



BINUNLOCK LLC

Professional offline file workspace

BinUnlock MG1 Workspace

Complete English operating guide

Clear, file-safe operation of Flash Patch, 1CR Repair, and FSC Bundle for supported gasoline MG1 / TC29x bench-read flash files.

VERSION 2.0.0 · 13 AUGUST 2026

Qualified workshop personnel only. This application processes local files. It does not read from, connect to, or program a DME. Physical identification, bench reading, programming, power control, and post-write validation remain the operator's responsibility.



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PRODUCT BinUnlock MG1 Workspace	VERSION 2.0.0
OPERATING MODEL Offline · local files only	REQUIRED FLASH LENGTH 8 MiB · 8,388,608 bytes
PRIMARY WORKFLOWS Flash Patch · 1CR Repair · FSC Bundle	OFFICIAL SITE https://binunlock.com/

SCREENSHOT PROVENANCE

Every interface image in this guide was created by the deterministic no-network UI test harness. The visible customer label, identifiers, hashes, file names, and operation results are synthetic. No customer flash or vehicle data was used.



CHAPTER 01

Product scope and offline boundary

MG1 Workspace is a local Windows file transformer for supported gasoline MG1 DME flash images from TC29x-based units. The application separates file processing from all physical vehicle and control-unit work. The selected source is never used as the output target.

What it does

- Opens one operator-selected flash file read-only.
- Requires an exact length of **8 MiB (8,388,608 bytes)**.
- Inspects supported signatures and reports a state before enabling a transformation.
- Creates a new Flash Patch output or a new 1CR Repair output.
- Recalculates the required checksum after a supported transformation.
- Generates a verified ZIP containing the selected FSC files.
- Reports output paths and SHA-256 values in the activity log.

What it does not do

- It does not open a vehicle transport, diagnostic session, serial port, programming cable, or J2534 device.
- It does not identify a DME from a live vehicle.
- It does not perform the physical bench read or write.
- It does not extract an 8 MiB segment from a larger container.
- It does not claim that size alone proves support.
- It does not replace current OEM repair information, authorization, compatibility checks, or post-programming validation.

FILE-ONLY MEANS FILE-ONLY

Selecting a flash never contacts a DME. Choosing **Create patched copy** or **Create repaired copy** writes only a new local file. The physical unit remains unchanged until a qualified operator deliberately programs that output with separate bench equipment.

Supported claim is deliberately narrow

The application recognizes exact patterns recovered and independently tested for its supported gasoline MG1 / TC29x file contract. A file can be exactly 8 MiB and still be unsupported. An unsupported result is a stop condition, not evidence that the file or DME is defective.

SAFE DEFAULT

If the expected state is not proven exactly once, the relevant action remains disabled and no successful output is reported.



CHAPTER 02

Authorization and workshop safety

Use the software only within an authorized repair or development job and only when the operator is qualified to identify, read, program, and validate the exact DME involved.

✓ Owner or work-order authorization is recorded.

✓ DME part identity and vehicle application are independently confirmed.

✓ The original flash read is preserved outside the working folder.

✓ The bench tool and read mode are appropriate for the exact unit.

✓ Stable, correctly controlled programming power is available.

✓ Current OEM and equipment-manufacturer procedures are available.

✓ A recovery copy and recovery method are prepared before writing.

✓ Post-write identity, fault, start, and function checks are planned.

Four stop rules

STOP · IDENTITY

Do not continue when the selected file cannot be tied to the intended DME and recorded job.

STOP · FILE SHAPE

Do not trim, pad, concatenate, or rename a different data format merely to reach 8 MiB.

STOP · INSPECTION

Do not write an output when MG1 Workspace reports unsupported, ambiguous, already changed, or the wrong workflow state.

STOP · PROGRAMMING CONDITIONS

Do not program with uncertain pinout, unstable power, unsuitable equipment, or no verified recovery path.

Data handling

Flash and FSC files can identify a job or vehicle. Store them in an access-controlled job folder, avoid public file-sharing links, and retain hashes with the work record. The activity log is useful evidence, but it is not a replacement for the original file, the bench-tool log, or the vehicle repair order.

NO PHYSICAL PROCEDURE IN THIS GUIDE

This document intentionally gives no connector pinout, opening, soldering, voltage, boot-mode, or programming sequence. Follow the current instructions for the specific DME and bench tool.



CHAPTER 03

Prepare the workstation and source

A clean job folder and an untouched source make every later decision easier to verify. Prepare both before opening the application.

01

Preserve

Copy the original bench read into protected storage and record its tool log.

02

Confirm

Confirm that the working input is exactly 8,388,608 bytes and belongs to the job.

03

Separate

Use distinct folders or names for source, patched, 1CR-repaired, and FSC outputs.

Recommended job layout

Item	Example role	Rule
original/	Untouched bench read and bench-tool report.	Read-only job evidence; never select it as an output destination.
workspace/	A working copy selected for inspection.	Must still match the recorded original hash before processing.
output/	New patched or 1CR-repaired files.	Use a new, previously unused file name for every result.
fsc/	The verified FSC ZIP.	Keep the ZIP with the exact patched-file release used for the job.
records/	SHA-256 values, operator notes, and post-check results.	Record which output was actually programmed.

Exact file admission

8 MiB

Binary length required by Flash Patch and 1CR Repair.

8,388,608

Exact byte count shown by the inspection panel.

Read-only

The selected source is never used as the output target.

LARGER CONTAINERS ARE NOT INPUTS

A file that contains an 8 MiB region but is larger overall is rejected as a whole. Do not guess an offset or manually remove a header unless the approved bench-tool workflow explicitly exports the required raw 8 MiB flash.

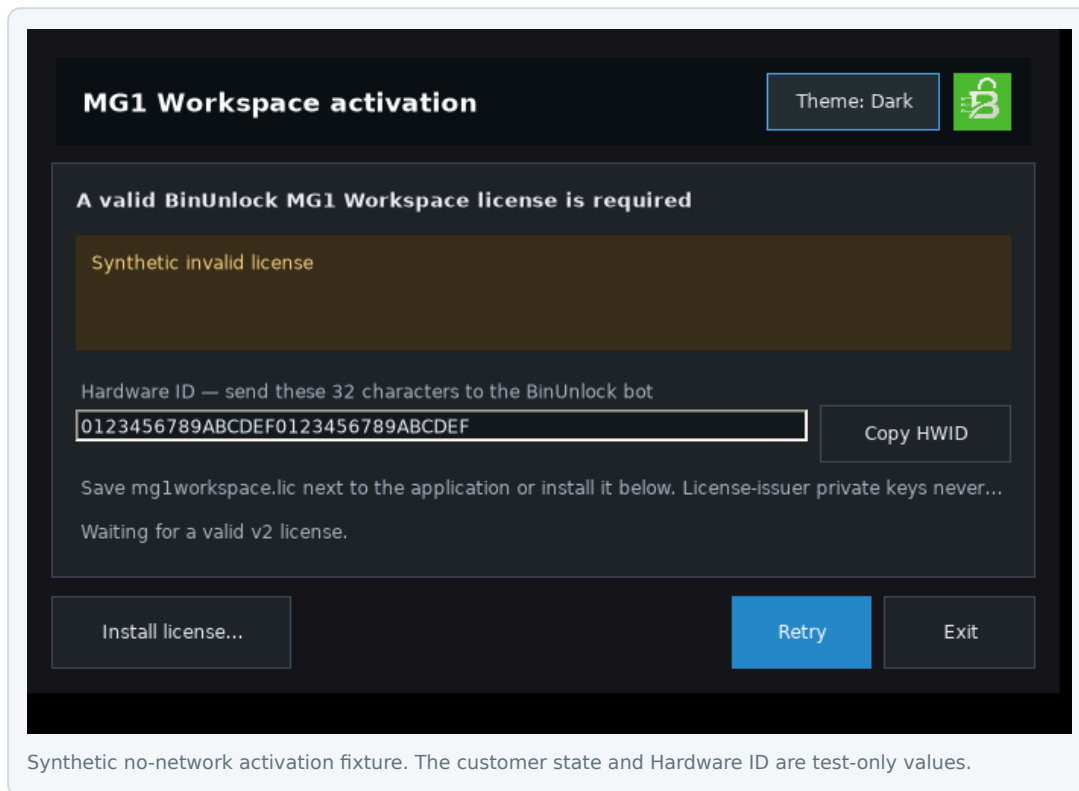
Before activation or processing, set the Windows clock correctly. Timed license validation and FSC generation depend on a coherent workstation time.



CHAPTER 04

Activation and license duration

If no valid product license is available, the activation window appears before the workspace. Activation uses a signed `mg1workspace.lic` file bound to the displayed 32-character Hardware ID.



10 DAYS

Timed license

Valid until the signed UTC expiry instant.

30 DAYS

Timed license

The same rules with a longer signed duration.

NEVER

No date expiry

Computer binding and integrity validation still apply.

- 01 Select **Copy HWID** and send the 32-character value through the approved BinUnlock licensing channel.
- 02 Receive the license file for the correct customer, computer, product, and selected duration.
- 03 Place `mg1workspace.lic` beside the application or select **Install license...** to install it for the current Windows user.
- 04 Select **Retry**. A valid license opens the main workspace and shows the licensed customer and expiry in the header.

CLOCK AND FILE INTEGRITY

An expired license, wrong computer, wrong product, altered license, materially future issue time, or detected clock rollback is rejected. Correct the Windows time and use the original issued file; do not edit it.



CHAPTER 05

Main workspace tour

The main window presents three independent workflows. File inspection, immutable-source messaging, result details, activity history, and current status stay visible without reproducing the old utility layout.

Synthetic no-network fixture · Flash Patch selected · no flash loaded. The source field is empty and the action is disabled.

- 1 Header:** product identity, version, licensed customer, expiry, theme, and official site link.
- 2 Route bar:** Flash Patch, 1CR Repair, and FSC Bundle.
- 3 Source card:** read-only source path, picker, and immutable-source reminder.
- 4 Inspection card:** byte count, SHA-256, variant, state, and analysis detail.
- 5 Action card:** enabled only when the selected route is valid for the inspected file.
- 6 Activity log:** UTC-timestamped inspection, output, verification, cancellation, and failure records.
- 7 Status bar:** ready text or the current protected operation.
- 8 Progress indicator:** visible while one operation is active.

THEME AND SCALING

Use the theme button for light or dark presentation. The workspace is DPI-aware and supports keyboard navigation; maximize the window at high display scaling if more list space is useful.



CHAPTER 06

Navigation, status, and cancellation

Each route keeps its own inputs and eligibility. Changing the visible route does not perform a transformation and does not create an output.

Control or display	Purpose	Operator use
1 Flash Patch	Inspects a raw flash for the supported FSC trust-set patch state.	Use on the preserved, supported source workflow—not as a general file editor.
2 1CR Repair	Inspects a tuned flash for the supported 1CR / SWSigStatus repair state.	Use only for the after-tuning condition described in Chapter 11.
3 FSC Bundle	Builds a selected, verified FSC set from the exact request fields.	Use with the matching rotated-key Flash Patch release.
Theme	Switches light/dark colors.	No file is opened or modified.
BinUnlock favicon	Opens the official site in the default browser.	The application itself remains a local file processor.
Activity log	Records UTC time, file name, byte count, hashes, state, success, or failure.	Copy relevant text into the job record before closing.

Keyboard access

Alt+1

Open Flash Patch.

Alt+2

Open 1CR Repair.

Alt+3

Open FSC Bundle.

One operation at a time

While an inspection, transformation, or FSC publication is active, route and input controls are disabled and the progress indicator is visible. Attempting to close the window requests cancellation and keeps the window open until the operation reaches a safe boundary.

DO NOT TERMINATE THE PROCESS

Wait for completion or the confirmed cancellation state. Forced termination can prevent a clean job record and can leave an unreported staging file, although a successful final output is published only after verification.

CANCELLED MEANS NOT PUBLISHED

Cancelling the open or save dialog performs no transformation. The activity log distinguishes a safe cancellation from a verified successful output.



CHAPTER 07

File inspection and states

Inspection is mandatory before either flash action. It reads the entire selected file, computes SHA-256, applies the exact 8 MiB check, and asks the protected engine to classify the relevant signatures.

- 01 Open the required route and select **Select and inspect...**
- 02 Choose the raw bench-read flash. The file picker accepts common binary extensions, but the contents and exact byte count—not the extension—control admission.
- 03 Wait for **BYTES, SHA-256, VARIANT, STATE**, and the detail message to populate.
- 04 Compare the displayed file name, length, and SHA-256 with the intended job record.
- 05 Continue only if the route-specific create button becomes enabled and the state exactly matches the planned operation.

Displayed state	Meaning	Required response
Ready for Flash Patch	The supported source signature is present in the exact required state.	Flash Patch output may be created.
Ready for 1CR Repair	A supported unrepaired 1CR signature is present.	1CR Repair output may be created.
Already patched	The expected original patch source is no longer the active source state.	Do not run Flash Patch again.
Already repaired	The supported repair replacement is already present.	Do not run 1CR Repair again.
Foreign or ambiguous modification	More than one candidate or an unrecognized modification prevents a unique safe decision.	Stop and investigate from the preserved original.
Unsupported	The exact required pattern or supported file contract was not proven.	Do not force the action or alter the file to imitate support.

SOURCE RECHECK

Immediately before a transformation, MG1 Workspace hashes the source on disk again. If it changed after inspection, the operation stops and asks you to load it again.



CHAPTER 08

Flash Patch workflow

Flash Patch updates the supported FSC verification material in a new flash copy and recalculates the required checksum. It is intended for an exact, supported 8 MiB gasoline MG1 / TC29x bench read.

- 01 Preserve the original read and confirm the intended DME/job identity independently.
- 02 Select **1 Flash Patch**, then choose **Select and inspect....**
- 03 Select the raw **8,388,608-byte** flash. Confirm the displayed source path and SHA-256.
- 04 Require **Ready for Flash Patch**. Read the detail; do not rely on size alone.
- 05 Select **Create patched copy....**
- 06 Choose a new path that does not already exist. The suggested pattern is the source base name plus - `patched.bin`.
- 07 Wait for **Output verified**. Record the output path, output SHA-256, exact length, changed-range count, and checksum detail from the log.
- 08 Keep the output with the same 2.0.0 FSC-generation release. Program it only through the qualified bench workflow described in Chapter 17.

Before creation

- Source exists and is a regular local file.
- Length is exactly 8 MiB.
- Source state is unique and supported.
- License is valid at the operation boundary.
- Output differs from the source and does not exist.

Before use

- Output length remains exactly 8 MiB.
- Publication verification succeeds.
- Output SHA-256 is recorded.
- No failure is shown in the activity log.
- The physical recovery plan remains available.

NO REPEAT PATCHING

An already-patched or differently modified file is not a substitute for an original supported source. Return to the preserved original and determine the correct migration or recovery route.



CHAPTER 09

Rotated FSC trust set

Version 2.0.0 uses a new product-specific FSC signing trust set. The Flash Patch output and FSC Bundle output are designed as a matching pair.

FLASH

Verification material

Flash Patch replaces the recognized original verification modulus with the new BinUnlock MG1 Workspace modulus.

FSC

Matching signatures

FSC Bundle generates and independently verifies files using the matching protected signing material.

PAIR

One release family

Keep the patched flash and generated FSC ZIP tied to the same approved release and job record.

Why the rotation matters

Reusing signing material from an earlier public utility would not provide a clean trust boundary. The rewrite therefore excludes that historical signing secret and installs a fresh verification modulus while preserving the recovered 128-byte flash layout and the proven FSC format. This intentional difference is the only key-related parity change.

Input condition	Version 2.0.0 behavior	Operator decision
Recognized original source	Eligible for the rotated Flash Patch after all safety checks.	Create one new patched output.
Already at current rotated target	Classified as already patched; a repeat write is not offered.	Use the matching FSC Bundle if the job is otherwise valid.
Earlier public-tool target	Detected as a distinct prior target and blocked from the normal patch route.	Do not treat it as current-ready. Return to the original or use a separately approved migration process.
Foreign or multiple candidates	No unique safe transformation is available.	Stop; investigate the provenance and preserved original.

NO SILENT MIXING

FSC files from one trust set must not be assumed to match a flash produced by another. Record the release version, patched-output hash, VIN last seven, and FSC ZIP hash together.

OPERATOR-FACING DETAIL

The application handles the cryptographic format internally. Operators should not export, replace, or manually modify embedded signing or verification material.



CHAPTER 10

Checksum and output integrity

Both Flash Patch and 1CR Repair automatically recalculate the required supported MG1 checksum after the exact byte change. A result is not reported as successful until the output is reopened and verified.

Transformation controls

- The transformation runs in a private memory copy.
- Every reported change range must match its expected before and after bytes.
- Overlapping ranges are rejected.
- Any unreported changed byte is rejected.
- The result must remain exactly 8 MiB.
- A checksum exception produces no successful output.

Publication controls

- The source path and output path cannot resolve to the same file.
- An existing output is rejected; choose a new name.
- A same-directory staging file is flushed before publication.
- The published output is reopened.
- Length and SHA-256 must match the in-memory result.
- Only then is success shown in the dialog and log.

How to use SHA-256 in the job record

- 01 Record the source SHA-256 displayed immediately after inspection.
- 02 Record the new output SHA-256 from **Output verified** and the activity log.
- 03 Before physical programming, hash the file selected in the bench tool and compare it with the recorded output value.
- 04 After archiving or transfer, hash again. A different value means the file is not the verified output.

CHECKSUM IS AUTOMATIC

Do not run an unrelated checksum utility over the verified result. Any later modification creates a different file and invalidates the recorded output SHA-256.

A HASH IS IDENTITY, NOT COMPATIBILITY

SHA-256 proves that two byte streams match. It does not prove that the file belongs to the intended DME, that the bench read was complete, or that programming conditions are safe.

Suggested record fields

Work order · operator · DME identity · bench tool/read mode · source path/hash · inspection state · operation · output path/hash · application version · date/time · programming verification · post-check result.



CHAPTER 11

When to use 1CR Repair

1CR Repair is a separate, narrowly scoped transformation for a supported flash after tuning when the original 1CR no longer works or E-Sys reports `SWSigStatus` rejected.

USE THIS ROUTE

The DME flash has been tuned, the relevant 1CR state is lost or rejected, and the exact 8 MiB tuned image inspects as **Ready for 1CR Repair**.

DO NOT USE IT

The only goal is the FSC trust-set patch. Use Flash Patch and its own supported state instead.

DO NOT REPEAT IT

The file reports **Already repaired**. Repeating the mutation is neither necessary nor offered.

STOP AND REVIEW

The file is unsupported, ambiguous, the wrong size, not tied to the job, or its tuned provenance is unknown.

What the repair changes

On a supported image, the engine locates one exact recognized 1CR signature according to the recovered variant priority, applies the matching one-byte repair, and updates the same required checksum used by Flash Patch. Production safety rules require a unique recognized state and reject uncertain or already-changed input.

Required evidence before use

- Preserved original and tuned file are available.
- The tuned file is exactly 8 MiB.
- The tuning event and observed rejection are documented.
- The intended DME identity is confirmed.
- Inspection reports Ready for 1CR Repair.

Required evidence after use

- A new repaired file is verified.
- The repaired output hash is recorded.
- No third-party modification is made afterward.
- The programmed file hash matches the recorded output.
- E-Sys and functional post-checks are repeated.

NOT A GENERAL TUNING REPAIR

This function does not diagnose tuning quality, restore arbitrary calibrations, identify every reason for an FSC rejection, or make an unsupported file compatible.



CHAPTER 12

1CR Repair workflow

The screenshot shows the BinUnlock MG1 Workspace interface. At the top, there's a header with the application name, version (2.0.0), and a license status. Below the header, there are three tabs: '1 Flash Patch', '2 1CR Repair' (which is selected and highlighted in blue), and '3 FSC Bundle'. The main area is divided into two panels. The left panel, titled 'Source flash — read only', contains a text input field and a 'Select and inspect...' button. Below this, a message states: 'SOURCE IMMUTABLE — the selected file is never overwritten. A verified new output file is published atomically.' The right panel, titled 'Inspection result', displays a table with the following data:

BYTES	Not loaded
SHA-256	—
VARIANT	—
STATE	Not inspected

Below the table, it says 'Select a source flash to begin.' At the bottom of the interface, there's a button labeled 'Create repaired copy...'. A footer note at the bottom of the screenshot reads: 'Synthetic no-network fixture · cropped route view · 1CR Repair selected · no file loaded. The create action remains disabled until inspection proves eligibility.'

- 01 Keep both the original and tuned reads. Work from the exact tuned 8 MiB image associated with the reported 1CR / SWSigStatus condition.
- 02 Select **2 1CR Repair**, then **Select and inspect...**
- 03 Confirm **8,388,608 bytes**, the intended file path, and the recorded source SHA-256.
- 04 Require **Ready for 1CR Repair**. If another state appears, stop and preserve the message.
- 05 Select **Create repaired copy...** and choose a new unused name. The suggested pattern is `-lcr-repaired.bin`.
- 06 Wait for checksum work, publication, reopen, length verification, changed-range verification, and SHA-256 verification to complete.
- 07 Record the repaired output path and hash. Program only that verified file through the approved bench procedure.
- 08 After programming, repeat the intended E-Sys SWSigStatus and functional checks. Preserve the diagnostic result with the job.

SELECT THE CORRECT STAGE

Running 1CR Repair on the original read when the condition exists only in the tuned image does not follow the intended workflow. The inspected input must be the exact image to be programmed.



CHAPTER 13

FSC request fields

FSC Bundle creates one verified ZIP for the entered request fields and selected owner-approved application identifiers. At least one application must be selected.

BinUnlock MG1 Workspace

Offline MG1 / TC29x file processing • Version 2.0.0

Licensed to Documentation...

Expiry: Never

Guide

Theme: Dark

1 Flash Patch

2 1CR Repair

3 FSC Bundle

Build one verified FSC ZIP from the exact request fields and owner-approved application identifiers. A partial set is never published.

VIN (last 7)

Generator ID (6 characters)

Order ID (7 characters)

ABC12D3

123456

1234567

Owner-approved FSC applications

☒ 01A40001 S58B30T0 / DME-86T0 — F97/F98 Competition Package

☐ 01AB0001 S63B44T4 DME1 — Competition Package (F90/F91/F92/F95/F96)

☐ 01AC0001 S63B44T4 DME2 — Competition Package (F90/F91/F92/F95/F96)

☐ 01C10001 DME1 — G8x M Drive Professional (factory/service)

☐ 01EC0001 S58B30T0 / DME-86T0 — G87 CS (factory)

☐ 017C0001 DME1 — Remote Engine Start release

Select all

Clear

1 application(s) selected — request ready.

Each FSC is generated and verified independently, then the complete bundle is published atomically as a new ZIP.

Create FSC bundle...

Synthetic no-network fixture · cropped route view. The visible VIN suffix, Generator ID, Order ID, customer, and selection are documentation-only values.

Field	Exact rule	Default / example	Operator check
VIN (last 7)	Exactly 7 ASCII letters or digits; the interface converts letters to uppercase.	ABC12D3	Read the final seven from the authorized job record; do not paste a full VIN.
Generator ID	Exactly 6 printable ASCII characters.	123456	Use the job's approved value. Length alone does not establish correctness.
Order ID	Exactly 7 printable ASCII characters.	1234567	Use the approved order value and preserve it with the ZIP.
Applications	One or more of the 11 displayed identifiers.	None selected initially.	Check the hexadecimal ID as well as its description.

READY MESSAGE

When all three fields are valid and at least one application is checked, the validation strip shows the selected count and **request ready**; only then is **Create FSC bundle...** enabled.

IDENTIFIER CONTROLS THE CONTENT

The application ID is the authoritative selection. Vehicle descriptions help the operator choose, but a description never changes the identifier bytes. Confirm the exact ID against the approved work order.



CHAPTER 14

FSC catalogue · entries 1-6

These are the current owner-approved mappings displayed by MG1 Workspace 2.0.0. Select only the identifiers authorized for the exact DME and job.

No.	Application ID	Displayed description
1	01A40001	S58B30T0 / DME-86T0 — F97/F98 Competition Package
2	01AB0001	S63B44T4 DME1 — Competition Package (F90/F91/F92/F95/F96)
3	01AC0001	S63B44T4 DME2 — Competition Package (F90/F91/F92/F95/F96)
4	01C10001	DME1 — G8x M Drive Professional (factory/service)
5	01EC0001	S58B30T0 / DME-86T0 — G87 CS (factory)
6	017C0001	DME1 — Remote Engine Start release

Selection method

- 01 Identify whether the application is DME1, DME2, or a single DME-86T0 case from approved vehicle/DME records.
- 02 Match the exact eight-character hexadecimal Application ID, not only a familiar chassis or feature phrase.
- 03 Select the row in the checked list. Use **Select all** only when the complete 11-file set is explicitly required.
- 04 Review the selected count and every checked row before choosing the ZIP destination.

DME1 AND DME2 ARE DISTINCT

01AB0001 and 01AC0001 describe different DME positions. Do not substitute one for the other.

FACTORY / SERVICE LABEL

A displayed factory/service description is context, not proof of eligibility or authorization for a specific vehicle.

The list is a product catalogue, not an automatic vehicle-detection result. MG1 Workspace does not connect to a car and cannot confirm the installed DME position or equipment.



CHAPTER 15

FSC catalogue · entries 7-11

No.	Application ID	Displayed description
7	01800001	DME2 — Remote Engine Start release
8	01880001	S58B30T0 / DME-86T0 — M Driver's Package
9	01950001	DME1 — Vmax, M vehicles
10	017B0001	DME2 — Vmax, M vehicles
11	01E80001	Competition Package , M vehicles

High-attention pairs

REMOTE ENGINE START

017C0001 · **DME1**

Pairs with 01800001 for DME2. Confirm the required DME position.

VMAX

01950001 · **DME1**

Pairs with 017B0001 for DME2. The numeric order does not imply position.

M DRIVER'S PACKAGE

01880001

Current mapping is S58B30T0 / DME-86T0.

COMPETITION PACKAGE

01E80001

Current mapping is Competition Package for M vehicles.

VERIFY THE LAST THREE CAREFULLY

The current owner catalogue maps 01880001 to M Driver's Package, 01950001 to DME1 Vmax, 017B0001 to DME2 Vmax, and 01E80001 to Competition Package. Use these exact IDs as displayed in version 2.0.0.

Select all versus a focused set

Select all checks all 11 rows; **Clear** removes every selection. A focused set reduces ambiguity in the job package, while a complete set may be useful when it is expressly required. The ZIP is complete only for the rows selected in that request.

NO AUTOMATIC VEHICLE LOOKUP

The VIN suffix does not filter or select applications. Selection remains an operator decision based on authorized vehicle and DME information.



CHAPTER 16

Create and verify the FSC ZIP

Every selected FSC is generated and verified independently. The complete set is then written to a staging ZIP and published as one new archive; a partial set is never reported as successful.

- 01 Enter the exact VIN last seven, Generator ID, and Order ID.
- 02 Select one or more of the 11 approved Application IDs and review the ready count.
- 03 Select **Create FSC bundle...**
- 04 Choose a new ZIP path. The suggested name is `FSC_<VIN7>_bundle.zip`. An existing file is not replaced.
- 05 Wait while each selected file is built, signed, and verified, and while the completed ZIP is published and reopened.
- 06 Require **FSC bundle verified**. Record the ZIP SHA-256 and selected application count from the activity log.

Archive contents

Member	Name	Verification expectation
Bundle information	<code>README.txt</code>	Present first; records the request summary and selected count.
One file per selection	<code>FSC_<VIN7>_<APPID>.fsc</code>	Exact safe name, correct identifier, expected length, and valid signature.

Atomic set rule

If one requested item fails generation or verification, the final ZIP is not published as a successful bundle. Correct the request or license issue and start again with a new output name.

Clock note

The FSC format records the workstation's local generation minute. Keep Windows date, time, and time zone correct before creating the bundle.

MATCH THE PATCH RELEASE

Use version 2.0.0 FSC output with the matching rotated-key Flash Patch output. Do not assume an archive generated by another release matches the flash in this job.

PRESERVE THE ZIP

Keep the verified archive unchanged. Extract copies when needed; retain the original ZIP hash and request fields with the patched-flash hash.



CHAPTER 17

Bench read/write boundary

MG1 Workspace begins after a raw flash has been read and ends before any flash is written. Treat those physical steps as separate controlled workshop procedures.

A

Qualified bench read

Identify the unit, use current equipment instructions, create and verify the exact raw 8 MiB source.

B

MG1 Workspace

Inspect locally, create one new output, recalculate checksum, reopen, and record SHA-256.

C

Qualified bench write

Select the recorded output by hash, program under approved conditions, and perform post-write checks.

Before the read

- Confirm the correct DME, read mode, adapter, software version, and recovery method.
- Follow current OEM and bench-tool documentation for connection, power, handling, and environmental controls.
- Record the unit and job identity before data leaves the DME.

Before the write

- Compare the bench tool's selected file path and SHA-256 with the verified MG1 Workspace output record.
- Confirm whether the job requires Flash Patch output, 1CR Repair output, or an approved sequence combining changes. Never substitute a similarly named file.
- Keep the original read, suitable recovery route, stable programming power, and communication equipment ready.

After the write

✓ Programming tool reports a complete verified write.

✓ DME identification remains correct.

✓ Fault memory and programming status are reviewed.

✓ E-Sys SWSigStatus is checked when relevant.

✓ Requested FSC function is verified under the repair plan.

✓ Start, drivability, warning, and safety checks are completed as applicable.

✓ Final programmed hash/file is recorded.

✓ Original, output, ZIP, logs, and results are archived together.

NO SOFTWARE MESSAGE MAKES PROGRAMMING SAFE

Output verified confirms the local file publication contract. It does not validate a pinout, power supply, bench-tool configuration, compatibility, or vehicle readiness.



CHAPTER 18

Workflow decision guide

Choose the route from the job objective and the inspected state. Never choose by file name alone.

- | | | |
|----|---------------------------------------|--|
| 01 | Need current FSC trust set | Start with the preserved supported source → inspect in Flash Patch → require Ready for Flash Patch → create and verify a new patched output → create the matching FSC ZIP. |
| 02 | Tuned image rejects 1CR | Open the exact tuned 8 MiB image in 1CR Repair → require Ready for 1CR Repair → create and verify a new repaired output → program and repeat SWSigStatus checks. |
| 03 | Both changes are required | Use only a reviewed sequence in which each stage's output becomes the next stage's inspected input and remains supported. Record both hashes and never infer the sequence from a name. If the released engine does not prove the next state, stop. |
| 04 | Current patch already present | Do not run Flash Patch again. Confirm release provenance and create only the matching FSC set needed by the job. |
| 05 | Earlier public target detected | Normal Flash Patch remains blocked. Return to the original source or a separately approved migration process; do not label the file current-ready. |
| 06 | Already repaired | Do not repeat 1CR Repair. Investigate other causes if the reported condition remains. |
| 07 | Unsupported or ambiguous | Create no output. Preserve the full message, source hash, DME identity, read method, and application version for technical review. |

Minimal evidence chain

1

Original read and hash

2

Inspection state and detail

3

Verified output and hash

4

Post-write validation record

DO NOT CHAIN BLINDLY

A verified output proves only that one supported local operation completed. Reinspect any intermediate file before another operation and require that the next action is explicitly enabled.



CHAPTER 19

Troubleshooting

Message or symptom	Likely meaning	Correct response
Flash size must be exactly 8 MiB	The selected file is not exactly 8,388,608 bytes.	Export the correct raw flash through the approved bench-tool workflow. Do not trim or pad the file.
Unsupported	The exact route signature was not proven.	Confirm DME type, gasoline application, TC29x file, read mode, and source provenance. Do not force processing.
Already patched	The original patch state is no longer present, or the current target is detected.	Do not run Flash Patch again. Confirm which release created the file.
Already repaired	The supported 1CR replacement is present.	Do not repeat 1CR Repair. Diagnose any remaining rejection separately.
Foreign or ambiguous modification	The engine cannot prove one unique expected source span.	Stop and compare against the untouched original; record the state and hash for review.
Earlier target detected	The file belongs to a previous FSC trust set.	Return to the original or use a separately approved migration process. Current FSC output is not assumed compatible.
Source changed after analysis	The on-disk hash differs from the inspected source.	Close any editor or sync tool, restore the intended file, and inspect it again.
Output already exists	New-only publication refuses replacement.	Choose a new unused path. Never use the source path.
Checksum or output verification failed	The transformation or reopened output did not satisfy the complete contract.	Do not program the file. Preserve the log, check storage health/free space, and restart from the original.
FSC request not ready	A field is invalid or no application is selected.	Use VIN last 7, Generator ID 6, Order ID 7, and check at least one exact Application ID.
Incomplete FSC set	One or more requested files failed build, signature, name, or archive verification.	No successful ZIP should be used. Correct the cause and create a new archive.
License rejected	Expired, altered, wrong product/HWID, future time, clock rollback, or damaged trusted-time state.	Correct Windows time, reinstall the original issued license, then Retry. Preserve the exact reason if it remains.

USEFUL SUPPORT RECORD

Provide application version, complete error text, operation, source byte count, source SHA-256, inspection state/detail, output path only if created, and a synthetic/redacted screenshot. Do not send the full flash unless the approved support process specifically requires it.



CHAPTER 20

Quick reference and final checks

8 MiB

Exactly 8,388,608 bytes for both flash routes.

3 routes

Flash Patch · 1CR Repair · FSC Bundle.

11 IDs

Owner-approved FSC application catalogue.

Flash Patch

Inspect original supported source → Ready for Flash Patch → new `-patched.bin` → automatic checksum → reopened output → record SHA-256 → matching FSC release.

1CR Repair

Inspect exact tuned image → Ready for 1CR Repair → new `-1cr-repaired.bin` → automatic checksum → reopened output → record SHA-256 → program and repeat SWSigStatus checks.

FSC Bundle

VIN last 7 + Generator ID 6 + Order ID 7 + one or more exact IDs → new ZIP → every FSC verified → archive reopened → record ZIP SHA-256.

✓ Original raw source is preserved.

✓ Source is exactly 8 MiB.

✓ DME and job identity are confirmed.

✓ Inspection reports the planned ready state.

✓ Output name is new and distinct.

✓ Success and SHA-256 are recorded.

✓ Flash and FSC release families match.

✓ Bench write and recovery plan are approved.

✓ Programmed file is selected by hash.

✓ Post-write checks are documented.

FINAL STOP RULE

Wrong size, unsupported, already changed, earlier target, ambiguous state, checksum failure, output verification failure, or uncertain physical conditions all mean stop. Do not program an unverified result.

OFFICIAL BINUNLOCK WEBSITE

<https://binunlock.com/>

This is the only external website link in this guide.