GARNER HOLT PRODUCTIONS. Inc.

CHUCK E. CHEESE

MAINTENANCE MANUAL

M:\PROJECTS\CHUKCHS\MANUAL~1\COVER.SAM

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Notice:

WELCOME TO THE NEW CHUCK E. CHEESE!

This new Chuck E. Cheese figure was built with care taken in the design for reliable operation, and ease of maintenance. This figure is considered to be a fairly elaborate animated figure that contains 32 individual digital functions.

These Functions Are As Follows:

Right Arm Out
Right Arm Swing
Right Elbow Up
Right Wrist Turn
Right Wave
Right Arm Forward
Left Arm Out
Left Arm Swing
Left Elbow Up
Left Wrist Turn
Left Wave
Left Arm Forward
Body Forebend
Body Left Sidebend
Body Right Sidebend
Torso Twist Right
Torso Twist Left
Right Arm Forward
Head Turn Left
Head Turn Right
Head Up
Mouth
Nose
Head Tilt Right
Head Tilt Left
Eye Blink Down
Eye Blink Up
Eye Turn Left
Eye Turn Right
Eyebrows Up
Eyebrows Down
Ears
Foot Tap

The following maintenance sections are intended to offer a brief outline of the systems and devices employed in this figure. It's purpose is to assist maintenance personnel in performing maintenance and/or repair as required. Being a mechanical/electrical system, items are eventually bound to deteriorate. (Wear items are deemed to be primarily: bearings, cylinders, valves, and friction points.) Other wear items include: costumes, skins, and undergarments. The wear is caused by friction, age, and simple repetitive use. A dedicated program of daily and weekly checks and maintenance practices are important to keep the figure operating and costs down. If, and when, a part no longer performs as desired, follow the maintenance and repair procedures specified by this manual. If there is any difficulty in doing this, feel free to contact your corporate headquarters for assistance.

DAILY CHECK LIST

THE FOLLOWING PROCEDURES MUST BE FOLLOWED ON A DAILY BASIS BEFORE THE FIGURES ARE TURNED ON.

1. **FILTER / REGULATOR (VALVE BOX)**:
   A. Check Filter (drain water).

2. **CHECK FIGURE FOR PROPER OPERATION**.

NOTE: Always observe and follow the manufactures maintenance recommendations for servicing and repair on these items.

BEFORE ATTEMPTING ANY MAINTENANCE PROCEDURE ON THE FIGURE OR SYSTEMS, THOROUGHLY READ ALL APPLICABLE INFORMATION AND PRECAUTIONS, AND CONSULT YOUR CORPORATE HEAD QUARTERS FOR ASSISTANCE IF REQUIRED.

THOROUGHLY READ THE FOLLOWING BEFORE OPERATING OR PERFORMING ANY MAINTENANCE PROCEDURE ON THE ANIMATRONIC FIGURE(S), SHOW ELEMENTS OR ANY OF THEIR OPERATIONAL SYSTEMS.

SAFETY

1. Maintenance should only be attempted by competent qualified personnel familiar with all systems and their components.

2. Never begin any maintenance procedure on a figure or show element unless the air, and/or electric is off.

3. When working near electrical or electronic systems, make sure power is off and avoid touching exposed electrical areas such as terminals and other points where voltage may be present.

4. Never replace any component with any other than an identical component. Cylinders and other components different than the original parts can cause extreme damage to the figure.

5. Observe all manufacturers recommendations for service, maintenance, and part replacement on system components.

6. Prior to operation, inspect show area figures and equipment for any obstructions, hazards, problems, etc..

7. Make sure the figure and all related systems are kept in a clean, moisture free environment for which they are intended.

Trouble Shooting - Chuck E. Cheese

NOTE: TURN OFF ALL AIR and ELECTRIC POWER TO THE FIGURE BEFORE BEGINNING ANY MAINTENANCE PROCEDURE. BEFORE PERFORMING ANY MAINTENANCE ON ANY ITEM, THOUROUGHLY READ AND REFER TO THE MAINTENANCE INFORMATION AND PRECAUTIONS PROVIDED IN THIS MANUAL.

1. ENTIRE FIGURE NOT MOVING

1. Make sure the figure's air is turned on, and there is pressure at the valve cards. (check the regulator and slide valve.) The red slide valve in "on" when it is slid towards the regulator.

2. First determine if the controller is sending signals to the figure's valve card. If this is true then the red valve indicators will be turned on or blinking. This will indicate that electric signals have made it to the valve card.

3. If there is audible "clicking" of the valves, and the figure is still not moving, then there is a problem with the main air flow to the manifolds. Check the pressure at the regulator.

2. INDIVIDUAL FUNCTION NOT MOVING

1. If other functions are moving as they should be and one single function is not, then try the following:

A. Check to see if the valve for that function is operating by checking the valve indicator lamp.

B. Manual Valve Test: Press the white round button on the side of the valve facing the connector and on/off connecting switch. If the air is on, pressing this button should activate the on / off function. Releasing it should return the function to it's retracted position.

C. If the valve is activated either manually or electrically while the air is on, the function should move. If it does not, then air may not be arriving at the activator due to a pinched hose or obstruction in the line. At this point, hoses can be removed from the actuator to test for proper air flow. Make sure the function itself is not bound up or obstructed in any way.

3. HISSING AIR

1. Hissing air indicates a broken hose, a hose loose from a fitting, or a leaky cylinder. One of the most common problems in an animatronic figure is the wearing down of the hoses - or the disconnection of a hose from a fitting , flow control, ect. Open the figure in the area of the suspected leak, and feel around for the leak. Very tiny leaks can be detected by using soapy water placed in the area with a swab, and watching for bubbles.

2. Hissing air may also mean that a hose has slipped off of a fitting or cylinder. If this should occur, find the cylinder location and you should find both ends (look for the same color hose) If the hissing is intermittent, that is because the line is being turned on and off by the valve.

4. MECHANICAL NOISE

1. The figure contains a number of pivot points, joints, clevises and bearings. The plastic bearings and spherical rod ends used within the figure are normally silent. Occasionally, a squeak will develop. If this should occur, a single drop of 3 in 1 oil at the joint itself will solve this problem. Do not lubricate the cylinder rod of any part of any actuator except for the rod end spherical bearings. The seals in the actuator require special factory lubrication. Petroleum based oils or greases may ruin the seals.

5. LIMB DETACHMENT

1. If a catastrophic failure such as a detached limb would occur, turn the figure off immediately. This problem may result from a joint pin working its way out of a clevis. Special care must be taken when reassembling the character after maintenance, being careful to use the required locking fasteners and lock tite® where required.

FIGURE MAINTENANCE - CLEANING PROCEDURE

1. FACE AND HANDS (ALL SKIN AREAS)

The figure skin is made of a specially formulated elastomer that is not affected by sunlight or the elements. Dust will settle on the material to some degree and should be cleaned as required. An air hose with nozzle may be used on a regular basis (daily if required) to dust the figure. A damp, soft makeup sponge can be used to gently wipe (not scour or rub) the dust off the facial or skin areas. Do not use any chemicals or solvents. A feather duster will also work for removing dust from skin.

2. EYEBALL CLEANING

The eyes may be cleaned by rubbing gently with a soft cloth (cheese cloth) dampened with warm water. After they have been cleaned, they can be lightly polished to remove streaks by using a dry swab or piece of Kleenex. Take care not to scratch the eyes in any way. Take care not to rub too hard or force eyelids open or closed.

3. FUR AND COSTUME AREAS

Fur areas should be dusted using a air gun and feather duster on a regular basis. Fur fabric can be gently brushed using a soft brush. Care must be taken to not harshly brush colored areas of fur that might brush out color. A damp sponge may be used before brushing to help remove dust or grime discoloration. Do not use solvents of any kind on fir materials. Costumes may be air blasted and/or feather dusted. Most costume materials may be treated as normal clothing and can be dry cleaned as required (do not wash).

FIGURE MAINTENANCE - Chuck E. Cheese

NOTE: TURN OFF ALL AIR, and ELECTRIC POWER TO THE FIGURE BEFORE BEGINNING ANY MAINTENANCE PROCEDURE.

1. HEAD ACCESS

Remove the baseball cap: This is attached by 2 snaps, one on each side of the hat, under the brim. Chuck E.'s head is split around sides (across the ears) and is attached to the front shell with (4) pan head screws. Upon their removal, the rear of the head can be separated from the front. This allows access into the head for repairs. Do not remove the front of the head / face from the mechanical frame. This should not be necessary in normal maintenance procedures.

2. COSTUME REMOVAL

The costume is split, in the back, on a central seam that allows for removal of the clothing without moving the limbs. It also splits in front, at the vest area, the coat is then in two pieces that can be slid down the arms. The cuffs are simply snapped around the wrists. The seams are attached by velcro strips and must be opened carefully.

3. TORSO ACCESS

The torso mechanics can be accessed by removing the rear half of the body shell. This is done by removing the fasteners on the clips along the seam of the shell.

4. ARM ACCESS

The arm fur is split up the back of the arm with a velcro seam. Pull the fur out of the hand glove and split the arm all the way up. The arm fur also has an attachment point at the shoulder, using velcro to attach it to the torso shell. The hand glove is velcroed on with a seam at the thumb.

5. LEG ACCESS

The leg fur is split up the back of each leg. Carefully split the fur from the bottom up. The pelvis area fur is folded over the top of the pelvis shell and velcroed. The fur was created to fit very tight to avoid creases and wrinkles on the characters legs, take care and be patient when reinstalling the fur onto the pelvis and legs.

6. BASE ACCESS

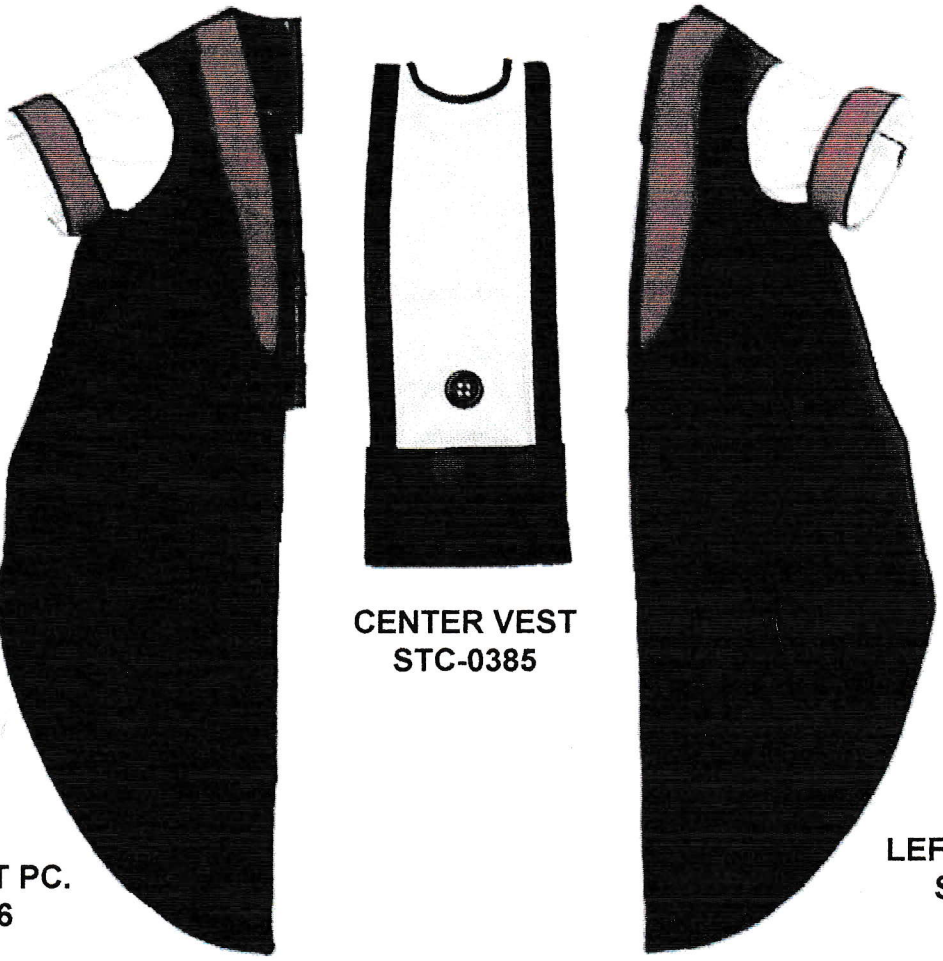
The base is accessible by first removing the carpet covered panels under the figures feet. The valve board is located under these panels.

COMPONENT REPLACEMENT

CHUCK E. CHEESE - COSTUME PARTS

MODEL # CC-102 DRAWING NO. CC-323

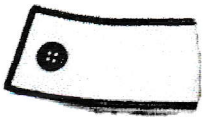
CAP
STC-0384



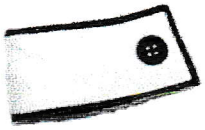
CENTER VEST
STC-0385

RIGHT COAT PC.
STC-0386

LEFT COAT PC.
STC-0387



RIGHT CUFF
STC-0388



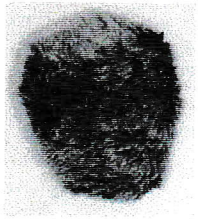
LEFT CUFF
STC-0389

COMPONENT REPLACEMENT

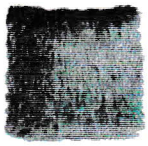
CHUCK E. CHEESE - FUR PARTS

MODEL # CC-102

DRAWING NO. CC-322

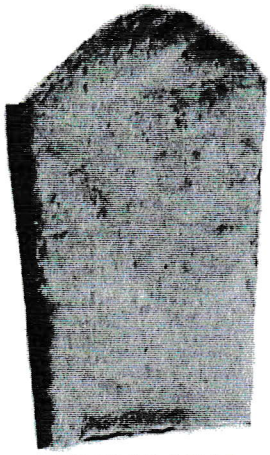


RIGHT EAR
STC-0396

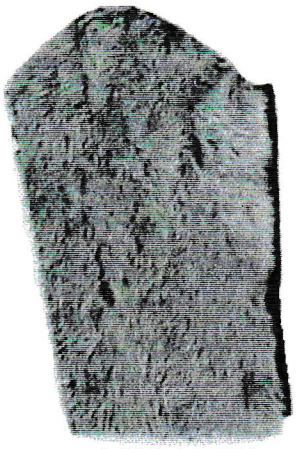


NECK
STC-0390

LEFT EAR
STC-0397

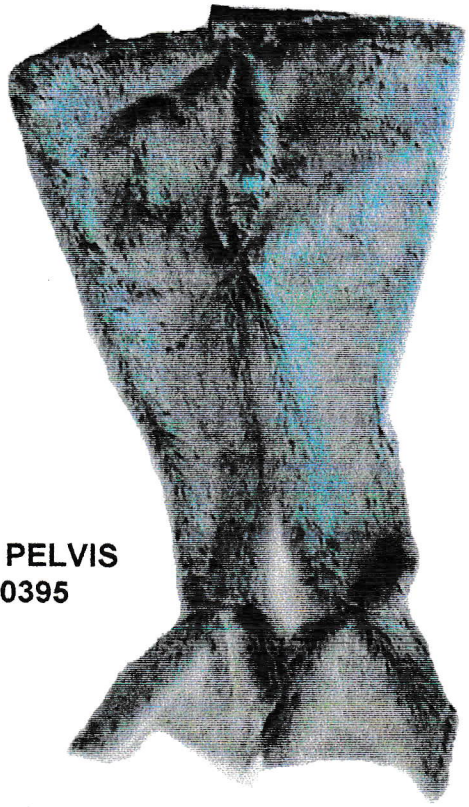


RIGHT ARM
STC-0391



LEFT ARM
STC-0392

RIGHT HAND
STC-0393



LEGS & PELVIS
STC-0395

LEFT HAND
STC-0394

COMPONENT REPLACEMENT

CHUCK E. CHEESE - PLASTIC PARTS

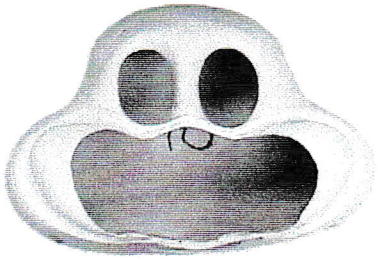
MODEL # CC-102 DRAWING NO. CC-324

R. EAR ASSY
STC-0399

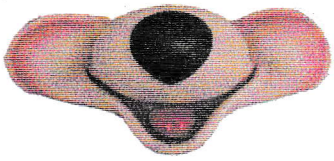
R. EYEBROW
STC-0368

L. EYEBROW
STC-0369

L. EAR ASSY
STC-0400



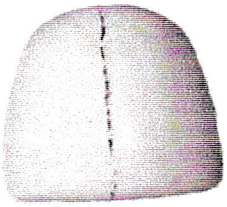
HEADSHELL, FRONT & REAR
STC-0353



SILICONE SNOUT
STC-0402

R. EYELID
STC-0360

L. EYELID
STC-0362



TORSO, FRONT & REAR
STC-0771

No longer these kind!

FIBERGLASS SNOUT
STC-0355

R. EYELASH
STC-0361

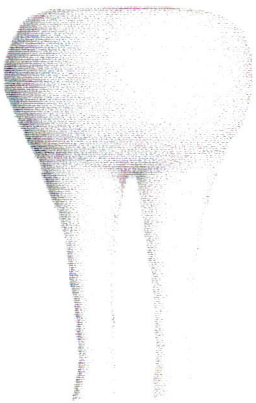
L. EYELASH
STC-0363

TEETH
STC-0354

R. EYE
STC-0366

L. EYE
STC-0367

FIBERGLASS CHIN
STC-0772



LEGS FRONT & REAR
STC-0356

R. FOOT
STC-0358

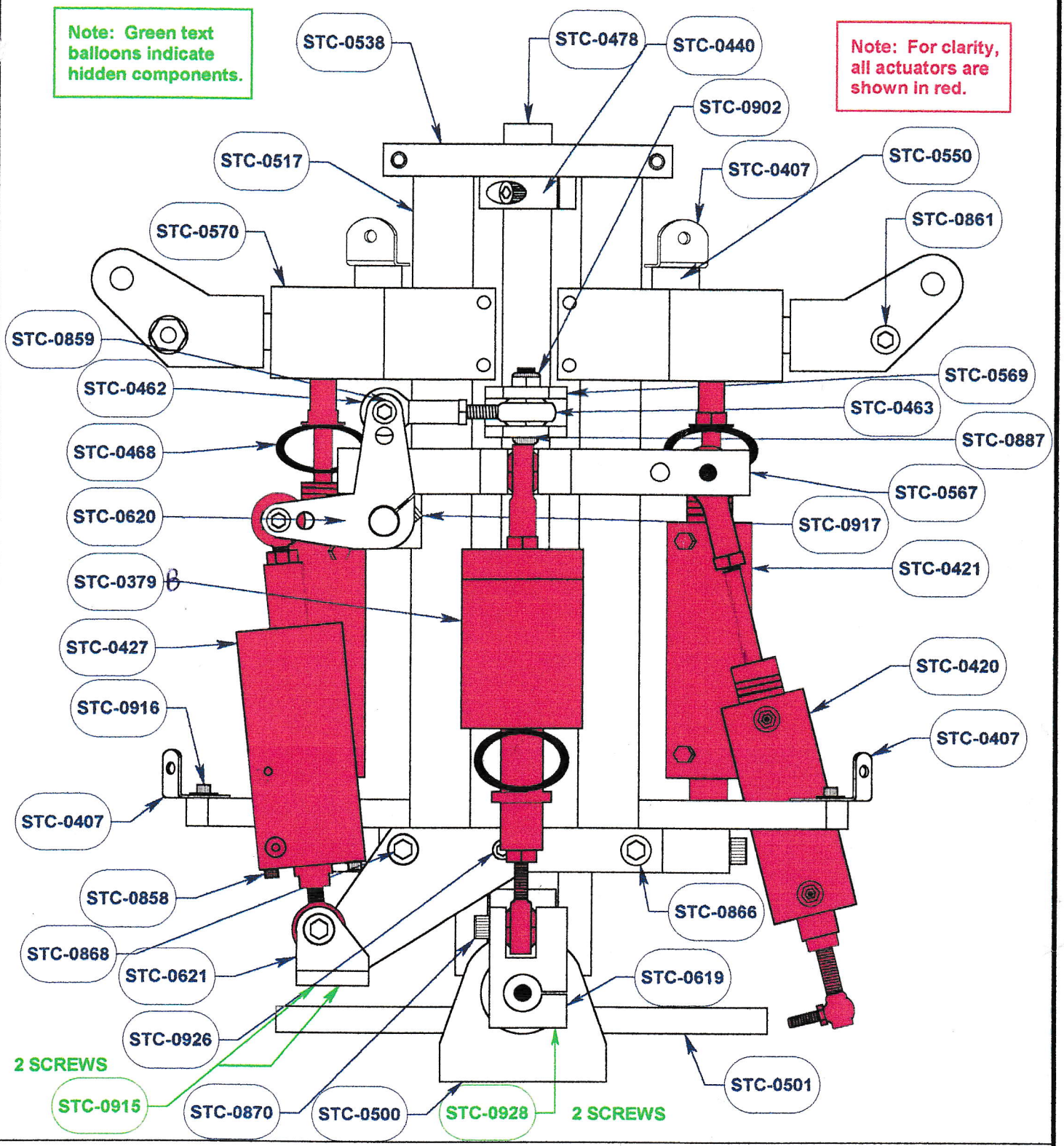
R. HAND ASSY
STC-0364

L. HAND ASSY
STC-0365

L. FOOT
STC-0359

M:\PROJECTS\CHUKCHS\MANUAL~1\CCPPARTX.SAM

COMPONENT REPLACEMENT



CHUCK E. CHEESE

MODEL: CC-102	FRONT VIEW - TORSO

FILE: \midbodf.vlm	REV: 13	DRAWING NO. CC-306

CHUCK E. CHEESE
PARTS AND MATERIALS LIST

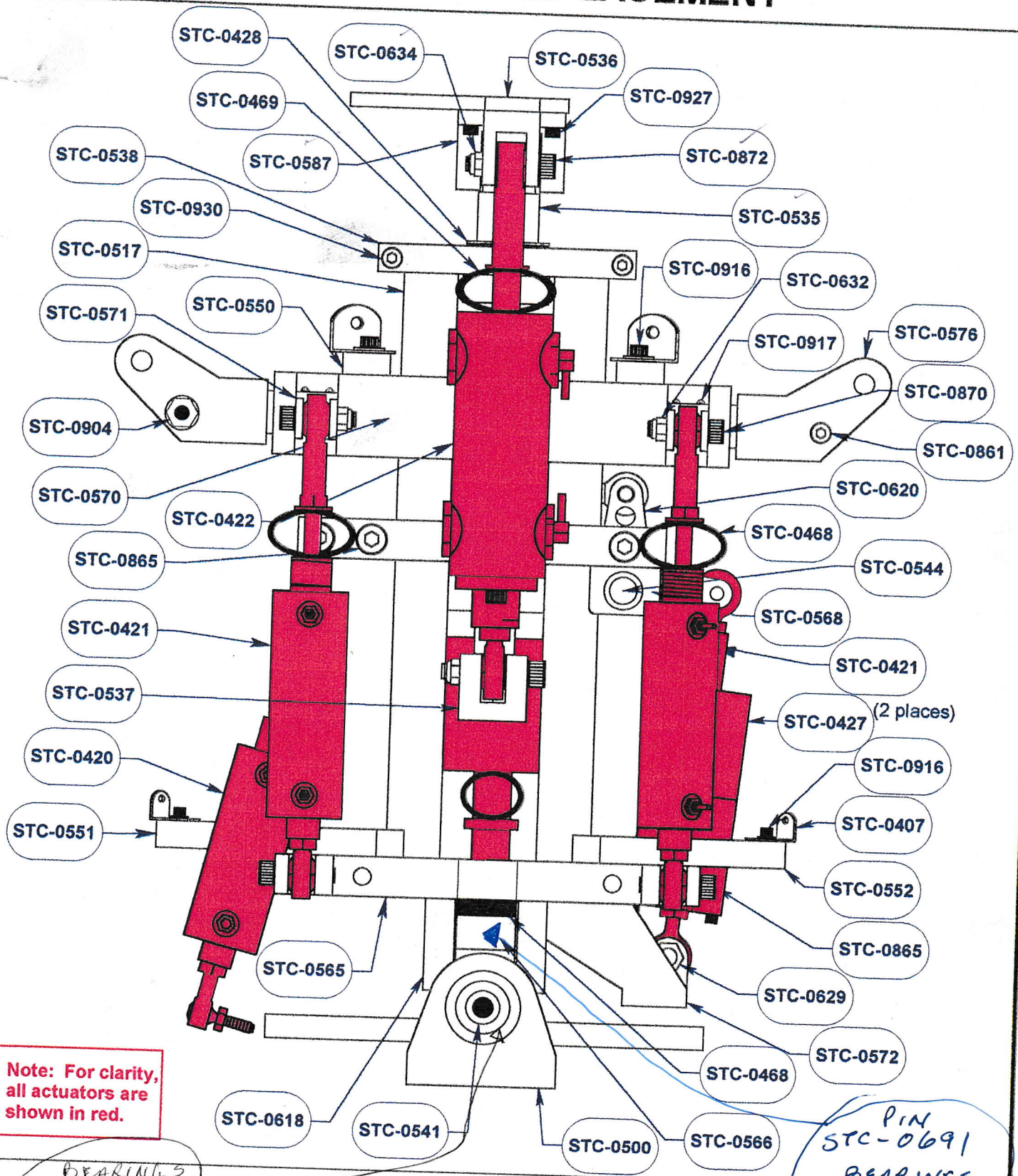
FRONT VIEW -- TORSO

REF. DWG. NO. CC-306

QTY.	PART NO.	DESCRIPTION	GHP PART NO.
1	STC-0420	ACTUATOR	
2	STC-0421	ACTUATOR	
2	STC-0427	ACTUATOR	
1	STC-0379	ACTUATOR	
2	STC-0915	ALLEN BOLT 10-24 X 3/8	
2	STC-0928	ALLEN BOLT 1/4-20 X 3/4	
1	STC-0866	ALLEN BOLT 5/16-18 X 1 1/2	
1	STC-0870	ALLEN BOLT 5/16-18 X 1 1/4	
1	STC-0868	ALLEN BOLT 5/16-18 X 2	
3	STC-0859	ALLEN BOLT 1/4-28 X 1	
2	STC-0861	ALLEN BOLT 1/4-28 X 1 1/2	
1	STC-0926	ALLEN BOLT 1/4-20 X 1/2	
2	STC-0858	ALLEN BOLT 1/4-20 X 2 1/2	
1	STC-0887	BUTTON HEAD ALLEN 10-32 X 1	
4	STC-0916	ALLEN BOLT 10-24 X 1/2	
2	STC-0917	ALLEN BOLT 10-24 X 5/8	
1	STC-0902	JAM LOCK NUT 10-32	
1	STC-0619	FORE BEND CLEVIS	
1	STC-0620	HEAD TURN BELL CRANK	
1	STC-0621	HEAD TURN CYLINDER CLEVIS	
1	STC-0567	MAIN FRAME FORE BEND PLATE	
1	STC-0569	HEAD TURN LEVER	
2	STC-0570	SHOULDER BLOCK	
1	STC-0538	MAIN FRAME CROSS PLATE	
2	STC-0550	BODY SHELL SUPPORT	
2	STC-0500	SIDE BEND BEARING BLOCK	
2	STC-0501	SIDE BEND BUMPER ARM	
2	STC-0517	MAIN TORSO TUBE	
1	STC-0478	NECK SHAFT	
1	STC-0462	HEAD TURN ROD END (FEMALE)	

3	STC-0463	HEAD TURN ROD END (MALE)	
2	STC-0468	RUBBER BUMPER	
1	STC-0440	SHAFT COLLAR	
4	STC-0407	BODY CLIP (RIGHT ANGLE)	

COMPONENT REPLACEMENT



Note: For clarity, all actuators are shown in red.

CHUCK E. CHEESE

MODEL: CC-102

BACK VIEW - TORSO

FILE: midbodb.vlm | REV: 7 | DRAWING NO. CC-311

CHUCK E. CHEESE
PARTS AND MATERIALS LIST

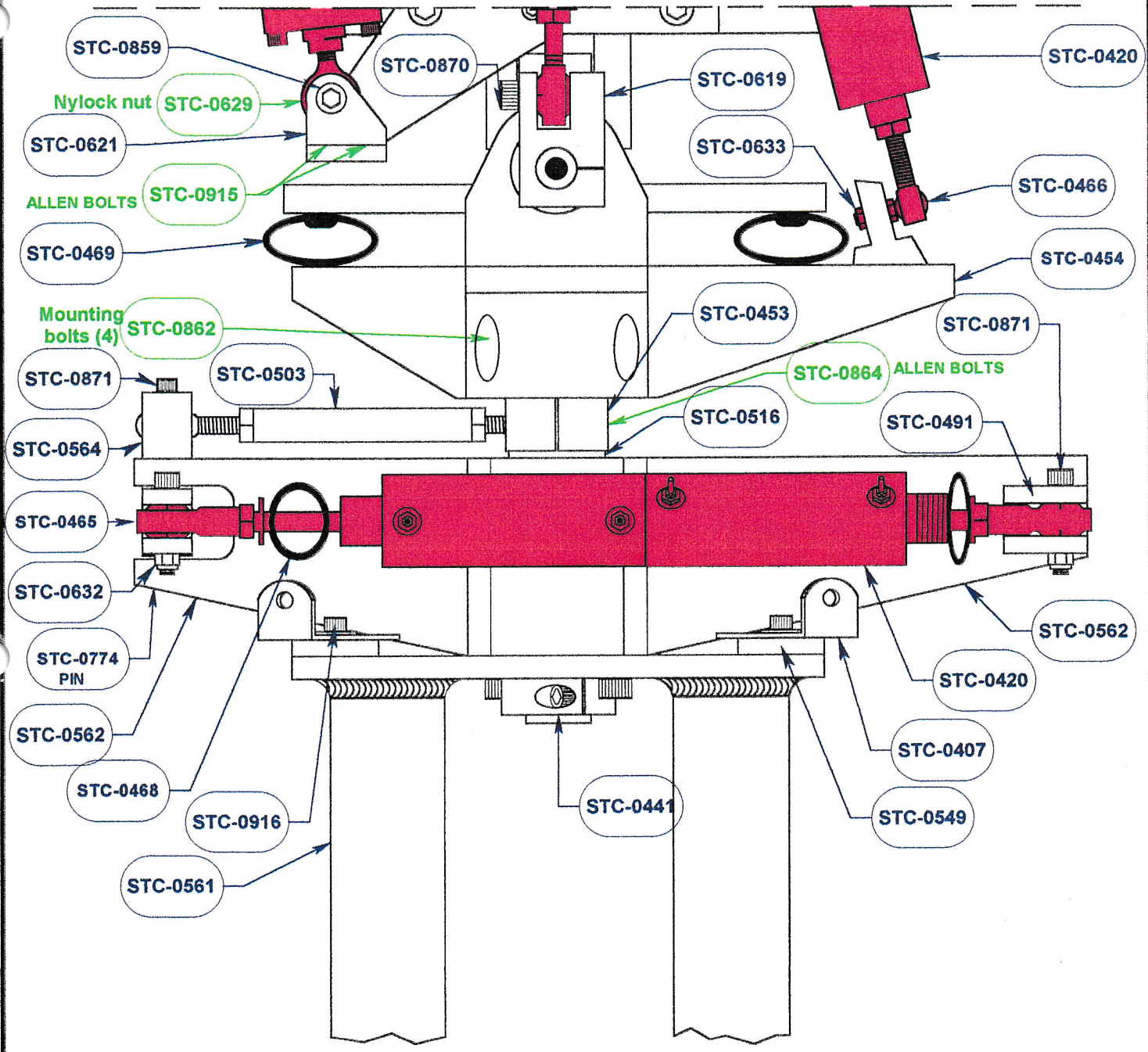
BACK VIEW -- TORSO

REF. DWG. NO. CC-311

QTY.	PART NO.	DESCRIPTION	GHP PART NO.
1	STC-0420	ACTUATOR	
2	STC-0421	ACTUATOR	
1	STC-0422	ACTUATOR	
2	STC-0427	ACTUATOR	
2	STC-0870	ALLEN BOLT 5/16-24 X 1 1/4	
2	STC-0872	ALLEN BOLT 3/8-24 X 1 1/2	
2	STC-0865	ALLEN BOLT 5/16-18 X 1 1/4	
2	STC-0861	ALLEN BOLT 1/4-28 X 1 1/2	
4	STC-0927	ALLEN BOLT 1/4-20 X 5/8	
2	STC-0930	ALLEN BOLT 1/4-20 X 1	
4	STC-0917	ALLEN BOLT 10-24 X 5/8	
1	STC-0634	JAM LOCK NUT 3/8-24	
3	STC-0632	LOCK NUT 5/16-24	
2	STC-0904	LOCK NUT 1/4-28	
4	STC-0629	JAM LOCK NUT 1/4-28	
4	STC-0916	ALLEN BOLT 10-24 X 1/2	
1	STC-0620	HEAD TURN BELL CRANK	
1	STC-0587	HEAD MOUNT	
1	STC-0565	TORSO PLATE	
1	STC-0566	TORSO BLOCK	
1	STC-0568	LEVER BLOCK	
2	STC-0570	SHOULDER BLOCK	
2	STC-0571	LEVER	
1	STC-0572	CLEVIS MOUNT	
2	STC-0576	SHOULDER MOUNT	
1	STC-0535	HEAD MOUNT	
1	STC-0536	HEAD PLATE	
1	STC-0537	LEVER	
1	STC-0538	MAIN FRAME CROSSPLATE	
1	STC-0541	PIN	
1	STC-0544	PIN AND SPACER	

2	STC-0550	BODY SHELL SUPPORT	
1	STC-0551	STRAP	
1	STC-0552	STRAP	
2	STC-0517	MAIN TORSO TUBE	
2	STC-0500	SIDEBEND BEARING BLOCK	
2	STC-0618	BEARING BLOCK	
4	STC-0407	BODY CLIP	
1 set	STC-0428	THRUST BEARING	
1	STC-0468	RUBBER BUMPER	
1	STC-0469	RUBBER BUMPER	

COMPONENT REPLACEMENT



Note: Green text balloons indicate hidden components.

Note: For clarity, all actuators are shown in red.

CHUCK E. CHEESE

MODEL: CC-102	FRONT VIEW - PELVIC AREA	
FILE: lowbodf.vlm	REV: 10	DRAWING NO. CC-307

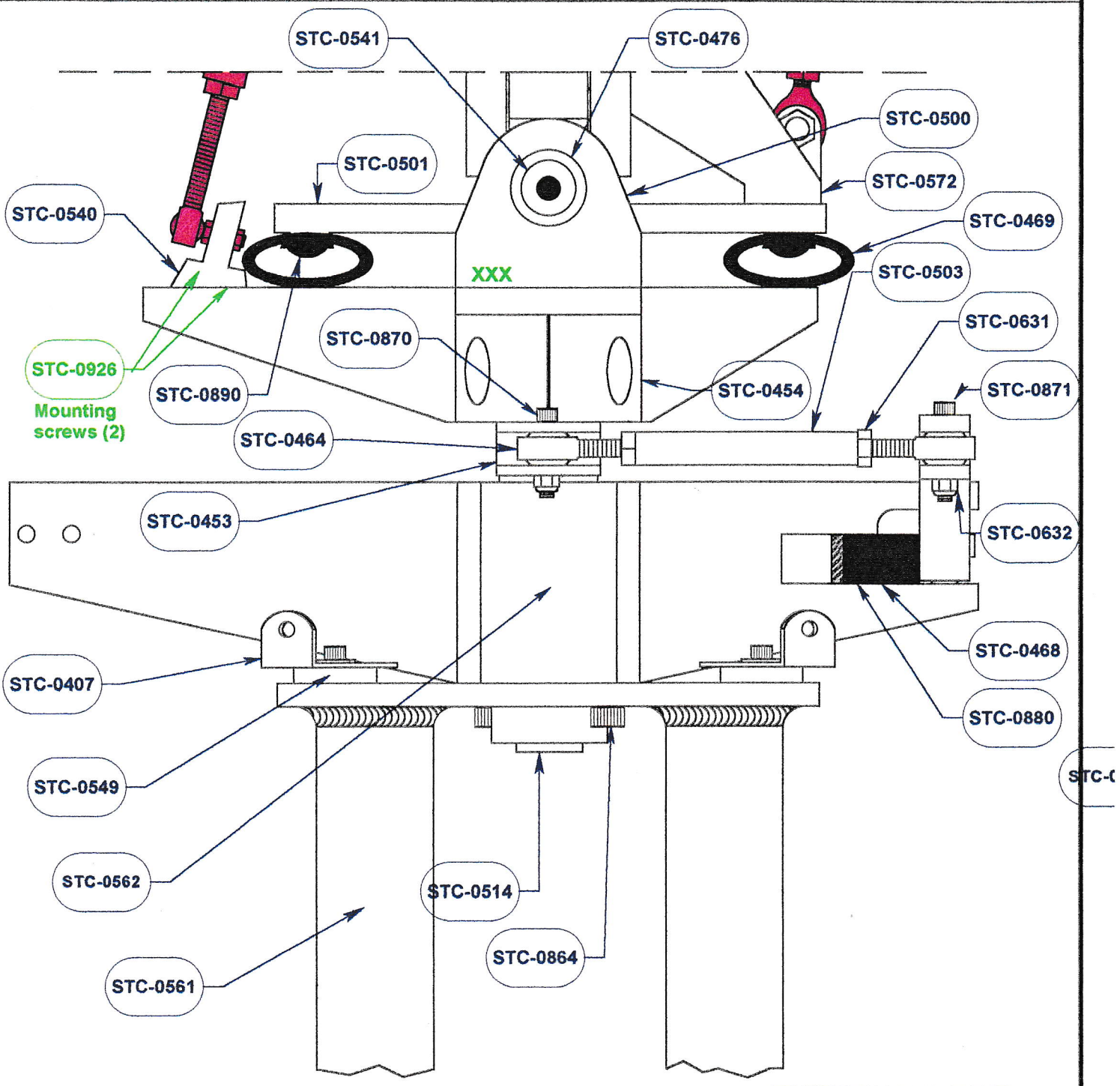
CHUCK E. CHEESE
PARTS AND MATERIALS LIST

FRONT VIEW -- PELVIC AREA

REF. DWG. NO. CC-307

QTY.	PART NO.	DESCRIPTION	GHP PART NO.
3	STC-0420	ACTUATOR	
3	STC-0871	ALLEN BOLT 5/16-24 X 1 1/2	
4	STC-0862	ALLEN BOLT 5/16-18 X 3/4	
1	STC-0864	ALLEN BOLT 5/16-18 X 1	
1	STC-0859	ALLEN BOLT 1/4-28 X 1	
1	STC-0870	ALLEN BOLT 5/16-24 X 1 1/4	
2	STC-0915	ALLEN BOLT 10-24 X 3/8	
4	STC-0916	ALLEN BOLT 10-24 X 1/2	
3	STC-0632	LOCK NUT 5/16-24	
1	STC-0633	JAM LOCK NUT 5/16-24	
1	STC-0629	JAM LOCK NUT 1/4-28	
1	STC-0491	TORSO TWIST CLEVIS	
1	STC-0619	FORE BEND CLAMP CLEVIS	
1	STC-0621	HEAD TURN CLEVIS	
1	STC-0561	STEEL MAINFRAME	
1	STC-0562	TORSO TWIST BLOCK	
1	STC-0774	PIN	
1	STC-0564	BELL CRANK, TORSO TWIST	
2	STC-0549	BAR, BODY SHELL	
1	STC-0503	LINKAGE	
1	STC-0516	SPACER WASHER	
1	STC-0453	LEVER	
1	STC-0454	BASE BLOCK	
1	STC-0466	ROD END, MALE	
2	STC-0468	RUBBER BUMPER	
2	STC-0469	RUBBER BUMPER	
1	STC-0441	SHAFT COLLAR	
2	STC-0407	BODY CLIP (RIGHT ANGLE)	
2	STC-0465	ROD ENDS	

COMPONENT REPLACEMENT



Note: For clarity, all actuators are shown in red.

Note: Green text balloons indicate hidden components.

CHUCK E. CHEESE

MODEL: CC-102	BACK VIEW - PELVIC AREA	
FILE: \lowbodb.vlm	REV: 8	DRAWING NO. CC-309

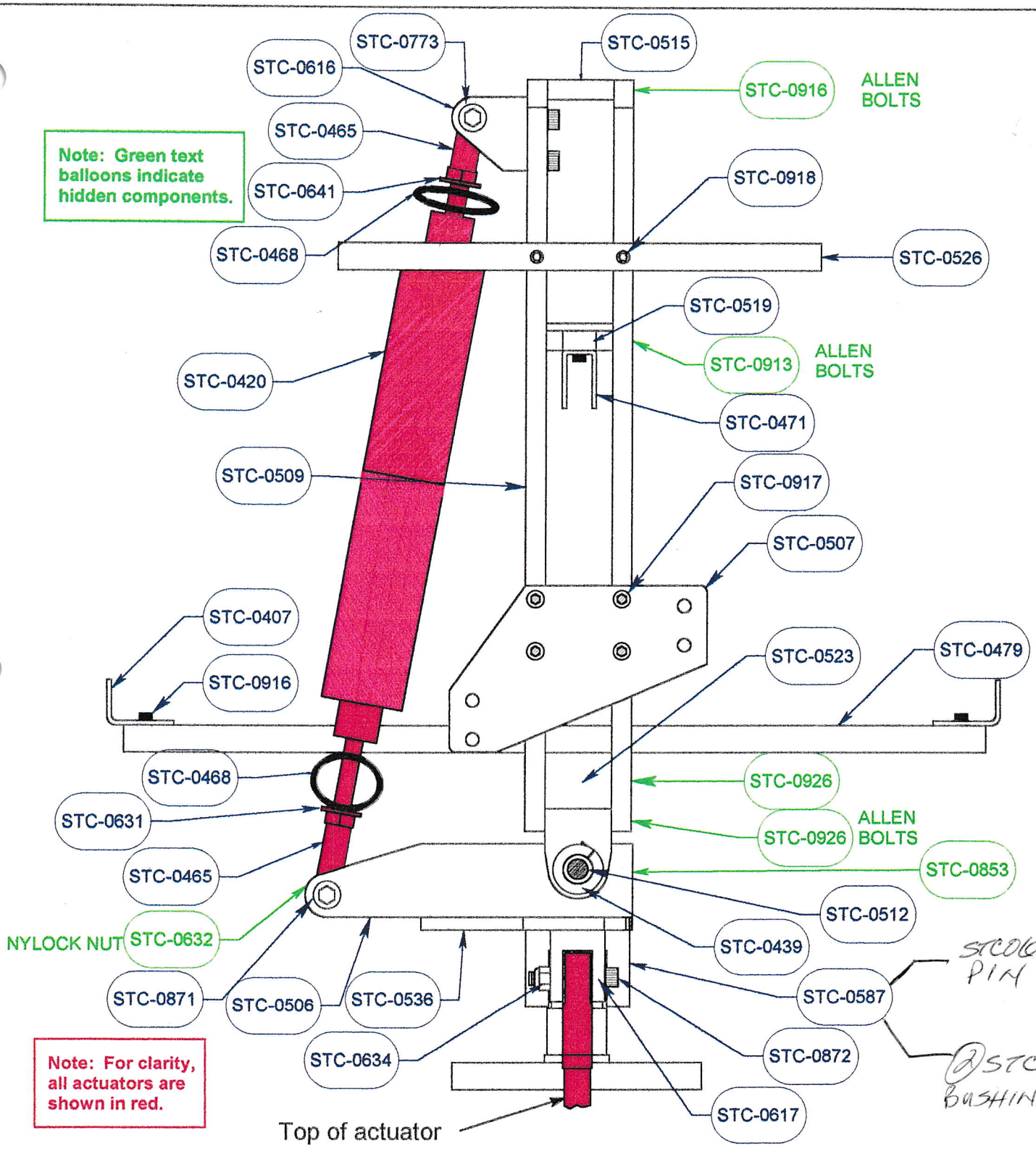
CHUCK E. CHEESE
PARTS AND MATERIALS LIST

BACK VIEW -- PELVIC AREA

REF. DWG. NO. CC-309

QTY.	PART NO.	DESCRIPTION	GHP PART NO.
1	STC-0870	ALLEN BOLT 5/16-24 X 1 1/4	
3	STC-0871	ALLEN BOLT 5/16-24 X 1 1/2	
4	STC-0864	ALLEN BOLT 5/16-18 X 1	
2	STC-0926	ALLEN BOLT 1/4-20 X 1/2	
1	STC-0880	BUTTONHEAD 10-24 X 1/2	
2	STC-0890	BUTTON HEAD 1/4-20 X 1/2	
4	STC-0632	LOCK NUT 5/16-24	
2	STC-0631	JAM NUT 5/16-24	
1	STC-0638	#10 FLAT WASHER	
1	STC-0572	CLEVIS MOUNT	
1	STC-0540	ROD END MOUNT	
1	STC-0541	PIN	
2	STC-0549	BODY SHELL BAR	
1	STC-0503	LINKAGE	
1	STC-0561	STEEL MAIN FRAME	
1	STC-0562	TORSO TWIST BLOCK	
1	STC-0514	PIN	
2	STC-0500	SIDEBEND BEARING BLOCK	
2	STC-0501	SIDEBEND BUMPER ARM	
1	STC-0453	LEVER	
1	STC-0454	BASE BLOCK	
2	STC-0464	MALE ROD END	
1	STC-0468	RUBBER BUMPER	
2	STC-0469	RUBBER BUMPER	
2	STC-0476	BEARING	
2	STC-0407	BODY CLIP (RIGHT ANGLE)	

COMPONENT REPLACEMENT



STC0692 PIN

②STC0434 BUSHINGS

CHUCK E. CHEESE

MODEL: CC-102	BACK VIEW - HEAD FRAME	
FILE: \upperbod.vlm	REV: 8	DRAWING NO. CC-312

CHUCK E. CHEESE
PARTS AND MATERIALS LIST

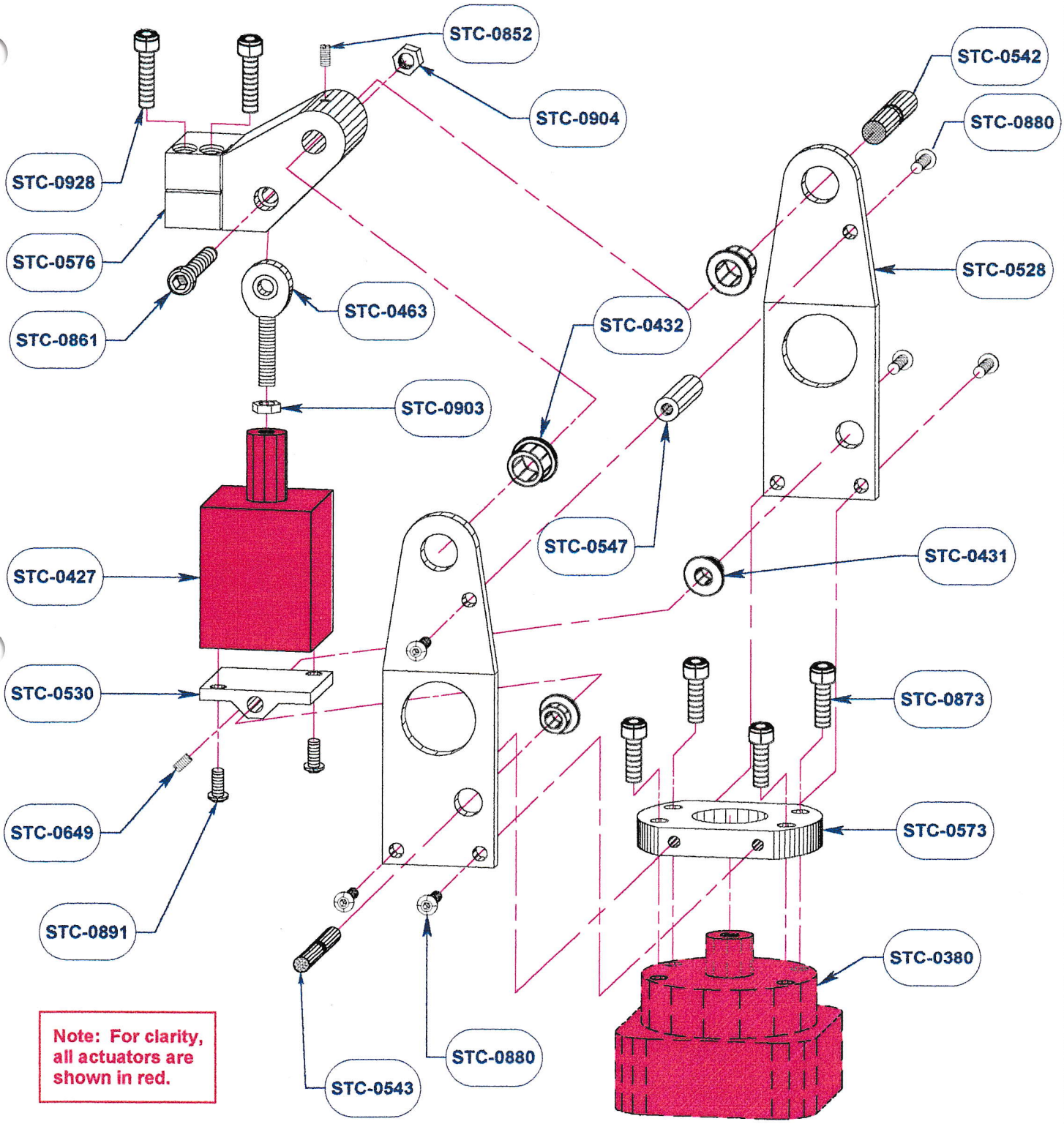
BACK VIEW -- HEAD FRAME

REF. DWG. NO. CC-312

QTY.	PART NO.	DESCRIPTION	GHP PART NO.
2	STC-0420	ACTUATOR	
1	STC-0872	ALLEN BOLT 3/8-24 X 1 1/2	
1	STC-0853	SET SCREW 10-24 X 5/16	
1	STC-0871	ALLEN BOLT 5/16-24 X 1 1/2	
6	STC-0926	ALLEN BOLT 1/4-20 X 1/2	
8	STC-0916	ALLEN BOLT 10-24 X 1/2	
4	STC-0917	ALLEN BOLT 10-24 X 5/8	
4	STC-0913	ALLEN BOLT 8-32 X 1/2	
1	STC-0634	JAM LOCK NUT 3/8-24	
2	STC-0632	LOCK NUT 5/16-24	
1	STC-0773	BUTTONHEAD 5/16-24 X 1 1/2	
1	STC-0616	CLEVIS	
1	STC-0617	CLEVIS	
1	STC-0587	HEAD MOUNT	
1	STC-0536	HEAD PLATE	
1	STC-0506	HEAD BAR	
1	STC-0507	CLEVIS PLATE	
2	STC-0509	HEAD PLATE	
1	STC-0512	HEAD PIN	
1	STC-0515	TOP HEAD PLATE	
1	STC-0519	CLEVIS MOUNT	
1	STC-0523	JAW AND NOSE MOUNT	
1	STC-0526	EAR CYLINDER BAR	
1	STC-0479	HEAD SHELL MOUNT	
2	STC-0407	BODY CLIP (RIGHT ANGLE)	
1	STC-0471	CLEVIS	
2	STC-0918	ALLEN BOLT 10-24 X 3/4	
2	STC-0468	RUBBER BUMPER	
2	STC-0641	FLAT WASHER 5/16	
2	STC-0631	JAM NUT 5/16-24	
2	STC-0465	ROD ENDS	

2	STC-0439	COLLAR	

COMPONENT REPLACEMENT



CHUCK E. CHEESE

MODEL: CC-102	R & L SHOULDER / UPPER ARM	
FILE: \uparm.vlm	REV: 7	DRAWING NO. CC-310

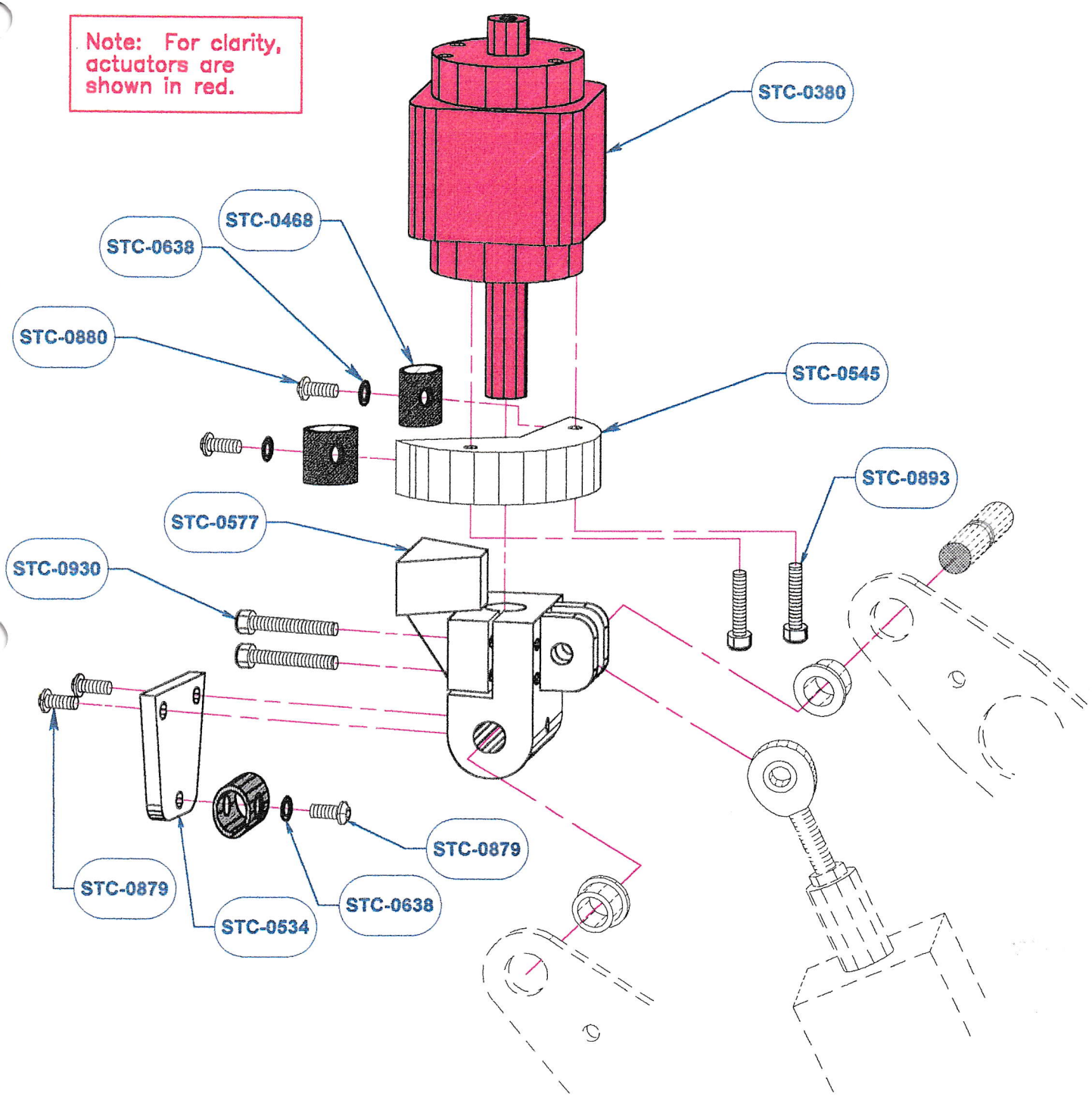
CHUCK E. CHEESE
PARTS AND MATERIALS LIST

R & L SHOULDER / UPPER ARM

REF. DWG. NO. CC-302

QTY.	PART NO.	DESCRIPTION	GHP PART NO.
1	STC-0427	ACTUATOR	
1	STC-0380	ACTUATOR	
1	STC-0861	ALLEN BOLT 1/4-28 X 1 1/2	
2	STC-0891	BUTTON HEAD 1/4-20 X 1/2	
2	STC-0928	ALLEN BOLT 1/4-20 X 3/4	
4	STC-0873	ALLOY ALLEN 6MM X 14MM	
6	STC-0880	BUTTONHEAD 10-24 X 1/2	
1	STC-0904	LOCK NUT 1/4-28	
1	STC-0903	JAM NUT 1/4-28	
1	STC-0852	SET SCREW 10-24 X 1/4	
1	STC-0649	SET SCREW	
1	STC-0573	MOUNTING PLATE	
1	STC-0576	SHOULDER MOUNT	
2	STC-0528	ARM PLATE	
1	STC-0530	MOUNTING PLATE	
1	STC-0542	PIN	
1	STC-0543	PIN	
1	STC-0547	SPACER	
1	STC-0463	ROD END (MALE)	
2	STC-0431	BEARING	
2	STC-0432	BEARING	

COMPONENT REPLACEMENT



CHUCK E. CHEESE

MODEL: CC-102	R & L UPPER ARM / ELBOW	
FILE: I\elbow.vlm	REV: 4	DRAWING NO. CC-304

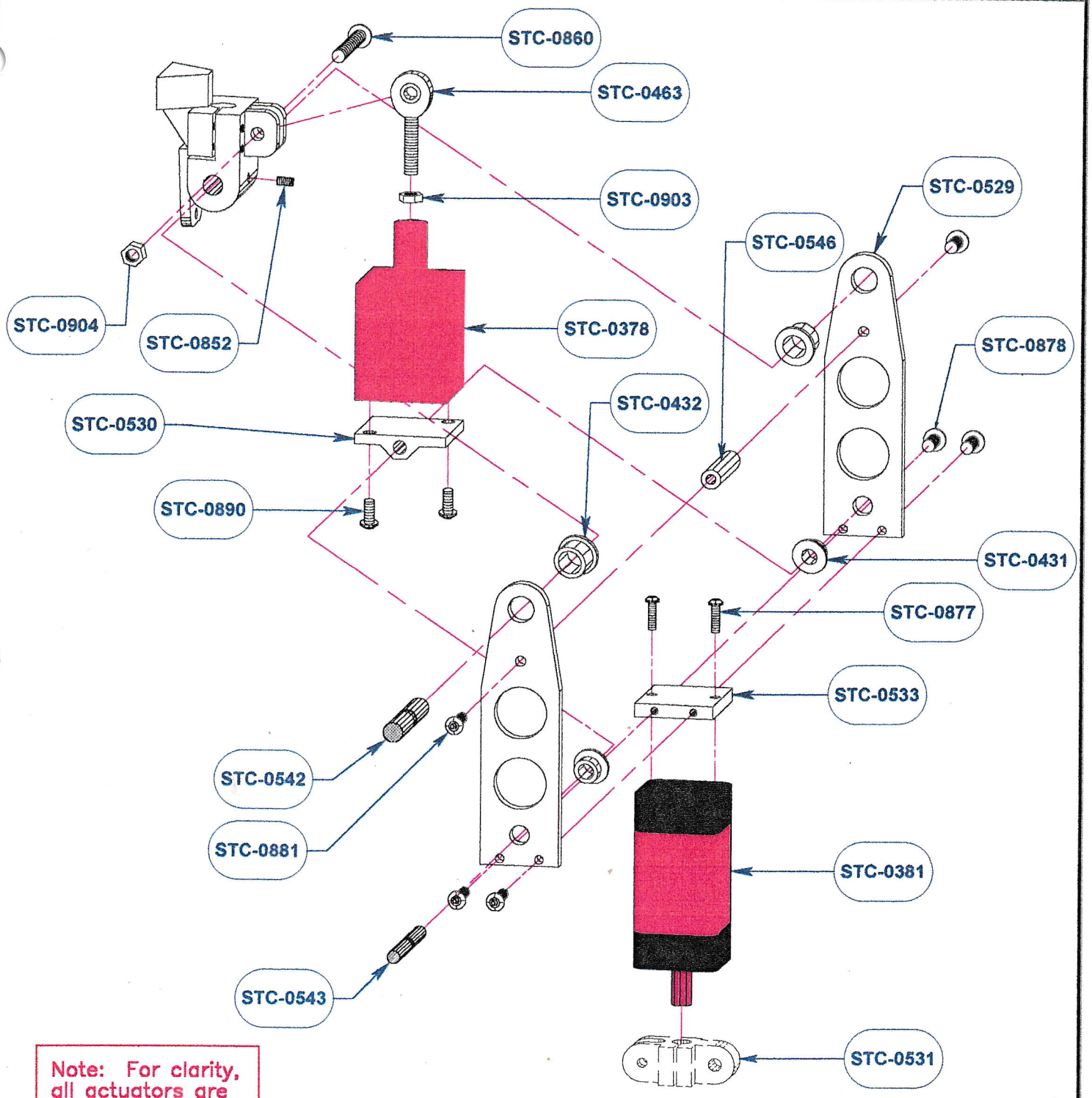
CHUCK E. CHEESE
PARTS AND MATERIALS LIST

R & L UPPER ARM / ELBOW

REF. DWG. NO. CC304

QTY.	PART NO.	DESCRIPTION	GHP PART NO.
1	STC-0380	ACTUATOR	
2	STC-0930	ALLEN BOLT 1/4-20 X 1	
2	STC-0893	BUTTON HEAD 6MM X 20MM	
3	STC-0879	BUTTON HEAD 10-24 X 3/8	
2	STC-0880	BUTTON HEAD 10-24 X 1/2	
3	STC-0638	FLAT WASHER #10	
1	STC-0577	ELBOW BLOCK	
1	STC-0534	BUMPER PLATE	
1	STC-0545	BUMPER MOUNT	
3	STC-0468	RUBBER BUMPER	

COMPONENT REPLACEMENT



CHUCK E. CHEESE

MODEL: CC-102	R & L LOWER ARM

FILE: \lowarm.vlm	REV: 5	DRAWING NO. CC-308

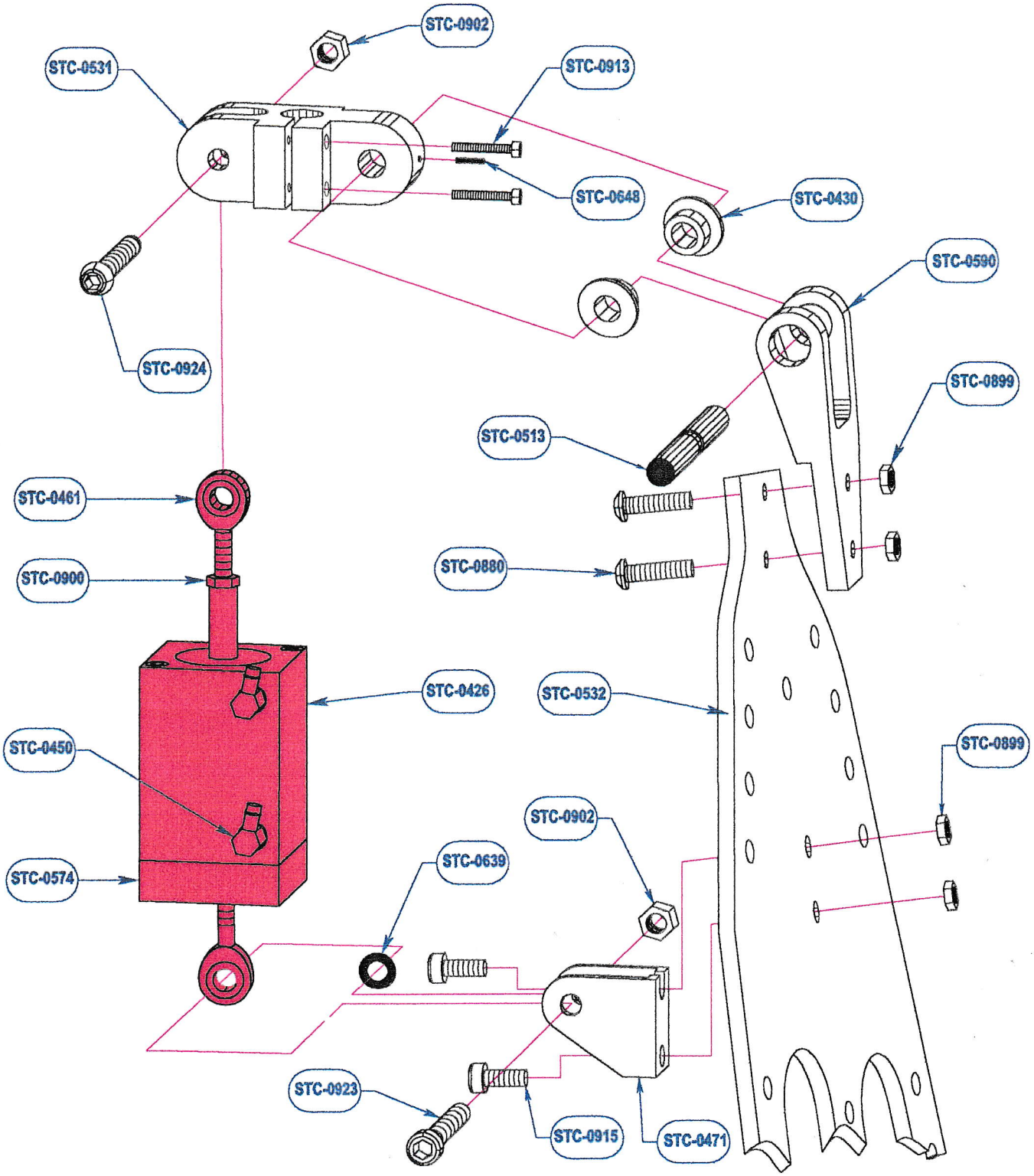
CHUCK E. CHEESE
PARTS AND MATERIALS LIST

R & L LOWER ARM

REF. DWG. NO. CC-308

QTY.	PART NO.	DESCRIPTION	GHP PART NO.
1	STC-0378	ACTUATOR	
1	STC-0381	ACTUATOR	
1	STC-0860	ALLEN BOLT 1/4-28 X 1 1/4	
2	STC-0890	BUTTON HEAD 1/4-20 X 1/2	
2	STC-0877	BUTTON HEAD 8-32 X 1/2	
2	STC-0881	BUTTON HEAD 10-24 X 5/8	
4	STC-0878	BUTTON HEAD 8-32 X 5/8	
1	STC-0904	LOCK NUT 1/4-28	
1	STC-0903	JAM NUT 1/4-28	
1	STC-0852	SET SCREW 10-24 X 1/4	
2	STC-0529	ARM PLATE	
1	STC-0530	MOUNTING PLATE	
1	STC-0531	WRIST PIVOT	
1	STC-0533	WRIST PLATE	
1	STC-0542	PIN	
1	STC-0543	PIN	
1	STC-0546	SPACER	
1	STC-0463	ROD END (MALE)	
2	STC-0431	BEARING	
2	STC-0432	BEARING	

COMPONENT REPLACEMENT



CHUCK E. CHEESE

MODEL: CC-102	R & L WRIST

FILE: \handnewx.dwg	REV: 6	DRAWING NO. CC-302

CHUCK E. CHEESE
PARTS AND MATERIALS LIST

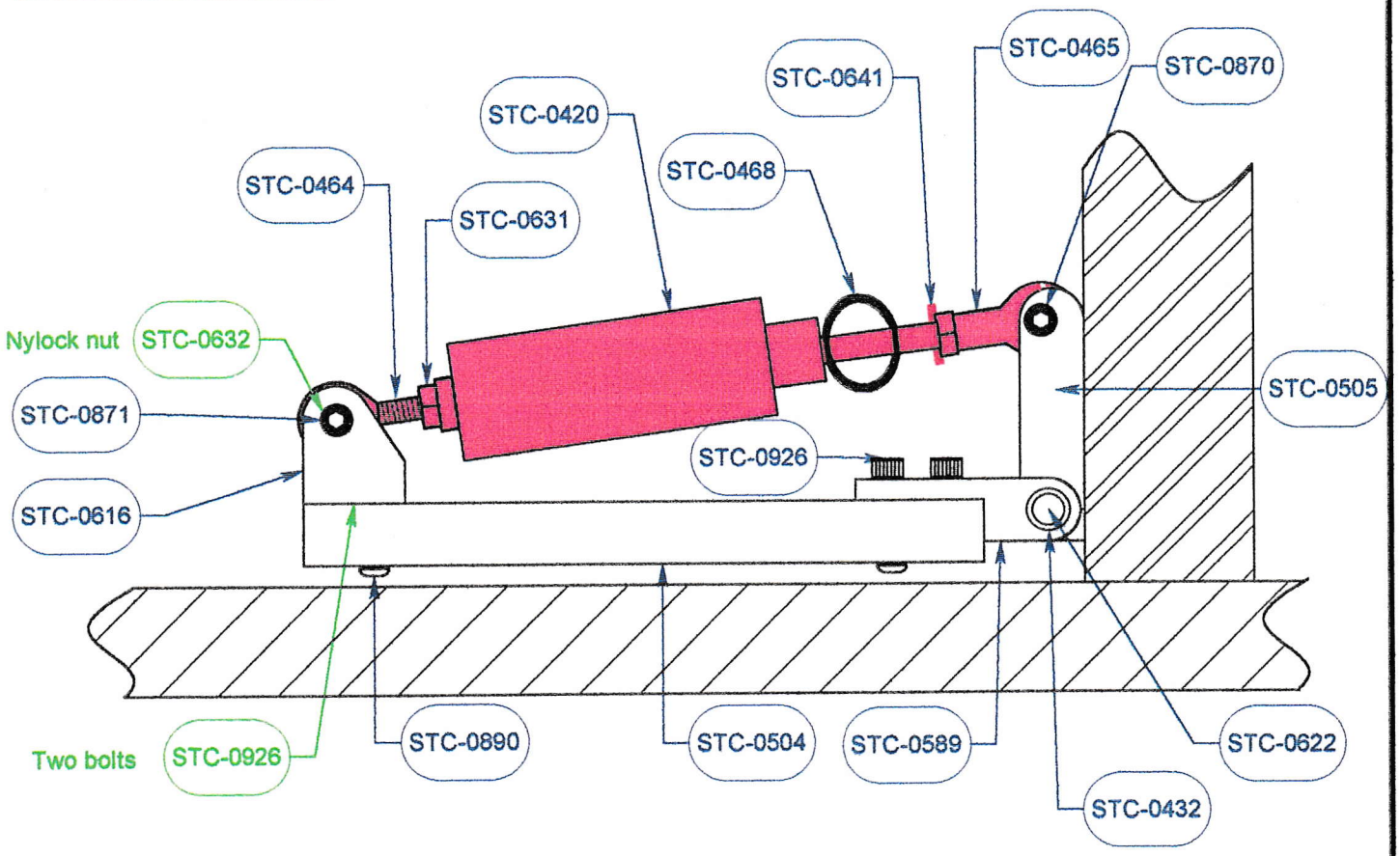
R & L WRIST

REF. DWG. NO. CC-302

QTY.	PART NO.	DESCRIPTION	GHP PART NO.
1	STC-0426	ACTUATOR	
1	STC-0923	ALLEN BOLT 10-32 X 3/4	
1	STC-0924	ALLEN BOLT 10-32 X 1	
2	STC-0915	ALLEN BOLT 10-24 X 3/8	
2	STC-0913	ALLEN BOLT 8-32 X 1/2	
2	STC-0880	BUTTONHEAD 10-24 X 1/2	
2	STC-0902	JAM LOCK NUT 10-32	
2	STC-0900	NUT 10-32	
4	STC-0899	JAM LOCK NUT 10-24	
1	STC-0648	SET SCREW 6-32 X 3/16	
1	STC-0639	WASHER #10 NAS	
1	STC-0590	WRIST WAVE CLEVIS	
1	STC-0574	BASE CYLINDER WAVE	
1	STC-0531	WRIST PIVOT	
1	STC-0532	HAND PLATE	
1	STC-0513	PIN, WRIST WAVE	
2	STC-0461	MALE ROD END	
1	STC-0471	CLEVIS	
2	STC-0430	BEARING	
2	STC-0450	HOSE ANGLE	

COMPONENT REPLACEMENT

Note: Green text balloons indicate hidden components.



CHUCK E. CHEESE

MODEL: CC-102	SIDE VIEW - FOOT	
FILE: foot.vlm	REV: 5	DRAWING NO. CC-320

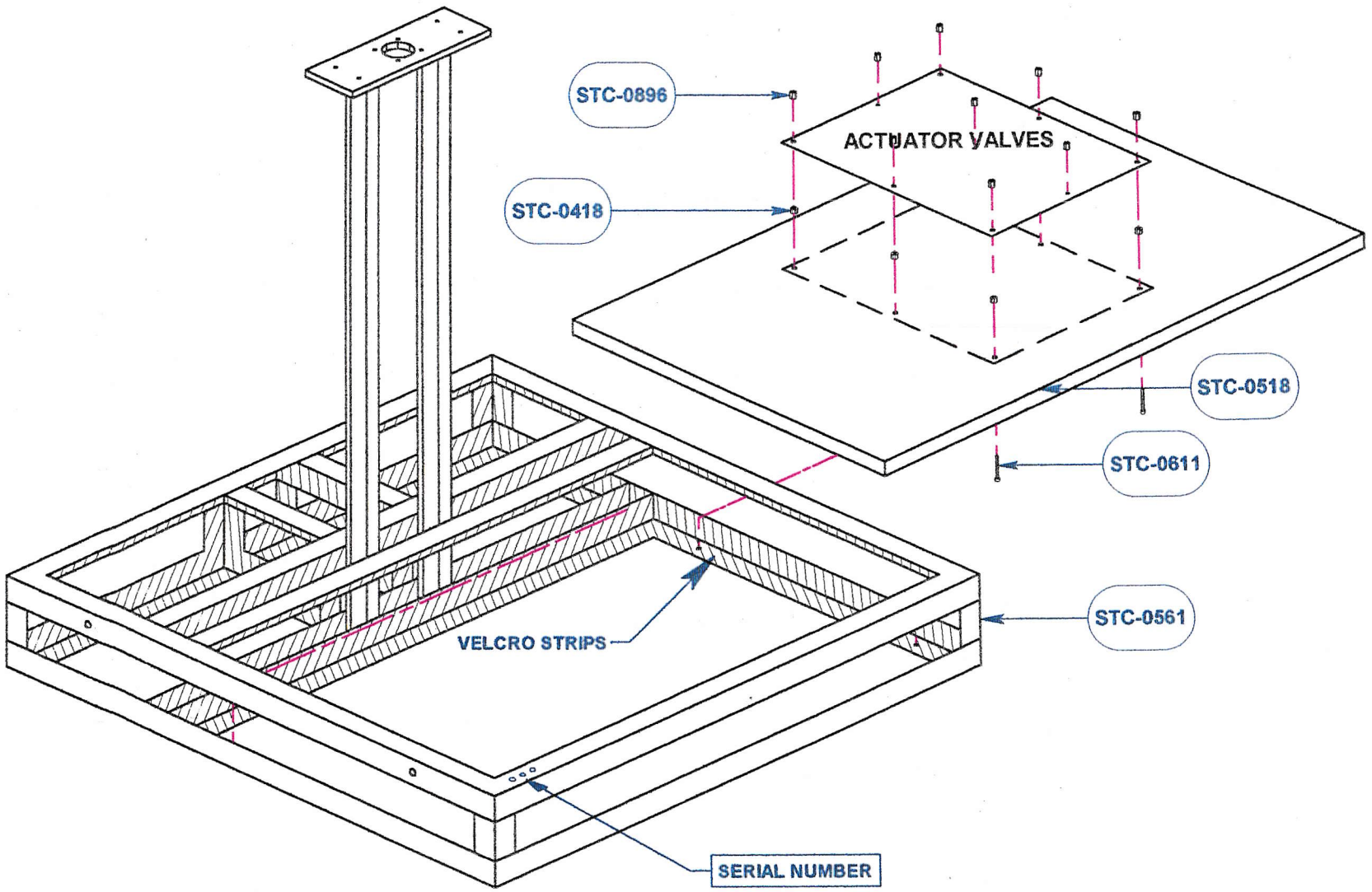
CHUCK E. CHEESE
PARTS AND MATERIALS LIST

FOOT

REF. DWG. NO. CC-320

QTY.	PART NO.	DESCRIPTION	GHP PART NO.
1	STC-0420	ACTUATOR	
1	STC-0871	ALLEN BOLT 5/16-24 X 1 1/2	
4	STC-0926	ALLEN BOLT 1/4-20 X 1/2	
1	STC-0870	ALLEN BOLT 5/16-24 X 1 1/4	
2	STC-0890	BUTTON HEAD 1/4-20 X 1/2	
2	STC-0632	LOCK NUT 5/16-24	
2	STC-0631	JAM NUT 5/16-24	
1	STC-0641	FLAT WASHER 5/16	
1	STC-0616	CLEVIS	
1	STC-0622	PIN	
1	STC-0589	CLEVIS	
1	STC-0504	FOOT BAR	
1	STC-0505	CLEVIS WELDMOUNT	
1	STC-0464	MALE ROD END	
1	STC-0465	FEMALE ROD END	
1	STC-0468	RUBBER BUMPER	
2	STC-0432	BEARING	

COMPONENT REPLACEMENT



CHUCK E. CHEESE

MODEL CC-102	BASE STAND

File: I:\tim\manual\base2.vlm	REV. 5	DRAWING NO. CC-303

4/00 5-24

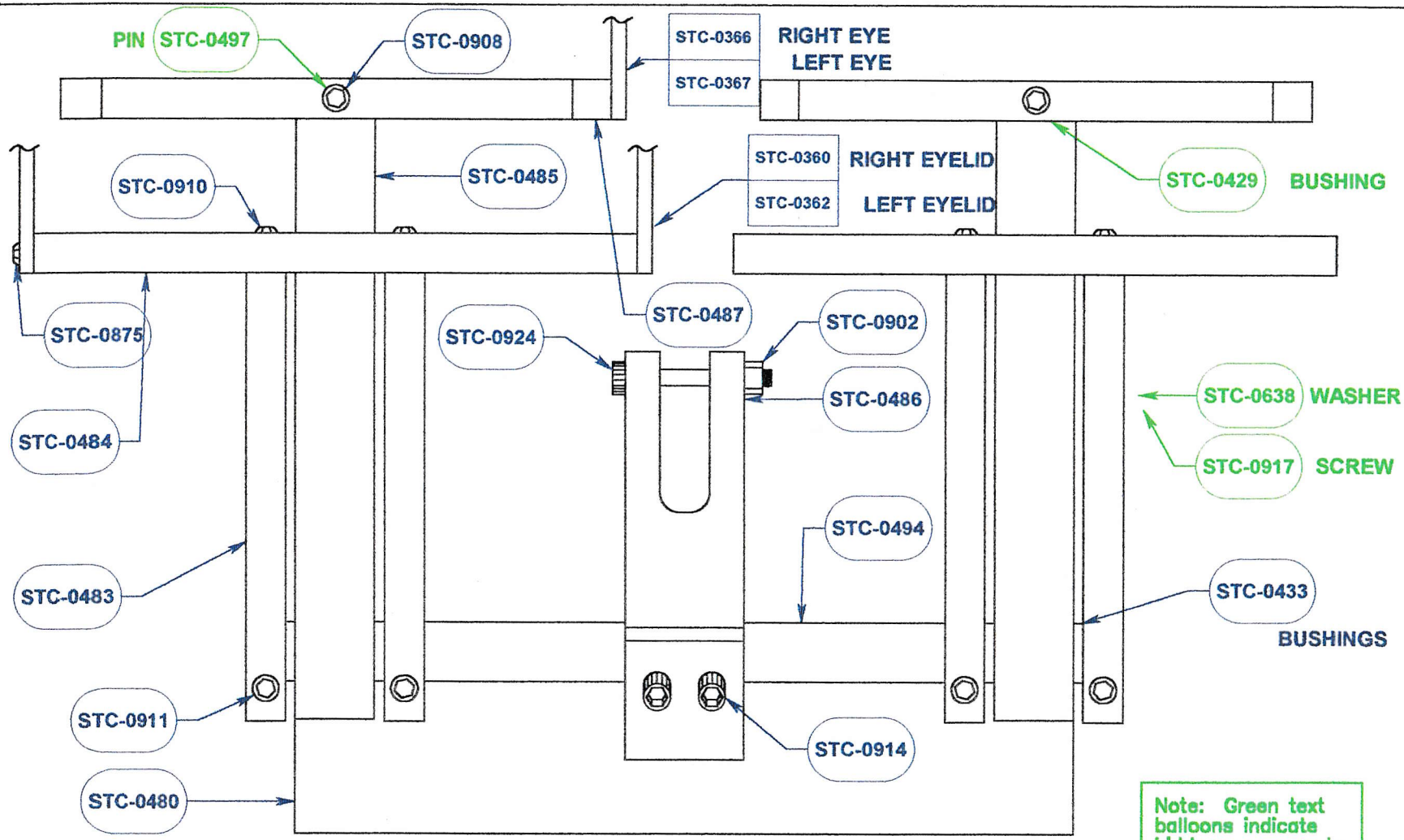
CHUCK E. CHEESE
PARTS AND MATERIALS LIST

BASE STAND

REF. DWG. NO. CC-303

QTY.	PART NO.	DESCRIPTION	GHP PART NO.
2		VELCRO STRIPS	NO PART #
9	STC-0896	NUT 8-32	
9	STC-0611	MACHINE SCREW 8-32 X 1 1/2	
1	STC-0561	STEEL MAINFRAME	
1	STC-0518	BASE BOARD	
9	STC-0418	SPACER	

COMPONENT REPLACEMENT



CHUCK E. CHEESE

MODEL: CC-102	EYE BLINK ASSEMBLY

FILE: I:\tim\manual\head\eyeblink\eyeblink.vlm	REV: 8	DRAWING NO. CC-319

4/00 5-26

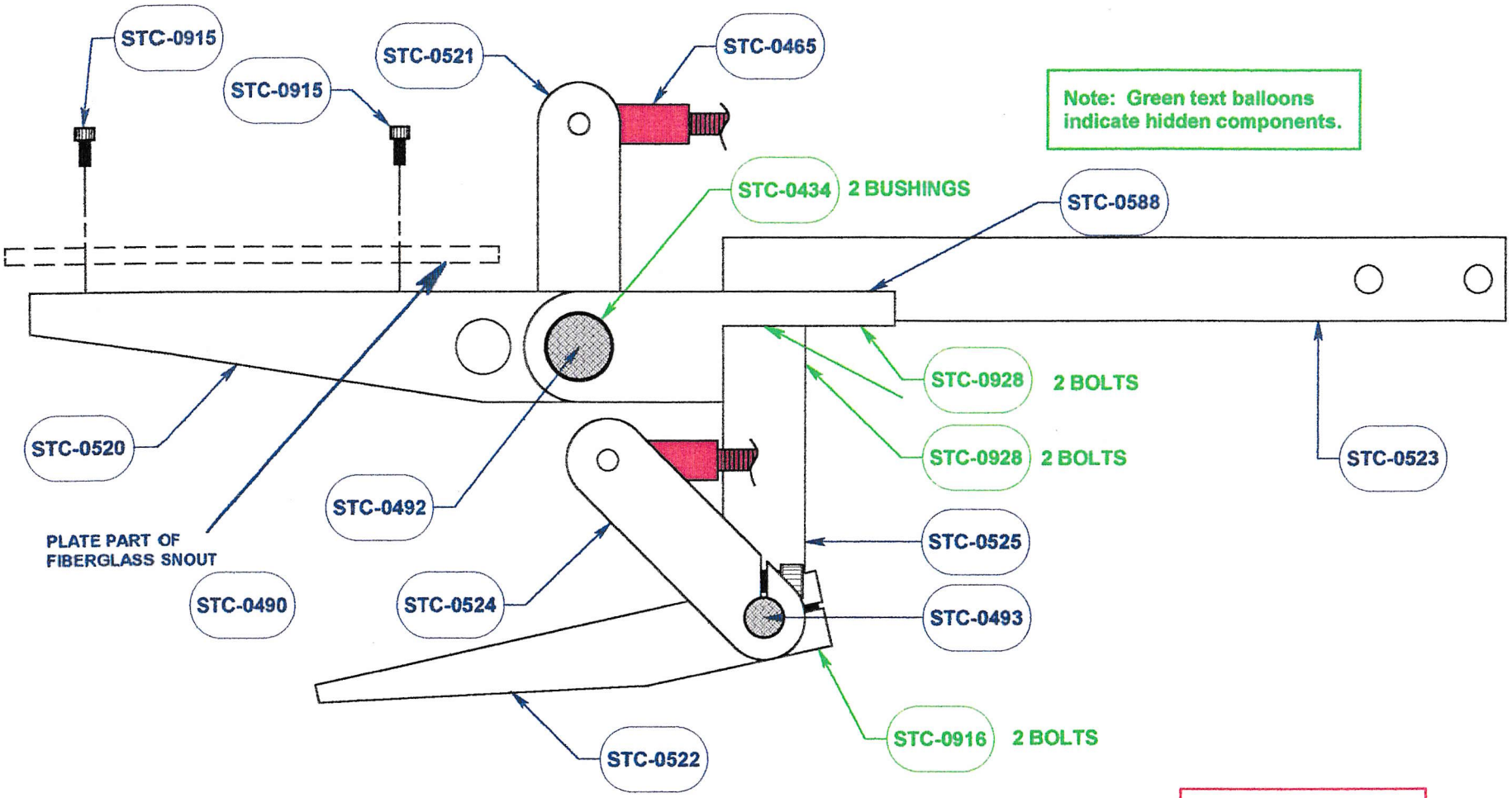
CHUCK E. CHEESE
PARTS AND MATERIALS LIST

EYE BLINK

REF. DWG. NO. CC- 319

QTY.	PART NO.	DESCRIPTION	GHP PART NO.
1	STC-0924	ALLEN BOLT 10-32 X 1	
4	STC-0917	ALLEN BOLT 10-24 X 5/8	
2	STC-0914	ALLEN BOLT 8-32 X 5/8	
2	STC-0908	ALLEN BOLT 6-32 X 1/4	
8	STC-0910	ALLEN BOLT 6-32 X 1/2	
4	STC-0911	ALLEN BOLT 6-32 X 5/8	
1	STC-0902	JAM LOCK NUT 10-32	
4	STC-0638	FLAT WASHER #10	
16	STC-0875	BUTTON HEAD 4-40 X 3/16	
1	STC-0480	MAIN EYE PLATE	
4	STC-0483	EYELID PLATE	
2	STC-0484	EYELID MOUNT	
2	STC-0485	EYE MOUNT	
1	STC-0486	EYE LEVER	
2	STC-0487	EYE PLATE	
1	STC-0494	EYE SHAFT	
1	STC-0366	RIGHT EYE	
1	STC-0367	LEFT EYE	
1	STC-0360	RIGHT EYELID	
1	STC-0362	LEFT EYELID	
2	STC-0497	EYE PIN	
4	STC-0429	BEARING	
2	STC-0433	BEARING	

COMPONENT REPLACEMENT



4/00 5-28

CHUCK E. CHEESE

MODEL: CC-102	JAW AND NOSE ASSEMBLY		
FILE: jaw.vlm	REV: 12		DRAWING NO. CC-318

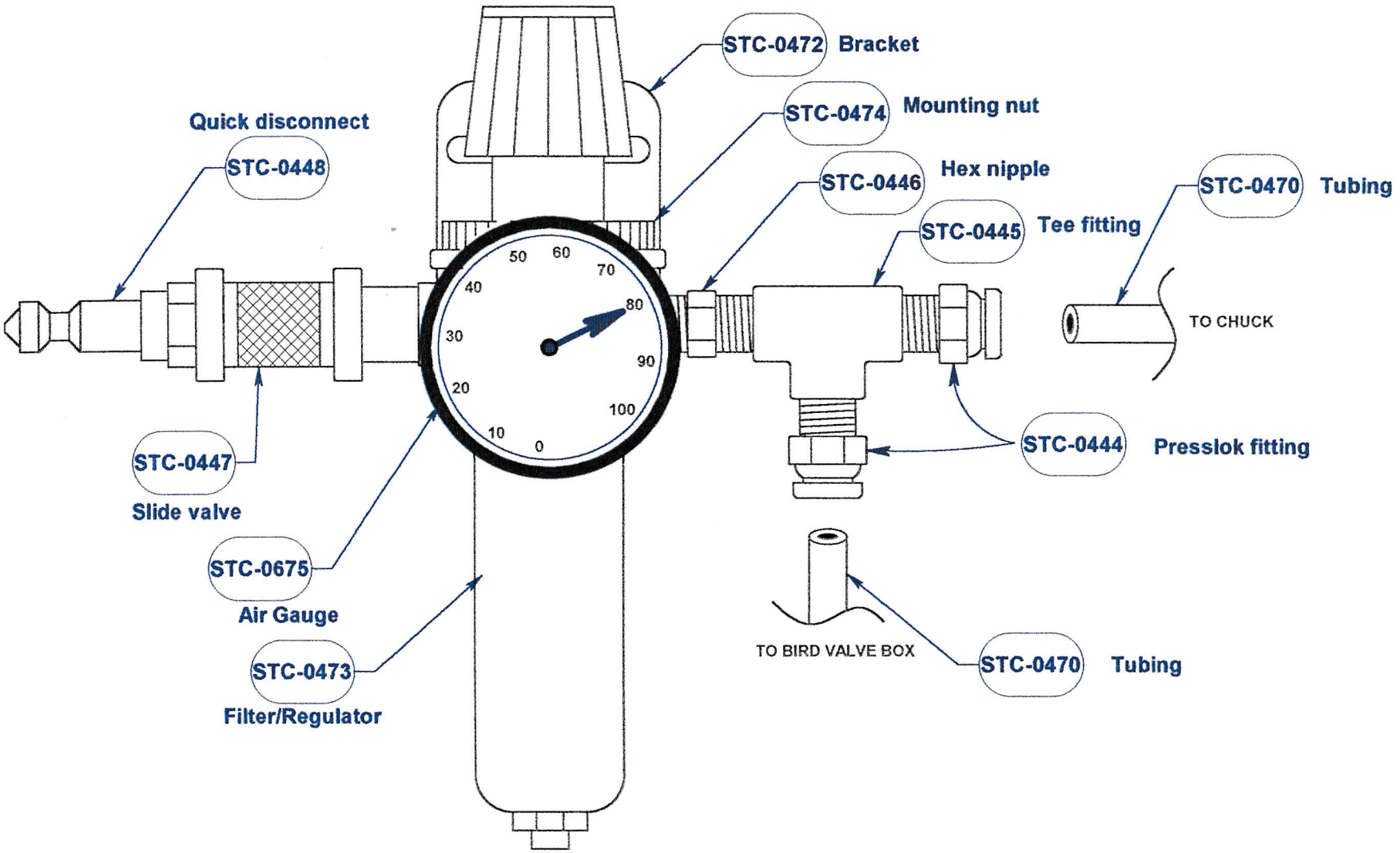
CHUCK E. CHEESE
PARTS AND MATERIALS LIST

JAW AND NOSE ASSEMBLY

REF. DWG. NO. CC-318

QTY.	PART NO.	DESCRIPTION	GHP PART NO.
4	STC-0928	ALLEN BOLT 1/4-20 X 3/4	
4	STC-0915	ALLEN BOLT 10-24 X 3/8	
2	STC-0916	ALLEN BOLT 10-24 X 1/2	
1	STC-0588	CLEVIS	
1	STC-0520	NOSE BAR	
1	STC-0521	NOSE LEVER	
1	STC-0522	JAW MOVE	
1	STC-0523	JAW AND NOSE MOUNT	
1	STC-0524	JAW LEVER	
1	STC-0525	JAW MOUNT	
1	STC-0490	NOSE PLATE	
1	STC-0492	NOSE SHAFT	
1	STC-0493	JAW SHAFT	
2	STC-0465	ROD END	
2	STC-0434	BEARINGS	

COMPONENT REPLACEMENT



CHUCK E. CHEESE

MODEL: CC-102	REGULATOR

FILE: I:\tim\manual\regulatr.vlm	REV: 5		DRAWING NO. CC-321

CHUCK E. CHEESE
PARTS AND MATERIALS LIST

REGULATOR

REF. DWG. NO. CC-321

QTY.	PART NO.	DESCRIPTION	GHP PART NO.
1	STC-0472	BRACKET	
1	STC-0473	FILTER / REGULATOR	
1	STC-0474	MOUNTING NUT	
2	STC-0444	PRESS LOCK FITTING	
1	STC-0445	TEE FITTING	
1	STC-0446	HEX NIPPLE	
1	STC-0447	SLIDE VALVE	
1	STC-0448	QUICK DISCONNECT	
2	STC-0470	TUBING	
1	STC-0675	AIR GAUGE	

Actuator Replacement - Chuck E. Cheese

NOTE: TURN OFF ALL AIR, and ELECTRIC POWER TO THE FIGURE BEFORE BEGINNING ANY MAINTENANCE PROCEDURE.

1. ACTUATOR REPLACEMENT

ACTUATORS (CYLINDERS)

The movement of each individual function is caused by the actuator/cylinder. The actuator is constructed with only one moving part, the piston/rod assembly. As air pressure is applied to one end, the cylinder extends - moving the part in one direction. When pressure is applied to the opposite end, the cylinder retracts in the reverse direction. Air and hydraulic cylinders are constructed to last for millions of cycles. If any leakage is detected, or the cylinder fails or becomes damaged, it should be replaced. In some cases they can be repaired, but only by qualified personnel. Never replace any actuator with a different size, stroke, or manufacture.

1. When changing out an actuator assembly, the most important issues are:

* Replacing with the correct replacement actuator.
* Replacing all components in the exact place they were before they were removed.
* Replacing hoses properly with correct color code.

2. FLOW RESTRICTORS

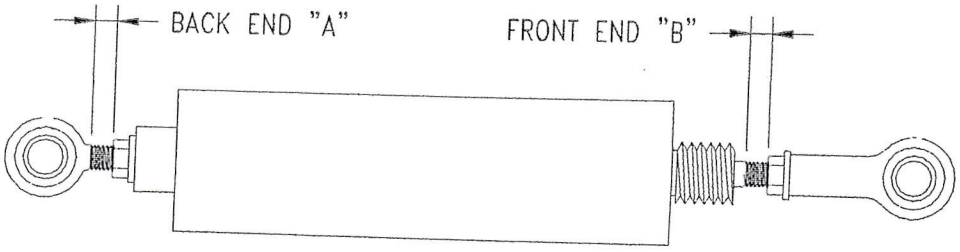
1. A set of colored flow control restrictors will be mounted in each line between the valve and the cylinder, one pair per function. These are usually found inside the figure a few inches from the actuator. One restrictor controls the speed that the cylinder extends, and one controls the speed that the cylinder retracts. When replacing, it is critical that the color remains the same and the arrow on the restrictor is pointing in the direction of the actuator. The show computer is programmed with control signals that are timed in relation to the size of the flow restrictors. If the flow restrictors are not the proper size, the timing of the figure will be incorrect, and the show will not function properly.

Actuator Replacement - Chuck E. Cheese

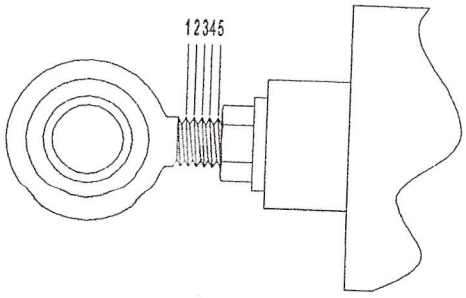
NOTE: TURN OFF ALL AIR, and ELECTRIC POWER TO THE FIGURE BEFORE BEGINNING ANY MAINTENANCE PROCEDURE.

1. ACTUATOR REPLACEMENT SCREW THREAD CALIBRATION

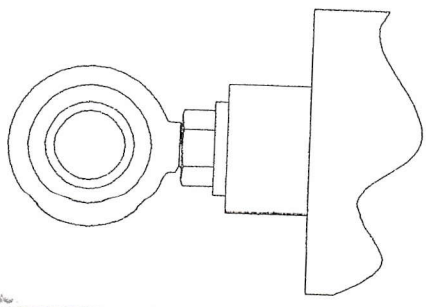
WHEN REPLACING AN ACTUATOR, IT IS IMPORTANT THAT THE REPLACEMENT HAS THE SAME LENGTH FROM PIVOT CENTER TO CENTER AS THE ONE BEING REMOVED. IF THIS LENGTH IS CHANGED, IT WILL AFFECT THE PERFORMANCE OF THE FUNCTION AND WILL POSSIBLY DAMAGE THE CHARACTER. SINCE THE REPLACEMENT ACTUATOR SIZE IS THE SAME, ADJUSTMENT OR CHANGE CAN ONLY BE MADE BY TIGHTENING OR LOOSENING THE ROD ENDS (AT EACH END OF THE ACTUATOR). WE HAVE PROVIDED A CHART ON THE NEXT PAGE THAT SHOWS THE NUMBER OF THREADS THAT SHOULD BE VISUALLY SHOWING, IF THEY ARE IN PROPER ADJUSTMENT. BE CAREFUL AS TO THE CORRECT COUNT ON THE PROPER END, EITHER BACK END "A" OR FRONT END "B". THESE THREAD COUNTS ARE USED WHEN ORIGINALLY MANUFACTURING CHUCKY, AND IF THEY ARE OBSERVED DURING REPLACEMENT, YOUR FIGURE SHOULD REMAIN PROPERLY CALIBRATED.



THREAD COUNT EXAMPLE #1
5 THREADS SHOWING



THREAD COUNT EXAMPLE #2
NO THREADS SHOWING



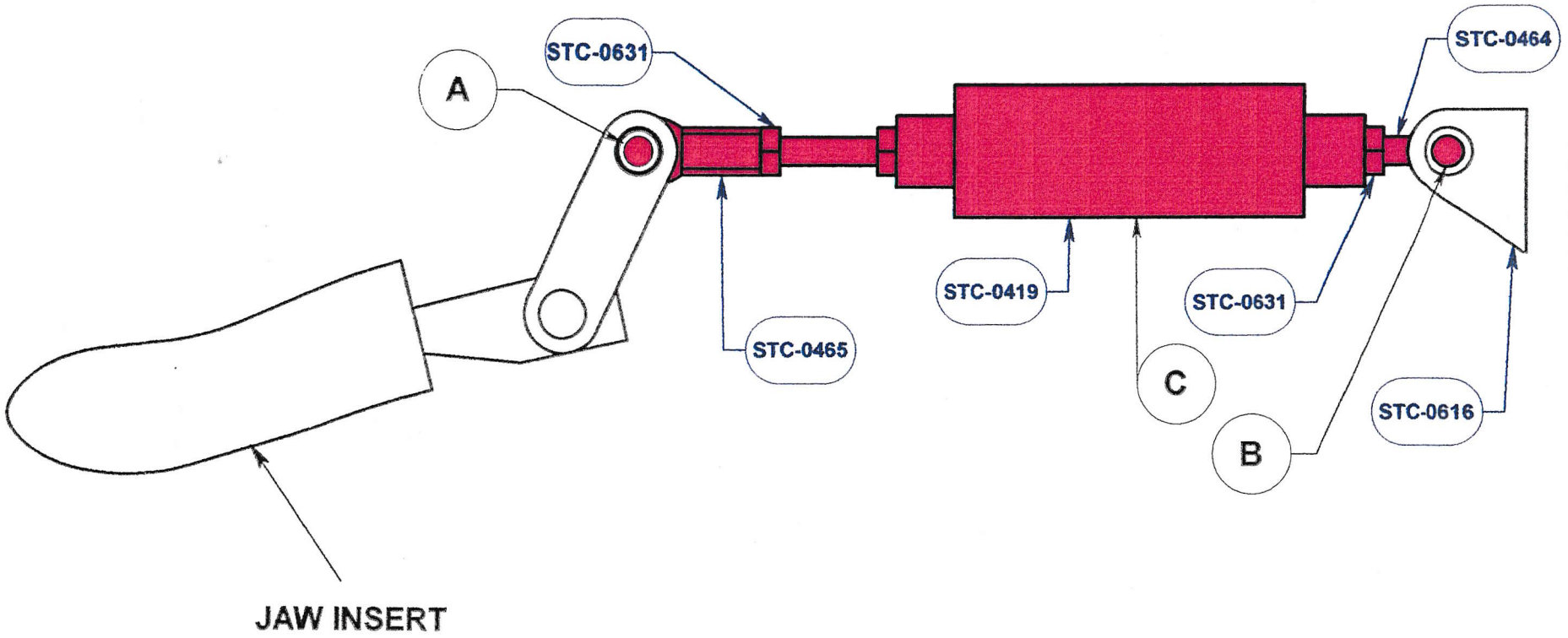
CHUCK E. CHEESE

ACTUATOR SCREW THREAD COUNT

FUNCTION	CYLINDER BODY	BACK END (A) THREAD SHOWING	FRONT END (B) THREAD SHOWING
Mouth	Round	None	None
Nose	Round	12	None
Eyes Turn Right	Square	N/A	3
Eyes Turn Left	Square	N/A	4
R Brow Up	Square	N/A	2
R Brow Down	Square	N/A	2
L Brow Up	Square	N/A	2
L Brow Down	Square	N/A	2
Eyelids Blink Up	Square	N/A	None
Eyelids Blink Down	Square	N/A	None
R Ear	Square	2	3
L Ear	Square	2	7
Head Tilt to Right	Round	N/A	None
Head Tilt to Left	Round	N/A	None
Head Nod	Round	5	None
Head Turn to Right	Square	N/A	4
Head Turn to Left	Square	N/A	4
Body Forebend	Square	None	5
Body Sidebend	Round	15	None
Torso Twist to Right	Round	N/A	None
Torso Twist to Left	Round	N/A	None
Foot Tap	Round	6	None
R Arm Forward	Round	None	None
L Arm Forward	Round	None	None
R Arm Out	Square	N/A	None
L Arm Out	Square	N/A	None
R Arm Swing	Rotary	Center Actuator	Center Actuator
L Arm Swing	Rotary	Center Actuator	Center Actuator
R Elbow	Square	N/A	None
L Elbow	Square	N/A	None
R Wrist Twist	Rotary	N/A	N/A
L Wrist Twist	Rotary	N/A	N/A
R Wave	Square	None	7
L Wave	Square	None	7

ACTUATOR REPLACEMENT

JAW MOVE



ACTUATOR REPLACEMENT FOR JAW MOVE IS AS FOLLOWS:

1. Remove headshell. (See costume section)
2. Remove both air hoses. Be aware of hose color code.
3. Remove fasteners "A" and "B".
4. Remove actuator "C" while supporting function mechanism.
5. Install new actuator positioned exactly the same as the one being replaced.
6. Replace fasteners "A" and "B", including all locking hardware.
7. Replace air hoses. Be aware of hose color code.
8. Manually test figure function for proper operation. Check for binding of actuator or hoses.
9. Replace shells and costume.

4/00

CHUCK E. CHEESE

6-4

MODEL: CC-102

SIDE VIEW - JAW MECHANISM

FILE: jawmove.vlm	REV: 7		DRAWING NO. CC-AR-129

CHUCK E. CHEESE
PARTS AND MATERIALS LIST

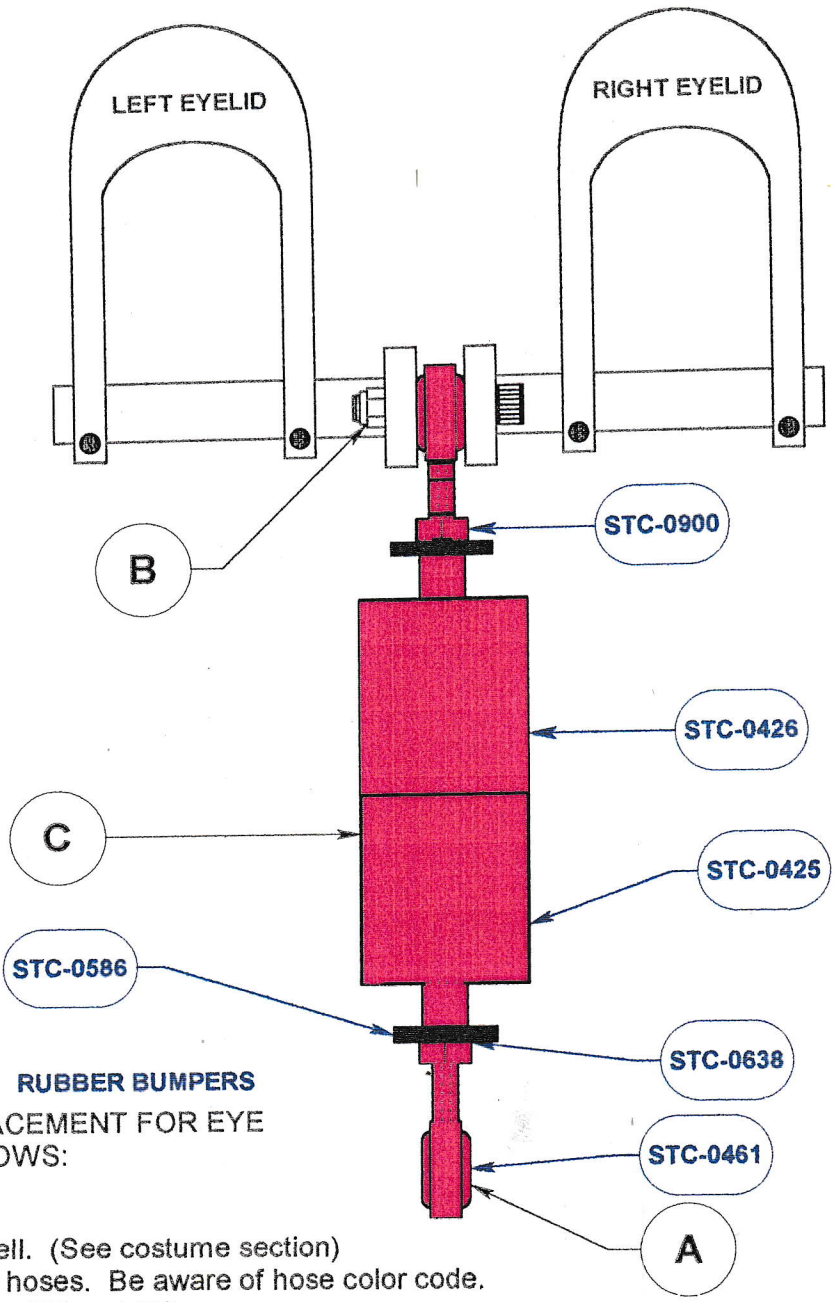
JAW MOVE

REF. DWG. NO. CC-AR-129

QTY.	PART NO.	DESCRIPTION	GHP PART NO.
1	STC-0419	AIR CYLINDER	
2	STC-0631	JAM NUT 5/16-24	
1	STC-0616	CLEVIS	
1	STC-0464	ROD END (MALE)	
1	STC-0465	ROD END	

ACTUATOR REPLACEMENT

EYE BLINK



RUBBER BUMPERS

ACTUATOR REPLACEMENT FOR EYE BLINK IS AS FOLLOWS:

1. Remove headshell. (See costume section)
2. Remove both air hoses. Be aware of hose color code.
3. Remove fasteners "A" and "B".
4. Remove actuator "C" while supporting function mechanism.
5. Install new actuator positioned exactly the same as the one being replaced.
6. Replace fasteners "A" and "B", including all locking hardware.
7. Replace air hoses. Be aware of hose color code.
8. Manually test figure function for proper operation. Check for binding of actuator or hoses.
9. Replace shells and costume.

CHUCK E. CHEESE

MODEL: CC-102	TOP VIEW -- EYE BLINK MECHANISM	
FILE: blink.vlm	REV: 6	DRAWING NO. CC-AR-135

CHUCK E. CHEESE
PARTS AND MATERIALS LIST

EYE BLINK

REF. DWG. NO. CC-AR-135

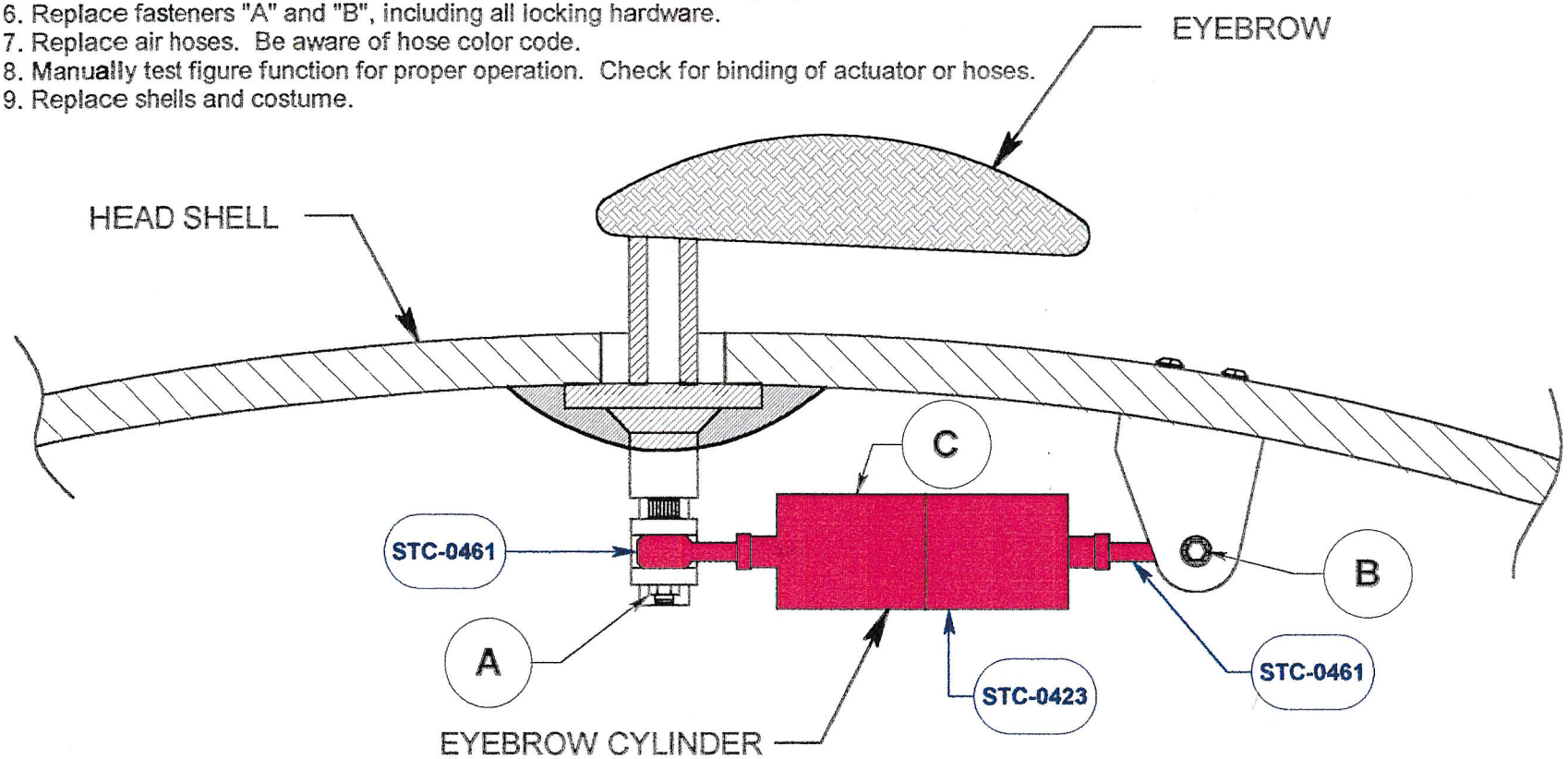
QTY.	PART NO.	DESCRIPTION	GHP PART NO.
1	STC-0425	AIR CYLINDER	
1	STC-0426	AIR CYLINDER	
2	STC-0461	ROD END (MALE)	
2	STC-0900	NUT 10-32	
2	STC-0638	FLAT WASHER #10	
2	STC-0586	RUBBER BUMPER	

ACTUATOR REPLACEMENT

RIGHT AND LEFT EYEBROW UP AND DOWN

ACTUATOR REPLACEMENT FOR EYEBROW MOVE IS AS FOLLOWS:

1. Remove headshell. (See costume section)
2. Remove both air hoses. Be aware of hose color code.
3. Remove fasteners "A" and "B".
4. Remove actuator "C" while supporting function mechanism.
5. Install new actuator positioned exactly the same as the one being replaced.
6. Replace fasteners "A" and "B", including all locking hardware.
7. Replace air hoses. Be aware of hose color code.
8. Manually test figure function for proper operation. Check for binding of actuator or hoses.
9. Replace shells and costume.



CHUCK E. CHEESE

MODEL: CC-102

TOP VIEW -- EYE MECHANISM

FILE: brows.vlm | REV: 6 | DRAWING NO. CC-AR-133

CHUCK E. CHEESE
PARTS AND MATERIALS LIST

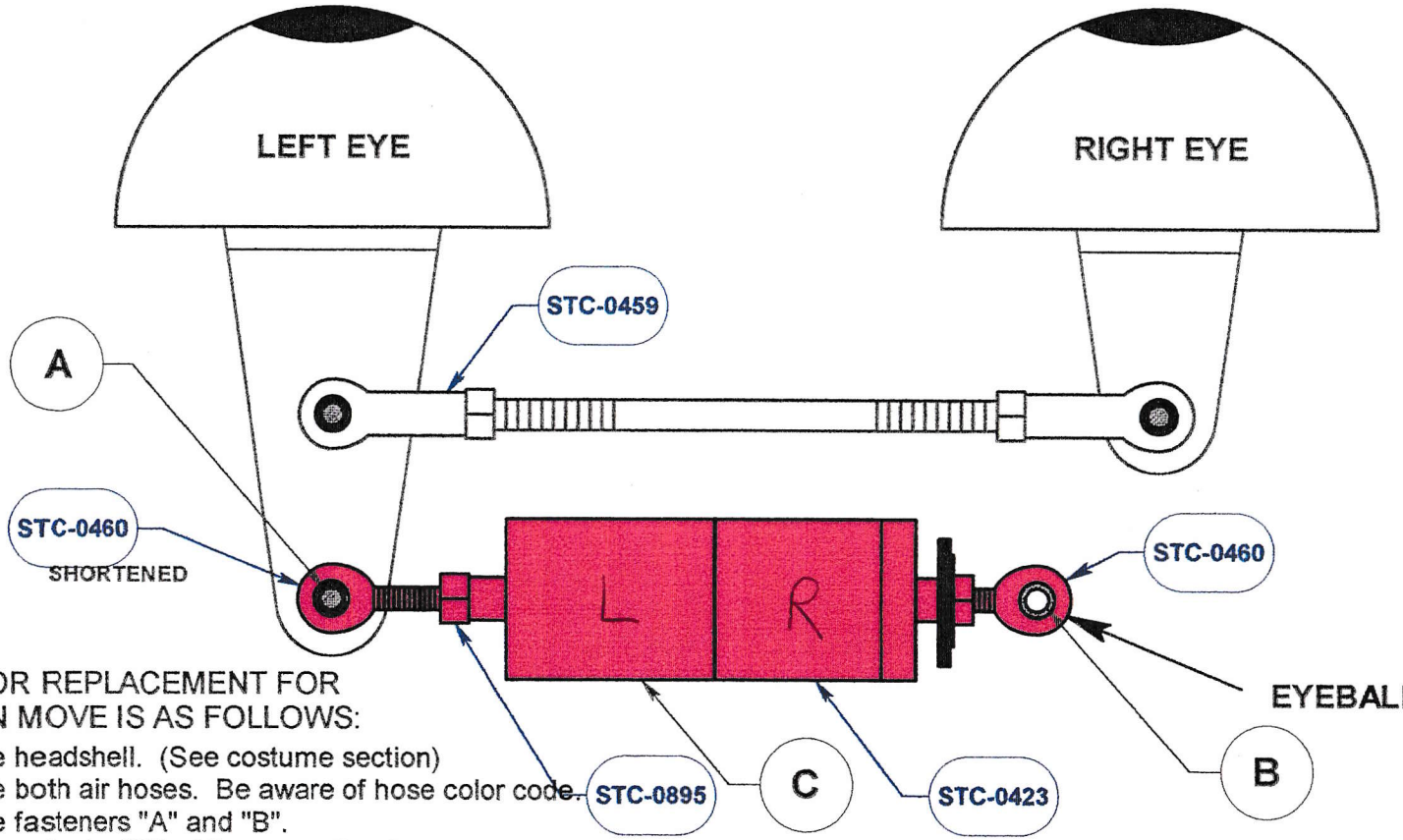
RIGHT AND LEFT EYEBROW UP AND DOWN

REF. DWG. NO. CC-AR-133

QTY.	PART NO.	DESCRIPTION	GHP PART NO.
4	STC-0461	MALE ROD END	
4	STC-0423	C.A. S12 X 12 AIR CYLINDER	

ACTUATOR REPLACEMENT

EYE TURN - LEFT AND RIGHT



ACTUATOR REPLACEMENT FOR EYETURN MOVE IS AS FOLLOWS:

1. Remove headshell. (See costume section)
2. Remove both air hoses. Be aware of hose color code.
3. Remove fasteners "A" and "B".
4. Remove actuator "C" while supporting function mechanism.
5. Install new actuator positioned exactly the same as the one being replaced.
6. Replace fasteners "A" and "B", including all locking hardware.
7. Replace air hoses. Be aware of hose color code.
8. Manually test figure function for proper operation. Check for binding of actuator or hoses.
9. Replace shells and costume.

4/00
6-10

CHUCK E. CHEESE

MODEL: CC-102	TOP VIEW -- EYE MECHANISM

FILE: eyeturn.vlm	REV: 6		DRAWING NO. CC-AR-134

CHUCK E. CHEESE
PARTS AND MATERIALS LIST

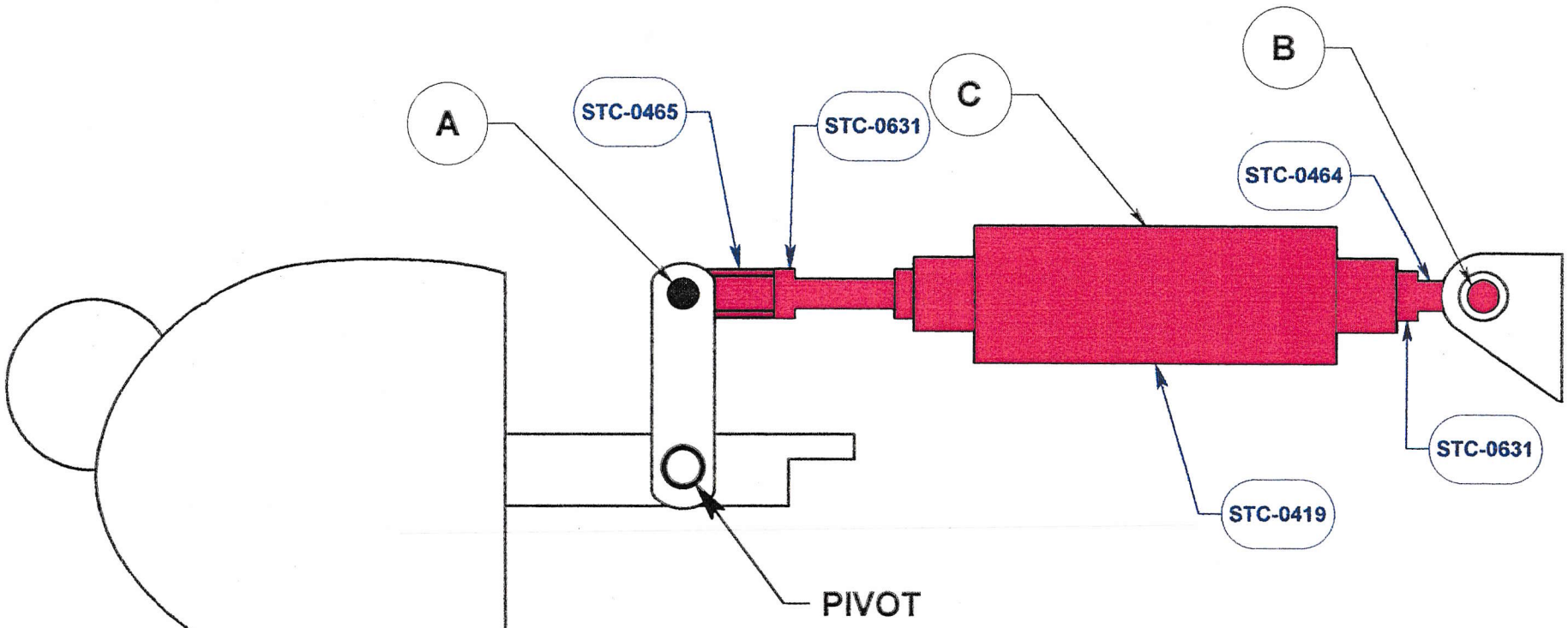
EYE TURN - LEFT AND RIGHT

REF. DWG. NO. CC-AR-134

QTY.	PART NO.	DESCRIPTION	GHP PART NO.
2	STC-0423	ACTUATOR	
2	STC-0459	ROD END	
2	STC-0460	ROD END	
4	STC-0895	NUT 6-32	

ACTUATOR REPLACEMENT

NOSE MOVE



ACTUATOR REPLACEMENT FOR NOSE MOVE IS AS FOLLOWS:

1. Remove headshell. (See costume section)
2. Remove both air hoses. Be aware of hose color code.
3. Remove fasteners "A" and "B".
4. Remove actuator "C" while supporting function mechanism.
5. Install new actuator positioned exactly the same as the one being replaced.
6. Replace fasteners "A" and "B", including all locking hardware.
7. Replace air hoses. Be aware of hose color code.
8. Manually test figure function for proper operation. Check for binding of actuator or hoses.
9. Replace shells and costume.

4/00

CHUCK E. CHEESE

6-12

MODEL: CC-102

SIDE VIEW - SNOUT MECHANISM

FILE: nosemove.vlm	REV: 7		DRAWING NO. CC-AR-130

CHUCK E. CHEESE
PARTS AND MATERIALS LIST

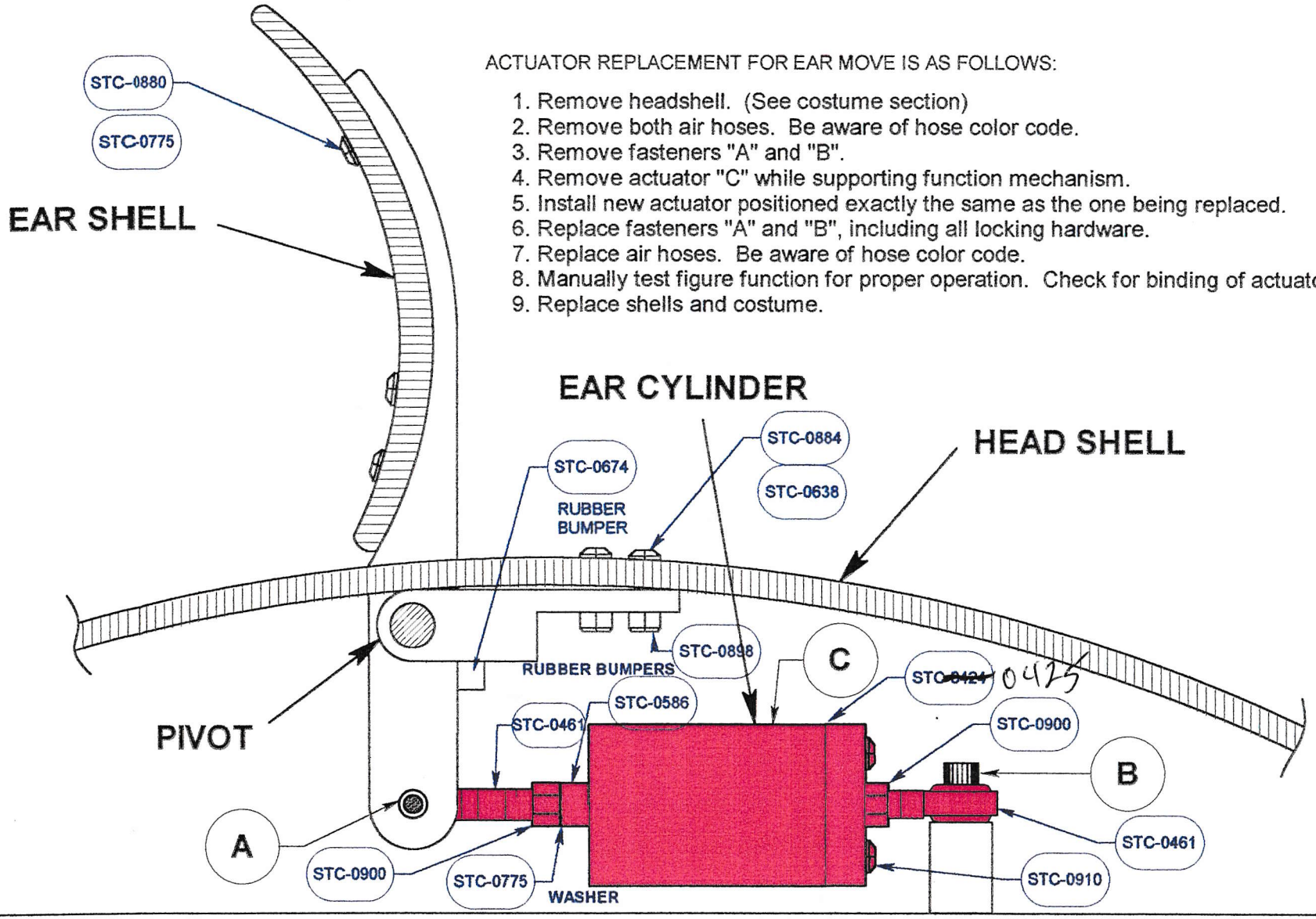
NOSE MOVE

REF. DWG. NO. CC-AR-130

QTY.	PART NO.	DESCRIPTION	GHP PART NO.
1	STC-0419	AIR CYLINDER	
2	STC-0631	JAM NUT 5/16-24	
1	STC-0465	ROD END	
1	STC-0464	ROD END (MALE)	

ACTUATOR REPLACEMENT

EAR MOVE RIGHT



ACTUATOR REPLACEMENT FOR EAR MOVE IS AS FOLLOWS:

1. Remove headshell. (See costume section)
2. Remove both air hoses. Be aware of hose color code.
3. Remove fasteners "A" and "B".
4. Remove actuator "C" while supporting function mechanism.
5. Install new actuator positioned exactly the same as the one being replaced.
6. Replace fasteners "A" and "B", including all locking hardware.
7. Replace air hoses. Be aware of hose color code.
8. Manually test figure function for proper operation. Check for binding of actuator or hoses.
9. Replace shells and costume.

CHUCK E. CHEESE

MODEL: CC-102	TOP VIEW -- EAR MECHANISM

FILE: I:\tim\manual\earmover.vlm	REV: 4		DRAWING NO. CC-AR-131

4/00 6-14

CHUCK E. CHEESE
PARTS AND MATERIALS LIST

EAR MOVE RIGHT

REF. DWG. NO. CC-AR-131

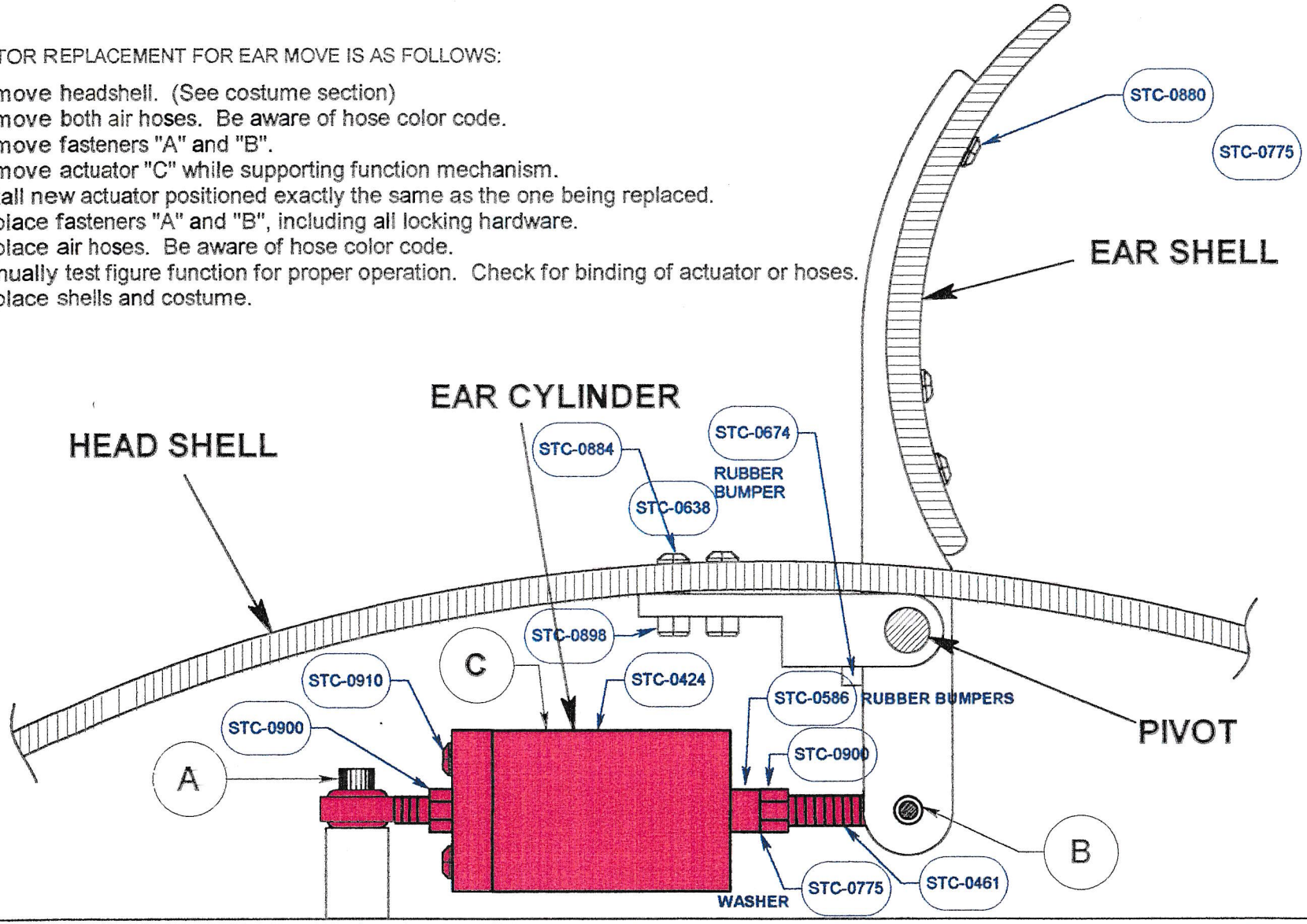
QTY.	PART NO.	DESCRIPTION	GHP PART NO.
1	STC-0424	AIR CYLINDER	
2	STC-0910	ALLEN BOLT 6-32 X 1/2	
2	STC-0900	NUT 10-32	
1	STC-0638	FLAT WASHER #10	
1	STC-0586	RUBBER BUMPER	
2	STC-0461	ROD END (MALE)	
3	STC-0880	BUTTONHEAD 10-24 X 1/2	
3	STC-0775	#10 FENDER WASHER	
2	STC-0884	BUTTONHEAD 10-24 X 1	
2	STC-0898	LOCK NUT 10-24	
1	STC-0674	RUBBER BUMPER	

ACTUATOR REPLACEMENT

EAR MOVE LEFT

ACTUATOR REPLACEMENT FOR EAR MOVE IS AS FOLLOWS:

1. Remove headshell. (See costume section)
2. Remove both air hoses. Be aware of hose color code.
3. Remove fasteners "A" and "B".
4. Remove actuator "C" while supporting function mechanism.
5. Install new actuator positioned exactly the same as the one being replaced.
6. Replace fasteners "A" and "B", including all locking hardware.
7. Replace air hoses. Be aware of hose color code.
8. Manually test figure function for proper operation. Check for binding of actuator or hoses.
9. Replace shells and costume.



CHUCK E. CHEESE

MODEL: CC-102

TOP VIEW -- EAR MECHANISM

FILE: earmovel.vlm | REV: 4 | DRAWING NO. CC-AR-132

4/00 6-16

CHUCK E. CHEESE
PARTS AND MATERIALS LIST

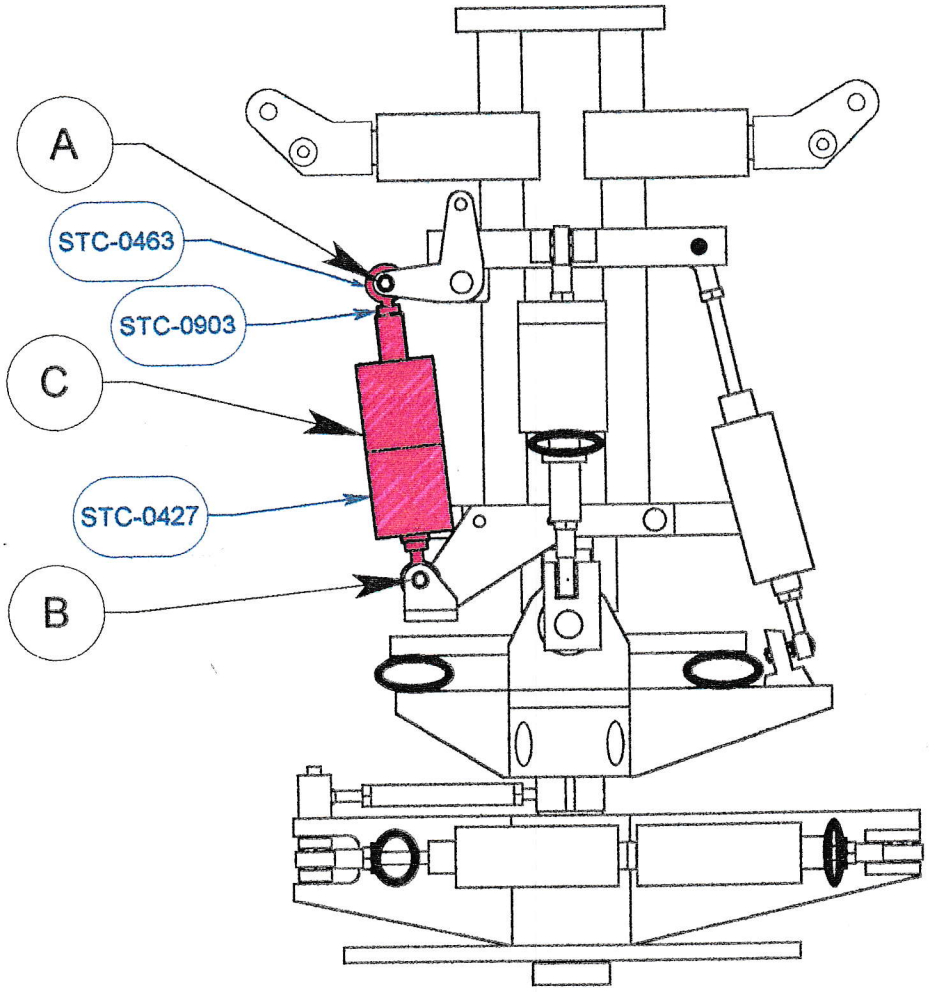
EAR MOVE LEFT

REF. DWG. NO. CC-AR-132

QTY.	PART NO.	DESCRIPTION	GHP PART NO.
1	STC-0424	EAR CYLINDER	
2	STC-0910	ALLEN BOLT 6-32 X 1/2	
2	STC-0900	NUT 10-32	
2	STC-0638	FLAT WASHER #10	
3	STC-0880	BUTTONHEAD 10-24 X 1/2	
3	STC-0775	#10 FENDER WASHER	
2	STC-0884	BUTTONHEAD 10-24 X 1	
2	STC-0898	LOCK NUT 10-24	
1	STC-0586	RUBBER BUMPER	
1	STC-0674	RUBBER BUMPER	
2	STC-0461	ROD END (MALE)	

ACTUATOR REPLACEMENT

HEAD TURN LEFT AND RIGHT



ACTUATOR REPLACEMENT FOR HEAD TURN IS AS FOLLOWS:

1. Remove costume. (See costume section)
2. Remove front and rear torso body shells. (See body shell section)
3. Remove both air hoses. Be aware of hose color code.
4. Remove fasteners "A" and "B".
5. Remove actuator "C" while supporting function mechanism.
6. Install new actuator positioned exactly the same as the one being replaced.
7. Replace fasteners "A" and "B", including all locking hardware.
8. Replace air hoses. Be aware of hose color code.
9. Manually test figure function for proper operation. Check for binding of actuator or hoses.
10. Replace shells and costume.

CHUCK E. CHEESE

MODEL: CC-102	FRONT VIEW - TORSO	
FILE: I:\tim\manual\headturn.vlm	REV: 5	DRAWING NO. CC-AR-127

CHUCK E. CHEESE
PARTS AND MATERIALS LIST

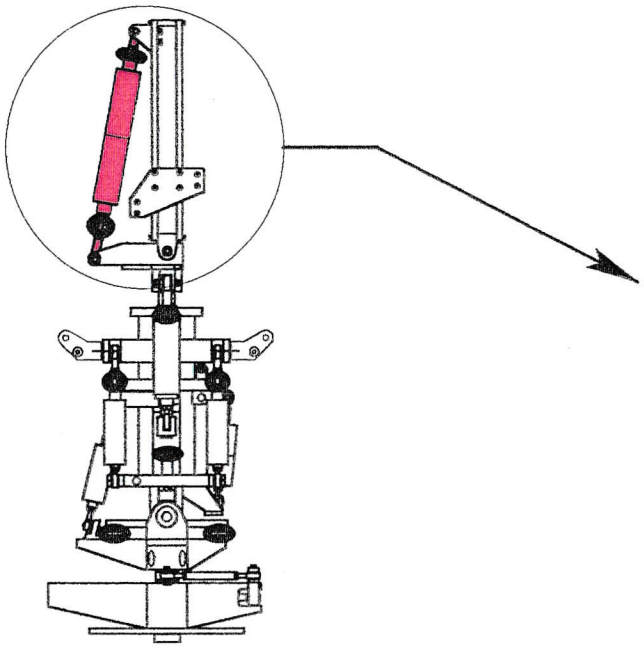
HEAD TURN - LEFT AND RIGHT

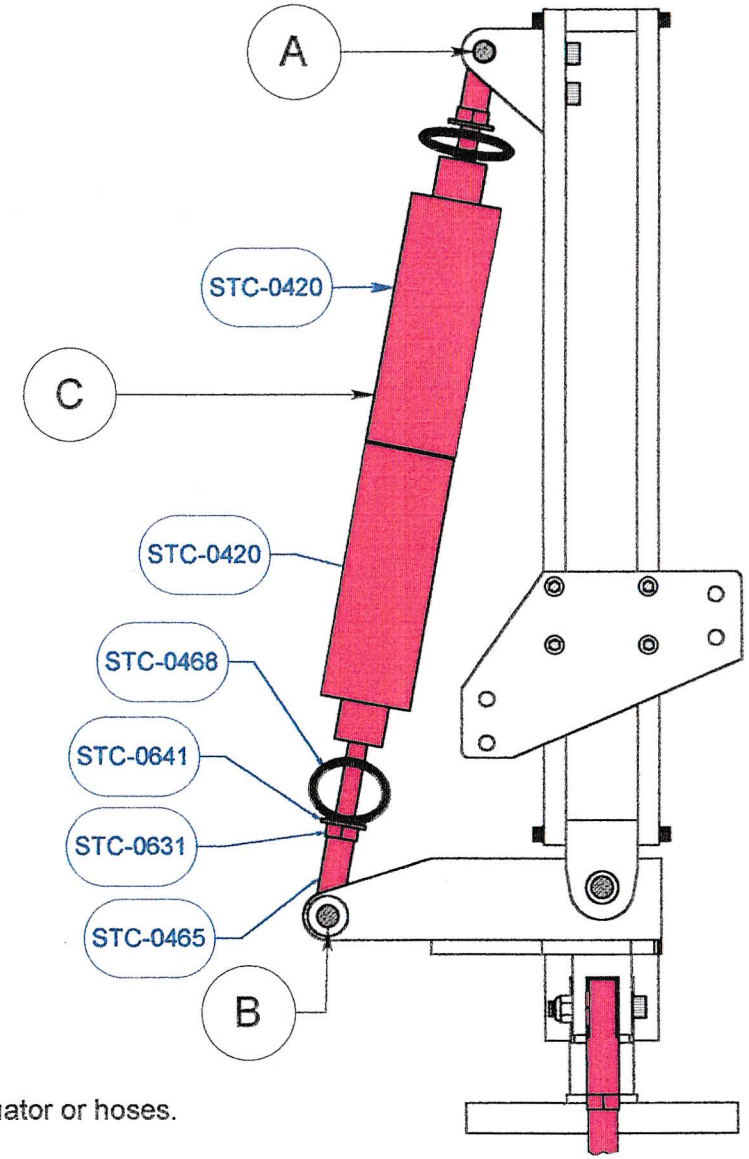
REF. DWG. NO. CC-AR-127

QTY.	PART NO.	DESCRIPTION	GHP PART NO.
2	STC-0427	ACTUATOR	
2	STC-0463	HEAD TURN END (MALE)	
2	STC-0903	JAM NUT 1/4-28	

ACTUATOR REPLACEMENT

HEAD TILT - LEFT AND RIGHT





ACTUATOR REPLACEMENT FOR HEAD TILT IS AS FOLLOWS:

1. Remove headshell. (See costume section)
2. Remove both air hoses. Be aware of hose color code.
3. Remove fasteners "A" and "B".
4. Remove actuator "C" while supporting function mechanism.
5. Install new actuator positioned exactly the same as the one being replaced.
6. Replace fasteners "A" and "B", including all locking hardware.
7. Replace air hoses. Be aware of hose color code.
8. Manually test figure function for proper operation. Check for binding of actuator or hoses.
9. Replace shells and costume.

4/00 6-20

CHUCK E. CHEESE

MODEL: CC-102

REAR VIEW - HEAD FRAME

FILE: headtilt.vlm	REV: 6		DRAWING NO. CC-AR-136

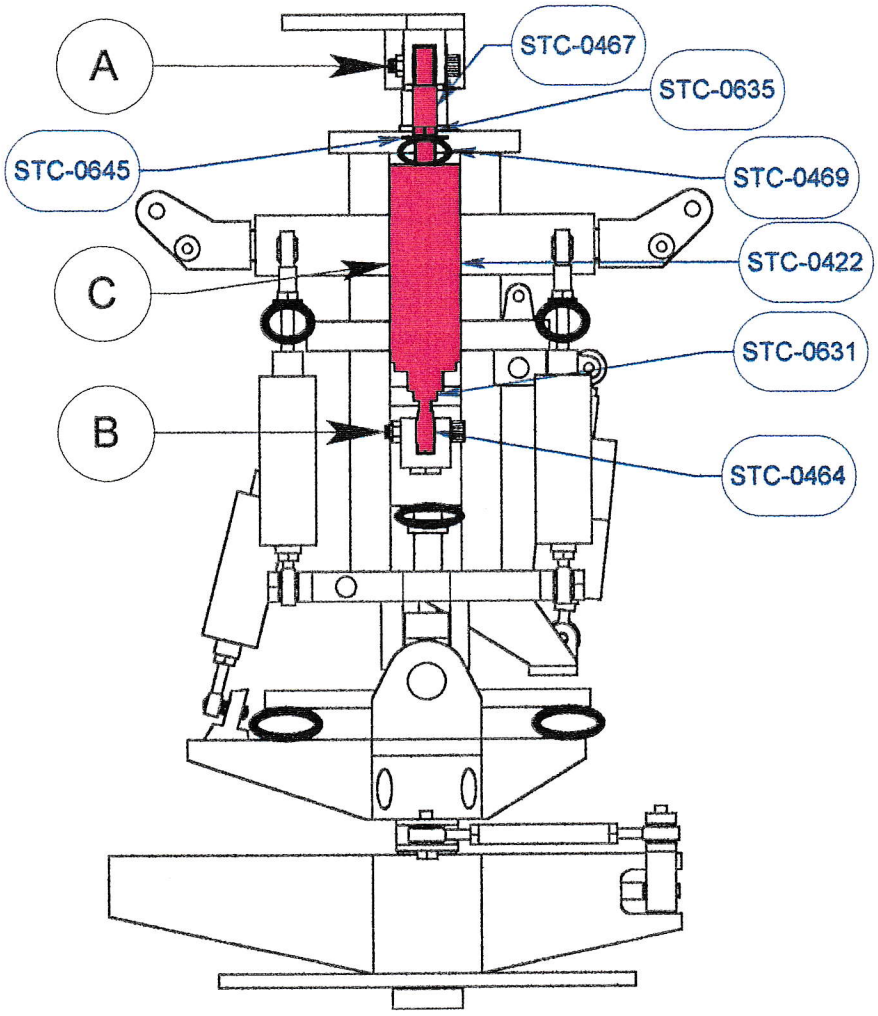
CHUCK E. CHEESE
PARTS AND MATERIALS LIST

HEAD TILT - LEFT AND RIGHT

REF. DWG. NO. CC-AR-136

QTY.	PART NO.	DESCRIPTION	GHP PART NO.
2	STC-0420	ACTUATOR	
2	STC-0631	JAM NUT 5/16-24	
2	STC-0641	FLAT WASHER 5/16	
2	STC-0465	ROD END	
2	STC-0468	RUBBER BUMPER	

ACTUATOR REPLACEMENT | HEAD NOD



ACTUATOR REPLACEMENT FOR HEAD NOD IS AS FOLLOWS:

1. Remove costume. (See costume section)
2. Remove front and rear torso body shells. (See body shell section)
3. Remove both air hoses. Be aware of hose color code.
4. Remove fasteners "A" and "B".
5. Remove actuator "C" while supporting function mechanism.
6. Install new actuator positioned exactly the same as the one being replaced.
7. Replace fasteners "A" and "B", including all locking hardware.
8. Replace air hoses. Be aware of hose color code.
9. Manually test figure function for proper operation. Check for binding of actuator or hoses.
10. Replace shells and costume.

CHUCK E. CHEESE

MODEL: CC-102	REAR VIEW - TORSO

FILE: I:\tim\manual\headnod.vlm	REV: 4		DRAWING NO. CC-AR-128

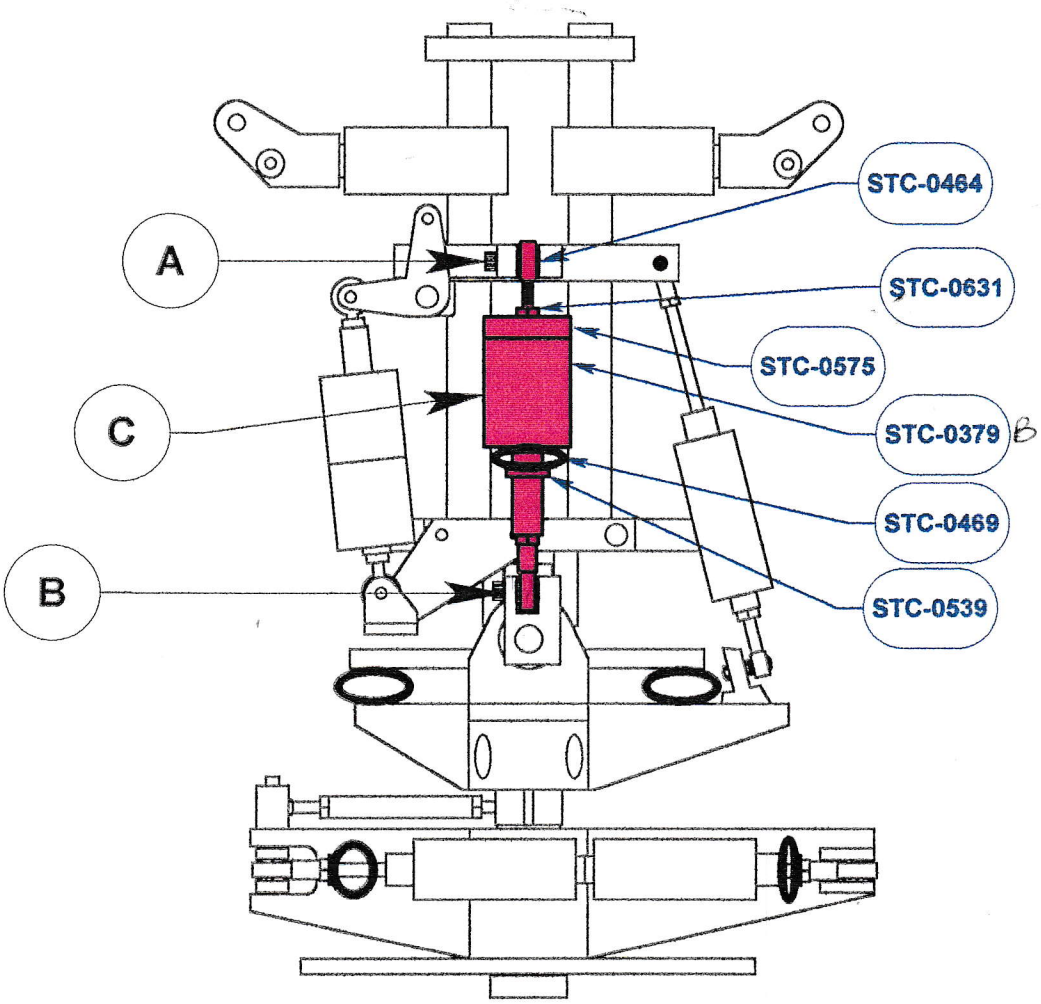
CHUCK E. CHEESE
PARTS AND MATERIALS LIST

HEAD NOD

REF. DWG. NO. CC-AR-128

QTY.	PART NO.	DESCRIPTION	GHP PART NO.
1	STC-0422	ACTUATOR	
1	STC-0635	JAM NUT 3/8-24	
1	STC-0631	JAM NUT 5/16-24	
1	STC-0645	FLAT WASHER 1/2	
1	STC-0464	(MALE) ROD END	
1	STC-0467	(FEMALE) ROD END	
1	STC-0469	RUBBER BUMPER	

ACTUATOR REPLACEMENT | FOREBEND



ACTUATOR REPLACEMENT FOR FOREBEND IS AS FOLLOWS:

1. Remove costume. (See costume section)
2. Remove front and rear torso body shells. (See body shell section)
3. Remove both air hoses. Be aware of hose color code.
4. Remove fasteners "A" and "B".
5. Remove actuator "C" while supporting function mechanism.
6. Install new actuator positioned exactly the same as the one being replaced.
7. Replace fasteners "A" and "B", including all locking hardware.
8. Replace air hoses. Be aware of hose color code.
9. Manually test figure function for proper operation. Check for binding of actuator or hoses.
10. Replace shells and costume.

CHUCK E. CHEESE

MODEL: CC-102	FRONT VIEW - TORSO

FILE: forebend.vlm	REV: 5		DRAWING NO. CC-AR-144

CHUCK E. CHEESE
PARTS AND MATERIALS LIST

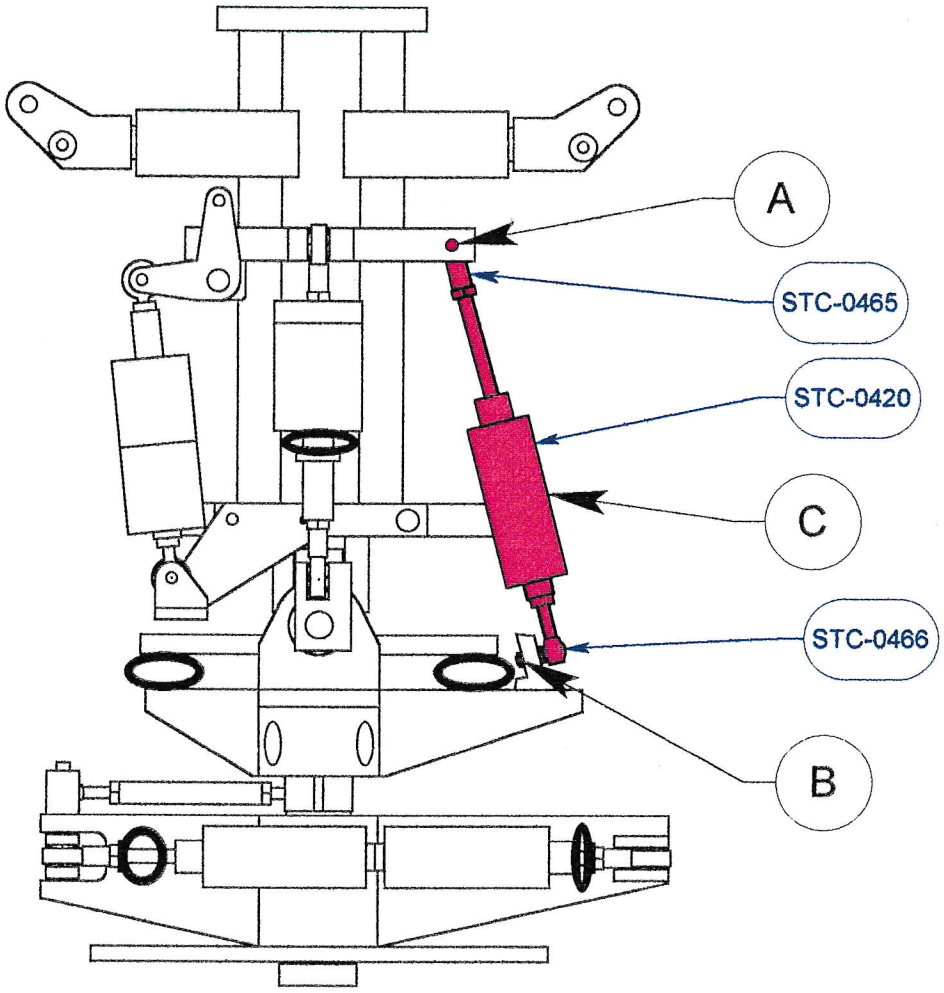
FOREBEND

REF. DWG. NO. CC-AR-144

QTY.	PART NO.	DESCRIPTION	GHP PART NO.
1	STC-0379	ACTUATOR	
2	STC-0631	JAM NUT 5/16-24	
1	STC-0575	ACTUATOR MOUNT	
1	STC-0539	SPACER	
2	STC-0464	(MALE) ROD END	
1	STC-0469	RUBBER BUMPER	

ACTUATOR REPLACEMENT

SIDE BEND LEFT AND RIGHT



ACTUATOR REPLACEMENT FOR SIDE BEND IS AS FOLLOWS:

1. Remove costume. (See costume section)
2. Remove front and rear torso body shells. (See body shell section)
3. Remove both air hoses. Be aware of hose color code.
4. Remove fasteners "A" and "B".
5. Remove actuator "C" while supporting function mechanism.
6. Install new actuator positioned exactly the same as the one being replaced.
7. Replace fasteners "A" and "B", including all locking hardware.
8. Replace air hoses. Be aware of hose color code.
9. Manually test figure function for proper operation. Check for binding of actuator or hoses.
10. Replace shells and costume.

CHUCK E. CHEESE

MODEL: CC-102	FRONT VIEW - TORSO

FILE: I:\tim\manual\sidebend.vlm	REV: 3		DRAWING NO. CC-AR-142

CHUCK E. CHEESE
PARTS AND MATERIALS LIST

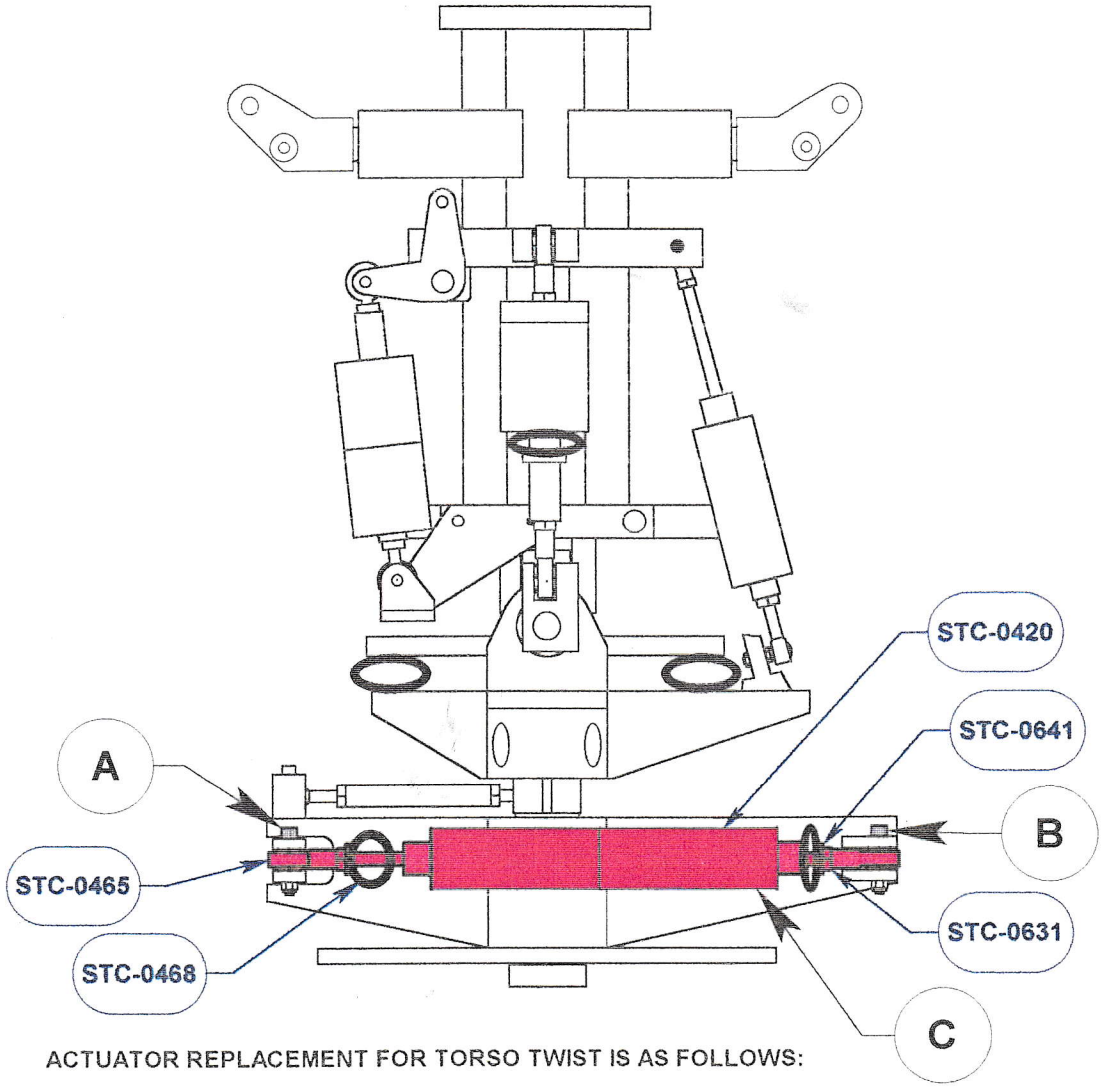
SIDE BEND - LEFT AND RIGHT

REF. DWG. NO. CC-AR-142

QTY.	PART NO.	DESCRIPTION	GHP PART NO.
1	STC-0420	ACTUATOR	
1	STC-0465	ROD END	
1	STC-0466	ROD END / STUD	

ACTUATOR REPLACEMENT

TORSO TWIST LEFT AND RIGHT



ACTUATOR REPLACEMENT FOR TORSO TWIST IS AS FOLLOWS:

1. Remove costume. (See costume section)
2. Remove front and rear torso body shells. (See body shell section)
3. Remove both air hoses. Be aware of hose color code.
4. Remove fasteners "A" and "B".
5. Remove actuator assembly "C" while supporting function mechanism.
6. Install new actuator assembly, positioned exactly the same as the one being replaced.
7. Replace fasteners "A" and "B", including all locking hardware.
8. Replace air hoses. Be aware of hose color code.
9. Manually test figure function for proper operation. Check for binding of actuator or hoses.
10. Replace shells and costume.

CHUCK E. CHEESE

MODEL: CC-102	FRONT VIEW - TORSO

FILE: I:\tim\manual\torsotw.vlm	REV: 4		DRAWING NO. CC-AR-143

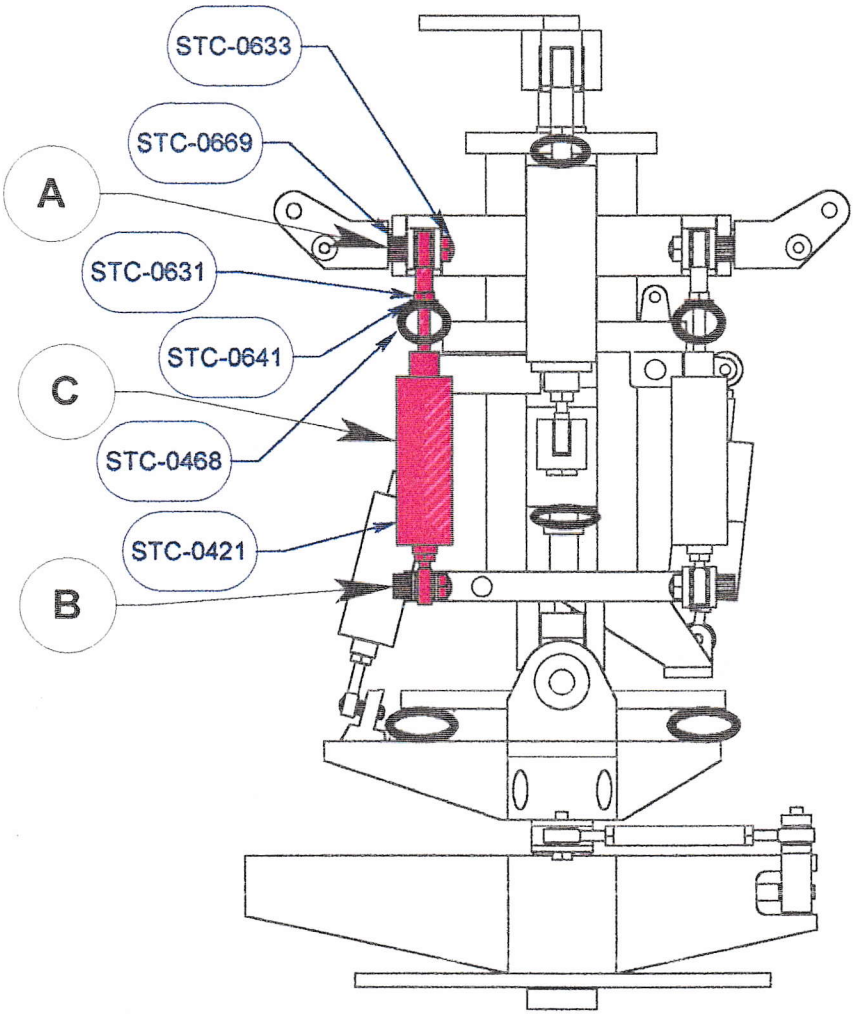
CHUCK E. CHEESE
PARTS AND MATERIALS LIST

TORSO TWIST - LEFT AND RIGHT

REF. DWG. NO. CC-AR-143

QTY.	PART NO.	DESCRIPTION	GHP PART NO.
2	STC-0420	ACTUATOR	
2	STC-0631	JAM NUT 5/16-24	
2	STC-0641	FLAT WASHER 5/16	
2	STC-0465	ROD END	
2	STC-0468	RUBBER BUMPER	

ACTUATOR REPLACEMENT | LEFT ARM FORWARD



ACTUATOR REPLACEMENT FOR LEFT ARM FORWARD IS AS FOLLOWS:

1. Remove costume. (See costume section)
2. Remove front and rear torso body shells. (See body shell section)
3. Remove both air hoses. Be aware of hose color code.
4. Remove fasteners "A" and "B".
5. Remove actuator "C" while supporting function mechanism.
6. Install new actuator positioned exactly the same as the one being replaced.
7. Replace fasteners "A" and "B", including all locking hardware.
8. Replace air hoses. Be aware of hose color code.
9. Manually test figure function for proper operation. Check for binding of actuator or hoses.
10. Replace shells and costume.

CHUCK E. CHEESE

MODEL: CC-102	REAR VIEW - TORSO

FILE: I:\tim\manual\armleft.vlm	REV: 3		DRAWING NO. CC-AR-170

CHUCK E. CHEESE
PARTS AND MATERIALS LIST

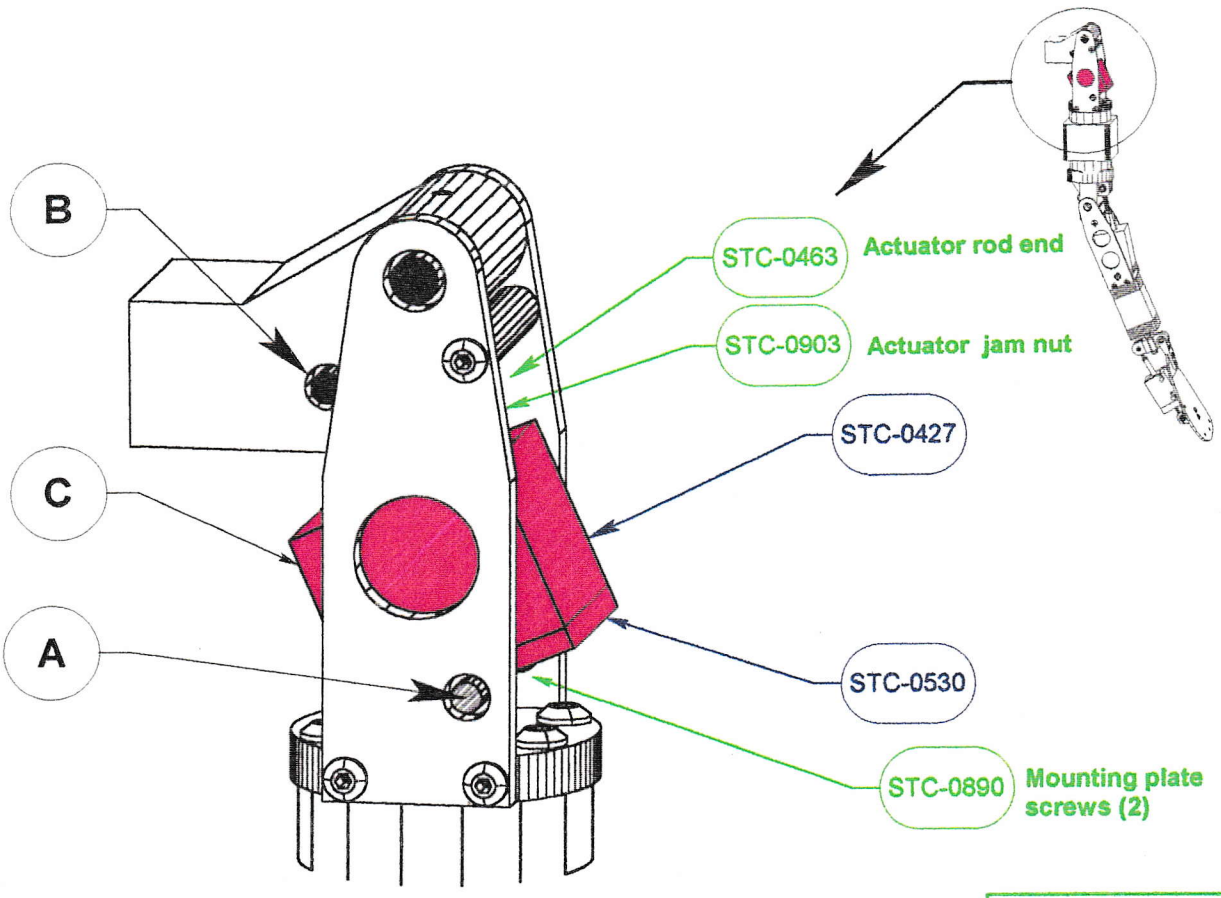
LEFT ARM FORWARD

REF. DWG. NO. CC-AR-170

QTY.	PART NO.	DESCRIPTION	GHP PART NO.
1	STC-0421	ACTUATOR	
2	STC-0669	ALLEN BOLT	
2	STC-0633	JAM LOCK NUT 5/16-24	
2	STC-0631	JAM NUT 5/16-24	
1	STC-0641	FLAT WASHER 5/16	
1	STC-0468	RUBBER BUMPER	

ACTUATOR REPLACEMENT

LEFT ARM OUT



Note: Green text balloons indicate hidden components.

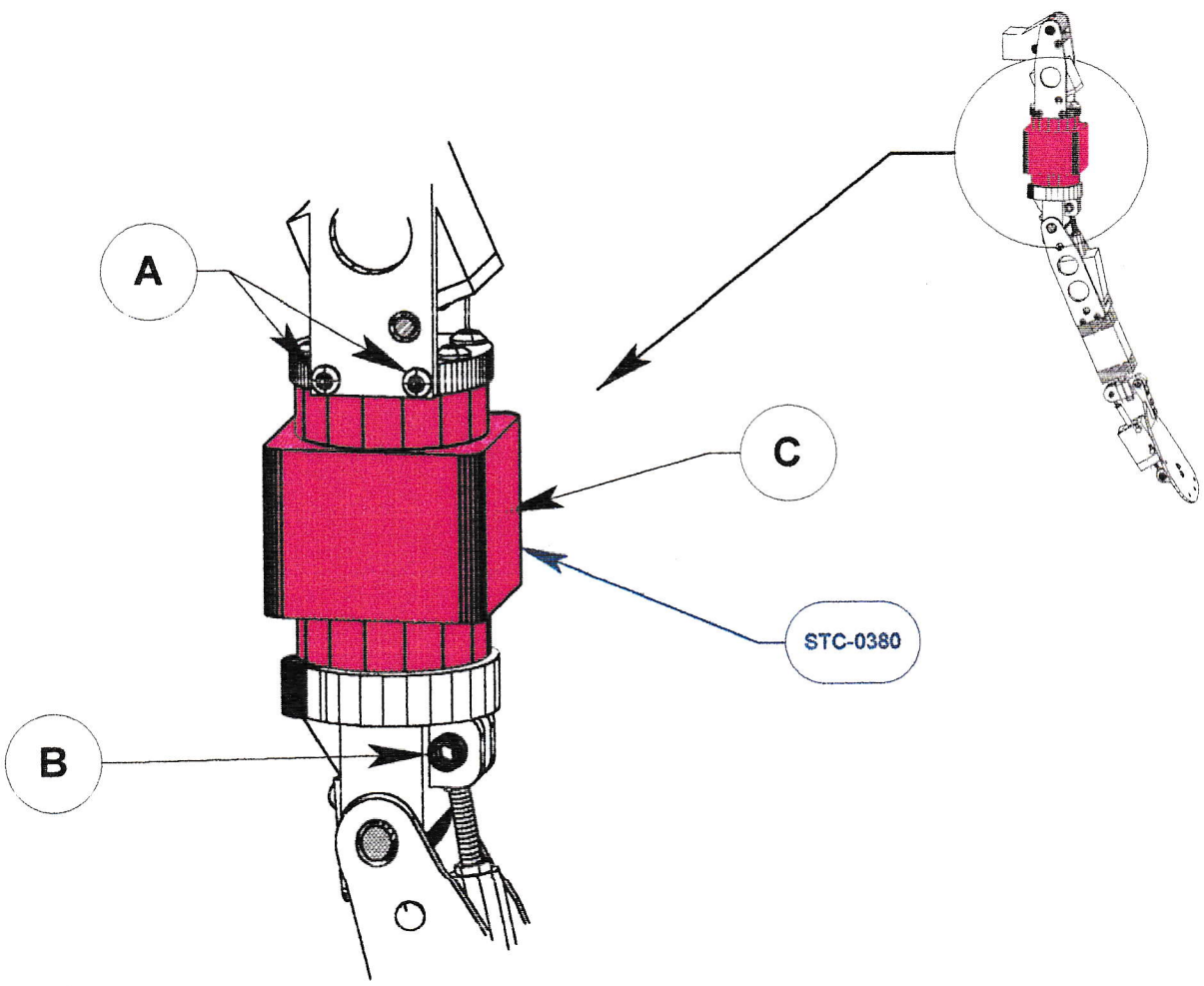
ACTUATOR REPLACEMENT FOR LEFT ARM OUT IS AS FOLLOWS:

1. Remove costume. (See costume section)
2. Remove front and rear torso body shells. (See body shell section)
3. Remove both air hoses. Be aware of hose color code.
4. Remove pin "A" and fastener "B".
5. Remove actuator "C" while supporting function mechanism.
6. Install new actuator positioned exactly the same as the one being replaced.
7. Replace pin "A" and fastener "B", including all locking hardware.
8. Replace air hoses. Be aware of hose color code.
9. Manually test figure function for proper operation. Check for binding of actuator or hoses.
10. Replace shells and costume.

CHUCK E. CHEESE

MODEL: CC-102	LEFT ARM	
FILE: lftarmot.vlm	REV: 4	DRAWING NO. CC-AR-171

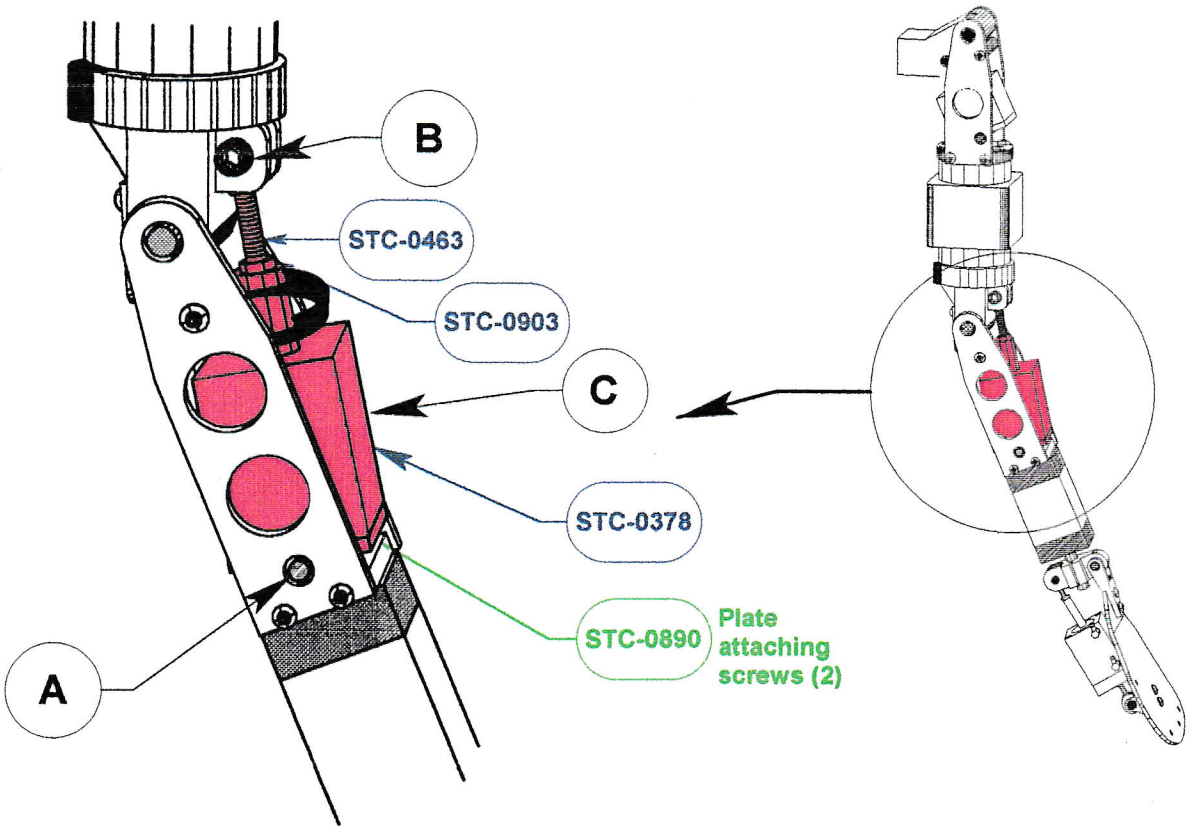
ACTUATOR REPLACEMENT | LEFT ARM SWING



ACTUATOR REPLACEMENT FOR LEFT ARM SWING IS AS FOLLOWS:

1. Remove costume. (See costume section)
2. Remove front and rear torso body shells. (See body shell section)
3. Remove both air hoses. Be aware of hose color code.
4. Remove fasteners "A" and "B".
5. Remove actuator "C" while supporting function mechanism.
6. Install new actuator positioned exactly the same as the one being replaced.
7. Replace fasteners "A" and "B", including all locking hardware.
8. Replace air hoses. Be aware of hose color code.
9. Manually test figure function for proper operation. Check for binding of actuator or hoses.
10. Replace shells and costume.

ACTUATOR REPLACEMENT | LEFT ELBOW



Note: Green text balloons indicate hidden components.

ACTUATOR REPLACEMENT FOR LEFT ARM ELBOW IS AS FOLLOWS:

1. Remove fur sleeve. (See costume section)
2. Remove both air hoses. Be aware of hose color code.
3. Remove pin "A" and fastener "B".
4. Remove actuator "C" while supporting function mechanism.
5. Install new actuator positioned exactly the same as the one being replaced.
6. Replace pin "A" and fastener "B", including all locking hardware.
7. Replace air hoses. Be aware of hose color code.
8. Manually test figure function for proper operation. Check for binding of actuator or hoses.
9. Replace fur sleeve.

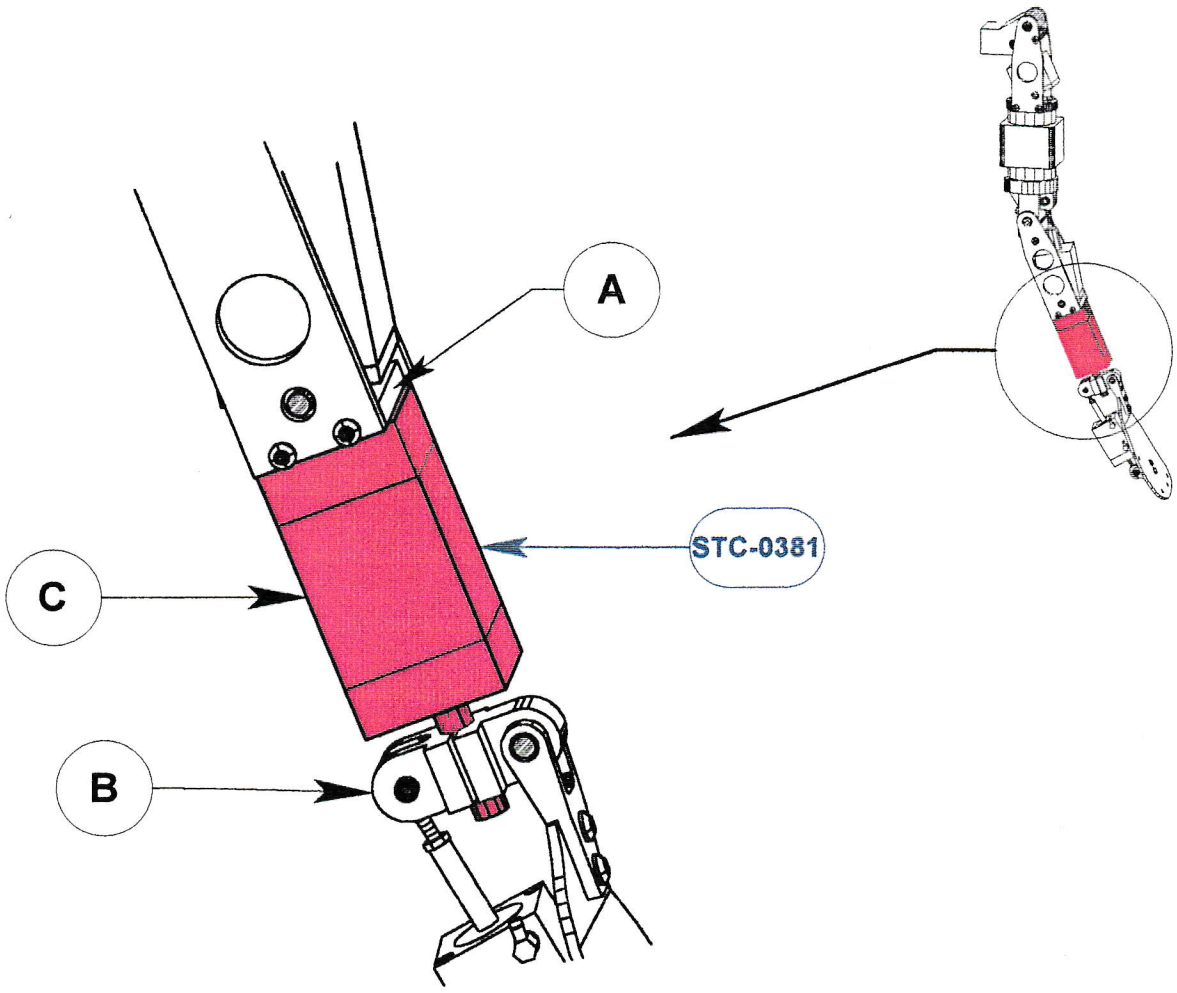
CHUCK E. CHEESE
PARTS AND MATERIALS LIST

LEFT ELBOW

REF. DWG. NO. CC-AR-151

QTY.	PART NO.	DESCRIPTION	GHP PART NO.
1	STC-0378	ACTUATOR	
2	STC-0890	BUTTON HEAD 1/4-20 X 1/2	
1	STC-0903	JAM NUT 1/4-28	
1	STC-0463	ROD END (MALE)	

ACTUATOR REPLACEMENT | LEFT WRIST TWIST



ACTUATOR REPLACEMENT FOR LEFT ARM WRIST TWIST IS AS FOLLOWS:

1. Remove fur sleeve. (See costume section)
2. Remove both air hoses. Be aware of hose color code.
3. Remove fastener "A" and clamp "B".
4. Remove actuator "C" while supporting function mechanism.
5. Install new actuator positioned exactly the same as the one being replaced.
6. Replace fastener "A" and clamp "B", including all locking hardware.
7. Replace air hoses. Be aware of hose color code.
8. Manually test figure function for proper operation. Check for binding of actuator or hoses.
9. Replace fur sleeve.

CHUCK E. CHEESE
PARTS AND MATERIALS LIST

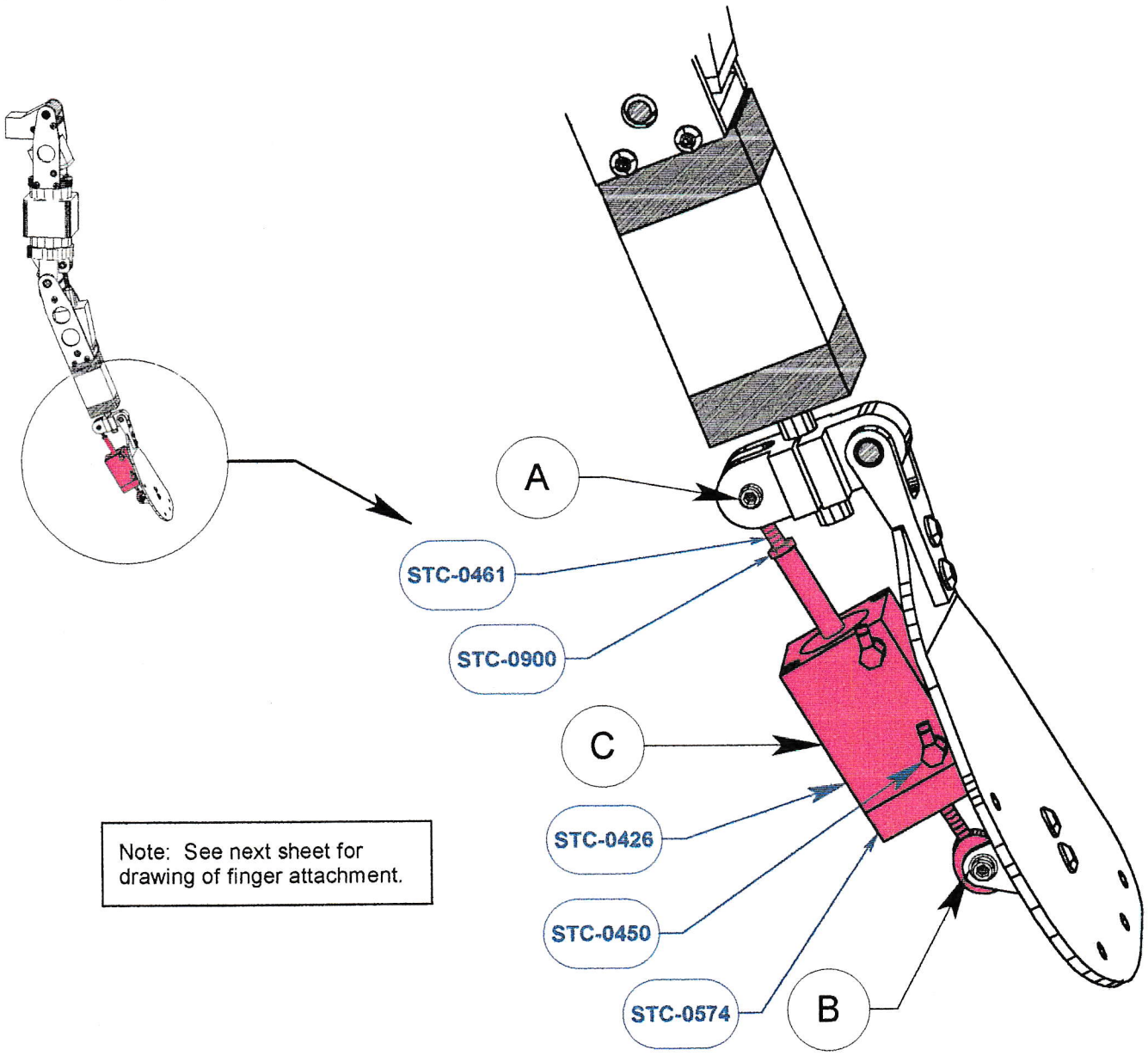
LEFT WRIST TWIST

REF. DWG. NO. CC-AR-150

QTY.	PART NO.	DESCRIPTION	GHP PART NO.
1	STC-0381	ACTUATOR	

ACTUATOR REPLACEMENT

LEFT WRIST WAVE



Note: See next sheet for drawing of finger attachment.

ACTUATOR REPLACEMENT FOR LEFT ARM WRIST WAVE IS AS FOLLOWS:

1. Remove fur sleeve. (See costume section)
2. Remove both air hoses. Be aware of hose color code.
3. Remove fasteners "A" and "B".
4. Remove actuator "C" while supporting function mechanism.
5. Install new actuator positioned exactly the same as the one being replaced.
6. Replace fasteners "A" and "B", including all locking hardware.
7. Replace air hoses. Be aware of hose color code.
8. Manually test figure function for proper operation. Check for binding of actuator or hoses.
9. Replace fur sleeve.

CHUCK E. CHEESE

MODEL: CC-102	LEFT ARM

FILE: I:\tim\manual\wrstwavl.vlm	REV: 4	DRAWING NO. CC-AR-145

CHUCK E. CHEESE
PARTS AND MATERIALS LIST

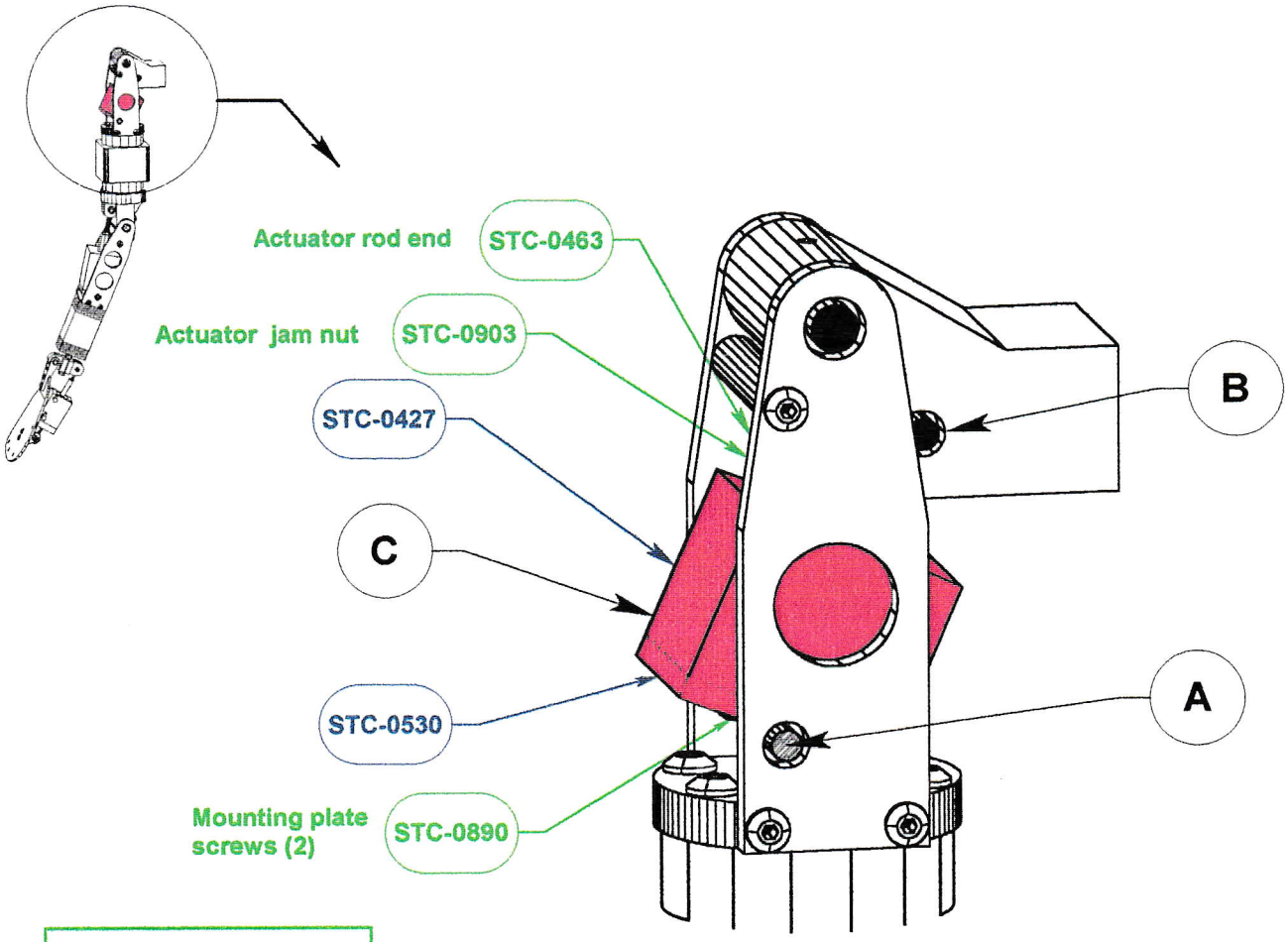
LEFT WRIST WAVE

REF. DWG. NO. CC-AR-145

QTY.	PART NO.	DESCRIPTION	GHP PART NO.
1	STC-0426	ACTUATOR	
2	STC-0900	NUT 10-32	
1	STC-0574	BASE CYLINDER WAVE	
2	STC-0461	MALE ROD END	
2	STC-0450	HOSE ANGLE	

ACTUATOR REPLACEMENT

RIGHT ARM OUT



Note: Green text balloons indicate hidden components.

ACTUATOR REPLACEMENT FOR RIGHT ARM OUT IS AS FOLLOWS:

1. Remove costume. (See costume section)
2. Remove front and rear torso body shells. (See body shell section)
3. Remove both air hoses. Be aware of hose color code.
4. Remove pin "A" and fastener "B".
5. Remove actuator "C" while supporting function mechanism.
6. Install new actuator positioned exactly the same as the one being replaced.
7. Replace pin "A" and fastener "B", including all locking hardware.
8. Replace air hoses. Be aware of hose color code.
9. Manually test figure function for proper operation. Check for binding of actuator or hoses.
10. Replace shells and costume.

CHUCK E. CHEESE
PARTS AND MATERIALS LIST

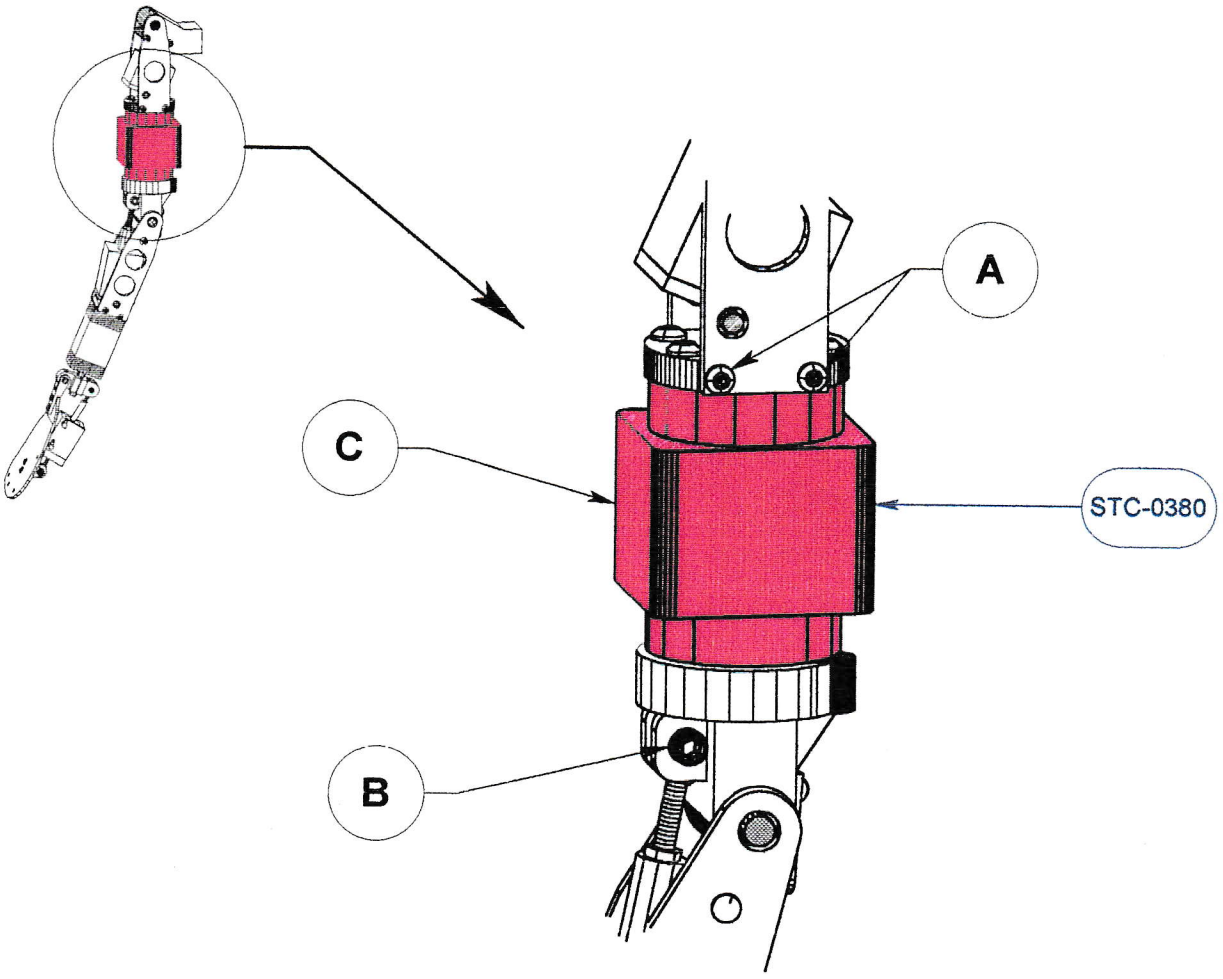
RIGHT ARM OUT

REF. DWG. NO. CC-AR-180

QTY.	PART NO.	DESCRIPTION	GHP PART NO.
1	STC-0427	ACTUATOR	
2	STC-0890	BUTTON HEAD 1/4-20 X 1/2	
1	STC-0903	JAM NUT 1/4-28	
1	STC-0530	MOUNTING PLATE	
1	STC-0463	ROD END (MALE)	

ACTUATOR REPLACEMENT

RIGHT ARM SWING



ACTUATOR REPLACEMENT FOR RIGHT ARM SWING IS AS FOLLOWS:

1. Remove costume. (See costume section)
2. Remove front and rear torso body shells. (See body shell section)
3. Remove both air hoses. Be aware of hose color code.
4. Remove fasteners "A" and "B".
5. Remove actuator "C" while supporting function mechanism.
6. Install new actuator positioned exactly the same as the one being replaced.
7. Replace fasteners "A" and "B", including all locking hardware.
8. Replace air hoses. Be aware of hose color code.
9. Manually test figure function for proper operation. Check for binding of actuator or hoses.
10. Replace shells and costume.

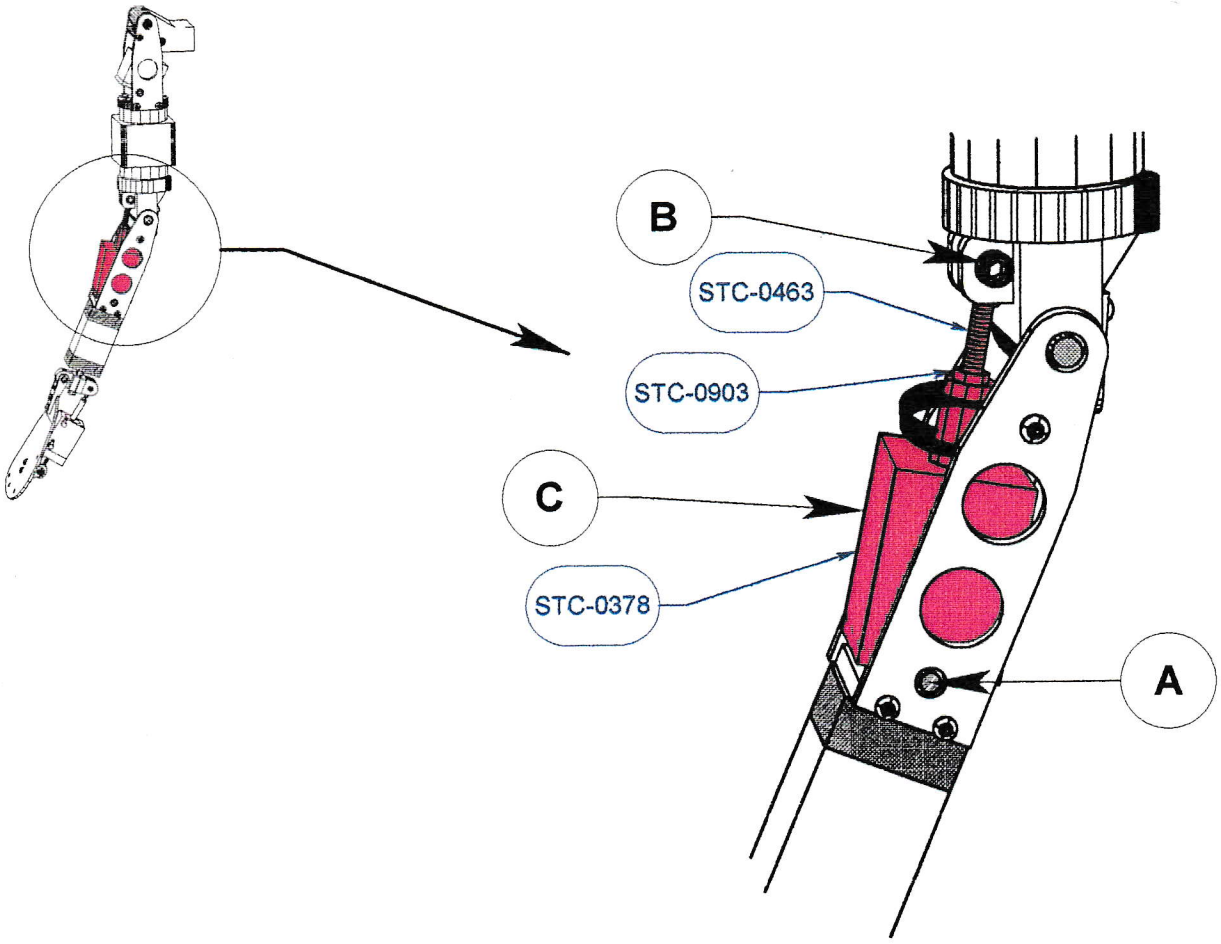
CHUCK E. CHEESE
PARTS AND MATERIALS LIST

RIGHT ARM SWING

REF. DWG. NO. CC-AR-185

QTY.	PART NO.	DESCRIPTION	GHP PART NO.
1	STC-0380	ACTUATOR	

ACTUATOR REPLACEMENT | RIGHT ELBOW



ACTUATOR REPLACEMENT FOR RIGHT ARM ELBOW IS AS FOLLOWS:

1. Remove fur sleeve. (see costume section)
2. Remove both air hoses. Be aware of hose color code.
3. Remove pin "A" and fastener "B".
4. Remove actuator "C" while supporting function mechanism.
5. Install new actuator positioned exactly the same as the one being replaced.
6. Replace pin "A" and fastener "B", including all locking hardware.
7. Replace air hoses. Be aware of hose color code.
8. Manually test figure function for proper operation. Check for binding of actuator or hoses.
9. Replace fur sleeve.

CHUCK E. CHEESE

MODEL: CC-102	RIGHT ARM

FILE: I:\tim\manual\rtelbow.vlm	REV: 3		DRAWING NO. CC-AR-186

CHUCK E. CHEESE
PARTS AND MATERIALS LIST

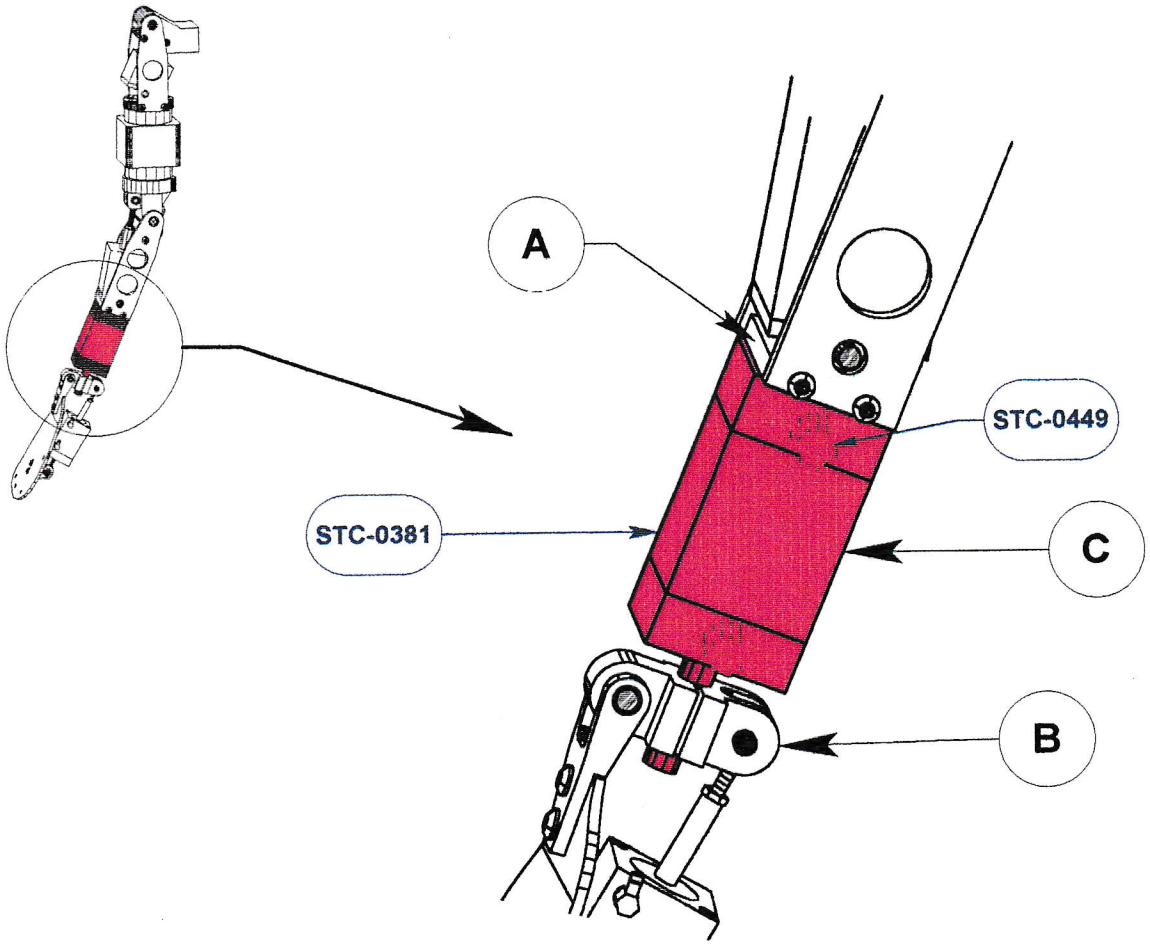
RIGHT ELBOW

REF. DWG. NO. CC-AR-186

QTY.	PART NO.	DESCRIPTION	GHP PART NO.
1	STC-0378	ACTUATOR	
1	STC-0903	JAM NUT 1/4-28	
1	STC-0463	ROD END (MALE)	

ACTUATOR REPLACEMENT

RIGHT WRIST TWIST



ACTUATOR REPLACEMENT FOR RIGHT ARM WRIST TWIST IS AS FOLLOWS:

1. Remove fur sleeve. (See costume section)
2. Remove both air hoses. Be aware of hose color code.
3. Remove fastener "A" and clamp "B".
4. Remove actuator "C" while supporting function mechanism.
5. Install new actuator positioned exactly the same as the one being replaced.
6. Replace fastener "A" and clamp "B", including all locking hardware.
7. Replace air hoses. Be aware of hose color code.
8. Manually test figure function for proper operation. Check for binding of actuator or hoses.
9. Replace fur sleeve.

CHUCK E. CHEESE

MODEL: CC-102	RIGHT ARM	
FILE: I:\tim\manual\rtwrsttw.vlm	REV: 4	DRAWING NO. CC-AR-182

CHUCK E. CHEESE
PARTS AND MATERIALS LIST

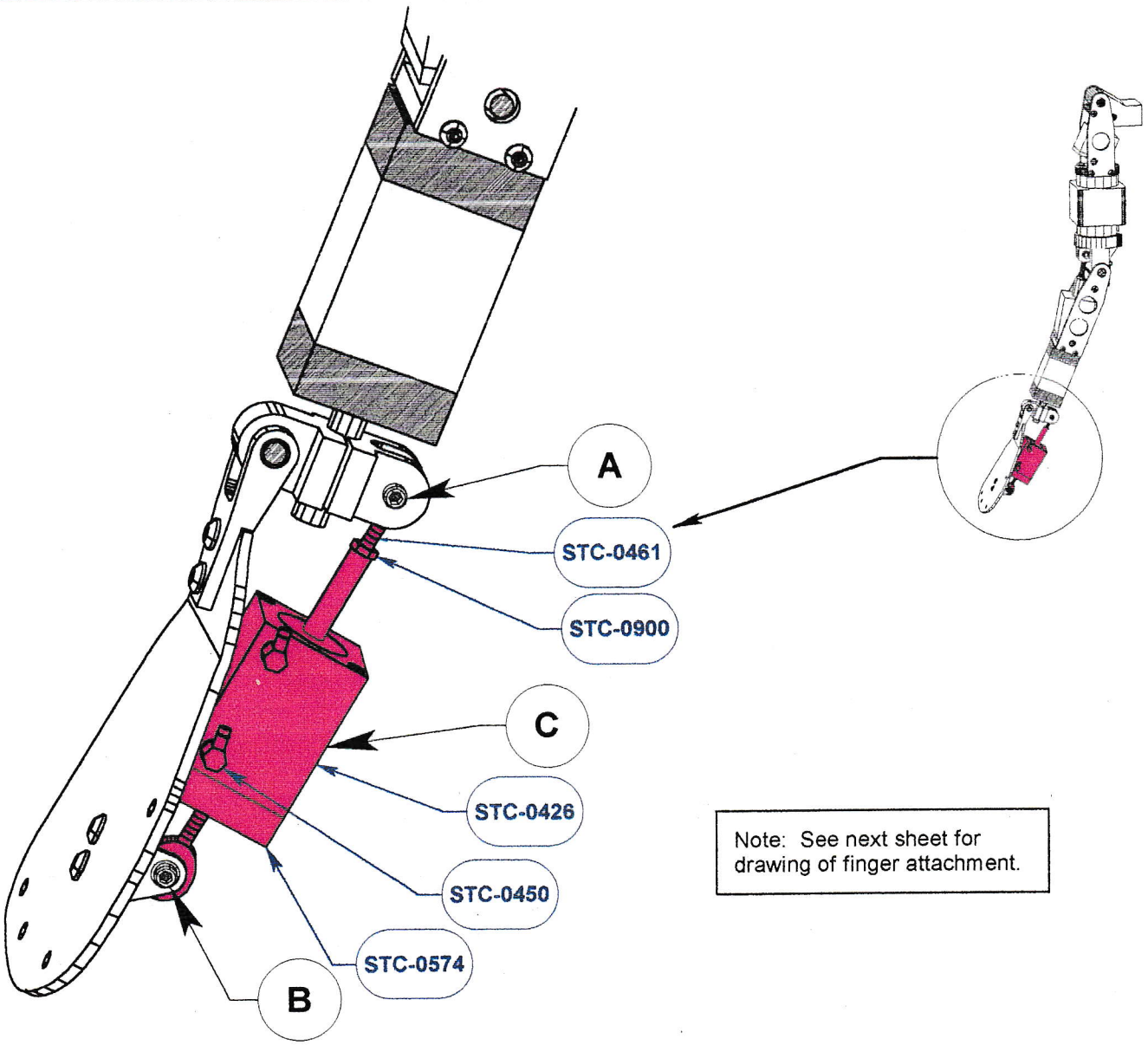
RIGHT WRIST TWIST

REF. DWG. NO. CC-AR-182

QTY.	PART NO.	DESCRIPTION	GHP PART NO.
2	STC-0449	HOSE ANGLE FITTING	
1	STC-0381	ACTUATOR	

ACTUATOR REPLACEMENT

RIGHT WRIST WAVE



Note: See next sheet for drawing of finger attachment.

ACTUATOR REPLACEMENT FOR RIGHT ARM WRIST WAVE IS AS FOLLOWS:

1. Remove fur sleeve. (See costume section)
2. Remove both air hoses. Be aware of hose color code.
3. Remove fasteners "A" and "B".
4. Remove actuator "C" while supporting function mechanism.
5. Install new actuator positioned exactly the same as the one being replaced.
6. Replace fasteners "A" and "B", including all locking hardware.
7. Replace air hoses. Be aware of hose color code.
8. Manually test figure function for proper operation. Check for binding of actuator or hoses.
9. Replace fur sleeve.

CHUCK E. CHEESE

MODEL: CC-102	RIGHT ARM	
FILE: I:\tim\manual\wrstwavr.vlm	REV: 7	DRAWING NO. CC-AR-181

CHUCK E. CHEESE
PARTS AND MATERIALS LIST

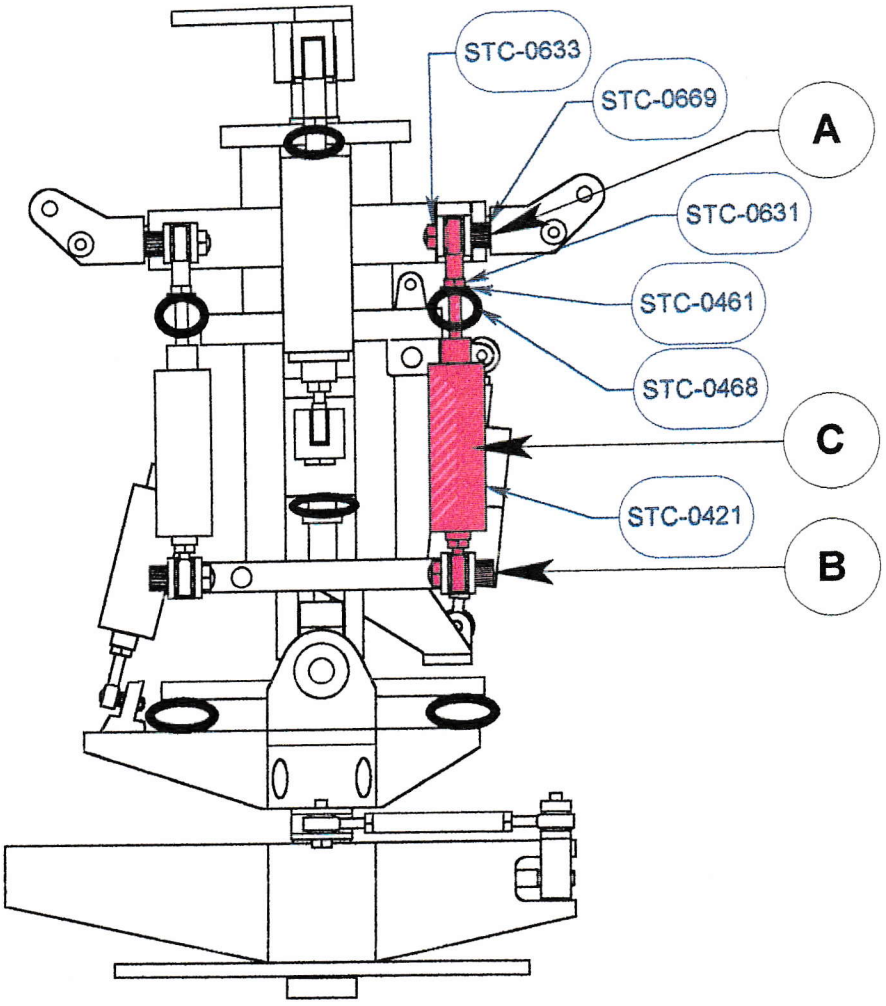
RIGHT WRIST WAVE

REF. DWG. NO. CC-AR-181

QTY.	PART NO.	DESCRIPTION	GHP PART NO.
1	STC-0426	ACTUATOR	
2	STC-0900	NUT 10-32	
1	STC-0574	BASE CYLINDER WAVE	
2	STC-0461	MALE ROD END	
2	STC-0450	HOSE ANGLE	

ACTUATOR REPLACEMENT

RIGHT ARM FORWARD



ACTUATOR REPLACEMENT FOR RIGHT ARM FORWARD IS AS FOLLOWS:

1. Remove costume. (See costume section)
2. Remove front and rear torso body shells. (See body shell section)
3. Remove both air hoses. Be aware of hose color code.
4. Remove fasteners "A" and "B".
5. Remove actuator "C" while supporting function mechanism.
6. Install new actuator positioned exactly the same as the one being replaced.
7. Replace fasteners "A" and "B", including all locking hardware.
8. Replace air hoses. Be aware of hose color code.
9. Manually test figure function for proper operation. Check for binding of actuator or hoses.
10. Replace shells and costume.

CHUCK E. CHEESE

MODEL: CC-102	REAR VIEW - TORSO

FILE: I:\tim\manual\armright.vlm	REV: 3		DRAWING NO. CC-AR-184

CHUCK E. CHEESE
PARTS AND MATERIALS LIST

RIGHT ARM FORWARD

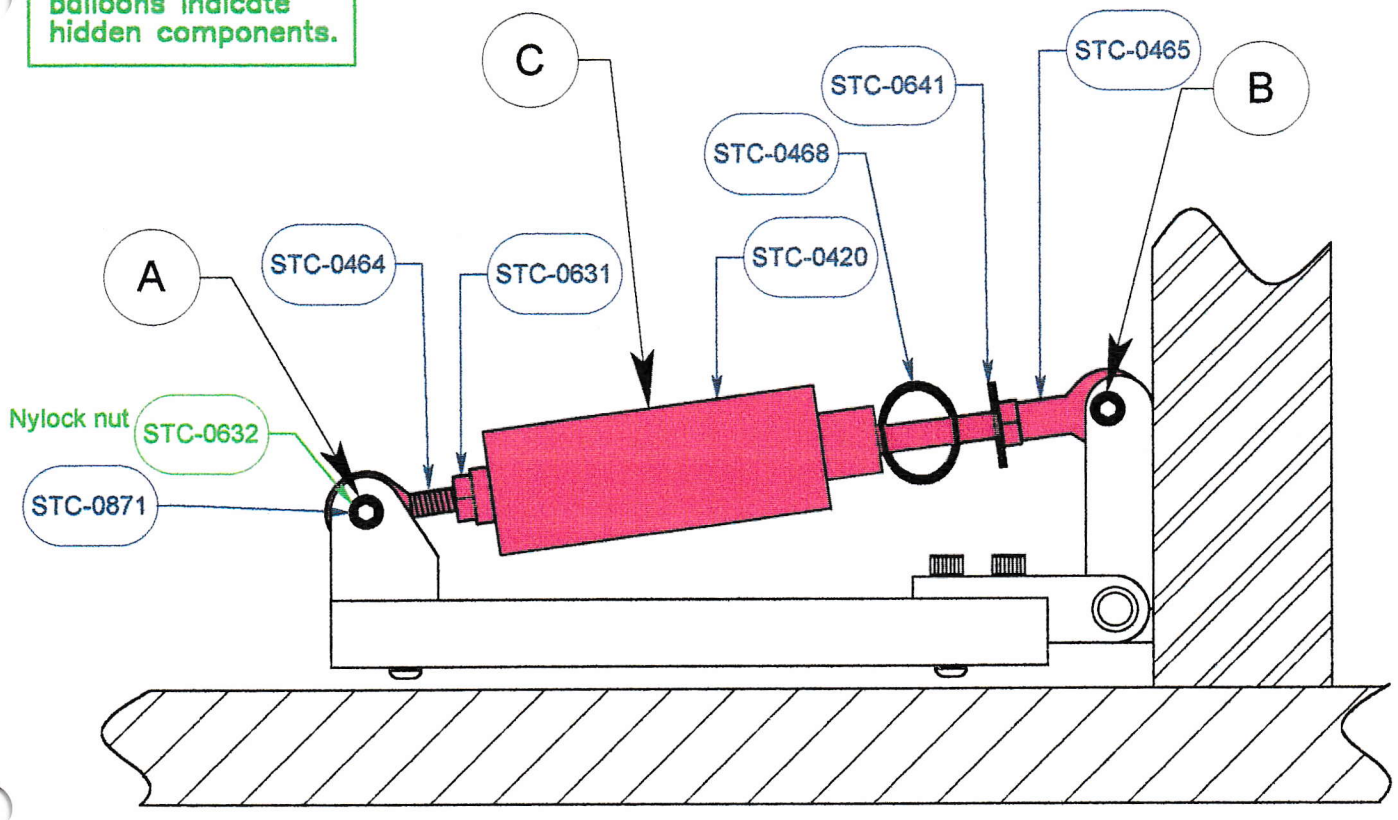
REF. DWG. NO. CC-AR-184

QTY.	PART NO.	DESCRIPTION	GHP PART NO.
1	STC-0421	ACTUATOR	
2	STC-0669	ALLEN BOLT	
2	STC-0633	JAM LOCK NUT 5/16-24	
2	STC-0631	JAM NUT 5/16-24	
1	STC-0461	FLAT WASHER 5/16	
1	STC-0468	RUBBER BUMPER	

ACTUATOR REPLACEMENT

FOOT TAP

Note: Green text balloons indicate hidden components.



ACTUATOR REPLACEMENT FOR FOOT TAP IS AS FOLLOWS:

1. Remove fur from right foot shell. (See costume section)
2. Remove foot shell. (See body forms section)
3. Remove both air hoses. Be aware of hose color code.
4. Remove fasteners "A" and "B".
5. Remove actuator "C" while supporting function mechanism.
6. Install new actuator positioned exactly the same as the one being replaced.
7. Replace fasteners "A" and "B", including all locking hardware.
8. Replace air hoses. Be aware of hose color code.
9. Manually test figure function for proper operation. Check for binding of actuator or hoses.
10. Replace shells and fur on foot.

CHUCK E. CHEESE

MODEL: CC-102	SIDE VIEW - FOOT

FILE: foottap.vlm	REV: 9	DRAWING NO. CC-AR-168

CHUCK E. CHEESE
PARTS AND MATERIALS LIST

FOOT TAP

REF. DWG. NO. CC-AR-168

QTY.	PART NO.	DESCRIPTION	GHP PART NO.
1	STC-0420	ACTUATOR	
1	STC-0871	ALLEN BOLT 5/16-24 X 1 1/2	
2	STC-0632	LOCK NUT 5/16-24	
1	STC-0641	FLAT WASHER 5/16	
2	STC-0631	JAM NUT 5/16-24	
1	STC-0464	(MALE) ROD END	
1	STC-0465	ROD END	
1	STC-0468	RUBBER BUMPER	

VALVE CARD OPERATION - Chuck E. Cheese

NOTE: TURN OFF ALL AIR, and ELECTRIC POWER TO THE FIGURE BEFORE BEGINNING ANY MAINTENANCE PROCEDURE.

1. VALVE CARD

1. The valve card contains valves that actuated by an electrical signal sent from Chuck E.'s control system. When opened by an electric signal, these valves release high pressure air that travels into the hoses that lead to each individual figure movement. This fills the air cylinders which then extend causing motion. When the electrical signal is removed - the air pressure is exhausted through the valve and the cylinder retracts back to its normal position.

2. CHUCK E.'S BASE

1. Chuck E.'s base (under his feet) contains a valve card on which is mounted 32 individual electric air valves. When each valve is activated, an indicator lamp next to that valve illuminates to show the presence of a control signal. Also, a switch is provided next to each valve that allows manual operation of each individual valve for testing purposes. (See valve card diagram). High pressure (80 PSI) air enters the valve manifolds on one end, and the exhaust exits the manifolds through tubes connected to an exhaust chamber. This chamber muffles the air noises so no "popping" is heard.

3. COMPONENT REPLACEMENT

A. Valves that become clogged or cease to operate for any reason may be unscrewed from the manifold and replaced (see valve card component sheet). Make sure that the area is clean before removal, and during replacement.

B. Take care when the valve is unscrewed that the rubber seal between it and the manifold is removed carefully and replaced in the correct orientation.

C. Be careful not to over tighten the valve screws.

D. Take care to make a good electrical connection when placing the valve wires into the terminal, and tighten the terminal screws securely.

E. Be sure that if at any time the hoses are removed from the manifold, they are replaced to the proper port they came from observing the color code.

F. After replacement, check for correct operation using the "on - off - connector" test switch next to the valve.

Chuck E. Cheese Valve Bank and Function Wiring Chart

Output #	37 Pin DSub Connector Pin #	Valve #	"A" Port Hose Color	"B" Port Hose Color	"A" Orifice Color	"B" Orifice Color	Actuator #	Function	Comments
1	1	1	Green	Blue	Blue	Blue	1	Arm out (R)	
2	2	2	Orange	Yellow	Blue	Blue	2	Arm swing (R)	
3	3	3	Brown	Gray	Gray	Brown	3	Elbow up (R)	
4	4	4	White	Black	Blue	Blue	4	Wrist turn (R)	
5	5	5	Red	Clear	Gray	Black	5	Wave (R)	
6	6	6	Green	Blue	Blue	Blue	6	Arm out (L)	
7	7	7	Orange	Yellow	Blue	Blue	7	Arm swing (L)	
8	8	8	Brown	Gray	Gray	Brown	8	Elbow up (L)	
9	9	9	White	Black	Blue	Blue	9	Wrist turn (L)	
10	10	10	Red	Clear	Gray	Black	10	Wave (L)	
11	11	11	Green	Blue	Blue	Blue	11	Left arm foward	
12	12	12	Yellow	Orange	Blue	Blue	12	Body forward	
13	13	13	Brown	-	Gray	-	13	Body left sidebend	
14	14	14	Gray	-	Gray	-	14	Body right sidebend	
15	15	15	White	Black	Gray	Gray	15	Torso twist right	
16	16	16	Red	Clear	Gray	Gray	16	Torso twist left	
17	17	17	Green	Blue	Blue	Blue	17	Right arm forward	
18	18	18	Yellow	Orange	Gray	Gray	18	Head turn left	
19	19	19	Gray	Brown	Gray	Gray	19	Head turn right	
20	20	20	White	Black	Blue	Blue	20	Head up	
21	21	21	Red	Clear	Brown	Brown	21	Mouth	
22	22	22	Green	Blue	Blue	Blue	22	Head tilt right	
23	23	23	Yellow	Orange	Blue	Blue	23	Head tilt left	
24	24	24	Gray	Brown	Gray	Gray	24	Eye blink down	
25	25	25	White	Black	Gray	Gray	25	Eye blink up	
26	26	26	Red	Clear	Gray	Brown	26	Nose	
27	27	27	Green	Blue	Black	Black	27	Eye turn left	
28	28	28	Yellow	Orange	Black	Black	28	Eye turn right	
29	29	29	Gray	Brown	Gray	Gray	29	Eyebrows up	
30	30	30	White	Black	Gray	Gray	30	Eyebrows down	

4/00 7-2

Chuck E. Cheese Valve Bank and Function Wiring Chart

Output #	37 Pin DSub Connector Pin #	Valve #	"A" Port Hose Color	"B" Port Hose Color	"A" Orifice Color	"B" Orifice Color	Actuator #	Function	Comments
31	31	31	Red	Clear	Gray	Gray	31	Ears	
32	32	32	Green	Blue	Brown	Brown	32	Foot tap	
	33	+24VDC common for outputs 25-32							
	34	+24VDC common for outputs 17-24							
	35	+24VDC common for outputs 9-16							
	36	+24VDC common for outputs 1-8							
	37	Ground return for valve board test switches							

4/00 7-3

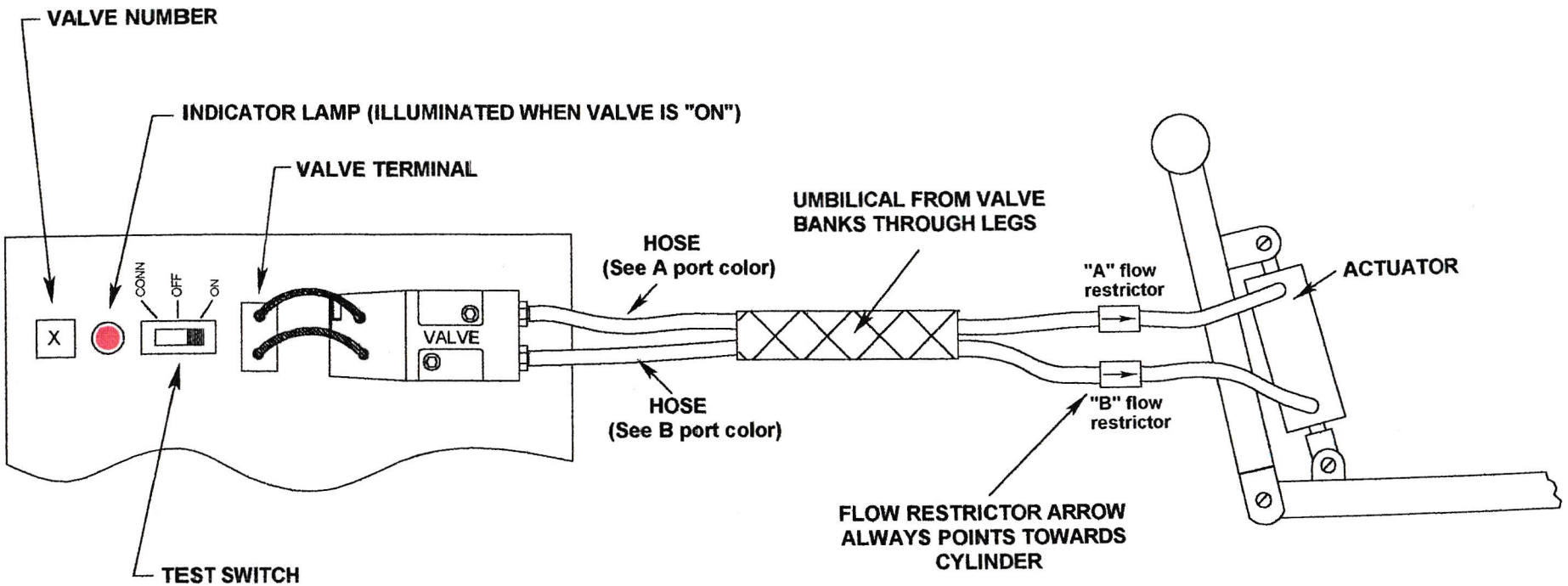
Parrot / Pizza Phone Valve Bank and Figure Function Wiring Chart

Output #	25 Pin DSub Connector Pin #	Valve #	"A" Port Hose Color	"B" Port Hose Color	"A" Orifice Color	"B" Orifice Color	Actuator #	Function	Comments
1	1	1	Orange	Yellow	Grey	Turquoise		Beak	
2	2	2	Blue	Green	Creme	Creme		Body Tilt	
3	3	3	Black	White	Blue	Blue		Perch Swivel	
4	4	4	Brown	Grey	Black	Black		Wings	
5	5	5	Clear	Red	Black	Black		Phone	
	22	+24VDC common							
	23	+24VDC common							
	24	+24VDC common							
	36	+24VDC common							
	17	Ground return for test switches							
	18	Ground return for test switches							
	19	Ground return for test switches							
	20	Ground return for test switches							

4/00 7-4

TYPICAL LAYOUT	FUNCTION CIRCUIT

TYPICAL 4-WAY FUNCTION CIRCUIT



4/00	CHUCK E. CHEESE		
7-5	MODEL: CC-102	TYPICAL FUNCTION AIR CIRCUIT	
FILE: I:\tim\assmbld\4wayfnct.vlm	REV: 3		

ACTUATOR VALVES

VALVE TEST

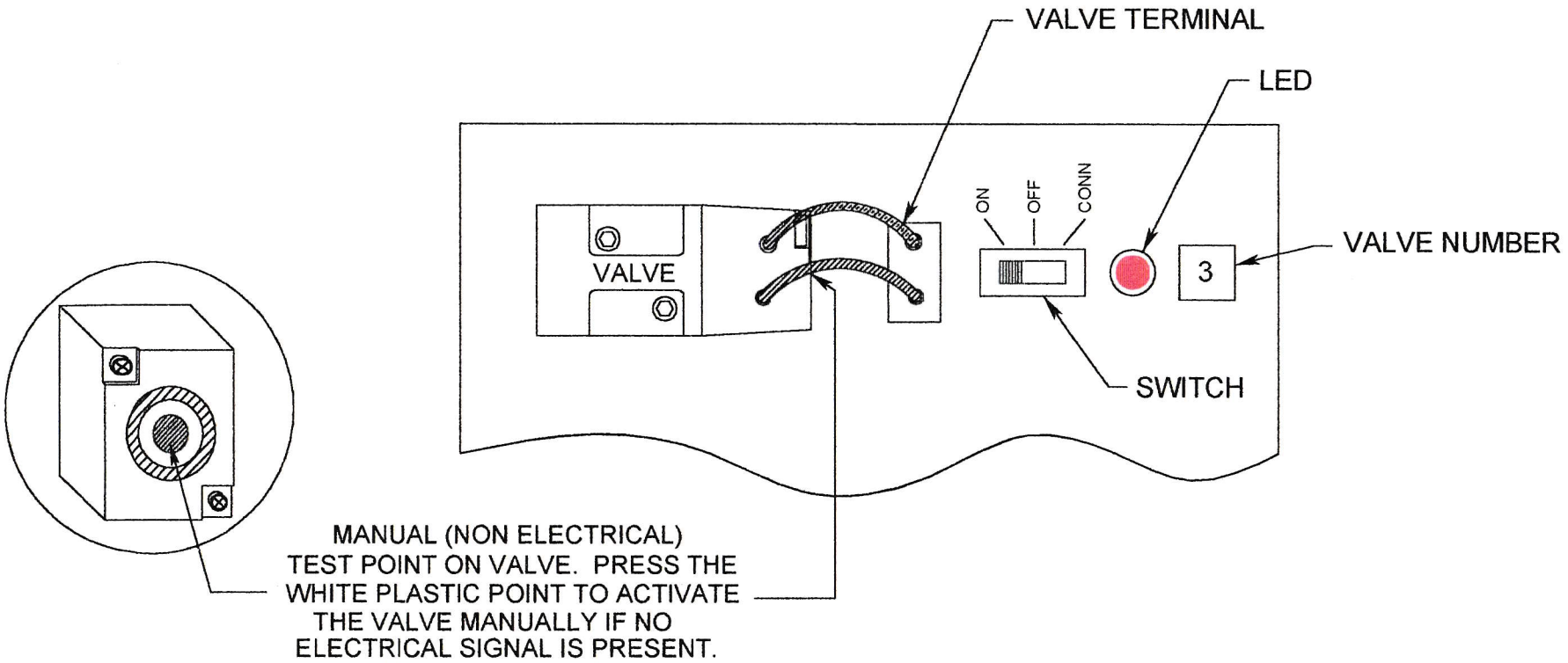
TESTING A VALVE/FUNCTION WITH THE ON-OFF-CONN SWITCH

EACH VALVE HAS A SLIDE SWITCH FOR INDIVIDUALLY TESTING VALVE/FUNCTION. THE THREE POSITIONS ARE:

ON: THE "ON" POSITION ACTIVATES THE VALVE REGARDLESS OF THE SIGNAL FROM THE CONTROLLER.

OFF: IN THE "OFF" POSITION, THE FUNCTION IS TURNED OFF, REGARDLESS OF THE SIGNAL FROM THE CONTROLLER

CONN: WHEN IN THIS POSITION, THE VALVE IS CONNECTED TO THE SHOW CONTROLLER AND WILL ACCEPT SIGNALS FROM THE PROGRAM.



4/00 7-6

CHUCK E. CHEESE

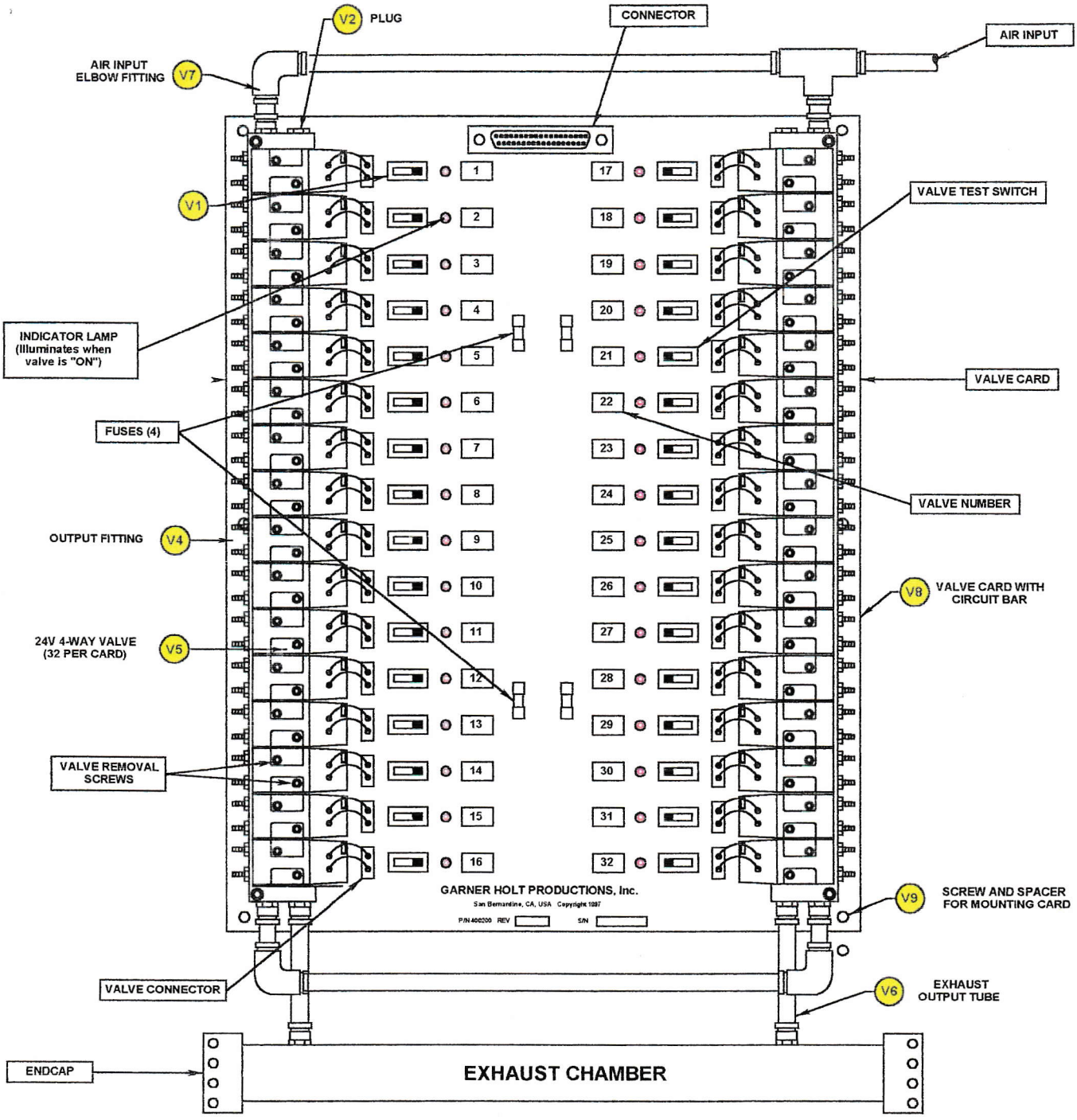
MODEL: CC-102

VALVE SWITCH

FILE: I:\tim\manual\valvecrd\valvtest.vlm | REV: 3

ACTUATOR VALVES

VALVE BOARD



CHUCK E. CHEESE

MODEL: CC-102

TOP VIEW -- VALVE BOARD

FILE: I:\tim\manual\valvecard\board16.vlm

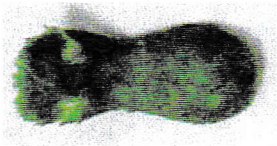
REV: 3

COMPONENT REPLACEMENT

BIRD - PLASTIC PARTS

MODEL # CB-055 DRAWING NO. CC-351

TAIL FEATHERS



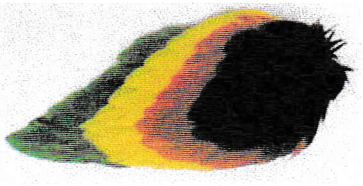
BODY HATCH
STC-0377

PERCH BASE
STC-0374

BEAK
STC-0375

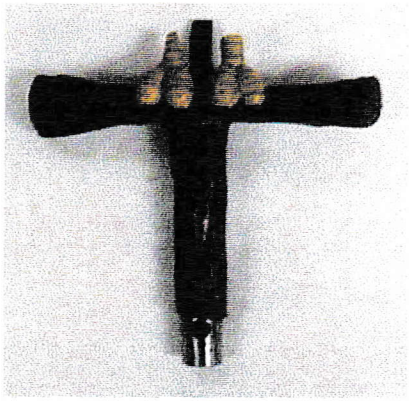
BODY
STC-0376

165—



RIGHT WING ASSY
STC-0350

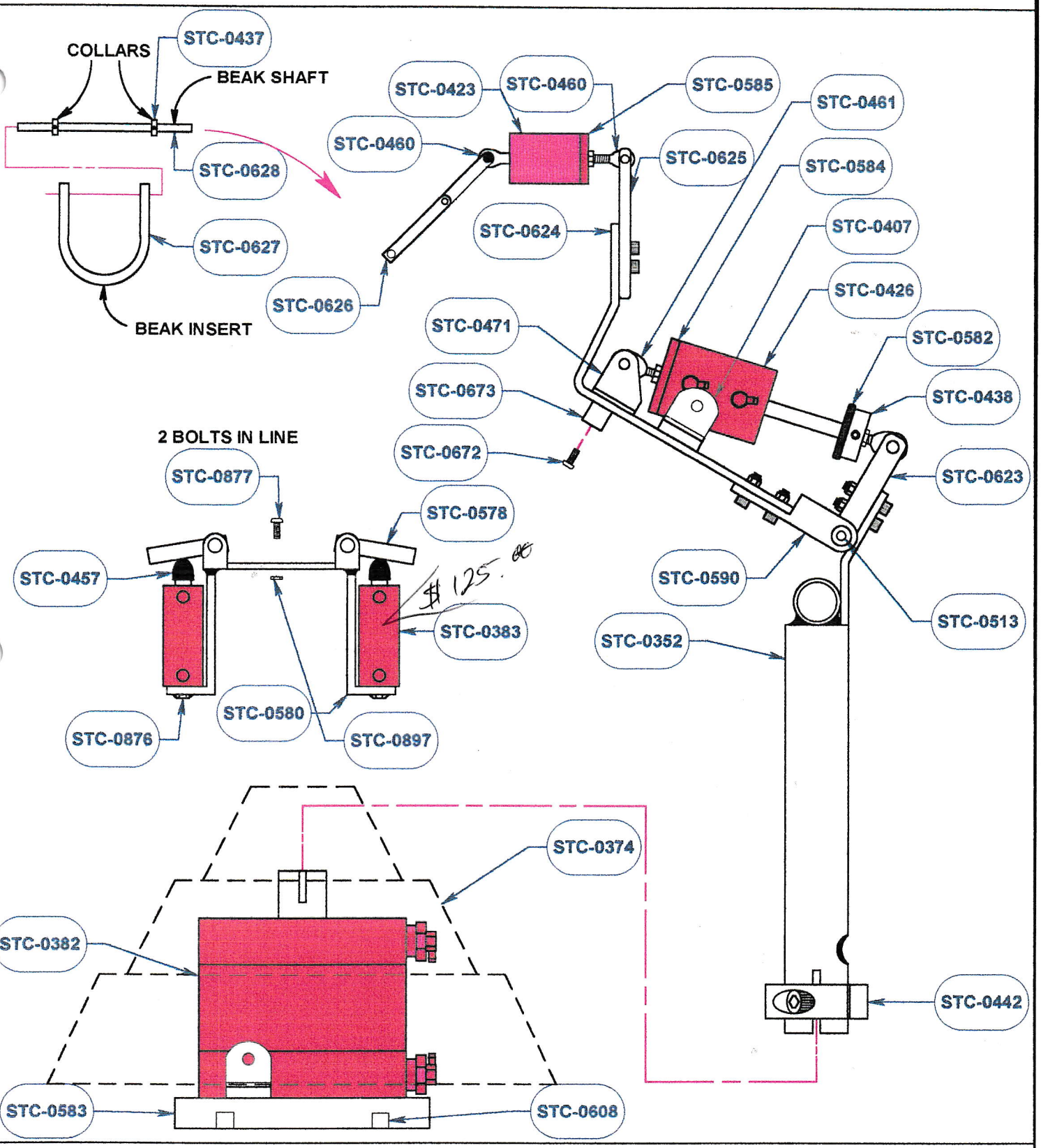
LEFT WING ASSY
STC-0351



PERCH ASSY.
STC-0352

M:\PROJECTS\CHURCHS\MANUAL~1\CBPPARTX.SAM 06/25/96

COMPONENT REPLACEMENT



CHUCK E. CHEESE

MODEL: CB-055	BIRD

FILE: I:\tim\manual\bird\brdstand.vlm	REV: 13	DRAWING NO. CC-350

CHUCK E. CHEESE
PARTS AND MATERIALS LIST

BIRD

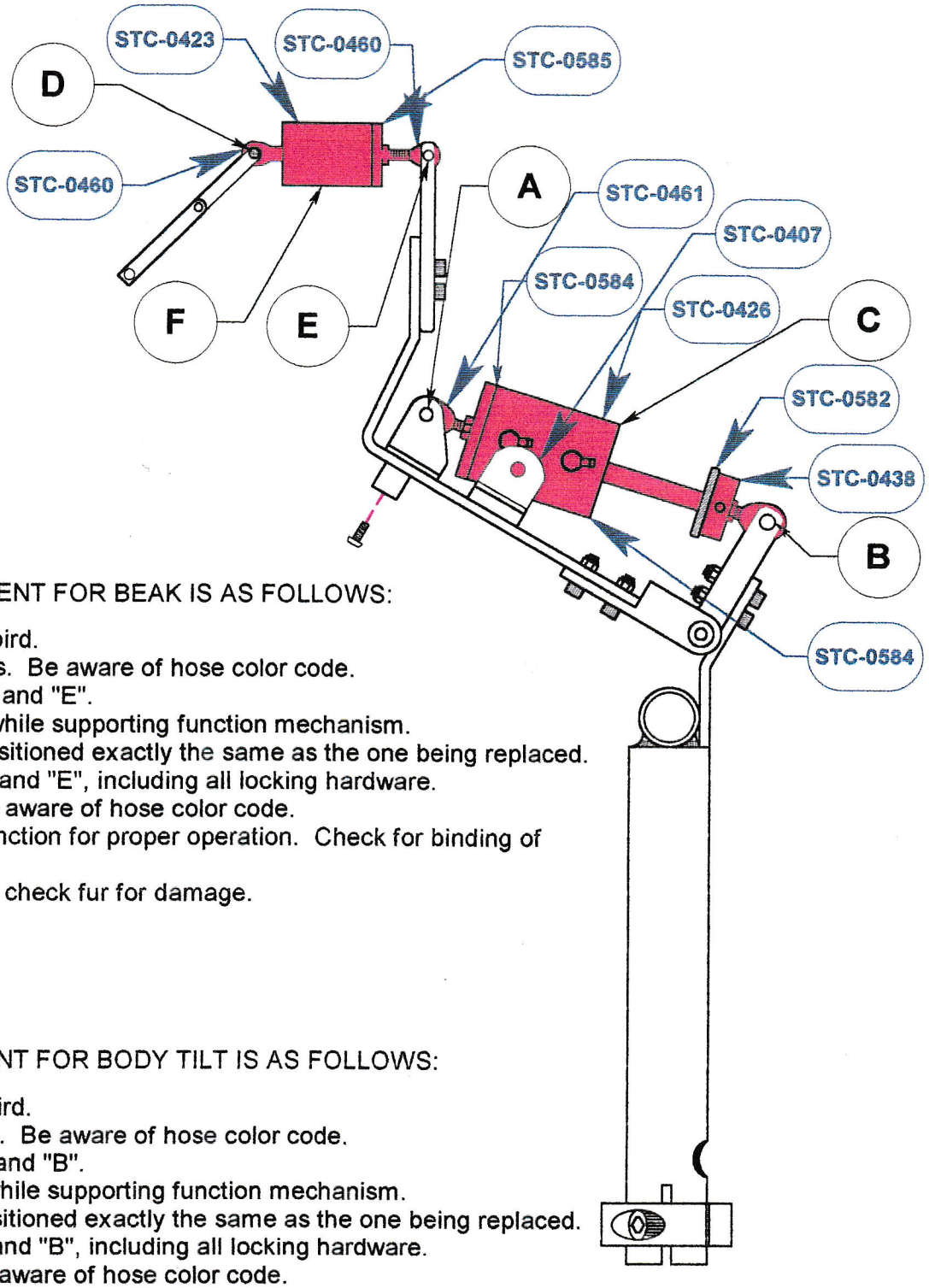
REF. DWG. NO. CC-350

QTY.	PART NO.	DESCRIPTION	GHP PART NO.
1	STC-0423	ACTUATOR	
1	STC-0426	ACTUATOR	
1	STC-0382	ACTUATOR	
2	STC-0383	ACTUATOR	
2	STC-0672	ALLEN BOLT	
2	STC-0876	BUTTON HEAD 8-32 X 5/16	
2	STC-0877	BUTTON HEAD 8-32 X 1/2	
2	STC-0897	LOCK NUT 8-32	
4	STC-0608	FLAT HEAD 5/16-18 X 5/8	
1	STC-0352	PERCH ASSEMBLY	
1	STC-0623	CLEVIS	
1	STC-0624	MAIN BODY STRAP	
1	STC-0625	ACTUATOR MOUNT	
1	STC-0626	JAW STRAP	
1	STC-0627	BEAK INSERT	
1	STC-0628	BEAK SHAFT	
2	STC-0578	WING MOUNT	
1	STC-0580	ACTUATOR MOUNT	
1	STC-0673	SPACER	
1	STC-0582	BUMPER	
1	STC-0583	BASE PLATE	
1	STC-0374	PERCH BASE	
1	STC-0584	END PLATE	
1	STC-0585	END PLATE	
1	STC-0590	WRIST WAVE CLEVIS	

1	STC-0513	WRIST WAVE PIN	
2	STC-0457	BUMPER	
2	STC-0460	ROD END	
2	STC-0461	ROD END (MALE)	
1	STC-0471	CLEVIS	
2	STC-0437	SHAFT COLLAR	
1	STC-0438	SHAFT COLLAR	
1	STC-0442	SHAFT COLLAR	
2	STC-0407	BODY CLIP (RIGHT ANGLE)	

ACTUATOR REPLACEMENT

BIRD BEAK/BODY



ACTUATOR REPLACEMENT FOR BEAK IS AS FOLLOWS:

1. Remove backshell of bird.
2. Remove both air hoses. Be aware of hose color code.
3. Remove fasteners "D" and "E".
4. Remove actuator "F" while supporting function mechanism.
5. Install new actuator positioned exactly the same as the one being replaced.
6. Replace fasteners "D" and "E", including all locking hardware.
7. Replace air hoses. Be aware of hose color code.
8. Manually test figure function for proper operation. Check for binding of actuator or hoses.
9. Replace backshell and check fur for damage.

ACTUATOR REPLACEMENT FOR BODY TILT IS AS FOLLOWS:

1. Remove backshell of bird.
2. Remove both air hoses. Be aware of hose color code.
3. Remove fasteners "A" and "B".
4. Remove actuator "C" while supporting function mechanism.
5. Install new actuator positioned exactly the same as the one being replaced.
6. Replace fasteners "A" and "B", including all locking hardware.
7. Replace air hoses. Be aware of hose color code.
8. Manually test figure function for proper operation. Check for binding of actuator or hoses.
9. Replace backshell and check fur for damage.

CHUCK E. CHEESE

MODEL: CB-055	BIRD BEAK AND BODY TILT	
FILE: I:\tim\manual\bird\birdact2.vlm	REV: 3	DRAWING NO. CC-AR-207

CHUCK E. CHEESE
PARTS AND MATERIALS LIST

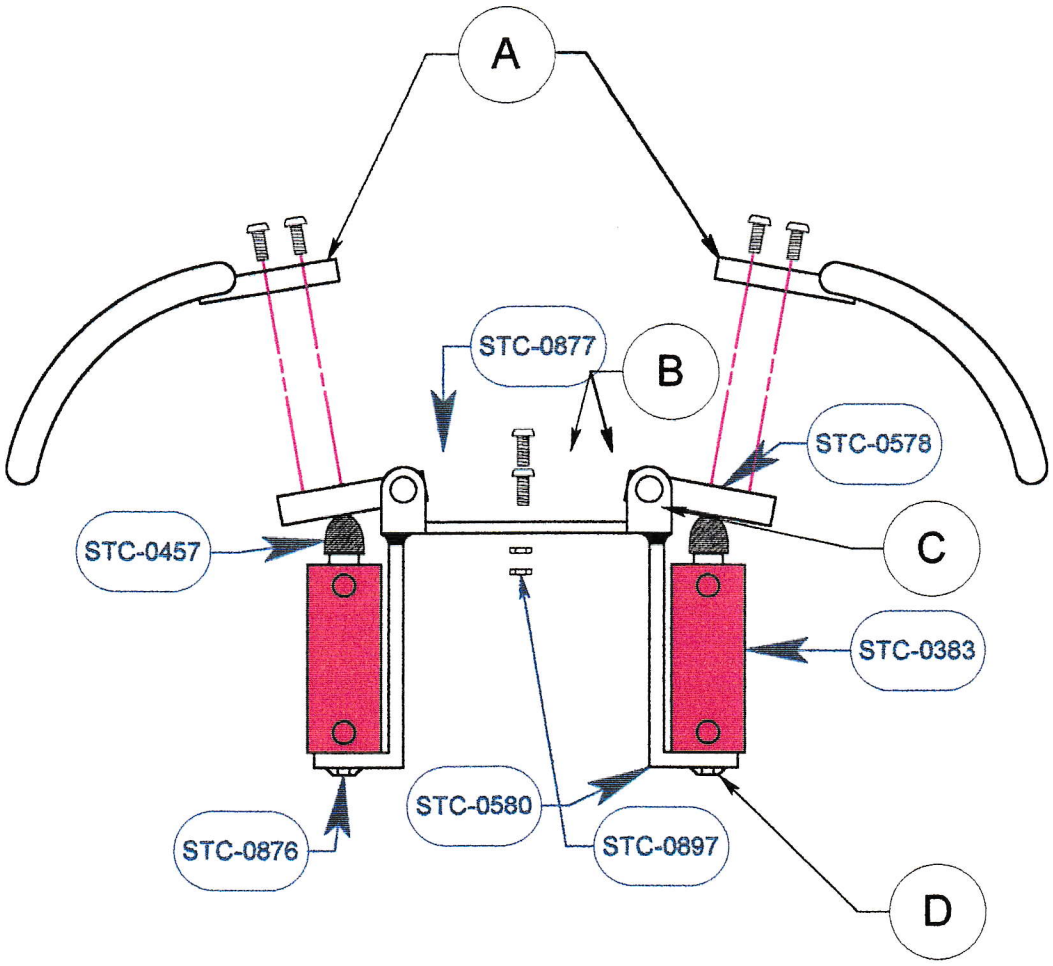
BIRD BEAK / BODY

REF. DWG. NO. CC-AR-207

QTY.	PART NO.	DESCRIPTION	GHP PART NO.
1	STC-0423	ACTUATOR	
1	STC-0426	ACTUATOR	
1	STC-0585	END PLATE	
1	STC-0582	RUBBER BUMPER	
1	STC-0584	END PLATE	
2	STC-0460	ROD END	
2	STC-0461	ROD END (MALE)	
1	STC-0438	SHAFT COLLAR	
2	STC-0407	BODY CLIP (RIGHT ANGLE)	

ACTUATOR REPLACEMENT

BIRD WINGS



ACTUATOR REPLACEMENT FOR WING ACTUATOR IS AS FOLLOWS:

1. Remove backshell of bird. Remove wings from wing assembly
2. Remove both air hoses. Be aware of hose color code.
3. Remove fastener "B".
4. Remove actuator assembly "C" while supporting function mechanism.
5. Remove fastener "D" that will detach cylinder from assembly.
6. Install new actuator positioned exactly the same as the one being replaced.
7. Replace fastener "D", including all locking hardware.
8. Replace air hoses. Be aware of hose color code.
9. Replace assembly "C" into bird. Attach with fasteners "B".
10. Manually test figure function for proper operation. Check for binding of actuator or hoses.
11. Replace backshell and wings "A".

CHUCK E. CHEESE

MODEL: CB-055	BIRD WINGS	
FILE: I:\tim\manual\bird\birdact3.vlm	REV: 3	DRAWING NO. CC-AR-206

CHUCK E. CHEESE
PARTS AND MATERIALS LIST

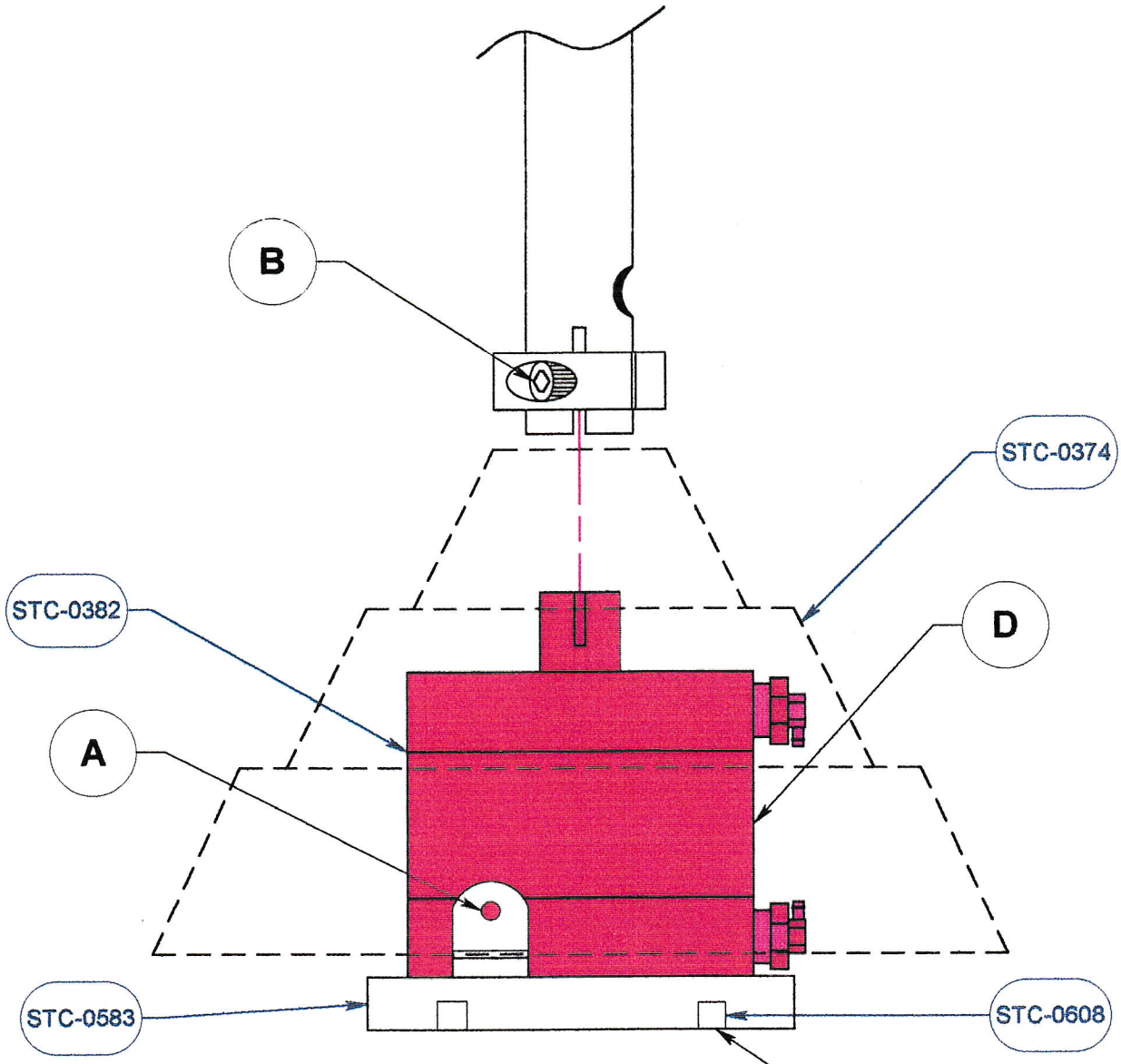
BIRD WINGS

REF. DWG. NO. CC-AR-206

QTY.	PART NO.	DESCRIPTION	GHP PART NO.
2	STC-0383	ACTUATOR	
2	STC-0877	BUTTON HEAD 8-32 X 1/2	
2	STC-0897	LOCK NUT 8-32	
2	STC-0876	BUTTON HEAD 8-32 X 5/16	
2	STC-0578	WING MOUNT	
1	STC-0580	ACTUATOR MOUNT	
2	STC-0457	BUMPER	

ACTUATOR REPLACEMENT

PERCH SWIVEL



ACTUATOR REPLACEMENT FOR PERCH SWIVEL IS AS FOLLOWS:

1. Remove 2 screws "A" attaching black stepped base.
2. Slide black base up wooden stick perch.
3. Loosen collar "B" and remove perch from actuator.
4. Remove both air hoses. Be aware of hose color code.
5. Remove fasteners "C" that bolt actuator to base.
6. Remove actuator "D" while supporting function mechanism.
7. Install new actuator positioned exactly the same as the one being replaced.
8. Replace fasteners "A" and "B", including all locking hardware.
9. Replace air hoses. Be aware of hose color code.
10. Manually test figure function for proper operation. Check for binding of actuator or hoses.

CHUCK E. CHEESE

MODEL: CB-055	BIRD BASE	
FILE: I:\tim\manual\bird\birdact1.vlm	REV: 2	DRAWING NO. CC-AR-209

CHUCK E. CHEESE
PARTS AND MATERIALS LIST

BIRD PERCH SWIVEL

REF. DWG. NO. CC-AR-209

QTY.	PART NO.	DESCRIPTION	GHP PART NO.
1	STC-0382	ACTUATOR	
4	STC-0608	ALLEN BOLT	
1	STC-0583	BASE PLATE	
1	STC-0374	PERCH BASE	

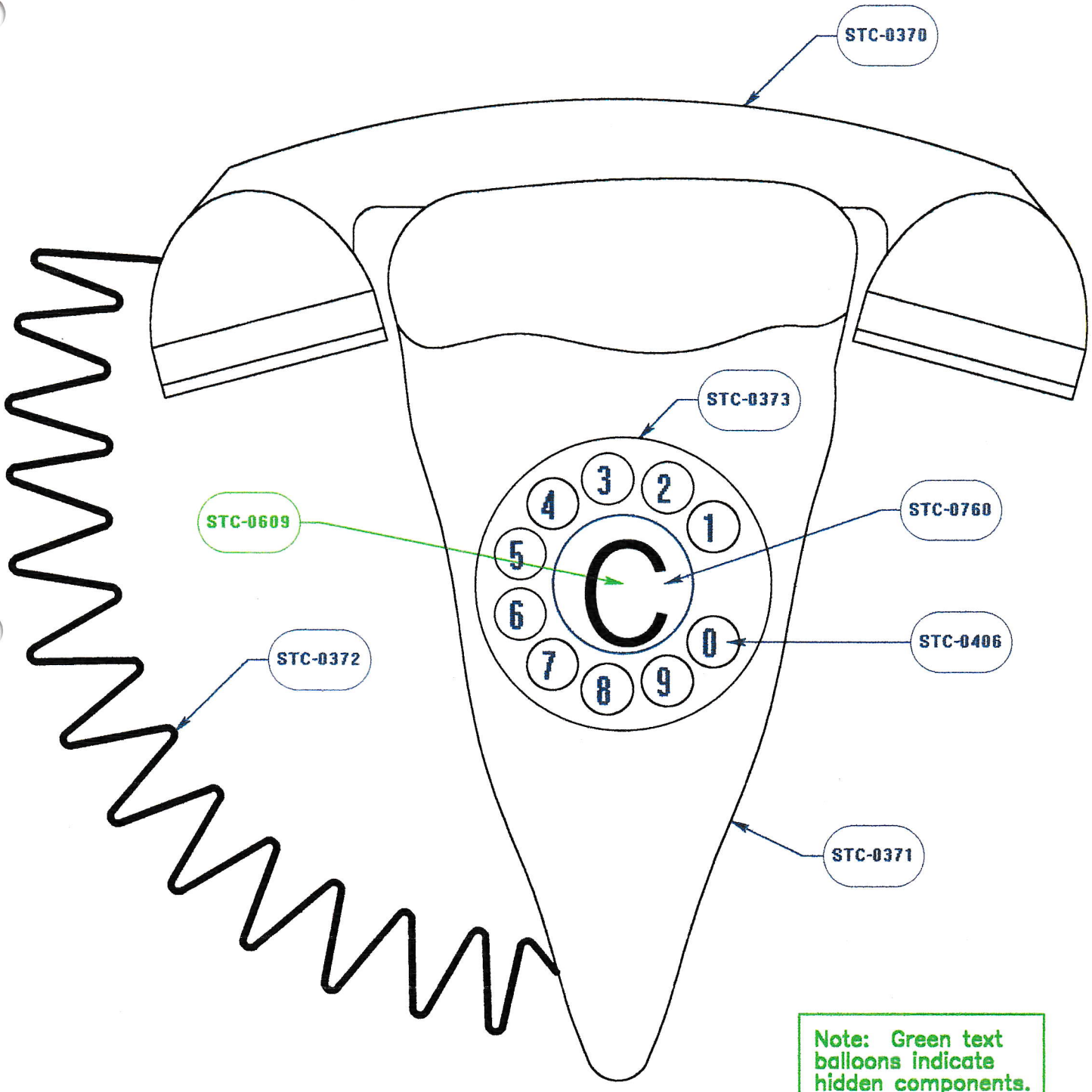
COMPONENT REPLACEMENT

PIZZA PHONE - PLASTIC PARTS

MODEL # CC-102 DRAWING NO. CC-332

M:\PROJECTS\CHUKCHS\MANUAL~1\CPPPARTX.SAM 06/25/96

COMPONENT REPLACEMENT



Note: Green text balloons indicate hidden components.

CHUCK E. CHEESE

MODEL: CC-102	PIZZA PHONE - FRONT

FILE: I:\tim\manual\phone\pizafrnt.vlm	REV: 4	DRAWING NO. CC-330

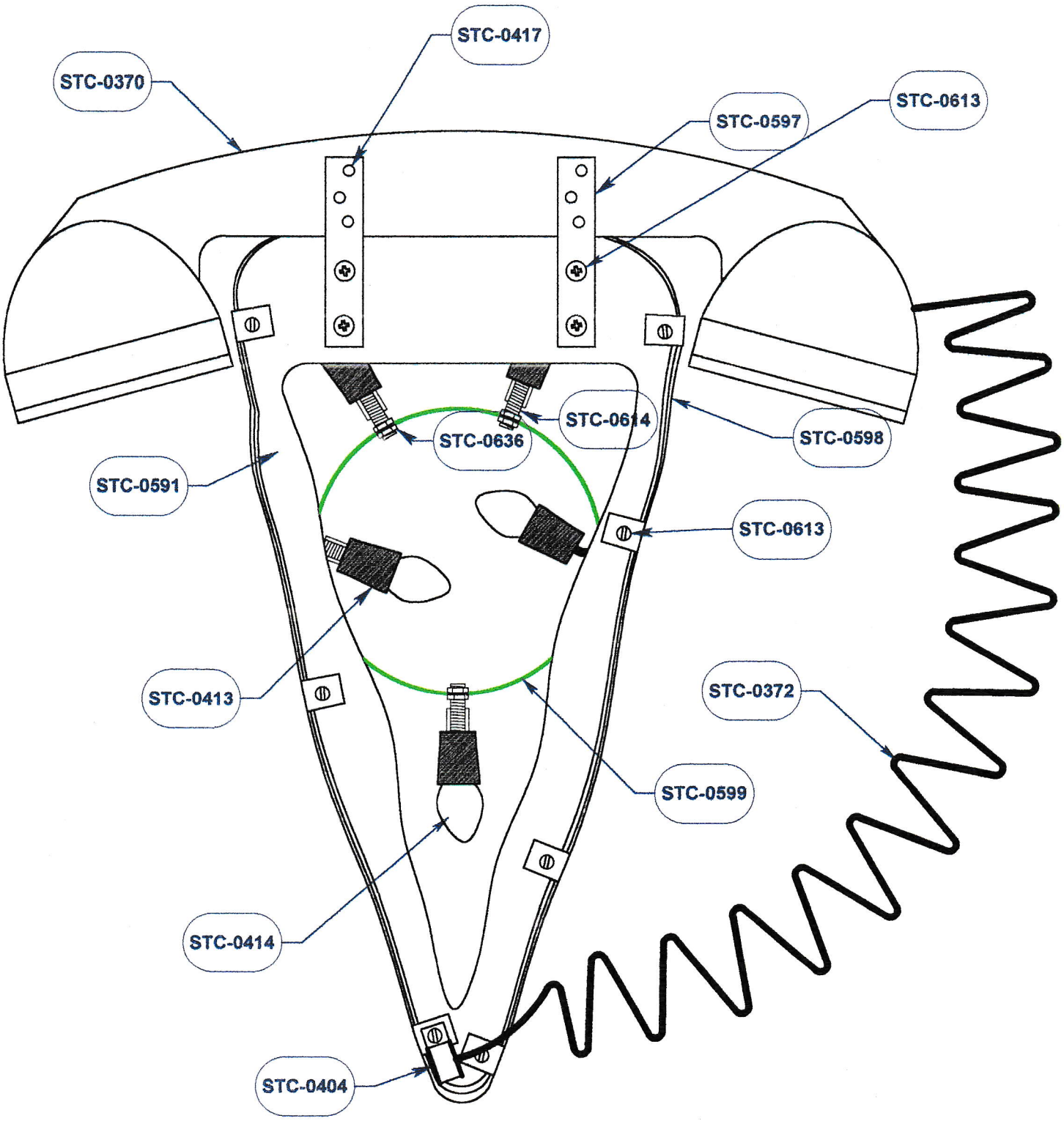
CHUCK E. CHEESE
PARTS AND MATERIALS LIST

PIZZA PHONE - FRONT

REF. DWG. NO. CC-330

QTY.	PART NO.	DESCRIPTION	GHP PART NO.
1	STC-0370	PHONE	
1	STC-0371	PIZZA	
1	STC-0372	CORD	
1	STC-0373	DIAL	
1	STC-0760	DECAL	
1 set	STC-0406	DECALS	
1	STC-0609	FLATHEAD MACH. 10-24 X 1	

COMPONENT REPLACEMENT



CHUCK E. CHEESE

MODEL: CC-102	PIZZA PHONE - BACK

FILE: pizzabak.vlm	REV: 7	DRAWING NO. CC-331

CHUCK E. CHEESE
PARTS AND MATERIALS LIST

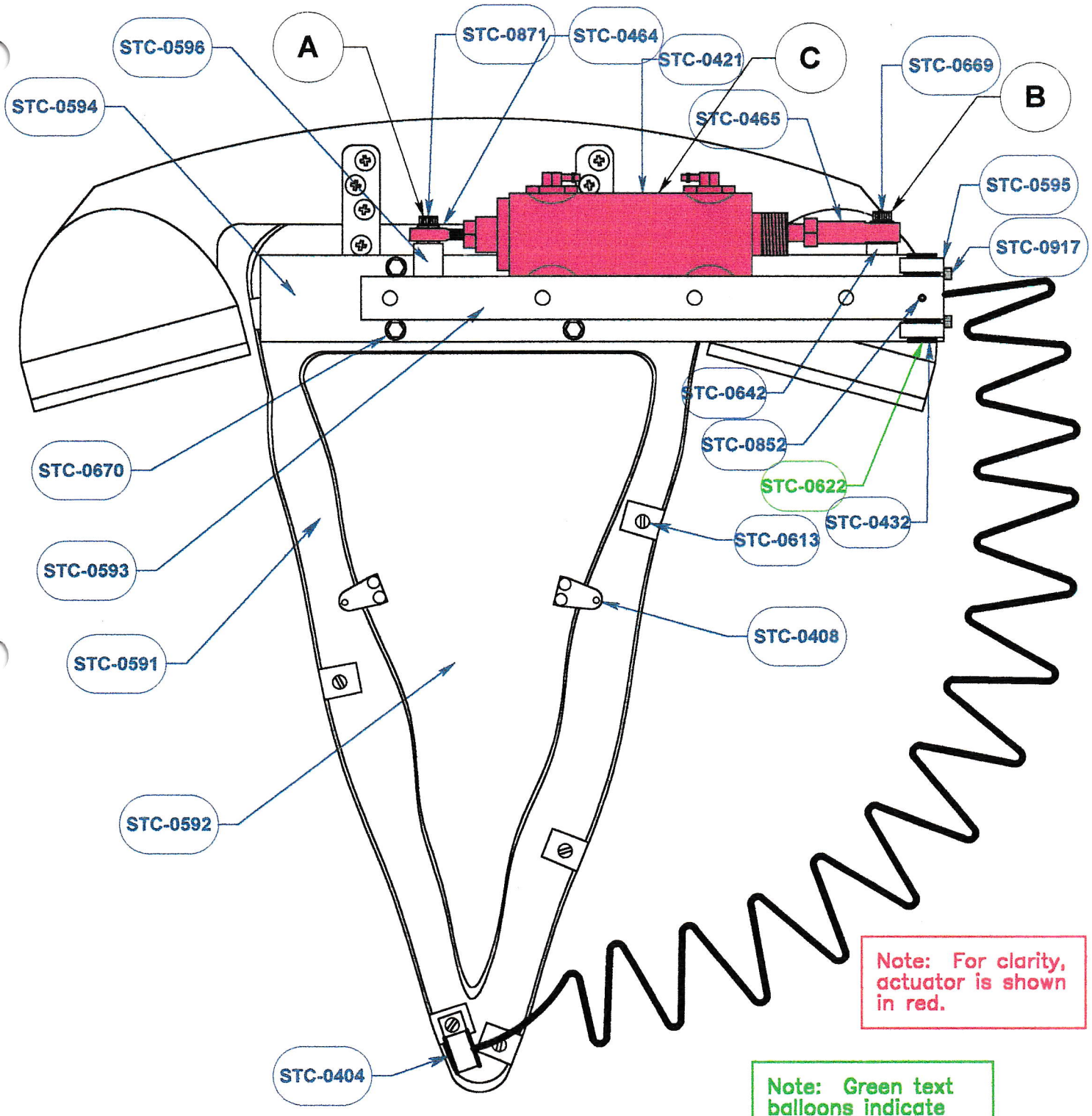
PIZZA PHONE - BACK

REF. DWG. NO. CC-331

QTY.	PART NO.	DESCRIPTION	GHP PART NO.
1	STC-0370	PHONE	
1	STC-0372	CORD	
10	STC-0636	BRASS NUT 3/8-24	
11	STC-0613	WOOD SCREW 6 X 3/8	
5	STC-0614	THREAD.TUBING 3/8-24 X 16	
1	STC-0591	BASE	
2	STC-0597	MOUNT BRACKET	
1	STC-0598	MOLDING	
1	STC-0599	LIGHT RING	
1	STC-0404	CLAMP	
5	STC-0413	LIGHT SOCKET	
5	STC-0414	LIGHT BULB	
6	STC-0417	POP RIVET	

ACTUATOR REPLACEMENT

PIZZA PHONE



CHUCK E. CHEESE

MODEL: CC-102	PIZZA PHONE - REAR VIEW	
FILE: I:\tim\manual\phone\pizzaact.vlm	REV: 9	DRAWING NO. CC-AR-190

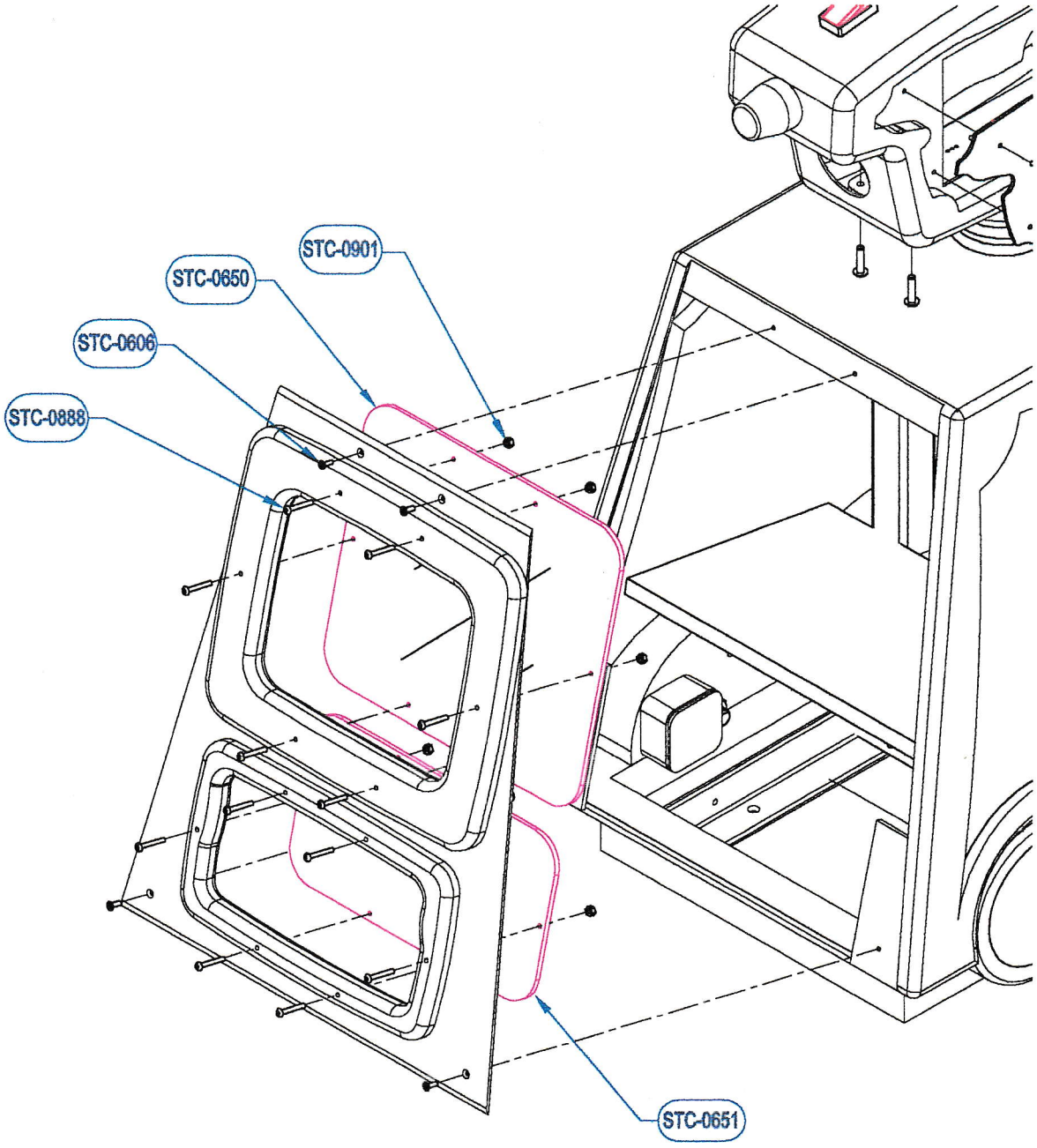
CHUCK E. CHEESE
PARTS AND MATERIALS LIST

PIZZA PHONE ACTUATOR

REF. DWG. NO. CC-AR-190

QTY.	PART NO.	DESCRIPTION	GHP PART NO.
1	STC-0421	AIR CYLINDER	
1	STC-0669	ALLEN BOLT	
1	STC-0871	ALLEN BOLT 5/16-24 X 1 1/2	
2	STC-0917	ALLEN BOLT 10-24 X 5/8	
4	STC-0670	ALLEN BOLT	
2	STC-0642	NAS WASHER 5/16	
1	STC-0852	SET SCREW 10-24 X 1/4	
11	STC-0613	WOOD SCREW 6 X 3/4	
1	STC-0622	PIN	
1	STC-0591	BASE	
1	STC-0592	BASE INSERT	
1	STC-0593	MOUNT BAR	
1	STC-0594	PHONE MOUNT BAR	
1	STC-0595	CLEVIS	
1	STC-0596	SPACER	
1	STC-0464	ROD END (MALE)	
1	STC-0465	ROD END	
2	STC-0432	BEARING	
1	STC-0404	CLAMP	
2	STC-0408	BODY CLIP	

GENERAL PARTS REPLACEMENT	FRONT COVER-CAMERA



CHUCK E. CHEESE

MODEL: CA-102	SIDE VIEW-CAMERA

FILE: \Cam5x	REV:		DRAWING NO. CAM5x

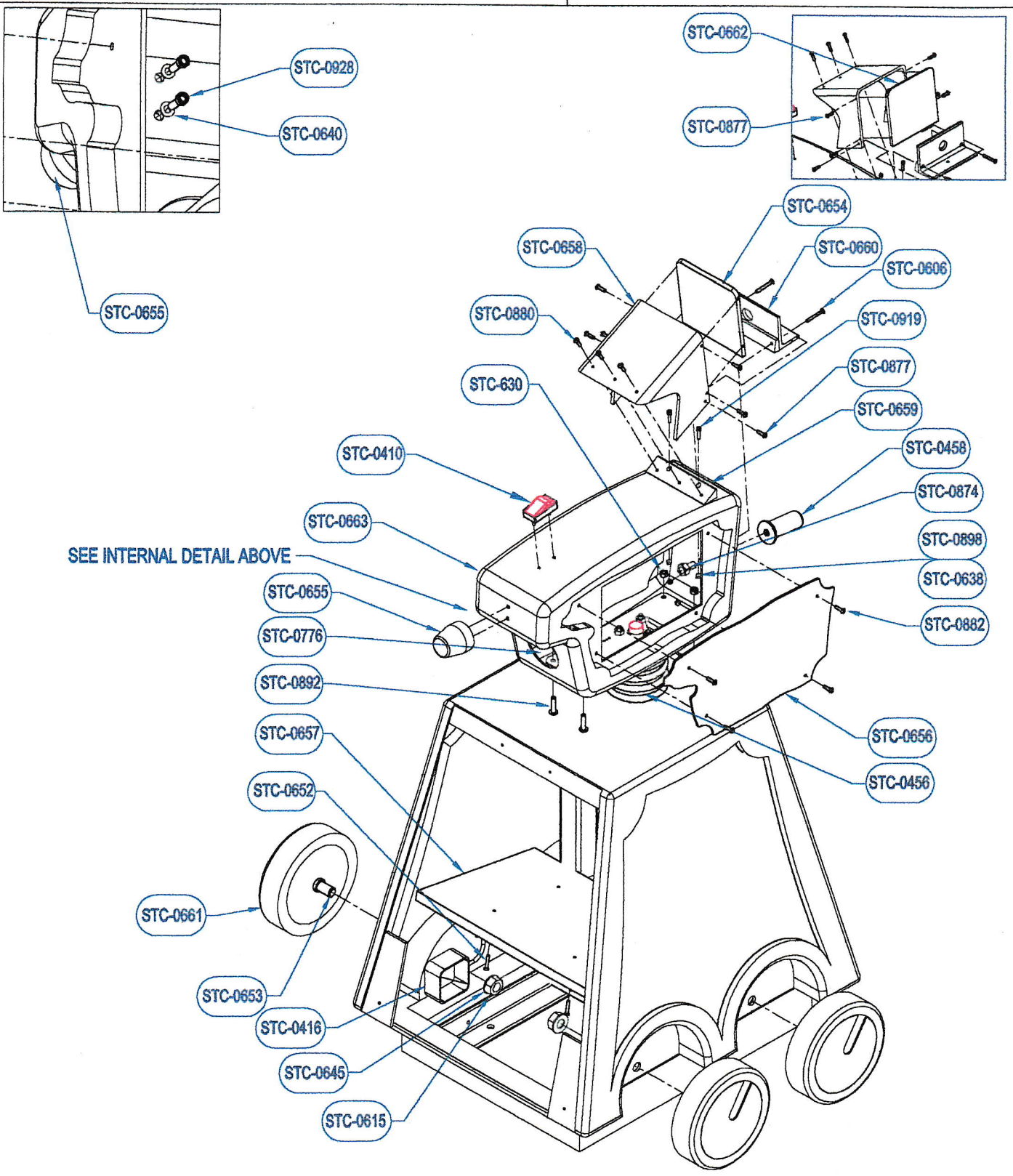
CHUCK E. CHEESE
PARTS AND MATERIALS LIST

SIDE VIEW-CAMERA

REF. DWG. NO. Cam5

QTY.	PART NO.	DESCRIPTION	GHP PART NO.
12	STC-0888	BUTTON HEAD 10-32 X 1 1/2	
12	STC-0901	LOCK NUT 10-32	
4	STC-0606	FLAT HEAD 10-24 X 1 1/2	
1	STC-0650	PLASTIC PANEL	
1	STC-0651	PLASTIC PANEL	

BASE-CAMERA



CHUCK E. CHEESE

MODEL: CA-102

SIDE VIEW-CAMERA

FILE: C:\GHPFiles\Chuck-e\Camera\Cam5ax	REV:		DRAWING NO. CAM5ax

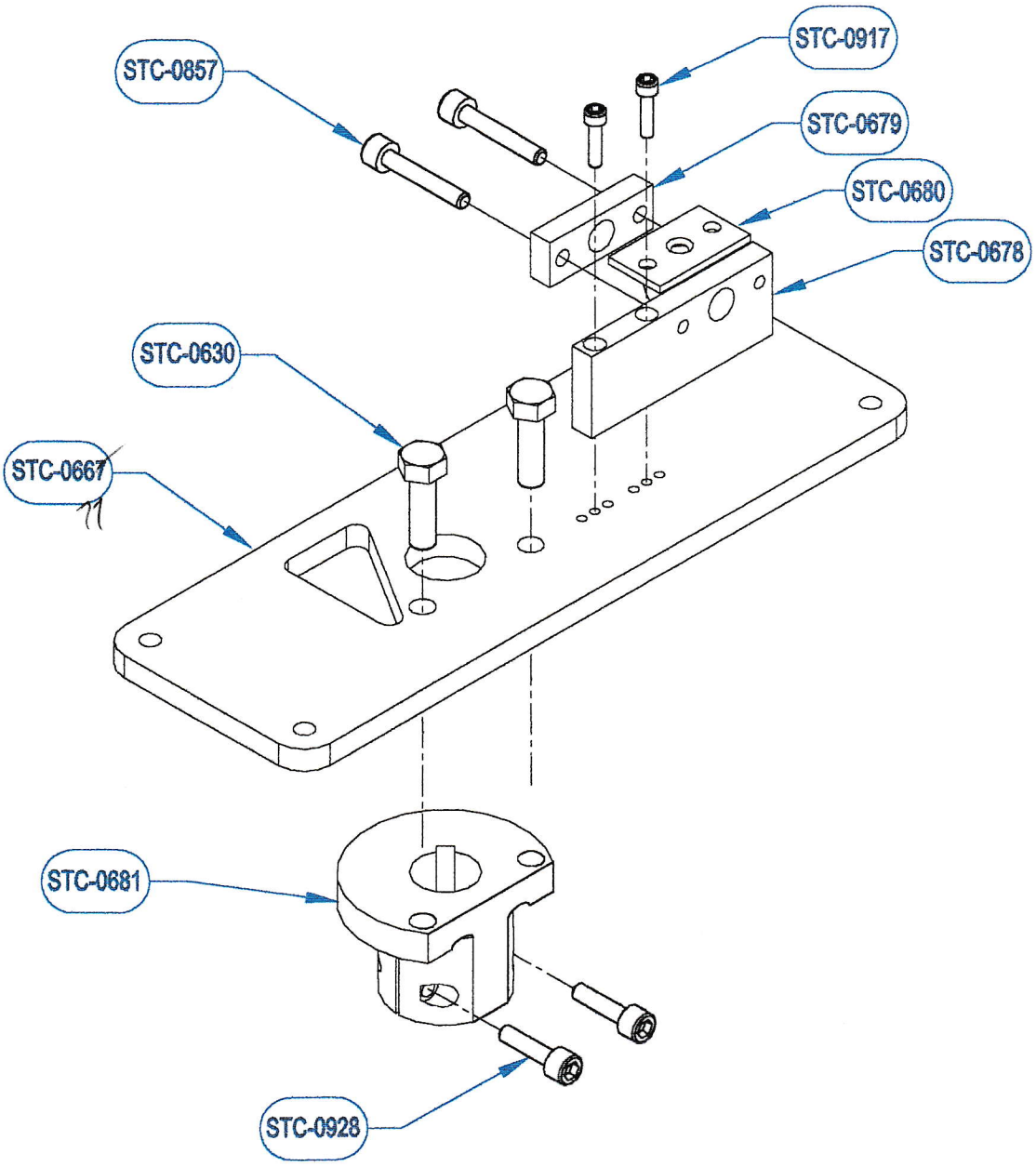
CHUCK E. CHEESE
PARTS AND MATERIALS LIST

BASE-CAMERA

REF. DWG. NO. Cam5a

QTY.	PART NO.	DESCRIPTION	GHP PART NO.
2	STC-0919	ALLEN BOLT 10-24 X 1	
2	STC-0928	ALLEN BOLT 1/4-20 X 3/4	
1	STC-0874	ALLEN BOLT 1/2-13 X 1	
2	STC-0877	BUTTON HEAD 8-32 X 1/2	
3	STC-0880	BUTTON HEAD 10-24 X 1/2	
4	STC-0882	BUTTON HEAD 10-24 X 3/4	
2	STC-0892	BUTTON HEAD	
2	STC-0898	LOCK NUT 10-24	
4	STC-0630	LOCK NUT 5/16-18	
2	STC-0638	FLAT WASHER #10	
2	STC-0640	FLAT WASHER 1/4	
4	STC-0645	FLAT WASHER 1/2	
2	STC-0606	FLAT HEAD 10-24 X 1 1/2	
4	STC-0652	SCREW	
4	STC-0653	HEX BOLT	
1	STC-0654	MONITOR BRACKET	
1	STC-0655	CAMERA LENS	
1	STC-0656	CAMERA SIDE PANEL	
1	STC-0657	MONITOR PLATFORM	
1	STC-0658	VIEW FINDER COVER	
1	STC-0659	VIEW FINDER BRACKET	
1	STC-0660	BRACKET	
1	STC-0456	RIBBED TUBING	
1	STC-0458	RUBBER HANDLE COVER	
2	STC-0416	ELECTRIC BOX	
1	STC-0661	WHEEL	
1	STC-0662	LCD LENS PANEL	
1	STC-0663	CAMERA BODY	
1	STC-0410	RED LIGHT(TOP OF CAMERA)	
1	STC-0776	ELECTRICAL CORD	
4	STC-0615	1/2-13 LOCKNUT	

GENERAL PARTS REPLACEMENT	INSIDE-CAMERA



CHUCK E. CHEESE

MODEL: CA-102	SIDE VIEW-CAMERA

FILE: C:\GHPFiles\Chuck-e\Camera\Cam5bx	REV: 2		DRAWING NO. CAM5bx

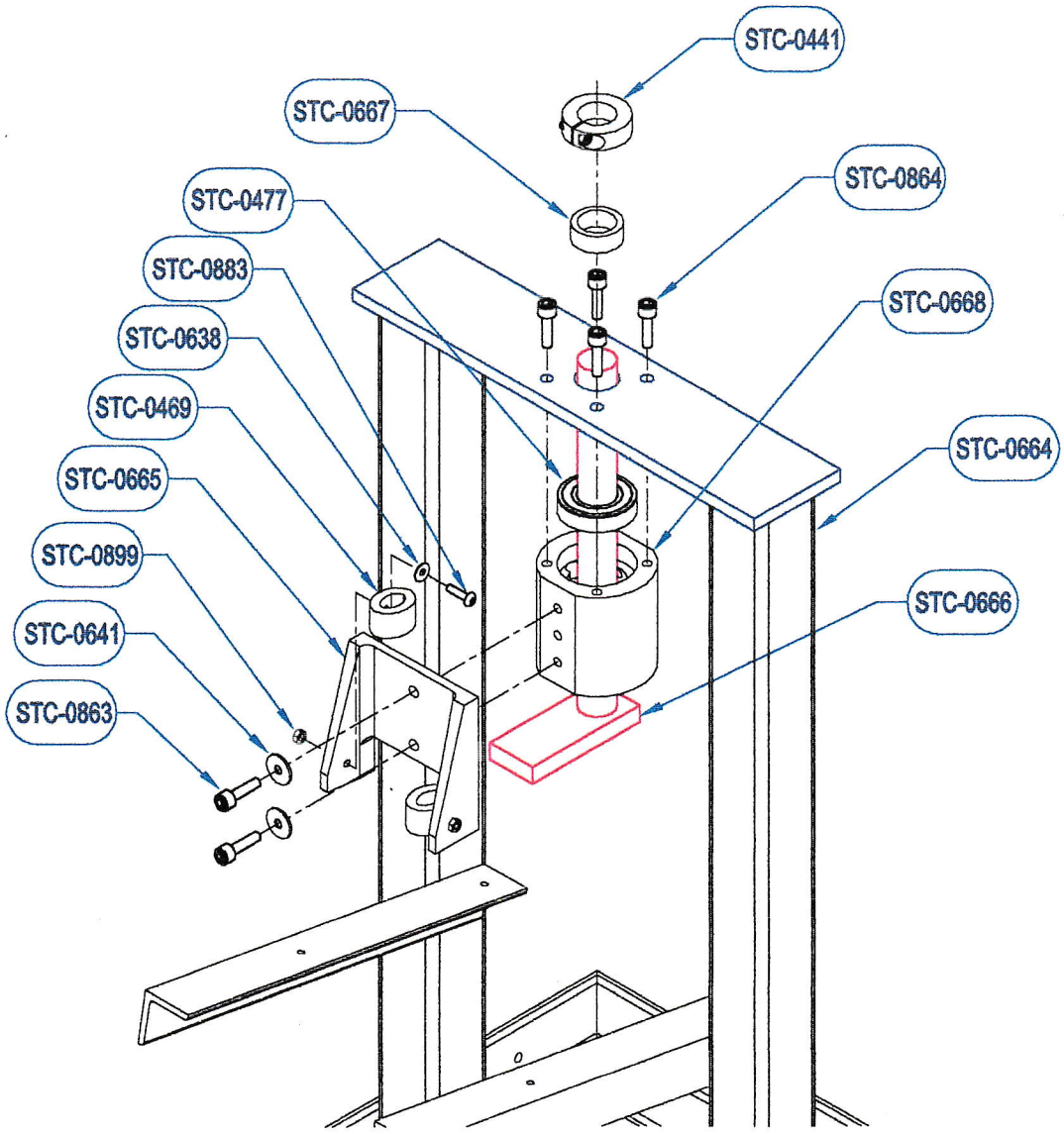
CHUCK E. CHEESE
PARTS AND MATERIALS LIST

INSIDE-CAMERA

REF. DWG. NO. Cam5b

QTY.	PART NO.	DESCRIPTION	GHP PART NO.
2	STC-0917	ALLEN BOLT 10-24 X 5/8	
2	STC-0928	ALLEN BOLT 1/4-20 X 3/4	
2	STC-0857	ALLEN BOLT 1/4-20 X 1 1/2	
2	STC-0862	ALLEN BOLT 5/16-18 X 3/4	
1	STC-0677	MOUNTING PLATE	
1	STC-0678	CAMERA MOUNT	
1	STC-0679	CAMERA MOUNT	
1	STC-0680	BALL PLATE	
1	STC-0681	CLAMP MOUNT	

FRAME-CAMERA



CHUCK E. CHEESE

MODEL: CA-102

SIDE VIEW-CAMERA

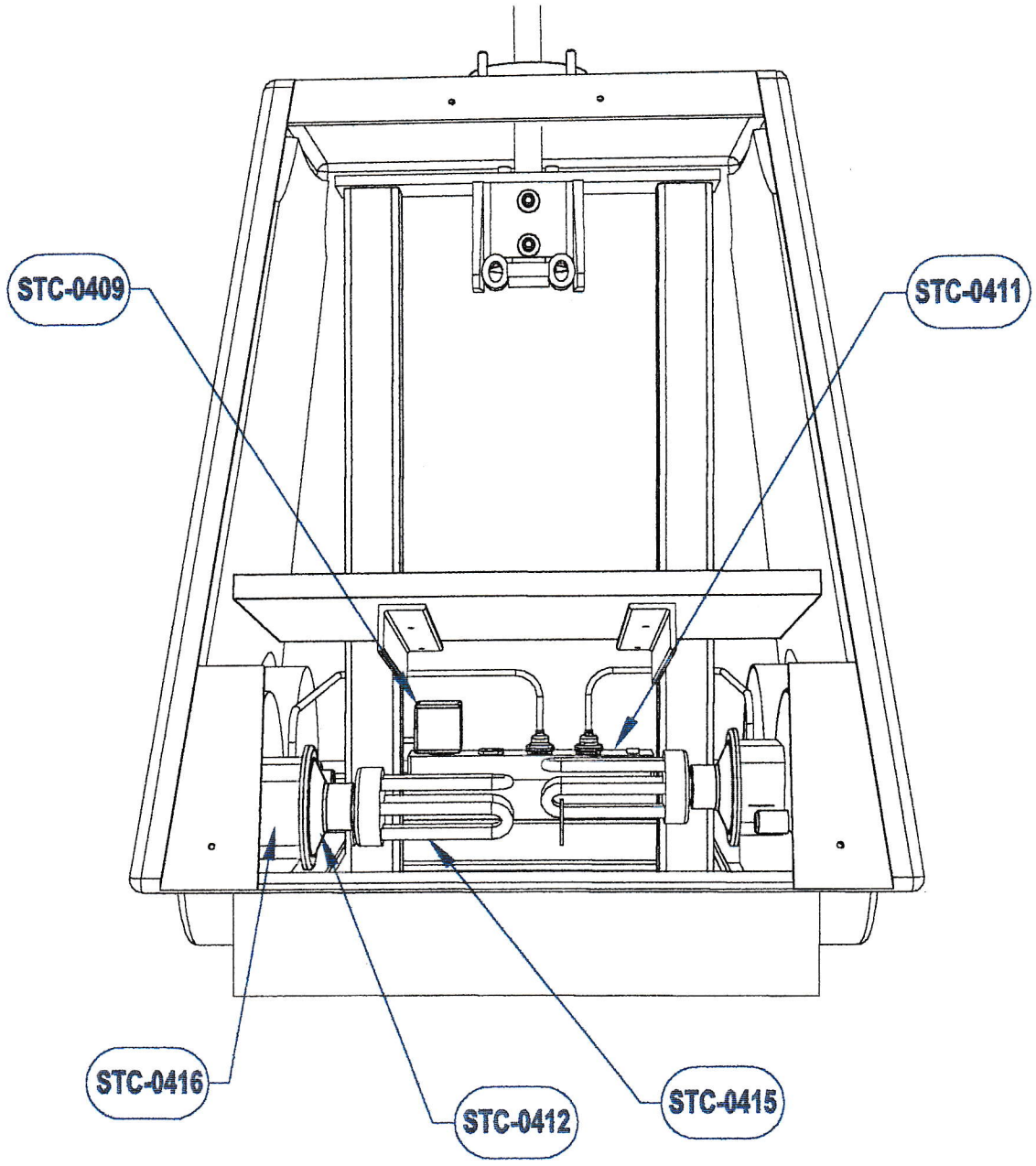
FILE: C:\GHPFiles\Chuck-e\Camera\Cam5cax	REV:		DRAWING NO. Cam5cax

CHUCK E. CHEESE
PARTS AND MATERIALS LIST

FRAME-CAMERA

REF. DWG. NO. Cam5ca

QTY.	PART NO.	DESCRIPTION	GHP PART NO.
2	STC-0863	ALLEN BOLT 5/16-18 X 7/8	
4	STC-0864	ALLEN BOLT 5/16-18 X 1	
2	STC-0883	BUTTON HEAD 10-24 X 7/8	
2	STC-0899	JAM LOCK NUT 10-24	
2	STC-0638	FLAT WASHER #10	
2	STC-0641	FLAT WASHER 5/16	
1	STC-0664	FRAME	
1	STC-0665	LIMIT BRACKET	
1	STC-0666	CAMERA SUPPORT	
1	STC-0667	SPACER	
1	STC-0668	SUPPORT	
2	STC-0469	RUBBER BUMPER	
1	STC-0441	SHAFT COLLAR	
2	STC-0477	BEARING	



CHUCK E. CHEESE

MODEL: CA-102

INTERNAL VIEW-CAMERA

FILE: C:\GHPFiles\Chuck-e\Camera\Cam5dx	REV: 1		DRAWING NO. Cam5dx

CHUCK E. CHEESE
PARTS AND MATERIALS LIST

ELECTRICAL-CAMERA

REF. DWG. NO. Cam5d

QTY.	PART NO.	DESCRIPTION	GHP PART NO.
1	STC-0409	TRANSFORMER	
1	STC-0411	POWER STRIP	
2	STC-0412	LIGHT SOCKET	
2	STC-0415	FLOURESCENT LIGHT	
2	STC-0416	ELECTRIC BOX	

Studio C
Start Up/Shut Down
Procedures

Start Up:

1. **Turn on air compressor.**
2. **After compressor stops, drain water from tanks.**
3. **Verify all circuit breakers are turned on for the showroom.**
4. **Turn on the master power switch at the bottom of the rack.**
5. **Turn on both D.T.U.'s (Gray boxes on the computer room wall.**
6. **Turn on each DVD player…The green light will be lit when they are on.**
7. **Touch manager panel.**
8. **Enter the manager password and press "Enter".**
9. **Select "Start-up" from the menu.**
10. **When prompted enter the birthday names if desired.**
11. **When prompted, run diagnostics if desired.**
12. **The show will begin shortly.**

Shut Down:

1. **Touch manager panel.**
2. **Enter manager password and press "Enter".**
3. **Press shut down from the menu.**
4. **The show will stop after the skit in progress ends.**
5. **Verify the park light is lit on all laser disc players.**
6. **Turn off both D.T.U.'s (Grey boxes on computer room wall).**
7. **Turn off master power switch at the bottom of the rack.**
8. **Turn off the air compressor.**
9. **Turn off the circuit breakers for the Roboscans/Robocolors.**

CHUCK E. CHEESE'S

Studio C Technical Manual

1-7-00

CEC

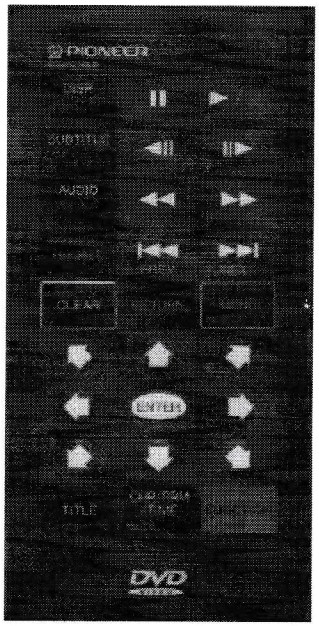
entertainment, inc.

Installing the DVD players

Step 1

1. Make sure there are no discs in the players.
2. Press and hold the MENU button on the remote for 5 seconds.
3. Use the down arrow to cycle through the settings (Fig 2 / Fig 3).
4. Use the right arrow to change the value.
5. Use the up and down to select the item to change.

Remote



Correct Settings

MENU	page 1/2
WEEKLY TIMER	OFF
POWER ON START	OFF
TITLE PLAY MODE	SINGLE
REPEAT MODE	OFF
BAUD RATE	9600bps
TRAY LOCK	OFF
BLACKBOARD LOCK	OFF
▸STILL MODE	FIELD
D.R.COMP	OFF

Fig 2

MENU	page 2/2
MARK FRAME SQUELCH	OFF
SQUELCH DUR SEARCH	ON
SYNC OUT(DURING SQ)	OFF
▸STACK MODE OSD	OFF

Fig 3

Step 2

1. Press MENU 1 time (Exits the screen menu).
2. Press MENU 1 time (Enters the menu selection).
3. Press enter to select INITIAL (Fig 4) (This screen will display if no discs are in the player).
4. Use the down arrow to select B.G. COLOR, press enter (Fig 5).
5. Use the down arrow to select the green square and use the left arrow to turn it all the way down (Fig 6).
6. Use the down arrow to select the blue square and use the left arrow to turn it all the way down (Fig 6).
7. Press Enter. You are now ready to insert the discs.

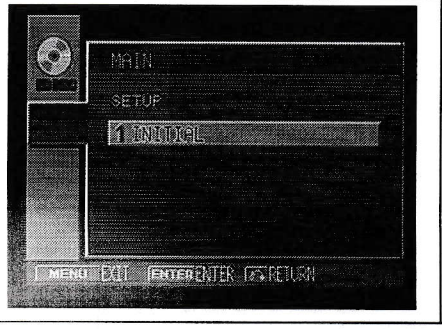


Fig 4

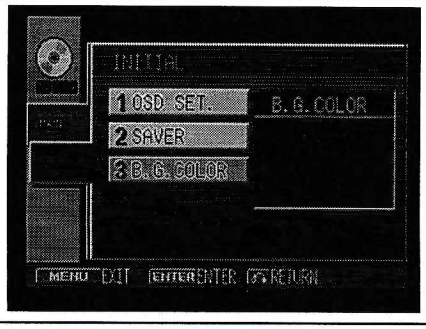


Fig 5

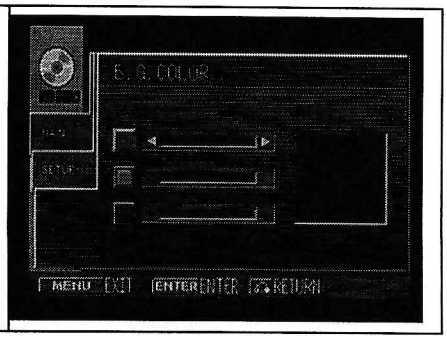


Fig 6

Studio C Tech Terminal

Figure 1

DTU Configuration
Bank #01 <1-64>

Figure 2

DTU Configuration
Bank #02 <65-128>

Figure 3

Understanding the Tech Terminal is an important part of troubleshooting your show. We will attempt to cover all the basic operations of the Tech Term in this article. We have also listed all the movements (Bits) in both the #1 and #2 DTUs (Digital Terminal Units).

Important Note:
It is important to understand that when you first plug in the Tech Term you will only see a flashing cursor on the on the LCD display. This is normal, press the menu button to show the display in figure 1.

Let's start by selecting DTU #1, the top DTU. You can do this 2 different ways. The first way is by plugging the Tech Term into one of the two "phone type" jacks at the front of your stage. The other way is to plug the Tech Term directly into the gray DTU box located behind the stage. This can be done by, unplugging the "phone type" cable that is plugged into the right side of the gray box. You can then plug the Tech Term directly into that "phone type" plug.

In figure 1, the Tech Term is displaying the two options it is capable of performing. The first option is "Configuration". Every show has two DTUs, one for the character movements and one for the lights. Both DTUs are identical, in order for the computer to send the right information to the right DTU we must first tell the DTUs which one is #1 and which one is #2. To perform this option, press the #1 on the keypad to enter into the configuration mode.

At this point your display should like figure 2. This tells you that the DTU you are plugged into is configured as #1 <1-64>, which is correct for the top DTU.

Repeat the same procedures to set the bottom DTU #2. It should be set to Bank #02 <65-128> as shown in figure 3.

If you should have to change from Bank #01 (Character Movements) to Bank #02 (Lighting) press the arrow up or down button to toggle between the two. You should only have to do this if you have just received a new DTU.

Important Note:
When done, always exit by pressing the Menu button until you see a blank screen. This will save your current settings.

Studio C Tech Terminal

```
Arm out  (R)
Channel : 01   Off
Status   : Clear
F1 = BL/CL   F2 = On/Off
```

Figure 4

Important Note:
If you turn on a movement (Bit) in "Diagnostics" and leave it on, it will stay on until you power down the DTU. Always remember to turn the movement (Bit) off before disconnecting the Tech Terminal from the DTU.

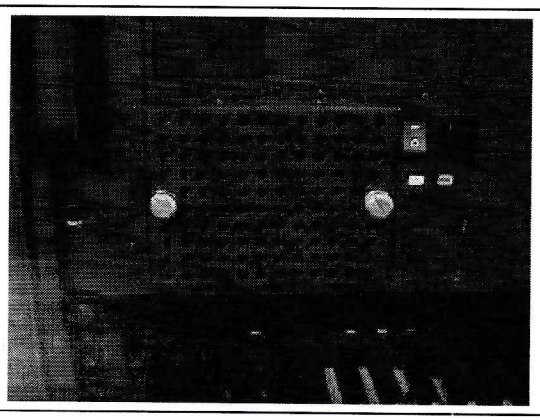
The next option in figure 1 is "Diagnostics". This function will allow you to do 2 things, turn on a movement (Bit) or Blind a movement.

Press the #2 "Diagnostics" on the tech terminal to enter into the screen shown in figure 4. Let's start by turning on the "Arm out (R)" movement on Chuck E Cheese, this is done by pressing F2 on the Tech Term. Chuck E's arm should move and the corresponding led should light. Press F2 again and the bit (LED) will go off. You select other movements (Bits) by using the arrow keys.

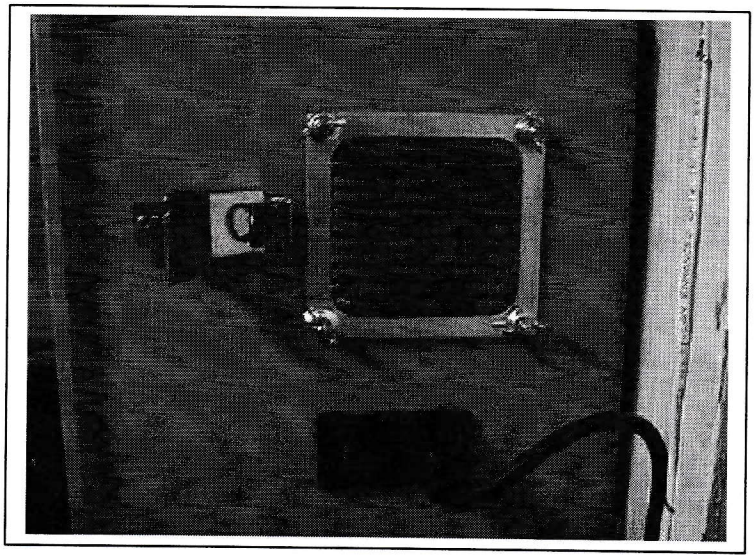
Now let's look at the BL/CL (Blind/Clear) command. This command is used to stop a movement (Bit) from functioning. If for example, Chuck E's arm breaks in the middle of a party, you would want to blind that movement until you could repair it when the party was over. If you leave it blinded and exit using the menu button until you see the blank screen, it will stay that way until you go back in and unblind it by pressing F1 again.

The "Blind" feature should only be used in case of an emergency as in the example above.

Studio C Main Computer Filter



Studio C DTU Fan Filter



You should clean your Computer and DTU fan filters once every two weeks. This will keep your system cool and dust free. In the future this will be included on your PM calendar.

Studio C Bit Chart

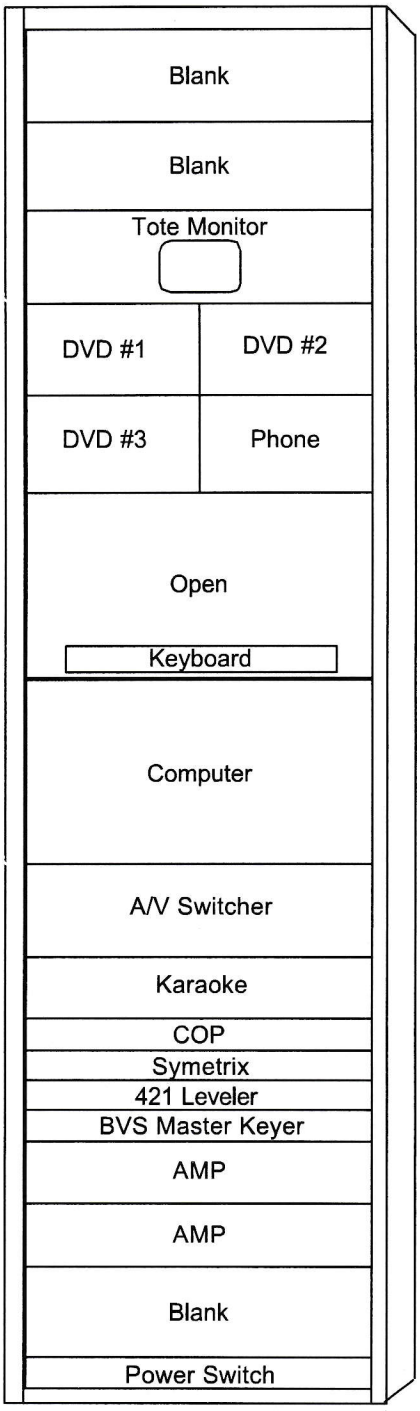
DTU #1

1	ARM OUT	33	BIRD MOUTH
2	ARM SWING	34	BIRD BOW
3	ELBOW UP	35	BIRD TURN
4	WRIST TURN	36	BIRD WINGS
5	WAVE	37	BIRD SPARE
6	ARM OUT	38	BIRD SPARE
7	ARM SWING	39	BIRD SPARE
8	ELBOW UP	40	PHONE SWING
9	WRIST TURN	41	PHONE SPARE
10	WAVE	42	PHONE SPARE
11	LEFT ARM FORWARD	43	
12	BODY FORWARD	44	CURTAIN OPEN
13	BODY LEFT SIDE BEND	45	CURTAIN CLOSE
14	BODY RIGHT	46	
15	TORSO TWIST RIGHT	47	
16	TORSO TWIST LEFT	48	
17	RIGHT ARM FORWARD	49	PHONE SPARE
18	HEAD TURN LEFT	50	
19	HEAD TURN RIGHT	51	
20	HEAD UP	52	
21	MOUTH	53	
22	HEAD TILT RIGHT	54	
23	HEAD TILT LEFT	55	
24	EYE BLINK DOWN	56	
25	EYE BLINK UP	57	
26	NOSE	58	
27	EYE TURN LEFT	59	
28	EYE TURN RIGHT	60	
29	EYEBOWS UP	61	
30	EYEBROWS DOWN	62	
31	EARS	63	
32	FOOT TAP	64	

DTU #2

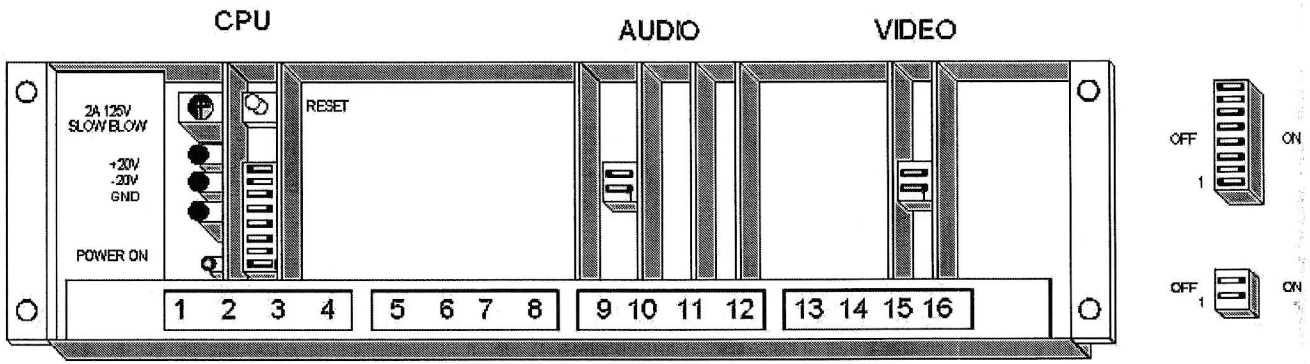
1	CEC RED FLOODS	33	HOUSE LT DIM
2	CEC GREEN FLOODS	34	
3	CEC BLUE FLOODS	35	
4	CEC AMBER FLOODS	36	
5	BS RED FLOODS (NOT USED)	37	
6	BS GREEN FLOODS (NOT USED)	38	
7	BS AMBER FLOODS (NOT USED)	39	
8	SPARE 1-8	40	
9	CLOCK NEON	41	
10	CLOCK FORWARD	42	
11	CLOCK REVERSE	43	
12	STROBE	44	
13	CITY LIGHTS	45	
14	DESK PANEL BLUE (INNER)	46	
15	DESK PANEL GREEN (MIDDLE)	47	
16	DESK PANEL RED (OUTER)	48	
17	PHONE HANDSET LTS	49	
18	PHONE DIAL LTS	50	
19	ON AIR SHOW	51	
20	APPLAUSE SIGN	52	
21	MONITOR CHASE LIGHTS	53	
22	MONITOR PINK NEON (INNER)	54	
23	MONITOR BLUE NEON (MIDDLE)	55	
24	MONITOR GREEN NEON (OUTER)	56	
25		57	
26	GEMINI-WARP	58	
27	CEC SPOT	59	
28	BIRD SPOT	60	
29	LIVE FLOODS	61	
30	AMBER ROOM FLOODS	62	
31	PINK ROOM FLOODS	63	
32	BLUE ROOM FLOODS	64	

Studio C Show Rack



1 Rack Space = 1-3/4 "

SIGMA SERIES 2100
A/V SWITCHER

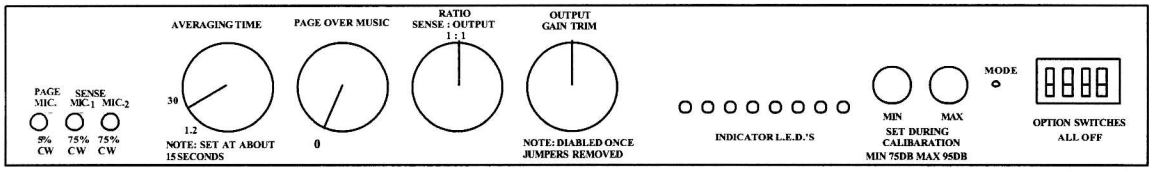


CPU SWITCH SETTINGS	AUDIO SETTINGS	VIDEO SETTINGS
6 - 7 - 8 ON, OFF, OFF 16 INPUTS x 16 OUTPUT	2 OFF	2 ON
3 - 4 - 5 ON, ON, ON RS232	1 ON	1 ON
1 - 2 OFF, ON 9600 BAUD		
	LEVEL 2	LEVEL 1

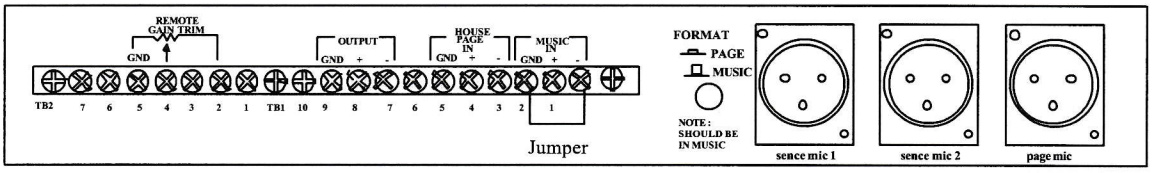
NOTE:

CPU CAN BE INSTALLED IN 1,2,3 OR 4 SLOT
AUDIO CAN BE INSTALLED IN 9,10,11 OR 12 SLOT
VIDEO CAN BE INSTALLED IN 13,14,15 OR 16 SLOT

MASTER SYMETRIX 571 SPL SETTINGS

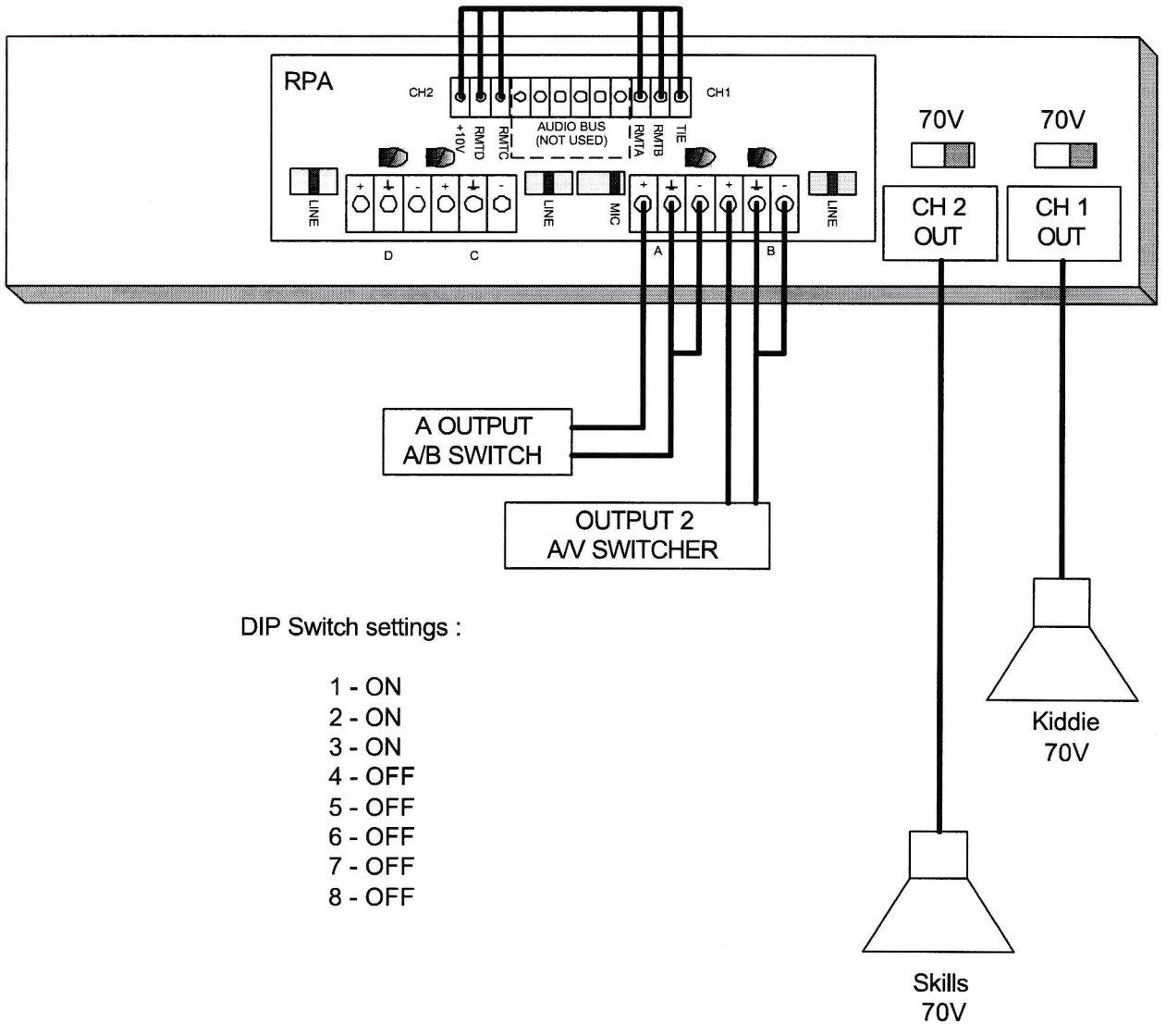


REAR VIEW OF MASTER SYMETRIX



Gameroom Amp PIP-RPA Module

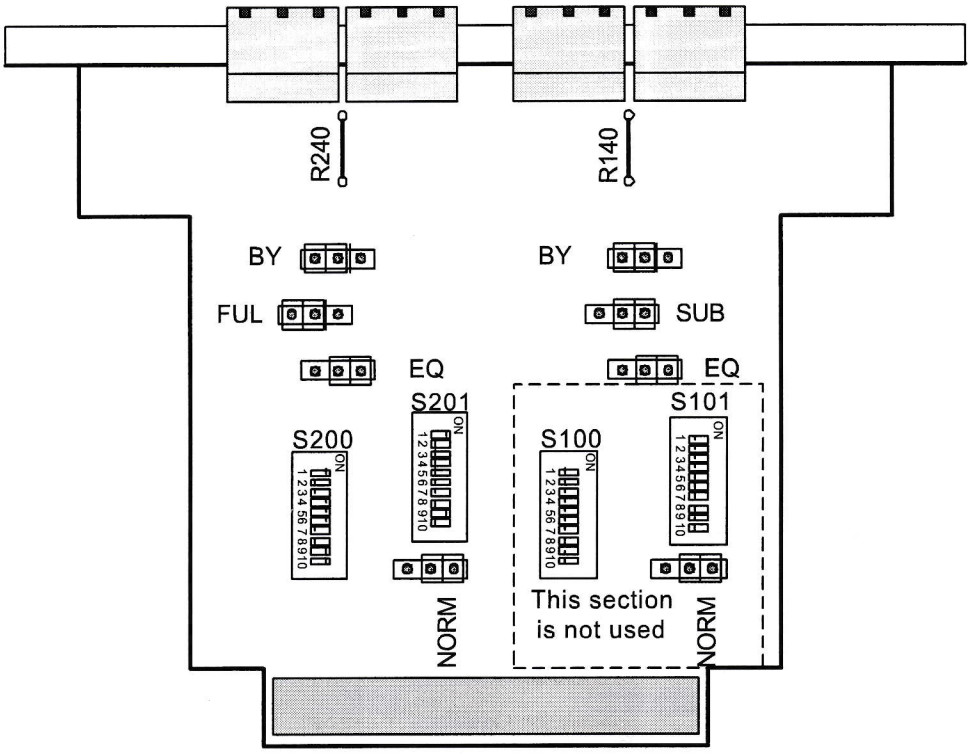
Crown Amp



DIP Switch settings :

1 - ON
2 - ON
3 - ON
4 - OFF
5 - OFF
6 - OFF
7 - OFF
8 - OFF

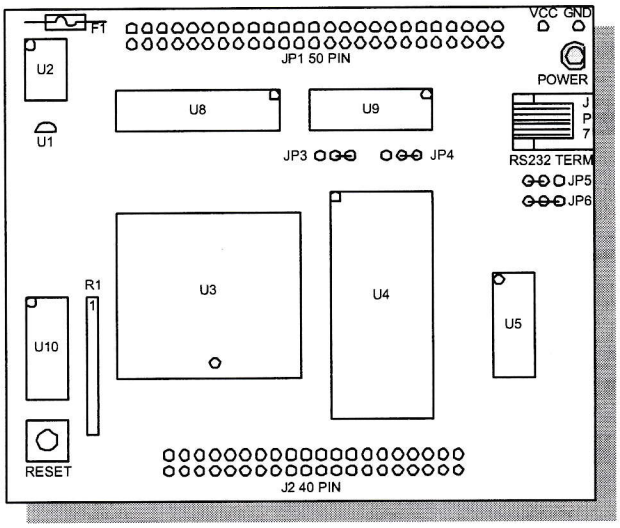
Show Room PIP-BEQ Module



Dip switch settings:

S200	S201
1 - ON	1 - ON
2 - OFF	2 - OFF
3 - OFF	3 - OFF
4 - ON	4 - OFF
5 - ON	5 - N/A
6 - ON	6 - OFF
7 - OFF	7 - OFF
8 - OFF	8 - OFF
9 - ON	9 - ON
10 - ON	10 - OFF

STUDIO C CPU CARD

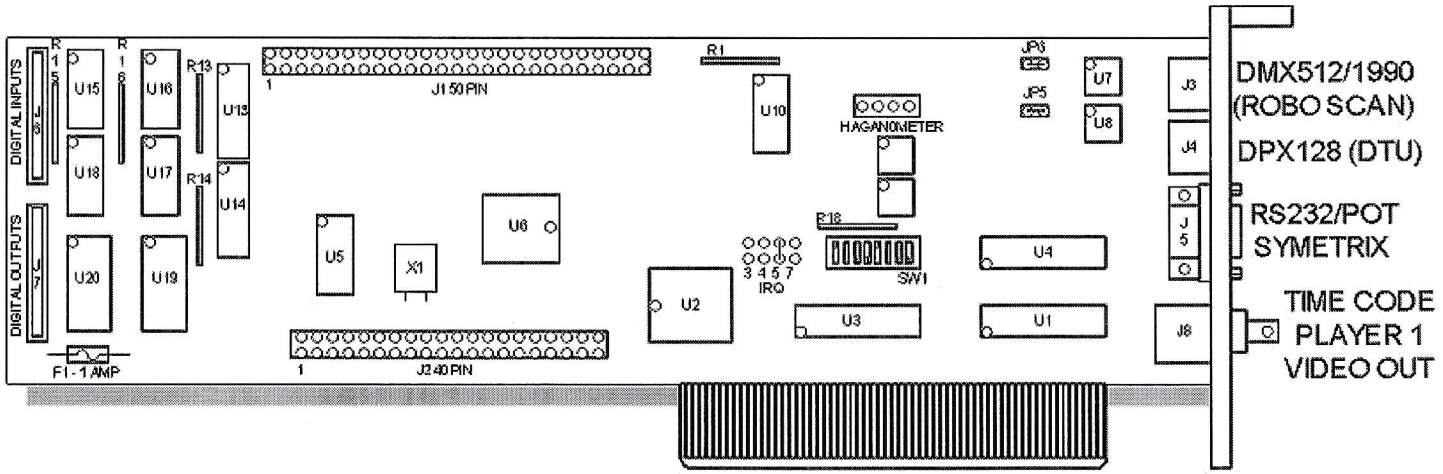


U1 - DS1233
U2 - ECS-300C "DUOSC" 16MHZ
U3 - MC68HC11F1CFN4
U4 - AT27C256R "PROM"
U5 - DS14C232CN
U6 - U7 - N/A
U8 - MC74HCT245AN
U9 - SP74HCT138N
R1 - 10K RES PACK (9413)
F1 - .5 - 1 AMP PICO FUSE

NOTE:

ALL CPU CARDS ARE THE SAME WITH THE EXCEPTION OF THE SOFTWARE ON THE PROM. IN ORDER FOR THE CPU TO WORK IN THE COP CONTROLLER YOU MUST MAKE SURE YOU HAVE A JUMPER ON JP6 PINS 2 AND 3. IN THE FUTURE ALL BOARDS WILL HAVE THIS FEATURE AS DEFAULT. YOU CAN USE A JUMPERED BOARD IN THE DTU OR TRANSMITTER CARD WITHOUT REMOVING THE JUMPER.

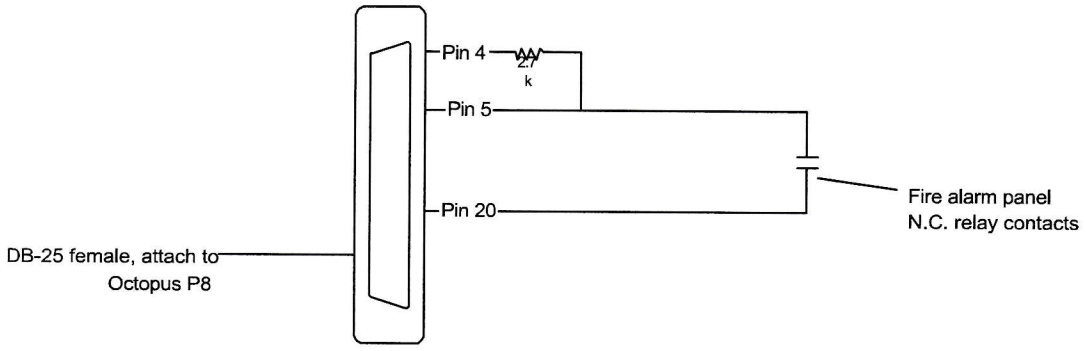
STUDIO C TRANSMITTER CARD



U1 - MC74HCT245AN
U2 - "SDT" 7130 / SA55J / S9721P
U3 - CD74HCT688E
U4 - MC74HCT245AN
U5 - CD74HCT04E
U6 - "XP" 68C681CJ
U7 - U8 - DS75176BN
U9 - N/A
U10 - DS1867-050
U11 - LM358AN
U12 - LM1881N

U13 - U14 - ZX74HCT244-2N
U15 - U18 "NEC" PS2501-4
U19 - U20 - UCN5801A
X1 - "ECLIPTEK" EC074 / 7.3728 MHZ
(ADD A 47K RES ACROSS PINS)
R1 - R13 - R14 - R18 - 10K RES PACK (9413)
R15 - R16 - 1K RES PACK (9417)
F1 - 1 AMP PICO FUSE NOT USED AT THIS TIME

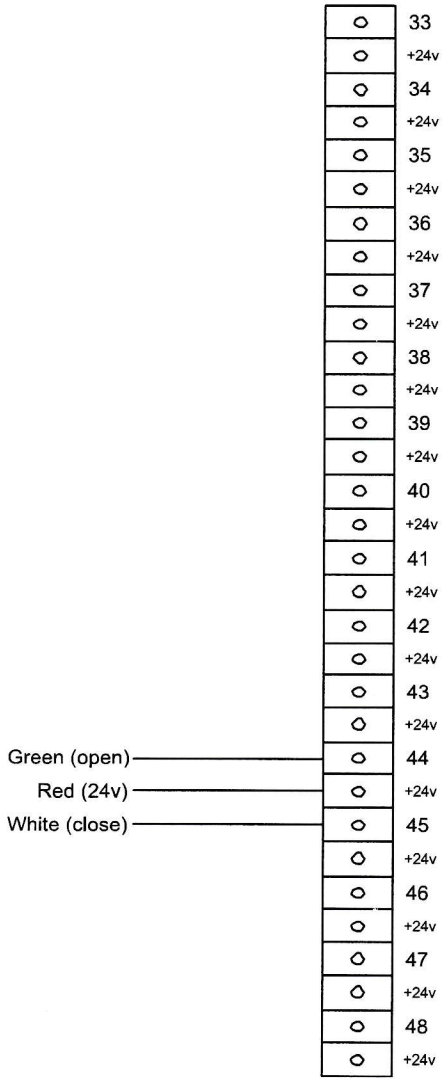
Studio C
Fire Alarm Adapter



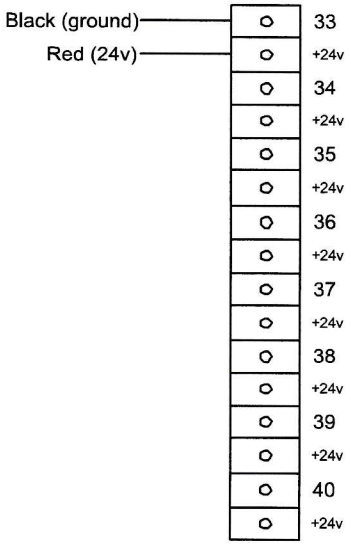
To enable the fire alarm feature in the software, go to the DOS prompt of the computer, and type:
edit cybrstar.ini
and press <Enter>
Use the arrow keys to go down to the line
Alarm=None
and change it to
Alarm = Fire
Go to the Edit program's "File" menu by pressing <Alt> F, and use the arrow keys and <Enter> key to save the changes, and then to exit the edit program.

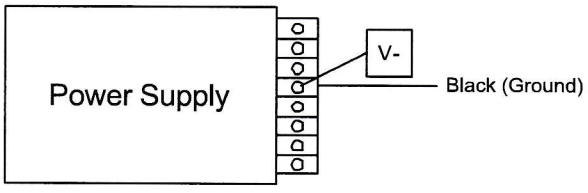
When the alarm contacts open, the computer will immediately mute the show audio and display the word "Fire" in the lower lefthand corner of the computer's monitor, and then it will exit the Cyberstar program and return to DOS in approximately 1 second.

Curtain Control Hookups in DTU #1

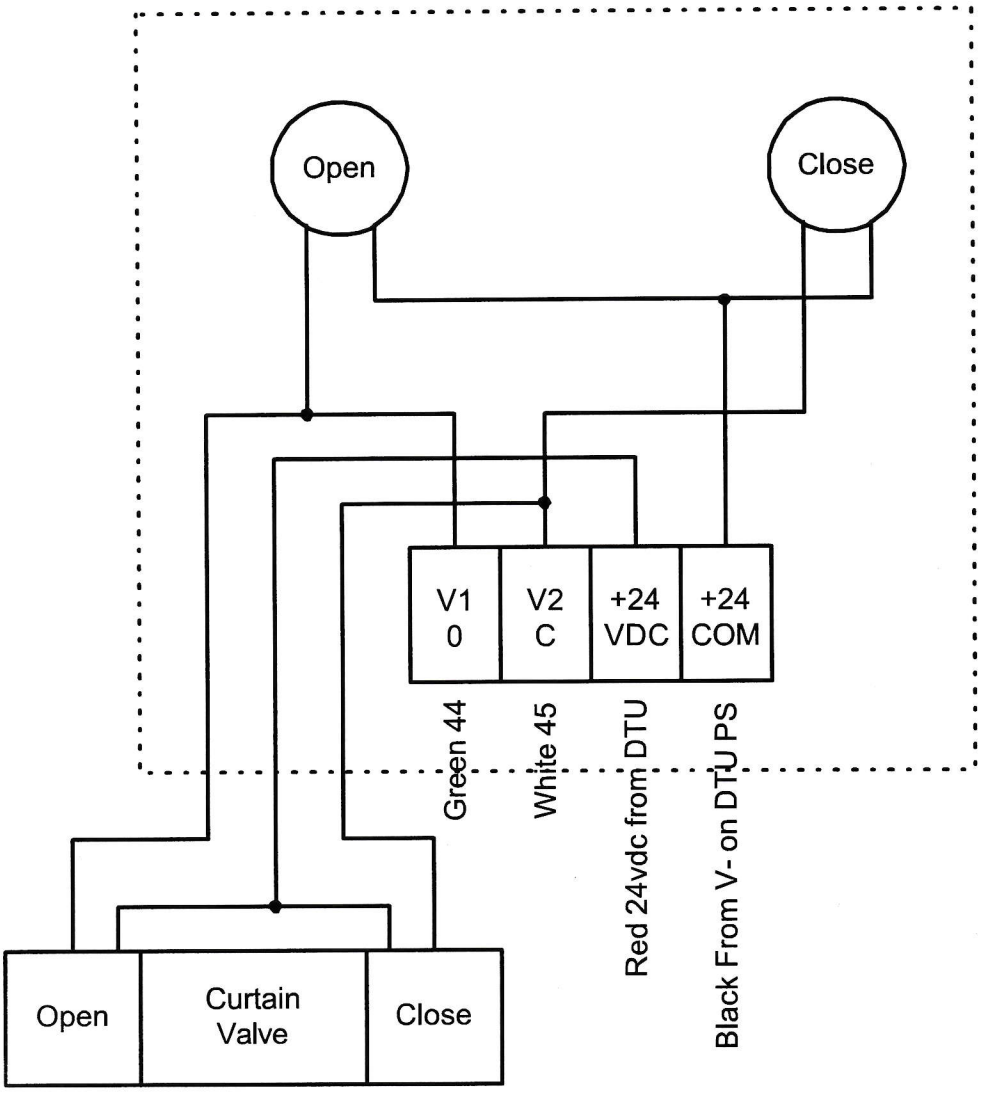


Dimmer Hookups in DTU #2



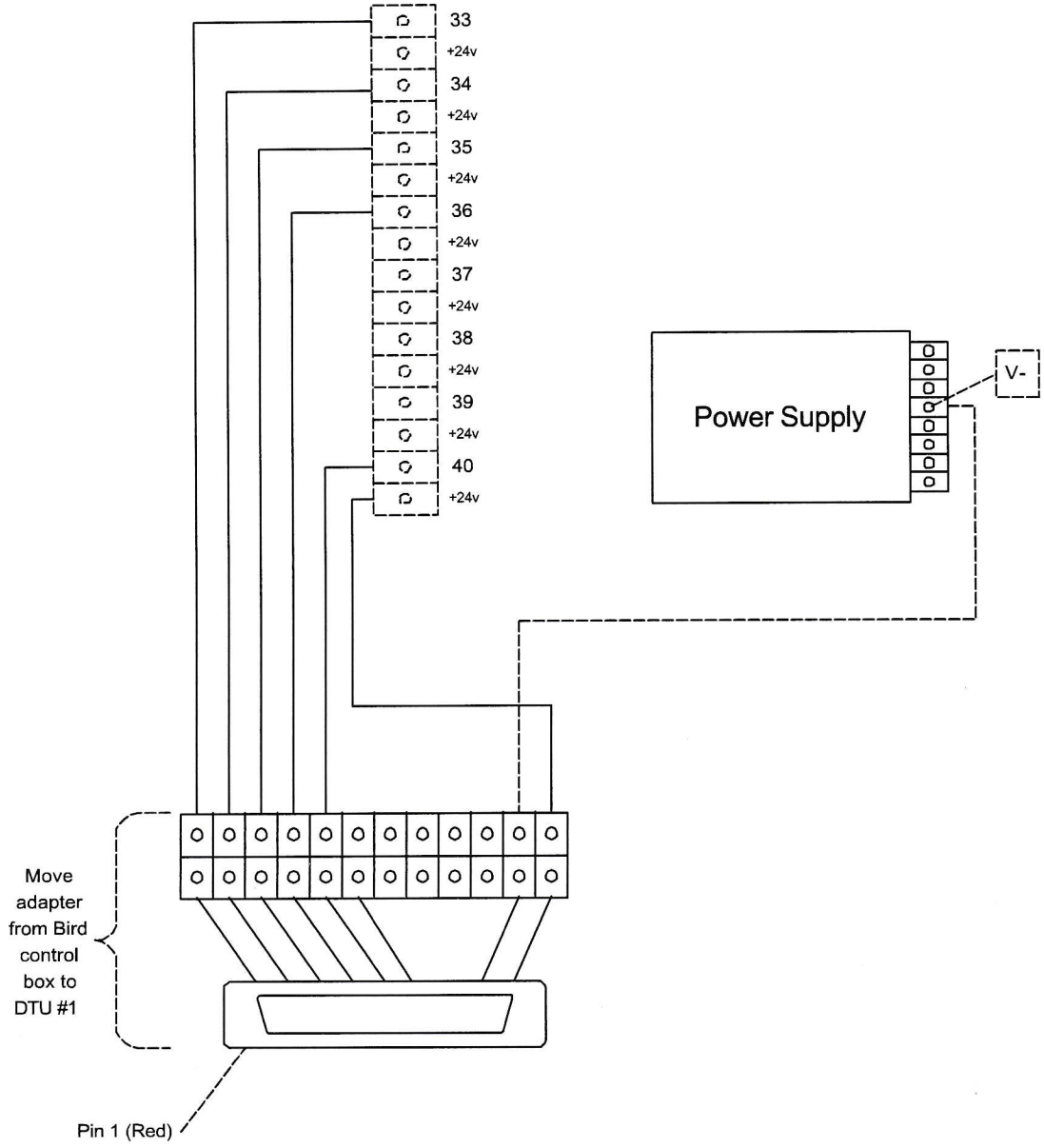


Studio C Curtain Control Box Wiring

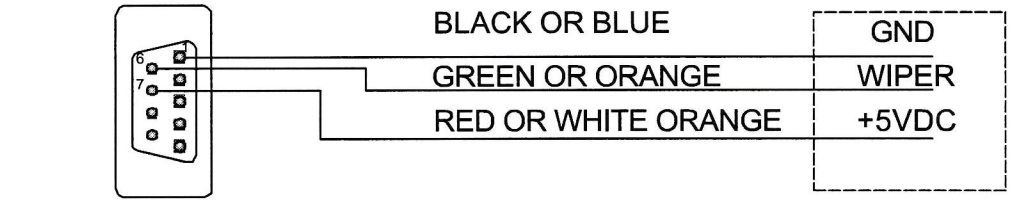


Valve = L12BB452B

Bird/Phone Cable Hookups in DTU #1



VOLUME CONTROL CABLE

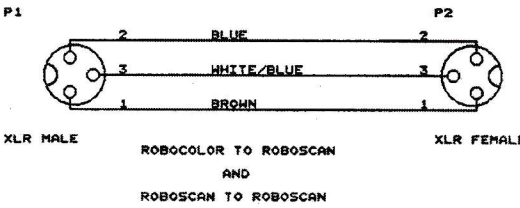


DB9 FEMALE
ON TRANSMITTER CARD

SYMETRIX 571 SPL
TERMINAL BLOCK

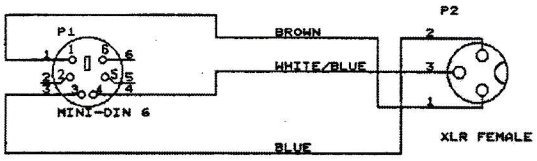
LENGTH 3 FT

USE MINIMUM 22 AWG MULTI CONDUCTOR NON- SHEILDED



ROBOCOLOR TO ROBOSCAN
AND
ROBOSCAN TO ROBOSCAN

QTY.	LENGTH
2	50 FT.



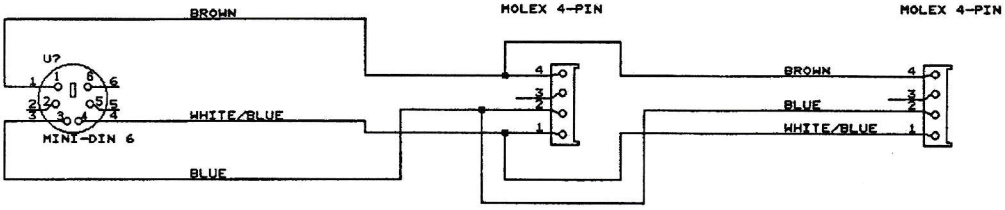
TRANSMITTER TO ROBOCOLOR

QTY.	LENGTH
1	100 FT.

Philipsen Consulting
2310 E. Oakland Avenue
Suite 12A
Bloomington, IL 61701
(309) 433-5151

Title: DMX CABLES
Size: A | Document Number: | REV: A
Date: October 7, 1998 | Sheet 1 of 1

BOTH CONNECTORS ARE VIEWED FROM THE BOTTOM



NOTE: EITHER MOLEX PLUG MAY BE PLUGGED INTO EITHER DTU.

QTY.	LENGTH
1	30 FT.

6-PIN MODULAR WIRING:

PINS TOWARD YOU (BOTTOM) WITH CABLE OPENING TO LEFT

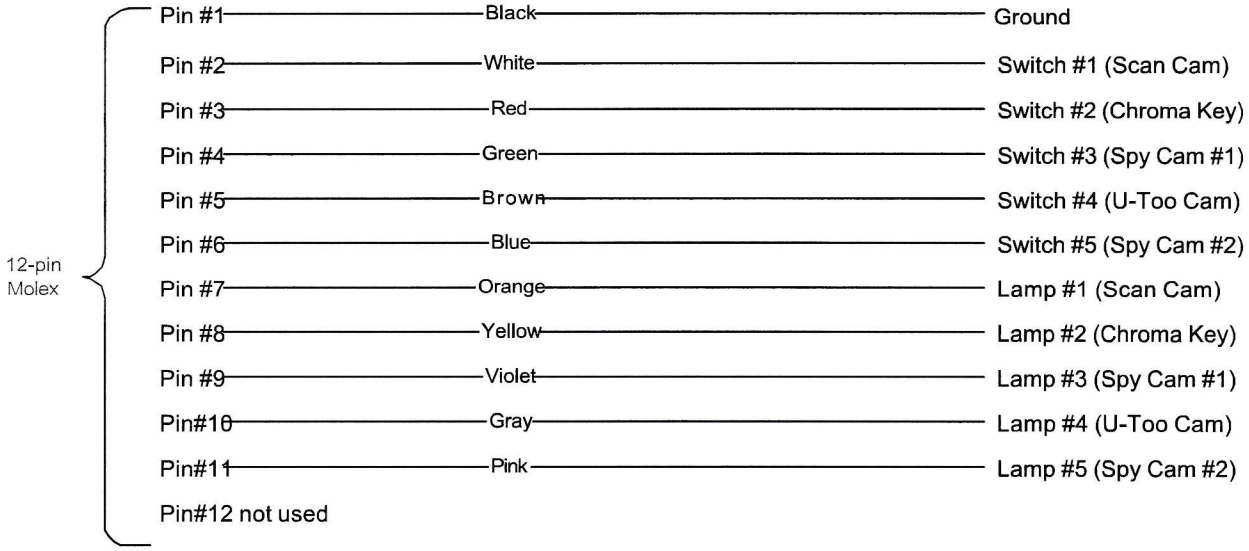
TOP = PIN1 - N/C
PIN2 - BLU
PIN3 - WHT/BLU
PIN4 - ORN
PIN5 - WHT/ORN
PIN6 - N/C

Philipsen Consulting
2310 E. Oakland Avenue
Suite 12A
Bloomington, IL 61701
(309) 433-5151

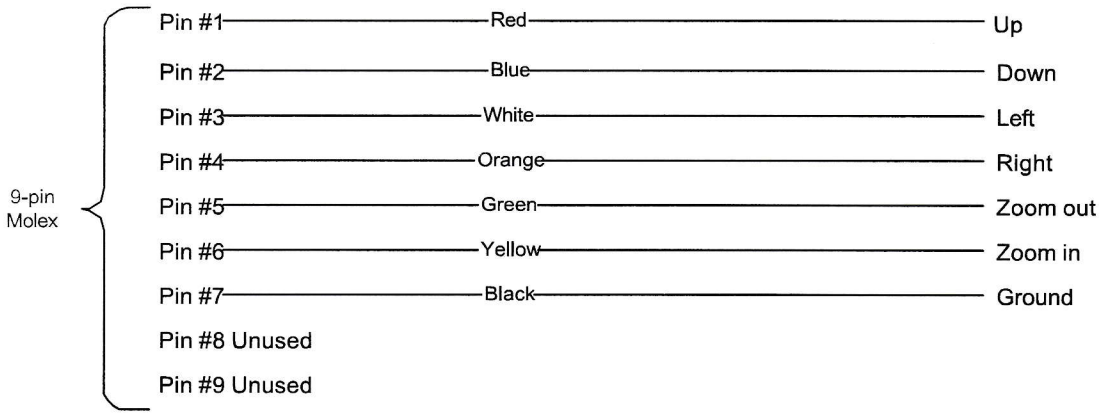
Title: DTU DATA CABLE
Size: A | Document Number: | REV: A
Date: October 7, 1998 | Sheet 1 of 1

Interactive Console

Kid Switcher cable pinout

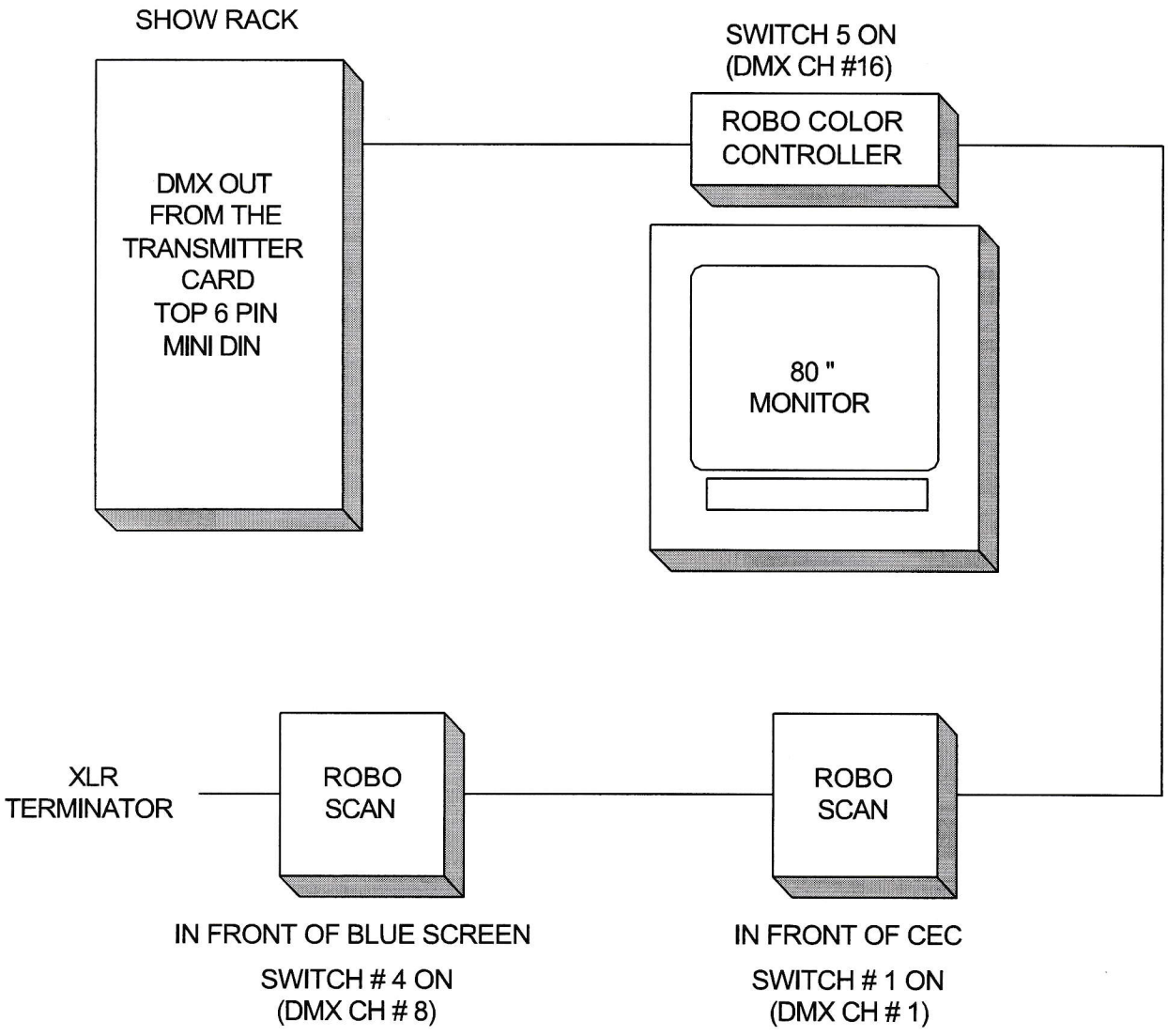


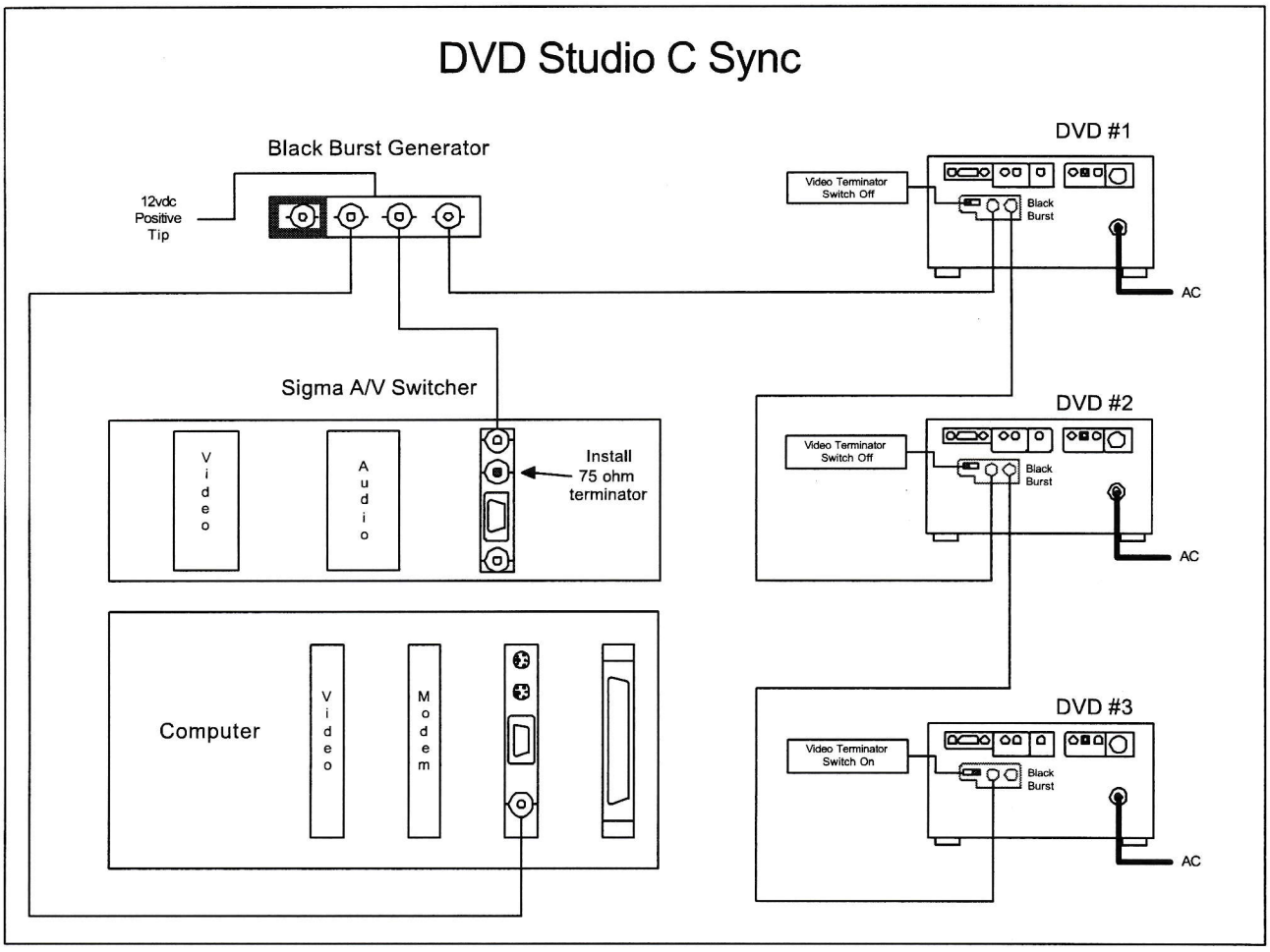
Joystick cable pinout



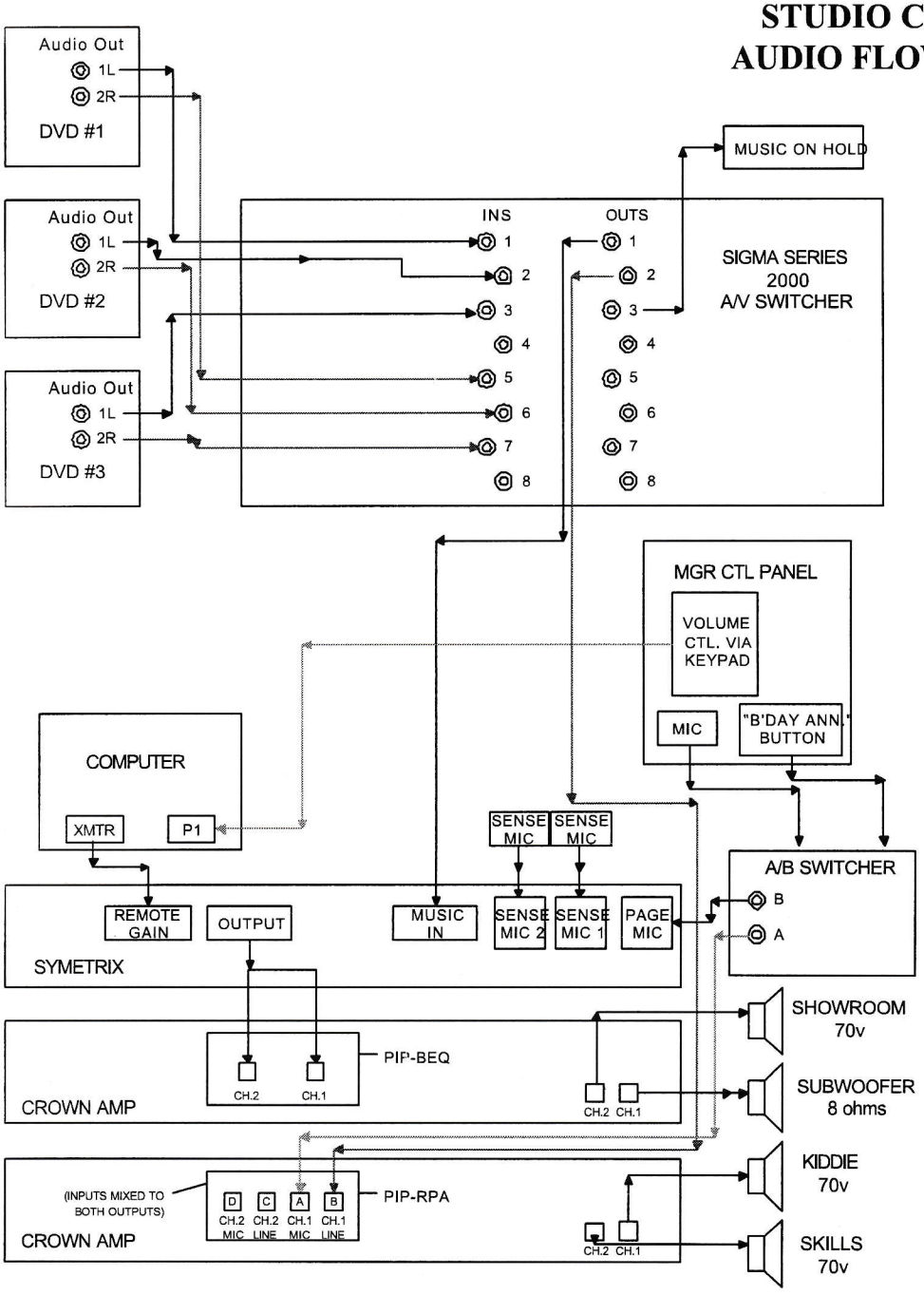
[Note: Button lamps on the joystick panel are wired to the fused (non-chasing) output of the console's chaselight controller.]

DMX WIRING


SHOW RACK
DMX OUT FROM THE TRANSMITTER CARD TOP 6 PIN MINI DIN
SWITCH 5 ON (DMX CH #16)
ROBO COLOR CONTROLLER
80 " MONITOR
XLR TERMINATOR
ROBO SCAN
ROBO SCAN
IN FRONT OF BLUE SCREEN
SWITCH # 4 ON (DMX CH # 8)
IN FRONT OF CEC
SWITCH # 1 ON (DMX CH # 1)

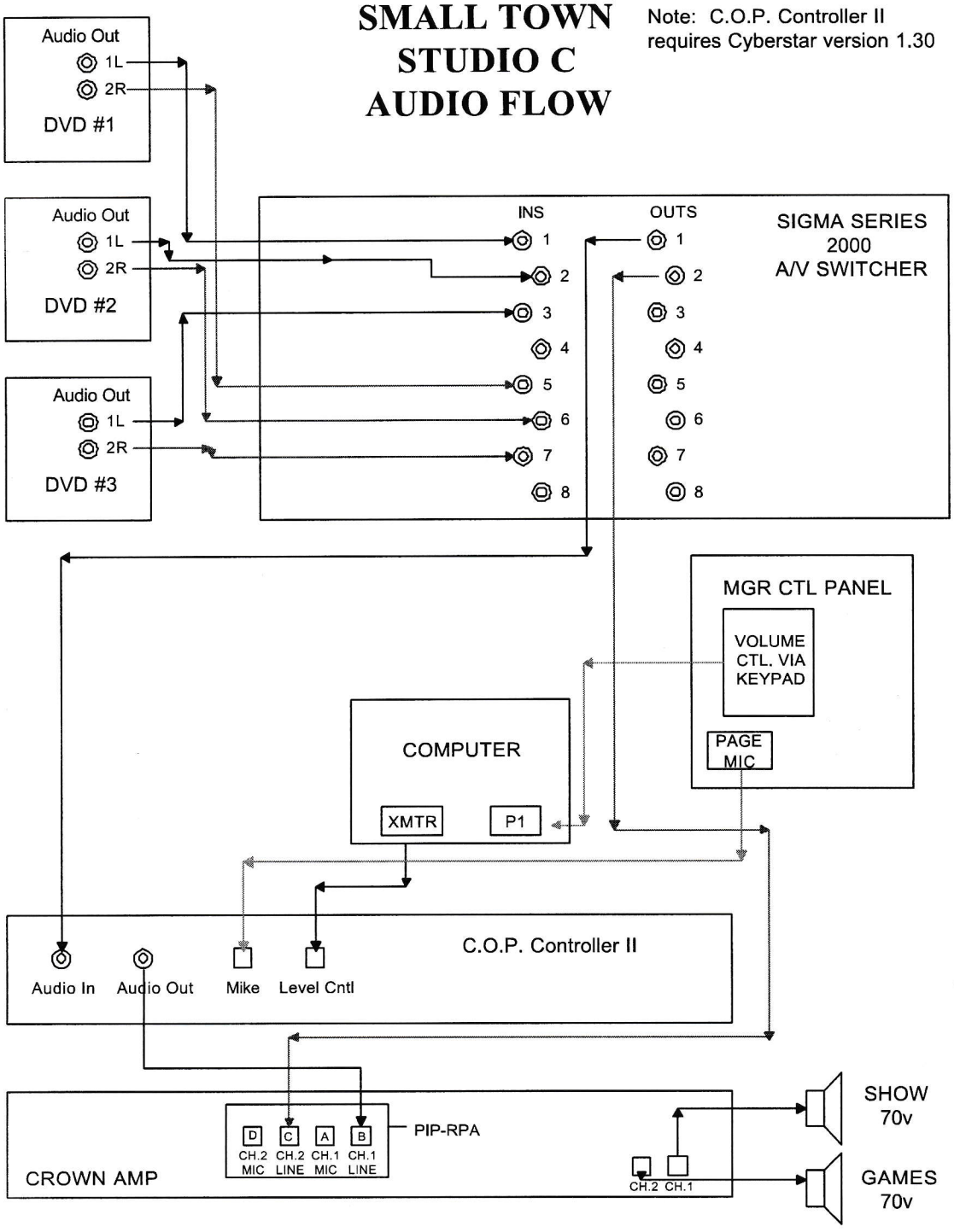

DVD Studio C Sync
Black Burst Generator
12vdc
Positive
Tip
DVD #1
Video Terminator
Switch Off
Black
Burst
AC
Sigma A/V Switcher
V
i
d
e
o
A
u
d
i
o
Install
75 ohm
terminator
DVD #2
Video Terminator
Switch Off
Black
Burst
AC
Computer
V
i
d
e
o
M
o
d
e
m
DVD #3
Video Terminator
Switch On
Black
Burst
AC

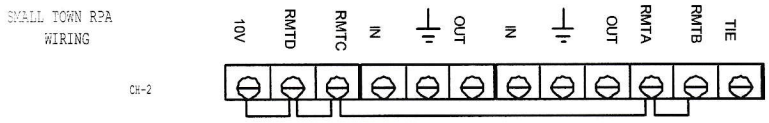
DVD
STUDIO C
AUDIO FLOW

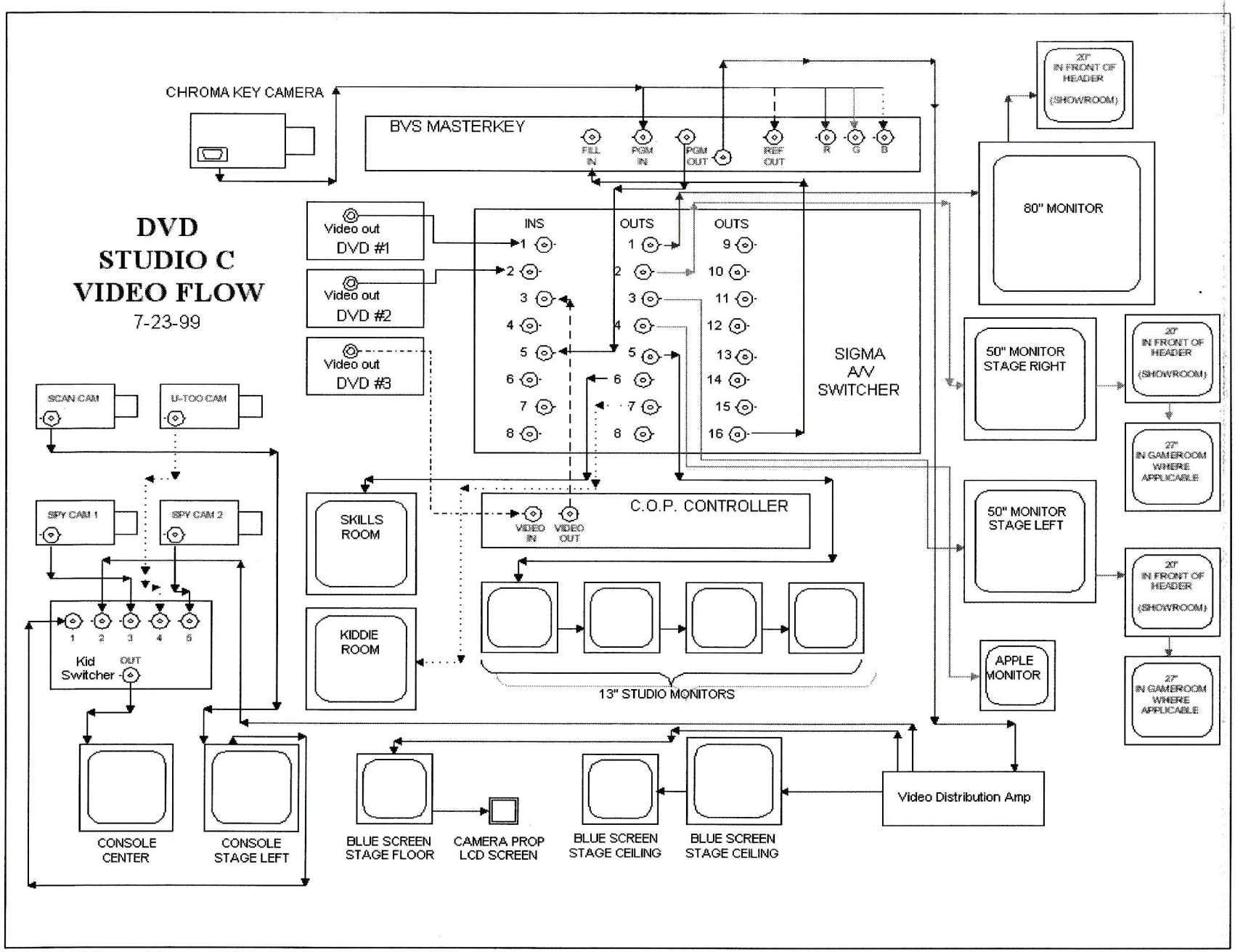


SMALL TOWN STUDIO C AUDIO FLOW

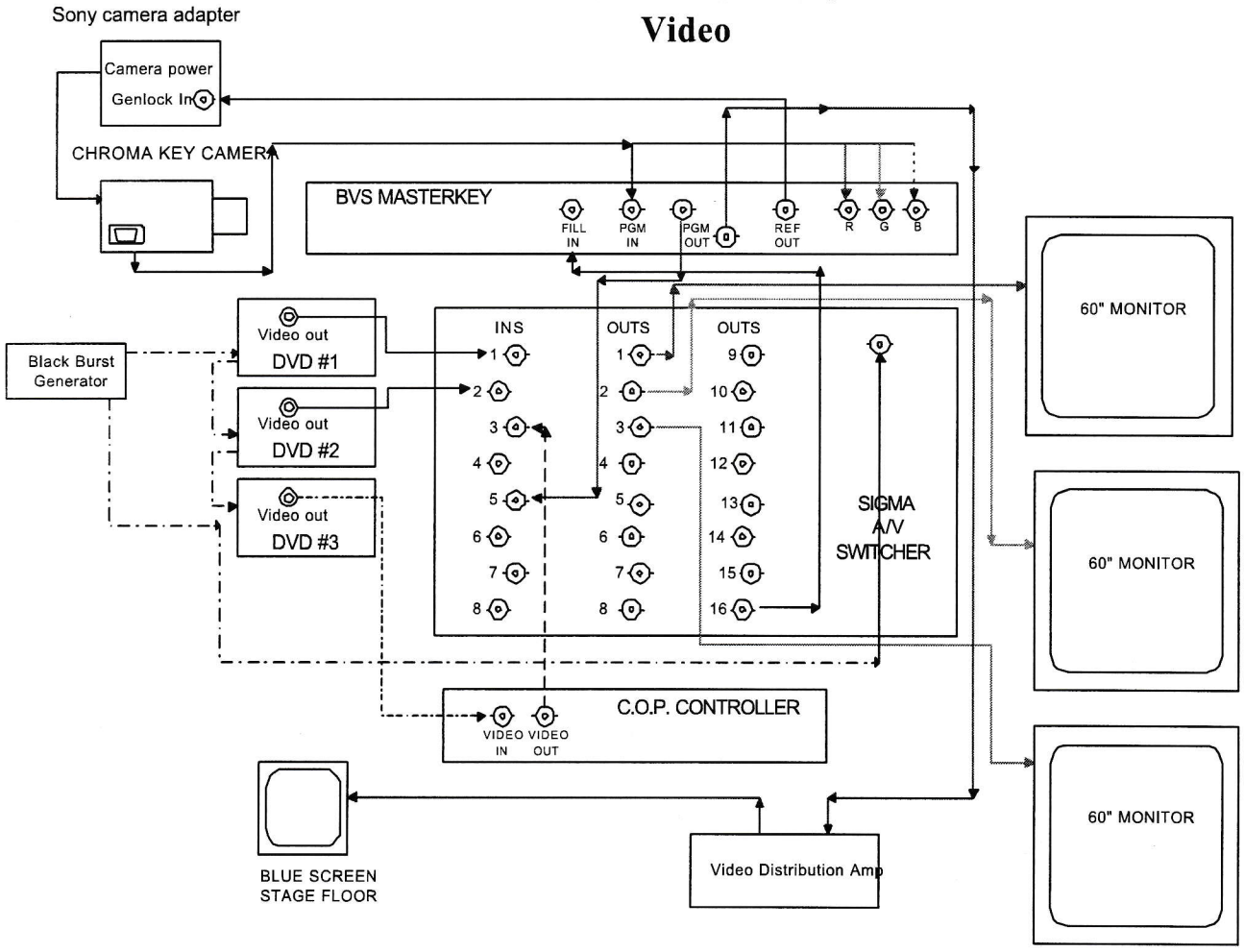
Note: C.O.P. Controller II requires Cyberstar version 1.30

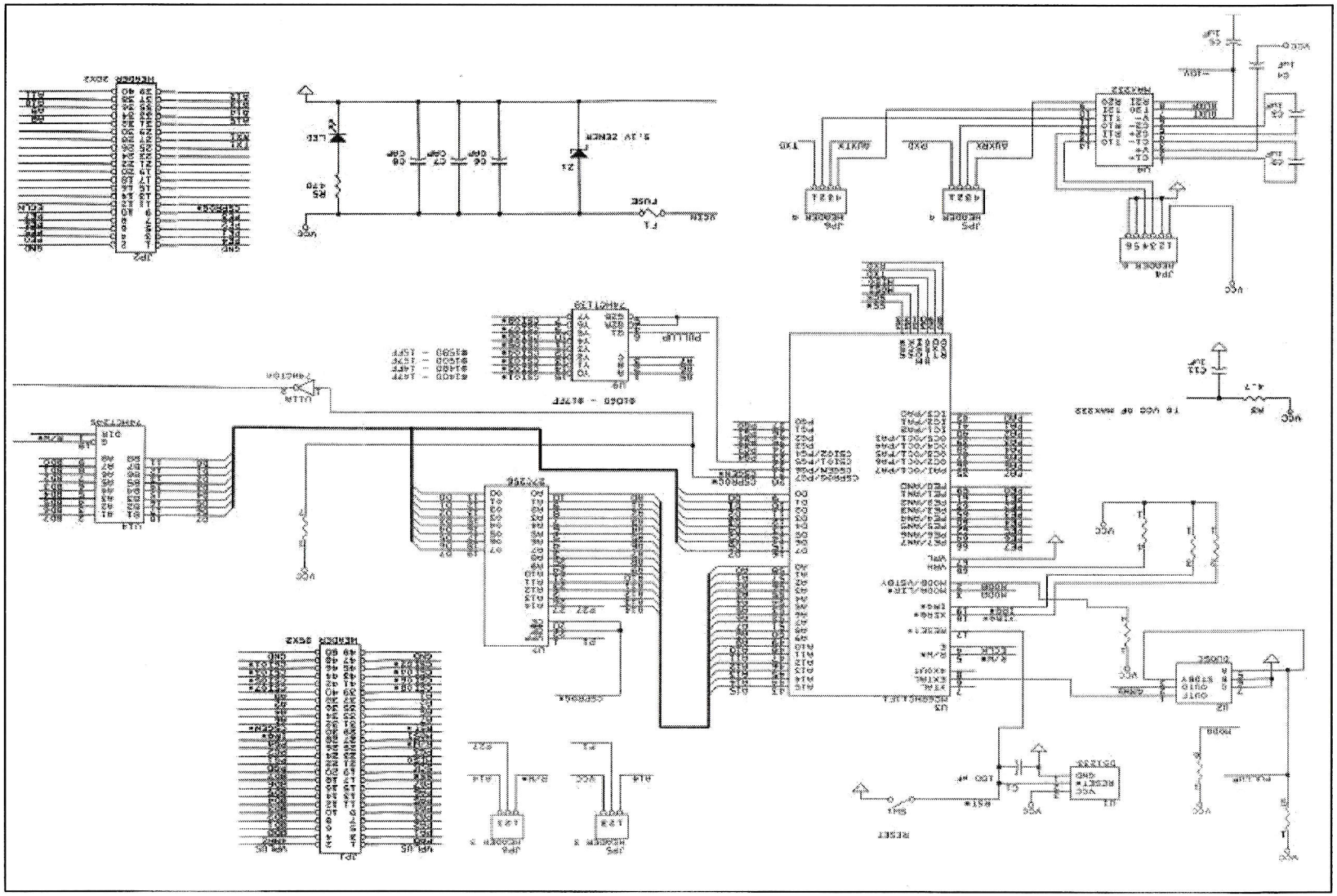




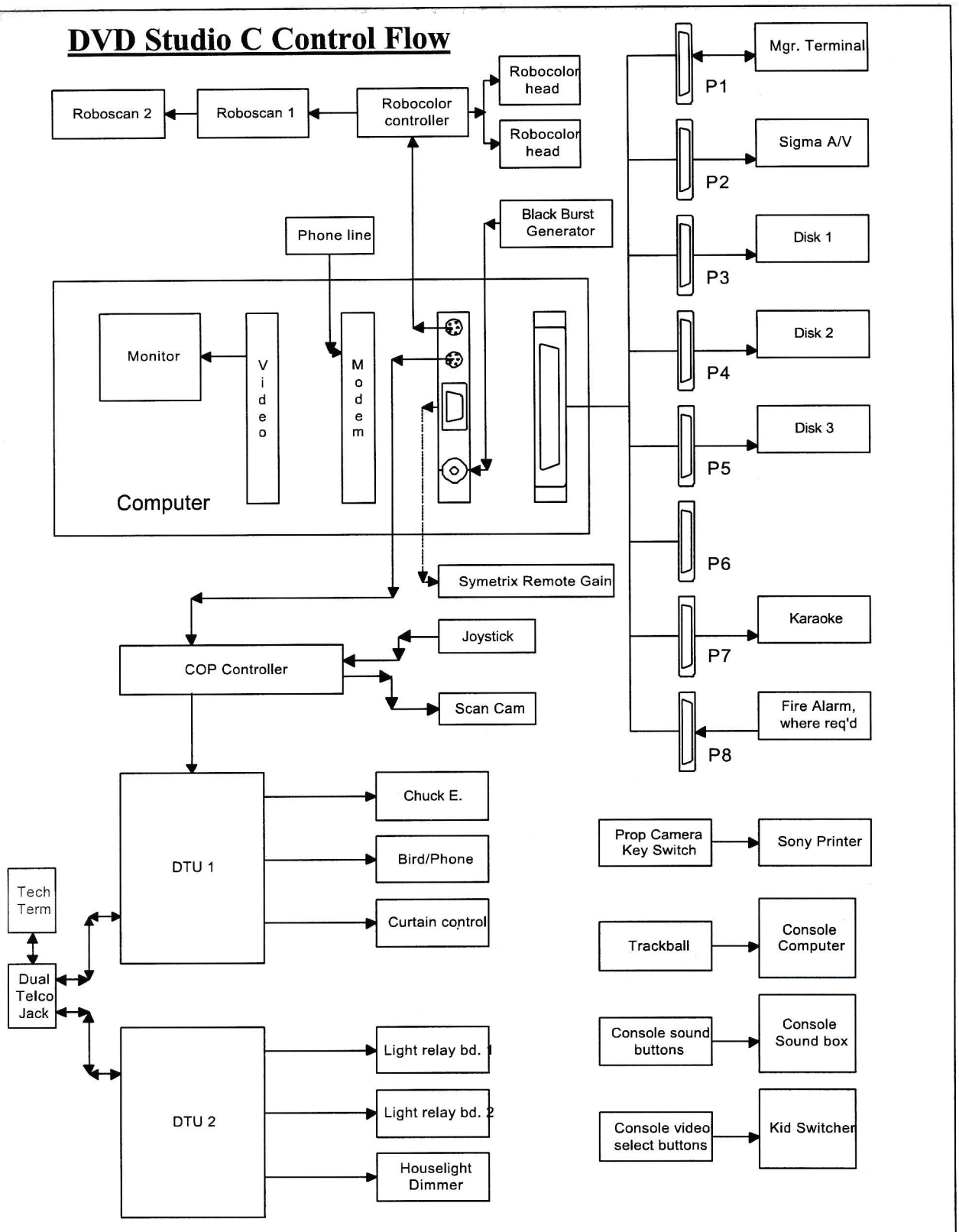

DVD
STUDIO C
VIDEO FLOW
7-23-99
CHROMA KEY CAMERA
BVS MASTERKEY
FILL IN
PGM IN
PGM OUT
REF OUT
R
G
B
Video out DVD #1
Video out DVD #2
Video out DVD #3
INS
OUTS
OUTS
SIGMA A/V SWITCHER
80" MONITOR
20" IN FRONT OF HEADER (SHOWROOM)
50" MONITOR STAGE RIGHT
50" MONITOR STAGE LEFT
20" IN GAMEROOM WHERE APPLICABLE
APPLE MONITOR
SCAN CAM
U-TOO CAM
SPY CAM 1
SPY CAM 2
Kid Switcher
OUT
SKILLS ROOM
KIDDIE ROOM
C.O.P. CONTROLLER
VIDEO IN
VIDEO OUT
13" STUDIO MONITORS
CONSOLE CENTER
CONSOLE STAGE LEFT
BLUE SCREEN STAGE FLOOR
CAMERA PROP LCD SCREEN
BLUE SCREEN STAGE CEILING
BLUE SCREEN STAGE CEILING
Video Distribution Amp

Small Town Studio C
Video

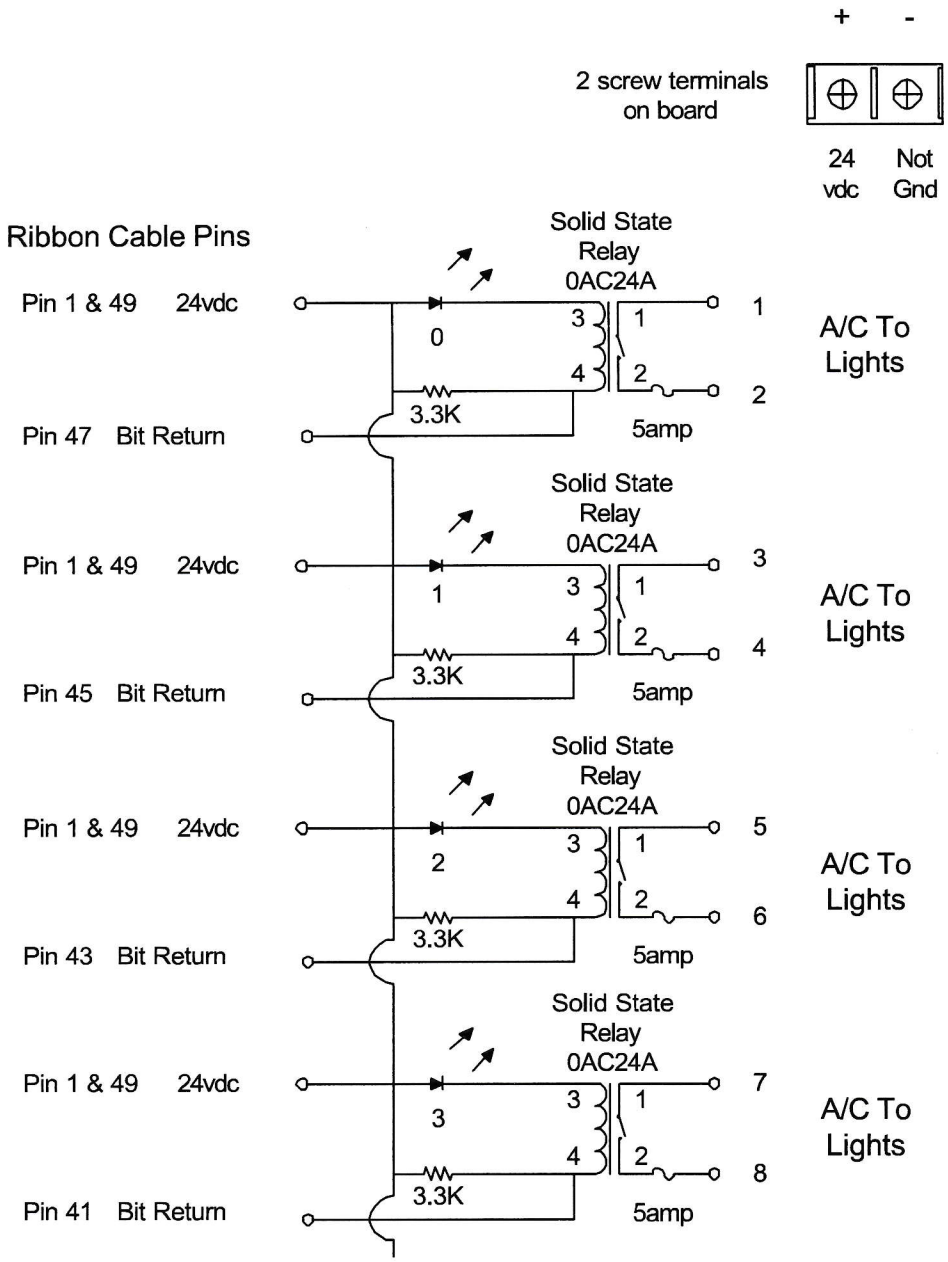




DVD Studio C Control Flow

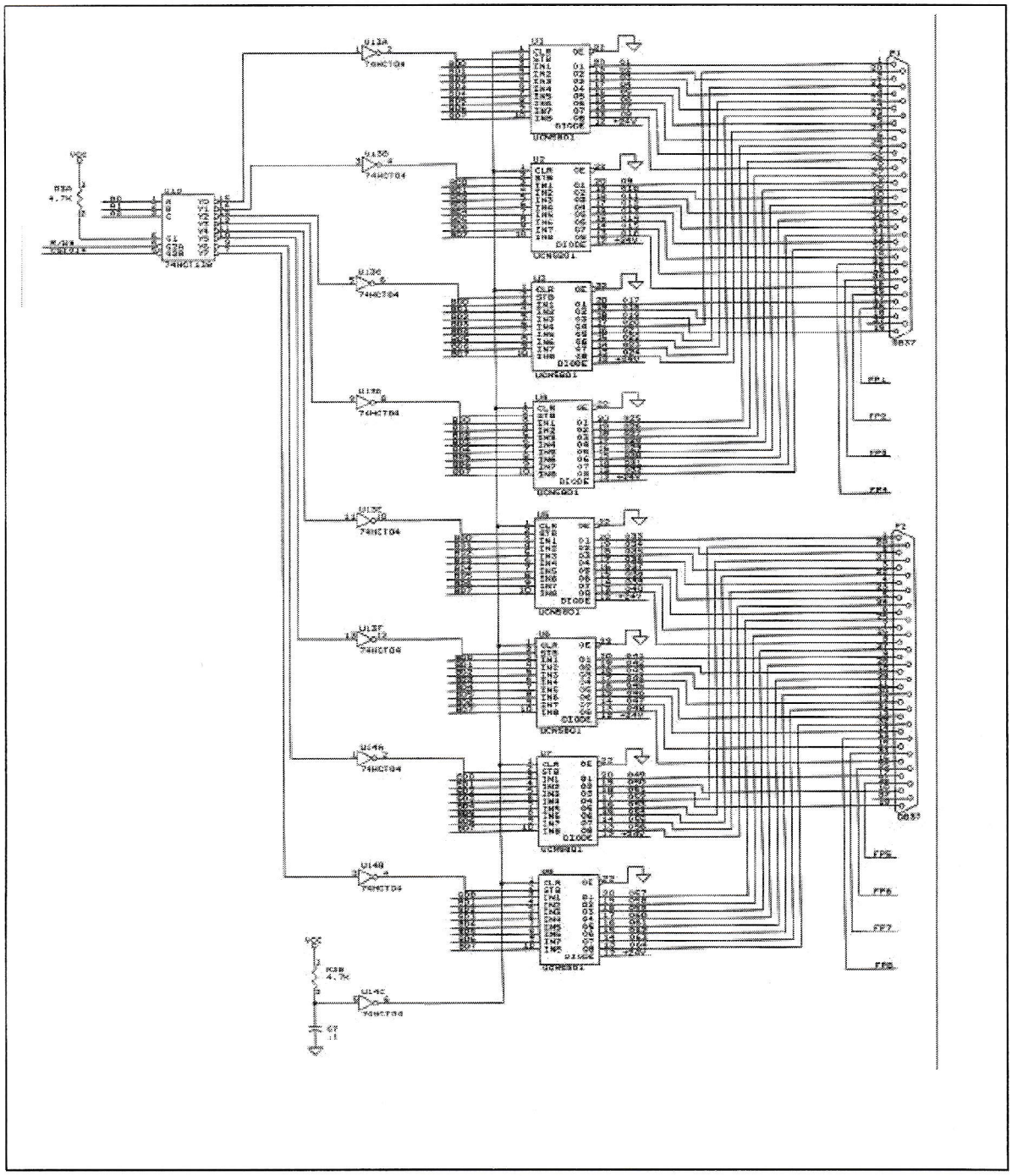


Gordos Relay Board

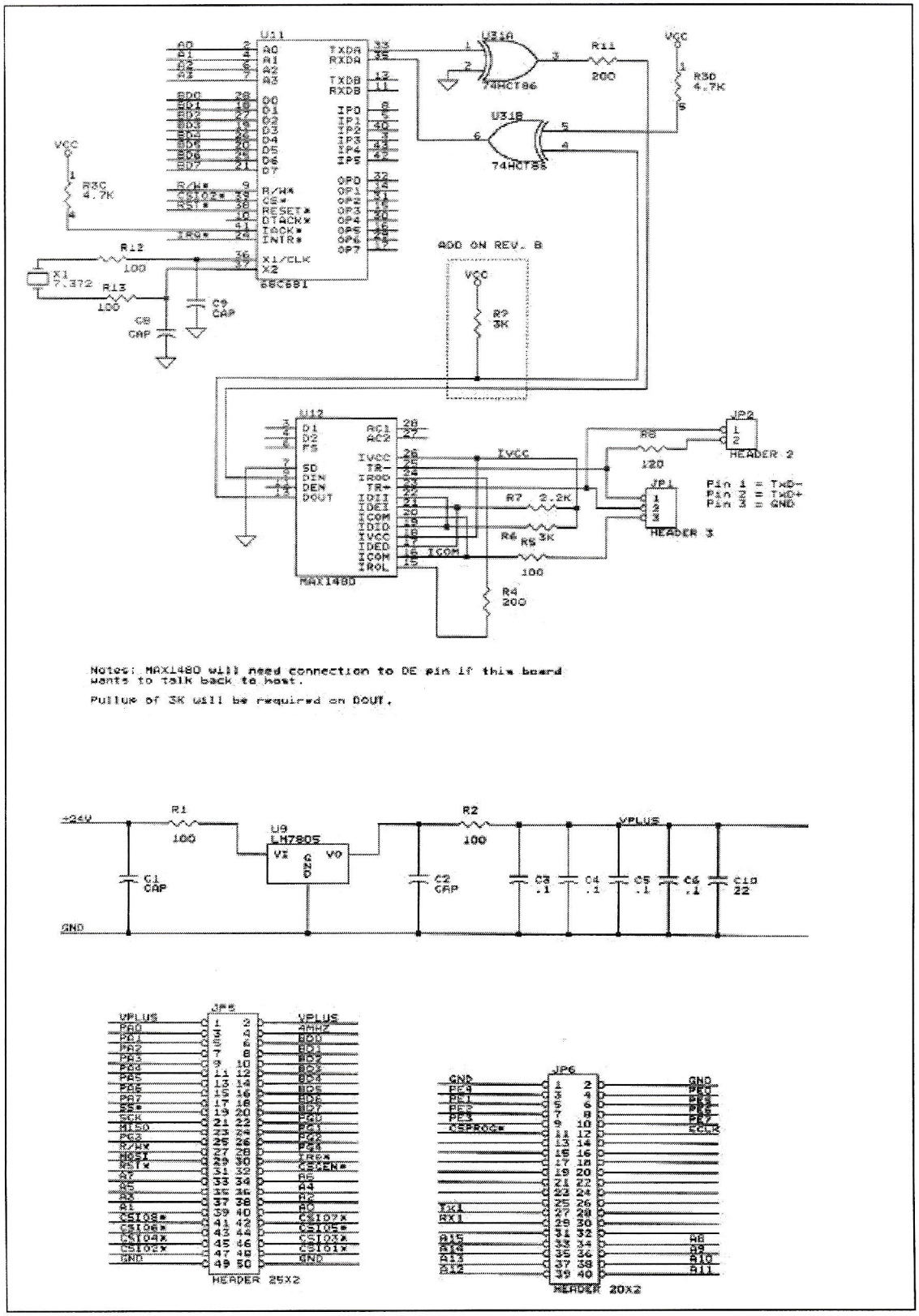


Note: There is no ground on this board. To check your 24vdc you must use a ground from your DTU box. You can remove 1 relay and insert your meter leads on pins 3 and 4 of the relay socket and then activate that bit (Turn on the led), using your tech term on the DTU, you will then read 24vdc when the light is on.

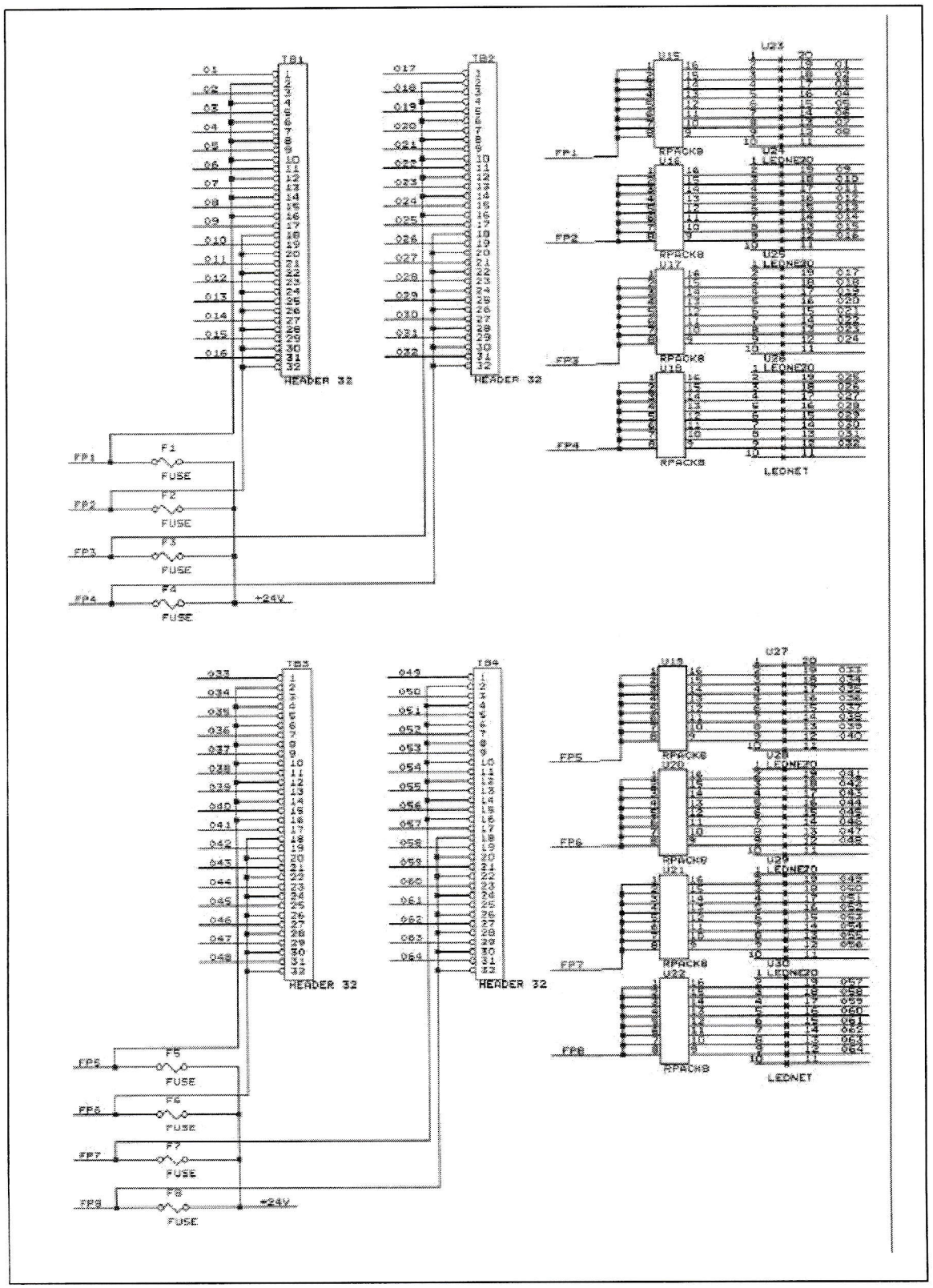
DTU Main Board A



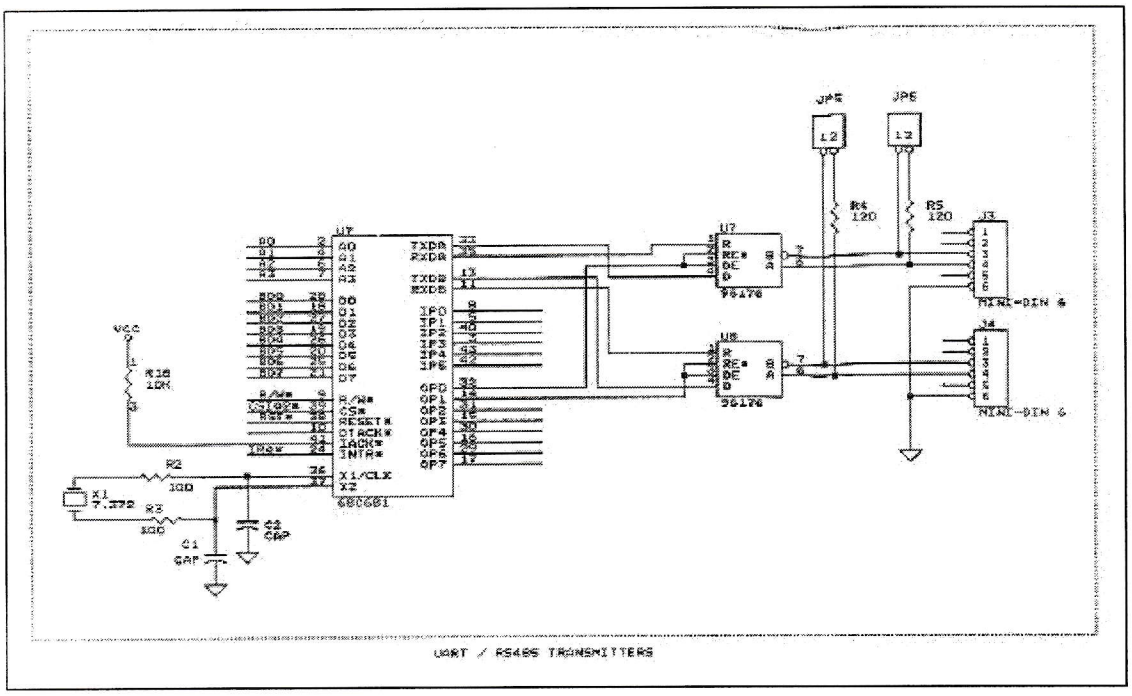
DTU MAIN BOARD B

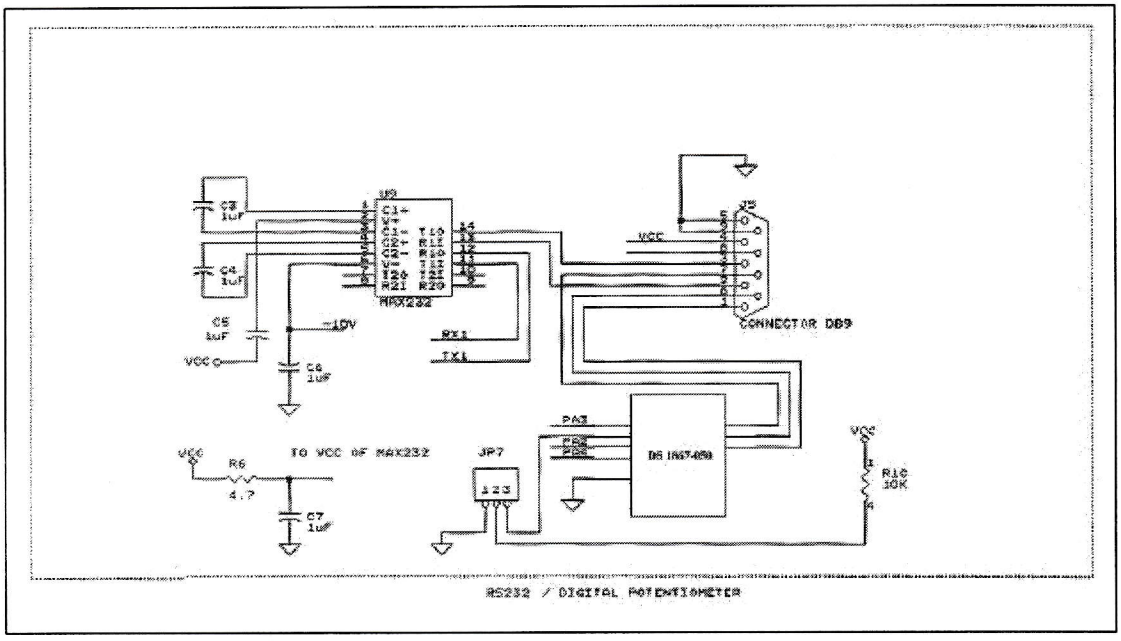


DTU MAIN BOARD C

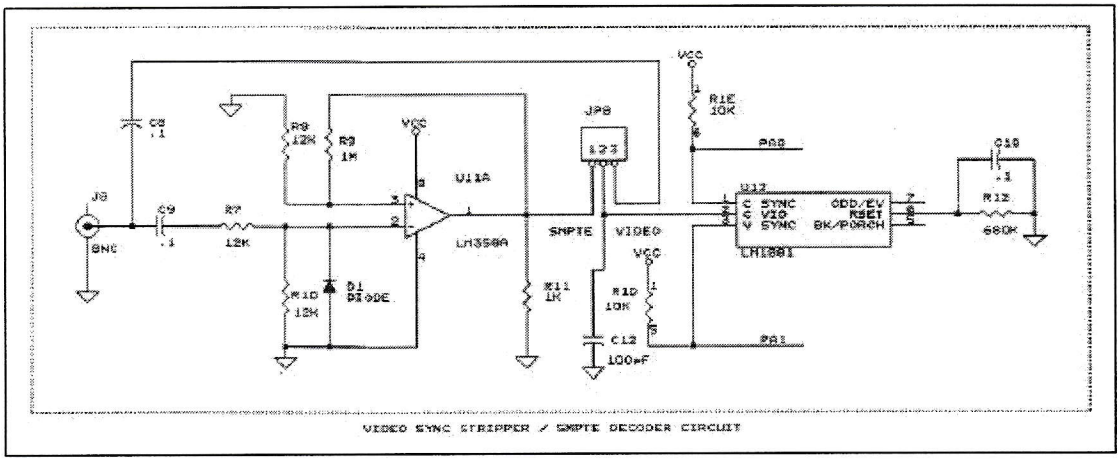


Transmitter Card A

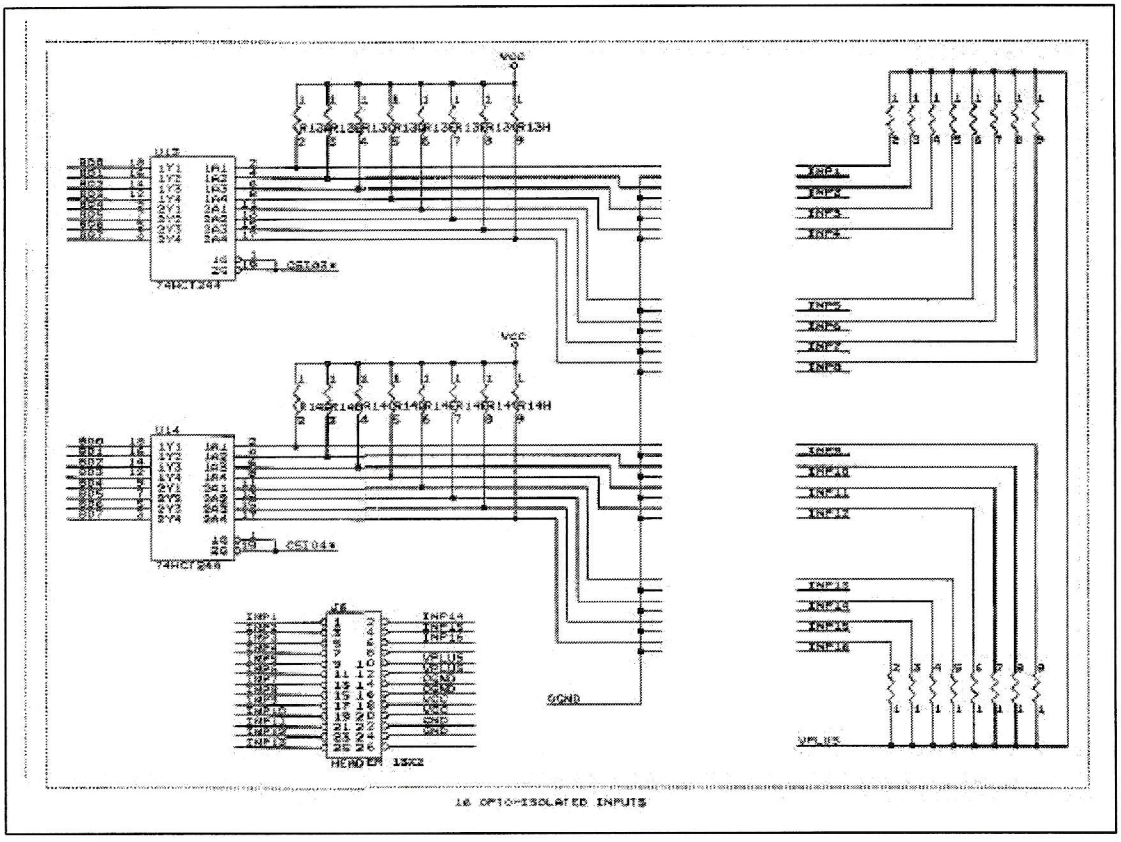




Transmitter Card B

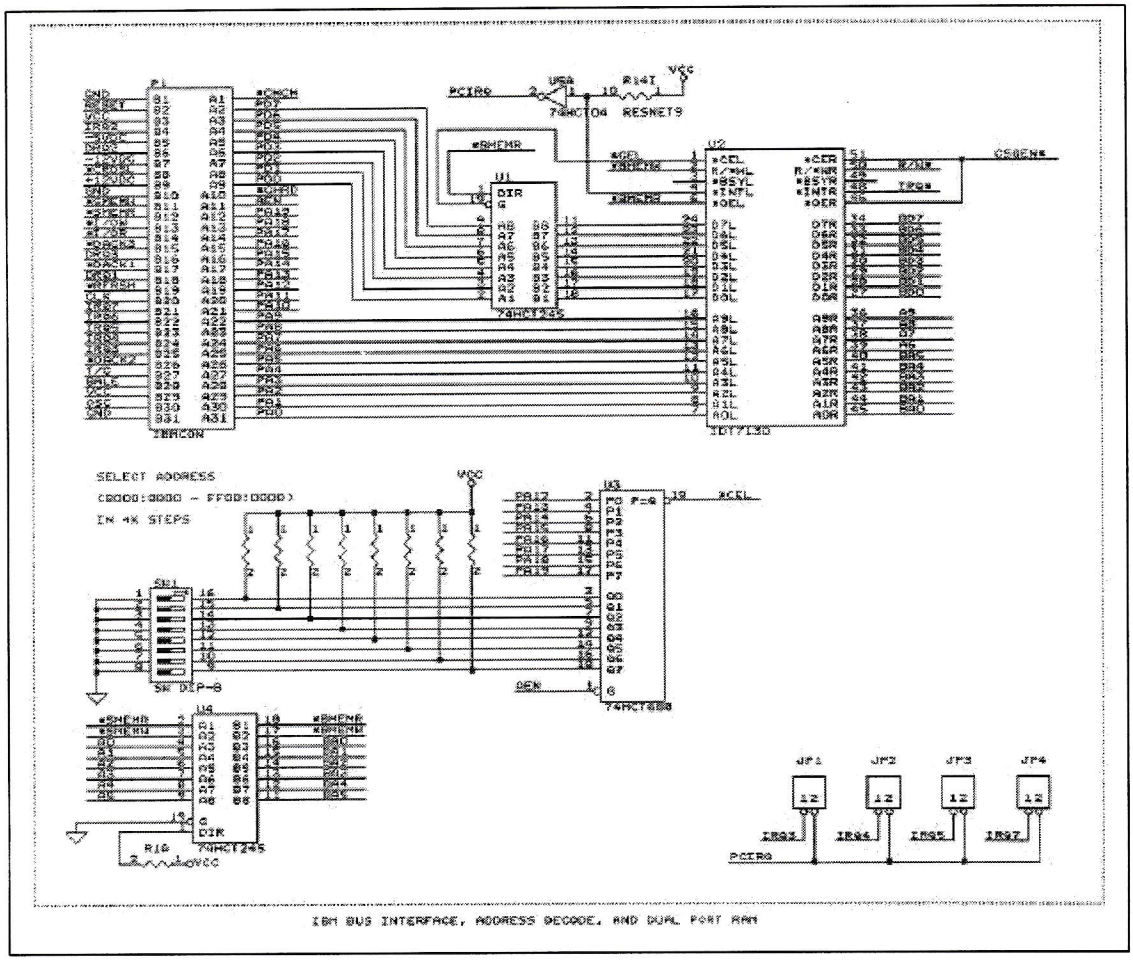


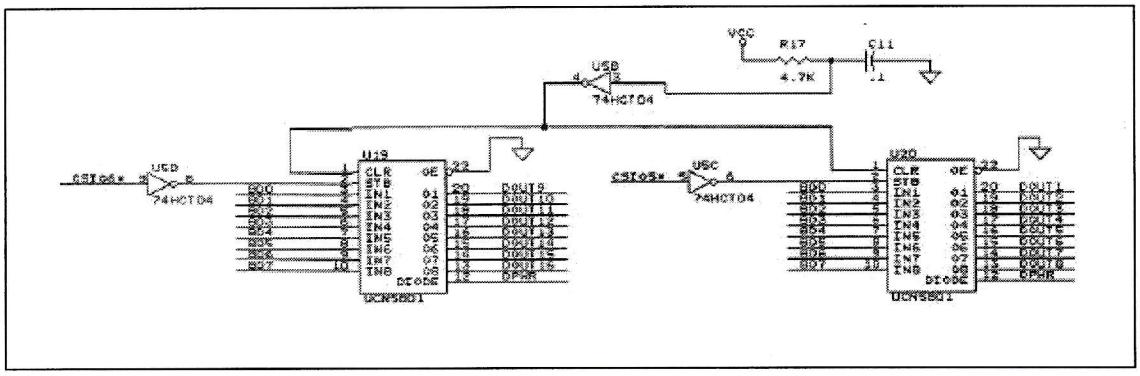
VIDEO SYNC STRIPPER / SMPTE DECODER CIRCUIT

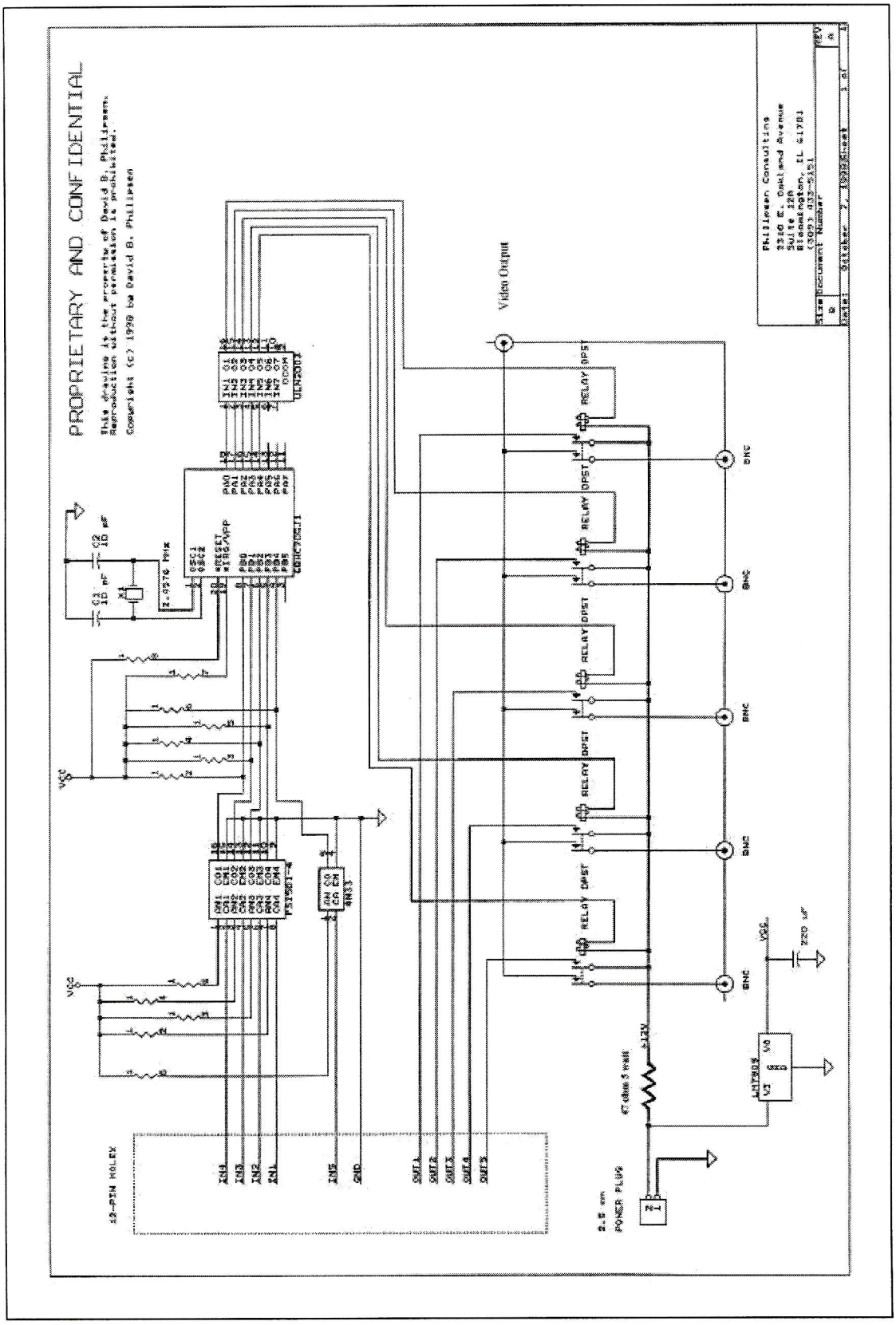


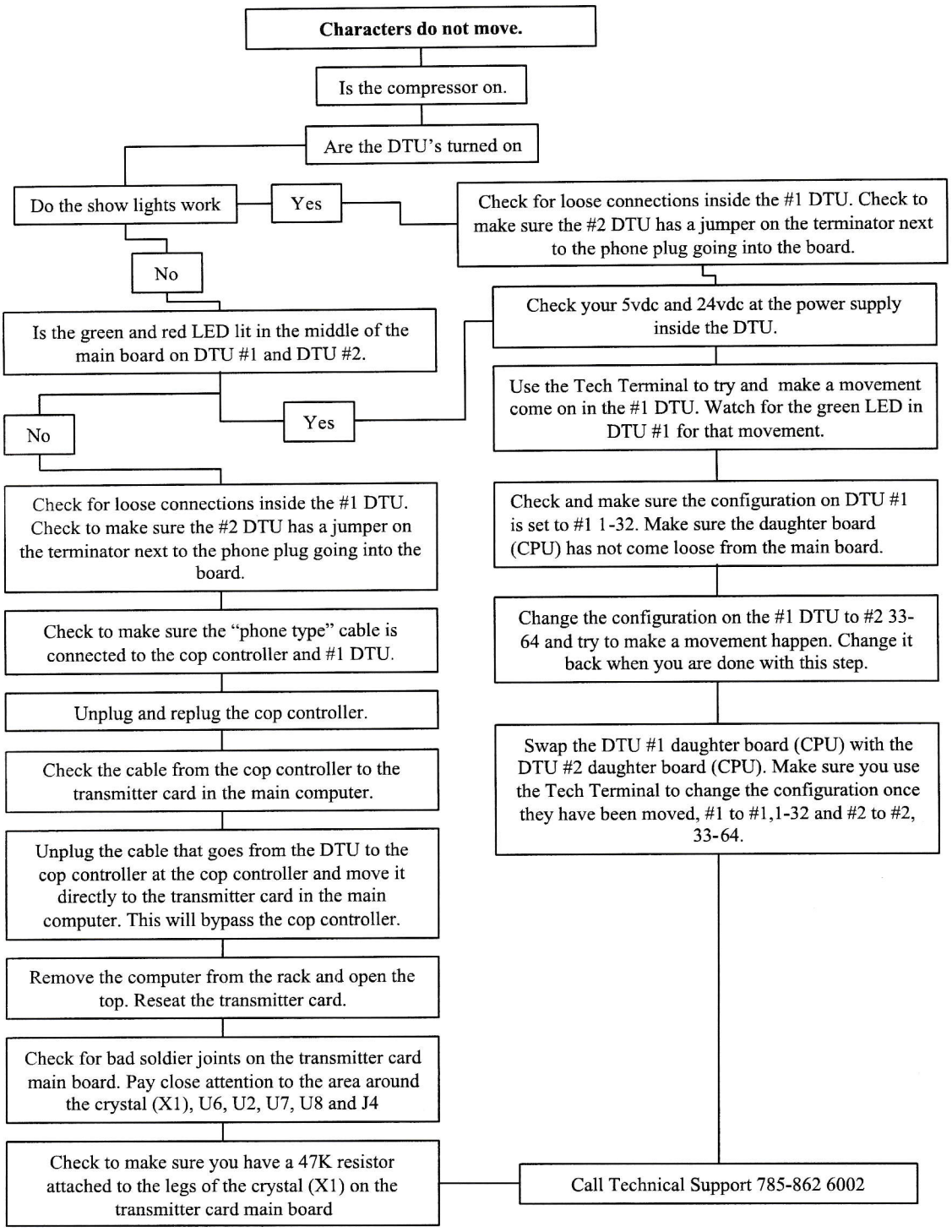
16 OPTO-ISOLATED INPUTS

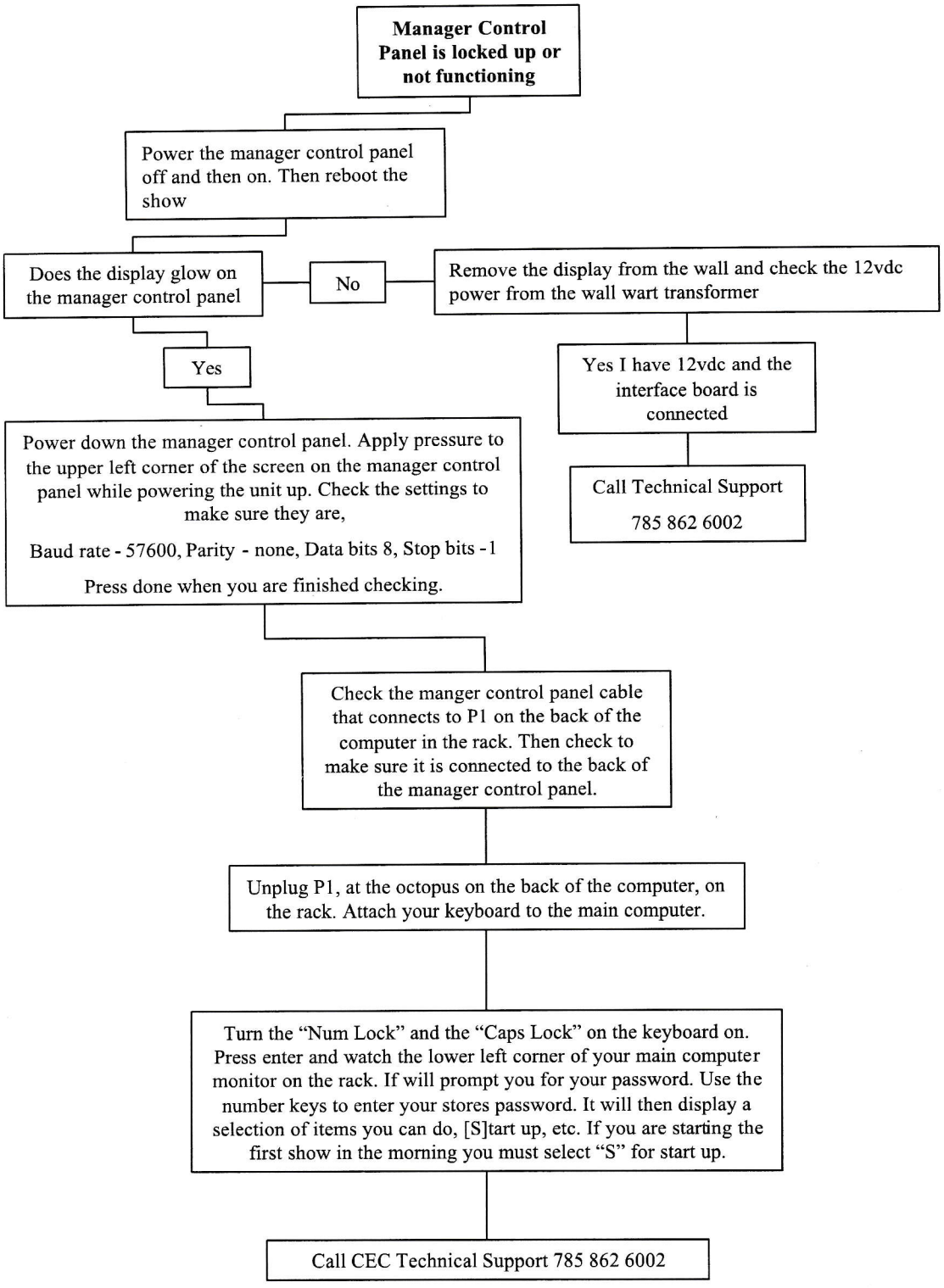
Transmitter Card B





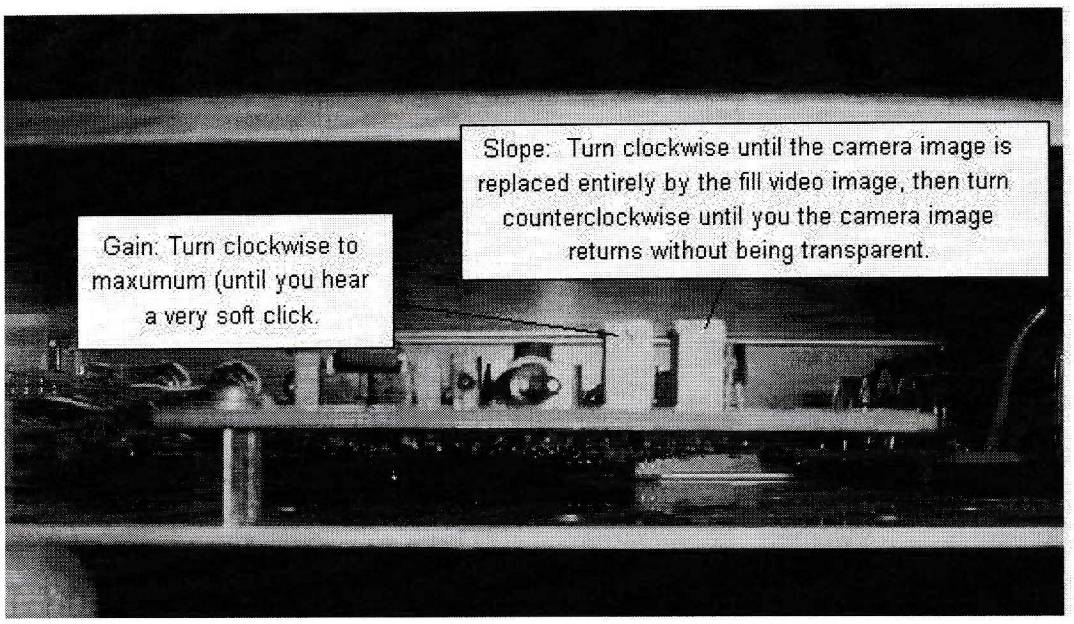

PROPRIETARY AND CONFIDENTIAL
Video Output
RELAY DPST
BNC
25-PIN MOLEX
2.5 mm
POWER PLUG
Phillycom Consulting
2340 E. Oakland Avenue
Suite 12A
Bloomington, IL 61701
(309) 433-5151


Characters do not move.
Is the compressor on.
Are the DTU's turned on
Do the show lights work
Yes
Check for loose connections inside the #1 DTU. Check to make sure the #2 DTU has a jumper on the terminator next to the phone plug going into the board.
No
Is the green and red LED lit in the middle of the main board on DTU #1 and DTU #2.
Check your 5vdc and 24vdc at the power supply inside the DTU.
Yes
Use the Tech Terminal to try and make a movement come on in the #1 DTU. Watch for the green LED in DTU #1 for that movement.
No
Check for loose connections inside the #1 DTU. Check to make sure the #2 DTU has a jumper on the terminator next to the phone plug going into the board.
Check and make sure the configuration on DTU #1 is set to #1 1-32. Make sure the daughter board (CPU) has not come loose from the main board.
Check to make sure the "phone type" cable is connected to the cop controller and #1 DTU.
Change the configuration on the #1 DTU to #2 33-64 and try to make a movement happen. Change it back when you are done with this step.
Unplug and replug the cop controller.
Check the cable from the cop controller to the transmitter card in the main computer.
Swap the DTU #1 daughter board (CPU) with the DTU #2 daughter board (CPU). Make sure you use the Tech Terminal to change the configuration once they have been moved, #1 to #1,1-32 and #2 to #2, 33-64.
Unplug the cable that goes from the DTU to the cop controller at the cop controller and move it directly to the transmitter card in the main computer. This will bypass the cop controller.
Remove the computer from the rack and open the top. Reseat the transmitter card.
Check for bad soldier joints on the transmitter card main board. Pay close attention to the area around the crystal (X1), U6, U2, U7, U8 and J4
Check to make sure you have a 47K resistor attached to the legs of the crystal (X1) on the transmitter card main board
Call Technical Support 785-862 6002

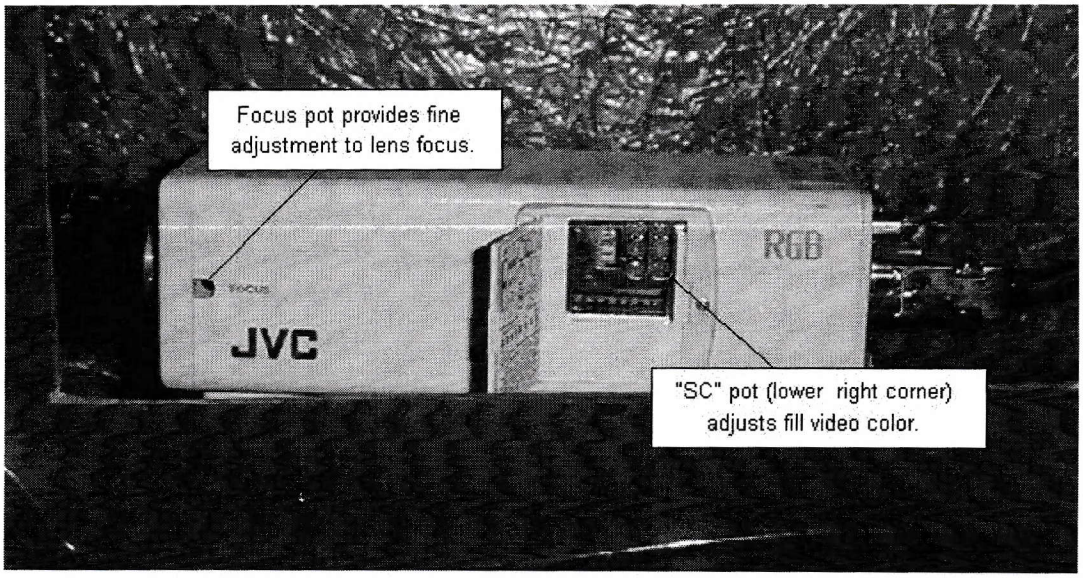

Manager Control Panel is locked up or not functioning
Power the manager control panel off and then on. Then reboot the show
Does the display glow on the manager control panel
No
Remove the display from the wall and check the 12vdc power from the wall wart transformer
Yes
Yes I have 12vdc and the interface board is connected
Call Technical Support
785 862 6002
Power down the manager control panel. Apply pressure to the upper left corner of the screen on the manager control panel while powering the unit up. Check the settings to make sure they are,
Baud rate - 57600, Parity - none, Data bits 8, Stop bits -1
Press done when you are finished checking.
Check the manger control panel cable that connects to P1 on the back of the computer in the rack. Then check to make sure it is connected to the back of the manager control panel.
Unplug P1, at the octopus on the back of the computer, on the rack. Attach your keyboard to the main computer.
Turn the "Num Lock" and the "Caps Lock" on the keyboard on. Press enter and watch the lower left corner of your main computer monitor on the rack. If will prompt you for your password. Use the number keys to enter your stores password. It will then display a selection of items you can do, [S]tart up, etc. If you are starting the first show in the morning you must select "S" for start up.
Call CEC Technical Support 785 862 6002

Chroma Key (BVS Masterkey) Adjustment

1. Be sure the Chroma key unit in the rack is turned on (toggle switch on back).
2. Be sure the JVC camera inside the camera prop has power (green LED on rear of camera.
3. Be sure the floodlights above the blue screen stage, are turned on, and that the fluorescent lights behind the blue screen are turned.
4. Adjust the iris (brightness) and focus and zoom on the lens of the JVC camera for the best picture, with a person or other large object in front of the camera. Zoom in all the way, so that none of the inside of the camera prop is visible, and that none of the area outside the edges of the blue screen are visible. Zoom and focus are independent in these lenses, so the lens must be refocused if the zoom is changed.
5. If there is no picture at all, it is possible that the REF OUT and PROGRAM IN parts of the cable from JVC camera are switched. There have been instances in the past when a mistake by the cable fabricator has switched those, which are the short black and gray cables coming from the larger black cable.
6. The remaining adjustments need video fill, which can be had either by starting up the show, or by simply turning on the DVD players and pressing "PLAY." The Sigma A/V switcher will pass video by its default settings if the show has not been started up.
7. Remove the cover from the front of the chroma key unit in the rack. Adjust these pots shown in the drawing below.



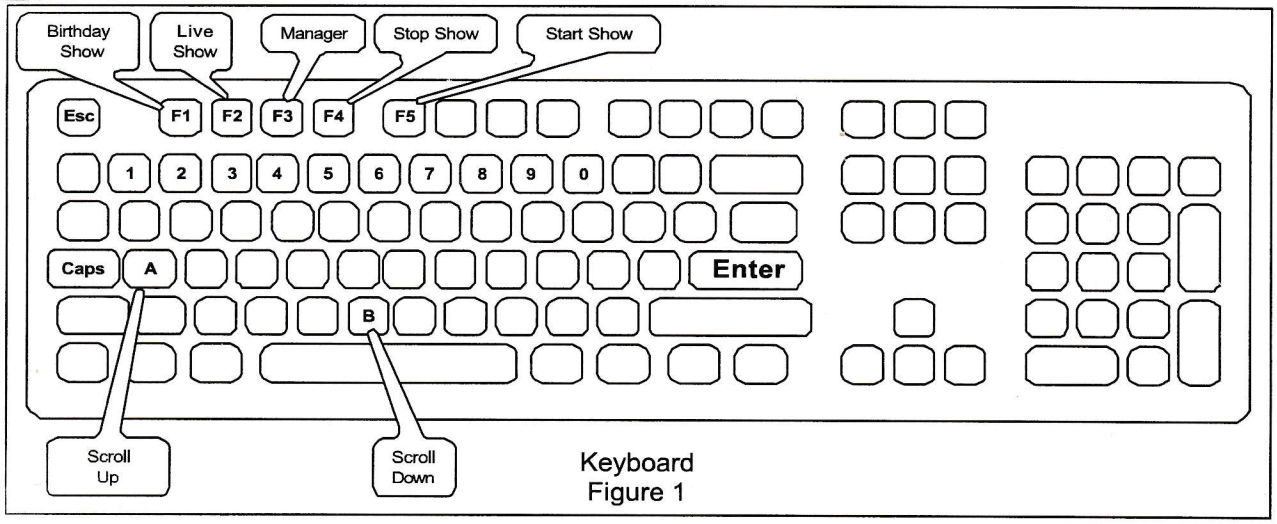
8. Adjust the "SC" pot in the JVC camera to fully counterclockwise, to adjust the color of the fill video.



9. It may be necessary to remove one or both of the fluorescent lights from the bottom of the camera prop, in order to reduce or eliminate reflected glare at the bottom of the image. Lower wattage lamps may also help. The reflection of the red light on top the camera prop is unavoidable, but minimal.
10. For better picture, change fluorescent lamps at bottom of camera to 25 watt (2 lamps).
11. If you still have issues related with the picture quality, try turning on dips 1, 2, 3, and 8 one at a time to find best picture.

Studio C Emergency Startup Procedure Using The Keyboard

The computer keyboard is an important part of your show. It is important that you only connect your keyboard to your computer in the event you have a problem. This procedure should only be used in the event that your manager control panel fails to operate.



Keyboard
Figure 1

If your manager control panel should fail, you will be able to start the show using the following procedure.

Note: The Caps lock must be on before you start

<Press> F3	(Selects the manager's password screen)
<Type> The correct password	(Example: Type "1554")
<Press> Enter	
<Press> B until you see Start/Stop	(This will move the cursor down)
<Press> Enter	(The display says press F2 to start the show)
<Press> F5	(This will start your show. (This = F2)

Follow the prompts to enter birthday names or enter diagnostics.

To shut the show down - <Press>F4 = F1

Other Functions on the Keyboard

F1 - Live Show F-2 Birthday Show A - Moves the cursor up