

Motion Control Technologies
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精傳科技有限公司

Throttle Valve

Overhaul

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MKS Throttle Valve

253A & 235B Series



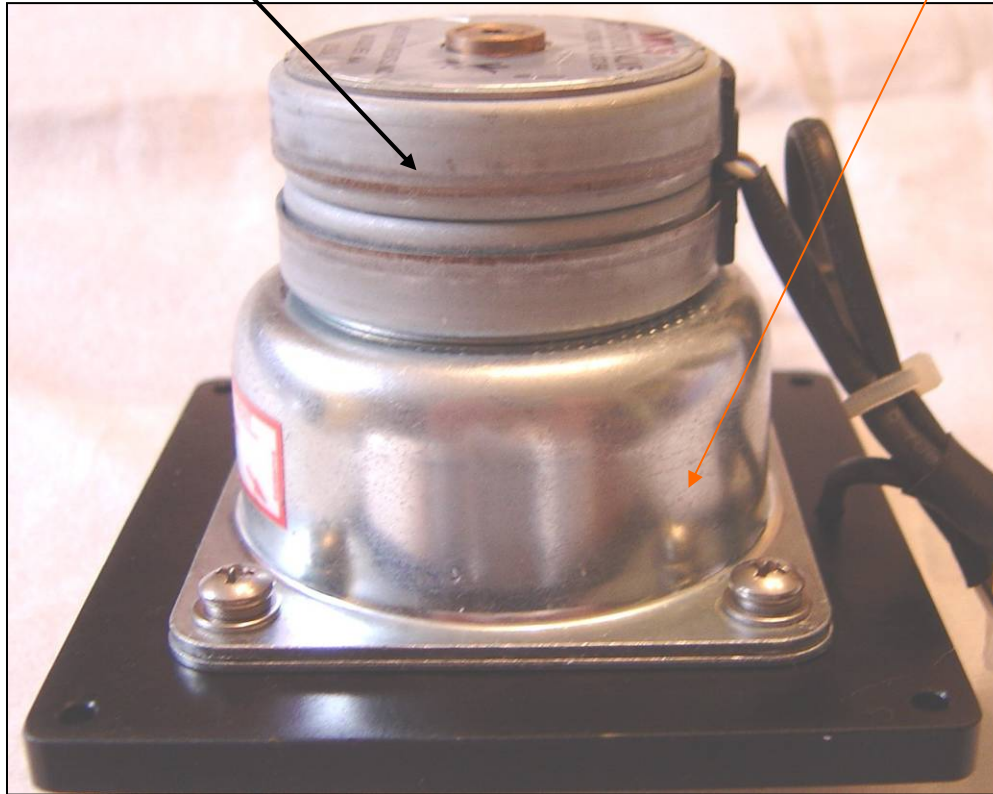
MKS Throttle Valve

153D, 653B & 683B Series



2-Phase Step Motor

Reduce Gear Box



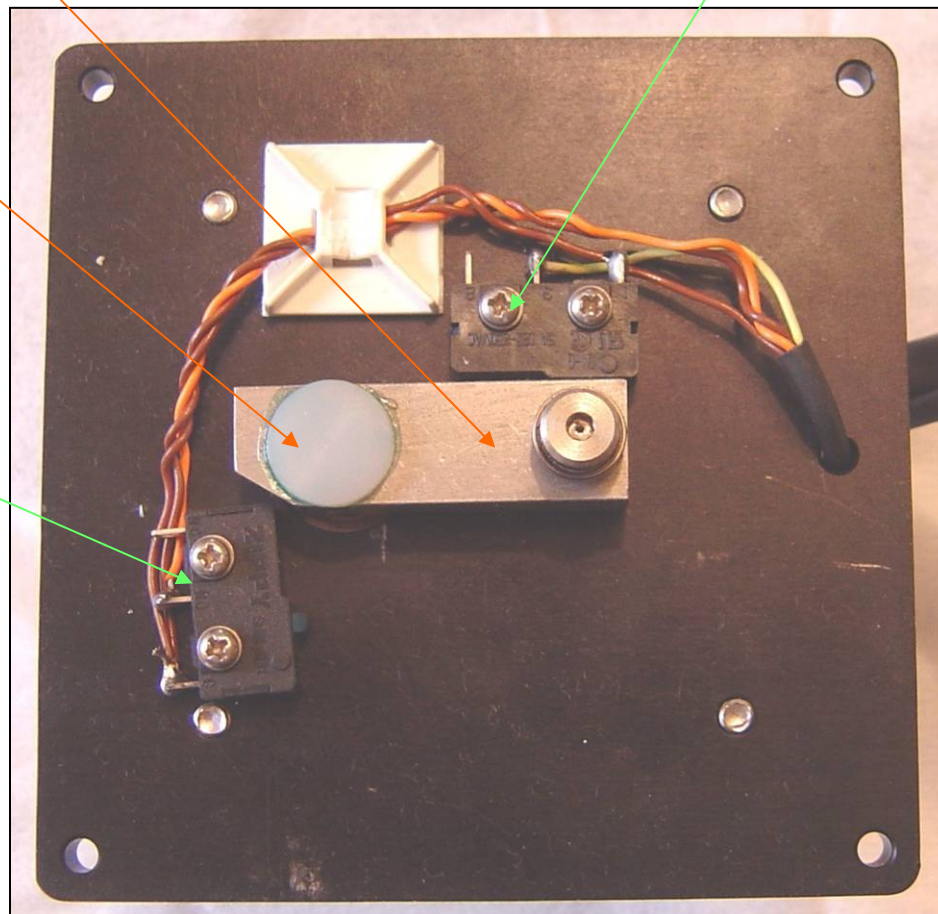
傳動裝置 (Motor)

出力軸

出力軸撥桿

Limit Switch

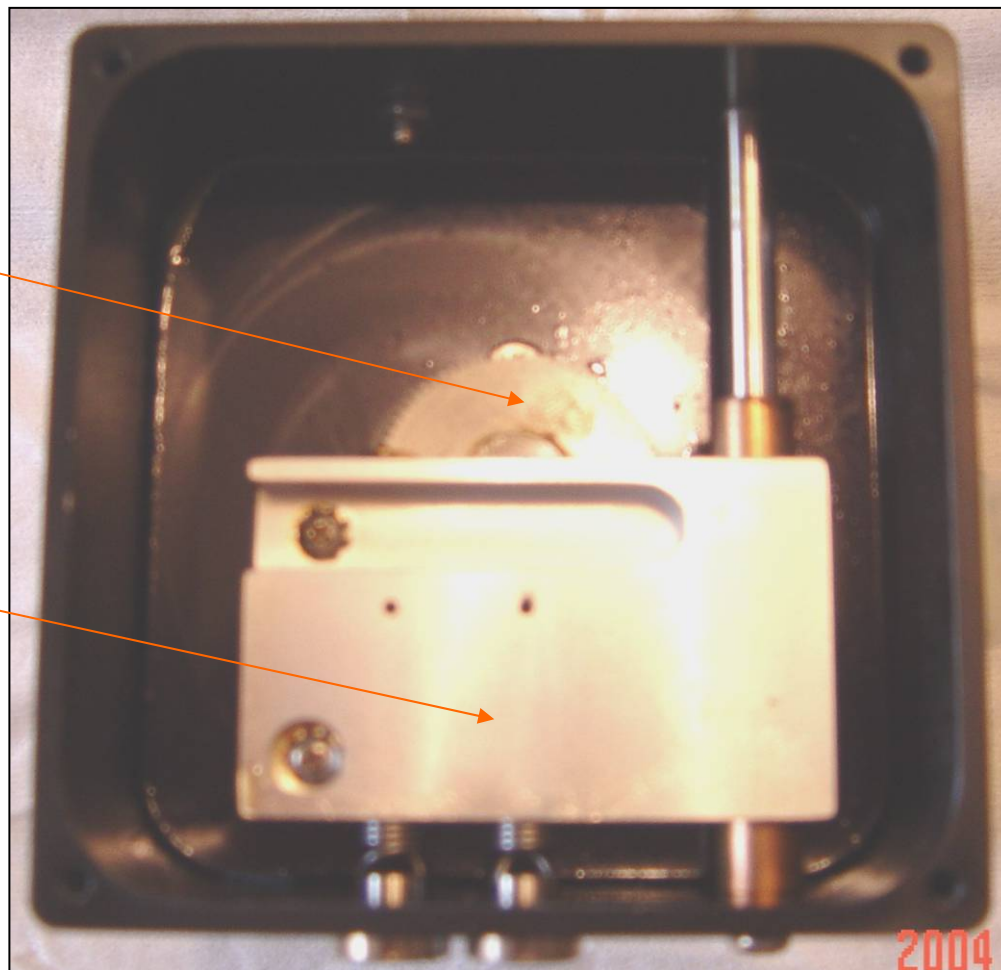
Limit Switch



傳動裝置 (Valve)

主軸齒輪組

撥桿滑套



2004

節流閥本體



Throttle VALVE 之故障原因分析:

1. 壓力**Servo**不穩
2. 遲滯係數過高
3. 驅動,傳動及控制單元故障
4. 漏率過高

(1) Step motor

- * 磁極破損
- * loss-step
- * 欠相運轉
- * 運轉環境欠佳(軸承磨損, 磁極受異物污染)
- * 負載阻力過大(軸承破損, 減速齒, 皮帶磨損老化)

(2) 閥體

- * 運轉環境欠佳(生成物污染, 軸套磨損)
- * 閥體磨損
- * O-ring磨損, 變形

(3)傳動及控制裝置

- * 齒輪磨損
- * 滑套,襯套磨損
- * 轉軸軸承老化
- * limit switch 作用不良
- * 撥桿軸承磨損

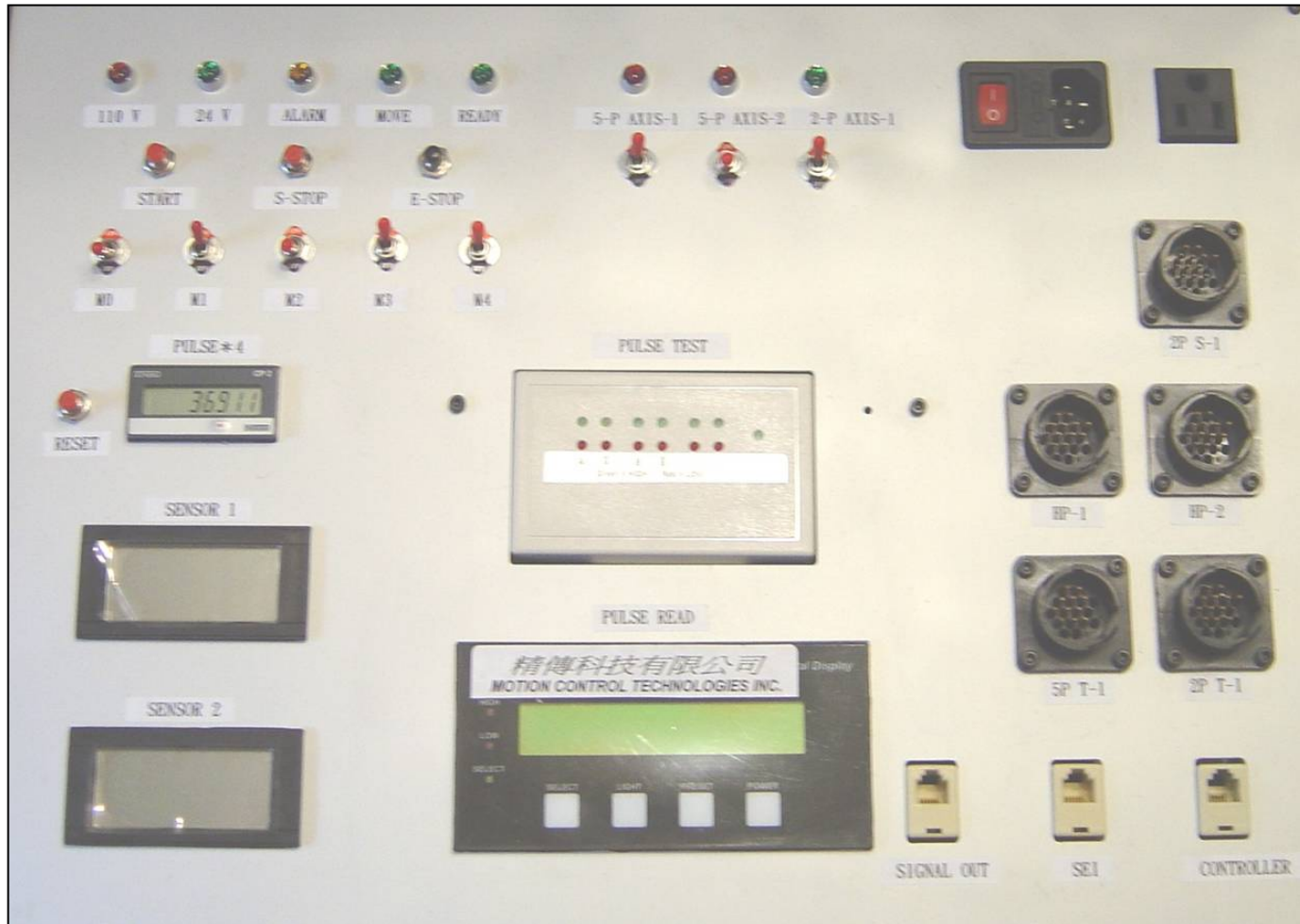


Throttle valve 之檢驗測試

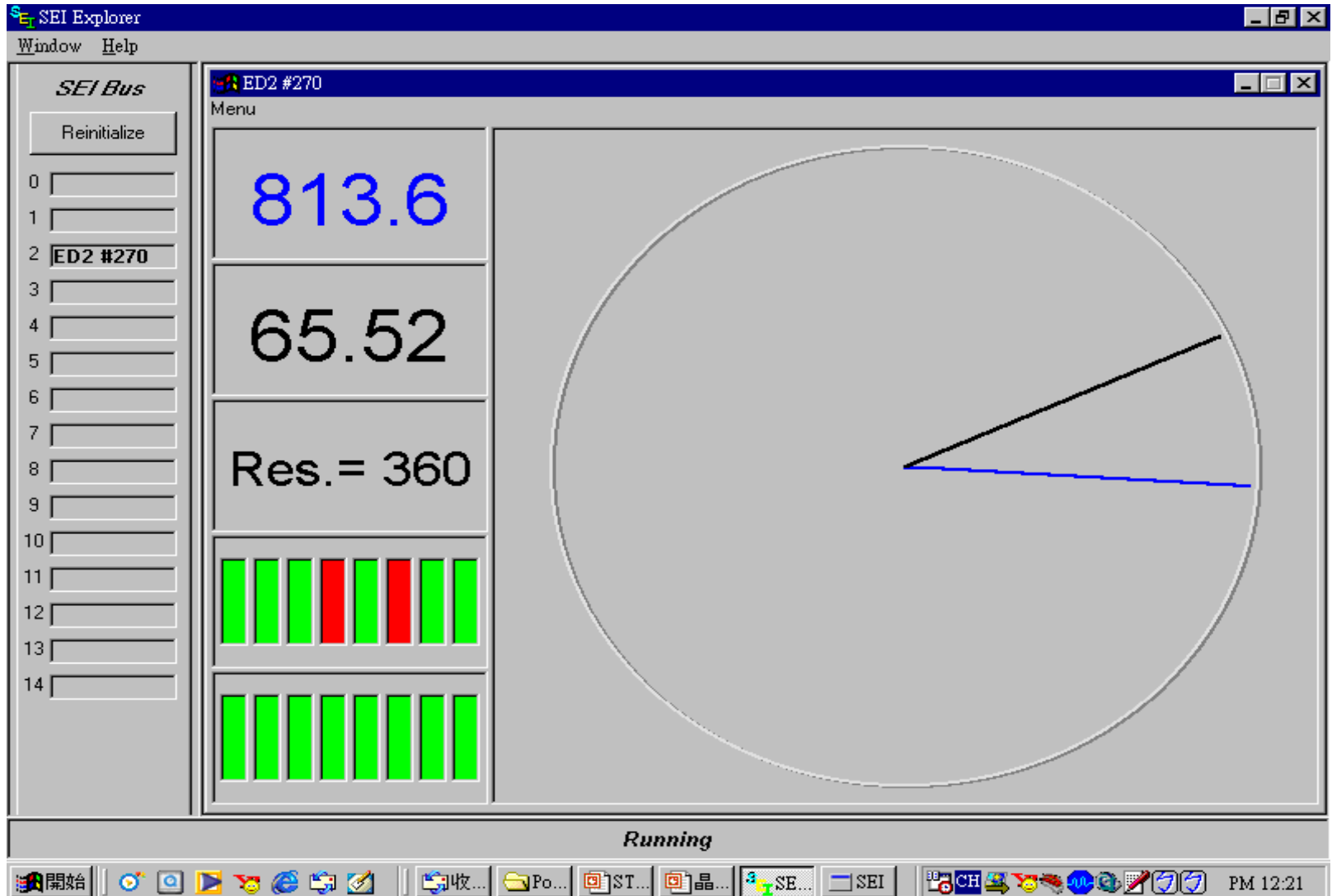
專用測試機 **ETEST ES-01** 內含:

- * **STEP MOTOR CONTROLLER**
- * **STEP MOTOR DRIVER**
- * **ENCODER DIGITAL READER**
- * **QUADRATURE ENCODER TESTER**
- * **REFLECTIVE OBJECT SENSOR TESTER**
- * **INCREMENTAL SHAFT ENCODER**
- * **STEP MOTER TEST PLATFORM**
- * **SEI Explorer V1.07 software**

專用測試儀 ETEST ES-01



SEI Explorer V1.07 software



檢測報告

STEP MOTOR QA CHECK LIST

CUSTOMER: PSC

2. SERIAL NO: 29100026

DATE: 9月9日

1. PART NAME: step motor lower

3. PART NO#: 0010-70264

FAB NO #: F1

CHECK POINT CHECK TYPE	STANDARD	1	2	3	4	5	6	7	8	9
1.ENCODER TEST (VR=100Hz,500pules) (ENCODER TESTER,DC5V)	180.00 °	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00
2.STEP MOTOR TEST (VR=1000Hz,2000pulse) ENCODER DIGITAL READOUT	720.00 °	694.80	687.60	687.60	691.20	705.60	702.00	698.40	694.80	608.40
3.STEP MOTOR TEST (VR=2000Hz,5000pulse) ENCODER DIGITAL READOUT	1800.00 °	CCW	CCW	1735.20	CCW	1746.72	1746.00	CCW	CCW	CCW
4.STEP MOTOR TEST (VR=2500Hz,10000pulse) ENCODER DIGITAL READOUT	3600.00 °	3574.08	CCW	3578.40	CCW	CCW	3542.40	3553.20	3558.80	CCW
5.REFLECTIVE OBJECT SENSOR TEST (IN:1.7V OUT:5V)	5.0± 1.0V	5.0	5.0	5.0	5.1	5.1	5.1	5.1	5.1	5.1
6.HARMONIC GEAR TEST (RATIO: 1/50) (input VR=2500Hz,10000pules) (output CPR1000)	IN:3600.00 °	IN:								
	OUT:72.00 °	OUT:								

TEST RESULT: (1)ENCODER:O.K (2)Reflective Object Sensor : O.K (3) Step Motor : FAULT

QA CHECKER

傅志安

VERIFY BY

DRAGON CHANG

產品特性及優勢:

- 1.動態模擬校正及測試,精準調整安裝,改善遲滯現象,降低遲滯係數,提高出力軸運轉定位之精密度.
- 2.產品出廠採全檢方式及動態模擬測試,將不良率降到最低.並準確校正 **Full Open Step (1400 ±10 step) , Close Home & Open Home Position .**
- 3.提供使用單位高品質的 **Overhaul** 服務,提高生產設備穩定性,增加 **Up Time** ,降低新品購置成本 .