

USDW Diamond

Deployment Checklist

BSC Mainnet · Chain ID: 56 · EIP-2535 Diamond Standard
Last verified: February 25, 2026

1. Core Contract Addresses

All contracts deployed on BSC Mainnet and verified on BSCScan.

Item	Value / Address	Status	Notes
Diamond Proxy	0x081684720530e691edb6b3965dE181F44FcfD8fB	DONE	Main entry point for all calls
DiamondCutFacet	0x50B183E3275f5B81dFEd887b82510E413E9BdDb7	DONE	EIP-2535 upgrade mechanism
DiamondLoupeFacet	0x387382898878f9E9324F84E5001E634f34ECa6d3	DONE	Introspection facet
OwnershipFacet	0xF557B053B28190d5858669Ea0b4518D8C8712Af0	DONE	ERC-173 ownership
MintBurnFacetProd	0x27e32950d30Ba3c11712ecf2d821bbC605bF29C8	DONE	Production mint/burn
CoreERC20Facet	0x9AA7DdDD5DbA8E3491f58221E82AbEc9647637c8	DONE	ERC-20 transfer/approve
RedemptionFacet	0x60fC052b27483889FFaCe1ad8d68690189943b53	DONE	Fiat redemption flow
EmergencyFacet	0x31380d857a0Dcca3d2093EC26c58d2A4aA555525	DONE	Pause/unpause
RolesFacet	0xc61402a5A3075bd424A3Ad26753f531300c0e03	DONE	Role management

2. Storage Configuration

Item	Value / Address	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

3. Role Management

Role	Hash	Current Holder(s)
DEFAULT_ADMIN_ROLE	0x00	0xc557ee55f5DbDAc7128fc4D378111a7D68dEb3d6
USDW.ROLE.ADMIN	keccak256('USDW.ROLE.ADMIN')	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
2. Backend confirms fiat receipt and compliance checks pass
3. Backend wallet (USDW.ROLE.ADMIN) calls `mint(customerAddress, amount)`
4. `MintBurnFacetProd` credits `erc20.balances[customer]` and increments `erc20.totalSupply`
5. `Transfer(address(0) → customer)` event emitted for indexers
6. Customer receives USDW in wallet

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 / Address	Status	Notes
Pause contract	pause(uint8 type, string reason)	DONE	Blocks mint/burn/transfer
Unpause contract	unpause(uint8 type, string reason)	DONE	Restores normal operation
Check pause state	isPaused() → bool	DONE	View function
Last pause time	lastPause() → uint256	DONE	Unix timestamp
Last unpause time	lastUnpause() → uint256	DONE	Unix timestamp
Emergency stop	emergencyStop(string reason)	DONE	One-way pause with reason

6. Infrastructure Configuration

Item	Value / Address	Status	Notes
Primary RPC	https://bsc.publicnode.com	DONE	Reliable, non-stale reads
Chain ID	56 (BSC Mainnet)	DONE	
Hardhat config	hardhat.config.js	DONE	BSC_RPC_URL in .env
Explorer API key	ETHERSCAN_API_KEY in .env	DONE	BSCScan V2 API
Deployer wallet	0xc557ee55f5DbDAc7128fc4D378111a7D68dEb3d6	DONE	Holds all admin roles
Private key	DEPLOYER_PK in .env	DONE	Keep secure — never commit
.env committed?	NEVER commit .env to git	VERIFY	Add to .gitignore

7. Full Facet Registry (66 Facets)

All facets verified on BSCScan. Total selectors registered: 283+

Contract	Address	Selectors	BSCScan
DiamondCutFacet	0x50B183E3275f5B81dFE887b82510E413E9BdB7	1	✓ Verified
DiamondLoupeFacet	0x387382898878f9E9324F84E5001E634f34ECa6d3	4	✓ Verified
OwnershipFacet	0xF557B053B28190d5858669Ea0b4518D8C8712Af0	3	✓ Verified
CoreERC20Facet	0x9AA7DdDD5DbA8E3491f58221E82AbEc9647637c8	9	✓ Verified
MintBurnFacetProd	0x27e32950d30Ba3c11712ecf2d821bbC605bF29C8	2	✓ Verified
RedemptionFacet	0x60fC052b27483889FFaCe1ad8d68690189943b53	3	✓ Verified

Contract	Address	Selectors	BSCScan
EmergencyFacet	0x31380d857a0Dcca3d2093EC26c58d2A4aA555525	8	✓ Verified
RolesFacet	0xc61402a5A3075bd424A3AAd26753f531300c0e03	4	✓ Verified
RoleAdminActionsFacet	0xb3DA64FA7b043BC17D838ECD18177fa6B7d822B7	2	✓ Verified
PermitFacet	0x07e9C591dB9C63bBc31E130C62806190d90A9f50	3	✓ Verified
TransferGuardFacet	0x64015AA7fCB2Fec0f9Ac09F3412de4B466e9F29B	1	✓ Verified
LockingFacet	0x0629Aee58aC6AD0C2938c3EC3CF10D40d3394709	4	✓ Verified
VestingPluginFacet	0x7ce903fddbAB694740dEAAD72783843482a5C6f8	4	✓ Verified
ConfigFacet	0xcB7F2dBC1C561345EE13Ea295D609eFCa6AA1008	4	✓ Verified
FeatureFlagsFacet	0x1a004a75d1d1bfD8D36CD880BBB1aa5902daC21C	2	✓ Verified
AdminUtilsFacet	0x7B7a041A65502882DD869bC55EBd719F0cde50De	2	✓ Verified
GovernanceFacet	0xe4db377849a9D308098A8ba2BA9cBCa21a19a979	4	✓ Verified
GovernorAdapterFacet	0x8614f23827e96Bc03087DbB550e560f31a8c5304	7	✓ Verified
UpgradeTimelockFacet	0x0c6C8238b7E5a8C321660392A64C01fE03A97201	2	✓ Verified
UpgradeabilityCompatFacet	0x83C1ed74676f7c839E0EDAd6DC58869157D55a14	3	✓ Verified
PegPolicyFacet	0xa9e82De588b0F8CAAd65f1746577C968A24260C3	6	✓ Verified
PegReferenceFacet	0x3475356713CE43a59Af61DDDb01DBE0C56711295	2	✓ Verified
PriceLogicFacet	0x3cFEbE48e2414F26f65dF2a8fd63505C4be42e81	7	✓ Verified
PriceSourcesFacet	0xd7ea2eA1FBdFE8bB665234Af73D709E038C3015c	1	✓ Verified
OracleViewFacet	0x3F8BFa7bE1214C6e0C0A5181C843bA37E5888f5F	3	✓ Verified
AIOracleFacet	0x673fAdAEf85aC970a405A47B631a2F5818CdBEDD	1	✓ Verified
PorFacet	0x6Ed7D49397Fdf9525AE3c3d0B6642Ed700D311508	4	✓ Verified
PorPolicyFacet	0xFcB9Ab29B6961d39b578F1128a08032FbD1277bc	4	✓ Verified
PorSnapshotFacet	0xe362Cd90237A8274BCdE006B7d5D20874461eb2D	3	✓ Verified
PoRMultiChainFacet	0x63Fe69bdF0965a4610943525Db70b935137c5686	6	✓ Verified
ISOControlFacet	0x945A74ffEc4B9699C96C3eE48B9A214C912E7AA6	17	✓ Verified
ComplianceFacet	0x7829bDF5Bc82d45a4Bbdf7c8a712482A48740E4a	8	✓ Verified
KYCAMLFacet	0x34cB7D7914dee71E79381517Ade5431fdE31A899	4	✓ Verified
CatalogComplianceFacet	0xa4186C75Aa301d2d6E4962F0c20cEA438A74424A	5	✓ Verified
AuditBoardFacet	0xCc17382587F0aCDDFFb6093C4975e5489fCA7Bd7	2	✓ Verified
AuthenticityGuardFacet	0xf01866aa0fc114C4f328dAaa470b4dAE620247D2	2	✓ Verified
FiatOnOffRampFacet	0xb855804CecD362fEaF9D455252d4d83846ae6558	3	✓ Verified
EWalletFiatCryptoGatewayFacet	0xed4927bAE08F50069154DA3Fe9A2Ec967De4D930	2	✓ Verified
EWalletFiatLedgerFacet	0xAff21c9C3826a4391b9f1C7DDede3dBfBf872B52	2	✓ Verified
EWalletLedgerFacet	0x01318A6F18569Cc8DF554218717867711a61895a	14	✓ Verified
EWalletFacet	0x1948Cf7c737070AeBc44053C2F6DC8682c62D8f0	8	✓ Verified
GatewayRegistryFacet	0xa83eC282FD108200849092eaaC0861cF3Cb9AacC	2	✓ Verified
AdapterRegistryFacet	0xa77c6c489c894B0D58572d9f0A6C347FAcE9Cb4a	4	✓ Verified
FeesFacet	0xA63BcDf89F98e82e46e10186f2f2edA4E34D7353	12	✓ Verified
TreasuryWalletFacet	0x58792165ea1C3eea53c034E2CC2cD074Be2D5E00	3	✓ Verified

Contract	Address	Selectors	BSCScan
FXRatesFacet	0x4dAC24Ae3D81c0FF1cF6B68f61223C188c95b947	4	✓ Verified
MultiCurrencyReserveFacet	0xB4DE4d738c8b2AA93d95f67275e7e9B15D60B4D7	3	✓ Verified
RedemptionVaultFacet	0xbE50499aF1d6D4864c06fc3CaD22dFd120404ADa	10	✓ Verified
VoucherFacet	0xdA2e4242A078cA7Db95A464B8Da85DFBbE1B64D8	5	✓ Verified
GaslessFacet	0xDC1524C6058314897A3796f4f132043A4778085A	14	✓ Verified
DeFiExchangeFacet	0xaeD169381845F359Ff77cbe09b082A8c3d85cfdD	8	✓ Verified
DexRouterFacet	0xDEF35c6A307D48AB267d5409daC18739ACA0D638	6	✓ Verified
DexSafeguardFacet	0x4a04f6a328d9A3D3F5Cf973222b2259c18189b79	4	✓ Verified
DexAdapterPluginFacet	0x7B5E3903a9a464d8DB787ce06dB2E162C255a305	7	✓ Verified
OFTFacet	0xf1D6Ae0aa8F5f311ac173dB6eED1FEB99e244524	10	✓ Verified
BridgeCompatFacet	0xb1537e5ea31bfa86d5DafA0bE13f37D3Cfb40555	2	✓ Verified
BridgePluginFacet	0x647d6D7bfc0cBC17B24E4b04ebbF26Cc3564AdDf	4	✓ Verified
RampBridgePluginFacet	0x8A443cd46B55F4e48818376e3ec238055Bc00618	5	✓ Verified
CrossChainAdapterFacet	0xcbC7346060EbF59Ddd6E48365Fa8936F55d50A81	2	✓ Verified
CrossChainRegistryFacet	0x22456cb02C07b6bcDAC94F4D8D20D5BD4e4d716e	2	✓ Verified
CLVFacet	0xebd0B74F2Da9ec9bB4C649C72f24112E079fC869	11	✓ Verified
IntentFacet	0xe4E9F10F20E0d11cBE198DEea485285714211c3A	11	✓ Verified
VirtualAMMFacet	0x1AfBd233F0C6c25E16A980560633AE89F98898b0	5	✓ Verified
RebaseElasticFacet	0x7B263A004f9b65412D3447E8F56Ee6505facA0d4	3	✓ Verified
RebasePluginFacet	0x757C3E3335433849F01285B3f3f5b8A527E12223	4	✓ Verified
StakingPluginFacet	0x6Ad32B4B6E102082Df7b0EC0c1a366A7bB9fbb65	6	✓ Verified

8. Post-Deployment Checklist

Item	Value / Address	Status	Notes
Mint test	mint(admin, 1 token) → totalSupply++	DONE	Verified Feb 25 2026
Burn test	burn(admin, 1 token) → totalSupply--	DONE	Verified Feb 25 2026
Fiat flow E2E	mint → requestRedemption → processRedemption	DONE	Net supply change = 0
Pause test	pause() → mint reverts with PAUSED	DONE	Verified Feb 25 2026
Unpause test	unpause() → mint succeeds again	DONE	Verified Feb 25 2026
Role check	Only USDW_ADMIN can mint/burn	DONE	Access control active
BSCScan verify	All 66 facets verified	DONE	Source code public
RPC stability	bsc.publicnode.com	DONE	Non-stale reads confirmed
.env security	Private key not in git	VERIFY	Check .gitignore

Item	Value / Address	Status	Notes
Remove UNKNOWN facet	0xB01f233bc9fece4627e909E9ee6a603B2660763d	VERIFY	Old debug facet still registered
Backend wallet roles	Grant USDW_ADMIN to hot wallet	VERIFY	Use manage-roles.js
Multisig for DEFAULT_ADMIN	Transfer to Gnosis Safe	VERIFY	Recommended for production

9. Operational Scripts

All scripts located in D:\USDW_NEW_INNO\scripts\

Script	Purpose	Usage
manage-roles.js	Grant / revoke roles	Edit GRANT/REVOKE arrays then run
test-fiat-flow.js	End-to-end fiat mint/redeem	Run after any MintBurn upgrade
test-pause.js	Test pause/unpause flow	Run to verify emergency controls
final-verify.js	Mint + burn sanity check	Quick smoke test after changes
verify-all-facets.js	Map facet addresses to names	Audit deployed facet registry
batch-verify.js	BSCScan verify all facets	Run after new facet deployments
check-roles.js	Show role holders	Audit access control
deploy-prod-mintburn.js	Deploy + wire MintBurnFacetProd	Use for future MintBurn upgrades

10. Important Notes

SECURITY: Never commit .env to git. The DEPLOYER_PK controls all admin roles.

RPC: Always use bsc.publicnode.com — bsc-dataseed.binance.org returns stale state.

UPGRADES: Use diamondCut with action=Replace (1) to update existing facets. Use action=Add (0) for new selectors only.

POWERSHELL: Always use [System.Text.UTF8Encoding]::new(\$false) when writing .sol files to avoid BOM errors.

UNKNOWN FACET: 0xB01f233bc9fece4627e909E9ee6a603B2660763d is a debug artifact. Remove with diamondCut action=Remove (2).