

**OKLAHOMA DEPARTMENT OF TRANSPORTATION
CONTRACT FOR TRAFFIC SIGNAL PARTS, ACCESSORIES, AND REPAIR
AGENCY CONTRACT AC-0016H**

PARTIES TO THE CONTRACT

This contract is made and entered into by and between the Oklahoma Department of Transportation, hereinafter referred to as the "DEPARTMENT," and General Traffic Equipment Corp., hereinafter referred to as the "CONTRACTOR".

SECTION 1. PURPOSE OF THE CONTRACT

This agency contract is for traffic signal parts, accessories, and repair. This Contract may be used by any entity within the Transportation Cabinet. This contract may also be utilized by other governmental entities if allowed for by that entities purchasing guidelines. upon approval by ODOT.

SECTION 2. SPECIFICATIONS

This work shall be in accordance with the response submitted by the CONTRACTOR on January 27, 2026, to the DEPARTMENT.

SECTION 3. TERM OF CONTRACT

This contract is for a twelve (12) month period, commencing on February 1, 2026, and extending through January 31, 2027. Upon mutual agreement by the DEPARTMENT and CONTRACTOR, this contract may be renewed for three (3) consecutive one-year periods.

This contract will include, by reference and incorporation, the contract bid proposal, instructions to bidders, Specifications, and all other documents contained in the bid packet for RFP# AC-0016. All actions, duties, and obligations required by the CONTRACTOR apply to the CONTRACTOR'S agents and employees. All legal protections offered to the State of Oklahoma shall also be extended to the Oklahoma Department of Transportation and any other state entity involved with this contract

SECTION 4. COMPENSATION

4.1) The DEPARTMENT agrees to pay, and the CONTRACTOR agrees to accept, in full consideration for the performance of the CONTRACTOR's obligations, compensation based on the CONTRACTOR's bid (Solicitation # AC0016) for the various pay items (See Attachment 1).

Total compensation for services rendered under this contract will be a maximum not to exceed the amount of ONE HUNDRED THOUSAND DOLLARS (\$100,000.00).

4.2) Bills for fees or other compensation for services and expenses shall be submitted to DEPARTMENT in detail sufficient for a proper pre-audit and post-audit thereof. Billing shall be submitted to the address listed on the Purchase Order issued as a result of the contract.

Each invoice shall include the following information on each purchase:

- Purchase Order Number
- Agency Contract No. "AC-0016H"
- Cost of Product & Delivery
- Description of Supplies Provided
- Employer Identification Number
- Vendor's name, remit to address, telephone number, and date of invoice

4.3) If payment is made more than 45 days after submitting a proper invoice, the CONTRACTOR may be entitled to claim interest in the maximum amount permitted by law, until the invoice is paid in full.

SECTION 5. TRAVEL

No reimbursable travel is contemplated under the terms of the contract.

SECTION 6. DISPUTE RESOLUTION

Any dispute concerning the question of fact in connection with the work, not disposed of by the contract between the parties hereto, shall be referred to the state agency that initially awarded this contract (e.g., Department of Central Services). The decision of the administrator of said agency, or his/her duly authorized representatives, shall be final and conclusive on the parties to this contract.

SECTION 7. TERMINATION

This Contract may be terminated, without recourse, in the following circumstances:

7.1) For Convenience - The DEPARTMENT or CONTRACTOR may terminate this Contract by giving thirty (30) days written notice.

7.2) For Cause - The DEPARTMENT may, by written notice to the CONTRACTOR, terminate this Contract for any of the following reasons:

7.2.1) The CONTRACTOR discontinues providing services as required by the Contract.

7.2.2) The CONTRACTOR takes any action pertaining to this Contract without the approval of the DEPARTMENT and which, under the conditions set by this Contract, would have required the approval of the DEPARTMENT.

7.2.3) The commencement, execution or timely completion by the CONTRACTOR is, for any reason, rendered improbable, impossible, or illegal.

7.2.4) The CONTRACTOR shall be in default under any provision of this Contract.

7.3) Mutual Agreement - By mutual agreement and consent of the parties hereto, this Contract may be terminated upon sixty (60) days' written notification.

Should this Contract be terminated for any of the reasons specified above, the DEPARTMENT shall be liable to the CONTRACTOR, or CONTRACTOR's successors in interest, only for the reasonable value of services and work satisfactorily performed, up to and including the date of notice of termination.

SECTION 8. GOVERNING RULES AND REGULATIONS

The CONTRACTOR and its subcontractors, if any, shall comply with all federal, state, and local laws, statutes, ordinances, rules and regulations, and the orders and decrees of any court or administrative bodies or tribunals in any nature affecting the performance of this Contract, including workers' compensation laws, minimum and maximum salary and wage statutes and regulations. When required, the CONTRACTOR shall furnish the DEPARTMENT with satisfactory proof of its compliance therewith.

SECTION 9. COVENANT AGAINST CONTINGENT FEES

The CONTRACTOR warrants that it has not employed or retained any company or person specifically to solicit or secure this Contract, and that it has not paid or agreed to pay any fee, commission, percentage, brokerage fee, gifts, or any other consideration, contingent upon or resulting from the award or making of this Contract. For breach or violation of this warranty, the DEPARTMENT shall have the right to annul this Contract without liability, or at its discretion, to deduct from the Contract price or consideration, or otherwise recover, the full amount of such fee, commission, percentage brokerage fee, gift, or contingent fee.

SECTION 10. EQUAL EMPLOYMENT OPPORTUNITY

In connection with the execution of this Contract, the CONSULTANT shall not discriminate against any employee or applicant for employment because of race, religion, color, sex, age, or national origin. The CONSULTANT shall take affirmative action to ensure that applicants are employed and that employees are treated during employment without regard to their race, color, religion, sex, age, or national origin. Such actions shall include, but are not limited to, the following: employment, upgrading, demotion or transfer, recruitment or advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship. The CONSULTANT further agrees to insert a similar revision in all subcontracts, except subcontracts for standard commercial supplies or raw materials.

SECTION 11. TITLE VI - CIVIL RIGHTS ACT OF 1964

The CONTRACTOR shall comply with all the requirements imposed by Title VI of the Civil Rights Act of 1964 (P.L. 88-352), the Regulations of Department of Transportation issued thereunder (CFR Title 49, Subtitle A, Part 21), and the assurance by the CONTRACTOR pursuant thereto.

During the performance of this Contract, the CONTRACTOR, for itself, its assignees and successors in interest, agrees as follows:

- (a) Compliance with Regulations: The CONTRACTOR shall comply with the regulations relative to nondiscrimination in federally-assisted programs of the U.S. Department of Transportation (hereinafter, "U.S. DOT") Title 49, Code of Federal Regulations, Part 21, as they may be amended from time to time (hereinafter referred to as the Regulations), which are herein incorporated by reference and made a part of this Contract.
- (b) Nondiscrimination: The CONTRACTOR, with regard to the work performed by it during this Contract, shall not discriminate on the grounds of race, religion, color, sex, age, or national origin in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The CONTRACTOR shall not participate either directly or indirectly in the discrimination prohibited in Section 21.5 of the Regulations, including employment practices when the contract covers a program set forth in Appendix B of the Regulations.
- (c) Solicitations for Subcontracts: In all solicitations either by competitive bidding or negotiation made by the CONTRACTOR for work to be performed under a subcontract, if such subcontracting is approved by the DEPARTMENT, including procurement of materials or leases of equipment, each potential subcontractor or supplier shall be notified by the CONTRACTOR of the CONTRACTOR'S obligations under this Contract and the Regulations relative to nondiscrimination on the grounds of race, religion, color, sex, age or national origin.
- (d) Information and Reports: The CONTRACTOR shall provide all information and reports required by the Regulations or directives issued pursuant thereto, and shall permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the DEPARTMENT to be pertinent to ascertain compliance with such regulations, orders, and instructions. Where any information is required or a contractor is in the exclusive possession of another who fails or refuses to furnish this information, the CONTRACTOR shall so certify to the DEPARTMENT, as appropriate, and shall set forth what efforts it has made to obtain the information.
- (e) Sanctions for Noncompliance: In the event of the CONTRACTOR'S

noncompliance with the nondiscrimination provisions of this Contract, the DEPARTMENT shall impose such contract sanctions as it may determine to be appropriate, including, but not limited to:

- (1) Withholding of payments to the CONTRACTOR under the Contract until the CONTRACTOR complies, and/or
- (2) Cancellation, termination, or suspension of the Contract, in whole or in part.

(f) Incorporation of Provisions: The CONTRACTOR shall include the provisions of Paragraph (a) through (f) of this section in every subcontract, including procurement of materials and leases of equipment, unless exempt by the Regulations, or directives issued pursuant thereto. The CONTRACTOR shall take such action with respect to any subcontract or procurement as the DEPARTMENT may direct as a means of enforcing such provisions including sanctions for noncompliance: Provided, however, that, in the event the CONTRACTOR becomes involved in, or is threatened with, litigation with a subcontractor or supplier as a result of such direction, the CONTRACTOR may request the DEPARTMENT to enter into such litigation to protect the interest of the DEPARTMENT.

SECTION 12. BINDING EFFECT

This Contract shall be binding upon and inure to the benefit of the DEPARTMENT and the CONTRACTOR and shall be binding upon their successors and assigns, subject to the limitations of Oklahoma law.

SECTION 13. HOLD HARMLESS CLAUSE

The CONTRACTOR shall indemnify and save harmless the DEPARTMENT, their respective officers, employees and agents from all claims, suits, or actions of every kind and character made upon or brought against the DEPARTMENT, their respective officers, employees and agents, for or on account of any injuries or damages received or sustained by any party or parties by or from acts of said CONTRACTOR or its servants, agents and subcontractors, in doing the work and rendered the services Contracted for, or by or consequence of any negligence in operations or any improper material or equipment used, or by or on account of any act or omission of said CONTRACTOR or his or its servants, agents and subcontractors. This hold harmless and indemnity obligation shall include attorney fees, court costs, and all other expenses incurred in the investigation and defense of any claim or suit.

SECTION 14. PRIOR UNDERSTANDINGS

This contract incorporates and reduces to writing all prior understandings, promises, agreements, commitments, covenants, or conditions, and constitutes the full and complete understanding and contractual relationship of the parties.

SECTION 15. INSURANCE/LICENSES

CONTRACTOR shall maintain at all times during the term of this contract, with an insurance carrier reasonably acceptable to the DEPARTMENT and authorized to conduct business in the State of Oklahoma, insurance coverage as set forth in this Article:

1) Workers' Compensation Insurance as required by the statutes of the State of Oklahoma, and adequate (but in no event less than \$100,000) Employer's Liability Insurance.

2) Public Liability and Property Damage Insurance covering all operations and activities hereunder in the following minimum limits (but in no event less than the statutory limits found at 51 Oklahoma Statutes, Section 151 et. seq. or successor or amendatory statutes):

- a) Bodily Injury Liability in the amount of not less than \$100,000 for injuries, including accidental death and products liability, to any one person, and subject to the same limit for each person, in an amount not less than \$1,000,000 for one occurrence.
- b) Property Damage Liability in the amount of not less than \$100,000 for any one accident including products liability and an aggregate limit of \$1,000,000 per occurrence.
- c) Combined aggregate liability coverage shall not be less than \$2,000,000 (two million) for bodily injury, death, and property damage.

3) A Comprehensive Business Auto policy with a minimum limit of not less than One Million Dollar (\$1,000,000) combined single limit for bodily injury and property damage, providing coverage for at least any and all leased, owned, hired or non-owned vehicles used in any of CONTRACTOR's activities pursuant to this agreement, with any self-insured retention not exceeding One Hundred Thousand Dollars (\$100,000). Any and all mobile equipment which is not covered under this Comprehensive Business Auto policy shall have said coverage provided for under the Comprehensive General Liability policy.

CONTRACTOR shall furnish the DEPARTMENT with a certificate evidencing the existence of all such insurance coverage, and the certificates evidencing the existence of the insurance coverage specified in these specifications. Said insurance coverage shall provide that the DEPARTMENT is an additional named insured under said policy or policies and that said policy or policies cannot be canceled or materially modified except upon thirty (30) days' advance written notice to the DEPARTMENT. The foregoing provision regarding additional named insured shall not create or be deemed to create any liability on the part of said additional named insured which would not otherwise exist under the laws of the State of Oklahoma.

SECTION 16. AMENDMENTS OR MODIFICATION OF CONTRACT

No changes, revisions, amendments, or alterations in the manner, scope, or type of work or compensation to be paid by the DEPARTMENT shall be effective unless reduced to writing and executed by the parties with the same formalities as are observed in the execution of this contract.

SECTION 17. GOVERNING LAW AND VENUE

Any claims, disputes, or litigation relating to the solicitation, execution, interpretation, performance, or enforcement of this Contract shall be governed by the laws of the State of Oklahoma and the applicable rules, regulations, policies, and procedures of the Oklahoma Transportation Commission. Venue for any action, claim, dispute, or litigation, mediation, or arbitration shall be in Oklahoma County, Oklahoma.

SECTION 18. RECORDS

The CONTRACTOR and any subcontractor shall maintain all books, documents, papers, accounting records, and other evidence pertaining to costs incurred under this contract, and shall make all such materials available to the DEPARTMENT or any of its duly authorized representatives and the State Auditor and Inspector at any reasonable time during the term of work on the contract, and for seven (7) years from date of final payment to the CONTRACTOR by DEPARTMENT for work performed hereunder.

SECTION 19. HEADINGS

Article headings used in the contract are inserted for convenience of reference only and shall not be deemed a part of this contract for any purpose.

SECTION 20. ASSIGNMENT

The CONTRACTOR shall NOT sublet, sell, transfer, assign, or otherwise dispose of the contract or contracts or any portion thereof, or of his right, title, or interest therein, without written consent of the DEPARTMENT. In the event such consent is given, the CONTRACTOR will be permitted to sublet a portion thereof, but shall perform the work with their own organization, amounting to not less than 50% of the total contract cost. Requests for permission to sublet, assign, or otherwise dispose of any portion of the contract must be in writing and accompanied by a statement demonstrating that the organization performing the work is particularly experienced and equipped for such work. No sub-contracts, or transfer of contract, shall in any case release the CONTRACTOR of his liability under the contract and bonds.

SECTION 21. NOTICES

All notices, demands, requests, or other communications which may be or are required to be given, served, or sent by either party to the other pursuant to the Contract shall be in writing and shall be deemed to have been properly given or sent:

- (a) If intended for the DEPARTMENT, by mailing by first-class mail or, if the sender prefers, by registered or certified mail, return receipt requested, with postage prepaid, addressed to DEPARTMENT as:

Oklahoma Department of Transportation
Traffic Division
Attn: Cody Hamblin
200 NE 21st Street
Oklahoma City, OK 73105

- (b) If intended for CONTRACTOR, by mailing by first-class mail or, if the sender prefers, by registered or certified mail, return receipt requested, with postage prepaid, to an address supplied by the CONTRACTOR upon award of this Contract.

General Traffic Equipment Corp
ATTN: Raymond Staffin
259 Broadway
Newburgh, NY 12550
845) 569-9000

SECTION 22. SEVERABILITY

If any provision, clause, or paragraph of this contract or any document incorporated by reference shall be determined invalid by a court of competent jurisdiction, such determination shall not affect the other provisions, clauses, or paragraphs of this contract which are not affected by the determination. The provisions, clauses, or paragraphs and any documents incorporated by reference are declared severable.

SECTION 23. PAYMENT OF CLAIMS

The CONTRACTOR shall pay all just claims due for the payment of all employees and mechanics for labor that will be performed, as well as for the payment of all materials and equipment rental that are actually used or rented in the performance of the contract.

SECTION 24. BREACH OF CONTRACT

Failure to perform any and all of the terms and conditions of this contract shall be deemed a substantial breach thereof and give the DEPARTMENT cause to cancel this contract on seven (7) days' written notice to the CONTRACTOR. The DEPARTMENT then reserves the right to re-award the contract to the next lowest responsible available bidder -OR- should this contract be awarded to multiple vendors, the DEPARTMENT may utilize those vendors. In the event of cancellation of this contract, the CONTRACTOR shall not be entitled to damages and agrees not to sue the DEPARTMENT for damages thereof. After notice of cancellation, the CONTRACTOR agrees to perform the terms and conditions of this contract up to and including date of cancellation, as though no cancellation had been made and notwithstanding other legal remedies which may be available to the DEPARTMENT because of the cancellation, agrees to indemnify the DEPARTMENT for its costs in procuring the services of a new CONTRACTOR.

SECTION 25. COUNTERPARTS

This Contract may be executed in counterparts, including by means of facsimile or electronic signature pages, any of which need not contain the signature of more than one party and each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

This contract is awarded pursuant to Oklahoma Statute, Title 74, Chapter 4, Section 85.12.B.3.

THIS SPACE INTENTIONALLY LEFT BLANK

IN WITNESS WHEREOF: This Contract is executed by the CONTRACTOR on the
17 day of February, 2026; and the DEPARTMENT on
the 17th day of February, 2026.

CONTRACTOR:
General Traffic Equipment Corp

Raymond Staffon
Raymond Staffon (Feb 17, 2026 09:56:53 EST)

02/17/2026

Authorized Signature

Date

Recommend for Approval:

Laura M. B.

02/17/2026

Procurement Division

Date

Kendal Theisen

02/17/2026

Traffic Engineering

Date

Approved as to Form and Legality:

David Allen Wiley

02/17/2026

General Counsel

Date

For Department:

I certify that no Department employee involved in any manner with this contract has any financial or personal interest in this contract in compliance with 74 OS §85.42(B).

T.J. Dill
TJ Dill (Feb 17, 2026 16:02:34 CST)

02/17/2026

Chief Engineer

Date

STATUTORY CERTIFICATION

The undersigned hereby certifies to the following statutory requirements:

A. Pursuant to Title 74 O.S. § 85.22, I certify:

1. I am the duly authorized agent of the contractor, for the purpose of certifying facts pertaining to the existence of collusion among and between bidders and suppliers and state officials or employees, as well as facts pertaining to the giving or offering of things of value to government personnel in return for special consideration in connection with the prospective acquisition;
2. I am fully aware of the facts and circumstances surrounding the acquisition or making of the bid to which this statement relates and have been personally and directly involved in events leading to the acquisition or submission of such bid; and
3. Neither the business entity that I represent in this certification nor anyone subject to the business entity's direction or control has been a party:
 - a. to any collusion among bidders or suppliers in restraint of freedom of competition by agreement to bid or contract at a fixed price or to refrain from bidding or contracting,
 - b. to any collusion with any state official or employee as to quantity, quality, or price in the prospective contract, or as to any other terms of such prospective contract, nor
 - c. to any discussions between bidders or suppliers and any state official concerning exchange of money or other thing of value for special consideration in connection with the prospective contract.

B. I certify pursuant to 74 OS §85.22, if awarded the contract, whether competitively bid or not, neither the business entity I represent nor anyone subject to the business entity's direction or control has paid, given or donated or agreed to pay, give or donate to any officer or employee of this state any money or other thing of value, either directly or indirectly, in procuring the contract to which this statement relates.

C. I certify pursuant to Title 74 O.S. § 85.42, that no person who has been involved in any manner in the development of this Agreement while employed by the State of Oklahoma shall be employed to fulfill any of the services provided under this contract.

D. That, to the best of my knowledge and belief, the contractor has not previously entered into a contract with the Oklahoma Department of Transportation or any other agency of the State of Oklahoma, which could result in a substantial duplication of the services required by this contract, and is not currently debarred or suspended from contracting with the State of Oklahoma.

E. That the contractor has registered and fully participates in the Status Verification System, as required by Title 25 O.S. § 1313(B)(1), to verify the work eligibility status of all new employees of the contractor.

F. In full compliance with Title 74 O.S. § 582, the contractor certifies that the contractor is not currently engaged in a boycott of goods or services from Israel.

G. I certify pursuant to Title 74 O.S. §12005 that the contractor does not boycott energy companies and will not boycott energy companies during the term of this contract.

Certified by the contractor's authorized representative, DATED: **02/17/2026**

Raymond Staffon
Raymond Staffon (Feb 17, 2026 09:56:53 EST)

CERTIFIER



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

1/27/2026

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER William A. Smith & Son, Inc. 380 Broadway Newburgh NY 12550	CONTACT NAME: Karen Kopiecki PHONE (A/C, No, Ext): 845-561-1706 FAX (A/C, No): 845-561-1746 E-MAIL ADDRESS: kkopiecki@wasmithandson.com
INSURED General Traffic Equipment Corp 259 Broadway Newburgh NY 12550	INSURER(S) AFFORDING COVERAGE INSURER A : Atlantic Specialty Ins Co INSURER B : Graphic Arts Mutual Insurance Company INSURER C : INSURER D : INSURER E : INSURER F :

COVERAGES

CERTIFICATE NUMBER: 2036714598

REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	☒ COMMERCIAL GENERAL LIABILITY ☐ CLAIMS-MADE ☒ OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: ☒ POLICY ☐ PRO-JECT ☐ LOC OTHER:			7110128670014	10/14/2025	10/14/2026	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 1,000,000 MED EXP (Any one person) \$ 10,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000 \$
A	☒ AUTOMOBILE LIABILITY ☒ ANY AUTO ☐ OWNED AUTOS ONLY ☒ HIRED AUTOS ONLY ☐ SCHEDULED AUTOS ☒ NON-OWNED AUTOS ONLY			7110128670014	10/14/2025	10/14/2026	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
A	☒ UMBRELLA LIAB ☒ EXCESS LIAB ☐ DED ☒ RETENTION \$ 10,000 ☒ OCCUR ☐ CLAIMS-MADE			7110128670014	10/14/2025	10/14/2026	EACH OCCURRENCE \$ 2,000,000 AGGREGATE \$ 2,000,000 \$
B	☒ WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N ☐	N/A	4589340	11/3/2025	11/3/2026	☒ PER STATUTE ☐ OTHER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER**CANCELLATION**State of Oklahoma
200 NE 21 st Street
Oklahoma City OK 73105

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Cathy J M. Carthy

© 1988-2015 ACORD CORPORATION. All rights reserved.



Traffic Signal Parts

Vendor Name: _____ GENERAL TRAFFIC EQUIPMENT
CORP _____

g

E

Vendor is to provide a list of parts and their pricing for the various categories listed below. Some categories are for systems which ODOT requests a parts list for each system. Some systems may also require installation and are noted as such.

ITEM CATEGORY	UOM
PARTS	
VEHICLE SIGNAL HEADS	\$394
PEDESTRIAN SIGNAL HEADS	\$286
PEDESTRIAN COUNT DOWN MODULES	\$146.00
SIGNAL LED LENSES / LED SIGNAL INSERTS	\$45.00
BACKPLATES	\$138.00
SIGNAL VISORS	\$18.00
PEDESTAL POLES	\$675.00
BREAKAWAY PEDESTAL POLE BASES	\$278.00
MAST ARM END CAPS, TRAFFIC UPRIGHT POLE CAPS, PEDSTAL POLE CAPS	n/b
ACCESS COVER DOORS	n/b
HAND HOLE COVERS	n/b
SIGNAL MOUNTING HARDWARE	\$185.00
METAL TRAFFIC SIGNAL CABINET RISERS	n/b
TRAFFIC SIGNAL CABINET ASSEMBLY	n/b
TRAFFIC SIGNAL CONTROLLER - NEMA, ATC	n/b
SERVICE PANEL ASSEMBLY - ATC	n/b
PULL BOXES (TRAFFIC SIGNAL 1, II AND III)	n/b
MALFUNCTION MANAGEMENT UNIT - NEMA	n/b
LOAD SWITCH - NEMA	\$32.00
FLASHER - NEMA	\$34.00
FLASH TRANSFER RELAY - NEMA	\$38.00
HIGH DENSITY FLASH TRANSFER RELAY - ATCC	n/b

ITEM CATEGORY	UOM
DC ISOLATORS - ATC	\$380.00
BUS INTERFACE UNITS	\$535.00
SERIAL INTERFACE UNITS	n/b
HIGH DENSITY SWITCH PACK/FLASHER UNIT	n/b
CABINET POWER SUPPLIES	n/b
CABINET MONITOR UNIT	n/b
CMU AUXILIARY DISPLAY UNIT	n/b
MONITOR KEY PROGRAMMING TOOL	n/b
MONITOR KEY	n/b
PROGRAM CARDS W/ MEMORY CHIP FOR NEMA MMU'S	n/b
SDLC HUBS AND CABLES	n/b
K1 RELAYS	n/b
SURGE ARRESTORS	n/b
CABINET LOCKING DEVICES	n/b
RADAR DETECTION SYSTEMS (should include all parts to bring online)	n/b
RADAR DETECTION SYSTEMS (should include all parts to bring online and installation)	n/b
RADAR DETECTION SYSTEMS REPLACEMENT PARTS	n/b
VIDEO DETECTION SYSTEMS (should include all parts to bring online)	n/b
VIDEO DETECTION SYSTEMS (should include all parts to bring online and installation)	n/b
VIDEO DETECTION SYSTEMS REPLACEMENT PARTS	n/b
LOOP DETECTION SYSTEMS (should include all parts to bring online)	n/b
LOOP DETECTION SYSTEMS (should include all parts to bring online and installation)	n/b
LOOP DETECTION SYSTEMS REPLACEMENT PARTS	n/b

ITEM CATEGORY	UOM
RAILROAD PREEMPTION EQUIPMENT (should include all parts to bring online)	n/b
RAILROAD PREEMPTION EQUIPMENT (should include all parts to bring online and installation)	n/b
RAILROAD PREEMPTION EQUIPMENT REPLACEMENT PARTS	n/b
EMERGENCY VEHICLE PREEMPTION EQUIPMENT (should include all parts to bring online)	n/b
EMERGENCY VEHICLE PREEMPTION EQUIPMENT (should include all parts to bring online and installation)	n/b
EMERGENCY VEHICLE PREEMPTION EQUIPMENT REPLACEMENT PARTS	n/b
PREEMPTION EMITTERS	n/b
PEDESTRIAN PUSHBUTTONS	\$160.00
PEDESTRIAN PUSHBUTTONS REPLACEMENTS PARTS (Buttons, control units, interconnect boards, isolator boards, wiring harness)	n/b
BATTERY BACKUP SYSTEM-LINE INTERACTIVE (should include all parts to bring online)	n/b
BATTERY BACKUP SYSTEM-LINE INTERACTIVE (should include all parts to bring online and installation)	n/b
BATTERY BACKUP SYSTEM-LINE INTERACTIVE REPLACEMENT PARTS	n/b
BATTERY BACKUP SYSTEM-DUAL CONVERSION (should include all parts to bring online)	n/b
BATTERY BACKUP SYSTEM-DUAL CONVERSION (should include all parts to bring online and installation)	n/b
BATTERY BACKUP SYSTEM-DUAL CONVERSION REPLACEMENT PARTS	n/b
BATTERY BACKUP CABINET - NEMA	n/b
TRAFFIC SIGNAL CONDUCTORS 14 AWG, 5,7 12,15,21 SOLID CORE CONDUCTORS	n/b
PAN TILT AND ZOOM CAMERAS	n/b
WIRELESS COMMUNICATION DEVICE VARIOUS CAPABILITIES INCLUDING INTERFACING WITH THE SIGNAL CABINET, AS WELL AS ALLOWING FOR VIDEO TRANSMISSION.	n/b
GPS TIME CLOCKS, SYNC CONTROLLER TIMES TO ACCURATE TIMES	n/b
ETHERNET SWITCHES, INDUSTRIAL ETHERNET SWITCH, MINIMUM OF 4 PORTS, MAXIMUM OF 16 PORTS.	n/b
INTELLIGENT ADVANCED WARNING SYSTEMS	n/b
AIR FILTERS FOR SIGNAL CABINET	n/b
TERMINAL STRIPS	n/b

ITEM CATEGORY	
	UOM
LUMINAIRES ~20,000 LUMENS, · 120-277V, TYPE III OR IV DISTRIBUTION TYPE, 7-PIN PHOTOCONTROL RECEPTACLE FOR TOP RECEPTACLE, NO BOTTOM RECEPTACLE. SEE ODOT TRAFFIC STANDARD HLD1-2 FOR GENERAL SPECIFICATIONS FOR LUMINAIRES.	n/b
PHOTOCELLS, INLINE FUSE HOLDERS,	n/b
TRAFFIC SIGNAL MANAGEMENT SOFTWARE CENTRAL SOFTWARE THAT CAN BE ADDED PER INTERSECTION FOR MONITORING AND EVALUATING TRAFFIC SIGNALS	n/b
WRONG WAY DETECTION SYSTEMS COMPLETE SYSTEMS THAT IDENTIFY VEHICLES TRAVELLING THE WRONG WAY ON A RAMP AS PART OF AN ACCESS CONTROLLED FACILITY AND INDICATE TO THE DRIVER A CORRECTION IS REQUIRED	n/b
WRONG WAY DETECTION SYSTEMS REPLACEMENT PARTS (CABINETS, CABLES, CONTROLLERS, SENSORS, CAMERAS, MOUNTING EQUIPMENT, "DO NOT ENTER" AND "WRONG WAY" LED SIGNS ETC)	n/b

ITEM CATEGORY	UOM
EMERGENCY INSTALLATION / REPAIR LABOR RATE	
HOURLY RATE - PERSONNEL ONLY	n/b
HOURLY RATE - PERSONNEL W/ HEAVY EQUIPMENT	n/b
EMERGENCY REPAIR SERVICE HOURLY COST COST OF LABOR AND EQUIPMENT FOR EMERGENCY RESPONSES FOR VARIOUS TRAFFIC SIGNAL NEEDS	n/b
CATEGORIES NOT LISTED ABOVE (FILL IN BELOW)	n/b

GENERAL TRAFFIC EQUIPMENT CORP

Vehicle Signal

Item Number – T30 –POLY-N-RYG-T-Y-Y-Y (12 inch BID Item)

Spec Sheets for Traffic signals 12 and 8 inch variety

Pedestrian Signal Heads

Item Number – P7-CDLED-GV-P0-Y

Spec Sheet attached with different variations

Pedestrian Count Down Modules

Item Number – LMP-GE-PS7-CFF1-VLA

Spec Sheet attached

Signal LED Inserts

Item Number - LMP- GE-DR6 RTFB-VLA (12 Inch)

LMP-GE-DR6-YTFB-VLA

LMP-GE-DR6-GTFB-VLA

Spec Sheet attached 8 inch and 12 inch sizes

Signal Visors

Item Number - TV-12-A7

Spec Sheet attached

GENERAL TRAFFIC EQUIPMENT CORP

Pedestal Poles

Item Number –Ped pole -GTE

Bases

Item Number – CG-MB-2003-PLN

Spec Sheet attached

Signal Mounting

Item Number - RM- MAC -96

Spec Sheet attached – all variations

Load Switch NEMA

Item Number - Model Load Switch 200

Spec Sheet attached

Flasher NEMA

item Number - Model Flasher 204

Spec Sheet attached

Flasher Transfer Relay

Item number - FTR-35

Spec Sheet attached

GENERAL TRAFFIC EQUIPMENT CORP

DC ISOLATOR

Item Number -242 DC Isolator

Spec Sheet attached

BUS Interface

Item Number - T52-BIU

Spec Sheet attached

Pedestrian Pushbutton

item Number - PB3-ADA

Spec Sheet attached

Back Plates Aluminum

Item number - BP-A-PLN-1003

Spec Sheet attached

Vehicle Traffic Signals

8" Aluminum Signal



- **MATERIAL**

Signals are pressure die-cast of aluminum alloy 413 in accordance with ASTM-B85.

- **HOUSING**

One-piece die-cast aluminum unit with serrations in 5° increments at each end, so that they may be fastened together to form multi-section signals. Each housing has provisions for mounting two terminal blocks and attaching backplates.

- **DOOR**

One-piece die-cast aluminum unit equipped with stainless steel hinge pins. One stainless steel captive eyebolt and wing nut permit easy access to the inside of the housing.

- **VISOR**

One-piece formed aluminum unit. The removable twist-on visor is secured to the door with stainless steel hardware. Cap, tunnel, and full circle visors are available. The interior of the visor is coated with a non-reflective, matte black paint.

- **MOUNTING EASE**

Positive Positioning and locking are achieved through the use of serrated fittings, mast arm brackets or span wire mounts.

LED units installed are

GE current
a Daintree company



Designed to meet the following standards:



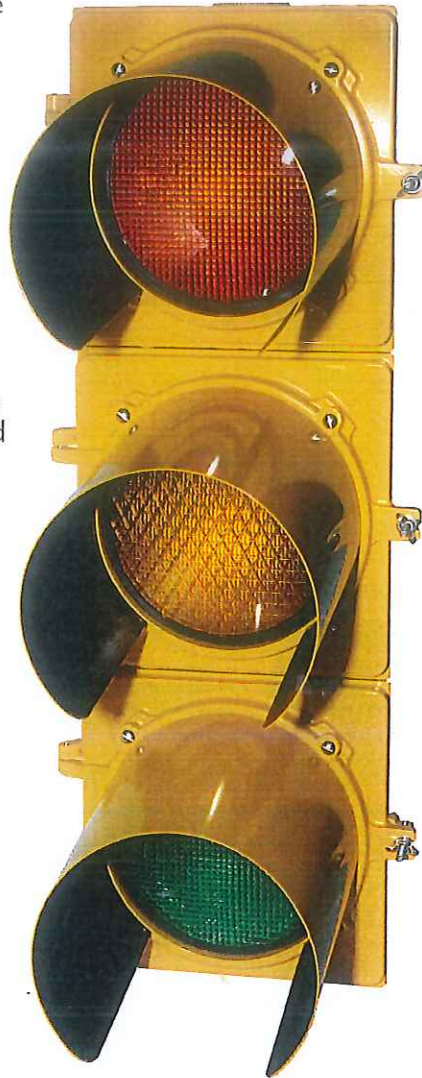
A Community of Transportation Professionals



National Electrical Manufacturers Association



U.S. Department
of Transportation
**Federal Highway
Administration**



**General
Traffic
Equipment
Corporation**

259 Broadway, Newburgh, NY 12550

(845) 569-9000

TOLL FREE:

(800) 222-2828

FAX:

(845) 569-1800

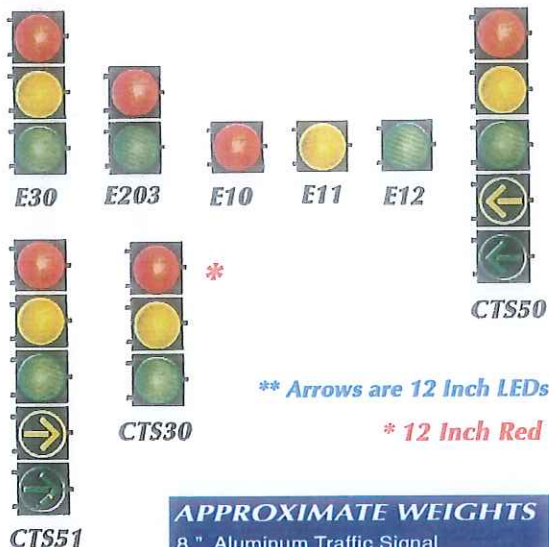
EMAIL:

info@generaltrafficequip.com

www.generaltrafficequip.com



Vertical Arrangements



**** Arrows are 12 Inch LEDs**

*** 12 Inch Red**

APPROXIMATE WEIGHTS

8" Aluminum Traffic Signal

Single Section, with Visor	6.875 lbs.
Housing	2.800 lbs.
Door	1 lbs.

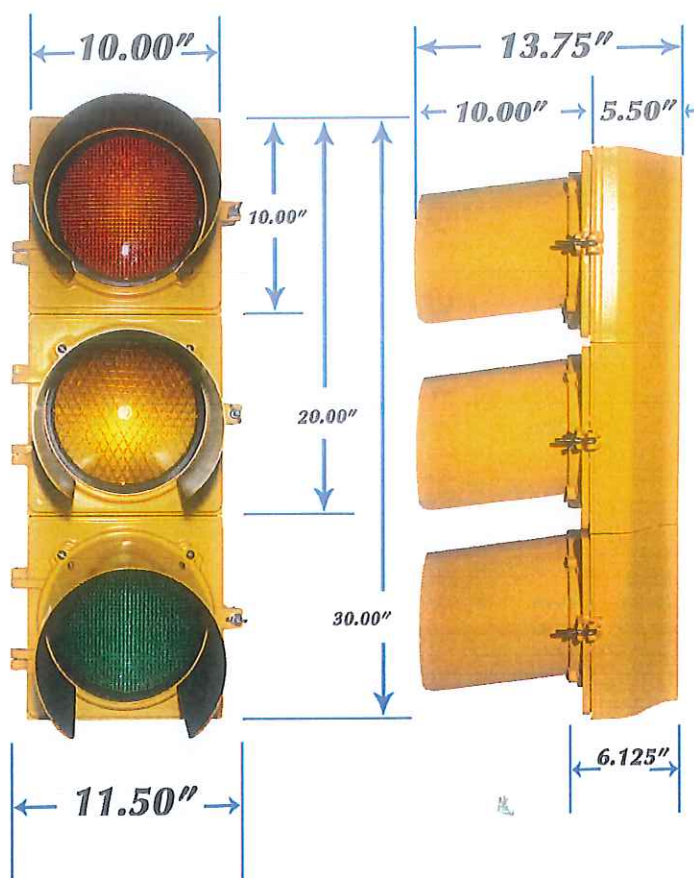
Repair Parts

Part Description	Part Number
1. Signal Housing	B - SHA - X
2. Carriage Bolt (1/4" - 20 X 1 3/4")	CB - 20175
3. Clamping Washer	TS - SW - 001
4. Hex Nut (1/4" - 20)	HKN - 250 - 20
5. Hinge Pin(flated spiro pin)(3/16" X 1.00")	HP - 187100
6. Roll Pin, SS (3/16" X 1")	SP - 1871125
7. Wingnut Eyebolt Assembly	WNEB - 20
8. Door Gasket	DG - 218218
9. Signal Door	B - SDA - X
10. Visor Screw (10 - 32 X 5/16")	THS - 1032 - 312
11. Visor - Tunnel	TV - 8 - X
Visor - Cap	CV - 8 - X
Visor - Full Circle	FCV - 8 - X
12. Terminal Block, 4 Position - Barrier Type	TB - 4 - BT
13. Terminal Block, 6 Position - Barrier Type	TB - 6 - BT
14. Terminal Block, 4 Position - Marathon Type	TB - 4 - MAR

X = Color



Dimensions



Color Arrangements

Gloss Black		B
Federal Yellow		Y
Dark Olive Green		G
Custom		C

SIGNAL ASSEMBLY - PART NUMBER KEY

E - 30 - ALUM - Y - RYG - C - Y - B - Y - NYC

Size	Orientation & Use	Housing Material	Backplate	LED's Installed	Visor Form Tunnel - T Cap - C Full - F	Body Color	Door Color	Visor Color	Customer Code
------	-------------------	------------------	-----------	-----------------	---	------------	------------	-------------	---------------

www.generaltrafficequip.com

Vehicle Traffic Signals

8" Polycarbonate LED



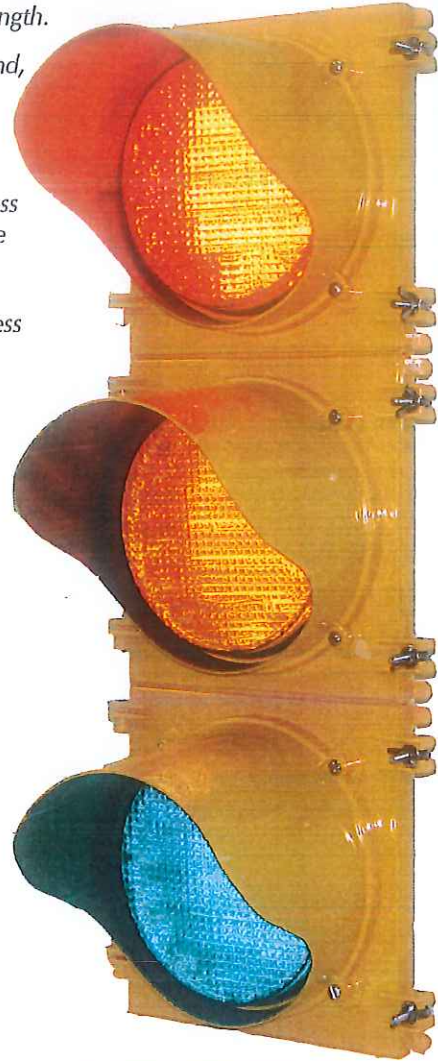
● **MATERIAL** The housing, door, and visor are injection molded of UV stabilized, pre-colored opaque polycarbonate. Never needs painting! Wall thickness varies from .160" on the body to .175" top and bottom. Extensive ribbing provides stiffness and strength.

● **HOUSING** Each one piece unit is serrated in 5° increments at each end, so that they may be fastened together to form multi-section signals. Each housing has provisions for routing two terminal blocks and attaching back-plates. The aerodynamic shape is wind-resistant.

● **DOOR** Two stainless steel captive eyebolts and wingnuts provide access to the inside of the housing. Hinge pins are stainless steel. All screw holes are 10-32 brass inserts, ultrasonically inserted.

● **VISOR** The removable twist-on visor is secured to the door with stainless steel hardware. Cap, tunnel, and full circle visors are available.

● **MOUNTING EASE** Positive Positioning and locking are achieved through the use of serrated brackets, mast arm, or span wire fittings that mate with the serrated openings top or bottom.



LED units installed with

GE current
a Daintree company



Designed to meet the following standards:



A Community of Transportation Professionals



National Electrical Manufacturers Association



U.S. Department
of Transportation
**Federal Highway
Administration**



**General
Traffic
Equipment
Corporation**

259 Broadway, Newburgh, NY 12550

(845) 569-9000

TOLL FREE:

(800) 222-2828

FAX:

(845) 569-1800

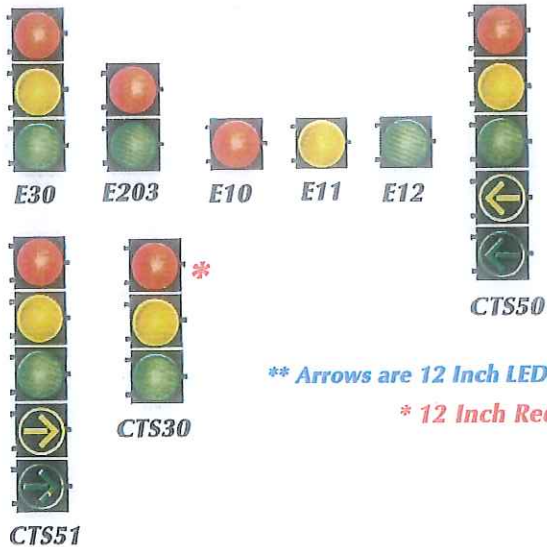
EMAIL:

info@generaltrafficequip.com

www.generaltrafficequip.com



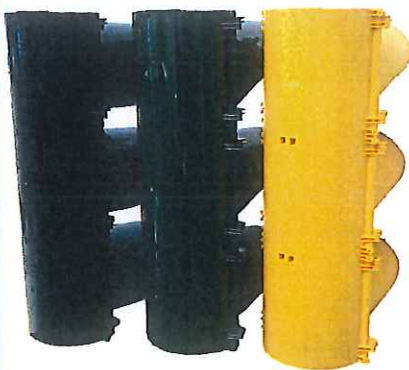
Vertical Arrangements



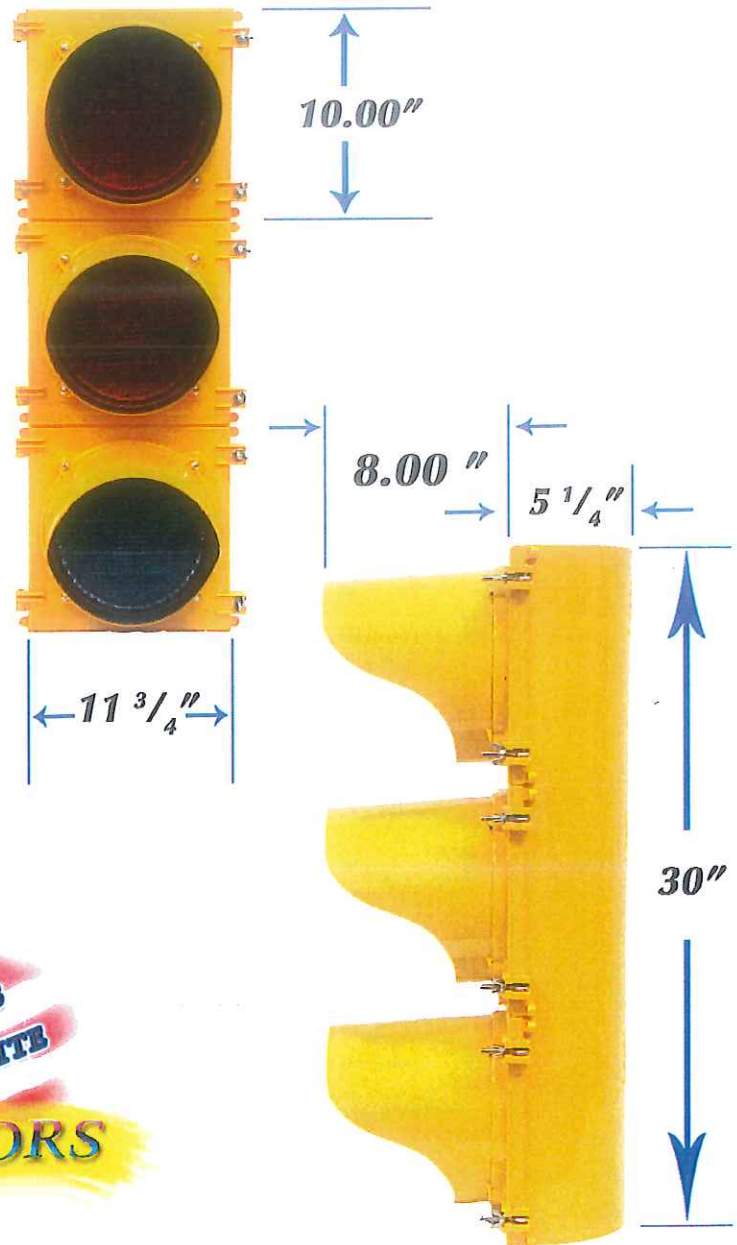
** Arrows are 12 Inch LEDs
* 12 Inch Red

Color Arrangements

Gloss Black		B
Federal Yellow		Y
Dark Olive Green		G
Custom	Custom Color	C



Dimensions



SIGNAL ASSEMBLY - PART NUMBER KEY

E - 30 - POLY - Y - RYG - T - B - Y - B

Size	Orientation & Use	Housing Material	Backplate	LED's Installed	Visor Form Tunnel - T Cap - C Full - F	Body Color	Door Color	Visor Color
------	-------------------	------------------	-----------	-----------------	---	------------	------------	-------------

www.generaltrafficequip.com

Vehicle Traffic Signals

12" Polycarbonate Signal



- **MATERIAL**

The housing, door, and visor are injection molded of UV stabilized, pre-colored opaque polycarbonate. Never needs painting! Wall thickness varies from .160" on the body to .175" top and bottom. Extensive ribbing provides stiffness and strength.

- **HOUSING**

Each one piece unit is serrated in 5° increments at each end, so that they may be fastened together to form multi-section signals. Each housing has provisions for mounting two terminal blocks and attaching backplates. The aerodynamic shape is wind resistant.

- **DOOR**

Two stainless steel captive eyebolts and wingnuts provide access to the inside of the housing. Hinge pins are stainless steel. All screw holes are 10-32 brass inserts, ultrasonically inserted.

- **VISOR**

The removable twist-on visor is secured to the door with stainless steel hardware. Cap, Tunnel, and Full Circle visors are available.

- **MOUNTING EASE**

Positive Positioning and locking are achieved through the use of serrated fittings, mast arm brackets or span wire mounts.

LED units installed are

GE current
a Daintree company



Designed to meet the following standards:



A Community of Transportation Professionals

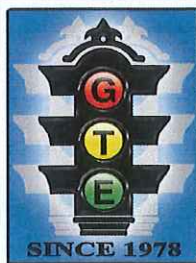


National Electrical Manufacturers Association



U.S. Department of Transportation

Federal Highway Administration



**General
Traffic
Equipment
Corporation**

259 Broadway, Newburgh, NY 12550

(845) 569-9000

TOLL FREE:

(800) 222-2828

FAX:

(845) 569-1800

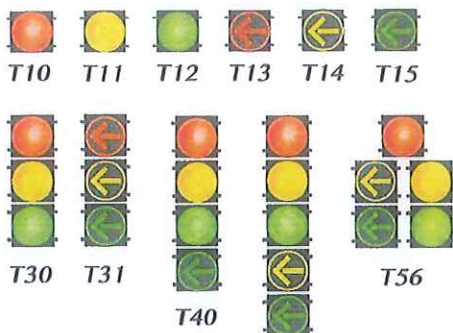
EMAIL:

info@generaltrafficequip.com

www.generaltrafficequip.com



Vertical Arrangements



* Call for custom arrangement T50

Color Arrangements

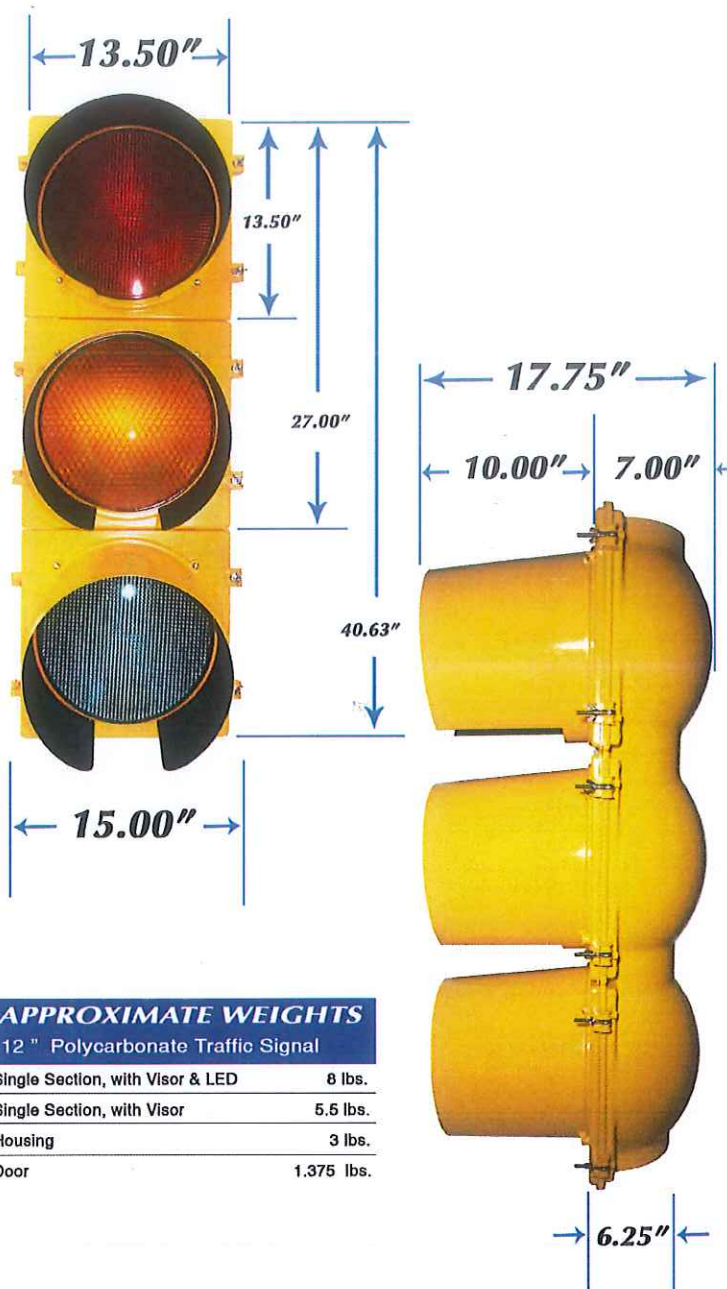
Gloss Black		B
Federal Yellow		Y
Dark Olive Green		G
Custom	Custom Color	C

Repair Parts

Part Description	Part Number
1. Signal Housing	12 - SHP - X
2. Carriage Bolt (1/4" - 20 X 2")	CB - 2020
3. Clamping Washer	TS - SW - 001
4. Hex Nut (1/4" - 20)	HKN - 250 - 20
5. Type 2 Groove Pin SS (3/16" X 13/16")	GP - 187813
6. Hinge Pin(flated spiro pin)(3/16" X 1.00")	HP - 187100
7. Spirol Pin, SS (3/16" X 1 1/4")	SP - 1871250
8. Wingnut Eyebolt Assembly	WNEB - 20
9. Door Gasket	DG - 218218
10. Signal Door	12 - SDP - X
11. Visor - Tunnel	TV - 12P - X
Visor - Cap	CV - 12P - X
Visor - Full Circle	N / A
12. Visor Screw (10 - 32 x 3/8")	THMS-1032-375
13. Terminal Block, 4 Position - Spade Type	TB - 4 - ST
14. Terminal Block, 6 Position - Spade Type	TB - 6 - ST

X = Color

Dimensions



APPROXIMATE WEIGHTS

12" Polycarbonate Traffic Signal	
Single Section, with Visor & LED	8 lbs.
Single Section, with Visor	5.5 lbs.
Housing	3 lbs.
Door	1.375 lbs.

SIGNAL ASSEMBLY - PART NUMBER KEY

T - 30 - POLY - Y - RYG - C - Y - B - Y - NYC

Size	Orientation & Use	Housing Material	Backplate	LED's Installed	Visor Form Tunnel - T Cap - C Full - F	Body Color	Door Color	Visor Color	Customer Code
------	-------------------	------------------	-----------	-----------------	---	------------	------------	-------------	---------------

www.generaltrafficequip.com

Vehicle Traffic Signals

12" Aluminum Traffic Signal

MADE WITH
PRIDE IN THE
USA

- **MATERIAL**

Signals are pressure die-cast of aluminum alloy 413 in accordance with ASTM-B85.

- **HOUSING**

One-piece die-cast aluminum unit with serrations in 5° increments at each end, so that they may be fastened together to form multi-section signals. Each housing has provisions for mounting two terminal blocks and attaching backplates.

- **DOOR**

One-piece die-cast aluminum unit equipped with stainless steel hinge pins. Two stainless steel captive eyebolts and wing nuts permit easy access to the inside of the housing.

- **VISOR**

One-piece formed aluminum unit. The removable twist-on visor is secured to the door with stainless steel hardware. Cap, tunnel, and full circle visors are available. The interior of the visor is coated with a non-reflective, matte black paint.

- **MOUNTING EASE**

Positive Positioning and locking are achieved through the use of serrated fittings, mast arm brackets or span wire mounts.

LED units installed are

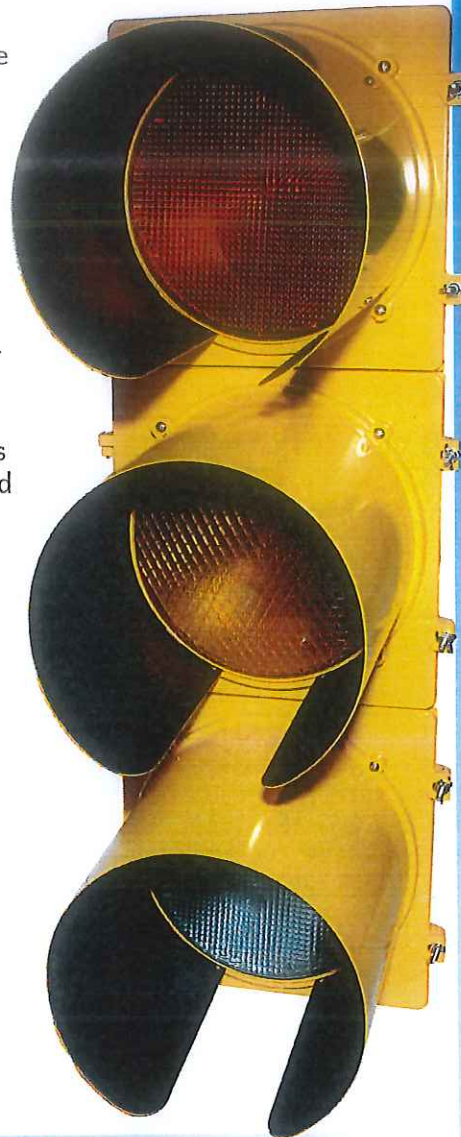
GE current
a Daintree company



Designed to meet the following standards:



U.S. Department
of Transportation
**Federal Highway
Administration**



**General
Traffic
Equipment
Corporation**

259 Broadway, Newburgh, NY 12550

(845) 569-9000

TOLL FREE:

(800) 222-2828

FAX:

(845) 569-1800

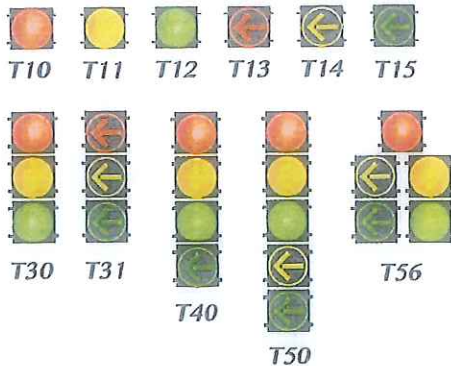
EMAIL:

info@generaltrafficequip.com

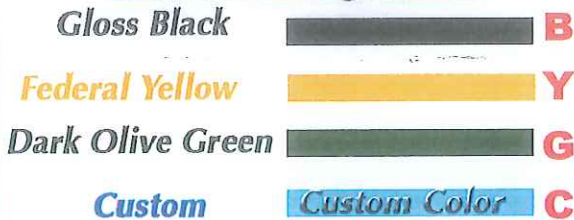
www.generaltrafficequip.com



Vertical Arrangements



Color Arrangements

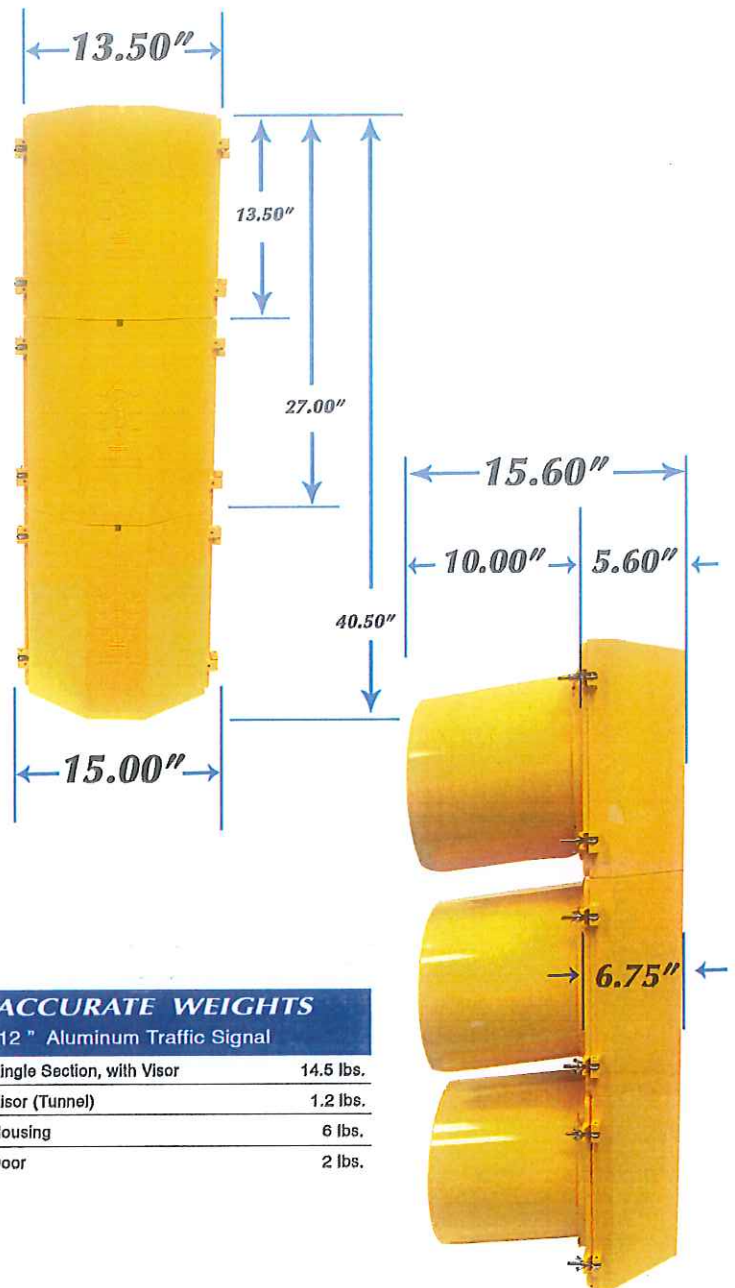


Repair Parts

Part Description	Part Number
1. Signal Housing	12 - SHA - X
2. Carriage Bolt (1/4" - 20 X 2")	CB - 2020
3. Clamping Washer	TS - SW - 001
4. Hex Nut (1/4" - 20)	HKN - 250 - 20
5. Type 2 Groove Pin SS (3/16" X 13/16")	GP - 187813
6. Hinge Pin (flared spiro pin) (3/16" X 1.00")	HP - 187100
7. Spiro Pin, SS (3/16" X 1 1/4")	SP - 1871250
8. Wingnut Eyebolt Assembly	WNEB - 20
9. Door Gasket	DG - 218218
10. Signal Door	12 - SDA - X
11. Visor - Tunnel (10 Per Box)	TV - 12A - X
Visor - Cap	CV - 12A - X
Visor - Full Circle	FCV - 12A - X
12. Visor Screw (10 - 32 x 3/8")	THMS-1032-375
13. Terminal Block, 4 Position - Spade Type	TB - 4 - ST
14. Terminal Block, 6 Position - Spade Type	TB - 6 - ST

X = Color

Dimensions



ACCURATE WEIGHTS

12" Aluminum Traffic Signal

Single Section, with Visor	14.5 lbs.
Visor (Tunnel)	1.2 lbs.
Housing	6 lbs.
Door	2 lbs.

SIGNAL ASSEMBLY - PART NUMBER KEY

T - 30 - ALUM - Y - RYG - C - Y - B - Y - NYC

Size	Orientation & Use	Housing Material	Backplate	LED's Installed	Visor Form Tunnel - T Cap - C Full - F	Body Color	Door Color	Visor Color	Customer Code
------	-------------------	------------------	-----------	-----------------	---	------------	------------	-------------	---------------

www.generaltrafficequip.com

LED PEDESTRIAN SIGNAL - 16" x 18"

P7 Series Single Section



- *Energy Efficient LED Module Installed.*
- *Meets or Exceeds all Applicable ITE Specifications.*
- *Outlasts Incandescents/Neon's by Many Years!*
- *Universal Maintenance Housing will Fit Any Mounting Application - Serrated "Boss" Top and Bottom - Hinge Lugs are Symmetrical.*
- *Available with Aluminum Door/Shield Visor.*
- *Die-Cast Aluminum Housing (and Door - if So Ordered).*



Please specify powder coated
finish when ordering



The General Traffic P7- Single Section Pedestrian Signal is a dual-indication unitized housing assembly utilizing LED module technology and is designed to meet and exceed ITE standards. International Symbolic messages are LED illuminated from the single section housing. Both "standard" as well as "countdown" LED modules are available. The P7- Single Section Pedestrian Signal can be mounted in a variety of different ways, and is compatible with all standard signal hardware.



**General
Traffic
Equipment
Corporation**

259 Broadway, Newburgh, NY 12550

(845) 569-9000

TOLL FREE:

(800) 222-2828

FAX:

(845) 569-1800

EMAIL:

info@generaltrafficequip.com

www.generaltrafficequip.com



SPECIFICATIONS



WARRANTY

The entire pedestrian signal, including LED's, solid state control and polycarbonate plastic parts, shall be warranted for five (5) years from the date of original shipment against defects in workmanship and/or materials.



LED MODULE SPECIFICATIONS

Voltage Range...80V to 135V AC; normal 120V AC
(less than 10% variation in intensity)
Power Consumption.....9 Watt Hand; 9 Watt Person
Operating Temperature.....-40°C to +74°C
Storage Temperature.....-40°C to +93°C
Power Factor Correction.....>0.90
Total Harmonic Distortion.....<20%
FCC Electronic Noise.....Pass
Dimensions.....18" x 16" x 4.5"

MOUNTING OPTIONS

(add one suffix to model number)

- PO = Top and Bottom Ports Open
- SAML = Swing Arm Mount on
Left of Housing
- SAMR = Swing Arm Mount on
Right of Housing

** Ports are capped when - SAM mounts are ordered**

*Various signal mounting hardware
is available for easing your
installation!*



VISOR OPTIONS

(add one suffix to model number)

- NV = No Visor
- OV = Open Hood Visor
- GV = "Z" Crate Style Visor
installed in door frame



www.generaltrafficequip.com



GTX™ City

VLA Model

LED Signal Modules

8 and 12 inch
Incandescent look (120V)

Robust Features

- Optimal thermal management for longer life.
- Provides performance under extreme field temperature conditions.

Innovative Design

- Low profile module permits efficient installation into existing traffic housings.
- Power consumption levels allow compatibility with most controllers.
- Mask compatible to fit your unique signaling needs.*

Outstanding Performance

- High-brightness central light source and custom optical lensing distribute light uniformly and efficiently.
- Rigorously tested for long life design and low maintenance costs.
- Excellent color uniformity.

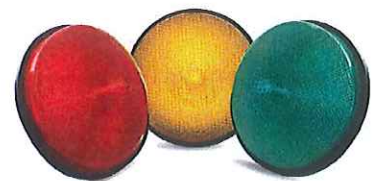


Meets Rigorous Certification & Testing Standards

- Intertek ETL Verified compliant.
- Compliant with ITE VTCSH LED Circular Signal Supplement dated June 27th 2005.
- CSA approved version available.

* Sold separately. Refer to masks datasheet TRAF208.

GE current
a Daintree company

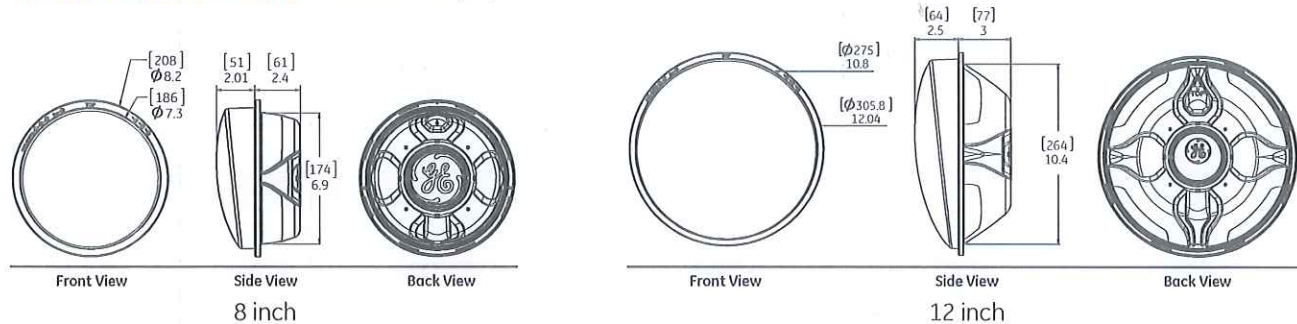


The Greatest Signals Stand the Test of Time.™

GTXTM City LED Signal Modules

- 8 and 12 inch

Mechanical Outline Dimensions in inches (mm)



Design Compliance

Test type	Compliance
Luminous Intensity	ITE VTCSH-LED Circular Signal Supplement -June 2005
Chromaticity	ITE VTCSH-LED Circular -June 2005
Moisture Resistance	Blown Wind Rain MIL-STD-810F method 506.4
Mechanical Vibration	MIL-STD-883 Method 2007
Electronic Noise	FCC Title 47 Sub. B Sec 15 ¹
Transient Voltage Protection	Sec. 2.1.6 NEMA TS2-2003, 300V, 2500W Sec. 2.1.6 NEMA TS2-2003, 600V, 10µF Sec. 2.1.8 NEMA TS2-2003, 1kV, 2Ω
Controller Compatibility	ITE VTCSH-LED Circular Signal Supplement -June 2005
Wiring	NFPA 70, National Electric Code
Transient Suppression	Sec. 8.2 IEC 61000-4-5 & Sec. 6.1.2 ANSI/IEEE C62.41.2 - 2002, 3KV, 2 Ω Sec. 8.0 IEC 61000-4-12 & Sec. 6.1.1 ANSI/IEEE C62.41.2 - 2002, 6KV, 30 Ω

Operating Specifications

Parameter	Rating
Operating Temperature Range*	-40 to +74°C (-40 to +165°F)
Operating Voltage Range	80 to 135 V (60Hz AC)
Power Factor (PF)	> 90%
Total Harmonic Distortion (THD)	< 20%
Minimum Voltage Turn-Off (VTO)	35 V
Turn-On / Turn-Off Time	< 75 ms
Lens & Shell Material	UV Stabilized Polycarbonate
Wiring	8 in lamp: 40 in, 20 AWG, Color Coded with Strain Relief ** 12 in lamp: 40 in, 20 AWG, Color Coded with Strain Relief **

* Operating Temperature Range per ITE - 2005, Section 3.3.2

** For CSA approved version : 40in, 18AWG, Color Coded with Strain Relief

Product Information

Model Number	Front Shell	Size (in)	AC Voltage Nominal	Power (W) Nominal	Wavelength (nm) nominal	Maintained Intensity (Cd) Minimum ²
DR4-RTFB-VLA	Tinted	8	120V - 60Hz	6.4	628	165
DR4-RCFB-VLA	Clear					
DR4-YZFB-VLA	Tinted	8	120V - 60Hz	10.9	588	410
DR4-YTFB-VLA	Tinted	8	120V - 60Hz	7.9	589	410
DR4-YCFB-VLA	Clear					
DR4-GTFB-VLA	Tinted	8	120V - 60Hz	7.3	499	215
DR4-GCFB-VLA	Clear					
DR6-RTFB-VLA	Tinted	12	120V - 60Hz	6.7	625	365
DR6-RCFB-VLA	Clear					
DR6-YZFB-VLA	Tinted	12	120V - 60Hz	10.9	588	910
DR6-YTFB-VLA	Tinted	12	120V - 60Hz	9.9	589	910
DR6-YCFB-VLA	Clear					
DR6-GTFB-VLA	Tinted	12	120V - 60Hz	9.5	501	475
DR6-GCFB-VLA	Clear					

Standard product equipped with universal connectors (insulated spade-quick disconnect).

All colors available in tinted or clear lens.

¹ Class A

² Measured at vertical angle of -2.5° and at horizontal angle of 0°.

Distributed by:

GE current
a Daintree company

GE and the GE monogram are trademarks of the General Electric Company and are used under license. Information provided is subject to change without notice. All values are design or typical values when measured under laboratory conditions.
©2019 GE Current, a Daintree company

www.LED.com | TRAF282 (Rev 11/14/19) | A-1022427

GTX[®]

LED Countdown Pedestrian Signals

16 x 18 inch

Project Name _____
Date _____ Type _____
Notes _____



EXCELLENT APPEARANCE & VISIBILITY

- Robust LED system design enables high luminous intensity over product life cycle
- Efficient optical system minimizes power consumption while providing excellent uniformity and viewing angles
- Single piece transparent front window with internal masking to prevent:
 - countdown and icons display from being readily visible when not in operation
 - scratches and abrasions compared with external silk screen technology
- Bright and clear icons
- Fully uniform look
- Lower profile*
- Improved luminous intensity uniformity

OUTSTANDING RELIABILITY & ROBUST OPERATION

- Internal conflict monitor preventing walk and don't walk indications to light up at the same time
- Individual power supply drives each display to ensure proper indication
- Reduced overall power consumption*

MEETS RIGOROUS CERTIFICATION & TESTING STANDARDS

- Intertek ETL Verified compliant
- DOE compliant
- Using MIL-STD-810F and NEMA 250-1991 Type 4 for environmental robustness, passed reliability and qualification testing including high temperature, high humidity cycling (HTHH for 1,000 hours)
- Compliant (for Full Hand/Full Person) with the ITE PTCSI LED Signal Modules
 - version dated August 2010

* Compared to PS7-CFF1-27A



The Greatest Signals Stand the Test of Time.™

GTX® City LED Countdown Pedestrian Signals

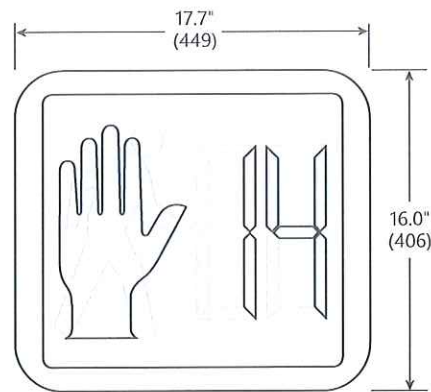
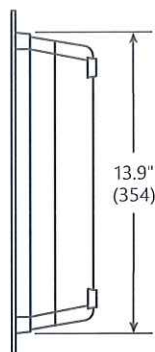
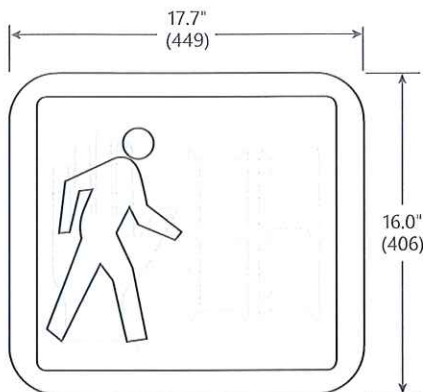
16 x 18 inch module

Project Name _____

Date _____ Type _____

Notes _____

Mechanical Outline Dimensions in inches (mm)



Test type	Compliance
Luminous Intensity, Uniformity & Viewing Angles	ITE PTC SI LED Signal Modules version of August 2010
Chromaticity	ITE PTC SI LED Signal Modules version of August 2010
Moisture Resistance	MIL-STD-810F Procedure 1, Rain & Blowing Rain
Mechanical Vibration	MIL-STD-883 Test Method 2007
Electronic Noise	FCC Title 47 Sec 15 Sub. B ¹
Transient Voltage Protection	Sec. 2.1.6 NEMA TS 2-2003 Sec. 2.1.8 NEMA TS 2-2003
Controller Compatibility	NEMA TS-2-2003
Transient Suppression	Sec. 8.2 IEC 1000-4-5 & Sec. 6.1.2 ANSI/IEEE C62.41.2 - 2002, 3KV, 2 Ω Sec. 8.0 IEC 1000-4-12 & Sec. 6.1.1 ANSI/IEEE C62.41.2 - 2002, 6KV, 30 Ω
Wiring	NFPA 70, National Electric Code
Digits	MUTCD 2014, Section 4E.07, Countdown Numbers Minimum 9" Height & 7" Width
Symbols	ITE PTC SI LED Signal Modules version as of August 2010, 11" Height & 7" Width

¹ Class A

Parameter	Rating
Operating Temperature Range*	-40 to +74°C (-40 to +165°F)
Operating Voltage Range	80 to 135 V (60Hz AC)
Power Factor (PF)	> 90%
Total Harmonic Distortion (THD)	< 20%
Voltage Turn-Off (VTO)	35 V
Start-up Time	< 75msec
Lens & Shell Material	UV Stabilized Polycarbonate
Wiring	16 AWG, Color Coded with Strain Relief
LED Color	Hand: Portland Orange Person: Lunar White Countdown: Portland Orange
Conflict Default Condition	Hand only

* Performed in compliance with ITE test method described in the technical notes

Product Information

Model Number	Dimensions		Symbol		AC Voltage Nominal	Power (W)			Minimum Luminous Intensity Cd/m ²	
	Dimensions	Layout	Hand	Person		Hand	Person	Countdown	Hand/Digit	Person
PS7-CFF1-VLA	16 x 18 in	Overlay Countdown	Full	Full	120V - 60Hz	6	6	8	1400	2200

¹ Class A.

Test Condition : Ta = 25°C. All values are design or typical values when measured under laboratory conditions.

PEDESTRIAN PUSHBUTTON

PB-3-ADA



- 15 AMP Rated Industrial Momentary Switch
- 1/2 " Threaded Conduit Hub Provided
- Fully "ADA" Compliant
- 2" Cast & Polished Stainless Steel Actuator
- Stainless Steel Guide Bushing Cast Into Cover
- Accesory Spacer available for use with Flat Surface Mounting
- Your Choice of Allen-Head Cap Screws or Spanner-Head Screws for Securing the Cover (All Screws are Stainless Steel)
- Rain - Tight EPDM Gasket Provided
- All Colors Available in Powder Coat Finish



PB-3-ADA



APB-3

Accesory Spacer

The General Traffic ADA Series Pedestrian Pushbuttons were designed to be in compliance with the "Americans with Disabilities Act". The pressure needed to actuate our pushbuttons is less then 4 lbs! The Momentary actuated assembly is designed to give many years of trouble free service & industrial quality. Find out how economical it is to put your City in compliance with the ADA law! Besides, who wouldnt wanna push this beautiful polished button to cross the street ?

Please specify powder-coated finish when ordering.



MODEL	DESCRIPTION
PB-3-ADA	PED Pushbutton Assembly, 2" Cast & Polished Stainless Steel Actuator, Round Config. w/ four cover screw holes, Specify Color



**General
Traffic
Equipment
Corporation**

259 Broadway, Newburgh, NY 12550

(845) 569-9000

TOLL FREE:

(800) 222-2828

FAX:

(845) 569-1800

EMAIL:

info@generaltrafficequip.com

www.generaltrafficequip.com

SIGNAL BACKPLATES

12 Inch • Non - Louvered



- Stamped from 5052-H32 Aluminum.
- 5/8" Formed Stiffener on longer sides gives much higher Rigidity and Structural Integrity
- Nominal Thickness .050" with Stiffener
- 5" Border Encompasses Signal Head
- 3" Corner Radius - All Corners
- Stainless Steel Screws and Washer Tabs provided for mounting

NEW!



For Extreme support and Durability.



BP-A-PLN-1003-GTE

Part No.	Description
BP-A-PLN-1001-GTE	For 12" Single Section Signal
BP-A-PLN-1003-GTE	For 12" Three Section Signal
BP-A-PLN-1004-GTE	For 12" Four Section Signal
BP-A-PLN-1005-GTE	For 12" Five Section Signal, In line
BP-A-PLN-CL55-GTE	For "Doghouse Cluster", Astro-Brac Mount, 16" C/T/C, 5 Section



**General
Traffic
Equipment
Corporation**

259 Broadway, Newburgh, NY 12550

(845) 569-9000

TOLL FREE:

(800) 222-2828

FAX:

(845) 569-1800

EMAIL:

info@generaltrafficquip.com

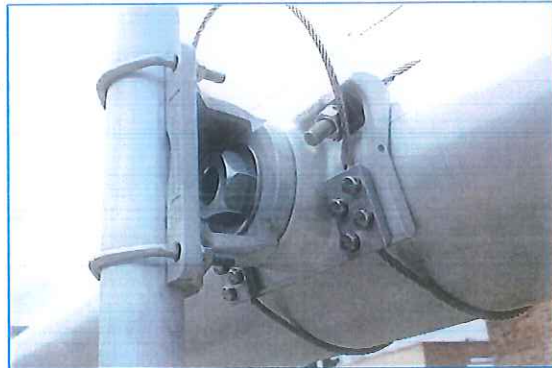
www.generaltrafficquip.com

RIGID MAST ARM MOUNT

CABLE TYPE



- *Clamp Halves Have Serrated Faces to Index in 2° Increments. Positive Locking - No Spin Here!*
- *The Ultimate in Versatile Flexibility.*
- *Time Saving Ease of Installation.*
- *Adjusts in Height, Rotationally and Angularly.*
- *Available in One-Way, Two-Way & "Cluster" Arrangements.*
- *All High-Strength Materials Used.*
- *All Hardware is Stainless Steel.*
- *Gusseted Support Tube Available in Different Lengths.*
- *Interchangeability of Components with Other Major Brands.*



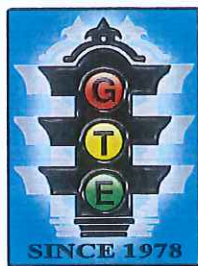
Rigid Mast Arm Clamp - Cable Type



Close-up of Serrated Teeth

GENERAL DESCRIPTION:

The "RM" series is a truly versatile signal mounting system designed for rigid mast arm applications. Available in several configurations for multiple section signal installations, the assembly allows complete adjustability for vertical as well as horizontal type mounting. Installation of the "RM" series is quick and easy, thanks to the cable-type "choker" and single stainless chase nipple attachment. Matching serrated faces on clamp halves allow precision adjustment of 2° and positive locking. Unlike other manufacturers designs, which rely on "deforming" one casting to "grip" the mating casting (and ultimately stress cracking one of the castings) the "RM" series keeps both halves "solid" and "locked up tight." Top and bottom mounting "arms" attach signal to support tube, which conceals the cable wiring from the mast arm.



**General
Traffic
Equipment
Corporation**

259 Broadway, Newburgh, NY 12550

(845) 569-9000

TOLL FREE:

(800) 222-2828

FAX:

(845) 569-1800

EMAIL:

info@generaltrafficequip.com

www.generaltrafficequip.com



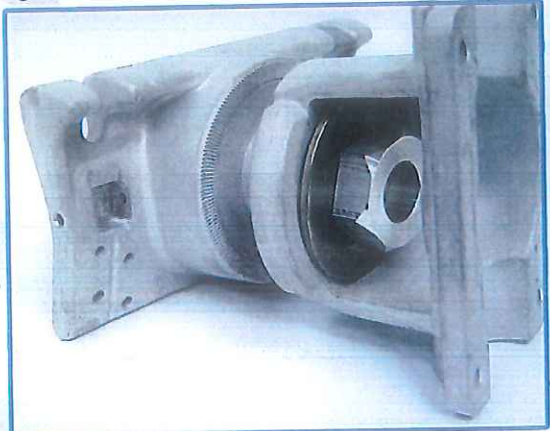
SPECIFICATIONS



Adjustment for height is made and two "U" bolts are tightened. Adjustment for rotary alignment is made and the large aircraft grade aluminum chase nipple is tightened. The various setscrews on the mounting arms are tightened and the installation is complete.

MAST ARM CLAMP - (RMAC - 62)

This "Clamp" assembly shall consist of two castings (mast arm mount and tube saddle), large 7075-T6 Aluminum hex head connecting chase nipple, a 3/16" aircraft cable of either a 62", 84" or 96" length with stainless steel 7/16" threaded ends, clamping blocks to hold the cable, SS clamp screw with half moon, hardware such as washers, bolts, nuts and retaining rings. The two casting halves shall be cast from #413 aluminum alloy and shall be precision machined by CNC machining methods. The casting faces shall have matching serrations precision cast in place in 2° increments. A shoulder shall also be cast in to prevent un-intentional misalignment of the "faces." Two "U" bolts (stainless steel) with nuts and washers shall hold the gusseted support tube to the "tube saddle" casting.



GUSSETED SUPPORT TUBE - (GUST - length - TOE)

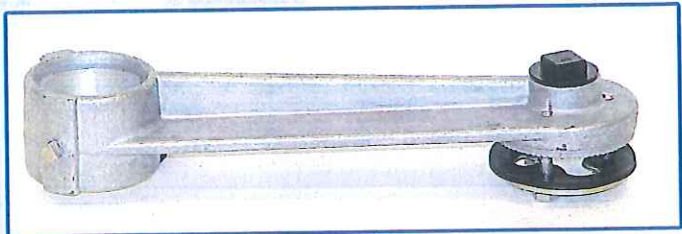
The support tube shall be extruded from 6061-T6 aluminum alloy. The O.D. shall be sufficient to allow for threading one end 1 1/2" - 11 1/2" NPSM with the addition of a filler piece. A slot shall run completely down the length. A vinyl mating strip shall effectively "close" the slot and seal the interior of the tube from water intrusion. Two connecting ribs shall be integral to the extrusion on the interior, designed to strengthen the tube while keeping the wireway open. A plastic fitted cap shall cover the top of the tube.

LOWER MOUNTING ARM - (RM - 1000 - LMA)

The lower mounting arm shall be precision die cast cast from #413 aluminum alloy and shall be precision machined by CNC machining methods. One end shall have 72 serrated teeth cast in place and three tapped holes (1/4-20) integral to the serrated section for mounting the signal head. The opposite end of the arm shall have an 1 1/2" - 11 1/2" TPI NPSM pipe thread tapped opening to allow mating with the support tube. Two 5/16-18 square head setscrews shall lock in the support tube. The underside of the "arm" shall be "grooved" for placement of an ABS plastic cover, which slides in place and "snaps" into position. The underside of the casting shall be "hollow" to allow for cable wiring entry.

UPPER MOUNTING ARM - (HA - 1201TS)

The upper mounting arm shall be precision die-cast of #413 aluminum alloy and shall be precision machined by CNC machining methods. One end shall have 72 serrated teeth cast in place in 5° increments and three tapped holes (1/4-20) integral to the serrated section for fastening the signal head. The opposite end of the arm shall have an opening which shall be precision "reamed" to slip-fit over the diameter of the support tube and have a sliding fit. Two 5/16-18 setscrews shall be installed to lock in the arm to the support tube after the signal is fastened.



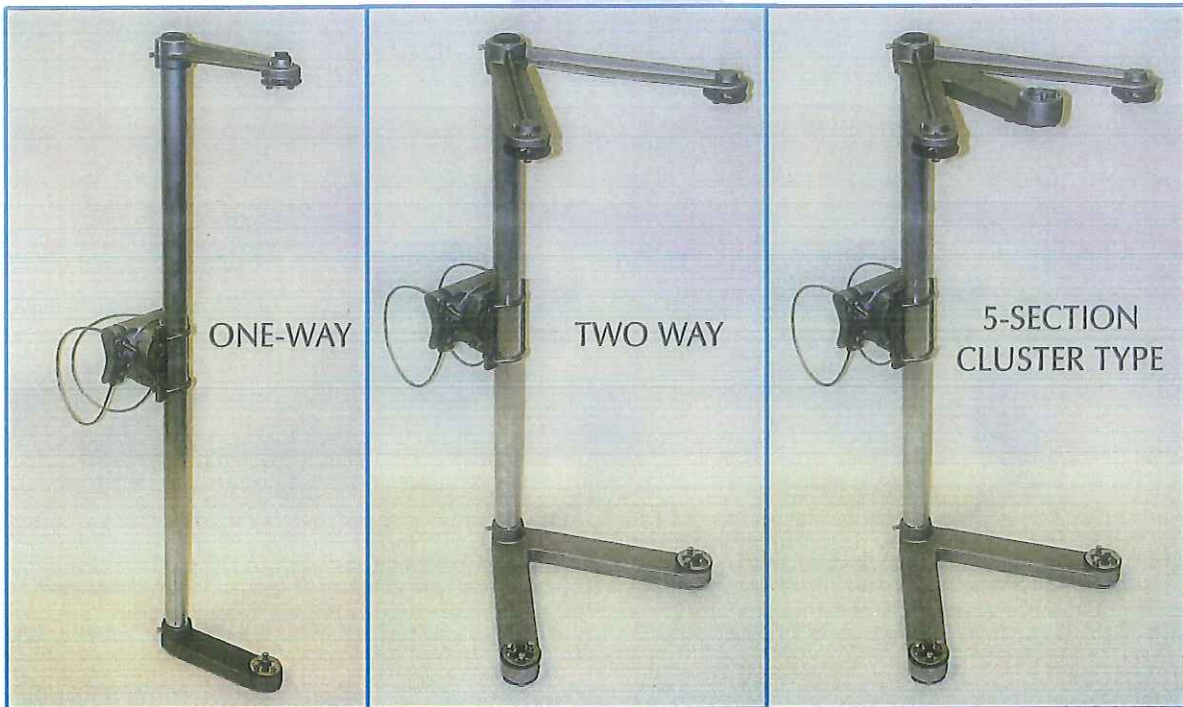
www.generaltrafficequip.com



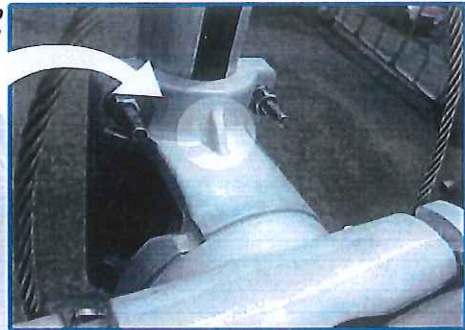
SPECIFICATIONS



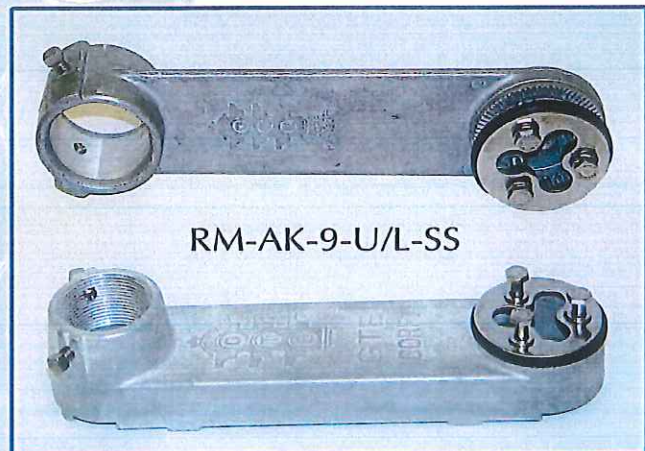
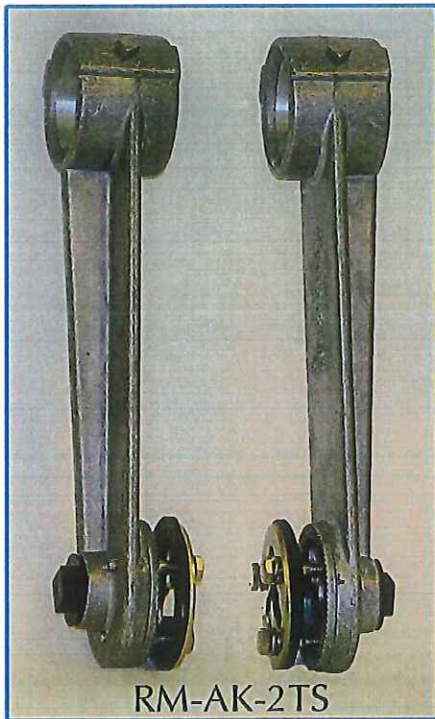
MAST ARM MOUNTS - CABLE TYPE



Strengthening Support Ribs added to ensure the elimination of "Cracking" the casting due to overtightening



ARM KITS



www.generaltrafficequip.com



SPECIFICATIONS



PART NUMBER	DESCRIPTION
RM-MAC	Mast Arm Clamp Assembly, Minus Cable or Band
RM-MAC-62	Mast Arm Clamp Assembly, Cable Type, 62" Cable
RM-MAC-84	Mast Arm Clamp Assembly, Cable Type, 84" Cable
RM-MAC-96	Mast Arm Clamp Assembly, Cable Type, 96" Cable
RM-1000C-XX-1	Rigid Mast Arm Mount, One Way, Cable Type, 16" Tube Length, Specify Cable Length
RM-1000C-62-3	Rigid Mast Arm Mount, One Way, Cable Type, 46" Tube Length, 62" Cable Length
RM-1000C-84-3	Rigid Mast Arm Mount, One Way, Cable Type, 46" Tube Length, 84" Cable Length
RM-1000C-96-3	Rigid Mast Arm Mount, One Way, Cable Type, 46" Tube Length, 96" Cable Length
RM-1000C-62-4	Rigid Mast Arm Mount, One Way, Cable Type, 58" Tube Length, 62" Cable Length
RM-1000C-84-4	Rigid Mast Arm Mount, One Way, Cable Type, 58" Tube Length, 84" Cable Length
RM-1000C-96-4	Rigid Mast Arm Mount, One Way, Cable Type, 58" Tube Length, 96" Cable Length
RM-1000C-62-5	Rigid Mast Arm Mount, One Way, Cable Type, 74" Tube Length, 62" Cable Length
RM-1000C-84-5	Rigid Mast Arm Mount, One Way, Cable Type, 74" Tube Length, 84" Cable Length
RM-1000C-96-5	Rigid Mast Arm Mount, One Way, Cable Type, 74" Tube Length, 96" Cable Length
RM-2000C-62-3	Rigid Mast Arm Mount, Two Way, Cable Type, 46" Tube Length, 62" Cable Length
RM-2000C-84-3	Rigid Mast Arm Mount, Two Way, Cable Type, 46" Tube Length, 84" Cable Length
RM-2000C-96-3	Rigid Mast Arm Mount, Two Way, Cable Type, 46" Tube Length, 96" Cable Length
RM-2000C-62-4	Rigid Mast Arm Mount, Two Way, Cable Type, 58" Tube Length, 62" Cable Length
RM-2000C-84-4	Rigid Mast Arm Mount, Two Way, Cable Type, 58" Tube Length, 84" Cable Length
RM-2000C-96-4	Rigid Mast Arm Mount, Two Way, Cable Type, 58" Tube Length, 96" Cable Length
RM-2000C-62-5	Rigid Mast Arm Mount, Two Way, Cable Type, 74" Tube Length, 62" Cable Length
RM-2000C-84-5	Rigid Mast Arm Mount, Two Way, Cable Type, 74" Tube Length, 84" Cable Length
RM-2000C-96-5	Rigid Mast Arm Mount, Two Way, Cable Type, 74" Tube Length, 96" Cable Length
RM-5C-5000C-62	Rigid Mast Arm Mount, "5-Section Cluster Type", 37" Tube Length, 62" Cable Length
RM-5C-5000C-84	Rigid Mast Arm Mount, "5-Section Cluster Type", 37" Tube Length, 84" Cable Length
RM-5C-5000C-96	Rigid Mast Arm Mount, "5-Section Cluster Type", 37" Tube Length, 96" Cable Length
RM-AK-9-U/L-SS	Arm Kit, 9" Length, Upper & Lower Arms, Stainless Steel Hardware
RM-AK-2TS	Arm Kit, 9" Length, (2) Upper Arms, Tapped for 0.75" CGB, Stainless Steel Hardware

www.generaltrafficequip.com

Pedestrian Bases & Poles

CROSSGUARD Micro Series

MADE WITH
PRIDE IN THE
USA

- *Compact Design - Only 8" Footprint!*
- *Capable of Supporting 15 FT Poles with Ease*
- *Cast of Frangible 356-T0 Aluminum*
- *Heavy Duty SS Tether Available For Securing Pole to Foundation*
- *Stainless Steel Hinge with Optional Tamperproof Screws*
- *Variable Bolt Circle Diameters*



Please specify powder coated-finish when ordering.



Includes Copper Grounding Lug



Bottom View with Variable Bolt Circle



Custom Door Inserts Available!!!



**General
Traffic
Equipment
Corporation**

259 Broadway, Newburgh, NY 12550

PHONE :

(845) 569-9000

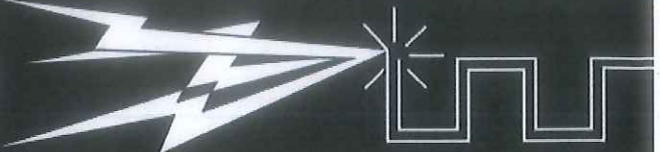
FAX :

(845) 569-1800

EMAIL :

info@generaltrafficequip.com

www.generaltrafficequip.com



Model 242 DC Isolator



DESCRIPTION:

The PDC Model DCI-82 dual channel DC isolator is designed specifically to meet the California Department of Transportation, Model 242 specifications. Each channel of the DC isolator shall present a true signal (ground closure) at the output of its optical coupling device when a contact closure causes an input voltage of less than 8 VDC, for longer than 5 milliseconds. A transition from a true to a false signal at the output shall occur when the respective contact closure causes an input voltage of greater than 12 VDC.

All electronics are provided on a single sided P.C. board with an aluminum front panel. The P.C. board is provided with a solder mask, silk screen identifying all component locations and is conformally coated to resist adverse environmental conditions.

HIGHLIGHTS

Input	True State False State	<8 VDC, >5 msec. >12 VDC
Output	Voltage Current	30 VDC max. (open collector) 50 <u>mamp</u> sink (true state)
Power	Voltage Current	115 <u>VAC</u> 20 <u>mamp</u> AC max.
Isolation	Voltage Resistance	2500 VAC 1000 megohm.
Transient suppression	Energy	50 Joules
Mechanical	Length Width Height Weight	7.00 IN. 1.12 IN. 4.50 IN. 0.70 LBS.

170/2070
REQUIREMENTS

Caltrans

2YEAR
WARRANTY

SOLID STATE FLASHERS

SSRF SERIES



- 100% Digital Solid State Circuitry
- No Moving Parts to Wear Out
- Single or Dual Circuit Models
- 25 Amp Load Capacity
- Zero Voltage Switching
- Optically Coupled Output Assures Load Side Protection
- Line Side Protection from Power Line Spikes
- Cast Aluminum Case Doubles as Heat Sink
- Models Available to Directly Replace Every Type of Electro-Mechanical Flasher (and then some!)
- Banana Jacks, Sockets and .187" Diameter Split Pins Available as Connectors
- Wide Range of Flasher Cabinets and Back Panels Available for Beacon Control
- Easy to Replace Contacts (Just kidding - making sure you're awake!)



ORDER USING THE MODEL CODE BELOW

SSRF-252M

LOAD RATING # of CKTS Brand Being Replaced
15 OR 25 Amp 1,2

M/SP-Marbelite, NYC Version...M=Marbelite
CH-Crouse Hinds...CH/BJ-Crouse Hinds, NYC Version...
E-Econolite or GE...ES-Eagle Signal...K-Kentron...
AS-Automatic Signal...GTE-General Traffic Equipment...
N1-NEMA Type I...N2-NEMA Type II...N3-NEMA Type III
WT-Watertight, 18" Leads

HEAVY DUTY MODELS: Originally developed for the demanding traffic control problems of New York City, this maintenance-free flasher is designed for many years of dependable operation. The unit is comprised of a printed circuit board with integral 25 amp load triacs, opto-isolators, varistors and a power transformer to guard against line voltage transients and spikes. A snubber-network is incorporated to assure radio interference-free operation. The circuit board and triacs are mounted into a one-piece cast aluminum case which is used as a heat sink. Connections are made with .187" Dia. split pins or standard banana jacks. Wiring is Mil-W-16878/18 Type CN, 16 Awg for handling heavy current. Flasher case ribs provide for excellent heat dissipation.



**General
Traffic
Equipment
Corporation**

259 Broadway, Newburgh, NY 12550

(845) 569-9000

TOLL FREE:

(800) 222-2828

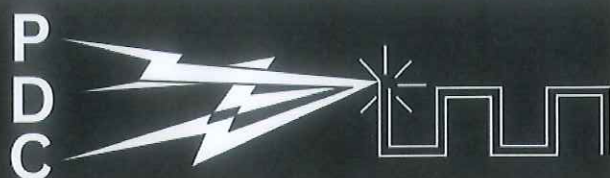
FAX:

(845) 569-1800

EMAIL:

info@generaltrafficequip.com

www.generaltrafficequip.com



MODEL SSF-87

SOLID STATE FLASHER



DESCRIPTION:

The PDC model SSF-87 is a dual pack, modular, solid state flasher designed specifically to meet NEMA specifications as well as New York "Model 204" specifications.

Each flasher contains two individually replaceable modules that are enclosed in a dust resistant, metal enclosure, providing mechanical protection, and excellent heatsinking for the modules. The modules are easily accessible with the use of a screwdriver.

HIGHLIGHTS

Load	voltage current (max)	120 <u>VAC</u> 15.0 Amps (Tungsten Filament Load)
Off State	dv/dt line to load resistance leakage current	100 V per microsecond 15 K Ohms Min less than 20 MA
Surge Current	One cycle One second	175 Amps RMS min 40 Amps RMS min
Flash Rate	Flashes	50-60 cycles per minute
Temperature	Operating	-35 to +74 degrees C
Life	operations	30 million Min
Mechanical	length width height weight	8.40 inches 1.70 inches 4.185 inches 1.50 LBS

NEMA

**170/2070
REQUIREMENTS**

**2YEAR
WARRANTY**

BIU (Bus Interface Unit)

The Oriux TS2 NEMA Bus Interface Unit (BIU) is a rack mounted modular-by-function unit that allows easy adaptation to many applications. Its primary function is to interface the 24 VDC logic based inputs and outputs (I/O) to the Synchronous Data Link Control (SDLC) serial bus within the TS2 cabinets. The Controller Unit functionality in a Type 1, and some Type 2 configurations, is interfaced to the TS2 cabinet through the BIU(s). This functionality includes controlling all load switch outputs, detector inputs and resets, and functions previously accessed via TS1 - A,B,C connectors and/or additional I/O (MSD).

The BIU is in full compliance with NEMA TS2 Standards for the interface, power, environmental, electrical and physical hardware requirements. The BIU is powered by a separate 24 VDC power supply external to the Controller Unit. The front panel contains a handle for easy removal and insertion of the unit power on and transmit status indicators, a 15 pin female Port 1 connector.

The BIU interfaces to the Port 1 facilities termination panel through a 15 pin metal shell D sub miniature type connector that is equipped with latching blocks. Connection to the Terminal and Facilities (TF) back panel or card rack is provided by a 64 pin DIN 41612 type B series connector.

The TS2 Controller Unit communicates through the BIUs based on the digital addressing of each BIU. Each BIU shall be capable of having their logical position and subsequent cabinet functions, assignable through specific address select inputs. This cabinet function flexibility allows for cabinet expansion, enhances reliability and provides a standard interface with Oriux or other manufacturers' TS2 cabinets.



Specifications

Dimensions	4.5" H x 2.34" W x 6.5" D (114.3 mm H x 59.44 mm W x 165.1 mm D)
Weight	0.525 lb. (0.283 kg)
Power	18 to 30 VDC,
Requirements	200 mA
Environment	-30°F to +165°F (-34°C to +74°C)

Features & Benefits

- Full compliance with NEMA TS2-2003
- Port 1 RS-485 SDLC interface
- Facilitates high speed data exchange between controller, cabinet, detector racks and malfunction management unit
- Performs conversion for 24VDC I/O logic signals to serial bus
- Rack mounted for modularity and Interchangeability
- BIU address programmable via Terminal and Facilities

The Port 1 15 Pin D Connector meets the requirements for the physical layer and the protocol for the full duplex SDLC serial data bus and is in full compliance with Sections 3.3.1 and 8.6.2 of the NEMA TS2 -2003 Standard. The BIU card rack connector is a 64 pin DIN 41612 type B series connector with pin assignments as specified in Section 8.6.3.1 of the NEMA TS2 Standard.

Address select inputs shall define the logical position of each BIU. The BIU positions 1-8 are designated for Terminals and Facilities (TF) and BIU positions 9 -16 are designated for Detector Racks. Currently up to 16 detector channels are assignable per BIU allowing up to a maximum of 64 detector channels. BIU positions 5-8 and 13-16 are reserved for future expansion requirements for TS2 or reserved for manufacturer specific functions.

Ordering Information

Description	Model Number
Oriux Bus Interface Unit	82-1886-01

