



## **Advanced Training Systems**

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# **FLEXI TARGET ASSEMBLY AND OPERATING INSTRUCTIONS**

**NOTE:** Before operating or servicing the FLEXI Target System, please read the following instructions completely. If you need assistance, please contact:

The Flexi Actuator can be used as a portable system with manual hardwired controls as described next, or as a permanent system with hardwired or wireless control systems described later. The following illustrations depict a version 1 FLEXI actuator, which may have different components than your current version. However, the functions and features are the same.

## FLEXI TARGET ASSEMBLY AND OPERATING INSTRUCTIONS

The FLEXI target mechanism is comprised of the following major components: (1) steel mounting platform, (2) stainless steel pneumatic cylinder, (3) 12 or 24 VDC pneumatic valve-electric solenoid assembly, (4) adjustable speed controls and (5) adjustable steel target holders (from 18" to 30"). See Illustration 1 for location of these major components.

**STEP 1:** For mounting the FLEXI target on a portable steel stand, start by bolting the four stabilizer legs (wind struts) to the steel base plate, as shown in Illustration 2.

**STEP 2:** Bolt the protective steel "wings" (protective plates) to the steel stand, as shown in Illustration 3.

**STEP 3:** Bolt the steel mounting platform with the 2 bolts provided to the steel stand "ledge" (see Illustrations 4 and 5).

**STEP 4:** Bolt the adjustable steel target holder to the steel mounting platform using the 2 bolts provided. Adjust the width of the target holder to the target to be used before tightening the bolts (see Illustration 6). Carefully slide the target backer between the 5/16" steel target "stiffener rods" and mounting clips (see Illustration 7). **OPERATING TIP:** The mounting clips can be widened or made narrower by using a needle nose plier to adjust the width of the target backer. **OPERATING TIP:** Before tightening down the target holder bolts, be sure the target swings freely between the protective steel "wings".

**STEP 5:** Attach the 1/4" flexible air tubing to the incoming air port on the air valve, which is the closest open port to the electric solenoid (see Illustrations 1 and 5). Simply push the air tube into the open air port until it is firmly sealed, then pull out slightly for the O ring to lock the tube into place. No tools are required to attach the air tube into the air valve.

**STEP 6:** Take the female electrical connector at the end of the 12-volt communication (signal) cable for each target and carefully align the connector to the male electrical connector (see Illustrations 1 and 5). Using a small flat blade screwdriver, tighten the female connector securely to the male connector to ensure the electrical wire connectors do not vibrate loose during the operation of the target.

**STEP 7:** Following the 12-volt electrical system layout drawing (see Illustration 8), connect the downrange target electrical cable connector to the main electrical line, as shown in Illustration 9.

**STEP 8:** After all the air lines and electrical lines have been connected to each target, connect the battery leads to a standard 12-volt rechargeable motorcycle or marine battery. **OPERATING TIP:** For best results, use a fully charged 12-volt, 15-20 amp rechargeable battery with “deep cycle” discharge characteristics.

**STEP 9:** Next connect the main electrical line to the Target Controller as shown in Illustration 10. Following the air line system layout drawing (see Illustration 11), connect the individual target 1/4” flexible air tubes to the air manifold (air junction) module, as shown in Illustration 12, by simply pressing each tube into the open air port and pull back slightly on the O ring to ensure the tube is locked into place. No tools are required to make these connections.

**STEP 10:** Securely connect the main 1/4” (for up to 5 targets) or 3/8” (for up to 15 targets) main air line into the end of the air manifold (see Illustration 12).

**STEP 11:** Connect the 1/4” or 3/8” main air line flexible tube into the air regulator at the scuba tank or air compressor station (see Illustration 11). Be sure the air tank being used has an air regulator to operate the targets in the 0-140 PSI range. **OPERATING TIP:** DO NOT use an air regulator that has a range greater than 150 PSI or damage could occur to the target air cylinders and valves.

After connecting the main air line into the compressed gas (nitrogen, CO<sub>2</sub>, etc.) or compressed air source, set the air pressure of the main line for approximately 45-50 PSI. If all targets are pivot or swingout targets, the air pressure in the main line can be as low as 30-40 PSI; for pop-up targets requiring more air pressure to overcome gravity, the air pressure should be increased to as high as 60-70 PSI. If a combination of pop-up and

pivot targets are used on the same air line, an in-line air regulator may be used to adjust the air pressure of individual targets to improve their performance.

**OPERATING TIP:** Each FLEXI target has its own individual target speed control. See Illustration 13 for the location of the control. By inserting a small flat blade screwdriver into the control and closing the valve, the target will return to the edge position more slowly; by opening the valve, the target will return faster.

## **SYSTEM MAINTENANCE PRECAUTIONS:**

**PERIODIC BATTERY MAINTENANCE:** Charge the DC battery before and after each use to a full 12 volts and at least 12-24 hours each month (i.e., every 30 days) on a regular basis when not in use for long periods of time. Failure to recharge the battery on a regular basis will cause the battery to lose its “shelf life” and to go into “deep discharge” from which it cannot be brought back to full service.

**AIR SOURCE (tank, compressor system) MAINTENANCE:** For proper operation, the FLEXI target requires clean dry air; therefore, be sure to check all air connections to ensure they are airtight throughout the air system. Regularly purge the air regulator and all air lines to “blow out” any build-up of condensation in the air lines at least once every 3-7 days during use and daily during periods of high humidity or “freeze-thaw” weather. It is very important that condensation (particularly ice particles) is not allowed to build up within the air lines to cause permanent damage to both the air valves and/or the target cylinders.

## **MOUNTING THE FLEXI TARGET SYSTEM:**

**TO A BUILDING OR STRUCTURAL SURFACE:** The FLEXI target can be mounted to wooden or concrete (even steel) columns and beams, baffles, walls, window ledges, door frames, ground mounted concrete pads, etc, by simply attaching the steel target mounting platform with 1/4” lag bolts, dry wall or wood screws, etc., to the mounting surface. Ensure that none of the FLEXI target components (see Illustration 1), including the incoming air hoses and electrical signal lines, are exposed to direct fire or possible ricochet. **OPERATING TIP:** Protection can be provided by placing sand bags, railroad ties, steel protective plates, etc., in front of the target mechanisms. In addition, if the air lines and signal cables are not run underground through PVC or galvanized steel

pipng, place 1/4" angle iron (like a "tent") over the air lines and signal cables to provide greater protection.

By turning the FLEXI target 90°, the target mechanism instantly becomes a pop-up target from the pivot target position (see Illustration 14). When mounting the FLEXI target on a post, wall, or door frame parallel to the ground, the target mechanism becomes a side swinging target as seen in Illustration 15. If the FLEXI target is mounted on a baffle (with the baffle acting as the protective shield), the target can become either a pop down or a pivot target, as shown in Illustration 16.

To mount the portable steel stand to a concrete pad (see Illustration 2), use the steel base plate as a template and drill (or weld to a steel plate) bolt holes into the concrete pad at the appropriate spacing of each target base from one another. Mount the target stands onto the concrete pad using 3/8" concrete bolts. Typically, the concrete pad is 18-24" wide, 4-6" deep, and runs the width of the target line.

## TARGET CONTROL FUNCTIONS: Manual Hardwired Switch Control

The FLEXI Target System can be controlled by a 5 target, 10 target, or 15 target manual Target Control System, a solid-state timer working in conjunction with any of the manual Target Controllers or a laptop computer that can program up to 100 targets at a time.

To operate each of the manual Target Controllers, first press the master switch to the "ON" position. To operate a specific individual target or group of individual targets, switch the control switch of each target to the "ON" position. By pressing each target switch „ON%, only those targets will be exposed (faced). When pressing the switch to the "OFF" position, only those targets will be "bladed" or go to the "EDGE" position. The master switch of each manual Target Controller allows all targets (whose switch position is "ON") to be FACED simultaneously when the master switch is placed to the "ON" position or all targets (whose switch position is "ON") go to the EDGE position when the master switch is turned to the "OFF" position.

If a solid-state timer is included with the FLEXI Target System, follow the assembly and operation instructions for the Time Control System on the next page:

## CED 8000 TIMER FOR MODEL FLX-90 POP UP TARGET

### INSTALLATION:

Prepare the CED 8000 timer as explained in the instructions provided with the timer. Connect the six-foot cable to the target controller and the other end to the AUX jack on the CED 8000.

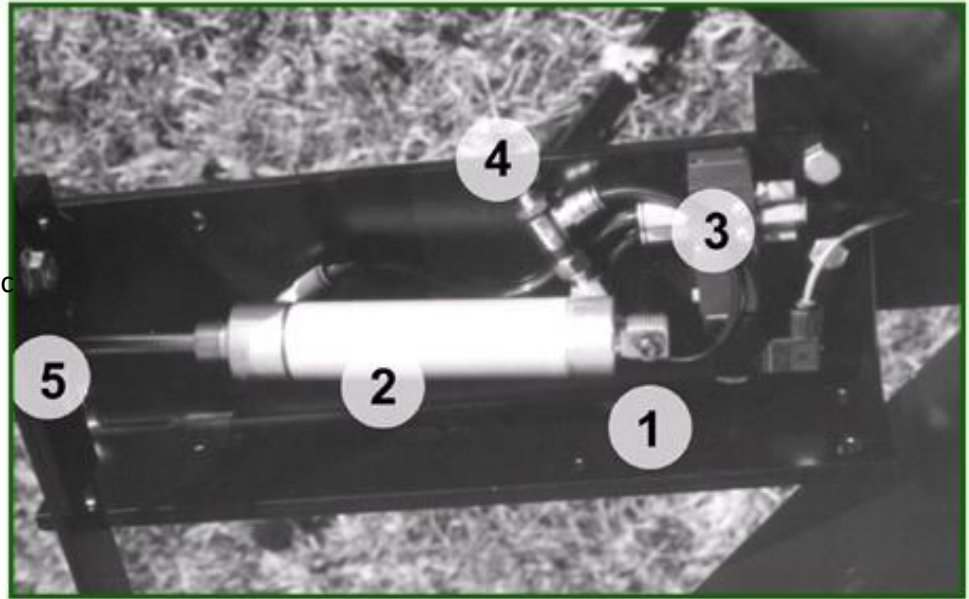
### OPERATION:

The target controller will work the same as normal without the CED 8000 connected. When the CED 8000 is connected, set the Master Switch in the off position and turn on the switches for the targets you want the CED 8000 timer to control. Use the CED 8000 as shown on page 9 of the instructions under PAR TIME SELECTION. Select single PAR. The target will operate from the beginning of the start buzzer to the end of the stop buzzer.

### ILLUSTRATION 1:

LOCATION OF MAJOR COMPONENTS

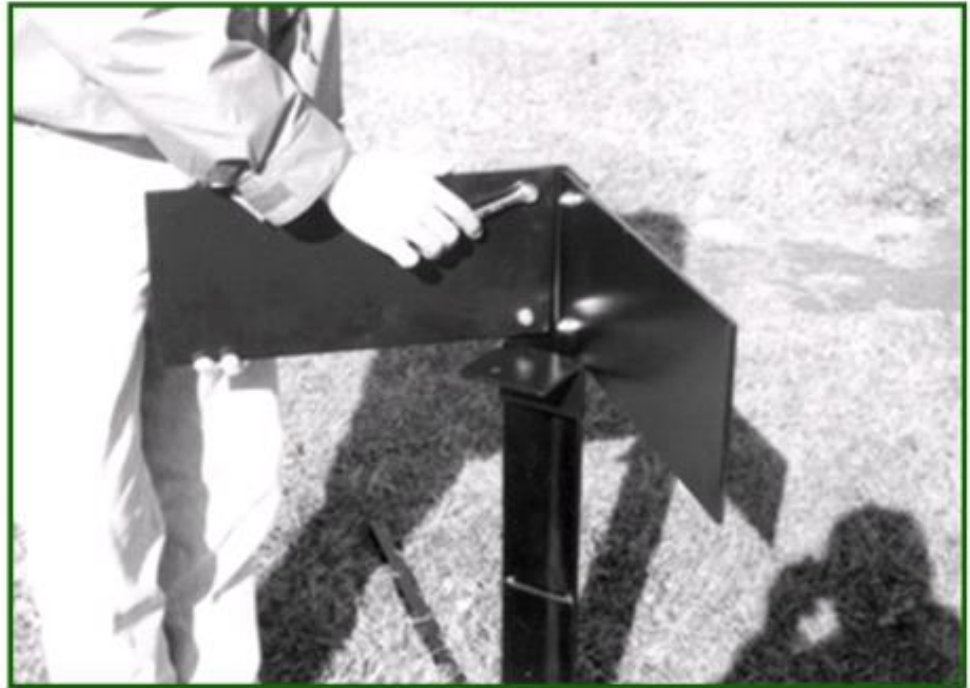
- (1) Steel mounting platform
- (2) Stainless steel pneumatic cylinder
- (3) Pneumatic valve-electric solenoid assembly
- (4) Adjustable speed control
- (5) Adjustable steel target holder



### ILLUSTRATION 2:

MOUNTING THE STABILIZER LEGS TO THE PERMANENT STEEL BASE PLATE

**ILLUSTRATION 3:**  
MOUNTING THE  
PROTECTIVE  
STEEL "WINGS"



**ILLUSTRATION 4:**  
BOLTING THE MOUNTING  
PLATFORM TO THE  
PORTABLE STEEL  
STAND

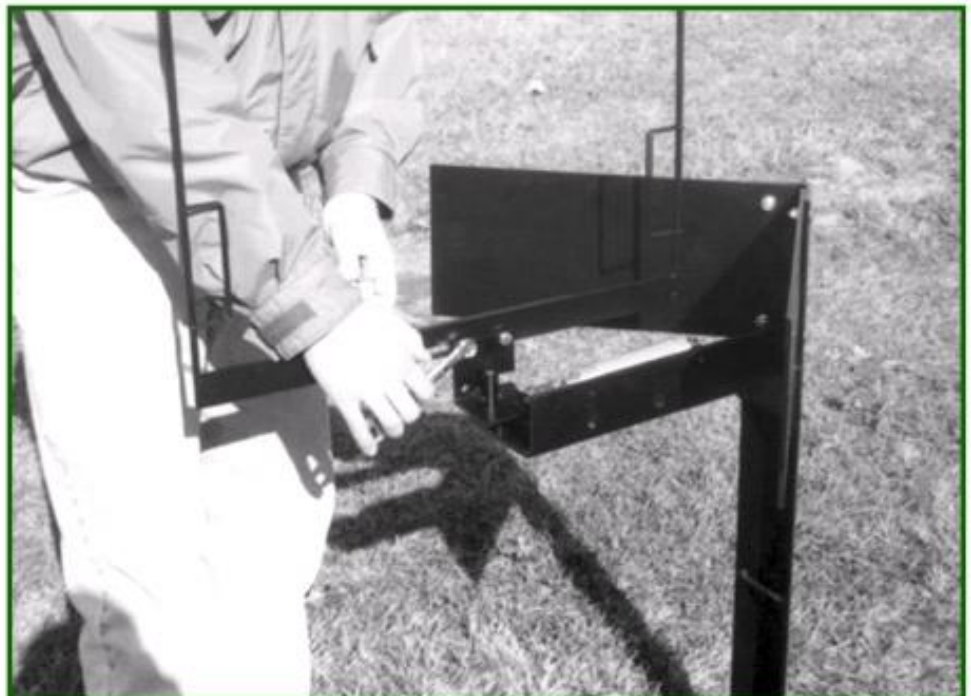




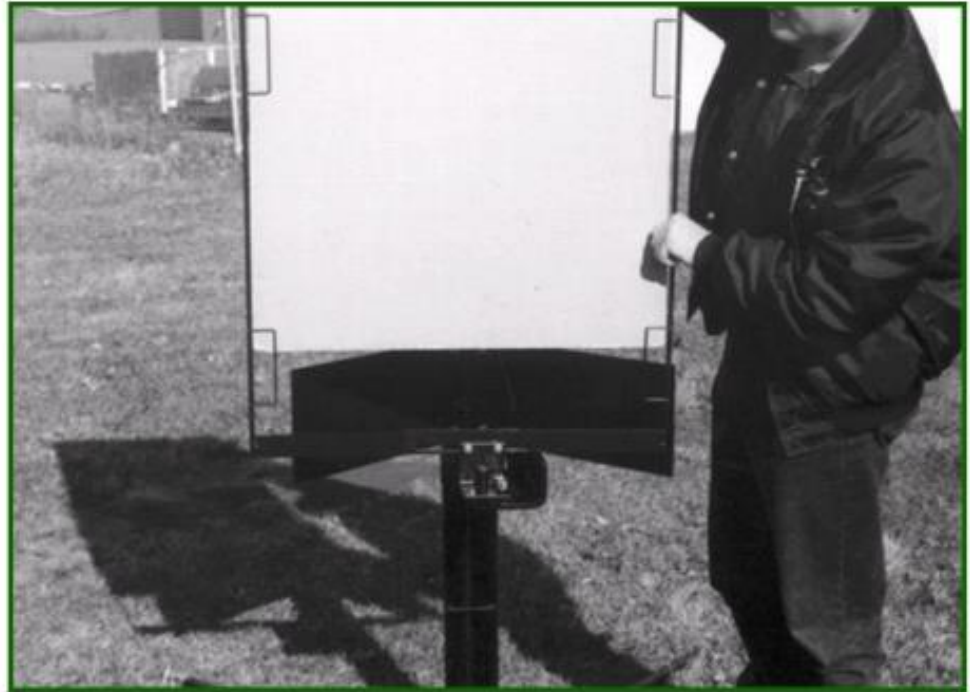
**ILLUSTRATION 5:**  
THE COMPLETION OF  
BOLTING THE MOUNTING  
PLATFORM TO THE  
PORTABLE STEEL  
STAND



**ILLUSTRATION 6:**  
BOLTING THE STEEL  
TARGET HOLDER (LAW  
ENFORCEMENT STYLE)  
TO THE MOUNTING  
PLATFORM



**ILLUSTRATION 7:**  
SLIDING THE TARGET  
BACKER BETWEEN  
"STIFFENER RODS"  
MOUNTING CLIPS



**ILLUSTRATION 9:**  
CONNECTING THE  
DOWNRANGE  
ELECTRICAL SYSTEMS



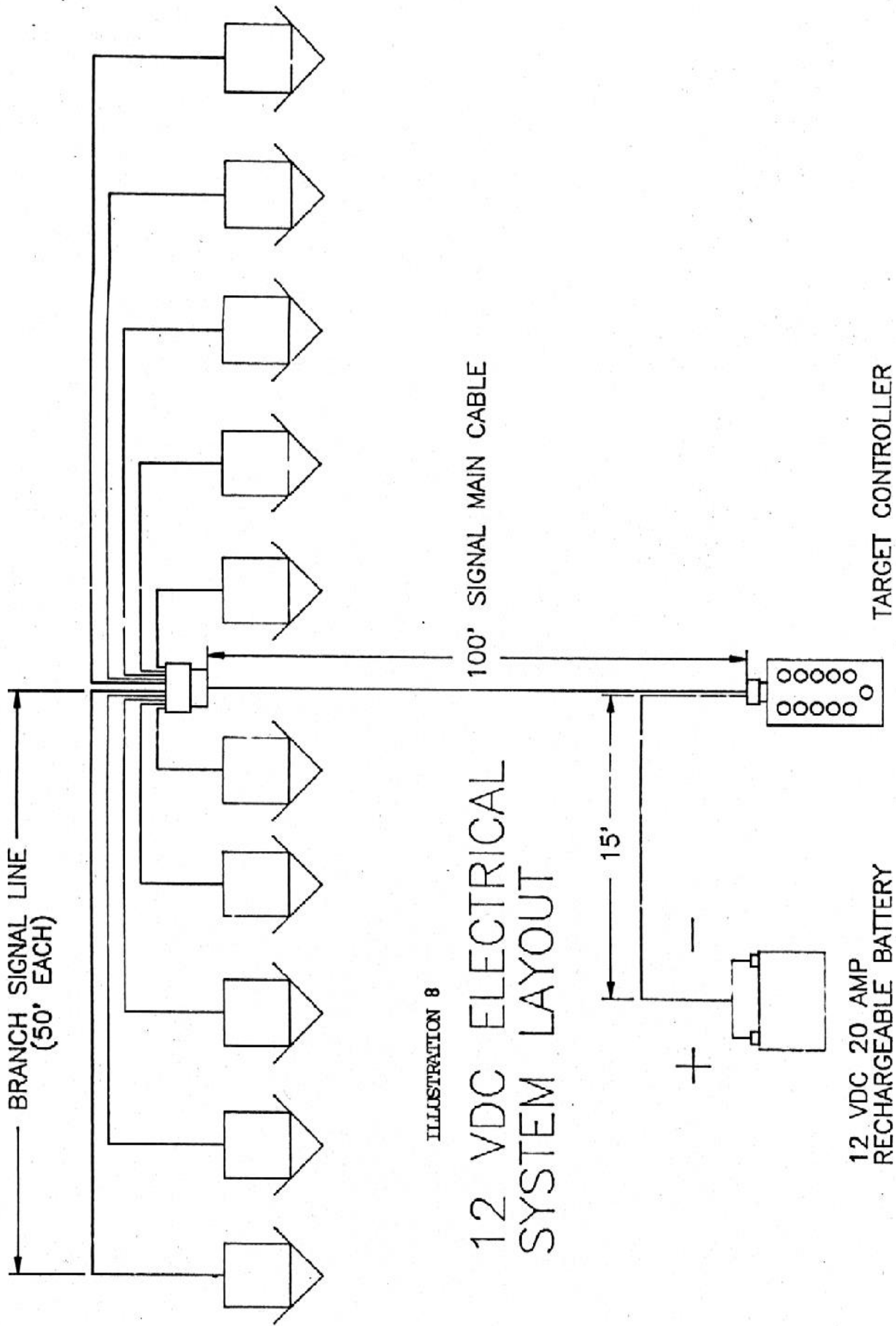


ILLUSTRATION 8

# 12 VDC ELECTRICAL SYSTEM LAYOUT

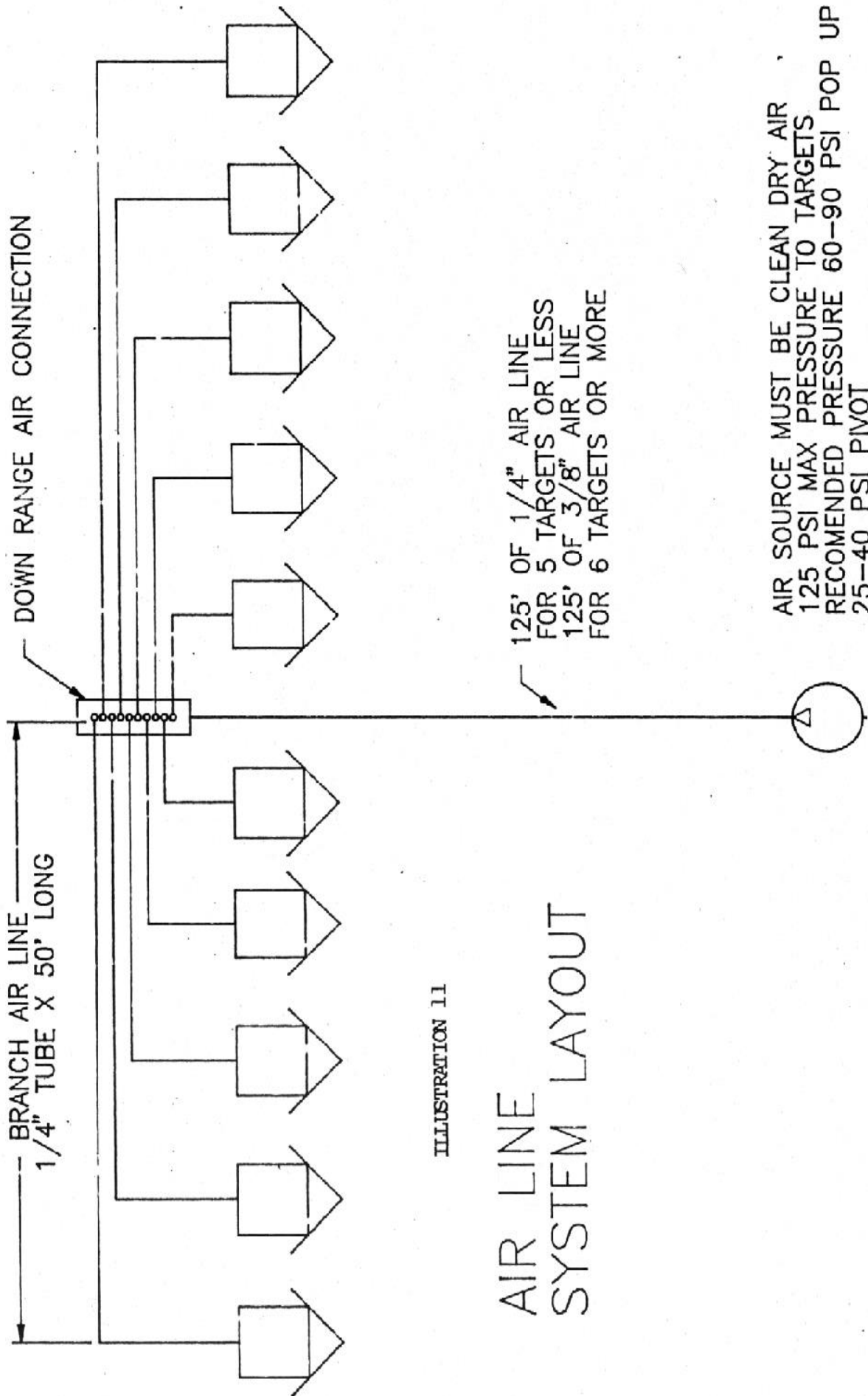
THE 12 VDC BATTERY CAN BE REPLACED WITH CIGARETTE LIGHTER PLUG, OR CLAMP DIRECTLY TO A CAR BATTERY

**ILLUSTRATION 10:**  
CONNECTING THE  
MAIN ELECTRICAL LINE TO THE  
TARGET  
CONTROLLER



**ILLUSTRATION 12:**  
CONNECTING THE  
INDIVIDUAL TARGET AIR TUBES  
TO THE AIR  
MANIFOLD





DOWN RANGE AIR CONNECTION

BRANCH AIR LINE  
1/4" TUBE X 50' LONG

# AIR LINE SYSTEM LAYOUT

ILLUSTRATION 11

125' OF 1/4" AIR LINE  
FOR 5 TARGETS OR LESS  
125' OF 3/8" AIR LINE  
FOR 6 TARGETS OR MORE

AIR SOURCE MUST BE CLEAN DRY AIR  
125 PSI MAX PRESSURE TO TARGETS  
RECOMENDED PRESSURE 60-90 PSI POP UP  
25-40 PSI PIVOT  
SCUBA TANK, SCOTT AIR PAK,  
GAS OR ELECTIC AIR COMPRESSOR,  
VEHICLE WITH AIR BRAKES, CAN ALL  
BE USED AS AN AIR SOURCE

**ILLUSTRATION 13:**  
ADJUSTING THE TARGET SPEED  
CONTROL



**ILLUSTRATION 14:**  
THE FLEXI TARGET  
MOUNTED AS A  
POPUP TARGET



**ILLUSTRATION 15:**  
THE FLEXI TARGET  
MOUNTED AS A  
SWINGOUT TARGET



**ILLUSTRATION 16:**  
THE FLEXI TARGET  
MOUNTED (AS A PIVOT  
OR POPUP TARGET)  
FROM A WOODEN  
BAFFLE



## **ADVANCED TRAINING SYSTEMS**



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### **Permanent Installation Guidelines: Flexi**

The components of the Flexi Target System used for a permanent installation are the same as previously described for the Portable Flexi System with the exception of the following:

The Permanent Stand Assembly does not have the four stabilizer legs (wind struts) as described in the portable system instructions on page 1, step 1; instead the Permanent Stand must be anchored with suitable anchors to your concrete target pad. The recommended anchors should be 3/8" diameter by 3-1/2" long, minimum. Four anchors are required for each Permanent Stand. The Permanent Stands are also made with larger and heavier gage steel to ensure product performance regardless of weather and increased use encountered with permanent outdoor installations.

Once the Permanent Stands have been properly located and anchored, attach the protective plates (bullet deflectors), Flexi actuator and target holder as described in Steps 2-4 and shown in illustrations 3-6 at the beginning of this manual. Your actual target holder may vary from the picture, however attachment is the same.

A permanent installation requires an individual air and signal source for each Flexi target location.



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### Permanent Air System Installation

An air system must be capable of supplying at least 8 cubic inches of compressed air at 60 PSI for each Flexi actuator location, per actuation. It is recommended that you include at least a 50% increase in system capacity to ensure system efficiency in various climate conditions. At a minimum, your compressor must have a master air shut-off valve, air pressure regulator, moisture/oil/particle separator and a 5-micron filter.

Depending on your location and local climate, you may need to add a refrigerated air dryer, desiccant dryer or both to ensure clean dry air for the system.

\*Contact your ATS, Inc. representative for specific recommendations for your installation.

The pipe requirement varies for each system depending on the number of Flexi actuators installed, the distance between actuators and the distance from the air compressor system and the target line.

\*Contact your ATS, Inc. representative for specific recommendations for your installation.

Typically, you can run galvanized or conduit with lines underground, per your local codes, up to the target line. The pipe above ground and running to each Flexi actuator location should be galvanized to ensure pipe integrity in case of ricochets and weather variables. Install a galvanized tee at each actuator location, and a blow-off valve at the end of the line. In each tee, install a connector designed to attach a 1/4" diameter flexible airline. You can mount your target line pipe on the concrete pad, or protective berm wall. See "Side View of Stand/Flexi Actuator" drawing for recommended location.

\*Contact your ATS, Inc. representative to purchase specialty fittings and airline for Flexi installation.

Install the 1/4" airline in the tee connector fitting. Run the airline from the tee location behind the Permanent Stand inside the V-nose up to the Flexi actuator. Connect the end into the air line

connector on the actuator. Firmly push the airline into the connector until it bottoms out in the connector. Pull on the airline to test that the airline is secure in the connector.

Air system check-Caution: Before pressurizing the system be sure to open the clean-out valve, run the compressor up to pressure and open the main compressor valve to blow out any oil, moisture and debris that may be in the lines from installation and assembly. Repeat this procedure until the air coming from the clean out valve is free of oil, moisture and debris. Close the clean-out valve and allow the compressor to refill. Adjust the output regulator to 60 psi. Check all the joints, fittings and connectors for air leaks. Repair as needed, retest. Turn off the compressor, remove pressure from the system, and proceed to electrical installation.

**BE SURE TO USE PROPER EYE AND HEARING PROTECTION WHEN WORKING ON THIS SYSTEM!**

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### **Permanent Electrical Installation**

A permanent installation requires one pair of wires for each Flexi actuator. Starting at your control point (control house or tower), you may use either a multi-conductor cable or individual wires to supply signals to the Flexi actuators. You may use “direct burial rated” cable, which may be buried underground, or pull individual wires through water tight conduit to get from your control point to the target line.

\*Contact your ATS, Inc. representative for specific wire/gauge recommendations.

ATS, Inc. has several control options available for the Flexi actuators. Examples include manual switch control, manual control with solid state timer, computer (software) controlled as well as several wireless control options. In addition, you can have two or more of these options configured together for maximum flexibility for your particular range. Since there are multiple options for the control system, it is recommended that you confer with your ATS, Inc. representative to determine the correct method and components needed at the control location to complete the connection to the main cables.

At the target line, install a weatherproof junction box to terminate the main cables coming from the control point. From the line junction box run a pair of stranded 18 gauge wires to each Flexi actuator. The wire should be sunlight resistant/direct burial rated, typically an 18/2-cable configuration. The wires should be run inside sunlight resistant conduit from the junction box down the line to the individual Flexi actuators. Terminate the individual wires with your main cable inside the junction box. Pull each individual Flexi actuator cable from the junction box and conduit, through a water tight cable clamp or sealed rubber bushing at each Flexi actuator location. Run the cable up behind the Permanent Stand up to the Flexi actuator. Attach a DIN plug, ATS part number 9120-16, to the end of the cable. Attach the plug onto the valve solenoid

by first installing the plug gasket, ATS part number 9120-13, then line up the plug with the solenoid connector. Fasten with the supplied screw.

After correctly installing the control system at your control point, the range is now ready for testing. Turn on your air compressor system and run to pressure. Open the main air valve and adjust the regulator for 60-psi output to the Flexi actuators. NOTE: WEAR PROPER EYE AND EAR PROTECTION!

Power up your control system as recommended by the control instructions provided with the system. Run through and test each Flexi target location to determine that the wiring/electrical system is functioning properly. Adjust the Flexi actuator target speed with the Flow Control/Muffler fittings located on the Flexi actuator valve. See the "Flexi Actuator Connection/Adjustment Detail" drawing in this manual for location of each control. Note: One Flow Control is for the forward or "face" motion and the other Flow Control is to adjust the retract or "edge" motion. Flow Control speed adjustment is made by loosening the jam nut and turning the stem with a flat blade screwdriver. (Note silver valve versions do not have the jam nut) Clockwise rotation slows down movement; counterclockwise rotation increases the speed of the movement. You may alter the main air pressure to compensate for lighter or heavier targets. NOTE: Be sure air pressure is turned off at the compressor and the clean out valve at the end of your air pipe is open to prevent pressure at the actuator while working on or adjusting the actuator(s).

#### Control Systems:

The FLEXI actuator can be operated with several control options. The hardwired switch option is described earlier in the beginning of this manual with a portable system. The FLEXI actuator can be used with hardwired computer controls, a wireless computer modem or handheld PTX controller to give you a variety of options for multiple training scenarios. Consult the controller manual for further instruction on the control system.

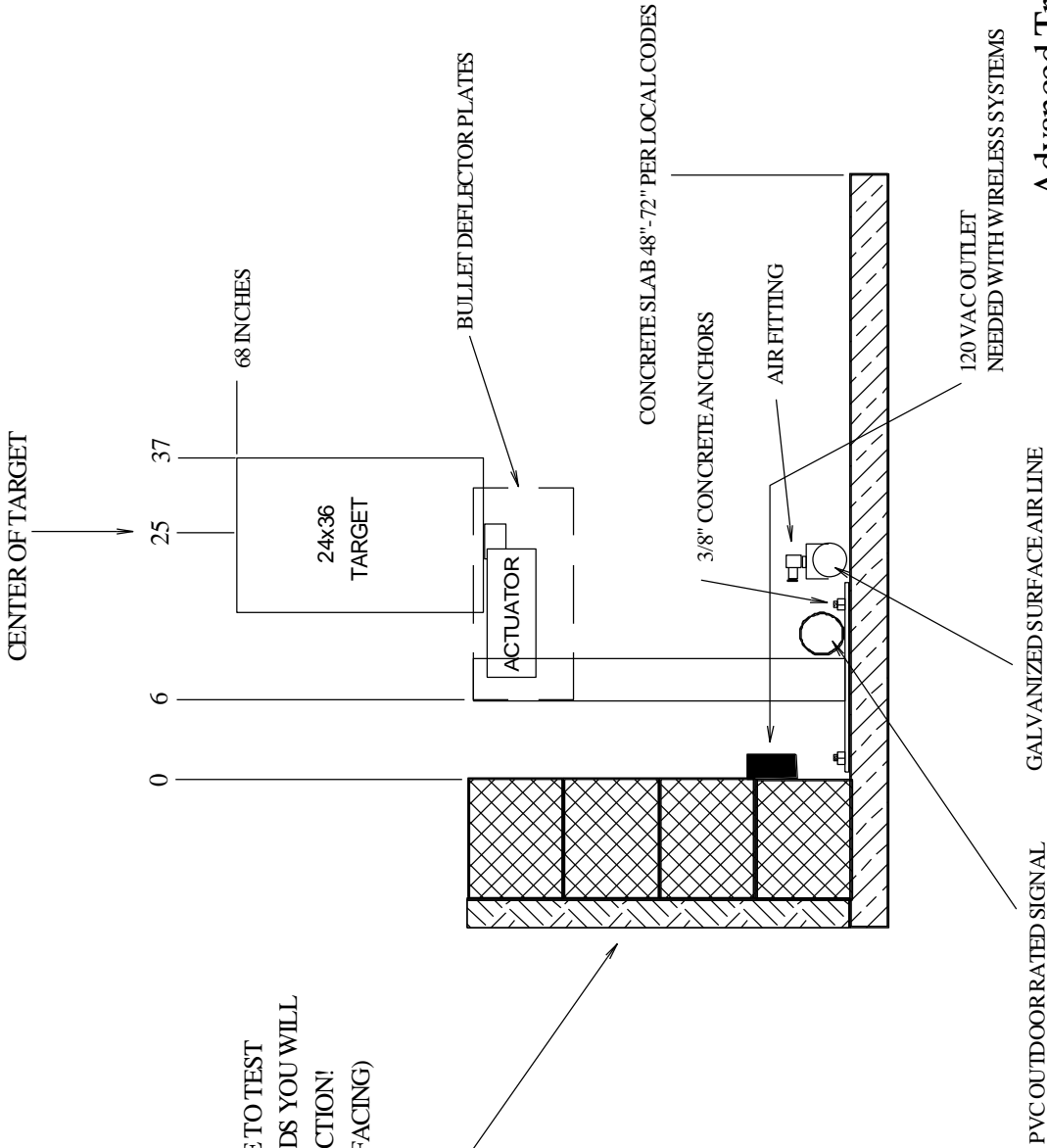
#### Maintenance:

The FLEXI actuator has been built to require minimum maintenance if proper operating procedures are followed. Never allow debris to build up on the actuator that could get jammed inside the mechanism and impede function.

Every 6 months: Be sure the power and air is off and the bleed valve is opened, then remove the cover and inspect the actuator mechanism. Manually turn the target pivot to ensure it is smooth and not binding. Lubricate the rear pivot of the cylinder with a waterproof lithium grease, spray or hand apply. Re-attach cover.

#### Installation diagram:

The following diagram shows the typical side profile view of the permanent installation of the FLEXI actuator on a permanent stand. Note the use of proper ballistic and anti ricochet materials for the front knee wall.

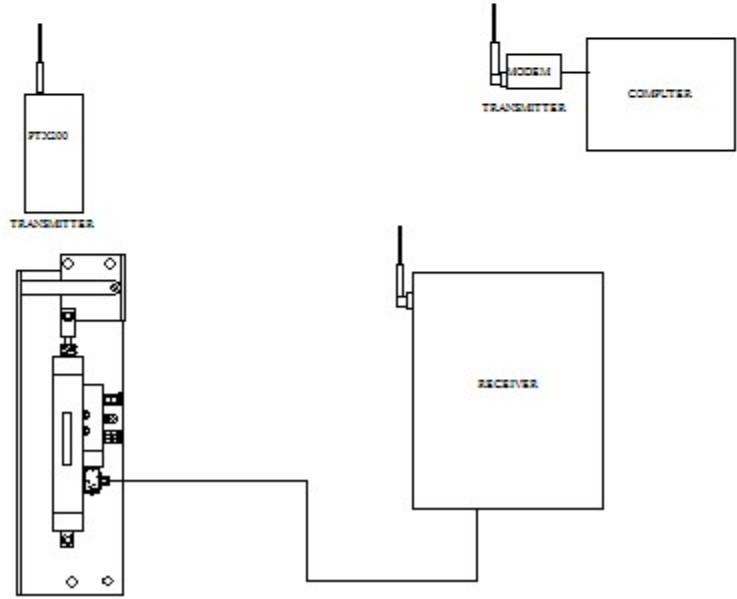
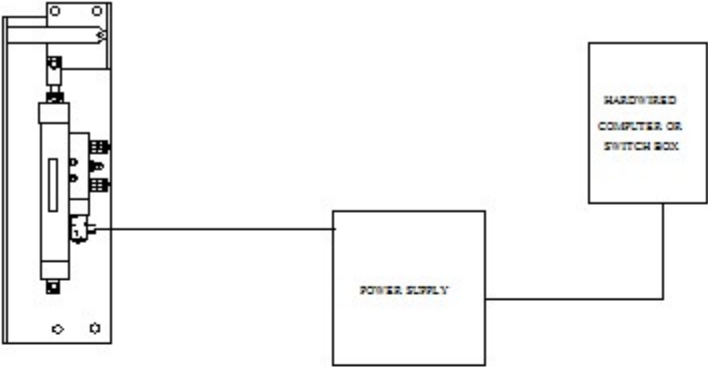


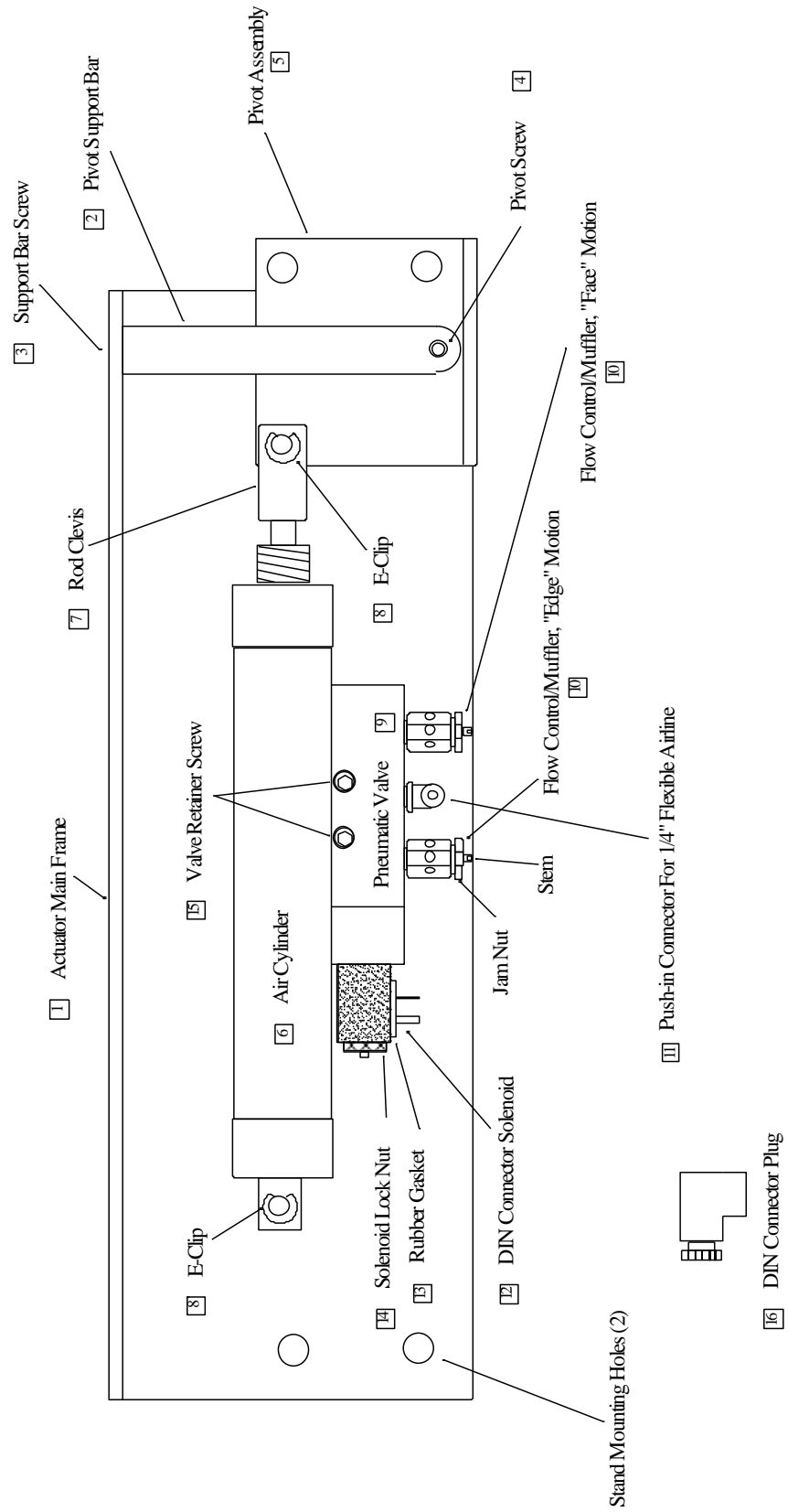
CONCRETE WALL, 8 X 8 RR TIES. BE SURE TO TEST  
 YOUR MATERIALS WITH THE ROUNDS YOU WILL  
 BE TO ASSURE ADEQUATE PROTECTION!  
 DOWN WITH OPTIONAL RUBBER FACING)  
 - 40" HIGH

**Advanced Training Systems, Inc.**  
 SIDE VIEW OF STAND/FLEXI ACTUATOR AND  
 TARGET FRAME-SET UP FOR EDGE/FACE  
 OPERATION.

DRAWING: FLEXISIDE1 REV. 12-16-10

# CONTROL SYSTEMS OVERVIEW: Hardwired or Wireless Block Diagrams





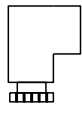
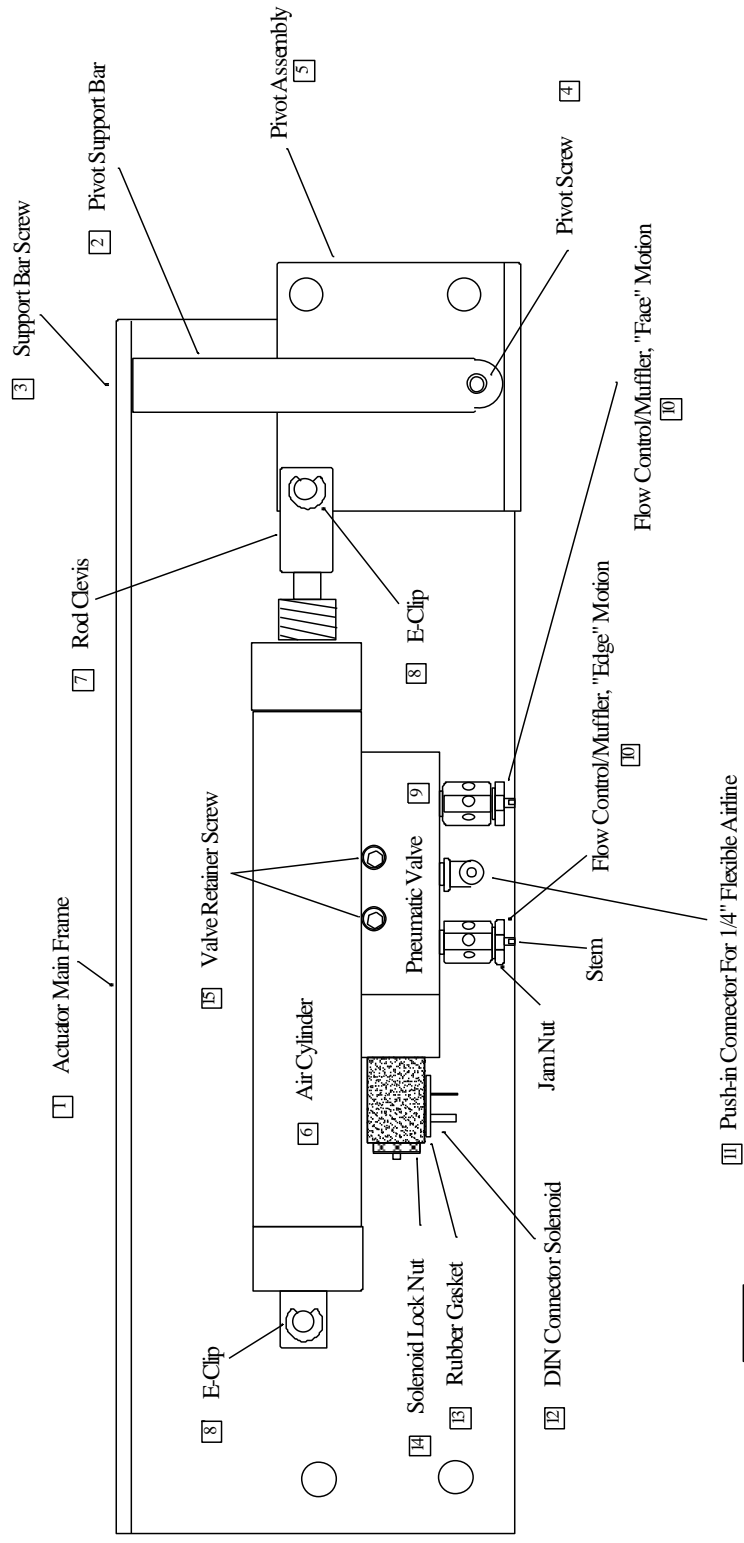
**Advanced Training Systems, Inc.**  
 Flexi Actuator Connection/Adjustment Detail  
 Revised 12-05

Note: To Adjust Flow Controls, Loosen the Jam Nut and Adjust Stem with a Standard Screwdriver.  
 \*Always Adjust in Small Increments!



## Flexi Actuator Parts List (A-9120-D)

<u>Description</u>	<u>Part Number</u>
Base-Actuator Main Frame	9120-1
Pivot Support Bar	9120-2
Pivot Support Bar Screw	9120-3
Pivot Bolt	9120-4
Pivot Assembly w/Bushings	9120-5
Air Cylinder w/barb fittings	9120-6
Rod Clevis	9120-7
E-Clip Retainer, 2 required	9120-8
Pneumatic Valve Body	9120-9
Flow Control/Muffler, 2 required	9120-10
Main Airline Connector	9120-11
Solenoid, 12 VDC	9120-12a
Solenoid, 24 VDC	9120-12b
Rubber DIN Gasket	9120-13
Solenoid Lock Nut	9120-14
Valve Screws, 6-32, SHCS, SS	9120-15
DIN Connector Plug	9120-16



16 DIN Connector Plug

17 Not Shown: 1/4" High Pressure Airline, 12" per unit

Advanced Training Systems, Inc.  
 Flexi Actuator Parts List Detail  
 Drawing Flexi-1000A  
 Revised 12-10

## Flexi Actuator Parts List (A-9120-D)

Refer to drawing Flexi-1000A for reference number details.

Reference Number	Description	Part Number
1	Base-Actuator Main Frame	9120-1
2	Pivot Support Bar	9120-2
3	Pivot Support Bar Screw	9120-3
4	Pivot Bolt	9120-4
5	Pivot Assembly w/Bushings	9120-5
6	Air Cylinder w/barb fittings	9120-6
7	Rod Clevis (gold)	9120-7G
7b	Rod Clevis (silver)	9120-7S
8	E-Clip Retainer, 2 required	9120-8
9	Pneumatic Valve Body (red)	9120-9
9b	Pneumatic Valve Body (silver)	9120-9b
10	Flow Control/Muffler, 2 required	9120-10
11	Main Airline Connector	9120-11
12a	Solenoid, 12 VDC	9120-12a
12b	Solenoid, 24 VDC	9120-12b
13	Rubber DIN Gasket	9120-13
14	Solenoid Lock Nut	9120-14
15	Valve Screws, 6-32, SHCS, SS 2 required)	9120-15
16	DIN Connector Plug	9120-16
17	¼" High Pressure Air Line (1 foot required)	9120-17
N/A	Actuator Cover with mount screws	FLX90-CV002

## Document: Specifications Flexi Pneumatic Actuator

General. This document contains the product specifications for the " Flexi Pneumatic Actuator" target system. This document was revised and updated 05Jan2012.

GSA Description: FLX-90 Pneumatic Target Actuator

Description: Flexi Pneumatic Actuator is designed for 90 degree rotation of standard law enforcement and military training targets. The Flexi Actuator can also be set up for 90 degree lifting or pop-up modes of target presentation.

Size: 5 inches wide, 4 inches high, 15 inches long

Weight: 13 pounds

Materials: All Steel Construction with Black Powder Coat Finish

Control Method: Electric over pneumatic, low voltage DC either manual switch or wireless control options available.

Electrical Power Requirement: 24 volts DC or optional 12 volts dc, .75 watts

Air Pressure Range: Operating range 55psi to 90 psi

Air Consumption: 5.96 cubic inches per actuation cycle.

Rotation Speed: Adjustable from .5 seconds to 5 seconds

Linear Actuator Force: 59.6 inch pounds at 60 pounds per square inch of line pressure

Maximum Target Weight: 8 pounds including holder

Operating Temperature Range: 0 degrees F to 120 degrees F

## STANDARD WARRANTY

**ADVANCED TRAINING SYSTEMS, INC.**, guarantees each new **ADVANCED TRAINING SYSTEMS, INC.**, Product and each **ADVANCED TRAINING SYSTEMS, INC.**, Part to be free from defect in workmanship and material.

**ADVANCED TRAINING SYSTEMS, INC.**'s, obligation under this warranty is limited to making good at the **ADVANCED TRAINING SYSTEMS, INC.**, factory any Part or Parts of the Product, which, within 12 months from the date of shipment, shall be returned to the **ADVANCED TRAINING SYSTEMS, INC.**, factory with transportation charges prepaid, and, which, on examination, shall be found to have been defective.

This warranty shall not apply to any **ADVANCED TRAINING SYSTEMS, INC.**, Product or Part which shall have been repaired or altered outside of the **ADVANCED TRAINING SYSTEMS, INC.**, factory, nor which has been subject to misuse, negligence or accident, nor which has had the serial number or name plate altered, defaced, or removed. Neither shall this warranty apply to any **ADVANCED TRAINING SYSTEMS, INC.**, Product in which other than **ADVANCED TRAINING SYSTEMS, INC.**, Parts have been used.

**ADVANCED TRAINING SYSTEMS, INC.**, will assume no responsibility for loss of time or labor necessary for **ADVANCED TRAINING SYSTEMS, INC.**, Product operation.

This warranty is expressly in lieu of all other warranties, expressed, or implied, and **ADVANCED TRAINING SYSTEMS, INC.**, neither assumes nor authorizes any representative or other person to assume for **ADVANCED TRAINING SYSTEMS, INC.**, any other liability in connection with the sale of **ADVANCED TRAINING SYSTEMS, INC.**, Products or **ADVANCED TRAINING SYSTEMS, INC.**, Parts.

### REPAIR AND RETURN INFORMATION:

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