

Ancient Ring-Based Wormhole Transit System (ARB-WTS)

Common Name: Stargate Device

Document ID: ARB-WTS-SGC-REV5

Revision: 5.4

Prepared by: Interstellar Transit Engineering Command

Classification: Restricted – Off-World Transit Technology

Abstract: The Ancient Ring-Based Wormhole Transit System (ARB-WTS), commonly referred to as the Stargate Device, enables near-instantaneous transport between fixed spatial coordinates via stabilized Einstein-Rosen bridge formation. This document details system architecture, dialing protocols, power requirements, and operational constraints.

1. Physical & Structural Characteristics

The ARB-WTS consists of a 6.7-meter diameter naquadah-alloy ring structure containing 39 encoded glyph symbols representing three-dimensional spatial constellations. An inner rotational track engages chevron locking mechanisms to establish destination coordinates.

Property	Value	Unit
Outer Diameter	6.7	meters
Ring Thickness	0.9	meters
Mass	29,000	kg
Primary Material	Naquadah Alloy	-
Number of Glyph Symbols	39	-
Chevron Lock Mechanisms	9	-

2. Dialing & Wormhole Parameters

Establishing a stable wormhole requires sequential chevron locking of six spatial glyphs plus one point-of-origin symbol. An eighth and ninth chevron may be engaged for intergalactic routing.

Parameter	Minimum	Nominal	Maximum	Unit
Wormhole Diameter	4.5	5.0	5.5	meters
Stable Transit Window	30	38	40	minutes
Event Horizon Energy Density	1.2e12	1.8e12	2.3e12	J/m ²
Dial Sequence Time	12	18	30	seconds
Causality Offset	0.0	0.002	0.01	seconds

3. Power & Safety Specifications

Primary power is supplied via zero-point module (ZPM) or high-capacity naquadah generators. Initial wormhole formation requires a significant energy spike followed by stabilized sustainment draw.

Specification	Value	Unit
Initial Activation Energy	3.4e15	Joules
Sustained Power Draw	6.2e11	Watts
Power Source Efficiency	97.8	%
Maximum Wormhole Range	Intergalactic (9-chevron)	-
Emergency Shutdown Time	< 3	seconds

WARNING: Foreign object insertion during unstable wormhole formation may result in matter stream dispersion. Reverse wormhole travel is prohibited while event horizon is active. Always verify destination coordinate integrity prior to final chevron lock.