Microsoft Support Case

SQL Server 2017 Express (instance WINCC): patch and repair both fail with error 29569 "SQL Server Setup failed to restore the instance id"

Prepared: 2026-10-19 Product: SQL Server 2017 Instance: WINCC Severity: B
Case owner: [COMPANY / CONTACT] Support contract: [CONTRACT ID]

1. Summary

A SQL Server 2017 Express named instance (WINCC) cannot be patched. Every security update since October 2024 fails at the start of the MSI install with error 29569, before any file is copied. The same failure occurs with Windows Update, with a manual /action=patch run scoped to the instance, and with ACTION=REPAIR from official RTM media. The instance stays at build 14.0.2056.2. The evidence points to missing or inconsistent instance metadata (InstanceId / uninstall metadata) for the Database Engine MSI product.

2. Environment

Operating system	**Windows 10 Pro 22H2 (10.0.19045), x64, Chinese OS, no failover cluster**
SQL Server	SQL Server 2017 Express Edition, named instance WINCC (MSSQL14.WINCC), language 1033
Current build	14.0.2056.2 (KB5040942, July 2024). No patch has succeeded since.
Setup bootstrap	14.0.2140.2
Hosting product	Siemens SIMATIC WinCC station; SQL instance was installed from Siemens media
Install source	C:\ProgramData\Siemens\Automation\60f96d56-2cce-4944-b0b1-1c6e63efc65f\x64\setup\ (folder no longer exists)

3. Symptom

Both patching and repair stop at the RestoreSetupParams custom action:

```
Component error code: 29569
Error description:    SQL Server Setup failed to restore the instance id.
CustomAction RestoreSetupParams_64 returned actual error code 1603
Error help link: ...EvtType=sql_engine_core_inst.msi%40RestoreSetupParams%4029569
Windows Update surface: 0x80070643
```

4. Attempts and results

1. Windows Update - fails (also after a reboot, with PendingFileRenameOperations cleared).
2. Manual patch: SQLServer2017-KB5128497-x64.exe /action=patch /instancename=WINCC /IAcceptSQLServerLicenseTerms /quiet - fails with the same 29569.

3. Repair: SETUP.EXE /ACTION=REPAIR /INSTANCENAME=WINCC from official SQL Server 2017 Express RTM media (14.0.1000.169) - fails with the same 29569.
4. The same failure applies to every GDR since KB5042217 (Oct 2024): 2060, 2065, 2070, 2075, 2080, 2085, 2095, 2100, 2105, 2110, 2120, 2130, 2140.
5. During repair, SQL Browser, SQL Writer, Client Connectivity and Setup Support Files complete successfully; only the Database Engine feature fails.

5. Evidence collected

- MSI log: "Note: 1: 1402 2: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL Server\\Setup 3: 2" - the instance segment of the registry path is empty.
- Instance-level Settings.xml contains: <Setting Id="INSTANCEID" Value="" Source="Default" />
- Engine MSI product {DED314CA-0EFE-4593-9D66-EF75E5289A4C}: the Patches subkey contains exactly 2 patches (2047, 2056), matching the actual build.
- There is NO HKLM\SOFTWARE\Microsoft\Windows\CurrentVersion\Uninstall\{DED314CA-...} key, although every other SQL 2017 MSI product has one.
- InstallProperties.InstallSource points to the removed Siemens folder listed above.
- Add/Remove Programs contains 13 orphan patch registrations (KB5042217 ... KB5128497) for patches that were never applied.
- C:\Windows\Installer\1786a.msi is byte-identical to the engine MSI in official media (SHA256 67C224D6A115BF8CE94D1D5E808240E91EB69DEA3FC533F1269EB3924A540C0F).
- SQL Server itself starts and runs normally; no user database was modified.

6. Log excerpt

```
MSI (s) (54:C8) [18:06:xx]: Note: 1: 1402 2: HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SQL
Server\\Setup 3: 2
MSI (s) (54:C8): Doing action: RestoreSetupParams_64
<Func Name='RestoreSetupParams'>
        Error Code: 0x80077381 (29569)
Source File Name: sqlca\sqlcax.cpp
     Function Name: RestoreSetupParams
Source Line Number: 189
Error 29569. SQL Server Setup failed to restore the instance id.
CustomAction RestoreSetupParams_64 returned actual error code 1603
Action ended 18:06:xx: INSTALL. Return value 3.
```

7. Request to Microsoft

6. Per the documented guidance for error 29569 (instance metadata missing or inconsistent), identify which InstanceId / uninstall metadata is missing or inconsistent for product {DED314CA-0EFE-4593-9D66-EF75E5289A4C}.
7. Provide the supported way to restore that metadata so that patching and repair can succeed, without reinstalling the instance.
8. Advise whether the 13 orphan patch registrations should be removed, and if so, the supported procedure.

8. Attachments

- Summary_patch.txt - summary of the KB5128497 patch attempt
- Summary_repair.txt - summary of the ACTION=REPAIR attempt
- Detail_excerpt.txt - trimmed engine feature log (error context)
- MS-case-file.txt - this document in plain text

Note: registry exports and full logs are available on request; they are not attached by default because they contain machine-specific identifiers.