



**PARTS: MAINTENANCE, REPAIR, AND REPLACEMENT;
TWINCO MANUFACTURING COMPANY**

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**PARTS: MAINTENANCE, REPAIR, AND REPLACEMENT;
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1. SCOPE

- 1.1 This specification covers the requirements for a Contractor to furnish and deliver maintenance, repair, and replacement parts to the Chicago Transit Authority (CTA) for equipment that are manufactured by Twinco Manufacturing Corporation.
- 1.2 The parts to be furnished under this specification include, but are not limited to, consumable parts essential for the maintenance of the individual equipment, replacement component assemblies that are not repairable, and repair parts for component assemblies that are repairable.

2. GENERAL INFORMATION

2.1 DEFINITIONS N/A

2.2 ACRONYMS

2.2.1 CTA: Chicago Transit Authority

2.2.2 OEM: Original Equipment Manufacturer

2.3 APPLICABLE INFORMATION

2.3.1 The version of a standard, code, statute, or guideline referenced herein that is current on the date of release applies.

2.3.2 Sub-sections that are “Not Applicable” to this specification are indicated with “N/A.”

2.3.3 The Contract Document will provide information for contacting the appropriate CTA contact personnel.

2.3.4 Parts furnished must be new, genuine Twinco brand original equipment manufacturer (OEM) parts, or parts approved by the CTA as being technically equivalent. The parts required are included, but not be limited to those parts listed in the Tables.

2.3.5 Refurbished or rebuilt replacement component assemblies and repair parts will not be accepted without prior written agreement with the CTA.



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3. DELIVERABLES

3.1 PRE-AWARD

3.1.1 The potential Contractor must provide the following items with its bid or within five (5) business days of CTA's request:

- a. Documentation: Contractor's experience furnishing and delivering the parts detailed in this specification (see paragraph 4.2.1).
- b. Documentation: Contractor's references (see paragraph 4.2.2)
- c. Documentation: Authorized distributor or reseller (see paragraph 4.2.3)
- d. Documentation: Maintained stock inventory of the majority of the OEM parts (see paragraph 4.2.4)
- e. Documentation: Distribution and delivery system (see paragraph 4.2.5)

3.2 POST-AWARD

3.2.1 The Contractor must provide the following items after award of Contract or within five (5) business days of CTA's request:

- a. Part Data
- b. Specifications

3.2.2 Upon award of a Contract, a given part must be identical to the item that was approved by the CTA. Any exceptions must be submitted in writing and obtain approval by the CTA Manager or designee.

4. CHICAGO TRANSIT AUTHORITY CONTRACT REQUIREMENTS

4.1 QUALITY CONTROL AND ASSURANCE

4.1.1 The Contractor must state the titles/positions of the individuals or persons in charge of correcting unsatisfactory parts.

4.2 CONTRACTOR REQUIREMENTS

4.2.1 The Contractor must be a professional business entity with at least five (5) years' experience furnishing and delivering parts specified in this specification. The CTA requires documentation meeting the requirements of this specification with the bid response package, or within five (5) business days of the CTA request.



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- 4.2.2 The Contractor must furnish in the Contractor's bid response package a list of three (3) references, including the name of the company, contact name and phone number, similar parts have been provided within the last two (2) years. The CTA requires documentation meeting the requirements of this specification with the bid response package, or within five (5) business days of CTA request.
- 4.2.3 The Contractor must provide evidence of being an authorized distributor or reseller for the OEM parts listed. The CTA requires documentation meeting the requirements of this specification with the bid response package, or within five (5) business days of CTA request.
- 4.2.4 The Contractor must provide evidence of having a maintained stock inventory of the majority of the OEM parts listed. The CTA requires documentation meeting the requirements of this specification with the bid response package, or within five (5) business days of CTA request.
- 4.2.5 The Contractor must provide evidence of having a distribution and delivery system that will supply the CTA the majority of the OEM parts listed within five (5) business days after receipt of order from the CTA.
- 4.2.6 The Contractor must identify the OEM parts from the list that are not stocked and/or will have a greater than five (5) business day delivery time after receipt of order from the CTA. A delivery time for each such OEM part must be stated in the potential Contractor's bid proposal.
- 4.2.7 The Contractor must furnish and deliver OEM parts listed in the Twinco parts catalog(s), current version.

4.3 DETAILED REQUIREMENTS

- 4.3.1 The Twinco parts that the Contractor will furnish and deliver under this specification include, but are not limited to, those listed in the tables found in the Appendix.

4.4 PERFORMANCE REQUIREMENTS N/A

4.5 SAFETY REQUIREMENTS N/A

4.6 WARRANTY INFORMATION



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4.6.1 All parts furnished must be covered under the standard Manufacturer's warranty & product support plan.

4.6.2 The Contractor agrees to promptly correct by repair or replacement any defect or failure of compliance that may develop within the standard warranty period. Any part or component replaced under this warranty extends the original standard warranty an additional standard warranty period.

4.7 DELIVERY, STORAGE, HANDLING

4.7.1 Each shipment of parts furnished by the Contractor to the CTA under this specification must include a complete packing list. Each packing list provided must include, but not necessarily be limited to, the following information:

- a. Description of Part(s).
- b. Quantity.
- c. Manufacturer's Name & Part Number.
- d. CTA Item Number (If applicable).
- e. CTA Purchase Order Number (If applicable).
- f. CTA Release Number (If applicable).

4.7.2 Failure by the Contractor to furnish a complete packing list for a given part(s) may result in rejection of shipment and/or delay in payment.

4.7.3 Each component, or part, furnished under this specification must be factory new, unused and in the original Manufacturer's unopened sealed packaging (container).

4.7.4 All repair parts manufactured by the OEM must be so identified with the official OEM company name and/or logo, plus the original OEM part number, on each individual part or its packaging.

4.7.5 Parts manufactured by alternative manufacturers that have been approved by the CTA as being equal to those originally manufactured or supplied by the OEM, must have the alternate manufacturer's official company name and/or logo on each individual part or its packaging. Approved alternates will be listed in the Contract Document.

4.7.6 All OEM or CTA approved substitute parts furnished to the CTA must be packaged in the original sealed packaging.



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4.7.7 Parts not attached to the component assemblies must be furnished in the OEM sealed packaging, if parts are so packaged by the manufacturer.

4.7.8 The packing slip for each shipment to the CTA must state the OEM's part number for each part in the shipment.

4.7.9 The CTA delivery location for the parts associated with this specification will be listed in the Contract Documents.

4.8 APPROVED AND NON-APPROVED ITEM INFORMATION

4.8.1 The Contractor must only furnish and deliver CTA approved items under the terms of a given Contract. Should a potential Contractor wish to offer for CTA consideration an alternate item not currently approved, the potential Contractor may coordinate the delivery of a sample to be tested with the Procurement Administrator or Buyer. The CTA's User-Group approval will be final.

4.8.2 The time required for reviewing and/or testing each item offered will vary and depend on the applicable procedures. Approval of an item does not guarantee an order under a currently proposed or future Contract.

4.9 ADDITIONAL INFORMATION FOR POTENTIAL CONTRACTORS

4.9.1 Potential Contractors requiring any additional information must contact the CTA Procurement Administrator or Buyer listed in the Contract Documents. Potential Contractors requiring additional information from a person or persons potentially listed in the Special Conditions section of the Contract Documents must route their request through the Procurement Administrator or Buyer. Potential Contractors who contact any CTA personnel other than the Procurement Administrator or Buyer during the open bidding period will be in violation of the provisions set forth in the Contract Documents.

5. CHICAGO TRANSIT AUTHORITY CONTRACT WORK INSTRUCTIONS N/A

5.1 INSTALLATION

5.2 TESTING AND COMMISSIONING

5.3 FINAL INSPECTION

5.4 FINAL ACCEPTANCE



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5.5 DEMOLITION, STORAGE, AND REMOVAL

6. APPENDIX

Table 1 – Main Unit Assembly	
PART NO.	DESCRIPTION
069-2181-3-0	PS-1 Electric Train Stop Complete
000-0543-0-0	Washer,# 14
000-1187-0-0	AAR Insulating Nut, 14-24
000-1697-3-A	Terminal Block, Bare, 3 Post
000-2081-3-0	Motor & Gear Box Compl, 60 HZ
000-2605-1-0	Circuit Diagram
000-2614-1-0	Name Plate, Train Stop
000-2687-1-0	Clamp, Capacitor
069-0937-0-A	Main Housing
069-0937-0-C	Screw, Hasp
069-0937-0-F	Vent cover
069-0937-0-G	Vent Screen
069-0937-0-H	Vent Washer
069-0937-0-J	Hinge Pin
069-0937-0-K	Bushing, Bronze
069-0937-1-H	Vent Washer Gasket
069-0939-0-0	Sector Gear Assy
069-0939-0-H	Output Shaft
069-0940-0-0	Return Spring Assy.
069-0940-0-A	Spring Bracket, Train Stop
069-0941-1-0	Circuit Controller Assy
069-0942-0-T	Terminal Block, Resistor
069-0942-1-P	Capacitor, 20 MFD



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Table 1 – Main Unit Assembly

PART NO.	DESCRIPTION
069-0942-1-R	Resistor Assembly, 5 Ohm 25W
069-1377-0-0	Cable Entrance Adapter
069-1426-0-0	Buffer, Assy.
069-1427-0-0	Latch, Hasp Complete
069-1549-0-0	Jumper, 13 Inch
069-1567-0-0	CC Drive Arm Assy
069-2308-2-0	Main Housing Cover Assy, Aluminum
069-3561-1-A	Split Tag
069-3561-1-B	Resistor Tag
700-0171	Grease Fitting Cap
700-0172	Grease Fitting, 1/8 NPT
700-0173	Plug, 3/8 NPT Sq. Head Brass
700-0174	Roll Pin, 3/8 x 1-1/2
700-0175	1F Terminal Tag
700-0176	2F Terminal Tag
700-0177	3F Terminal Tag
700-0178-2-0	Tube, 1/4 ID x 5/16 OD Plastic
700-0265-1-0	Name Plate, Twinco
700-0296	Cartee VCI-101 Emitter
700-0297-1-0	Tape, 2" Yellow
700-0313	2"NPT Red Polyethylene Plug
700-1316	Seal
701-0136	Nut, AAR Binding #14-24
701-0192	Nut, AAR Clamp #14-24
701-0236	Lockwasher, 5/16" Split, Zinc



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Table 1 – Main Unit Assembly	
PART NO.	DESCRIPTION
701-0238	Screw, 5/16-18 x 7/8 Hex Hd.
701-0258	Woodruff Key, Ground
701-0260	Lockwasher, 3/8 ID Split, Zinc
701-0262	Lockwasher,5/16 ID Split, Zinc
701-0288	Nut, 1/4- 20 Elastic Lock
701-0290	Screw, 10-32 x 5/8 Pan Hd S.S.
701-0291	Screw, 1/4-20 x 1 1/2 GR 5
701-0293	Washer, 7/16" Flat, Galvanized
701-0300	Nut, 1/4-20 Yellow Zinc Plated
701-0306	Screw, 10-32 x 1/2 Phil Pan Hd

Table 2 – Motor & Gear Box	
PART NO.	DESCRIPTION
000-2081-3-0	Motor & Gear Box Complete
000-2117-1-0	Cable Assy, Train Stop
000-2071-1-A	End Bell, Rear
000-2072-1-0	Stator Assy
000-2076-1-0	Rotor Assy
000-2081-1-A	1st Gear Assy.
000-2081-1-B	2nd Gear Assy.
000-2081-1-F	Gear Case, Motor Side
000-2081-1-G	Bolt, Special, 5/16-18 X 2-1/2
000-2081-2-C	3rd Gear Assy, 35
000-2105-1-0	Gear Case Output Side
069-0938-0-G	Output Shaft Pinion



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Table 2 – Motor & Gear Box

PART NO.	DESCRIPTION
069-0938-0-N	Motor Pinion Gear
700-0157	Woodruff Key, 1/8 x 1/2
700-0166	5/32 x 1 1/8, Spiral Pin
700-0167	Spiral Pin, 3/16 x 7/8
700-0265	Name Plate Twinco
700-0302	Shrink Tubing
700-0559	O-Ring, 5-1/2 ID X 3/32 Wide
700-0573	Washer, Spring, Steel Finger
700-0956	Seal, Radial 3/4"10
700-0957	Seal, Type VR1-Ring, 3/4" ID
700-0958	O-Ring, 7.613 ID X .070 Dia
700-0962	Connector, Panel Mount, 3-Pole
700-1877	O-Ring, .750 I.D. X 1/16 Thk
700-0977	Dowel Pin, 1/8 Dia X 1/2 Lg
700-0982	Plug, Hex Socket, 1/8" Pipe
700-1195	Adhesive Tape
700-1234	Cap, Connector
700-1290	Ball Bearing, 6203
700-1291	Ball Bearing, R8
700-1292	Ball Bearing, R12
00-1395	Butt Splice
01-0259	Bolt, 5/16-18 X 2 1/4
01-0262	Lockwasher,5/16 ID Split, Zinc
701-0538	Was her, #4 Flat, S.S.
701-0614	Lockwasher, #4 Split, S.S.



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Table 2 – Motor & Gear Box	
PART NO.	DESCRIPTION
701-0891	Cap Screw, 1/4-20 X 5 Hex Hd
701-0900	Screw, 4-40 X 3/8 Pan Hd
701-0930	Washer, #12 Flat, SAE

Table 3 – Train Stop Installation Kit	
PART NO.	DESCRIPTION
228-2098-1-0	Train Stop Installation Kit
069-1375-0-0	Strap Comp.
069-1396-0-0	Lag Stud
069-1084-0-0	Spacer, Tube
069-1385-0-0	Spring, Pad
069-1382-0-0	Pad, Washer
701-0276	Washer, USS 1 1/8
701-0275	Nut, 7/8-9 Hex Hd Hvy Stl
701-0233	Washer, 3/4" USS, Steel
701-0234	Washer, 7/8 SAE, Steel
700-0149	Spring Black
700-0150	Spring, Red
701-0272	Cotter Pin 3/16 x 1 1/4
701-0273	Lockwasher, 7/8" Split, Zinc
701-0274	Nut, 3/4-10 Slotted Hex Hd Hvy
701-0278	Nut, 3/4-10 Hvy Sq.
069-1396-1-0	Special Lag Stud Complete



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Table 4 – Washboard Trip Arm Assembly, LH Trip

PART NO.	DESCRIPTION
701-1841	Washer, Flat, 1/2, ZNC OLV
701-1404	Cotter Pin, 3/32 x 1-1/4, 18-8 SS
701-1318	Nut, Hex Castle, 1/2-13 ZNC OLV
701-1297	Washer, Lock Split, 1/2, ZNC OLV
069-5064-1-0	Screw, Cap Hex w/ Hole, 1/2-13 X 4, ZNC OLV, Grd 5
069-5063-1-0	Screw, Cap Hex w/ Hole, 1/2-13 X 2, ZNC OLV, Grd 5
069-3904-2-0	Indicating Clip, Washboard Trip
069-3670-4-0	Spacer-Rocker, Washboard Trip Arm
069-3670-3-0	Spacer-arm, Washboard Trip Arm
069-3660-2-0	Weldment, Washboard Trip Arm, LH Trip, CTA
069-3659-2-0	Clamp, Rocker, Washboard Trip Arm
069-3658-2-0	Washboard, Rocker Horizontal Adj., Trip Arm
069-3657-2-0	Mount Weldment, Washboard Trip Arm

Table 5 – Bearing Strap Assy, Washboard Trip Arm, Side Hook, LH, 26-1/2, 3-1/2 Trip

PART NO.	DESCRIPTION
701-1093	Washer, Flat, SAE, 3/4 1-15/32 OD, ZNC OLV
701-0244	Washer, Lock Split, 3/4, ZNC OLV
701-0215	Nut, Hex Elastic Lock, 3/4-10, 18-8 SS
701-0159	Screw, Cap Hex, 3/4-10 x 3, Grd 5, Full Thd., ZNC OLV
069-5272-3-0	Backstop Assy, Washboard Trip Arm, LH, 3-1/2 Trip
069-1043-0-0	Bearing Assembly
000-6699-1-0	Strap, Bearing, Washboard Trip Arm, 26-1/2"



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DISTRIBUTION LIST:

Sr. Mgr., Signal Maintenance

REVIEWER / Writer(s):

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