

LOBBY TELLER SYSTEM

With Teller Chute



Operation, Maintenance, and Installation Manual



(800) 533-3794
comcosystems.com

Revision E
2/26/2021

Model LTS1000-TC Operation, Maintenance, and Installation Manual
Revision E, February 2021
ComCo Systems, Inc. A division of Communications Conveyor Company

P/N: 500178-E

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Model LTS1000-TC Operation, Maintenance, and Installation Manual

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Operator Instructions

System Description

The Model LTS1000 Lobby Teller System is an overhead pressure/vacuum system that utilizes a 4 ½" tube and carrier. The carrier travels from the teller unit to the customer unit under vacuum and returns under pressure. The blower unit is remotely located in the ceiling.

Teller Send Operational sequence

- Teller inserts carrier into Teller Chute.
- Teller presses SEND.
- Send cycle begins.
- Carrier arrives at Lobby Teller Unit and door opens.

Customer Send Operational sequence

- Customer inserts carrier into Lobby Teller Unit.
- Customer presses SEND to start Recall cycle (Customer Send) and send carrier to Teller Unit – door closes.
- Recall cycle begins.
- Carrier arrives at Teller Unit.

The Lobby Teller Unit utilizes a motorized door that opens and closes automatically. The door closes when SEND is pressed and opens at the end of a teller send cycle.

The door motor features a clutch mechanism that activates when the door's motion is interrupted by an obstruction – such as a pen or finger. The door will close normally after the obstruction is removed. This feature prevents operator injury and damage to the unit.

Teller Chute switch operation

SEND

Sends a carrier to the Lobby Teller unit.

RECALL

Recalls a carrier from the Lobby Teller unit; identical to "customer send".

ON/OFF

Powers the system on or off. May be used to clear unusual system conditions by switching off for at least 30 seconds then on again.

Also controls power to Lobby Teller video and lighting.

Lobby Teller Unit switch operation

CALL

The CALL switch is connected to the audio system to alert tellers to the presence of a waiting customer.

The CALL switch is commonly used in audio systems to generate a call signal when a customer needs to speak to a teller.

SEND

The SEND switch is used by the customer to dispatch a carrier to the teller unit and is functionally identical to the teller RECALL switch.

Carriers

Carriers must be closed fully before they are inserted into either the teller unit or the customer unit. Carriers that are not fully closed may fail to leave the sending stations, becoming lodged within the transmission tubing, or possibly lose their contents during transmission.

Sending coins or other heavy objects is not recommended. If coins are to be sent, it is recommended that they be rolled **and** placed in a pouch or bag. Loads that can shift during transmission may cause malfunction or damage to the carrier or system.

Carriers are not to exceed a gross weight of 3 lbs.

The contents of the carrier must be fully within the carrier and not caught between edges. Multiple transmissions should be used if a load is too large to fit within the single carrier.

Theory of Operation

Powering the system

The Toggle switch on the Teller Chute controls power to the entire Lobby Teller System. Within the switch is a “RED” LED that indicates “power on”.

Power ON

1. Teller switches power on.
2. Power indicator illuminates.
3. Lobby Teller Unit door opens.
4. Camera and monitor in Lobby Teller unit are powered on.
5. Lobby Teller Unit lighting turned on.
6. System is now in ready state.

Power OFF

1. Teller switches power off.
2. Power indicator extinguishes.
3. Lobby Teller Unit door closes.
4. Camera and monitor in Lobby Teller Unit are powered off.
5. Lobby Teller Unit light is turned off.
6. System is now off.

The power switch may be used to recover from unusual system conditions simply by switching it off for at least 30 seconds and on again – this will reset the system.

Teller Send Cycle

1. Teller inserts carrier into Teller Chute.
2. Teller presses SEND switch.
3. Send cycle begins. (If Lobby Teller Unit door is open, it automatically closes).
4. Vacuum blower activates.
5. The check valve in the Valve Bend closes and the relief valve opens, pulling a vacuum toward the LTS unit.
6. The carrier is pulled under vacuum from the Teller Chute through the transmission tubing toward the LTS unit.
7. Carrier passes the Valve Bend over the LTS unit and drops into the LTS unit.
8. Pressure ahead of the carrier decelerates the carrier for a soft landing in the LTS unit. (The check valve in the Valve Bend blocks air flow from the LTS unit to assure a soft landing.
9. When the Cycle Timer on the controller times out, the LTS door opens.

Customer Send (Recall) Cycle

1. Customer places carrier into the Lobby Teller Unit.
2. Customer presses SEND switch and the LTS door closes.
3. Recall cycle begins.
4. Pressure blower activates.
5. The check valve in the Valve Bend opens and the relief valve closes, sending air pressure into the LTS unit.
6. The carrier is pushed under pressure from LTS unit through the transmission tubing toward the Teller Chute.
7. Carrier passes the Deceleration Switch shown in #0520033B over the Teller Chute and falls into the Teller Chute.
8. Upon activation, the Deceleration switch triggers the controller which removes power from the Pressure Blower and activates a carrier braking solenoid/valve.
9. The carrier braking solenoid/valve seals the tubing and the falling carrier creates a vacuum in the tubing as it falls. The vacuum assures a soft landing for the carrier at the Teller Chute.
10. The Recall Cycle ends with the soft landing of the carrier at the Teller Chute.

Special Installation Procedures

Lobby Teller Unit

The Lobby Teller Unit is installed in a wall with blackout and supports (*see #Lt0008 for blackout information*).

Guard against dropping debris into Lobby Teller Unit while cutting holes and during installation. The Lobby Teller Unit door assembly *must be kept clean from debris* for proper operation. It is recommended that the top of the Lobby Teller Unit be covered with paper or plastic while construction takes place. Vacuum the bottom of the door track after installation is complete.

Timer adjustment

Adjust timer T1 for approximately 3 seconds greater than the time required for an empty carrier to be sent from the Teller Chute to the Lobby Teller Unit. (This should be 2-3 seconds after the carrier lands at the Lobby Teller Unit).

See drawing number 500137C & 500356E (pages 26 & 27) for additional controller settings.

Teller Chute

The deceleration trigger *must* be installed in the horizontal orientation shown in drawing #0520033B in order to function properly. If it is not installed in the correct orientation, the carrier may land hard at the Teller Chute.

Blower unit

The Blower Unit *must* be installed in a horizontal orientation as indicated by the stickers on the housing.

Tubing

All tubing *must* be sealed properly. *Seal all joints* – especially those at the teller and customer units.

All inside edges of tube joints *must be de-burred and ground to an angle* to prevent excessive wear on carriers.

Maintenance Procedures

Blower Unit

The 521 Blower Unit shown on #0520093A is equipped with 10-amp circuit breakers designed to prevent the motors from overload.

If the system does not work in one or both directions, check to see if either circuit breaker on the blower has tripped. Also, if SEND or RECALL lights up but blower fails to run, confirm that the door is fully closed.

If circuit breakers trip regularly, arrange for an authorized service agent to diagnose the problem.

Deceleration Trigger Bend

Proper deceleration trigger function is essential to good system performance.

If carrier lands hard at the Teller Chute, inspect the deceleration trigger (see drawing #0520033B). If it is cracked, worn, or missing, it ***must be replaced immediately***.

The deceleration switch assembly has 4 switches in it – only one switch is required for proper operation. If the assembly is inoperable, it ***must be replaced immediately***.

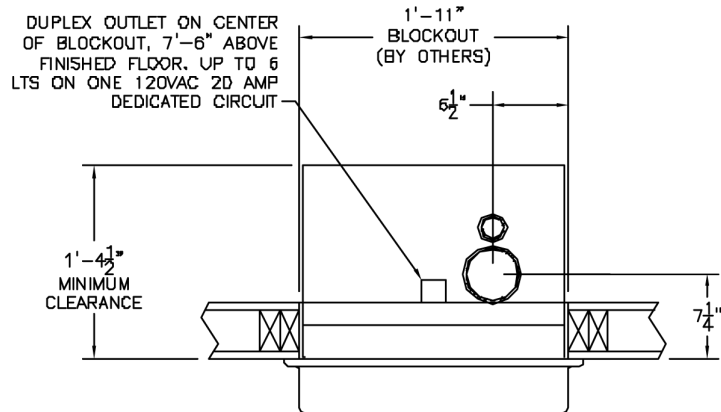
Carriers

Carriers should be inspected regularly for signs of wear. Carriers landing hard at either LTS unit or Teller Chute may be a sign of worn air discs or rubbing bands on the carrier.

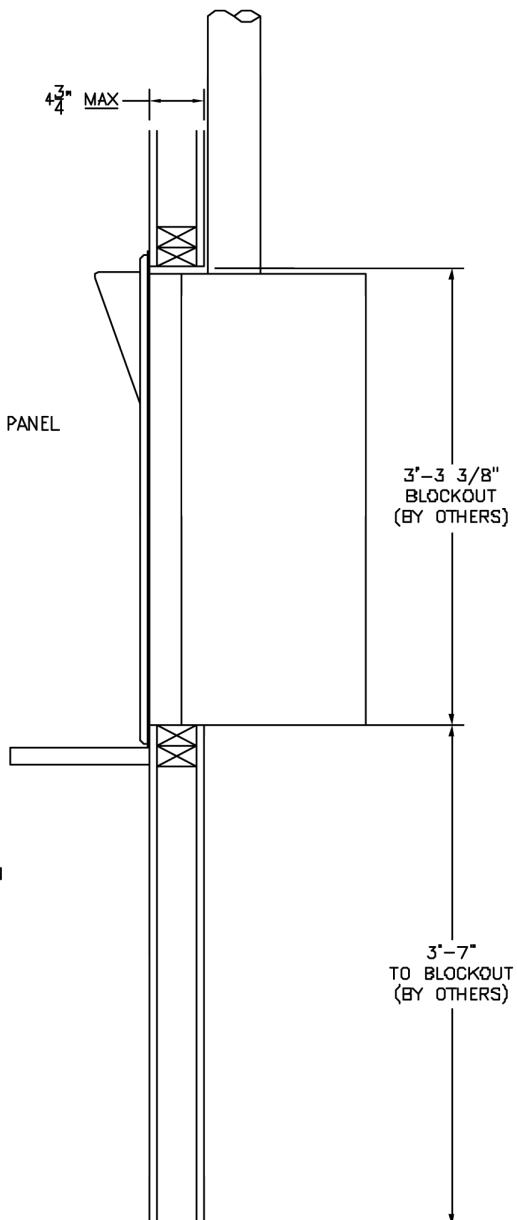
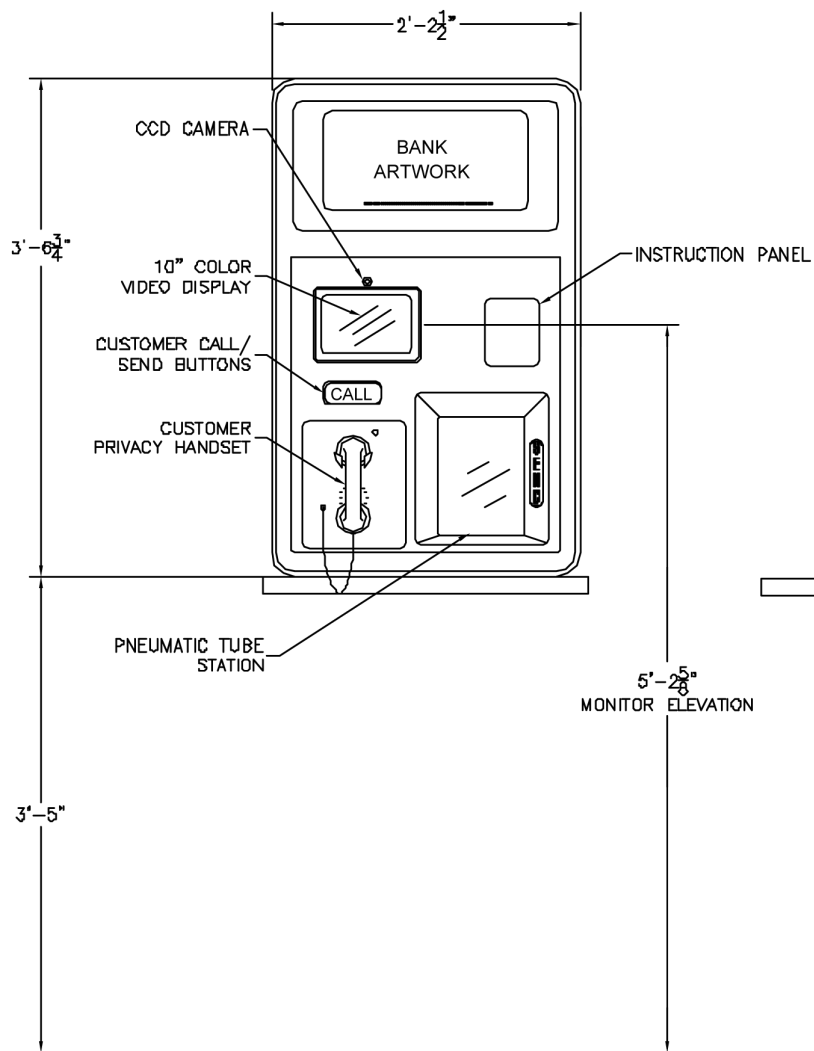
Replace air discs and/or rubbing bands as required.

Lobby Teller Unit

The Lobby Teller Unit door assembly ***must be kept clean at all times*** for proper operation. It is recommended that the bottom of the door track be cleaned and vacuumed often to guard against faulty door operation.



NOTE:
BLOCKOUT IN WALL AND STRUCTURAL BRACING TO SUPPORT 75 POUNDS TO BE PROVIDED BY OTHERS



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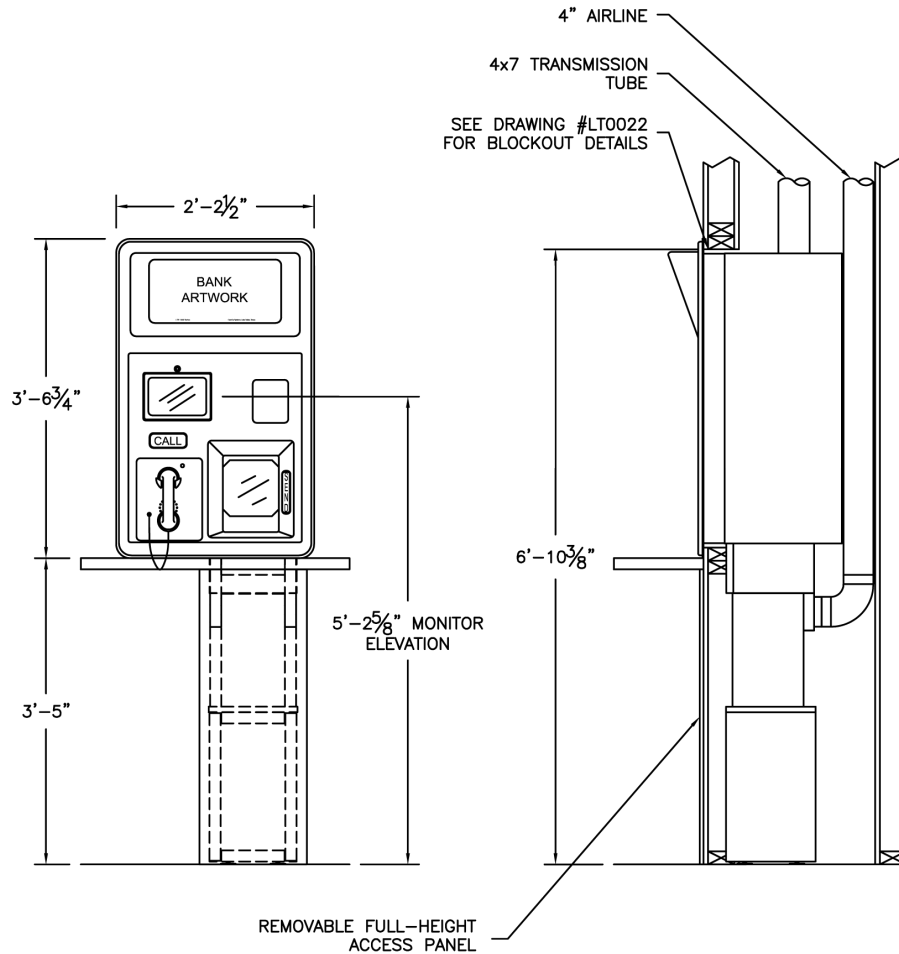
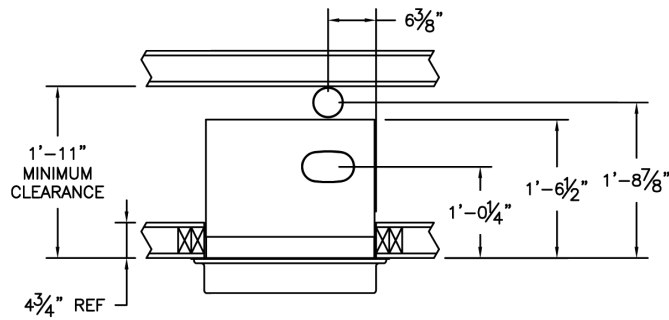
LOBBY TELLER SYSTEMS
LTS1000-10
CUSTOMER STATION DETAILS

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900 LTS
WALL-MOUNT STATION DETAILS

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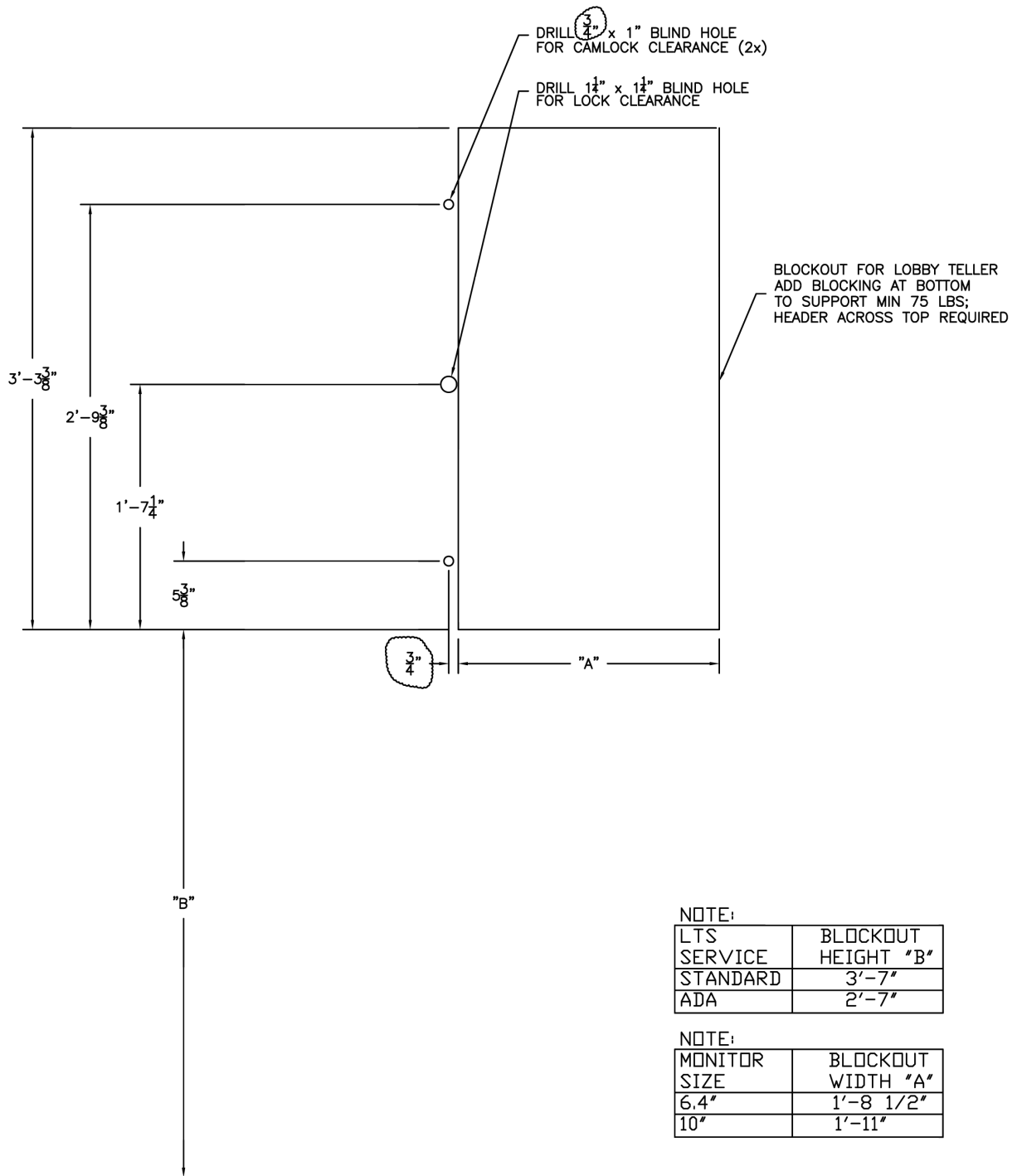
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LOBBY TELLER SYSTEMS 1-2
LOBBY TELLER UNIT
WALL BLOCKOUT DETAILS

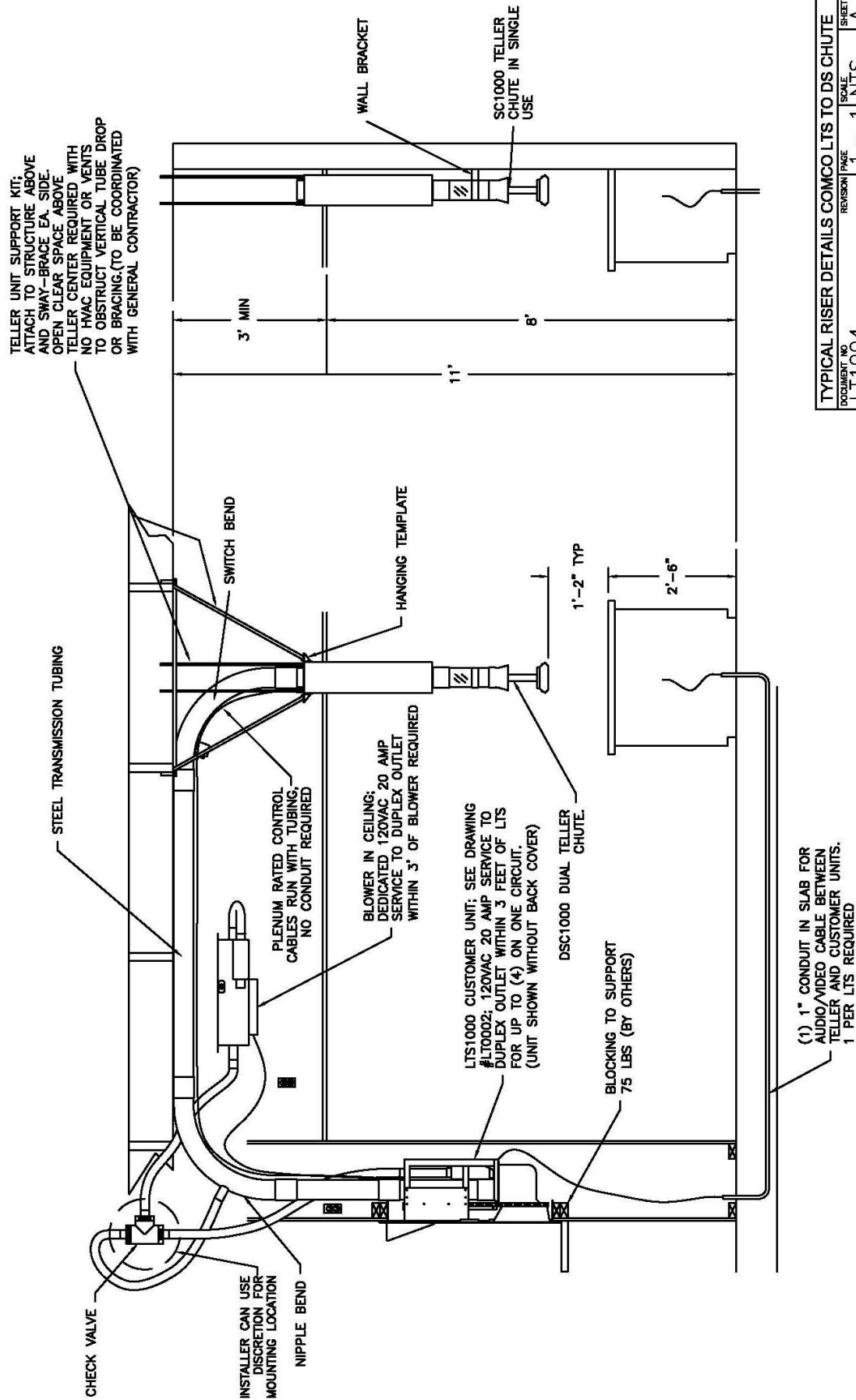
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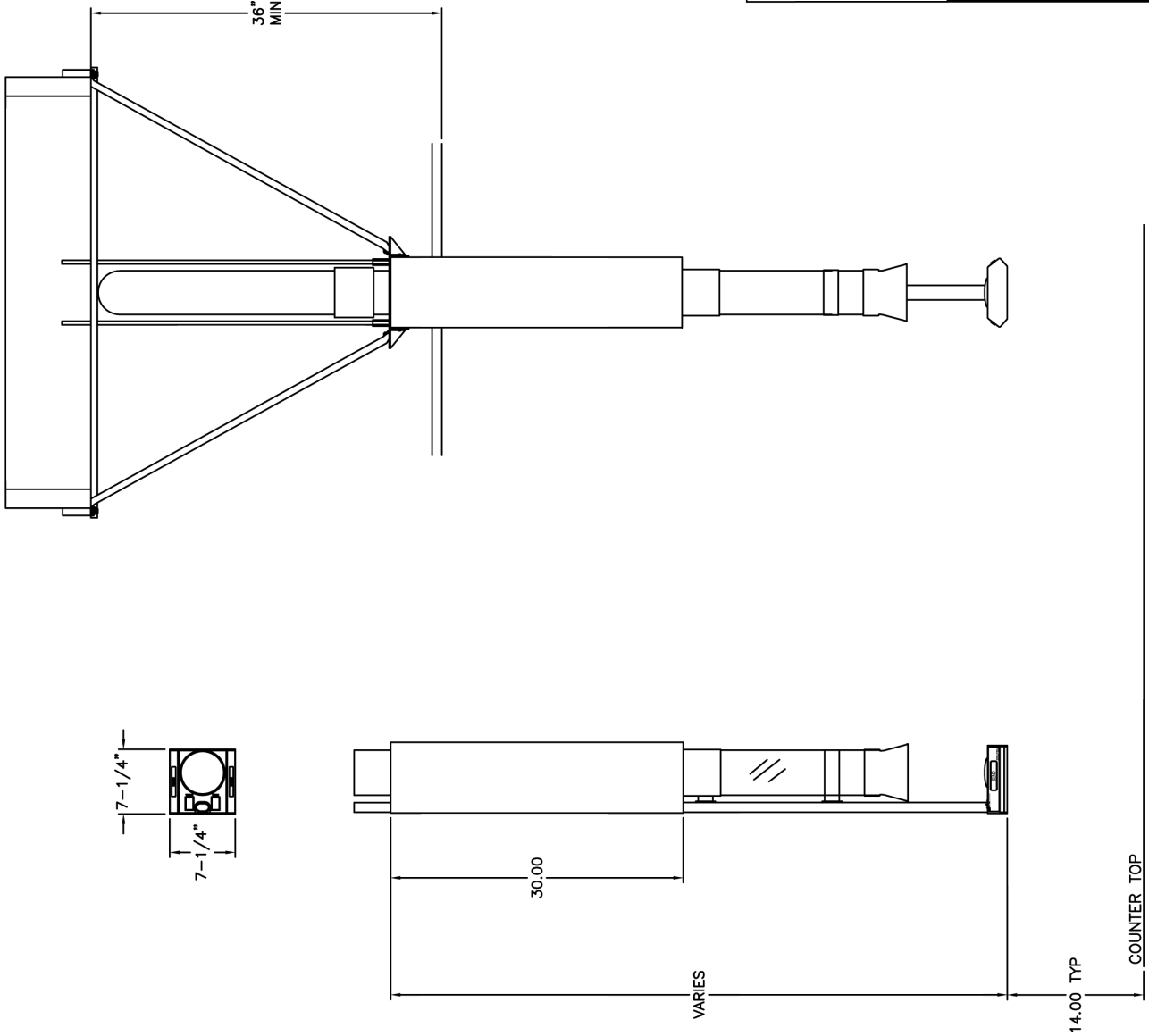
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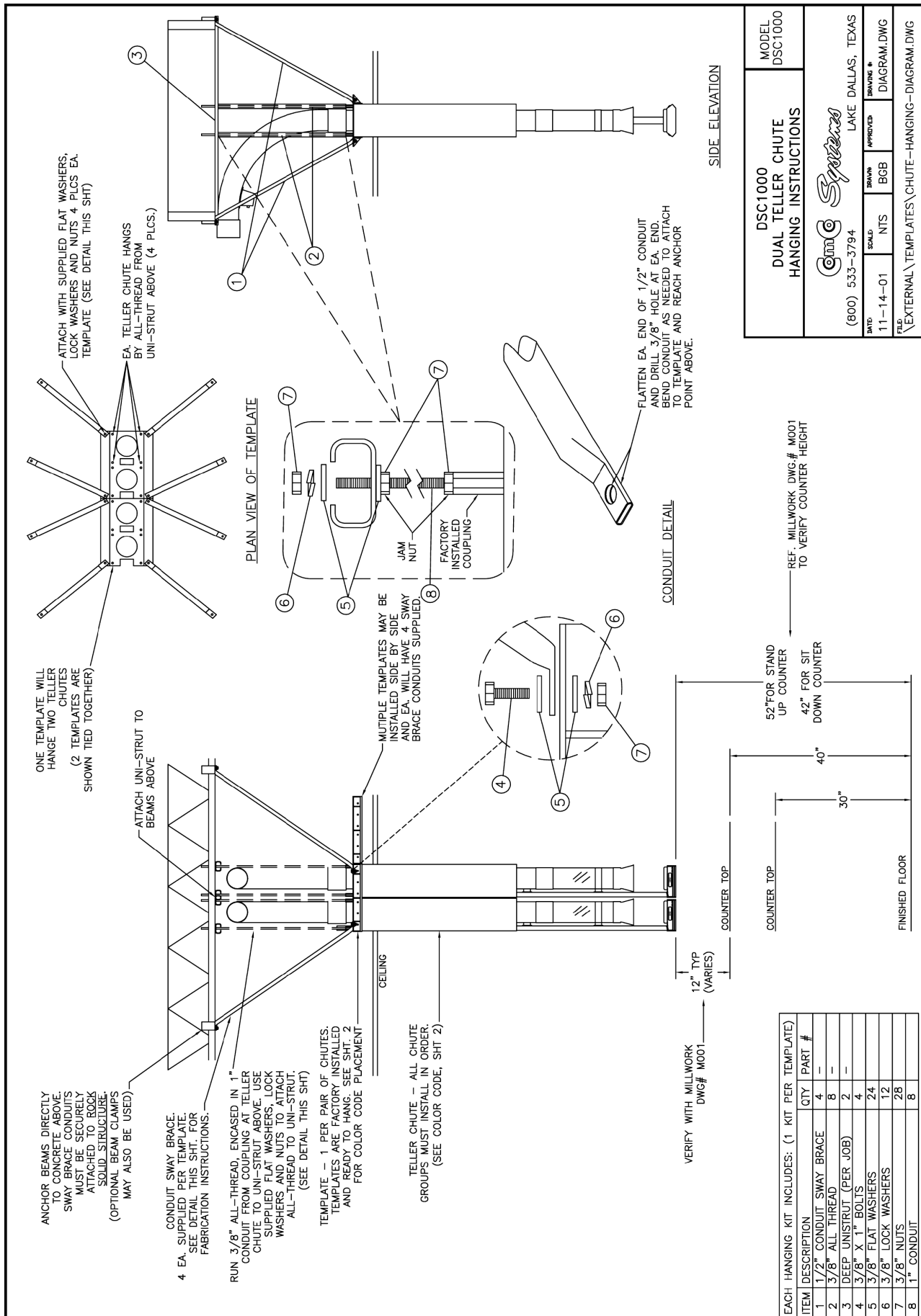
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| TOLERANCES | DIMENSIONS | ANGLES | |
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| ± .005 | ± .005 | ± .005 | |
| THIRD ANGLE PROJECTION | | | |
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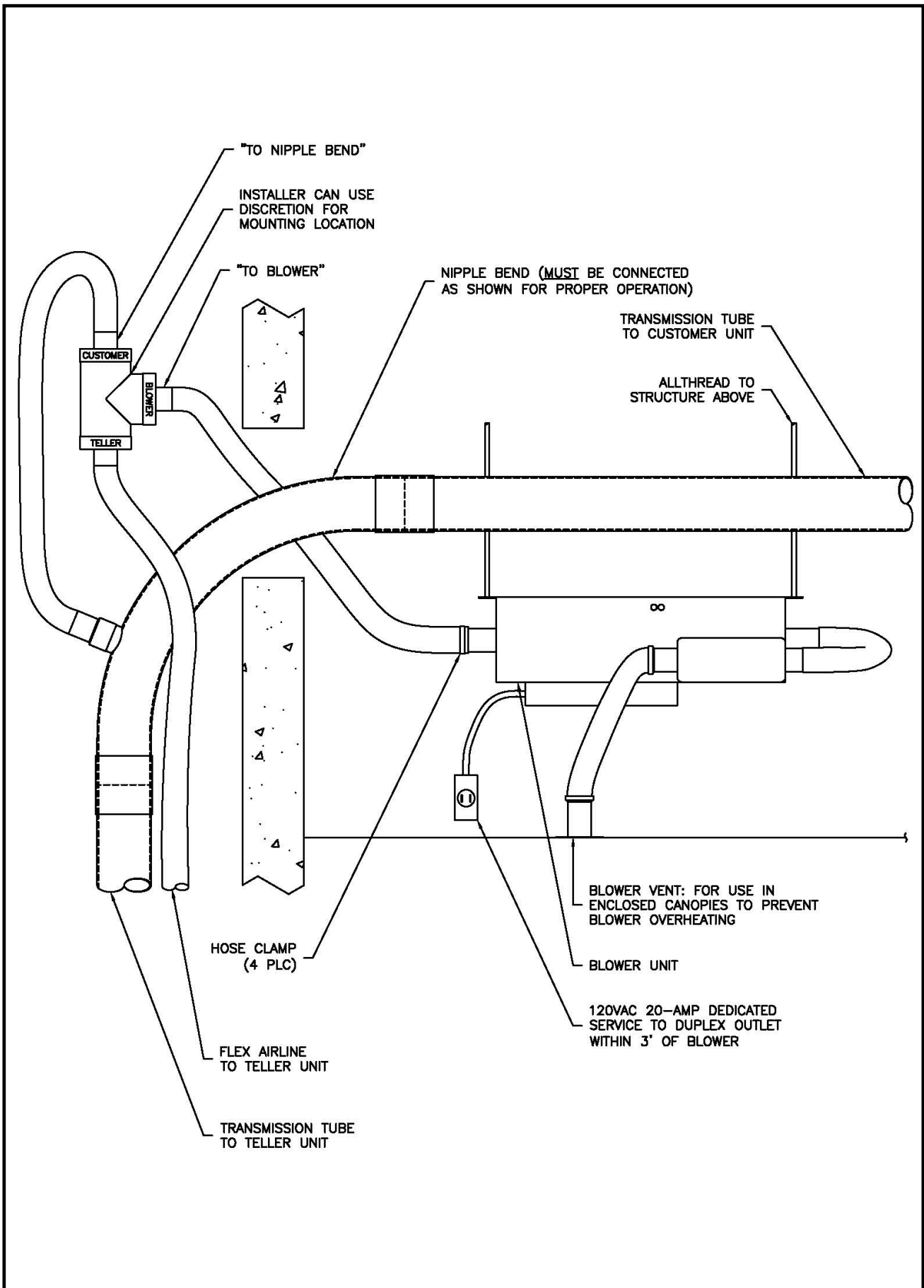


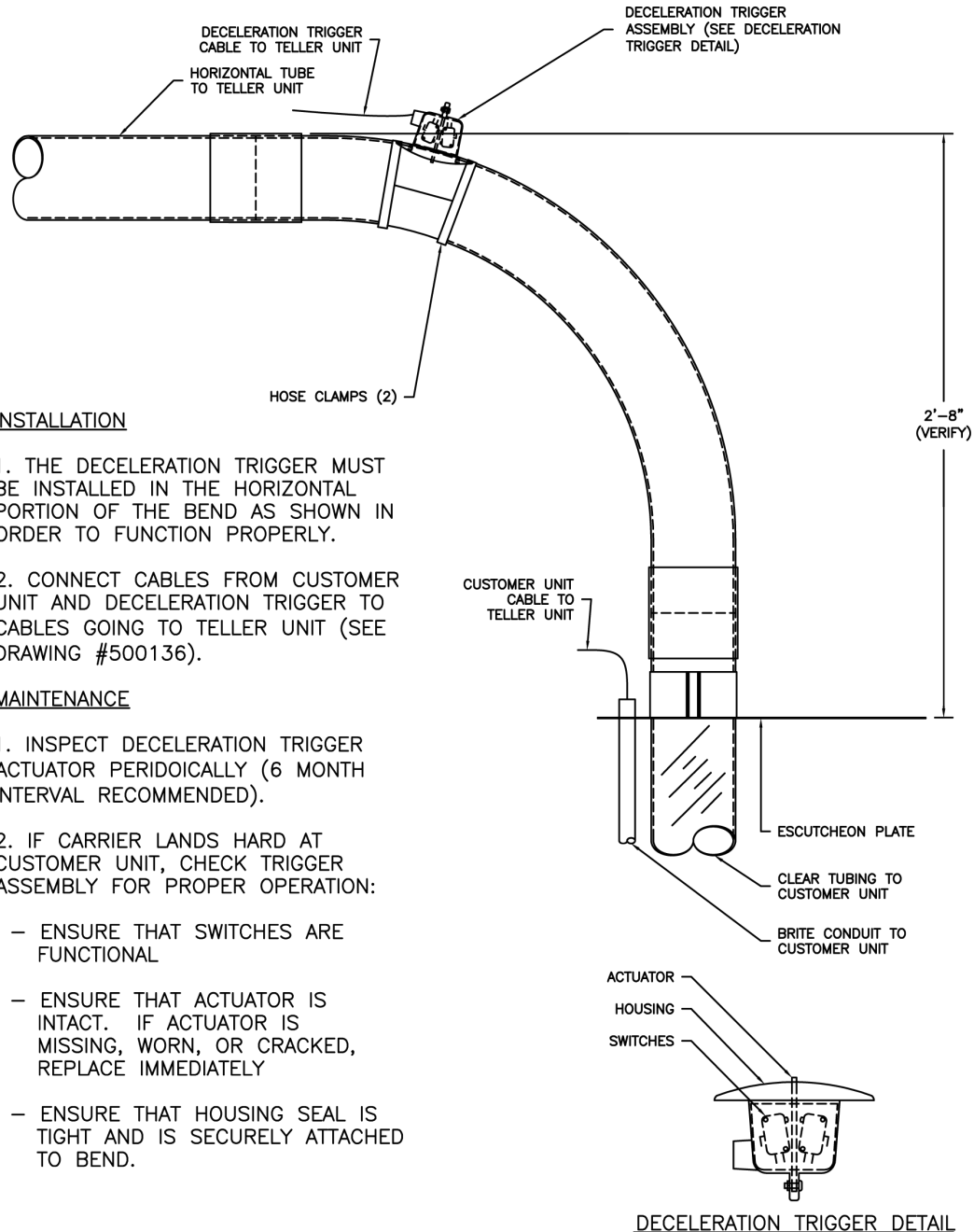
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LOBBY TELLER SYSTEMS
DSC1000 DUAL CONTROL TELLER CHUTE
DETAILS

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INSTALLATION

1. THE DECELERATION TRIGGER MUST BE INSTALLED IN THE HORIZONTAL PORTION OF THE BEND AS SHOWN IN ORDER TO FUNCTION PROPERLY.
2. CONNECT CABLES FROM CUSTOMER UNIT AND DECELERATION TRIGGER TO CABLES GOING TO TELLER UNIT (SEE DRAWING #500136).

MAINTENANCE

1. INSPECT DECELERATION TRIGGER ACTUATOR PERIODICALLY (6 MONTH INTERVAL RECOMMENDED).
2. IF CARRIER LANDS HARD AT CUSTOMER UNIT, CHECK TRIGGER ASSEMBLY FOR PROPER OPERATION:
 - ENSURE THAT SWITCHES ARE FUNCTIONAL
 - ENSURE THAT ACTUATOR IS INTACT. IF ACTUATOR IS MISSING, WORN, OR CRACKED, REPLACE IMMEDIATELY
 - ENSURE THAT HOUSING SEAL IS TIGHT AND IS SECURELY ATTACHED TO BEND.

DECELERATION TRIGGER DETAIL

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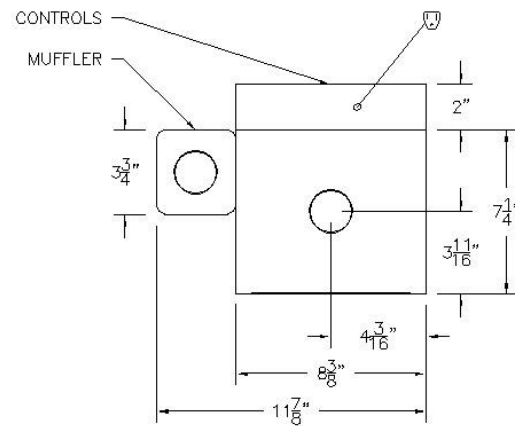
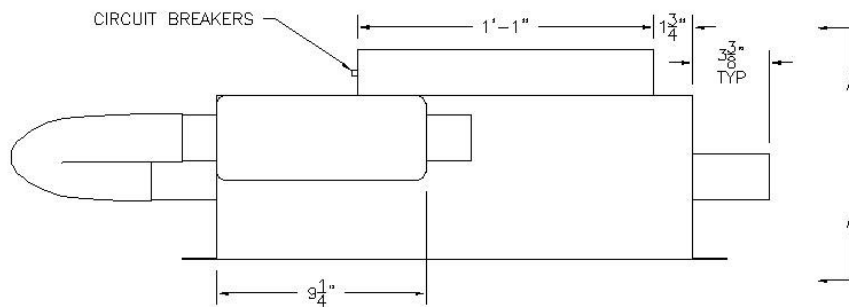
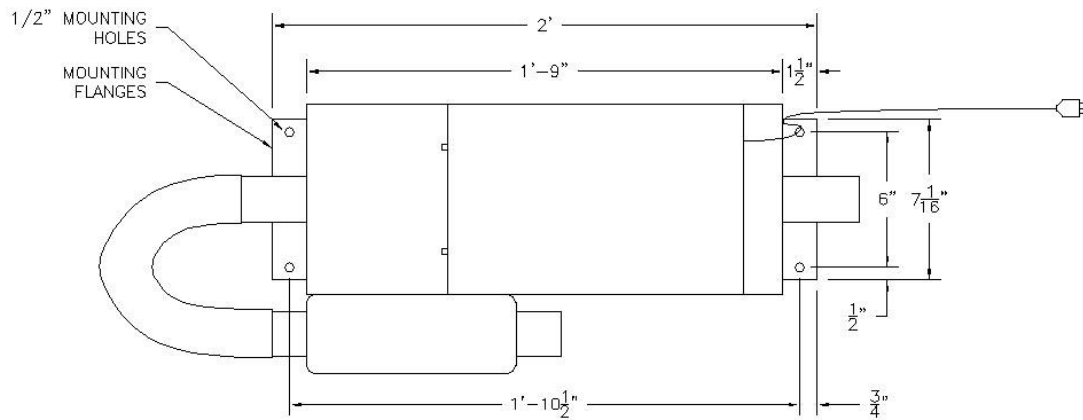
MODEL 521 PNEUMATIC TUBE SYSTEM SWITCH BEND INSTALLATION AND MAINTENANCE NOTES

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VIEW A-A

UL Blower

Pressure/Vacuum blower system

Uses 120VAC 20 Amp service to standard duplex outlet (within 3' of unit)

UL certified

Integral brake valve ensures soft carrier delivery (521 systems)

Integral bypass valve increases blower efficiency and reduces wear

Galvanized 14 gauge steel housing

2.0" airline is standard

Available with 123 CFM — 60" H₂O
124 CFM — 95" H₂O

521/EZY-FLOW PNEUMATIC TUBE SYSTEMS UL BLOWER DETAILS

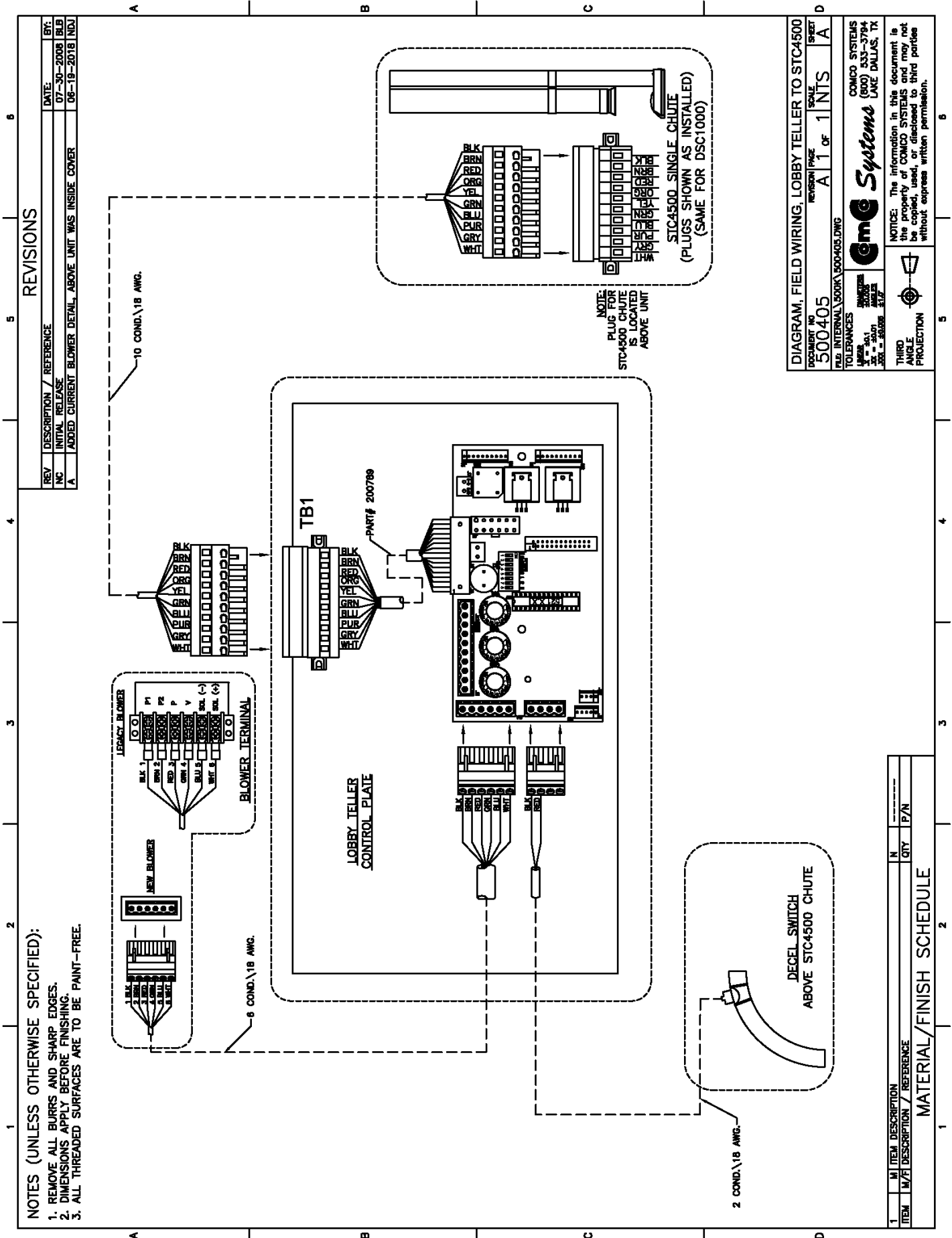


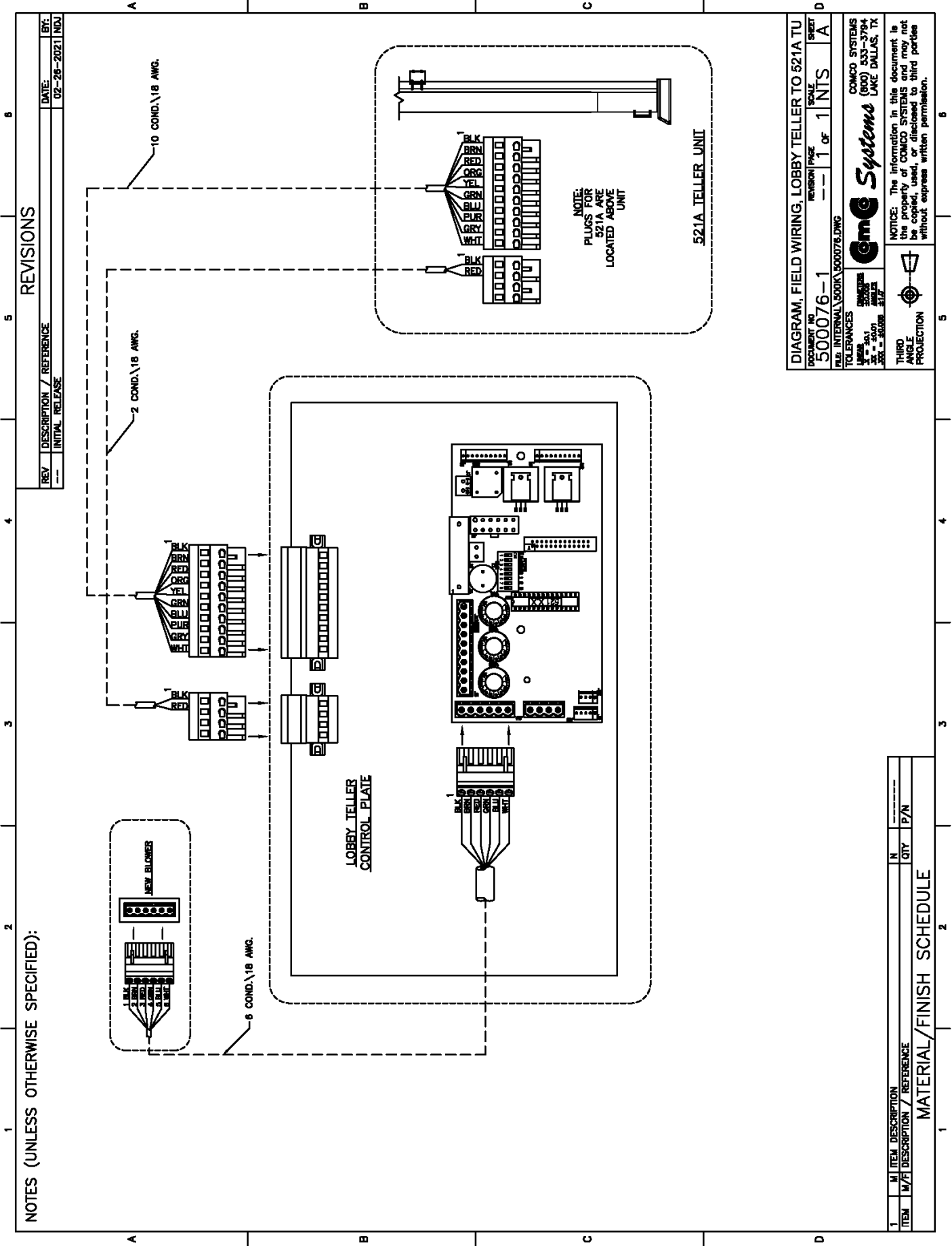
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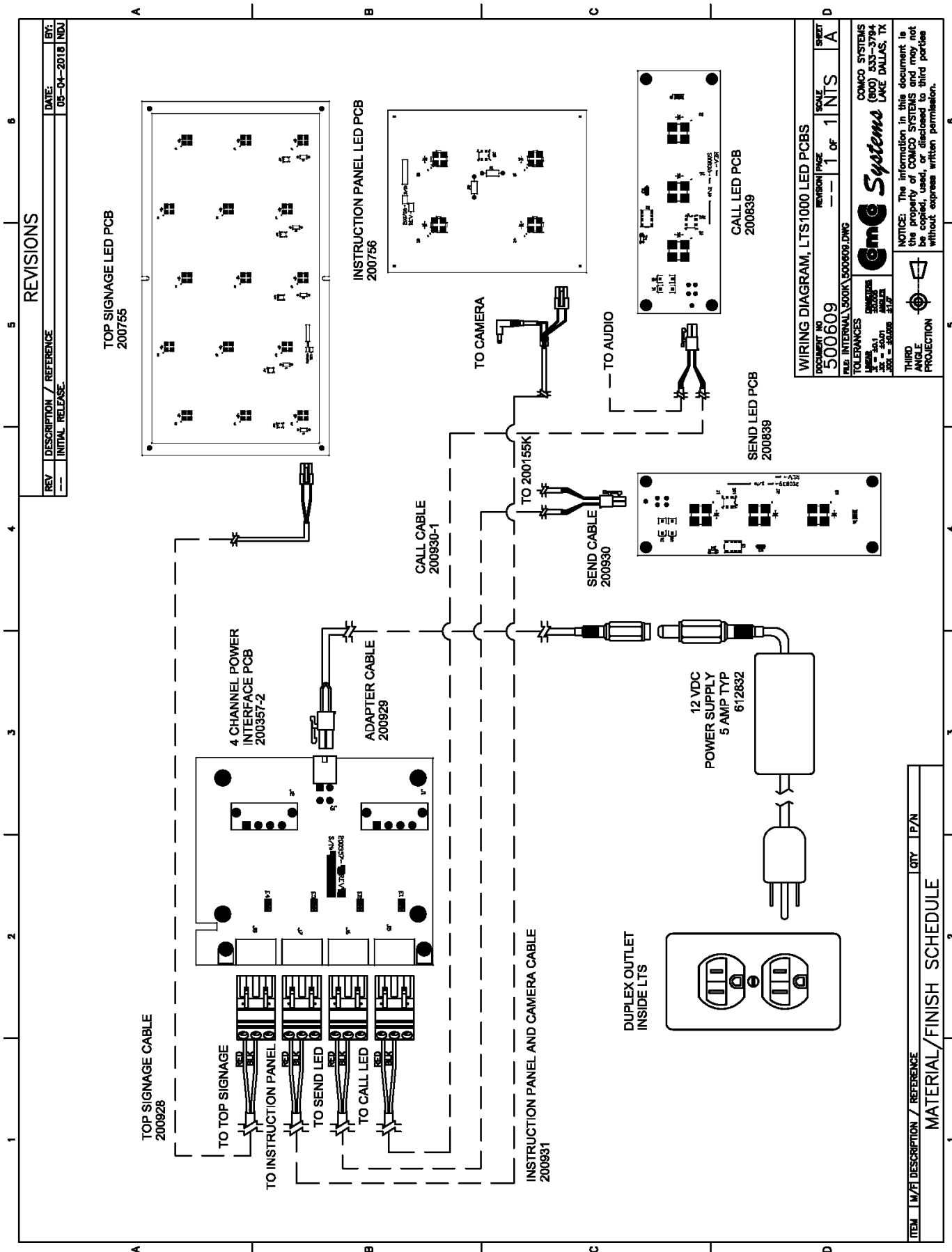
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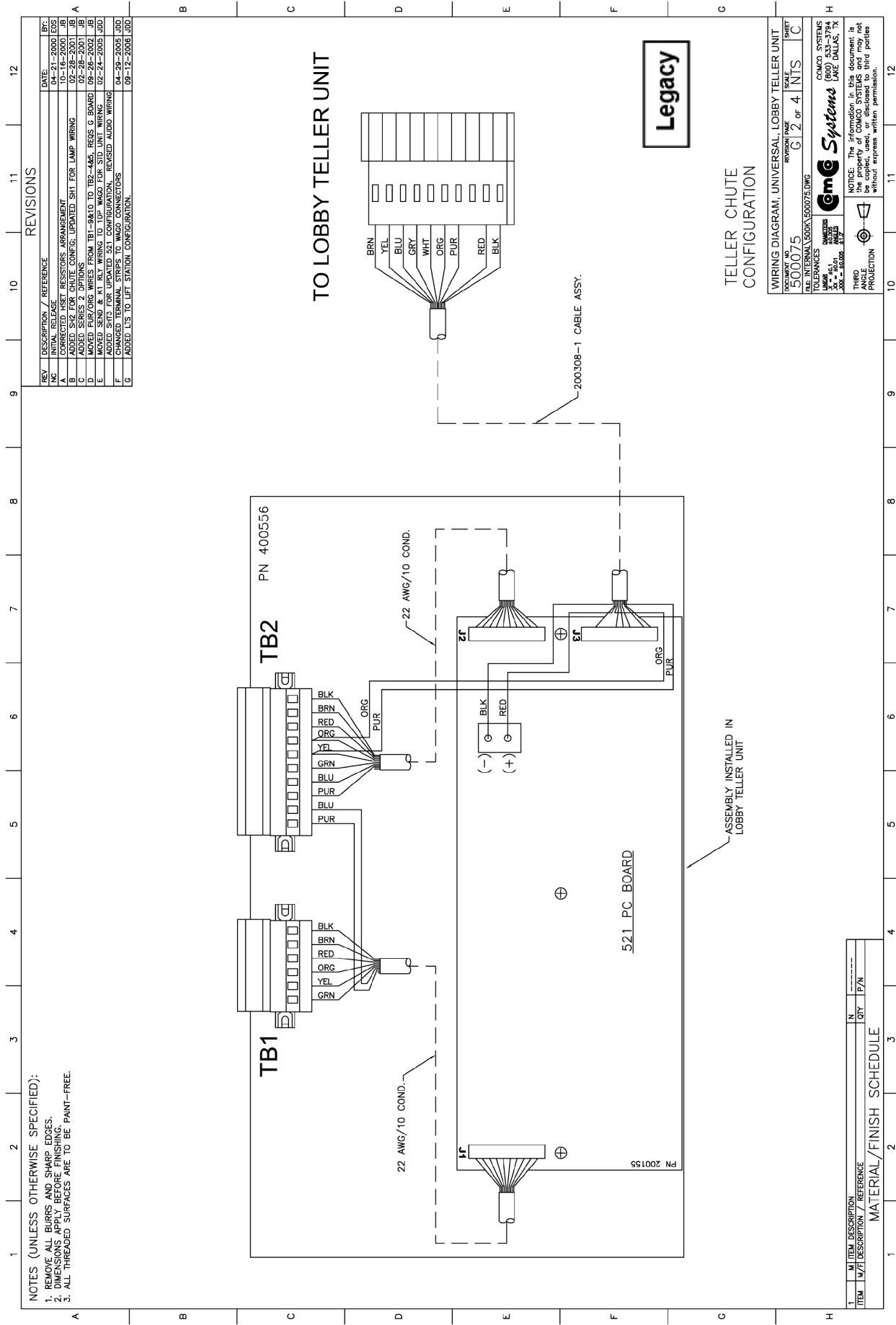
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DIAGRAM, FIELD WIRING, LOBBY TELLER TO 521A TU

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| <p>TOLERANCES</p> <p>UNLESS OTHERWISE SPECIFIED</p> <p>XX = .001</p> <p>XXX = .005</p> <p>XXX = .010</p> | | | | | | | |
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| 1 | M | ITEM DESCRIPTION | N | --- |
| 1 | M | W/F DESCRIPTION / REFERENCE | QTY | P/N |
| MATERIAL/FINISH SCHEDULE | | | | |





| REV | DESCRIPTION / REFERENCE | DATE | BY: |
|-----|--|------------|-----|
| INC | INITIAL RELEASE | 04-21-2000 | EOS |
| A | ADDED TB1 FOR CHUTE CONFIG. UPDATED SH1 FOR LAMP WIRING | 02-28-2001 | JB |
| B | ADDED SH2 FOR CHUTE CONFIG. UPDATED SH1 FOR LAMP WIRING | 02-28-2001 | JB |
| C | ADDED SERIES 2 OPTIONS | 02-28-2001 | JB |
| D | MOVED PUR/ORG WIRES FROM TB1-S&10 TO TB2-4&5. REOS G BOARD | 09-26-2002 | JB |
| E | MOVED SH&D & K1 RLY WIRING TO TOP WAGO FOR STD UNIT WIRING | 02-24-2005 | JDD |
| F | ADDED SERIES 2 OPTIONS. REOS G BOARD | 02-24-2005 | JDD |
| G | CHANGED TERMINAL STRIPS TO WAGO CONNECTIONS | 04-29-2005 | JDD |
| H | ADDED L15 TO LIFT STATION CONFIGURATION. | 09-12-2006 | JDD |

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| TOLERANCES | | | | | |
| UNITS | | | | | |
| ANGLES | | | | | |
| PROJECTION | | | | | |
| THIRD ANGLE | | | | | |
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| MATERIAL/FINISH SCHEDULE | | |

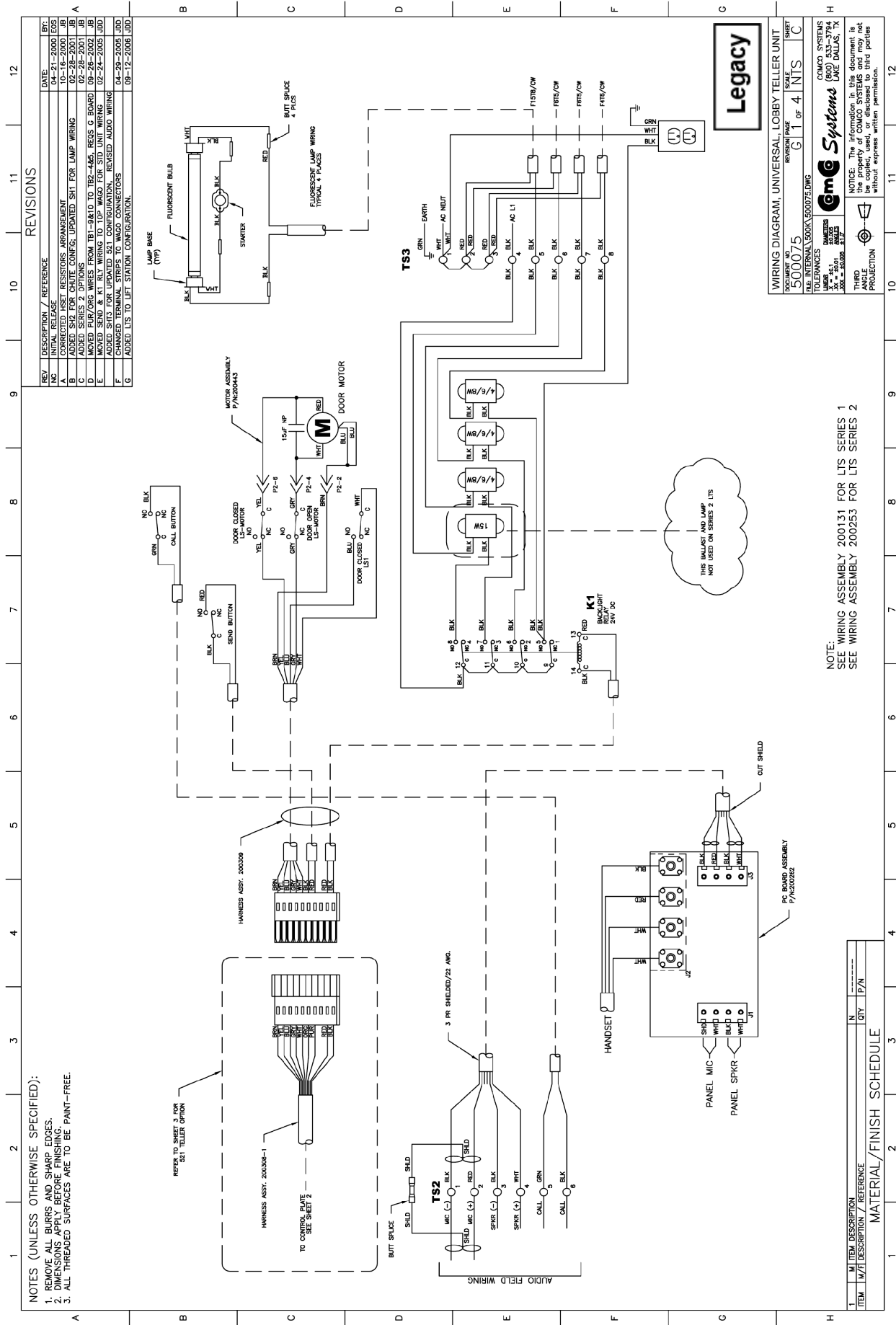
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| REV | DESCRIPTION | DATE: | REV BY: |
|-----|---|----------|---------|
| - | INITIAL RELEASE | 03-01-01 | --- |
| A | CORRECTED WIRING OF LAMPS | 09-26-01 | JB |
| B | REMOVE SEND LAMP, ADDED RECALL LED & RESISTOR | 11-13-01 | JB |
| C | ADD DECEL SW CONNECTION THRU 10 CONDUCTOR CABLE | 03-16-02 | JB |
| D | TB1 & TB2 CHANGED TO WAGO CONNECTORS. | 05-28-05 | JDD |



NOTE:
1. WIRING FOR SINGLE TELLER CHUTE SHOWN.
2. FOR DUAL TELLER CHUTE, SEND AND RECALL SWITCHES AND LAMPS ARE WIRED IN PARALLEL.

| | | | | | |
|--|--|--|--|---|--|
| MATERIAL ----- FINISH ----- | | TOLERANCE ON DIMENSIONS: UNDER .251 = $\pm .005$.251 - .500 = $\pm .01$.500 = $\pm .004$ HOLE DIMETERS: UNDER .251 = $\pm .005$.251 - .500 = $\pm .006$ OVER .500 = $\pm .008$ - .005 ANGLES: $\pm 1/16$ CONCENTRICITY ON COMMON AXIS DIMETERS ON A COMMON AXIS | | TELLER CHUTE FIELD WIRING-LTS W/ CONCO SYSTEMS (800) 533-3794 LAKE DALLAS, TX | |
| DRAWN ----- CHECKED ----- USED ON ----- | | JOB ----- 03-01-01 | | SCALE ----- NTS | |
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| | | | | FTL F1 INTERNAL 500K 500088 DWG | |



REVISIONS

| REV | DESCRIPTION / REFERENCE | DATE |
|-----|--|----------------|
| INC | INITIAL RELEASE | 04-21-2000 EDS |
| A | ADDED SH2 FOR CHUTE CONFR; UPDATED SH1 FOR LAMP WIRING | 02-28-2001 JB |
| B | ADDED SERIES 2 OPTIONS | 02-28-2001 JB |
| C | MOVED PUR/ORNG WIRES FROM TBT-8&10 TO TBT-4&5; REISS G BOARD | 09-26-2002 JB |
| D | MOVED SEND & K1 RLY WIRING TO TBP WAGO FOR STD UNIT WIRING | 02-24-2005 JDD |
| E | ADDED SERIES 2 OPTIONS | 02-24-2005 JDD |
| F | CHANGED TERMINAL STRIPS TO WAGO CONNECTIONS | 04-29-2005 JDD |
| G | ADDED LITS TO LIFT STATION CONFIGURATION | 09-12-2006 JDD |

- NOTES (UNLESS OTHERWISE SPECIFIED):
1. REMOVE ALL BURRS AND SHARP EDGES.
 2. DIMENSIONS APPLY BEFORE FINISHING.
 3. ALL THREADED SURFACES ARE TO BE PAINT-FREE.

Legacy

WIRING DIAGRAM, UNIVERSAL LOBBY TELLER UNIT

500075

SCALE: 1 of 4 NTS

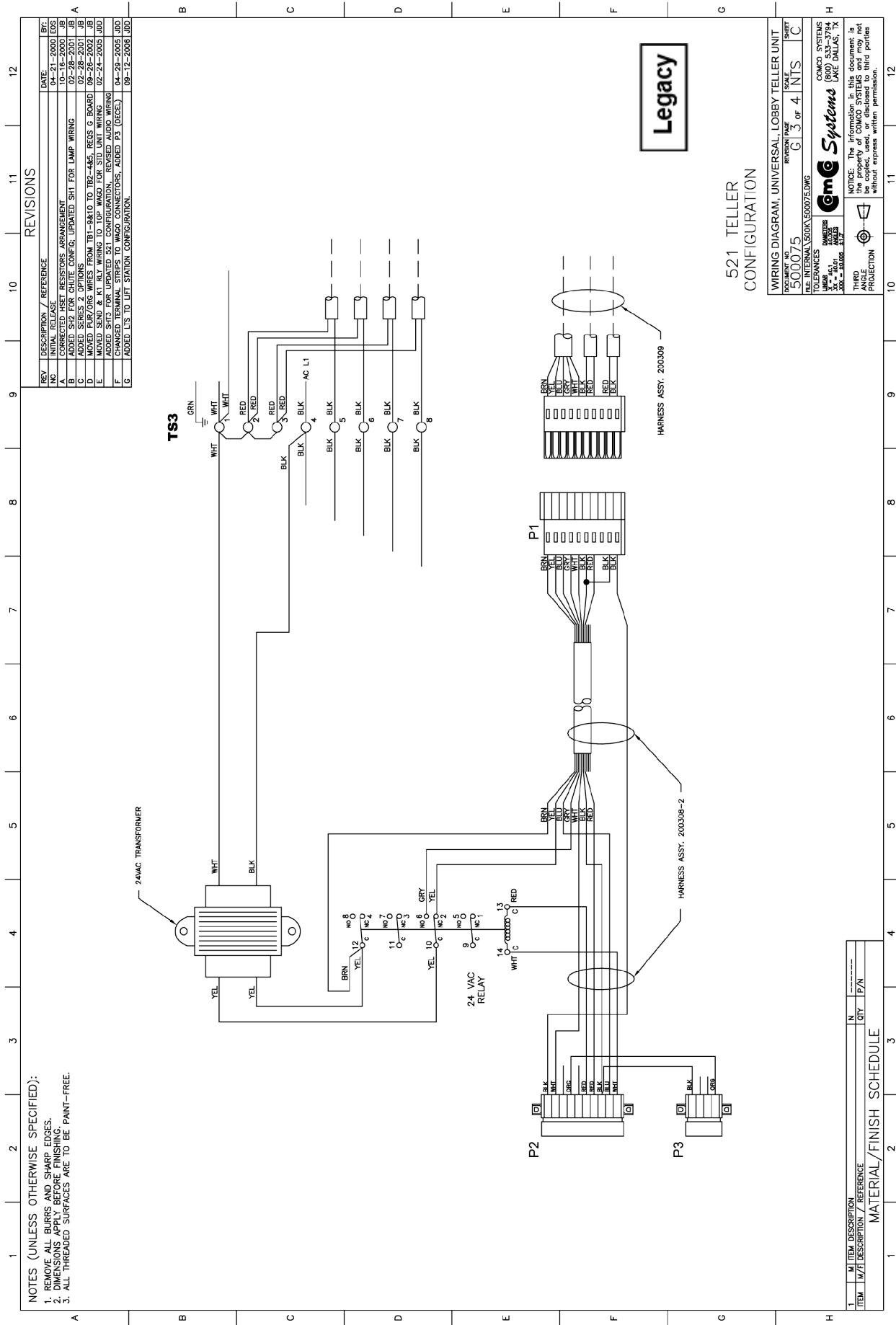
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NOTE:
SEE WIRING ASSEMBLY 200131 FOR LITS SERIES 1
SEE WIRING ASSEMBLY 200253 FOR LITS SERIES 2

| ITEM | DESCRIPTION / REFERENCE | QTY | P/N |
|------|--------------------------|-----|-----|
| 1 | MATERIAL/FINISH SCHEDULE | | |



NOTES:

TIMERS

(T1) CYCLE TIMER. CONTROL TIME RANGE WITH OPTION SWITCH 6.
(T2) DOOR OPEN DELAY TIMER. DELAY DOOR OPENING WITH OPTION SWITCH 3.

(T3) SELECT PROCESSOR VER. LEVEL

(CHIP VER. 2.0 AND HIGHER)
SOLENOID ENGAGE TIMER. SWITCH 4 NOT USED.
TIME SOLENOID STAYS ENGAGED, RANGE 5-15 SEC.
(CHIP VER. PRIOR TO 2.0)
STOP VALVE DELAY. NOT NORMALLY USED.
ACTIVATE/DEACTIVATE WITH OPTION SWITCH 4.

OPTION SWITCHES

(1) 521/LOBBY TELLER APPLICATION:
OFF=521 APPLICATION(STD)
ON=LOBBY TELLER APPLICATION
(2) DISABLES AUTOSEND:
OFF=MANUAL TELLER
ON=MOTORIZED TELLER
(3) DOOR OPEN DELAY AFTER CYCLE:
OFF=NO DELAY AFTER CYCLE
ON=ADJUSTABLE DELAY WITH TIMER #2.
(4) STOP VALVE DELAY: SELECT PROCESSOR VER. LEVEL
(FOR VERY SHORT RUNS OR OTHER NONSTANDARD INSTALLATIONS).
NORMALLY "OFF".

(CHIP VER. 2.0 AND HIGHER)
OFF=INACTIVE
ON=ACTIVE (500 MILLISECOND-FIXED)
(CHIP VER. PRIOR TO 2.0)
OFF=INACTIVE
ON=ACTIVE, ADJUST DELAY WITH T3, RANGE 100-400MS

(5) SELECT PROCESSOR VER. LEVEL
(CHIP VER. 2.0 AND HIGHER)
DIVERTER OPTION:
OFF=INACTIVE
ON=ACTIVE (DOOR OPENS EACH CYCLE)
(CHIP VER. PRIOR TO 2.0)
NOT USED:

(6) CYCLE TIMER RANGE:
OFF=T1 RANGE 0-100 SEC.(10-SECOND INCREMENTS)
ON=T1 RANGE 0-10 SEC.(1-SECOND INCREMENTS)

(7) SELECT PROCESSOR VER. LEVEL
(CHIP VER. 2.0 AND HIGHER)
900A OPTION: (CARRIER DETECT, DOOR CONTROL)
OFF=INACTIVE
ON=ACTIVE
(CHIP VER. PRIOR TO 2.0) NOT USED:

(8) SELECT PROCESSOR VER. LEVEL
(CHIP VER. 2.0 AND HIGHER)
DOOR REVERSAL OPTION: (LTS TO 521TU)
OFF=INACTIVE
ON=ACTIVE
(CHIP VER. PRIOR TO 2.0) NOT USED:

CONNECTORS

(J1) FIELD WIRES: ALL SIGNALS FROM REMOTE UNIT

(J2) CONTROL SWITCHES: TELLER UNIT CONTROLS

(J3) MOTOR/LIMIT SWITCHES: TELLER UNIT OPERATIONS

(J4) REMOTE DOOR: JUMPER ON PINS 4-5 IF NO REMOTE DOOR,
OTHERWISE REMOTE DOOR SIGNALS

(TB1) REMOTE POWER: USED TO CONTROL POWER RELAY AT CVM OR
OTHER REMOTE ACCESSORY

RELAY/LED FUNCTIONS

(RLY5) LOCAL DOOR: CONTROLS TELLER UNIT AUTOMATIC DOOR (IF
PRESENT). LED_s INDICATE DOOR OPEN/CLOSED STATE-CONTROLLED
BY RELAY.

(RLY4) VACUUM: CONTROLS VACUUM BLOWER. LED INDICATES VACUUM
SIGNAL ACTIVE.

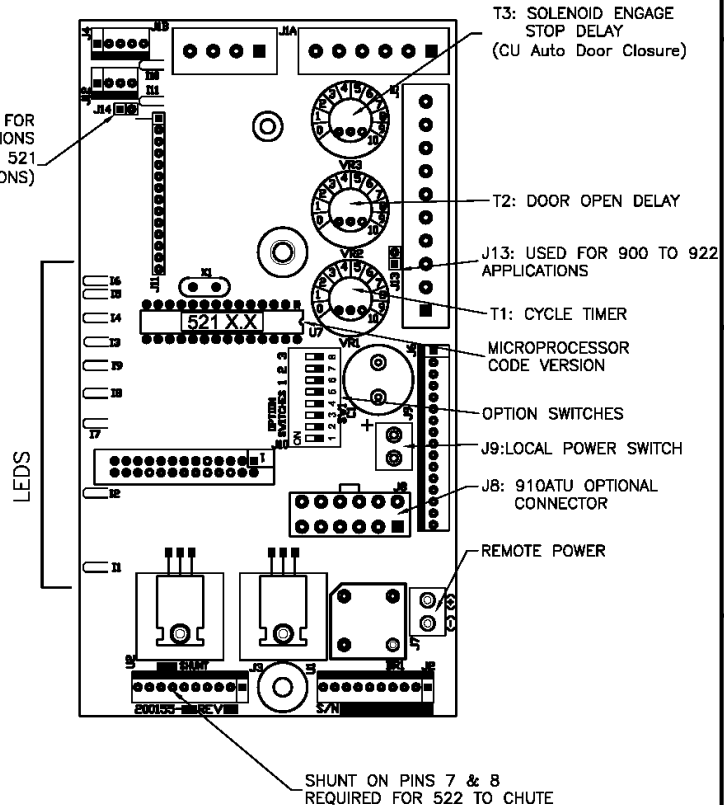
(RLY3) PRESSURE: CONTROLS PRESSURE BLOWER. LED INDICATES
PRESSURE SIGNAL ACTIVE.

(RLY2) SOLENOID: CONTROLS STOP SOLENOID. LED INDICATES
SOLENOID SIGNAL ACTIVE.

(RLY1) REMOTE DOOR: CONTROLS CUSTOMER UNIT AUTOMATIC DOOR (IF
PRESENT). LED_s INDICATE DOOR OPEN/CLOSED STATE-CONTROLLED
BY RELAY.

REVISIONS

| REV | DESCRIPTION / REFERENCE | DATE | BY |
|-----|---|------------|------|
| NC | INITIAL RELEASE - NEW REV K CONTROLLER | 12-13-2007 | JNB |
| A | PCB LAYOUT REVISED, ADDED LED LEGEND | 12-15-2007 | JNB |
| B | ADDED NOTE FOR SHUNT ON PINS 7 & 8 (522 TO CHUTE) | 01-22-2008 | SJM |
| C | ADDED J14 JUMPER SHUNT | 04-01-2008 | BLB |
| D | ADDED NOTE FOR J-13 | 08-05-2008 | SJM |
| E | UPDATED J13 | 01-14-2015 | INDJ |



LED LEGEND

- (11): Local Door Closed
- (12): Local Door Open
- (13): Send
- (14): Recall
- (15): All Doors Closed
- (16): Decel Switch
- (17): Solenoid
- (18): Vacuum
- (19): Pressure
- (110): Remote Door Closed
- (111): Remote Door Open

GUIDE, ADJUSTMENT, CONTROLLER, 521-K

| | | | |
|--------------------------------|---------------|-------|-------|
| DOCUMENT NO | REVISION PAGE | SCALE | SHEET |
| 500356 | E 1 of 1 | 2=1 | A |
| FILE: INTERNAL\500K\500356.DWG | | | |
| TOLERANCES | | | |
| LINEAR | DIMENSIONS | | |
| X = ±0.1 | ±0.005 | | |
| XX = ±0.01 | ANGLES | | |
| XXX = ±0.005 | ±1.7 | | |

THIRD
ANGLE
PROJECTION



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1
2
3
4

SYSTEM NOTES:

TIMERS
 (T1) CYCLE TIMER. CONTROL TIME RANGE WITH OPTION SWITCH 6.
 (T2) DOOR OPEN DELAY TIMER. DELAY DOOR OPENING WITH OPTION SWITCH 3.
 (T3) SELECT PROCESSOR VER. LEVEL
 (CHIP VER. 2.0 AND HIGHER)
 SOLENOID ENGAGE TIMER. SWITCH 4 NOT USED.
 TIME SOLENOID STAYS ENGAGED, RANGE 5-15 SEC.
 (CHIP VER. PRIOR TO 2.0)
 STOP VALVE DELAY. NOT NORMALLY USED.
 ACTIVATE/DEACTIVATE WITH OPTION SWITCH 4.

OPTION SWITCHES
 (1) 521 TELLER APPLICATION:
 OFF=521 APPLICATION(STD)
 ON=REVERSE PRESSURE/VACUUM CYCLE
 SELECTS 900A VS 900AX DOOR CONTROL

(2) DISABLES AUTOSEND:
 OFF=MANUAL TELLER
 ON=MOTORIZED TELLER

(3) DOOR OPEN DELAY AFTER CYCLE:
 OFF=NO DELAY AFTER CYCLE
 ON=ADJUSTABLE DELAY WITH TIMER #2.

(4) STOP VALVE DELAY: SELECT PROCESSOR VER. LEVEL
 (FOR VERY SHORT RUNS OR OTHER NONSTANDARD INSTALLATIONS). NORMALLY "OFF".
 (CHIP VER. 2.0 AND HIGHER)
 OFF=INACTIVE
 ON=ACTIVE (500 MILLISECOND-FIXED)
 (CHIP VER. PRIOR TO 2.0)
 OFF=INACTIVE
 ON=ACTIVE, ADJUST DELAY WITH T3, RANGE 100-400MS

(5) SELECT PROCESSOR VER. LEVEL
 (CHIP VER. 2.0 AND HIGHER)
 DIVERTER OPTION:
 OFF=INACTIVE
 ON=ACTIVE (DOOR OPENS EACH CYCLE)
 (CHIP VER. PRIOR TO 2.0)
 NOT USED:

(6) CYCLE TIMER RANGE:
 OFF=T1 RANGE 0-100 SEC.(10-SECOND INCREMENTS)
 ON=T1 RANGE 0-10 SEC.(1-SECOND INCREMENTS)

(7) SELECT PROCESSOR VER. LEVEL
 (CHIP VER. 2.0 AND HIGHER)
 900A OPTION: (CARRIER DETECT, DOOR CONTROL)
 OFF=INACTIVE
 ON=ACTIVE
 ACTIVATES 900A/900AX APPLICATION
 (CHIP VER. PRIOR TO 2.0)
 NOT USED:

(8) SELECT PROCESSOR VER. LEVEL
 (CHIP VER. 2.0 AND HIGHER)
 DOOR REVERSAL OPTION: (LTS TO 521TU)
 OFF=INACTIVE
 ON=ACTIVE
 (CHIP VER. PRIOR TO 2.0)
 NOT USED:

CONNECTORS
 (J1) FIELD WIRES: ALL SIGNALS FROM REMOTE UNIT
 (J2) CONTROL SWITCHES: TELLER UNIT CONTROLS
 (J3) MOTOR/LIMIT SWITCHES: TELLER UNIT OPERATIONS
 (J4) REMOTE DOOR: JUMPER ON PINS 4-5 IF NO REMOTE DOOR, OTHERWISE REMOTE DOOR SIGNALS
 (TB1) REMOTE POWER: USED TO CONTROL POWER RELAY AT CVM OR OTHER REMOTE ACCESSORY

RELAY/LED FUNCTIONS
 (RLY5) LOCAL DOOR: CONTROLS TELLER UNIT AUTOMATIC DOOR (IF PRESENT). LEDs INDICATE DOOR OPEN/CLOSED STATE-CONTROLLED BY RELAY.
 (RLY4) VACUUM: CONTROLS VACUUM BLOWER. LED INDICATES VACUUM SIGNAL ACTIVE.
 (RLY3) PRESSURE: CONTROLS PRESSURE BLOWER. LED INDICATES PRESSURE SIGNAL ACTIVE.
 (RLY2) SOLENOID: CONTROLS STOP SOLENOID. LED INDICATES SOLENOID SIGNAL ACTIVE.
 (RLY1) REMOTE DOOR: CONTROLS CUSTOMER UNIT AUTOMATIC DOOR (IF PRESENT). LEDs INDICATE DOOR OPEN/CLOSED STATE-CONTROLLED BY RELAY.

REVISIONS

| REV | DESCRIPTION / REFERENCE | DATE | BY |
|-----|--|------------|-----|
| NC | INITIAL RELEASE. | 12-06-2002 | EOS |
| A | UPDATED TIMER & OPTION SWITCH DEFINITIONS. | 04-04-2005 | JDD |
| B | CORRECTED OPTION SWITCH DEFINITION (1). | 10-27-2006 | JDD |
| C | ADDED 900AX FUNCTIONALITY WITH 521F V2.3 | 05-30-2007 | BLB |

T3: SOLENOID ENGAGE STOP DELAY
 T2: DOOR OPEN DELAY
 T1: CYCLE TIMER
 OPTION SWITCHES
 REMOTE POWER
 MICROPROCESSOR CODE VERSION

Legacy

| GUIDE, ADJUSTMENT, 521 CONTROLLER | | | | |
|---|----------|--|-------|-------|
| DOCUMENT NO | REVISION | PAGE | SCALE | SHEET |
| 500137 | C | 1 OF 1 | 1=1 | A |
| FILE: INTERNAL\500K\500137.DWG | | | | |
| TOLERANCES | | <div style="display: flex; align-items: center;"> <div> COMCO SYSTEMS (800) 533-3794 LAKE DALLAS, TX </div> </div> | | |
| LINEAR .X = ±0.1 .XX = ±0.01 .XXX = ±0.005 | | DIAMETERS ±0.005 ANGLES ±1.0° | | |
| THIRD ANGLE PROJECTION | | NOTICE: The information in this document is the property of COMCO SYSTEMS and may not be copied, used, or disclosed to third parties without express written permission. | | |

Lobby Teller Unit

| Mechanical Components | | Usage |
|------------------------------|--|--------------|
| 200037-2 | Door cable – automatic teller | 1 |
| 611609 | Spring – door cable tension | 1 |
| 400448 | Motor sheave | 1 |
| Electrical Components | | |
| 200155 | 521 controller assembly | 1 |
| 200357-2 | 4 Channel Power Interface | 1 |
| 200755 | Top Signage LED PCB | 1 |
| 200756 | Instruction Panel LED PCB | 1 |
| 200839 | Send/Call LED PCB | 2 |
| 200928 | Top Signage LED Cable | 1 |
| 200929 | Power Adapter Cable | 1 |
| 200930 | Send Cable | 1 |
| 200930-1 | Call Cable | 1 |
| 700180 | Call touch switch | 1 |
| 700181 | Send touch switch | 1 |
| 200931 | Instruction Panel & Camera Cable | 1 |
| 612832 | 12Vdc 5 Amp Power Supply for LEDS | 1 |
| 602209 | Switch lamp | 2 |
| 200443 | Door motor – automatic teller | 1 |
| 612202 | Micro switch – small roller | 5 |
| 612261 | Micro hook switch(AVA Audio) | 2 |
| 600657 | 1541 Hook switch & Handset assembly(Audio Authority) | 1 |
| 606912 | 6" Florescent tube | 2 |
| 606913 | 9" Florescent tube | 1 |
| 606914 | 18" Florescent tube | 1 |
| 606909 | Florescent starter (15W) | |
| 606910 | Florescent starter (4W/6W/8W) | |
| 200067-1 | Speaker assembly | 1 |
| 200728-1 | Microphone assembly | 1 |
| 200728-3 | Microphone Ext. Harness | 1 |
| 614012 | 10" CRT Monitor | 1 |
| 614061 | 10" LCD Monitor | 1 |
| 200279-2 | Compact Camera – 2.9mm | 1 |
| 609801 | 24VDC relay – 4PDT | 1 |
| 600651 | 1520 Lane Station(Audio Authority) | 1 |
| Trim | | |
| 400057 | Carrier landing pad | 1 |

Teller Chute

| | | |
|----------|--|---|
| 612243 | Send switch – push button | 4 |
| 200306 | Power switch – toggle(DSC1000 Legacy) | 1 |
| 200307 | Recall switch – pushbutton(DSC1000 Legacy) | 1 |
| 200671 | Power switch(DSC1000) | 1 |
| 200672 | Recall switch(DSC1000) | 1 |
| 200564 | Foam landing pad | 1 |
| 201078-1 | STC4500 to LTS Keypad | 1 |
| 200391-2 | Power switch(STC4500) | 1 |

Blower

| | | |
|--------|----------------------------|---|
| 200717 | Solenoid control board | 1 |
| 604040 | Shoulder bolt – solenoid | 1 |
| 611608 | Spring – solenoid | 1 |
| 400121 | Valve actuator – solenoid | 1 |
| 400120 | Air disc – solenoid | 1 |
| 600101 | Blower – 123 CFM | 2 |
| 600103 | Blower – 124 CFM | 2 |
| 609818 | Solid-State Relay – 24V DC | 2 |
| 612803 | Transformer – 120V – 24V | 1 |

Misc. Parts

| | | |
|----------|-----------------------------------|---|
| 400116-1 | Check valve membrane – 4.0” | 1 |
| 400116-2 | Check valve membrane – 3.5” | 1 |
| 200599 | Deceleration trigger assembly | 1 |
| 200693 | Deceleration trigger actuator Kit | 1 |

Carriers

| | | |
|--------|---|---|
| 602033 | Carrier – 4.5” end opening | 2 |
| 602013 | Air ring – 4.25 3-ply – 4.50 EO carrier | 2 |
| 602052 | Wear band – Velcro – 4.5” (2 per carrier) | 2 |