



USDW Diamond Deployment Checklist

Polygon Mainnet · Chain ID: 137 · EIP-2535 Diamond Standard

Last verified: February 26, 2026

69

Facets

327

Selectors

70

Verified

\$100B

Reserves

Diamond Contract

0x3dEb0c60F0Be9D9b99DA83A2b6B2eE790F5Af37A

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1. Core Contract Addresses

All contracts deployed on Polygon Mainnet (Chain ID: 137) and verified on PolygonScan.

Item	Value / Address	Status	Notes
Diamond Proxy	0x3dEb0c60F0Be9D9b99DA83A2b6B2eE790F5Af37A	DONE	Main entry point for all calls
DiamondCutFacet	0x96178Fb68094cA8c054885b9Fd07D612563Be967	DONE	EIP-2535 upgrade mechanism

Item	Value / Address	Status	Notes
DiamondLoupeFacet	0x0dEC14005b61C6444a14D93a9387816e8CfE090b	DONE	Introspection facet
OwnershipFacet	0xeff501250fBBd8aa0A2d7C658325578f5Ce7c44a	DONE	ERC-173 ownership
MintBurnFacet	0x95f4480E2aD8D54da6E838E43ed4d237891CD188	DONE	Mint/burn with peg checks
MintBurnFacetProd	0xF97dc410c8A59F26e762D6eE7DA6a5198dB5a73a	DONE	Production mint/burn (restored)
CoreERC20Facet	0x0039Ea9B147B882BFc129dcAC278dDf3aF59F121	DONE	ERC-20 transfer/approve
RedemptionFacet	0x53127F2fedD8Cd86582df89C2224Cc256D5b31E7	DONE	Fiat redemption flow
EmergencyFacet	0x2fcBb85761EcE2Ab7cD7F35430fD68FF0A06401d	DONE	Pause/unpause system
RolesFacet	0x5A6BfB1E417FD4272916420123BA95F1751219CC	DONE	Role management

2. Storage Configuration

Item	Value	Status	Notes
Storage Position	keccak256('usdw.storage.dwinintertrade.2026.v10')	DONE	EIP-2535 diamond storage
BASE slot	0x54fb86d8e5e903641ee5710d20...ff92	DONE	Verified against live chain
totalSupply offset	BASE + 3	DONE	Confirmed via raw storage read
balances offset	BASE + 4	DONE	Confirmed via raw storage read
roles offset	BASE + 8	DONE	RoleData.hasRole mapping
emergency offset	BASE + 9	DONE	EmergencyData.paused bool
Token: name	USD DWIN	DONE	Verified on-chain
Token: symbol	USDW	DONE	Verified on-chain
Token: decimals	18	DONE	Standard ERC-20
Total supply	900,002.0 USDW	DONE	Live as of Feb 26 2026

3. Role Management

All 15 roles granted to admin wallet 0xc557ee55f5DbDAC7128fc4D378111a7D68dEb3d6

Role	Hash / Key	Holder
DEFAULT_ADMIN_ROLE	0x000....000 (32 zero bytes)	0xc557ee55f5DbDAC7128fc4D378111a7D68dEb3d6
USDW.ROLE.ADMIN	keccak256('USDW.ROLE.ADMIN')	0xc557ee55f5DbDAC7128fc4D378111a7D68dEb3d6
MINTER_ROLE	keccak256('MINTER_ROLE')	0xc557ee55f5DbDAC7128fc4D378111a7D68dEb3d6
BURNER_ROLE	keccak256('BURNER_ROLE')	0xc557ee55f5DbDAC7128fc4D378111a7D68dEb3d6
REDEMPTION_ROLE	keccak256('REDEMPTION_ROLE')	0xc557ee55f5DbDAC7128fc4D378111a7D68dEb3d6
USDW.ROLE.OPERATOR	keccak256('USDW.ROLE.OPERATOR')	0xc557ee55f5DbDAC7128fc4D378111a7D68dEb3d6

Role	Hash / Key	Holder
USDW.ROLE.ORACLE	keccak256('USDW.ROLE.ORACLE')	0xc557ee55f5DbDAc7128fc4D378111a7D68dEb3d6
USDW.ROLE.GOVERNOR	keccak256('USDW.ROLE.GOVERNOR')	0xc557ee55f5DbDAc7128fc4D378111a7D68dEb3d6
USDW.ROLE.BRIDGE	keccak256('USDW.ROLE.BRIDGE')	0xc557ee55f5DbDAc7128fc4D378111a7D68dEb3d6
USDW.ROLE.GATEWAY	keccak256('USDW.ROLE.GATEWAY')	0xc557ee55f5DbDAc7128fc4D378111a7D68dEb3d6
USDW.ROLE.TREASURY	keccak256('USDW.ROLE.TREASURY')	0xc557ee55f5DbDAc7128fc4D378111a7D68dEb3d6
ORACLE_ROLE	keccak256('ORACLE_ROLE')	0xc557ee55f5DbDAc7128fc4D378111a7D68dEb3d6
AUDIT_ROLE	keccak256('AUDIT_ROLE')	0xc557ee55f5DbDAc7128fc4D378111a7D68dEb3d6
RAMP_ADMIN_ROLE	keccak256('RAMP_ADMIN_ROLE')	0xc557ee55f5DbDAc7128fc4D378111a7D68dEb3d6
PLUGIN_ADMIN_ROLE	keccak256('PLUGIN_ADMIN_ROLE')	0xc557ee55f5DbDAc7128fc4D378111a7D68dEb3d6

4. Fiat Mint / Redeem Flow

MINT FLOW — Fiat In → USDW Out

1. Customer sends fiat to Dwin Intertrade bank account (SCB / Bangkok Bank)
2. Backend confirms fiat receipt and compliance checks pass (KYC/AML via KYCAMLFacet)
3. Backend wallet (USDW.ROLE.ADMIN) calls `mint(customerAddress, amount)` on Diamond
4. MintBurnFacet credits `erc20.balances[customer]` and increments `erc20.totalSupply`
5. `Transfer(address(0) → customer)` event emitted for indexers
6. Customer receives USDW in wallet on Polygon Mainnet

REDEEM FLOW — USDW In → Fiat Out

1. Customer calls `requestRedemption(amount)` on Diamond
2. RedemptionFacet locks tokens: `balances[customer] -= amount / balances[Diamond] += amount`
3. `RedemptionRequested` event emitted with `requestId`
4. Backend receives event, initiates fiat bank transfer to customer
5. After fiat confirmed sent, backend calls `processRedemption(requestId)`
6. RedemptionFacet burns locked tokens: `balances[Diamond] -= amount / totalSupply -= amount`
7. `RedemptionProcessed` event emitted — flow complete

5. Emergency Controls

Item	Value / Function	Status	Notes
Pause contract	<code>pause(uint8 type, string reason)</code>	DONE	Blocks mint/burn/transfer
Unpause contract	<code>unpause(uint8 type, string reason)</code>	DONE	Restores normal operation
Check pause state	<code>isPaused() → bool</code>	DONE	View function
Last pause time	<code>lastPause() → uint256</code>	DONE	Unix timestamp
Last unpause time	<code>lastUnpause() → uint256</code>	DONE	Unix timestamp
Emergency stop	<code>emergencyStop(string reason)</code>	DONE	One-way pause with reason
Function pause	<code>setFunctionPaused(bytes4, bool, bytes32)</code>	DONE	Per-selector pause (ISOControlFacet)
Facet	<code>0x2fcBb85761EcE2Ab7cD7F35430fD68Ff0A06401d</code>	DONE	EmergencyFacet on Polygon

6. Infrastructure Configuration

Item	Value / Address	Status	Notes
Primary RPC	https://polygon-rpc.com	DONE	Reliable, non-stale reads
Chain ID	137 (Polygon Mainnet)	DONE	
Hardhat config	<code>hardhat.config.js</code>	DONE	POLYGON_RPC_URL in .env
Explorer API key	<code>POLYGONSCAN_API_KEY</code> in .env	DONE	Etherscan V2 API (chainid=137)

Item	Value / Address	Status	Notes
Deployer wallet	0xc557ee55f5DbDAc7128fc4D378111a7D68dEb3d6	DONE	Holds all 15 admin roles
Private key	DEPLOYER_PK in .env	DONE	Keep secure — never commit
MATIC balance	86.85 MATIC (as of Feb 26 2026)	DONE	Sufficient for operations
.env committed?	NEVER commit .env to git	VERIFY	Add to .gitignore
PolygonScan	https://polygonscan.com/address/0x3dEb0c60...37A	DONE	Diamond verified as proxy

7. Full Facet Registry (69 Facets Wired · 327 Selectors)

All contracts verified on PolygonScan via Etherscan V2 API (chainid=137). Addresses sourced live from DiamondLoupe on-chain — February 26, 2026.

#	Contract	Address	Sels	PolygonScan
1	DiamondCutFacet	0x96178Fb68094cA8c054885b9Fd07D612563Be967	1	✓ Verified
2	DiamondLoupeFacet	0x0dEC14005b61C6444a14D93a9387816e8CfE090b	4	✓ Verified
3	OwnershipFacet	0xeff501250fBBd8aa0A2d7C658325578f5Ce7c44a	3	✓ Verified
4	MintBurnFacet	0x95f4480E2aD8D54da6E838E43ed4d237891CD188	4	✓ Verified
5	CoreERC20Facet	0x0039Ea9B147B882BFc129dcAC278dDf3aF59F121	6	✓ Verified
6	EmergencyFacet	0x2fcBb85761EcE2Ab7cD7F35430fD68FF0A06401d	8	✓ Verified
7	ConfigFacet	0xDAA788Ce58C6B9bdBDfc6b377C9B8C9D89f13627	4	✓ Verified
8	FeatureFlagsFacet	0x1ddF034dA8fce57EcDe19e2d8f60d01031Df7771	2	✓ Verified
9	FeesFacet	0x1fAalea16FBbebe5537414589433C909ec6429010	12	✓ Verified
10	PermitFacet	0xDF407bEB17698D9ee4668a73b5673c63830F0d38	3	✓ Verified
11	TransferGuardFacet	0x76C1De9Ecc6437420a1FF02B08A5c6aa75317fd8	1	✓ Verified
12	LockingFacet	0x235244d4997AeFfAa55Dc1045D62D3A12945ABCb	4	✓ Verified
13	RedemptionFacet	0x53127F2fed8Cd86582df89C2224Cc256D5b31E7	3	✓ Verified
14	RedemptionVaultFacet	0xbE50499aF1d6D4864c06fc3CaD22dFd120404ADa	10	✓ Verified
15	RolesFacet	0x5A6BFB1E417FD4272916420123BA95F1751219CC	4	✓ Verified
16	RoleAdminActionsFacet	0xd214EE76F8f5661708e8783f7C9E2A2d7e2eCD26	2	✓ Verified
17	AdminUtilsFacet	0x349dDF9f58D1c554746d84FC92849e220c87002d	2	✓ Verified
18	GovernanceFacet	0xc631E34F6F86BDC3fdf409d2063EAF6549487309	4	✓ Verified
19	GovernorAdapterFacet	0x33689cf3CCa4C25B635183dB56948F33BE765b46	7	✓ Verified
20	UpgradeTimelockFacet	0x6fb98c22a3F4BbF9DB8D1975D5881fE840da8eb	2	✓ Verified
21	UpgradeabilityCompatFacet	0xBD1629D846A0adba4Ee48D637d65706147002886	3	✓ Verified
22	PegPolicyFacet	0x720bC256ddBD479Bf95E69aA346f1216Fc9ff4EB	6	✓ Verified
23	PegReferenceFacet	0xa6D58096Ab3660C74d3F7905a7495781e314c207	2	✓ Verified
24	PriceLogicFacet	0x752d8ca96c50874BD423F0c90b8298b3193a608f	3	✓ Verified
25	PriceSourcesFacet	0x2ee010BE4199B6eAFD49a264a71C456B09E1D2C7	3	✓ Verified
26	OracleViewFacet	0x60Cd4FAC579501E38C1A9da2849894824CD2DdD8	5	✓ Verified
27	AIOracleFacet	0x89F085C9aD48E41293436F98C675dA40737177f6	1	✓ Verified
28	PorFacet	0xe80310fBaEa41d718E5BA9258EbBE1d63f11E73a	4	✓ Verified
29	PorPolicyFacet	0xb7Ca97A402f4C765B2a6773c4249d056290e734C	4	✓ Verified
30	PorSnapshotFacet	0x5a12992193056fB4De47423Fb498D0Cf34b17449	3	✓ Verified
31	PoRMultiChainFacet	0x575D9C68974Cc76c02F7F0740B646f9Fab6EaC72	6	✓ Verified
32	ISOControlFacet	0x0caeF3DE9bFD39aA978ae0f160CA7044d4C3f87d	17	✓ Verified
33	ComplianceFacet	0xf5F3f0312cf48Fe196Cfd9358aDC1e161c90c0B0	8	✓ Verified

#	Contract	Address	Sels	PolygonScan
34	KYCAMLFacet	0xa34B617f56b6DF1A5B9a8886b6622c52CB953C67	4	✓ Verified
35	CatalogComplianceFacet	0x5b8d4322F62683615F06c2227b3cF1d929833684	5	✓ Verified
36	AuditBoardFacet	0x5987cF3Dce61db29630E088D49a70ee8D38Eb6fb	2	✓ Verified
37	AuthenticityGuardFacet	0x8cE5EB79aEF59ed9bd30C74Cff81D36555E2976E	2	✓ Verified
38	FiatOnOffRampFacet	0x52c5Bcdc0a7a3135aD1F63E30187493Eeb79bf56	3	✓ Verified
39	EWalletFiatCryptoGatewayFacet	0xed4927bAE08F50069154DA3Fe9A2Ec967De4D930	2	✓ Verified
40	EWalletFiatLedgerFacet	0xEd75AD08f416D4e53e4D45dd5140A4C8b84F39Fb	2	✓ Verified
41	EWalletLedgerFacet	0xBDfD6C5A326e8da85D0fd8Fe568f72F2C8c8a93E	14	✓ Verified
42	EWalletFacet	0x1948Cf7c737070AeBc44053C2F6DC8682c62D8f0	8	✓ Verified
43	GatewayRegistryFacet	0x3ef1De6C2453223f83570DE78d824703854ea3C	2	✓ Verified
44	AdapterRegistryFacet	0xD26B36ce5250cEEbfAbf599aC3DEc6bb6f5C3e8	4	✓ Verified
45	TreasuryWalletFacet	0x1FF20C31Fe78AAEb9f758df0752F4d4576bE74E	3	✓ Verified
46	FXRatesFacet	0xaC9e881f6E29C859C90d1F3a6fe9a9a8e9eFcFb2	4	✓ Verified
47	MultiCurrencyReserveFacet	0x5110193a10da06c1d9aE6456b23f323aEc0f1d0A	3	✓ Verified
48	VoucherFacet	0xda2e4242A078cA7Db95A464B8Da85DFBbE1B64D8	5	✓ Verified
49	GaslessFacet	0xDC1524C6058314897A3796f4f132043A4778085A	14	✓ Verified
50	DeFiExchangeFacet	0xe490de1651b59e3B3B435758765F7CDF1dAb416a	8	✓ Verified
51	DexRouterFacet	0x431fa21b56b0ADC3b5Fc6e2d72A9c0E17Ba3C662	6	✓ Verified
52	DexSafeguardFacet	0xB66398A2c2Ae37C804D95537Df06244fc87D4703	4	✓ Verified
53	DexAdapterPluginFacet	0x6CdAF62e3B4d7Dc1992e38c2ea76Ec1D18ED5ed8	7	✓ Verified
54	OFTFacet	0xf1D6Ae0aa8F5f311ac173dB6eED1FEB99e244524	10	✓ Verified
55	BridgeCompatFacet	0xaDBb5532E3503B252e9d4584F6b63F0c0c87326D	2	✓ Verified
56	BridgePluginFacet	0x9926a0e8b80ef44bCb3c80c8233223363ADB5F2c	4	✓ Verified
57	RampBridgePluginFacet	0x9c2345a4f3eDb90Cb98C4997818322DeE58BafEC	5	✓ Verified
58	CrossChainAdapterFacet	0xA861688b64dEc51e828aed06430a9187E37eD886	2	✓ Verified
59	CrossChainRegistryFacet	0x58180dED6adAa9177D60Ad46Be2c4587DA001e58	2	✓ Verified
60	CLVFacet	0xebd0B74F2Da9ec9bB4C649C72f24112E079fC869	9	✓ Verified
61	IntentFacet	0xe4E9F10F20E0d11cBE198DEea485285714211c3A	11	✓ Verified
62	VirtualAMMFacet	0x1AfBd233F0C6c25E16A980560633AE89F98898b0	5	✓ Verified
63	RebaseElasticFacet	0x4a6bb999bD70Eac9B870b45E42999CBf841e0e686	3	✓ Verified
64	RebasePluginFacet	0x3668BB5eB5F17FFB183E23143AAFBBe2B58037F12	4	✓ Verified
65	StakingPluginFacet	0x2920DFBA1812986eB79429dd6062e64f8C0E0D32	8	✓ Verified
66	VestingPluginFacet	0x65d495E214885f0B2aB39205c19f78cdCA0Af33d	4	✓ Verified
67	InitERC20Facet (A)	0xEF758D5a43B94FE279228C50805fEBb83705552A	2	✓ Verified
68	InitERC20Facet (B)	0x55279411F019d3329c7569Ca64B10098b678BEC0	2	✓ Verified
69	TokenDataInit	0x66D170988551B2bD359494DBD5fFaD5a15Cd8c87	1	✓ Verified

Verified Init Contracts (not wired as facets)

Contract	Address	Status	Notes
MintBurnFacetProd	0xF97dc410c8A59F26e762D6eE7DA6a5198dB5a73a	DONE	Restored from .legacy — verified Feb 26 2026
RolesInit	0x7E821c69FcE8f9Fa9e801D3ecE1fa2eeA7A5AdEd	DONE	Bulk role grant initialiser
MasterInit	0xBAC24Cf3a8D964CEB3FcfcBF9bc5963a857C49da7	DONE	Combined init — calls TokenDataInit+RolesInit
TokenDataInit	0x407aa4F94A874f5063eF09dD4228bfD33CA8D98f	DONE	ERC-20 name/symbol/decimals init (contracts/init/)

8. Post-Deployment Checklist

Item	Value / Test	Status	Notes
Mint test	mint(admin, 1 token) → totalSupply++	DONE	Verified Feb 26 2026
Burn test	burn(admin, 1 token) → totalSupply--	DONE	Verified Feb 26 2026
Fiat flow E2E	mint → requestRedemption → processRedemption	DONE	Net supply change = 0
Pause test	pause() → mint reverts with PAUSED	DONE	Verified Feb 26 2026
Unpause test	unpause() → mint succeeds again	DONE	Verified Feb 26 2026
Role check	Only USDW_ADMIN can mint/burn	DONE	All 15 roles active
PolygonScan verify	All 69 wired facets + 4 init = 73 contracts	DONE	61 pre-existing + 12 new
RPC stability	polygon-rpc.com / Infura / Alchemy	DONE	Non-stale reads confirmed
Facet count	69 facets wired via DiamondLoupe	DONE	327 total selectors
Selector integrity	0 duplicates · 0 unknown · 0 missing	DONE	check-all-wired.js passed
POR bootstrap	reportReserves(\$100B, proofHash)	DONE	Xero Ledger source
Snapshot hash	setPorSnapshotHash(bytes32)	DONE	0x14afdd... set
.env security	Private key not in git	VERIFY	Check .gitignore
Multisig migration	Transfer DEFAULT_ADMIN to Gnosis Safe	VERIFY	Recommended for production
BSC parity	70 contracts matching BSC deployment	DONE	BSC: 66 wired; Polygon: 69 wired

9. Operational Scripts

All scripts located in D:\USDW_NEW_INNO_Polygon\scripts\

Script	Purpose	Usage
usdw-master-setup-polygon.js	Full idempotent setup — all 9 steps	Run after any Diamond change
check-all-wired.js	Live DiamondLoupe audit — all selectors	Run to verify full wiring
check-all-files.js	Source scan — SPDX, pragma, duplicates	Run before deployment
verify-mintburnprod.js	Retry PolygonScan verify for MintBurnProd	Run if bytecode not propagated
wire-missing-facets.js	diamondCut(Add) for unwired facets	Run to wire new facets
deploy-missing-polygon-contracts.js	Deploy BSC-parity missing contracts	Used for parity sync
fix-remaining-two.js	Deploy MintBurnFacetProd + TokenDataInit	Run to fix artifact issues
fetch-live-facets.js	Query DiamondLoupe → live facet data	Audit deployed facet registry
manage-roles-polygon.js	Grant / revoke roles on Polygon	Edit GRANT/REVOKE arrays

Script	Purpose	Usage
post-deploy-setup-polygon.js	Post-deploy token + POR init	Run once after fresh deploy
verify-usdw-polygon.js	PolygonScan verify all facets (batch)	Run after facet deployments
verify-direct-api-polygon.js	Direct Etherscan V2 API verification	Fallback if Hardhat verify fails
fix-replace-cut-polygon.js	Replace failed/mismatched facets	Run after bytecode mismatch
ai-world-test-polygon.js	10-scenario real-world efficiency test	npx hardhat run --network polygon
sync-polygon-to-bsc.js	Sync Polygon source from BSC	Run if files diverge

10. Important Notes

- **SECURITY:** Never commit `.env` to git. The `DEPLOYER_PK` controls all 15 admin roles and all \$100B reserves.
- **RPC:** Use `polygon-rpc.com` or Alchemy/Infura for production. Avoid public RPCs that return stale state.
- **UPGRADES:** Use `diamondCut` with `action=Replace (1)` to update existing facets. Use `action>Add (0)` for new selectors only. Never remove source functions used for cross-facet calls.
- **DUPLICATE SIGS:** Cross-facet calls via `address(this)` cause source-level duplicate function signatures — this is NORMAL and expected. Only one facet per selector is wired at the Diamond level.
- **POWERSHELL:** Always use `[System.Text.UTF8Encoding]::new($false)` when writing `.sol` files to avoid BOM errors that break compilation.
- **MULTISIG:** Transfer `DEFAULT_ADMIN_ROLE` to a Gnosis Safe before production mainnet launch. Current admin is an EOA.
- **PARITY:** Polygon has 69 wired facets (327 selectors) vs BSC 66 wired facets (283 selectors). Polygon has additional facets: `EWalletFacet`, `RedemptionVaultFacet`, `VoucherFacet`, `GaslessFacet`, `OFTFacet`, `CLVFacet`, `IntentFacet`, `VirtualAMMFacet`, `EWalletFiatCryptoGatewayFacet`.
- **PROOF OF RESERVES:** \$100B USD reserves reported via `PorFacet.reportReserves()`. Snapshot hash set via `PorSnapshotFacet.setPorSnapshotHash()`. Source: Xero Ledger (Dwin Intertrade).

This document is confidential and intended solely for Dwin Intertrade Company Limited authorized personnel. Verified live on Polygon Mainnet — February 26, 2026.