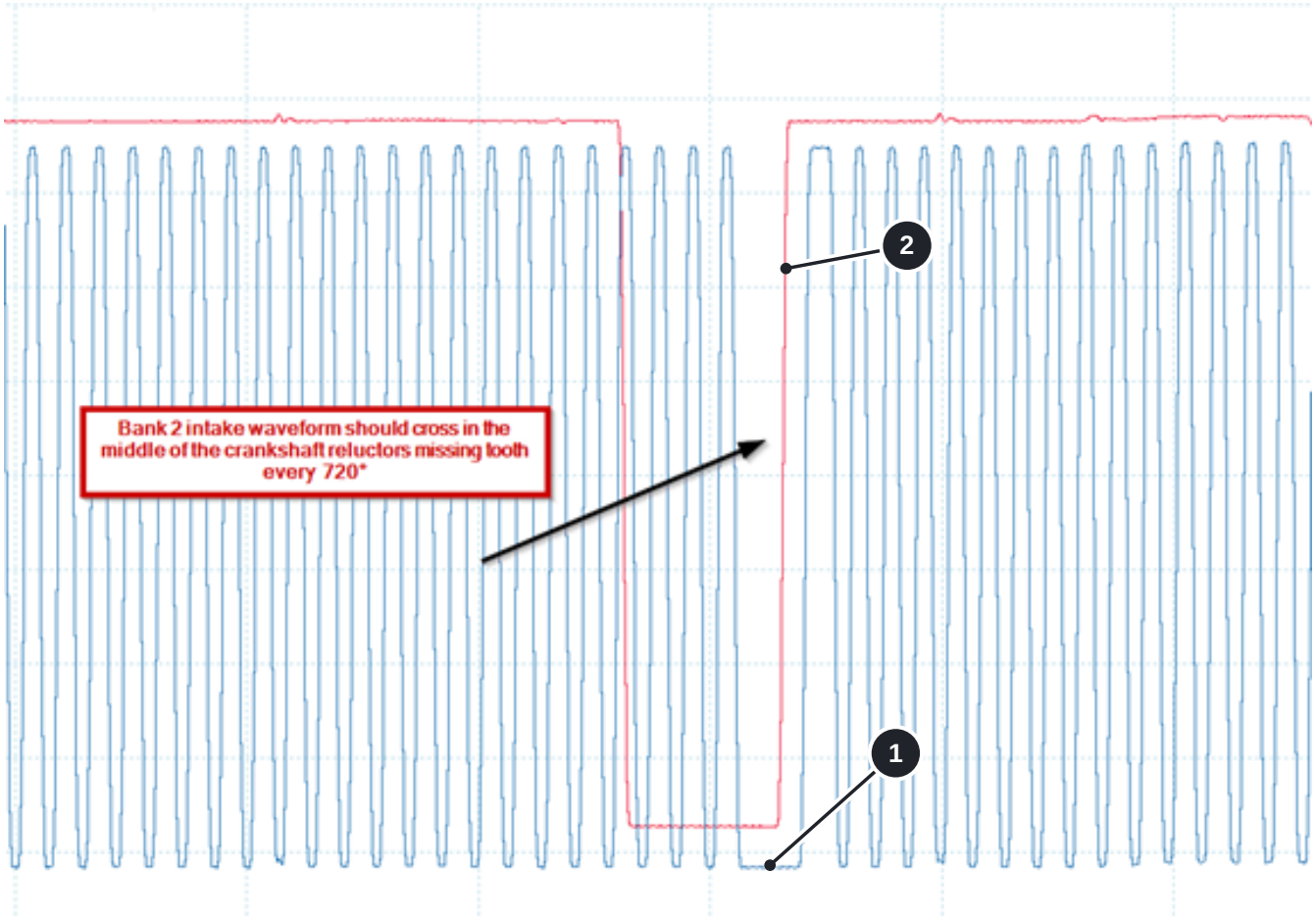
The donor engine year/RPO, exact RPM, temperature and VVT state for these image crops are not confirmed. The written guide calls for disconnected VVT solenoids; the video does not confirm that condition for the shown capture. Match the engine and the manufacturer-specified test conditions before using a reference to judge another engine.

No universal allowable offset is supplied. A repeatable difference calls for application-specific diagnosis; it does not by itself identify chain wear.

GoTech video explanation: 6:19 | Pico: comparison method and matching references

Bank 2 intake reference

Blue = crankshaft | Red = intake camshaft. Colors describe this source capture; identify your own channels.



1 - Crank reference gap. The longer low interval interrupts the regular blue pulse train.

2 - Cam rising edge. The red intake rising edge is inside the blue crank reference gap in this capture.

Keep the bank 2 label with the reference. A similar-looking bank 1 image is not a substitute for confirming the application and signal identity.

Shown reference: GoTech Traverse series after engine replacement and timing-chain work. Mike reports that the engine runs well with no check-engine light. These are teaching references, not universal GM 3.6L pass/fail specifications.

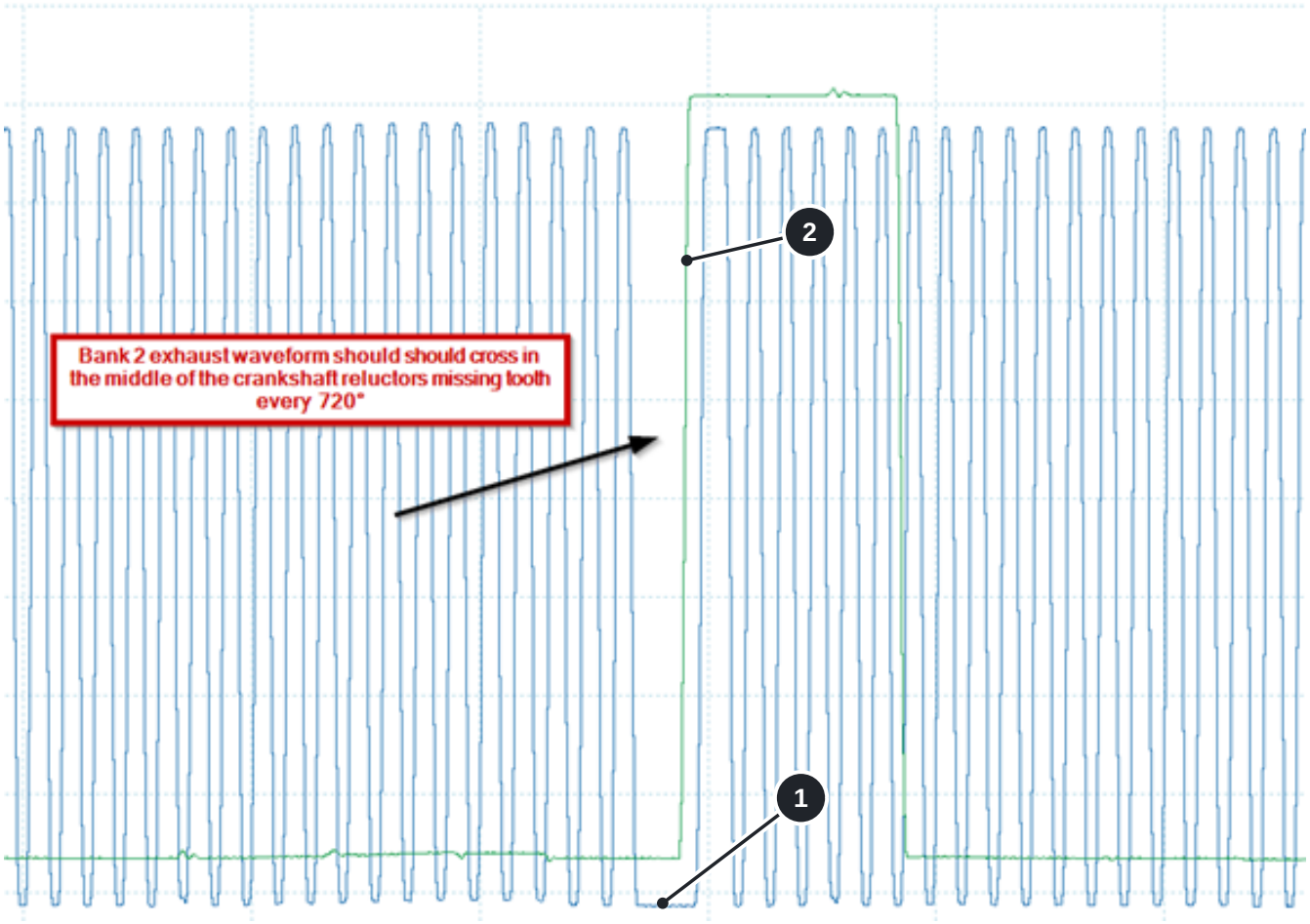
The donor engine year/RPO, exact RPM, temperature and VVT state for these image crops are not confirmed. The written guide calls for disconnected VVT solenoids; the video does not confirm that condition for the shown capture. Match the engine and the manufacturer-specified test conditions before using a reference to judge another engine.

No universal allowable offset is supplied. A repeatable difference calls for application-specific diagnosis; it does not by itself identify chain wear.

GoTech video explanation: 9:16 | Pico: comparison method and matching references

Bank 2 exhaust reference

Blue = crankshaft | Green = exhaust camshaft. Colors describe this source capture; identify your own channels.



1 - Crank reference gap. The longer low interval interrupts the regular blue pulse train.

2 - Cam rising edge. The green exhaust rising edge is inside a crank reference gap in this capture.

In the complete bank 2 capture, Mike identifies the exhaust crossing one crank revolution after the intake crossing. The cropped image alone does not show that full sequence.

Shown reference: GoTech Traverse series after engine replacement and timing-chain work. Mike reports that the engine runs well with no check-engine light. These are teaching references, not universal GM 3.6L pass/fail specifications.

The donor engine year/RPO, exact RPM, temperature and VVT state for these image crops are not confirmed. The written guide calls for disconnected VVT solenoids; the video does not confirm that condition for the shown capture. Match the engine and the manufacturer-specified test conditions before using a reference to judge another engine.

No universal allowable offset is supplied. A repeatable difference calls for application-specific diagnosis; it does not by itself identify chain wear.

GoTech video explanation: 9:24 | Pico: comparison method and matching references