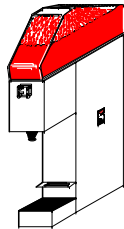


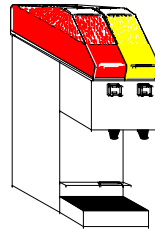
# ***"MINI TOWER MAX"***

## Installation and Instruction Manual

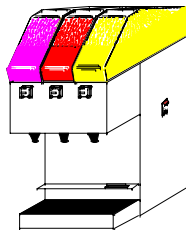
MTM10



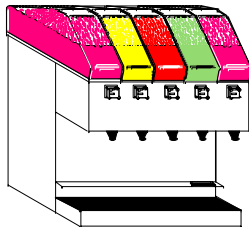
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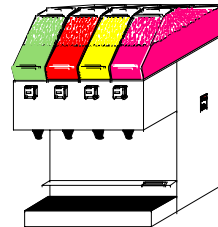
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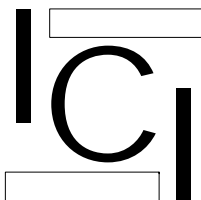
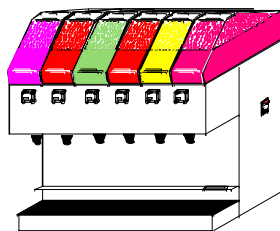
MTM50



MTM40



MTM60



INTERNATIONAL CARBONIC INC.

16630 KOALA ROAD

ADELANTO, CA 92301

800 854-1177

IMPORTANT: This manual is a guide for installing, operating, servicing and maintaining this equipment. Refer to Table of Contents for page location of detailed information to answer questions that arise during installation, operating, service and maintenance, or installation of this equipment.

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## PREFACE

INTERNATIONAL CARBONIC INC. has enjoyed over 53 years of manufacturing excellence in the field of carbonation and in the beverage related industry. We have been located in the Southern California area since 1952 and have a long and proud history with quality as our standard and innovation as our goal. Originally started just after World War II in Canfield Ohio as Carbonic Dispensers we enjoyed patents on the first Sodajet type carbonator. This method of carbonation instantaneously carbonated the water to 100% saturation. We developed the first patented dispensing valve to dispense bulk beverage with carbonation equal to or in excess of bottled beverages. A valve with three flavors and soda was another first. We were the first to incorporate the total post-mix package; i.e., carbonation, refrigeration, & the ability to dispense from one self contained unit. We have pioneered many such firsts and will continue to develop advance systems for the future, such as electronic interrogatable portion controls to electronic liquid level controls.

We hope you enjoy this product that has been produced to give many years of trouble free service. We thank you for your purchase and hope we may serve you in the future.

## GENERAL DESCRIPTION

This section gives the description, theory of operation, and design data for the Mini Tower Max, (MTM), non-refrigerated simulate bubbler series, i.e., MTM-10, MTM-20, MTM-30, etc. and related components.

## THEORY OF OPERATION

The MTM is manufactured to fit almost any requirement and will vary in size and configuration. To understand the MTM series the following should be understood. The designation MTM, as stated earlier stands for Mini Tower Max, the first numeral such as 1, 2, 3, 4, 5, or 6 stand for the number of valves and bowls mounted on the MTM. The second numeral such as 0 denotes no whipper assembly; a 1 would indicate one whipper assembly, etc. The MTM was designed to dispense a non-carbonated juice product. The MTM cabinet has been manufactured from all stainless steel. The MTM uses the finest valves manufactured and a polypropylene glycol solution housed in a clear polycarbonate bowl to merchandize your product being dispensed.

By combining post-mix dispensing technology with a bubbler simulation, you improve operational efficiency by eliminating labor to mix product. The simulated bubbler top solves cleaning, filling, low capacity and sanitation requirement problems experienced with conventional bubblers.

Simulated bubblers also provide the merchandising benefits of conventional bubblers.

## SYSTEM DESCRIPTION

The MTM base or counter mount will consist of a stainless steel counter mount, valves, transformer, inlet post mix product lines and water lines. The bowl assembly will consist of bowls, filled with simulation fluid, and bubbler pumps attached as an assembly.

The MTM units will be connected to B.I.B. containers or transfer tanks. In either case the MTM will require regulator assemblies to regulate pressures required to push or pump post mix product to the MTM unit.

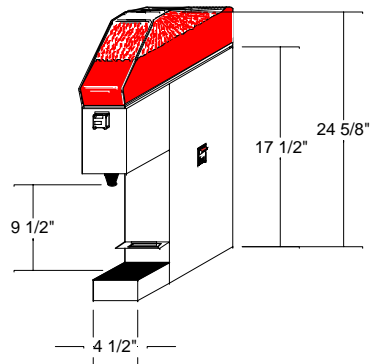
## DATA SHEET MTM 10, 20 & 30

### MTM-10

|                        |         |
|------------------------|---------|
| HEIGHT                 | 24 5/8" |
| WIDTH                  | 4 1/2"  |
| DEPTH                  | 13 3/4" |
| COUNTER WEIGHT W/FLUID | 23#     |
| CABINET DRY WEIGHT     | 12#     |

Electrical Requirements: 115 VAC, single phase, 60 HZ

|                  |     |
|------------------|-----|
| Circuit Ampacity | 0.8 |
| Transformer      | 0.5 |
| Bowl Spray Pump  | 0.3 |

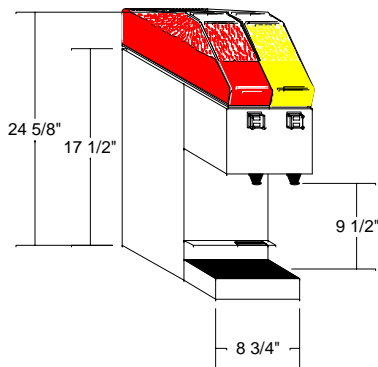


### MTM-20

|                        |         |
|------------------------|---------|
| HEIGHT                 | 24 5/8" |
| WIDTH                  | 8 3/4"  |
| DEPTH                  | 13 3/4" |
| COUNTER WEIGHT W/FLUID | 37#     |
| CABINET DRY WEIGHT     | 15#     |

Electrical Requirements: 115 VAC, single phase, 60 HZ

|                  |     |
|------------------|-----|
| Circuit Ampacity | 1.1 |
| Transformer      | 0.5 |
| Bowl Spray Pump  | 0.3 |

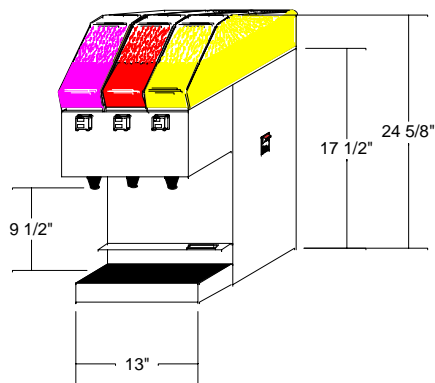


### MTM-30

|                        |         |
|------------------------|---------|
| HEIGHT                 | 24 5/8" |
| WIDTH                  | 13"     |
| DEPTH                  | 13 3/4" |
| COUNTER WEIGHT W/FLUID | 46#     |
| CABINET DRY WEIGHT     | 19#     |

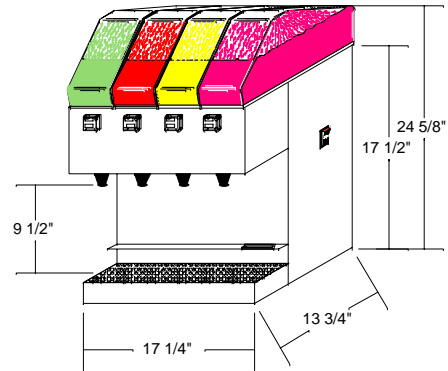
Electrical Requirements: 115 VAC, single phase, 60 HZ

|                  |     |
|------------------|-----|
| Circuit Ampacity | 1.4 |
| Transformer      | 0.5 |
| Bowl Spray Pump  | 0.3 |

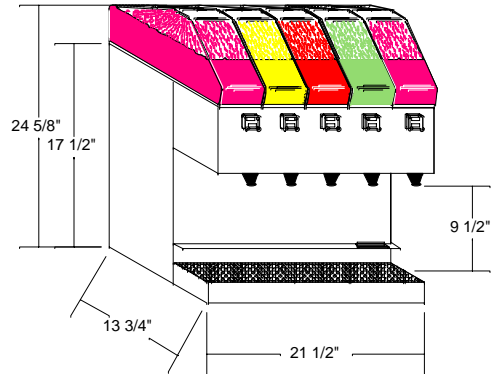


## DATA SHEET MTM 40, 50, & 60

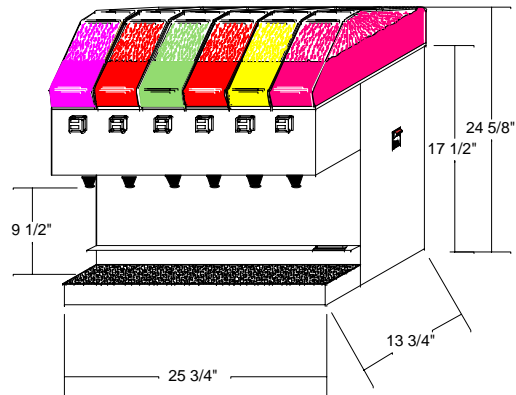
| MTM-40  |         |
|---|---------|
| HEIGHT  | 24 5/8" |
| WIDTH   | 17 1/4" |
| DEPTH   | 13 3/4" |
| COUNTER WEIGHT W/FLUID                                | 67#     |
| CABINET DRY WEIGHT                                    | 23#     |
| Electrical Requirements: 115 VAC, single phase, 60 HZ |         |
| Circuit Ampacity                                      | 1.7     |
| Transformer   | 0.5     |
| Bowl Spray Pump                                       | 0.3     |



| MTM-50  |         |
|---|---------|
| HEIGHT  | 24 5/8" |
| WIDTH   | 21 1/2" |
| DEPTH   | 13 3/4" |
| COUNTER WEIGHT W/FLUID                                | 82#     |
| CABINET DRY WEIGHT                                    | 27#     |
| Electrical Requirements: 115 VAC, single phase, 60 HZ |         |
| Circuit Ampacity                                      | 2       |
| Transformer   | 0.5     |
| Bowl Spray Pump                                       | 0.3     |



| MTM-60  |         |
|---|---------|
| HEIGHT  | 24 5/8" |
| WIDTH   | 25 3/4" |
| DEPTH   | 13 3/4" |
| COUNTER WEIGHT W/FLUID                                | 97#     |
| CABINET DRY WEIGHT                                    | 31#     |
| Electrical Requirements: 115 VAC, single phase, 60 HZ |         |
| Circuit Ampacity                                      | 2.3     |
| Transformer   | 0.5     |
| Bowl Spray Pump                                       | 0.3     |



## INSTALLATION PROCEDURES

Upon receiving unit, immediately uncrate and inspect for shipping damage. If shipping damage has occurred, immediately notify transit agency, which transported equipment. If parts are missing, notify factory.

### LOCATION:

All units must have adequate space between bulkheads, walls, and overheads for maintenance and repair.

1. Remove MTM splash plate, (S-1755) by removing two #10 X ½ Phillips T.H. S.S. combo screws from base of unit. Pull splash plate out and down.
2. Locate MTM in its permanent position.
3. Use MTM as a template and mark position of 4 mounting holes and one two inch access hole.
4. Remove MTM from counter and drill four holes with an adequate size drill and one two inch access hole.
5. Locate MTM and install four bolts/screws with sufficient length to secure MTM to counter top.
6. After all connections are made silicone must be applied to the base of unit at the counter.

After locating MTM in its permanent position, the four (4) connections to be made are as follows: Water, electrical, product lines and bowl assemblies.

### CONNECTING WATER SUPPLY

After all primary water lines are made up, but prior to connecting water supply to cabinet, be sure to thoroughly flush all incoming water lines to remove all scale and any impurities that may be in the lines. The water inlet connection is clearly tagged. The water connection on juice units is made to the flexible water line. When a filter is used, it is important that it has sufficient capacity and should be thoroughly flushed before it is connected to the water inlet connection.

**“WATER PIPE CONNECTIONS AND FIXTURES DIRECTLY CONNECTED TO A POTABLE WATER SUPPLY SHALL BE SIZED, INSTALLED AND MAINTAINED ACCORDING TO FEDERAL, STATE AND LOCAL LAWS.”**

Check incoming water supply, it should be 40 psi minimum, 110 psi maximum. Install water booster or regulator as required. Connect 3/8” ID water line from water source to water line coming out of bottom of dispenser marked w.

### ELECTRICAL CONNECTION

All units must be wired in accordance with N.E.C. or local city ordinances. Electrical rating: 120 Volts, 60 Hz.



## PRODUCT LINES

If using Bag-In-Box

1. Locate CO<sub>2</sub> or air source and determine placement of Bag-In-Box, (BIB), pump.
2. Route syrup lines from BIB fitting on Bag-In-Box (one line from each box) to mounted BIB pumps, (one BIB pump for each flavor). Connect these lines to “Product In” fittings on BIB pumps.
3. Route syrup lines from “Product Out” fittings on BIB pumps to appropriate syrup line coming out of bottom of dispenser.
  - A. Valves are numbered from left to right while facing the MTM. The farthest valve to the left is numbered # 1, next #2, etc. Syrup lines are numbered to correspond with appropriate valve.
  - B. Water line is marked W.

If using FIGALs

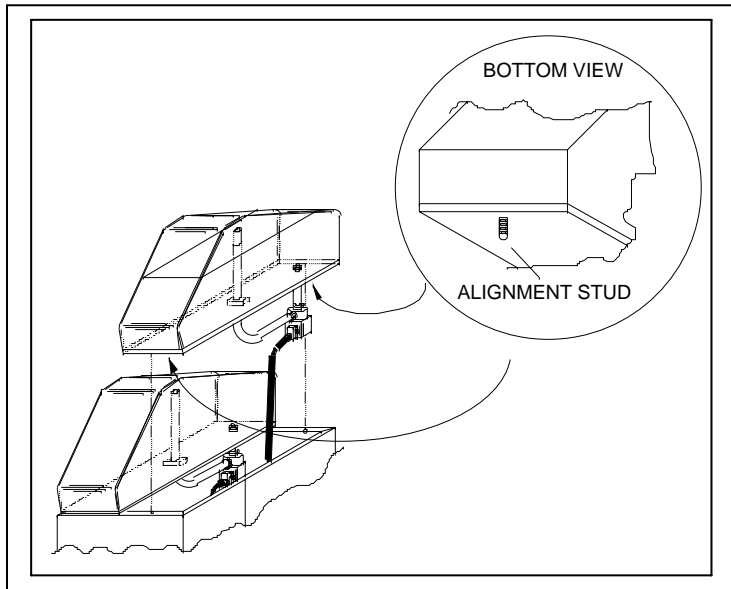
1. Locate CO<sub>2</sub> or air source and determine placement of FIGALs.
2. Assemble and install ¼ gas lines and gas disconnects from regulators.
3. Install FIGAL disconnects to the end of the supply tubing and connect to appropriate FIGAL. Leave enough slack to be able to change and rotate tanks.

## TESTING FOR LEAKS:

1. Completely back off adjusting screw on low pressure CO<sub>2</sub> regulator.
2. Close valve on top of CO<sub>2</sub> cylinder.
3. Wait for 5 minutes or more. If pressure on high pressure gauge decreases excessively, there is leak.
4. All connections including cylinder valve should be coated with a soap solution. If bubbles appear a leak is apparent.
5. Always be sure that the low pressure adjusting screw is completely backed off before testing circuit for leaks. Otherwise, gas going into syrup tanks would cause this high pressure gauge needle to balance with pressure in syrup tanks, which would be a false indication of a leak in the circuit.
6. After it has been determined that there are no leaks in the circuit, open CO<sub>2</sub> cylinder valve and adjust low pressure regulator to 15 psi. Allow enough time for the syrup tanks to fill completely with gas, (5 minutes or longer).
7. Next, completely back off low-pressure regulator adjusting screw, and if gauge needle of low-pressure regulator moves downward, there is leak in the low-pressure circuit. Check all connections with a soap solution, paying particular attention to syrup tank covers. If low pressure gauge needle remains stationary, there is no leak.

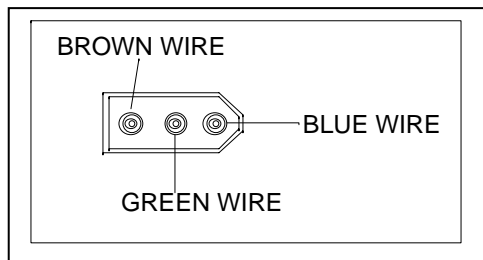
## INSTALLING BOWL ASSEMBLIES

After MTM wrapper is mounted and secured to counter then MTM bowl assemblies may be set in position. Prior to installing MTM bowl assembly alignment stud in matching holes, set bowl assembly slightly askew to connect electrical socket from bowl with matching electrical bubbler wire from MTM control box. When connecting the spray pump connector plug to connector receptacle make sure tension lock snaps into place, if a secure connection is not made the pump will not operate. Orient bowl with severest angle towards valve side of MTM.



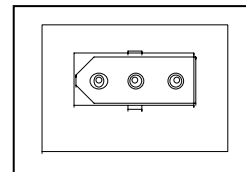
Place alignment stud on each end of MTM bowl assembly in corresponding holes in wrapper and valve housing. Nest bowl assembly onto the MTM unit.

Bowl Mounting Illustration



Plug from Pump

### ELECTRICAL CONNECTORS – END VIEWS



Receptacle from MTM Base

## PERIODIC INSPECTION AND CLEANING:

### Daily:

1. Clean any storage tanks/B.I.B. racks, connecting sockets/Q.C.D.'s and general storage area with warm water.
2. If using CO2 check the CO2 gas supply. If cylinder pressure is below 500 P.S.I., replace the cylinder.

NOTE: Readings should be taken at normal room temperature, approximately 70 degrees "F" and above. If CO2 cylinder is stored in a walk-in refrigerator, the P.S.I. indicator will read below 500 psi even when cylinder is full.

3. Check the CO2 gas pressure supplying BIB pumps. These pressures should not change. If a change occurs repeatedly, contact your local service agency. It is suggested to make a comment about this occurrence in NOTE SECTION of manual.
4. Clean the beverage dispensing area.
5. Remove and clean nozzles and all exposed areas on valves.
7. Wipe exterior of unit with moist towel.

### Weekly:

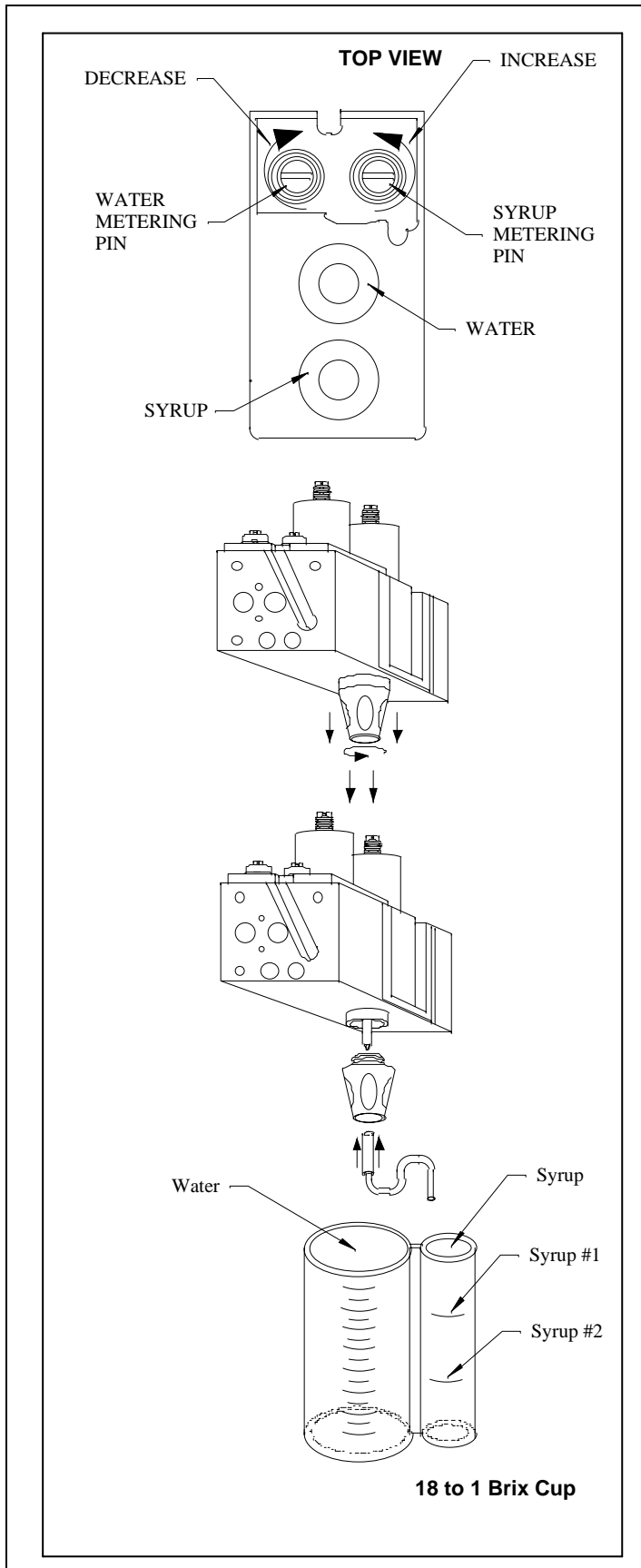
1. Order syrup to maintain product inventory.
2. Check all CO2 gas/Air connections for leaks.

### Monthly:

3. Check entire system for leaks or damaged components. Repair as necessary.

### **Cleaning and sanitizing:**

**Your local Health Department rules and general area cleanliness should determine the frequency of which the unit should be sanitized.**



Proper brixing procedures are as follows:

1. Make sure carbonator/water flow is in an operating condition, i.e., high-pressure regulators set, water and power on and refrigeration in a ready to go mode. In the case of juice systems make sure water flow is un-restricted. It is also recommended that a water pressure regulator be utilized on all systems. Water bath systems must have an ice bank and ice-cooled systems must have ice on the cold plate.
2. Adjust water flow to 6 ounces in 5 seconds.
3. Remove nozzle (twist and pull down), then insert syrup separator through nozzle, be it "S" type or plastic tube, and on 1/4" plastic syrup outlet located inside hidden nozzle area. Then press nozzle back in position.
4. Actuate valve until syrup separator is full of syrup. Hold brix cup close enough to valve outlet to form "S" on the flexible plastic tube so as to prevent any water following the flexible tube into syrup section. This formed "S" will also hold syrup in tube for a more reliable brix reading.
5. Actuate valve allowing the soda water to flow into large section of cup and syrup into smaller section. Adjust the syrup metering pin/flow-control as necessary to secure a proper brix. When proper brix syrup adjustments have been made, the two sections of the cup should fill to the desired ration.

## Sanitizing Procedure

Your local health department rules and general area cleanliness should determine the frequency at which the unit should be sanitized.

### EQUIPMENT REQUIRED:

1. Stainless Steel containers (product tanks), or large volume container.
2. CO2 Supply (Same as used with dispensing unit).
3. Cleaning Agent.
4. Sanitizing Solution.
5. Phenolphthalein.

NOTE: One recommended supplier for cleaning and sanitizing agents is:

MT. HOOD CHEMICAL CORP.  
4444 N.W. Yeon Avenue  
Portland, Oregon 97210

Trade names are: STAR - CHLORINATED CLEANER  
CROWN - 12.5% SODIUM HYPOCHLORITE BLEACH

Use STAR at 18 oz. per 1 gallon of water yields 2% Sodium Hydroxide Solution.

Use Crown at 2 ounce per 9 gallons of water (gives 200 PPM of available chlorine) at a minimum contact time of 10 minutes.

1. Disconnect syrup containers and remove product from tubing by purging with water.
2. Rinse the lines and fittings with clean room temperature water to remove all traces of residual product.
3. Fill lines with a caustic-based (low sudsing, non-perfumed, and easily rinsed), detergent solution, (STAR). The solution should be prepared in accordance with the manufacturers recommendations, but should be at least 2 percent sodium hydroxide. Make sure the lines are completely filled and allow to stand for at least 10 minutes.
4. Flush the detergent solution from the lines with clean water. Continue rinsing until testing with phenolphthalein shows that the rinse water is free of residual detergent.
5. Fill the lines with a low pH (7.0) chloride solution containing at least 200 PPM chlorine. Make sure that lines are completely filled and allow to stand for 10 min, repeat this step 3 times making contact time 30 minutes total.
6. Reconnect BIB or FIGAL syrup containers and ready unit for operation.
7. Draw drinks to refill lines and flush the chloride solution from the MTM.
8. Taste the beverage to verify that there is no off taste.

## TROUBLE SHOOTING

**IMPORTANT:** Only qualified personnel should service MTM unit and components.

**WARNING:** To avoid personal injury and or property damage, always disconnect electrical power, shut off plain water and CO2 supplies before starting any repairs. If repairs are to be made to syrup system, remove quick disconnects from syrup tanks, or remove QCD from BIB, then bleed system pressure before proceeding.

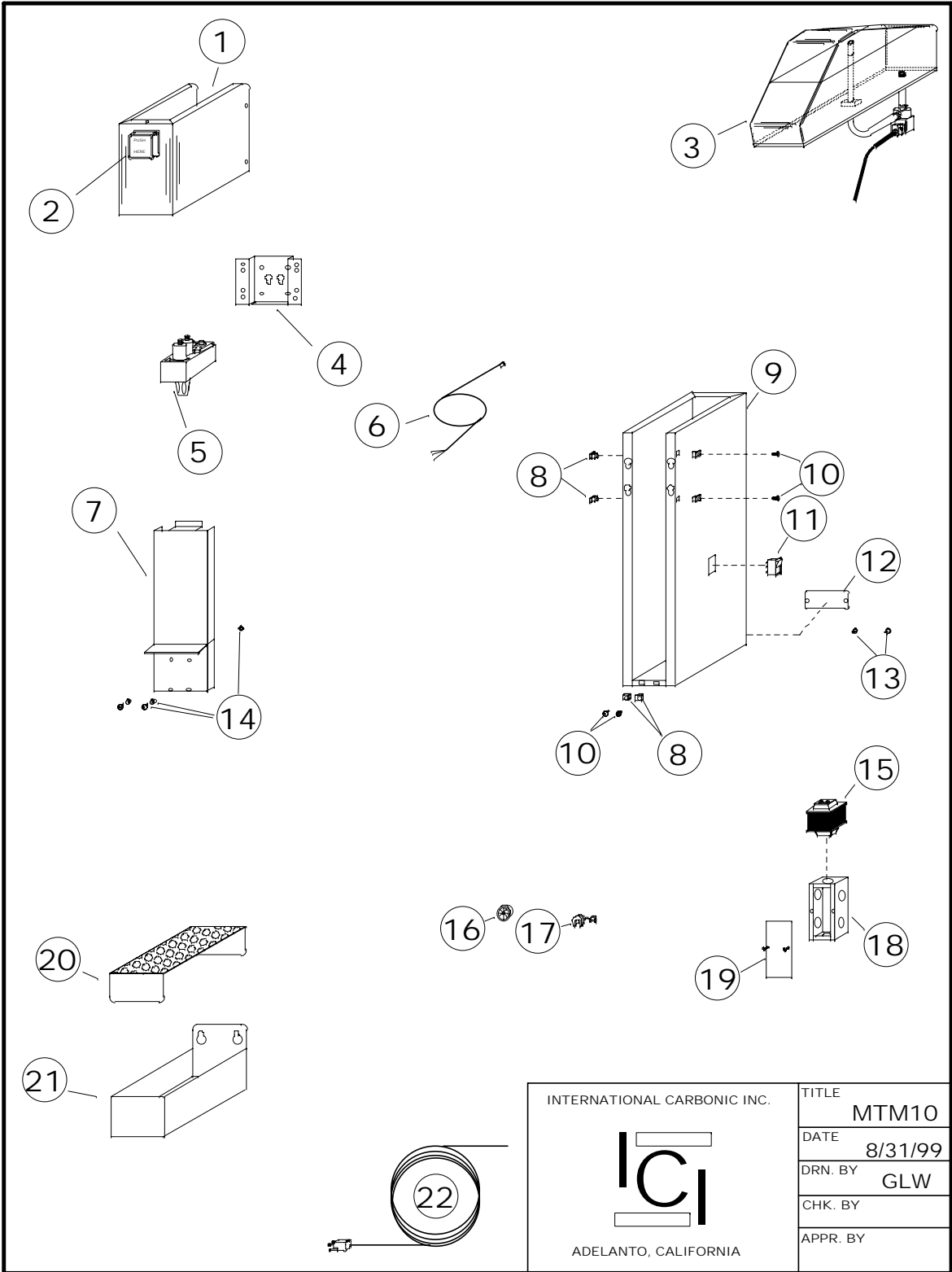
### DISPENSING VALVES


| Trouble  | Probable Cause  | Remedy  |
|--|---|---|
| Water or syrup leaking from nozzle after actuation | 1. Foreign debris under plunger seat or bent, creased stem. | 1. <ol style="list-style-type: none"> <li>a. Disconnect syrup or water from affected valve.</li> <li>b. Relieve pressure by activating valve.</li> <li>c. Remove E-623 nut from syrup or water stem.</li> <li>d. Remove E-525 coil assembly from E-527 stem.</li> <li>e. Remove E-527 stem from valve body.<br/>Note: care should be taken not to dent smooth E-527 wall.</li> <li>f. Valve stem seat should be inspected for any foreign debris. If debris is found remove at this time, also check E-730 plunger &amp; E-527 stem, movement should be unrestricted and free.</li> <li>g. Inspect E-730 plunger seat for damage, replace if damaged.</li> <li>h. Reassemble by reversing above procedure.</li> </ol> |

| DISPENSING VALVES                             |  |  |  |   |
|---|--|--|--|---|
| Trouble                                       |  | Probable Cause   |  | Remedy  |
| No water, no syrup being dispensed from valve | 1.<br>2.<br>3.<br>4.<br>5.             | No electrical power.<br>Pinched or crimped lines.<br>Broken sub-miniature switch.<br>Bad transformer.<br>Disconnected wire.  | 1.<br>2.<br>3.<br>4.<br>5.             | Plug power cord into electrical box. Check line voltage.<br>Repair defective line.<br>Replace defective switch.<br>Replace defective transformer.<br>Attach disconnected wire.  |
| No syrup being dispensed                      | 1.<br>2.<br>3.<br>4.<br>5.<br>6.<br>7. | Syrup container empty.<br>Syrup lines crimped.<br>CO2 cylinder empty.<br>QCD of syrup installed incorrectly.<br>Low pressure regulator defective or plugged.<br>Syrup disconnect not attached correctly.<br>Loose electrical connection of syrup solenoid and or open electrical connection. | 1.<br>2.<br>3.<br>4.<br>5.<br>6.<br>7. | Replenish syrup supply.<br>Straighten syrup lines.<br>Change CO2 cylinder.<br>Re-install QCD correctly.<br>Repair or replace low pressure regulator.<br>Lubricate and attach.<br>Tighten connection and/or repair open circuit. Check proper voltage. |
| Water-to-syrup ratio to low or too high       | 1.<br>2.<br>3.                         | Metering pin/flow control not properly adjusted.<br>CO2 gas pressure in syrup tanks insufficient.<br>Syrup tubing I.D. insufficient.   | 1.<br>2.<br>3.                         | Adjust water-to-syrup ratio (see dispensing station installation instructions).<br>Adjust low pressure regulator as instructed.<br>Increase syrup tubing I.D. Note: see "Brix instructions"   |
| No water being dispensed                      | 1.<br>2.<br>3.<br>4.                   | Water inlet supply shutoff closed.<br>Water filter fouled/clogged.<br>Pinched or crimped line.<br>Loose electrical connection, 24 volt.  | 1.<br>2.<br>3.<br>4.                   | Open water inlet supply line shut off valve.<br>Replace filter or cartridge.<br>Repair defective line.<br>Tighten connection and or repair open circuit.  |

| DISPENSING VALVES  |    |  |    |  |
|--|----|--|----|--|
| Trouble  |    | Probable Cause   |    | Remedy   |
| Adjustment of syrup metering pin does not produce desired water-to-syrup ratio | 1. | No syrup supply.   | 1. | Replenish syrup supply as instructed.  |
|  | 2. | Syrup tank quick disconnects not secure.                           | 2. | Secure quick disconnects.  |
|  | 3. | Low pressure CO2 regulator out of adjustment.                      | 3. | Adjust low pressure CO2 regulator as instructed.   |
|  | 4. | B.I.B. QCD disconnected or improperly installed.                   | 4. | Connect B.I.B. disconnect securely.  |
|  | 5. | Syrup line restricted.   | 5. | Clear restriction or replace restricted line.  |
|  | 6. | Dirty or inoperative metering pin or piston in syrup flow control. | 6. | Disassemble and clean syrup flow control. Adjust water-to-syrup ratio, see "Brix instruction". |

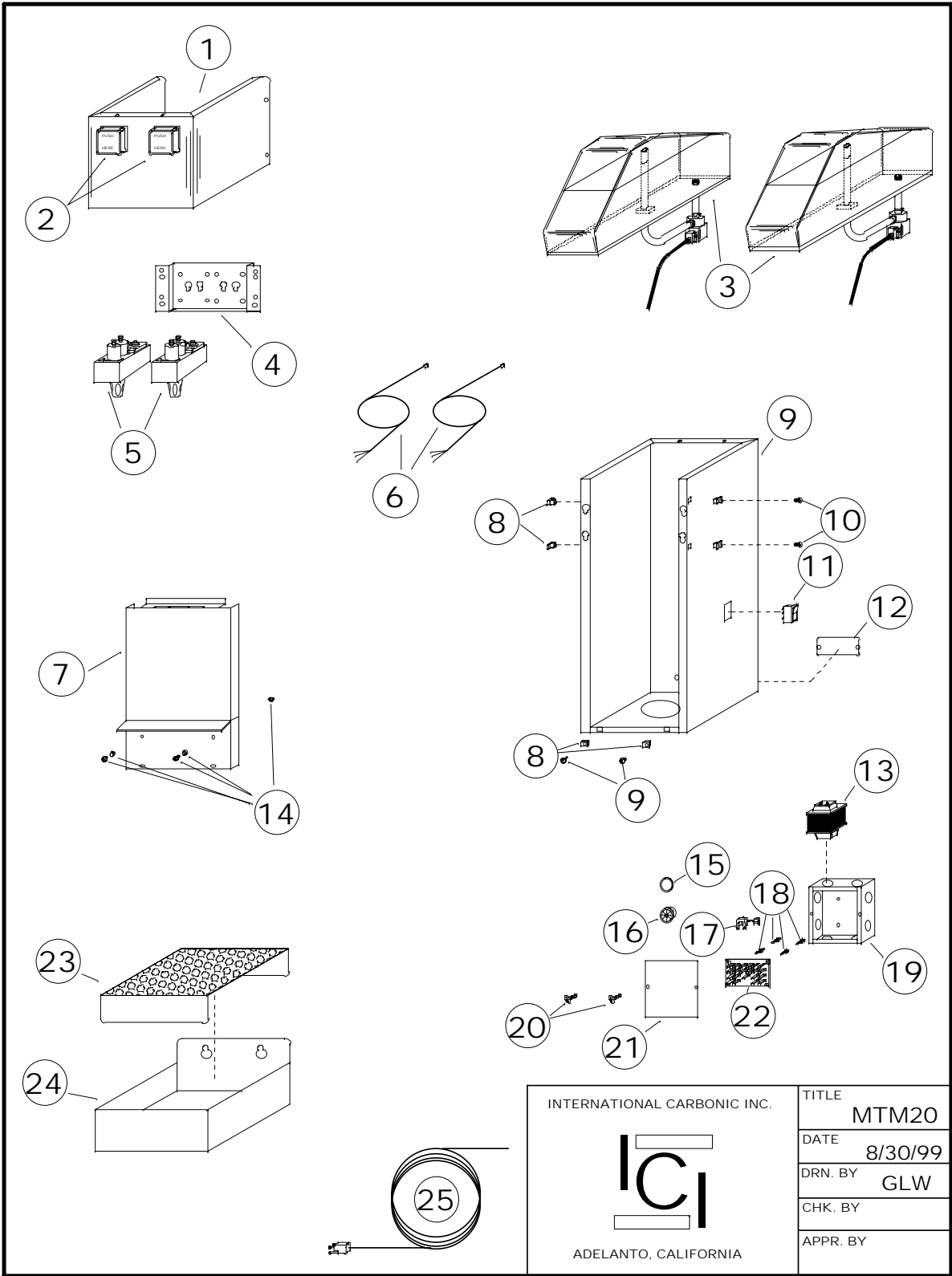





|   |          |         |
|---|----------|---------|
| INTERNATIONAL CARBONIC INC.<br><br>ADELANTO, CALIFORNIA | TITLE    | MTM10   |
|   | DATE     | 8/31/99 |
|   | DRN. BY  | GLW     |
|   | CHK. BY  |         |
|   | APPR. BY |         |

# MTM10

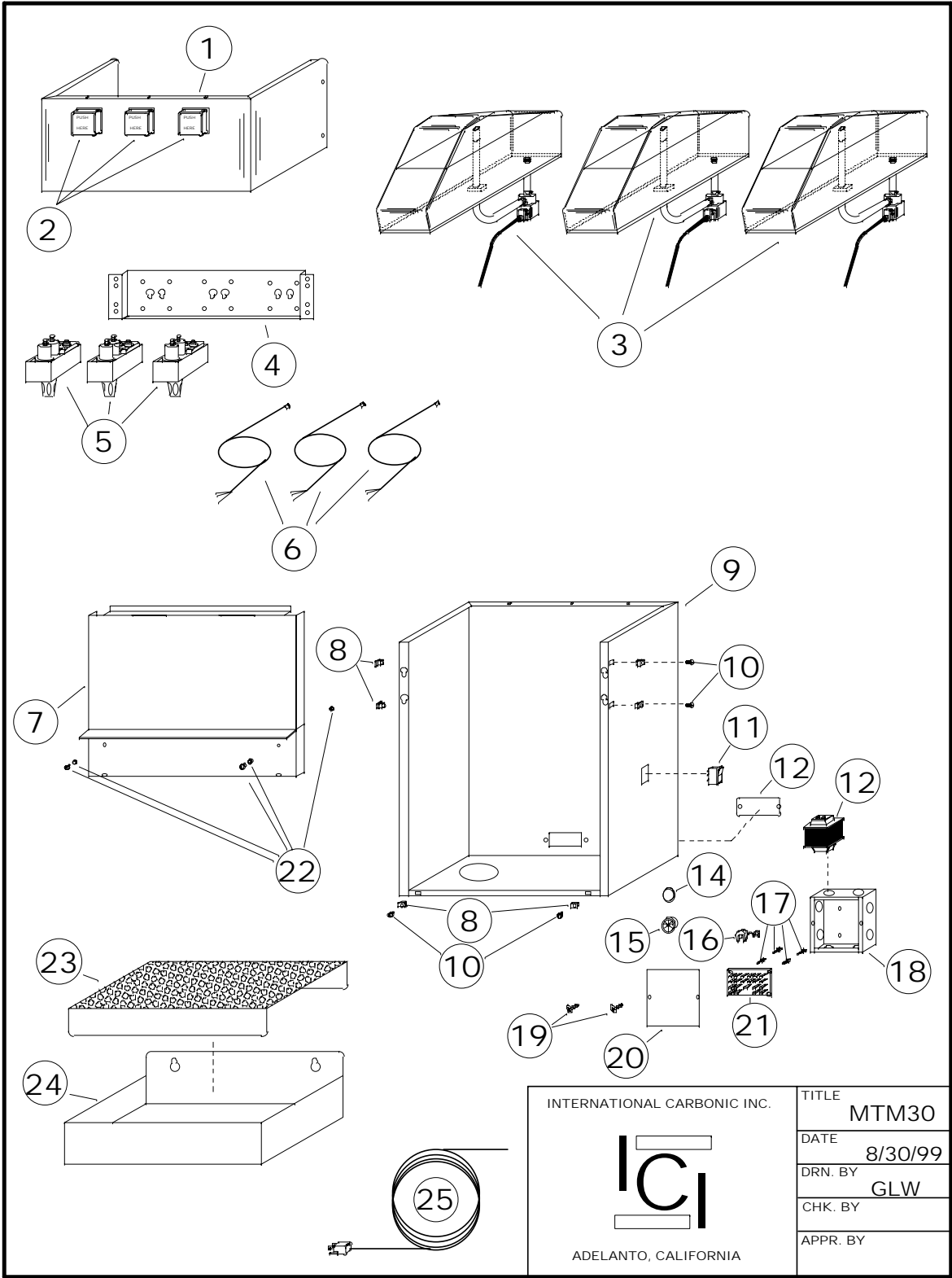
| SYM | QTY   | PART NO.      | DESCRIPTION                           |
|-----|-------|---------------|---------------------------------------|
| 1   | 1     | S-1750-10-P   | VALVE HOUSING, (PUSH HERE)            |
| 2   | 1     | S-1313        | SWITCH                                |
| 3   | 1     | S-1751-BF-?   | MINI BOWL ASSEMBLY, (SPECIFY FLAVOR)? |
| 4   | 1     | S-1752-10-ICI | VALVE MOUNTING BRACKET                |
| 5   | 1     | PF-2-MTM      | SPECIAL PF-2 VALVE                    |
| 6   | 1     | S-1350        | BUBBLER WIRE                          |
| 7   | 1     | S-1755-10     | SPLASH PLATE                          |
| 8   | 6     | S-1325        | SQUARE GROMMET                        |
| 9   | 1     | S-1753-10     | WRAPPER                               |
| 10  | 6     | A-14          | SCREW, #10 X 1/2 PHILLIPS, COMBO HD   |
| 11  | 1     | S-783         | UNIT ON/OFF SWITCH                    |
| 12  | 1     | S-1754-10     | REAR ACCESS PLATE                     |
| 13  | 2     | A-20          | SCREW, 8-32 X 3/8 S.S. TH             |
| 14  | 1 SET | S-743         | DRAIN PAN MTG HARDWARE                |
| 15  | 1     | E-276         | TRANSFORMER                           |
| 16  | 2     | S-46          | BUSHING                               |
| 17  | 1     | E-664         | STRAIN RELIEF                         |
| 18  | 4     | P-3           | 2 X 4 "J" TERMINAL BOX                |
| 19  | 1     | P-4           | 2 X 4 "J" TERMINAL BOX COVER W/SCREW  |
| 20  | 1     | S-1756-10-A   | CUP REST                              |
| 21  | 1     | S-1756-10     | DRAIN PAN                             |
| 22  | 1     | E-141-6       | CORD                                  |




|  |                 |
|--|-----------------|
| INTERNATIONAL CARBONIC INC.  | TITLE<br>MTM20  |
|  | DATE<br>8/30/99 |
|  | DRN. BY<br>GLW  |
|  | CHK. BY         |
|  | APPR. BY        |
| ADELANTO, CALIFORNIA   |                 |

# MTM20

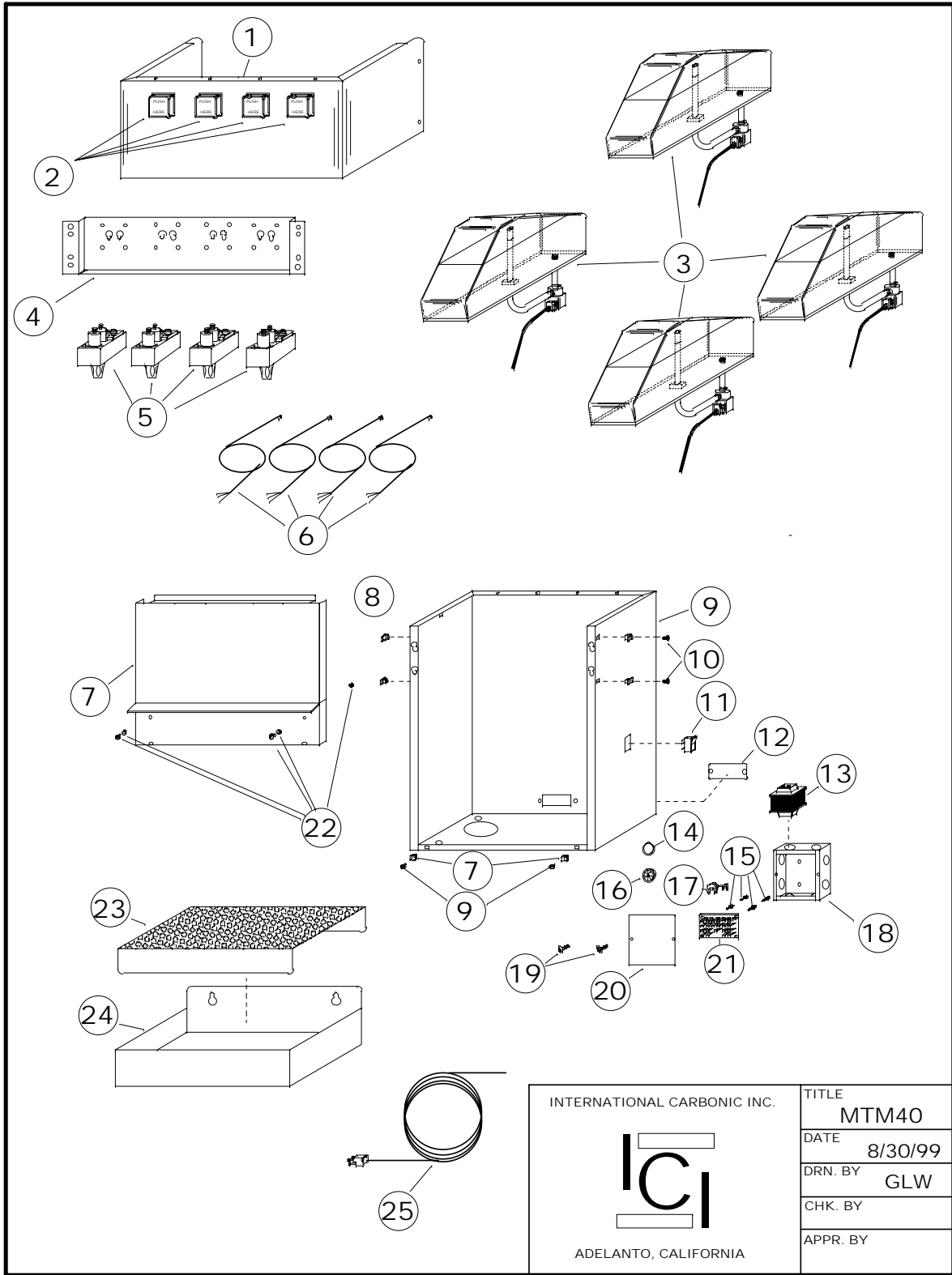
| <b>SYM</b> | <b>QTY</b> | <b>PART NO.</b> | <b>DESCRIPTION</b>                    |
|------------|------------|-----------------|---------------------------------------|
| 1          | 1          | S-1750-20-P     | VALVE HOUSING, (PUSH HERE)            |
| 2          | 2          | S-1313          | SWITCH                                |
| 3          | 2          | S-1751-BF-?     | MINI BOWL ASSEMBLY, (SPECIFY FLAVOR)? |
| 4          | 1          | S-1752-20-ICI   | VALVE MOUNTING BRACKET                |
| 5          | 2          | PF-2-MTM        | SPECIAL PF-2 VALVE                    |
| 6          | 2          | S-1350          | WIRING HARNESS                        |
| 7          | 1          | S-1755-20       | SPLASH PLATE                          |
| 8          | 6          | S-1325          | SQUARE GROMMET                        |
| 9          | 1          | S-1753-20       | WRAPPER                               |
| 10         | 6          | A-14            | SCREW, #10 X 1/2 PHILLIPS, COMBO HD   |
| 11         | 1          | S-783           | UNIT ON/OFF SWITCH                    |
| 12         | 1          | S-1754-20       | REAR ACCESS PLATE                     |
| 13         | 1 SET      | S-743           | DRAIN PAN MTG HARDWARE                |
| 14         | 1          | E-276           | TRANSFORMER                           |
| 15         | 2          | H0024           | HOLE PLUG                             |
| 16         | 4          | S-46            | BUSHING                               |
| 17         | 1          | E-664           | STRAIN RELIEF                         |
| 18         | 4          | S-1335          | PLASTIC STANDOFFS                     |
| 19         | 1          | S-1308          | CONTROL BOX W/COVER                   |
| 20         | 4          | A-20            | SCREW, 8-32 X 3/8 S.S. TH             |
| 21         | 1          | S-1310          | CONTROL BOX COVER ONLY                |
| 22         | 1          | S-1309          | CONTROL BOARD                         |
| 23         | 1          | S-1756-20-A     | CUP REST                              |
| 24         | 1          | S-1756-20       | DRAIN PAN                             |
| 25         | 1          | E-141-6         | CORD                                  |




|   |          |         |
|---|----------|---------|
| INTERNATIONAL CARBONIC INC.<br><br>ADELANTO, CALIFORNIA | TITLE    | MTM30   |
|   | DATE     | 8/30/99 |
|   | DRN. BY  | GLW     |
|   | CHK. BY  |         |
|   | APPR. BY |         |

# MTM30

| SYM | QTY   | PART NO.      | DESCRIPTION                         |
|-----|-------|---------------|-------------------------------------|
| 1   | 1     | S-1750-30-P   | VALVE HOUSING, (PUSH HERE)          |
| 2   | 3     | S-1313        | SWITCH                              |
| 3   | 3     | S-1751-BF-?   | MINI BOWL ASSEMBLY, (SPECIFY)?      |
| 4   | 1     | S-1752-30-ICI | VALVE MOUNTING BRACKET              |
| 5   | 3     | PF-2-MTM      | SPECIAL PF-2 VALVE                  |
| 6   | 3     | S-1350        | BUBBLER WIRE                        |
| 7   | 1     | S-1755-30     | SPLASH PLATE                        |
| 8   | 6     | S-1325        | SQUARE GROMMET                      |
| 9   | 1     | S-1755-30     | WRAPPER                             |
| 10  | 6     | A-14          | SCREW, #10 X 1/2 PHILLIPS, COMBO HD |
| 11  | 1     | S-783         | UNIT ON/OFF SWITCH                  |
| 12  | 1     | S-1326        | REAR ACCESS PLATE                   |
| 13  | 1 SET | S-743         | DRAIN PAN MTG HARDWARE              |
| 14  | 1     | E-276         | TRANSFORMER                         |
| 15  | 2     | H0024         | HOLE PLUG                           |
| 16  | 4     | S-46          | BUSHING                             |
| 17  | 1     | E-664         | STRAIN RELIEF                       |
| 18  | 4     | S-1335        | PLASTIC STANDOFFS                   |
| 19  | 1     | S-1308        | CONTROL BOX W/COVER                 |
| 20  | 4     | A-20          | SCREW, 8-32 X 3/8 S.S. TH           |
| 21  | 1     | S-1310        | CONTROL BOX COVER ONLY              |
| 22  | 1     | S-1309        | CONTROL BOARD                       |
| 23  | 1     | S-1756-30-A   | CUP REST                            |
| 24  | 1     | S-1756-30     | DRAIN PAN, (S-1149)                 |
| 25  | 1     | E-141-6       | CORD                                |

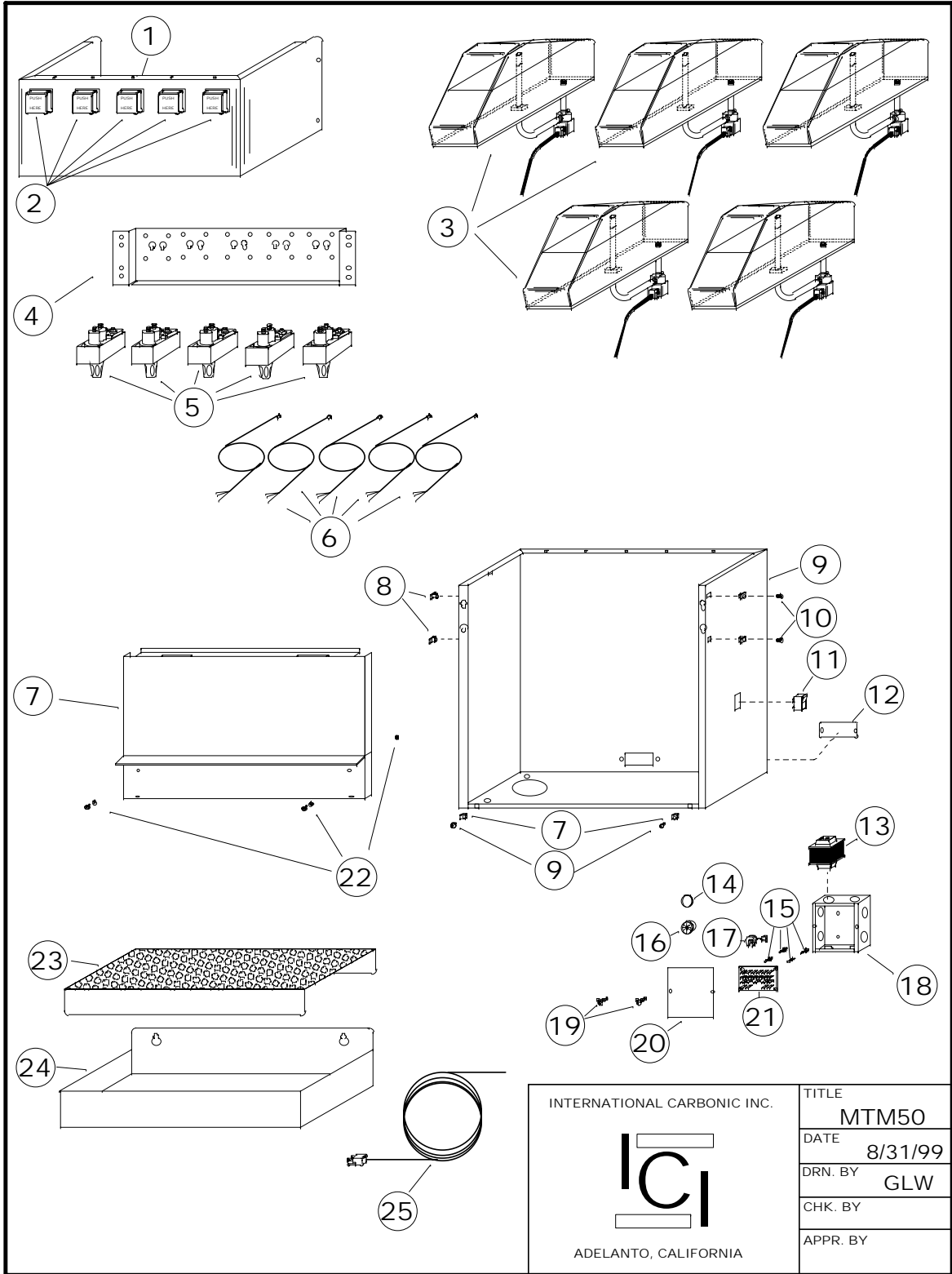



|   |          |         |
|---|----------|---------|
| INTERNATIONAL CARBONIC INC.<br><br>ADELANTO, CALIFORNIA | TITLE    | MTM40   |
|   | DATE     | 8/30/99 |
|   | DRN. BY  | GLW     |
|   | CHK. BY  |         |
|   | APPR. BY |         |

# MTM40

| <b>SYM</b> | <b>QTY</b> | <b>PART NO.</b> | <b>DESCRIPTION</b>                    |
|------------|------------|-----------------|---------------------------------------|
| 1          | 1          | S-1750-40-P     | VALVE HOUSING, (PUSH HERE)            |
| 2          | 4          | S-1313          | SWITCH                                |
| 3          | 4          | S-1751-BF-?     | MINI BOWL ASSEMBLY, (SPECIFY FLAVOR)? |
| 4          | 1          | S-1752-40-ICI   | VALVE MOUNTING BRACKET                |
| 5          | 4          | PF-2-MTM        | SPECIAL PF-2 VALVE                    |
| 6          | 4          | S-1350          | BUBBLER WIRE                          |
| 7          | 1          | S-1755-40       | SPLASH PLATE                          |
| 8          | 6          | S-1325          | SQUARE GROMMET                        |
| 9          | 1          | S-1753-40       | WRAPPER                               |
| 10         | 6          | A-14            | SCREW, #10 X 1/2 PHILLIPS, COMBO HD   |
| 11         | 1          | S-783           | UNIT ON/OFF SWITCH                    |
| 12         | 1          | S-1326          | REAR ACCESS PLATE                     |
| 13         | 1 SET      | S-743           | DRAIN PAN MTG HARDWARE                |
| 14         | 1          | E-276           | TRANSFORMER                           |
| 15         | 2          | H0024           | HOLE PLUG                             |
| 16         | 4          | S-46            | BUSHING                               |
| 17         | 1          | E-664           | STRAIN RELIEF                         |
| 18         | 4          | S-1335          | PLASTIC STANDOFFS                     |
| 19         | 1          | S-1308          | CONTROL BOX W/COVER                   |
| 20         | 4          | A-20            | SCREW, 8-32 X 3/8 S.S. TH             |
| 21         | 1          | S-1310          | CONTROL BOX COVER ONLY                |
| 22         | 1          | S-1309          | CONTROL BOARD                         |
| 23         | 1          | S-1756-40-A     | CUP REST                              |
| 24         | 1          | S-1756-40       | DRAIN PAN, (S-1150                    |
| 25         | 1          | E-141-6         | CORD                                  |

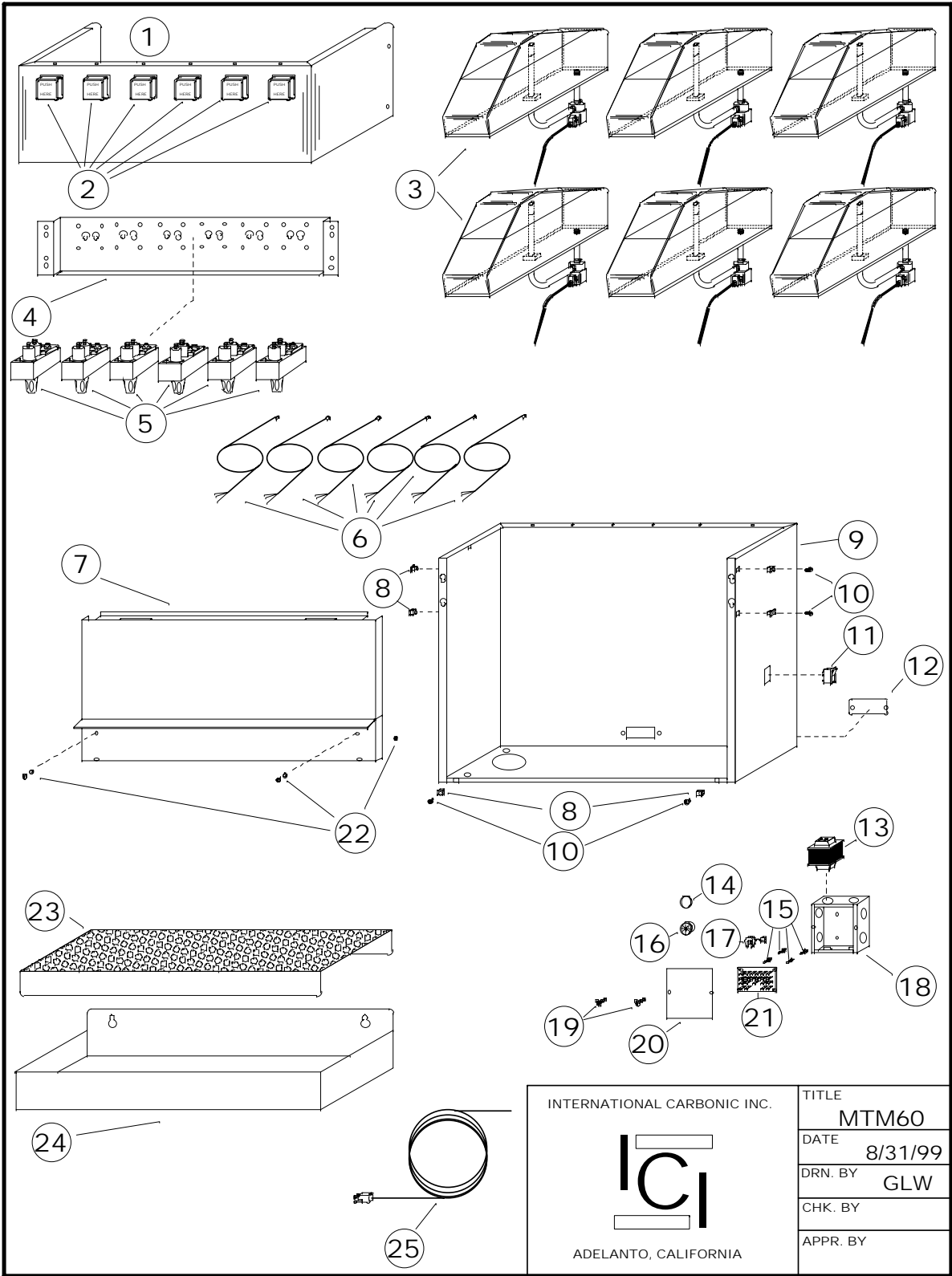





|   |         |
|---|---------|
| INTERNATIONAL CARBONIC INC.<br><br>ADELANTO, CALIFORNIA | TITLE   |
|   | MTM50   |
|   | DATE    |
|   | 8/31/99 |
|   | DRN. BY |
| GLW   |         |
| CHK. BY   |         |
| APPR. BY  |         |

# MTM50

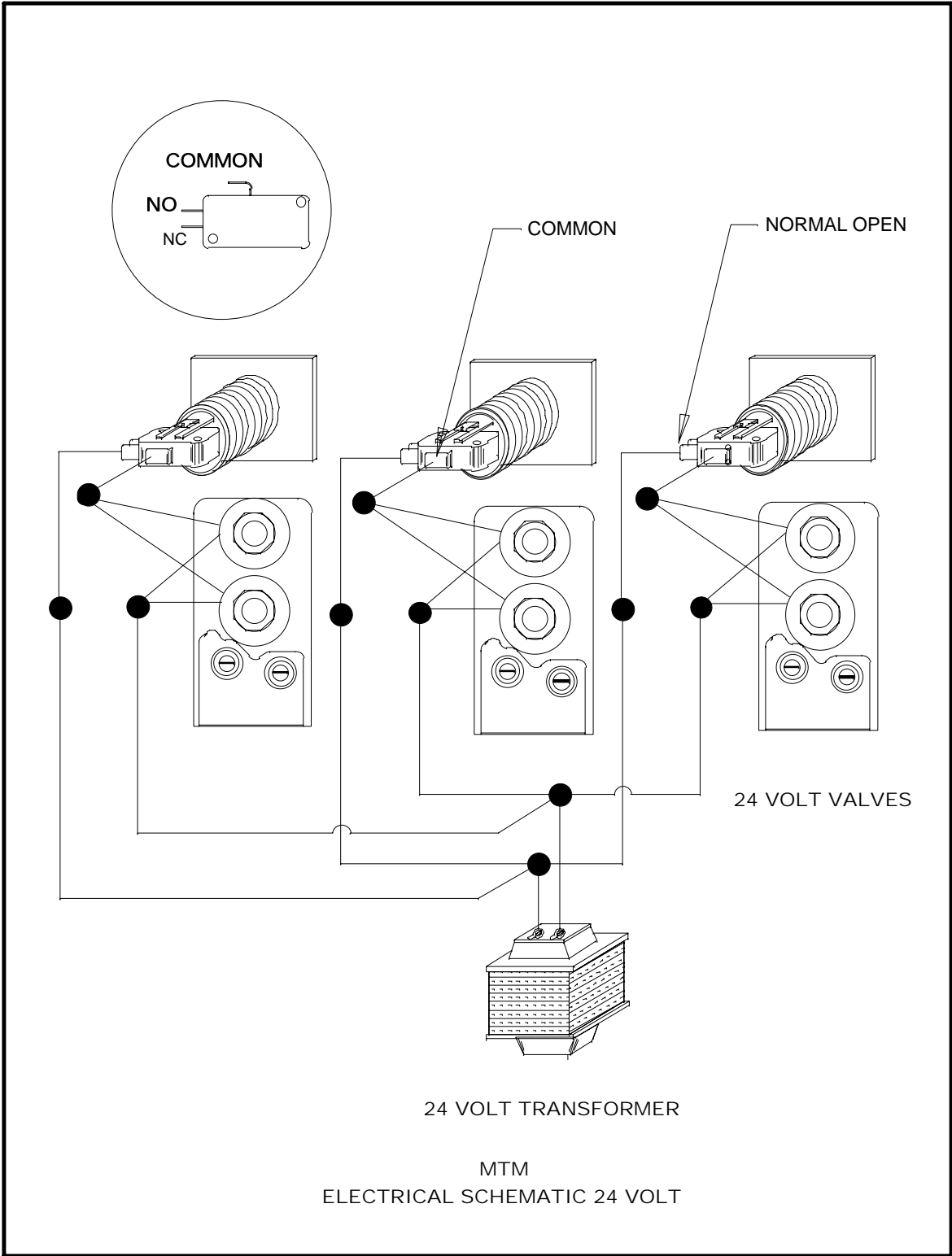
| <b>SYM</b> | <b>QTY</b> | <b>PART NO.</b> | <b>DESCRIPTION</b>                    |
|------------|------------|-----------------|---------------------------------------|
| 1          | 1          | S-1750-50       | VALVE HOUSING, (PUSH HERE)            |
| 2          | 5          | S-1313          | SWITCH                                |
| 3          | 5          | S-1751-BF-?     | MINI BOWL ASSEMBLY, (SPECIFY FLAVOR)? |
| 4          | 1          | S-1752-50-ICI   | VALVE MOUNTING BRACKET                |
| 5          | 5          | PF-2-MTM        | SPECIAL PF-2 VALVE                    |
| 6          | 5          | S-1350          | BUBBLER WIRE                          |
| 7          | 1          | S-1755-50       | SPLASH PLATE                          |
| 8          | 6          | S-1325          | SQUARE GROMMET                        |
| 9          | 1          | S-1753-50       | WRAPPER                               |
| 10         | 6          | A-14            | SCREW, #10 X 1/2 PHILLIPS, COMBO HD   |
| 11         | 1          | S-783           | UNIT ON/OFF SWITCH                    |
| 12         | 1          | S-1326          | REAR ACCESS PLATE                     |
| 13         | 1 SET      | S-743           | DRAIN PAN MTG HARDWARE                |
| 14         | 1          | E-276           | TRANSFORMER                           |
| 15         | 2          | H0024           | HOLE PLUG                             |
| 16         | 4          | S-46            | BUSHING                               |
| 17         | 1          | E-664           | STRAIN RELIEF                         |
| 18         | 4          | S-1335          | PLASTIC STANDOFFS                     |
| 19         | 1          | S-1308          | CONTROL BOX W/COVER                   |
| 20         | 4          | A-20            | SCREW, 8-32 X 3/8 S.S. TH             |
| 21         | 1          | S-1310          | CONTROL BOX COVER ONLY                |
| 22         | 1          | S-1309          | CONTROL BOARD                         |
| 23         | 1          | S-1756-50-A     | CUP REST                              |
| 24         | 1          | S-1756-50       | DRAIN PAN                             |
| 25         | 1          | E-141-6         | CORD                                  |

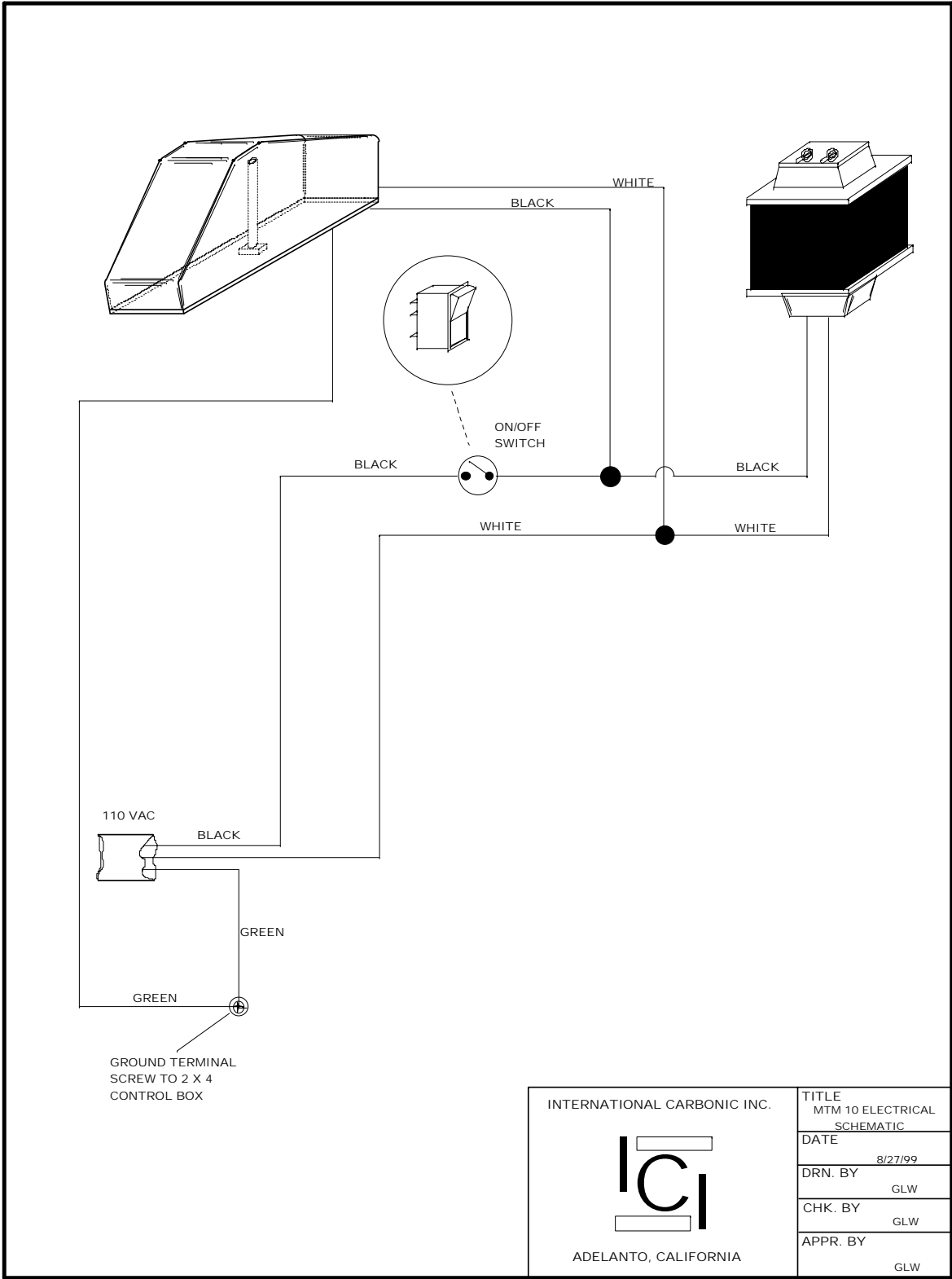


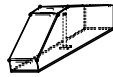
|  |                 |
|--|-----------------|
| INTERNATIONAL CARBONIC INC.  | TITLE<br>MTM60  |
| <br>ADELANTO, CALIFORNIA | DATE<br>8/31/99 |
|  | DRN. BY<br>GLW  |
|  | CHK. BY         |
|  | APPR. BY        |

# MTM60

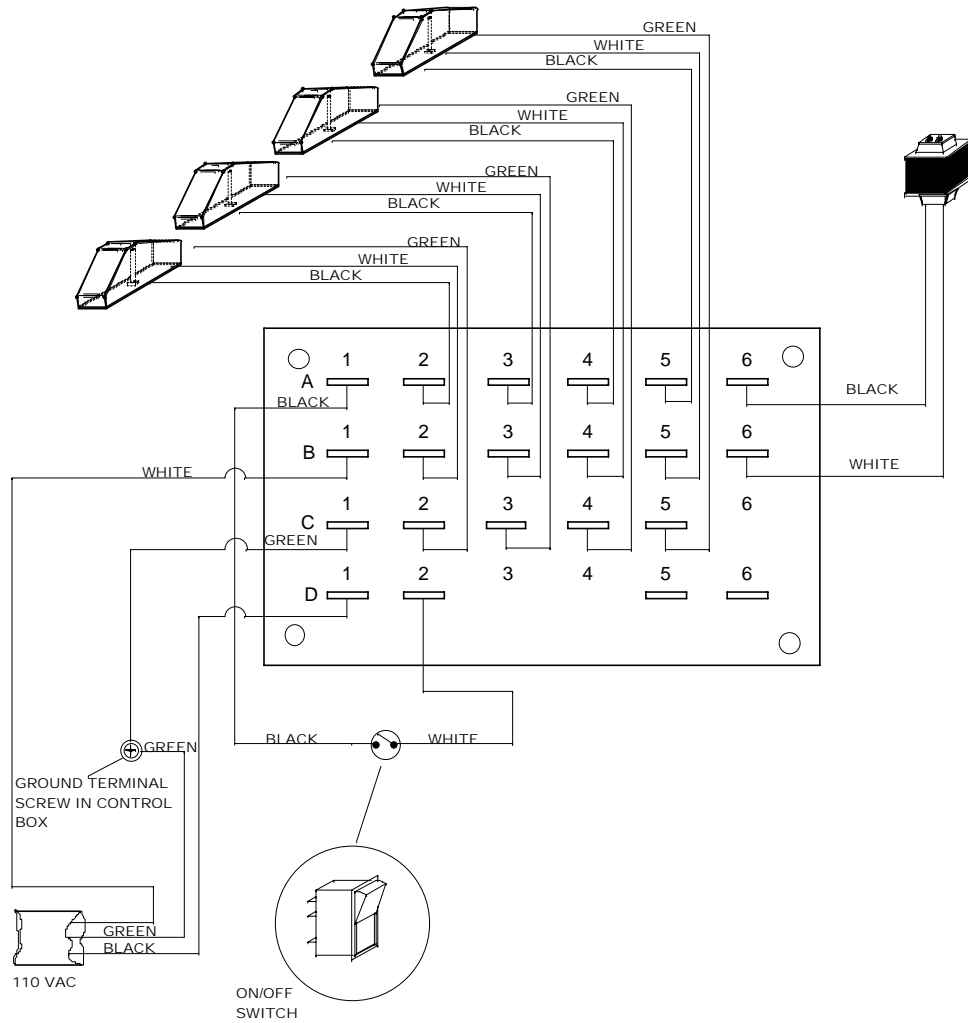
| SYM | QTY   | PART NO.      | DESCRIPTION                           |
|-----|-------|---------------|---------------------------------------|
| 1   | 1     | S-1750-60-P   | VALVE HOUSING, (PUSH HERE)            |
| 2   | 6     | S-1313        | SWITCH                                |
| 3   | 6     | S-1751-BF-?   | MINI BOWL ASSEMBLY, (SPECIFY FLAVOR)? |
| 4   | 1     | S-1752-60-ICI | VALVE MOUNTING BRACKET                |
| 5   | 6     | PF-2-MTM      | SPECIAL PF-2 VALVE                    |
| 6   | 6     | S-1350        | BUBBLER WIRE                          |
| 7   | 1     | S-1755-60     | SPLASH PLATE                          |
| 8   | 6     | S-1325        | SQUARE GROMMET                        |
| 9   | 1     | S-1753-60     | WRAPPER                               |
| 10  | 6     | A-14          | SCREW, #10 X 1/2 PHILLIPS, COMBO HD   |
| 11  | 1     | S-783         | UNIT ON/OFF SWITCH                    |
| 12  | 1     | S-1326        | REAR ACCESS PLATE                     |
| 13  | 1 SET | S-743         | DRAIN PAN MTG HARDWARE                |
| 14  | 1     | E-276         | TRANSFORMER                           |
| 15  | 2     | H0024         | HOLE PLUG                             |
| 16  | 4     | S-46          | BUSHING                               |
| 17  | 1     | E-664         | STRAIN RELIEF                         |
| 18  | 4     | S-1335        | PLASTIC STANDOFFS                     |
| 19  | 1     | S-1308        | CONTROL BOX W/COVER                   |
| 20  | 4     | A-20          | SCREW, 8-32 X 3/8 S.S. TH             |
| 21  | 1     | S-1310        | CONTROL BOX COVER ONLY                |
| 22  | 1     | S-1309        | CONTROL BOARD                         |
| 23  | 1     | S-1756-60-A   | CUP REST                              |
| 24  | 1     | S-1756-60     | DRAIN PAN                             |
| 25  | 1     | E-141-6       | CORD                                  |








IF WIRING A MTM 50 OR 60 PIGGY BACK  
TERMINALS 3 AND 5.



|   |  |
|---|--|
| INTERNATIONAL CARBONIC INC.<br><br><br><br>ADELANTO, CALIFORNIA | TITLE<br>MTM 20/60 ELECTRICAL<br>SCHEMATIC |
|   | DATE<br>8/27/99                            |
|   | DRN. BY<br>GLW                             |
|   | CHK. BY<br>GLW                             |
|   | APPR. BY<br>GLW                            |