

ELECTROMECHANICAL LOCK ASSEMBLY AND METHOD OF OPERATION THEREOF**ABSTRACT**

5 The present invention relates to an electromechanical lock assembly comprising an interface rotatable around a longitudinal axis, an inner cylinder disposed within the interface and rotatable around the longitudinal axis, a clutch disposed within the inner cylinder and rotatable between a disengaged position and an engaged position and a motor configured to rotate the clutch to the engaged position. The clutch is bias towards the disengaged position. The motor is configured to overcome the bias and rotate the clutch from the disengaged
10 position to the engaged position. While in the engaged position, the clutch places the lock assembly in a mechanically ununlockable state by enforcing the rotational coupling of the inner cylinder to the interface. When torque from the motor is no longer being supplied, the clutch is spontaneously returned to the disengaged position by the release of stored mechanical energy from the biasing means.

15 [Fig.1]