STERILYFT

INSTALLATION MANUAL

DETAILED INSTRUCTIONS FOR INSTALLATION OF YOUR NEW ELEVATOR CAB AIR STERILIZATION SYSTEM

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INSTALLATION

Upon completion of your layout and obtaining of any additional brackets needed, it is time to install.

WITH HANDLING OF UVC BULBS FOR INSTALLATION AND/OR REPLACEMENT, IT IS RECOMMENDED THAT CLEAN LINT FREE COTTON GLOVES (Over cut resistant gloves) BE USED AS PROTECTION OF THE BULB SURFACE FROM THE SKINS OILS WHICH MAY AFFECT LONGEVITY OF THE BULB. PLEASE READ MAINTENANCE INSTRUCTIONS ON PROPER HANDLING AND DISPOSAL OF DAMAGED OR INACTIVE BULBS.

All company safety policies shall be followed at all times.

Follow regulations related to installation, maintenance, repair and replacement, including inspections and tests. For more information, refer to ASME A17.1 / CSA B44 Safety code for elevators and escalators.

Always follow company Environment, Health and Safety (EHS) policies and procedures. All technicians must be familiar with these policies ad properly trained before performing any work.

Due to the potential hazards of UVC light, including possible eye and skin exposure, the system has been engineered to eliminate the potential for UVC exposure. A safety micro switch will not allow power to teh bulb without the cover fully installed. Micro switch shall not be tampered with.

Do not operate without cover. Do not look at UVC light.

Due to trace mercury content in bulb (similar to any energy efficient light bulb), proper disposal of expended bulbs will be the responsibility of the owner of the elevator and Sterilyft unit.

TOOLS REQUIRED:

- Corded or cordless driver with 5/16” socket. Heavier hardware sockets may be required for structural brackets, if applicable.
- Corded drill with 6” hole saw
- Pilot drill bits and jig saw with bi-metal HSS blades. (multiple blades for cutting of base for cab duct registers and if chosen, top of car canopy for intake duct)
- Metal file
- Flat head and Phillips screw driver
- (In some cases of heavier base metals a cut saw with metal cut off wheel may be required). If required, consult with site management on burn permit, fire watch and/or class E interruption.
- Tin snips for cutting of duct tubing.
- Heavy wire cutters for embedded wire within ducting.
- Duct tape for additional sealing of hose / duct connections if required. Sterilyft package comes with sized hose clamps.
- Tape measure for verification of dimensions for equipment mounting
- Painters tape for bench marking cut locations
- Dust pan with hand broom and small vacuum for clean up in cab.

STEP 1: CAB REGISTER CUT OUT LOCATING

Using layout from top of car as guide, measure and record location of shell wall pan center location or intended center locations of register ducts to be installed. (SEE FIG 1.1)

Using dimensions and painters tape, mark either shell pan locations on corresponding base below location inside elevator, or the center location of registers (SEE FIG 1.2)

(Location transposed will be from interior of rear shell wall to center of pan (or center of register) and from edge of shell overhang to center of pan (or center of register) less overhang (SEE FIG 1.1A)

From center location, using tape measure, mark a parallel line to floor at 1/2 inch from floor and 3 1/2 inches from floor, each line extending at least 4 inches in each direction from center.

Now, draw a perpendicular line to previous lines intersecting both 4 inches away from center line in each direction.

You will now have a 3 inch by 8 inch rectangular box drawn which will be your register cutout.

FIG 1.1

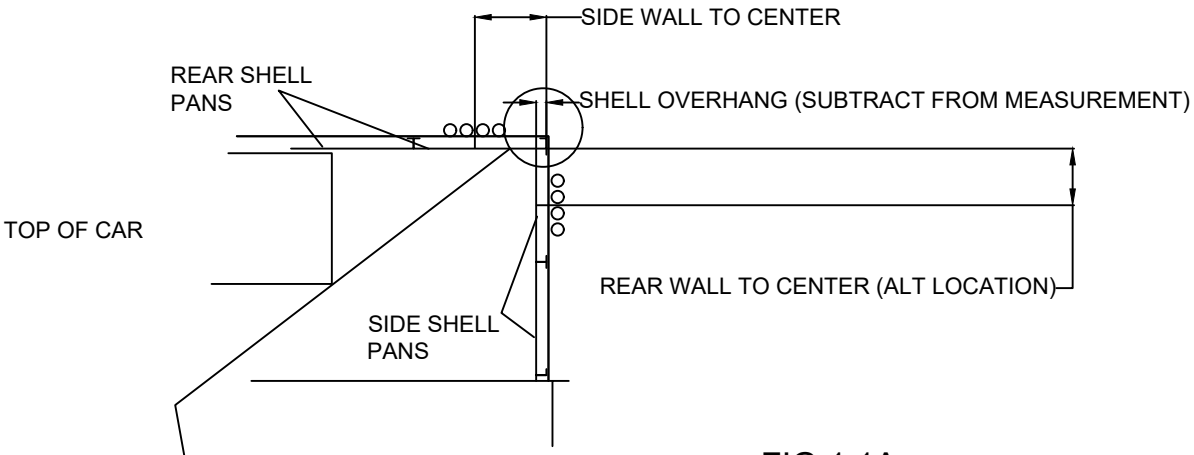


FIG 1.1A

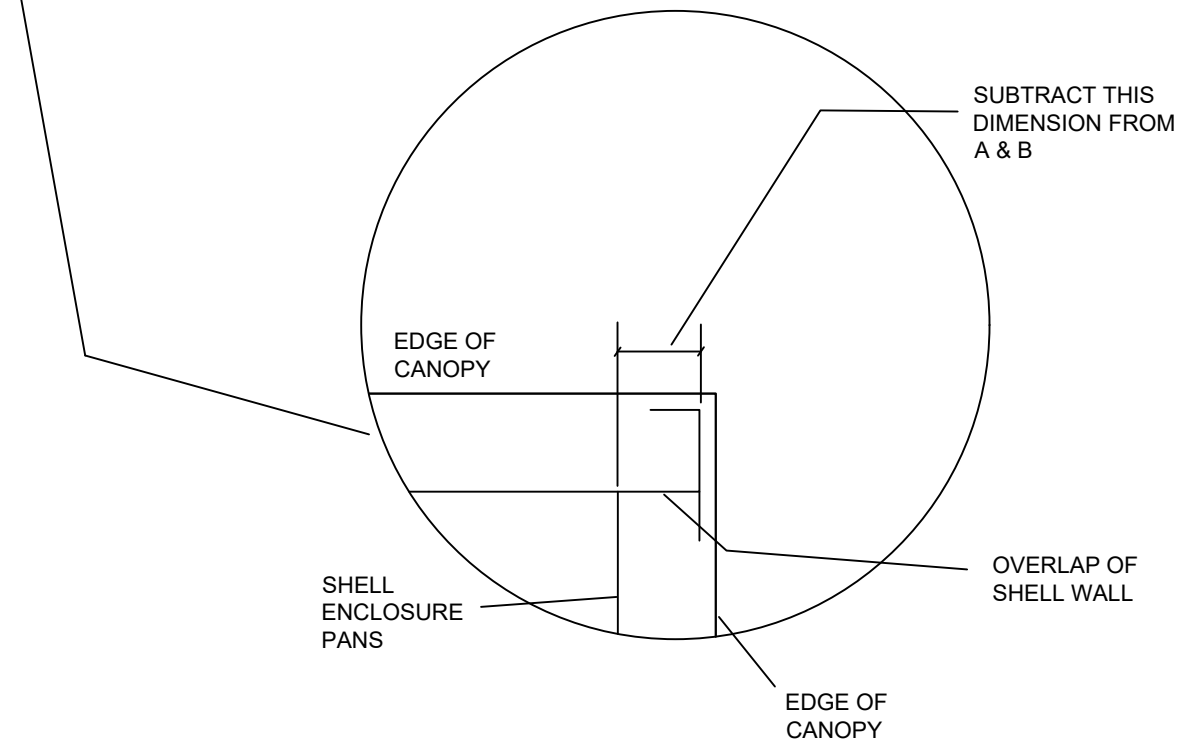
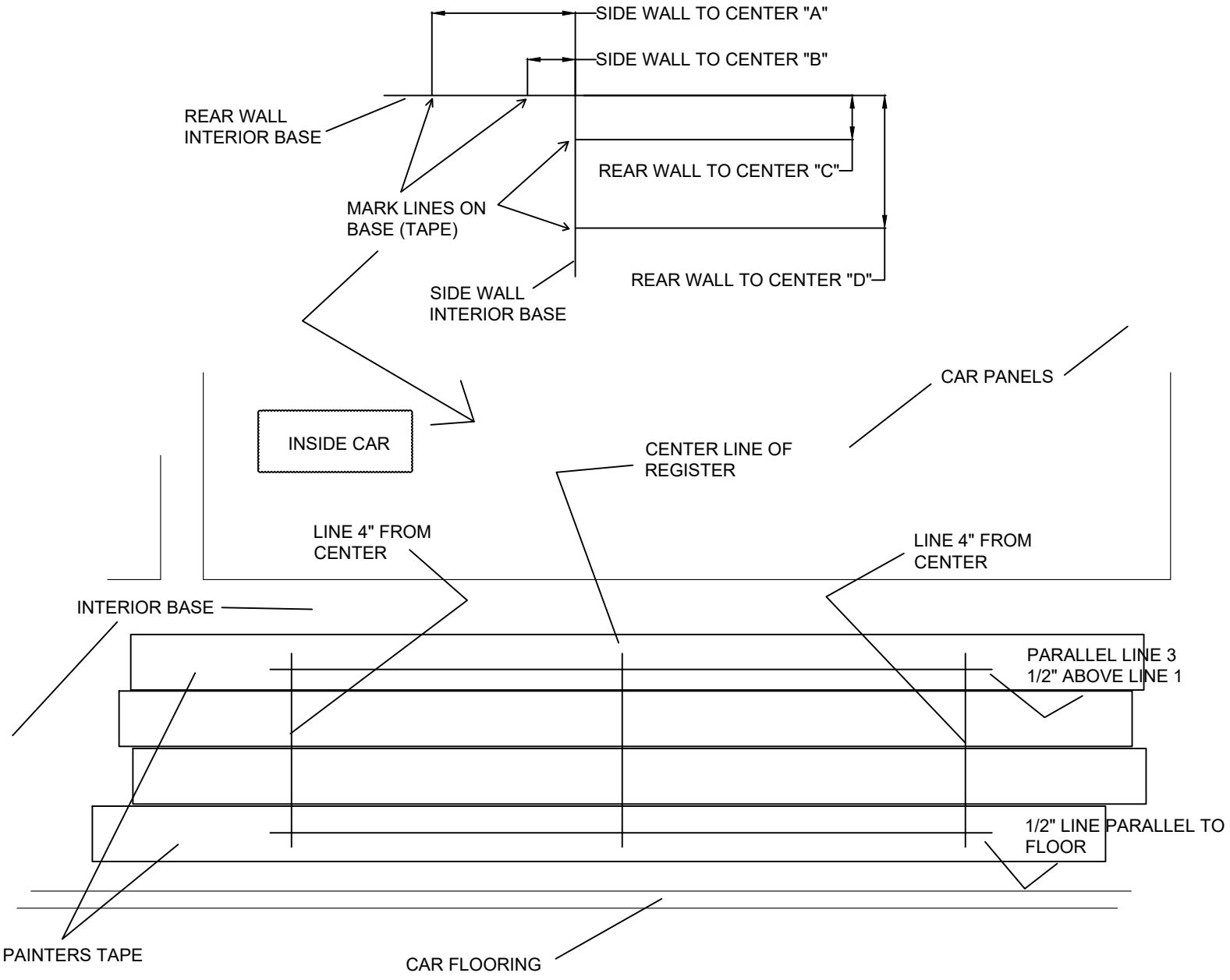


FIG 1.2


SIDE WALL TO CENTER "A"
SIDE WALL TO CENTER "B"
REAR WALL
INTERIOR BASE
REAR WALL TO CENTER "C"
MARK LINES ON
BASE (TAPE)
SIDE WALL
INTERIOR BASE
REAR WALL TO CENTER "D"
CAR PANELS
INSIDE CAR
CENTER LINE OF
REGISTER
LINE 4" FROM
CENTER
LINE 4" FROM
CENTER
INTERIOR BASE
PARALLEL LINE 3
1/2" ABOVE LINE 1
1/2" LINE PARALLEL TO
FLOOR
PAINTERS TAPE
CAR FLOORING

STEP 2: CAB REGISTER CUT OUT

Once location has been clearly marked out, verified and ensured correct, cutting shall proceed.

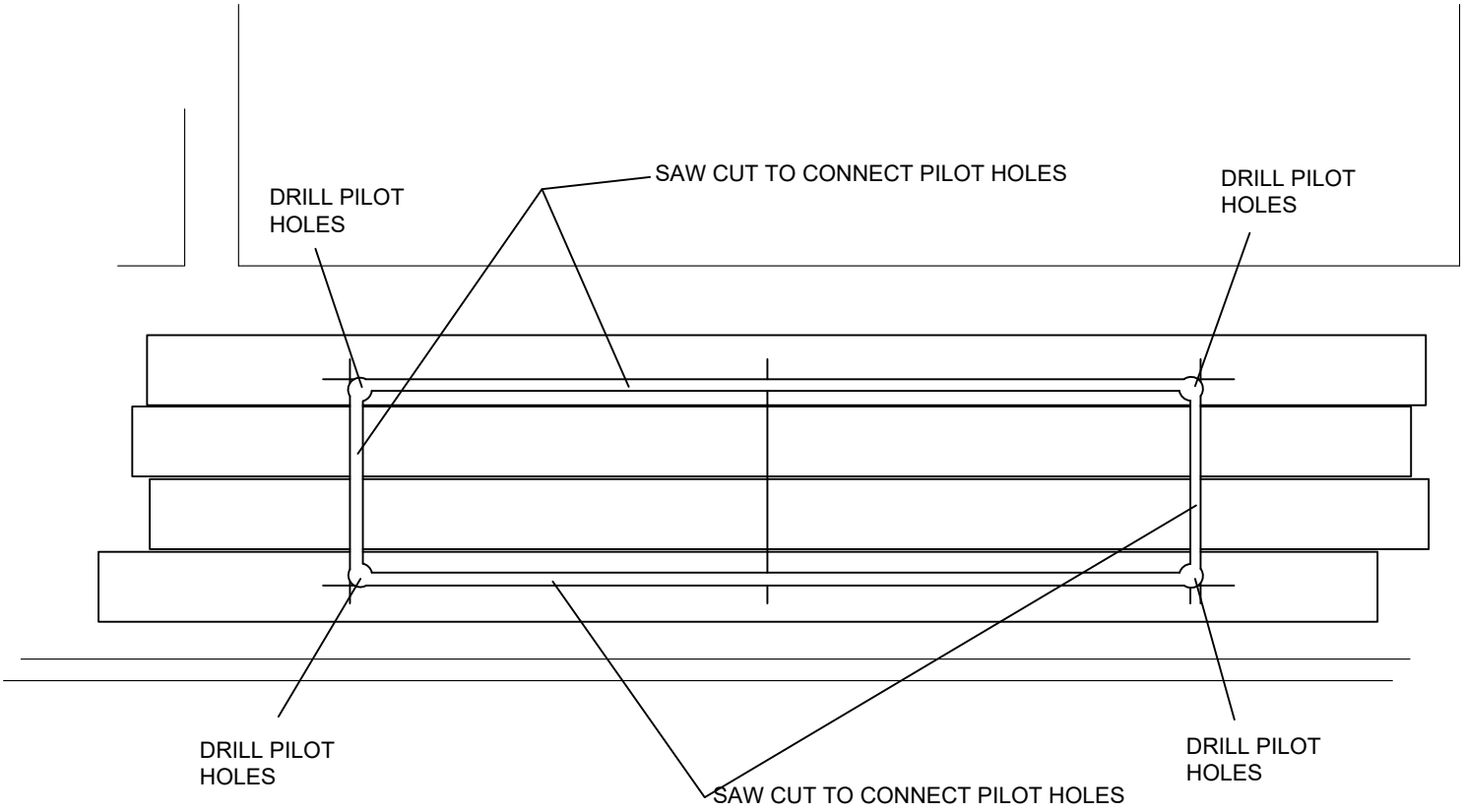
If using drill / jig saw, make four pilot holes in each corner of box drawn on base large enough in diameter to allow saw blade to pass through. Using jig saw, firmly keep base of saw flat to base surface to prevent machine jumping and carefully push saw to next hole maintaining your cut on the draw line. Continue until all four sides have been cut to create register hole. (SEE FIG 2.1)

If using cut saw (after verifying hot work permit, fire watch and Class E interruption required with site), carefully push saw through an area of the hole on one of the drawn lines. Push saw to edge of intersecting line and repeat until all cuts complete. SPECIAL CARE SHOULD BE MADE TO FIRE WATCH IN SHAFTWAY AND AT ADJACENT ELEVATORS AS APPLICABLE TO ENSURE SPARKS DO NOT CAUSE ANY FIRE RISK. (SEE FIG 2.1A)

***ADDITIONAL NOTE: Some may prefer the use of a reciprocating saw to make cuts. Though possible, due to the inaccurate possible nature of the machines operation and as the blade may extend to unsafe locations through cab into shaftway, we recommend utilizing extreme caution so as not to damage unintended cab materials or any shaftway equipment or devices.*

Once cutout has been made, we recommend deburring or smoothing out cut edges with metal file prior to removing tape for safety

FIG 2.1



STEP 3: INLET DUCT CUT OUT

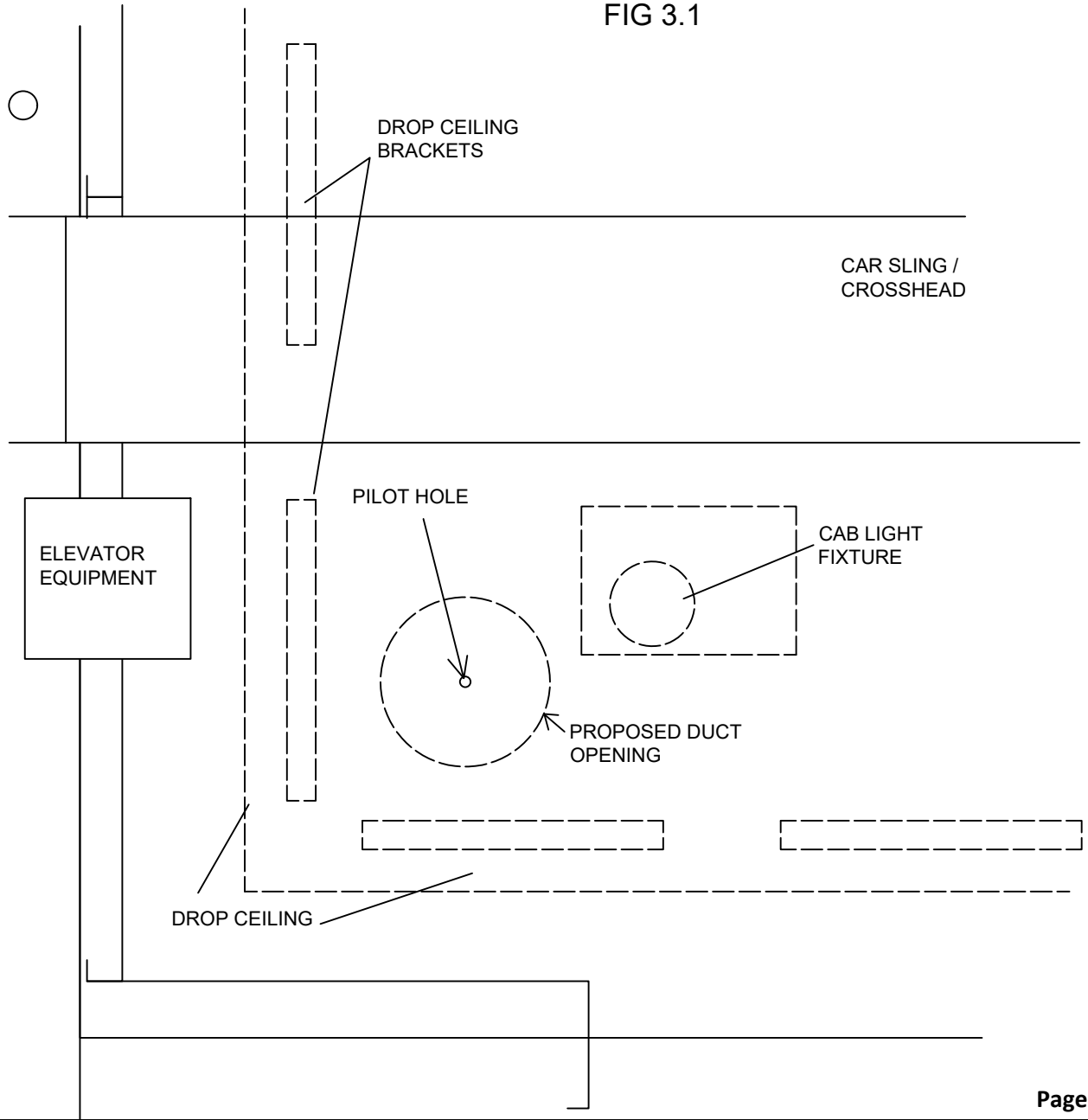
Using inlet duct collar as guide, mark out a 6" diameter circle on top of car in your predetermined location for duct. In center of circle, make a small diameter drill hole in approximate center. Knot a small piece of scrap wire and hang in cab through hole. Visually inspect and verify complete clearance of 6" hole through canopy to all corresponding drop ceiling components in car including brackets, light fixtures, etc to ensure no damage to drop ceiling upon drilling of hole. Adjust accordingly duct location to suit conditions as applicable. (SEE FIG 3.1)

Once hole location is verified, use proper final test drilled hole to center a 6" bi-metal hole saw with corded drill and apply moderate pressure to drill while in motion to cut hole. Rocking drill slightly while applying pressure will assist in creating hole penetration. TAKE EXTREME CAUTION IN PRESSURE AS WHEN HOLE IS COMPLETE, DRILL WILL RAPIDLY DROP THROUGH HOLE. MAINTAIN FIRM GRIP AND EXTREMELY FIRM FOOTING TO PREVENT DRILL FROM DAMAGING ANY EQUIPMENT BELOW AND FROMLOSING FOOTING ON TOP OF CAR. PRACTICE PROPER TOP OF CAR PROCEDURES ENSURING GUARD RAILING OR SIMILAR STEPS ARE TAKEN TO ENSURE SAFE WORK AREA.

Again, we recommend deburring or filing down of hole with metal file after cutting for safety.

Once hole is complete, wipe down a 2 inch area around hole on canopy with alcohol, peel tape sealant and apply duct collar over hole. Use supplied fasteners to permanently attach the duct collar to the canopy.

FIG 3.1

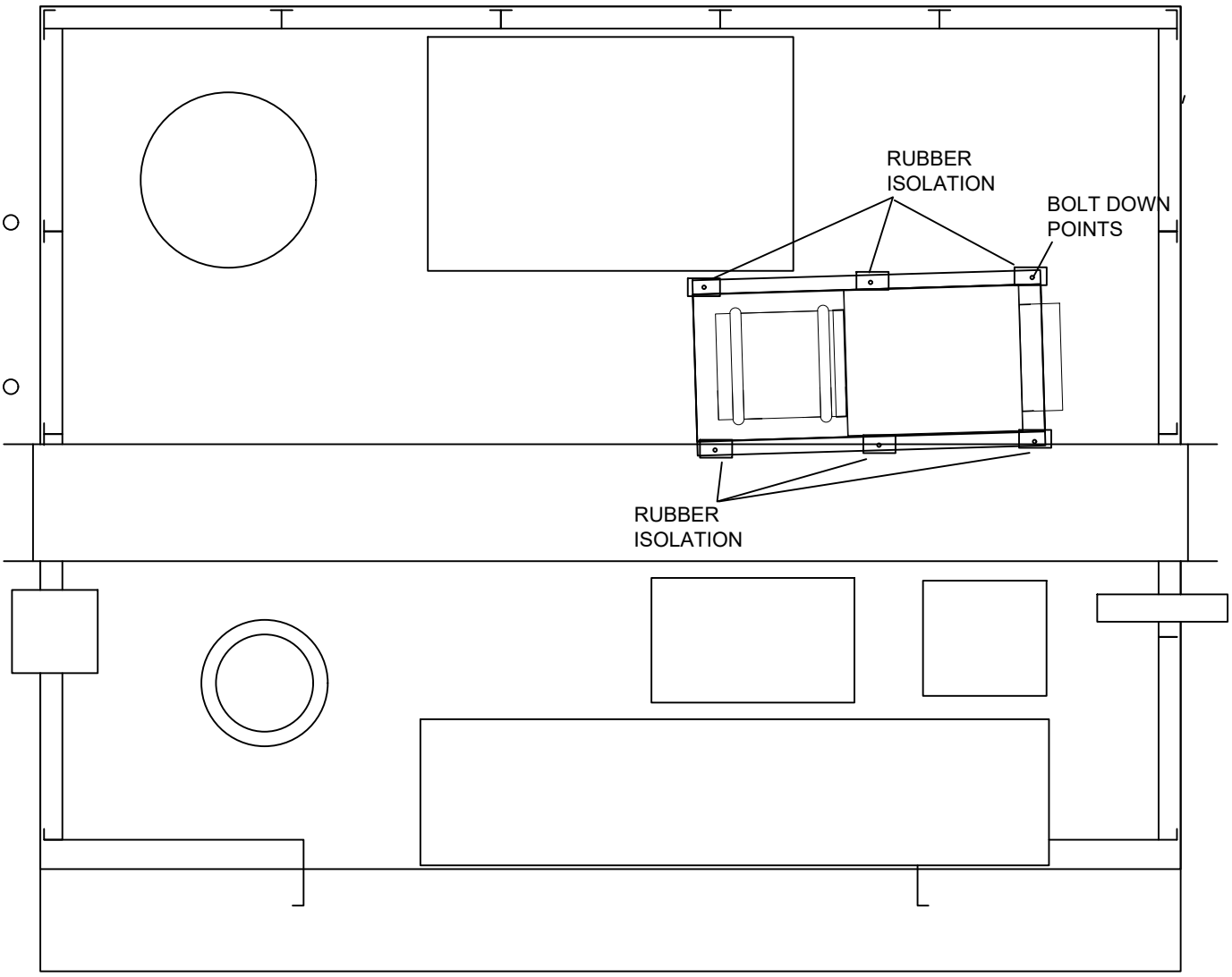


STEP 4: MOUNTING STERILYFT

In predetermined location not obstructing equipment, exit hatch or refuge space, peel and place included rubber isolation pads at all points where Sterilyft unit will meet top of canopy. If entire device will meet with canopy, place pads at each bolt location you will be installing. (SEE FIG 4.1)

Using included self drilling hardware, use drill and socket bit to drill set fasteners through Sterilyft mounting bracket and through car canopy (NOTE: Drilling a small pilot hole will ease installation and prevent over-torque or stripping of fastener). DO NOT OVER TIGHTEN AS STRIPPING OF FASTENER OR SHELL MATERIAL WILL OCCUR.

FIG 4.1



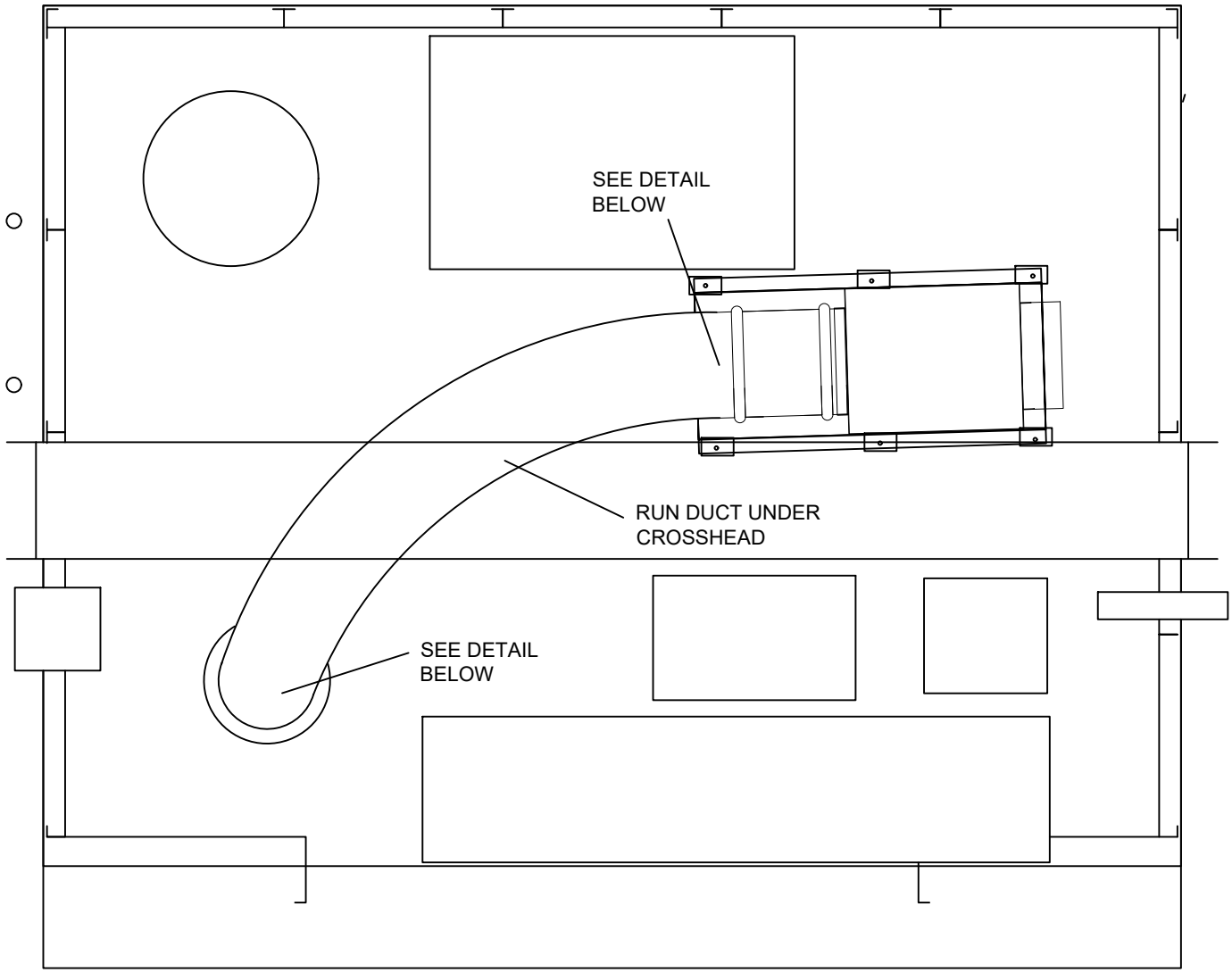
STEP 5: INTAKE DUCT CONNECTION

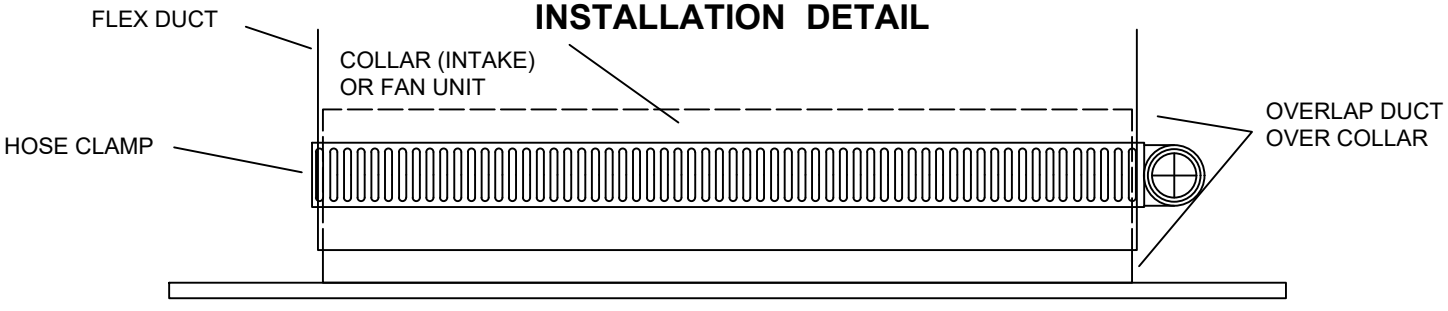
PRIOR TO MOVING ON, TAKE THE TIME TO VISUALLY INSPECT DUCT AND CONNECTIONS FOR NO OBSTRUCTIONS OR DAMAGES

Using 6" semi rigid flex duct and included hose clamps, attach duct to intake of Sterilyft unit. Attachment will be by tightening hose clamp on duct work over 6" port ahead of fan unit. Duct tape may be used to further seal connection. (SEE FIG 5.1)

Route duct work to inlet collar. Trim duct to eliminate excess duct using utility knife and wire cutter. Using hose clamps, attach duct to intake duct. (SEE FIG 5.2)

FIG 5.1 / 5.2





STEP 6: EXHAUST DUCT CONNECTION

SPECIAL SAFETY NOTE SHOULD BE TAKEN HERE AS TO THE DANGER OF ADJACENT ELEVATORS THAT MAY SHARE SHAFTWAY. PROPER SAFETY PROCEDURES NEED BE TAKEN TO ENSURE SAFE WORK ENVIRONMENT WITH RESPECT TO ELEVATOR EQUIPMENT IN SHAFTWAY AS WELL AS ADJACENT ACTIVE ELEVATOR

PRIOR TO MOVING ON, TAKE THE TIME TO VISUALLY INSPECT DUCT AND CONNECTIONS FOR NO OBSTRUCTIONS OR DAMAGES

Using supplied 1 ½" tubing, connect (4) tubes to extension ports leading off plenum on back of Sterilyft unit with supplied hose clamps. (SEE FIG 6.1)

Opposite end of tubes are to be connected to register baffle. CHECK TO ENSURE WHETHER OR NOT THE HOSES HAVE TO BE RUN BEHIND ANY OBSTRUCTIONS LIKE TIE RODS TO WHERE HOSES HAVE TO BE RUN BEHIND OBSTRUCTION PRIOR TO CONNECTING TO REGISTER BAFFLE.

Using included hose clamps as in attachment to plenum to attach to registers. (SEE FIG 6.2)

FIG 6.1

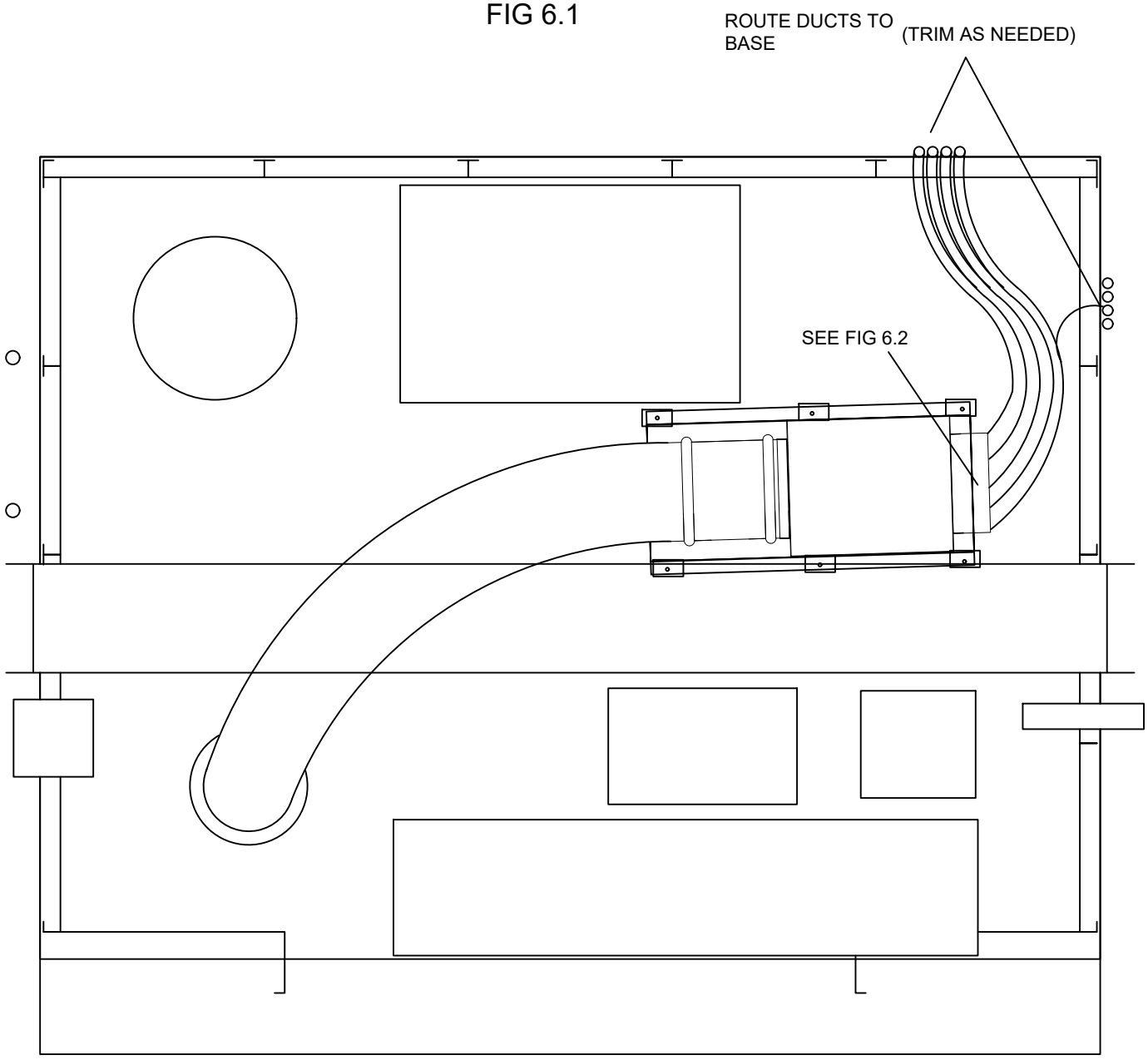


FIG 6.2A

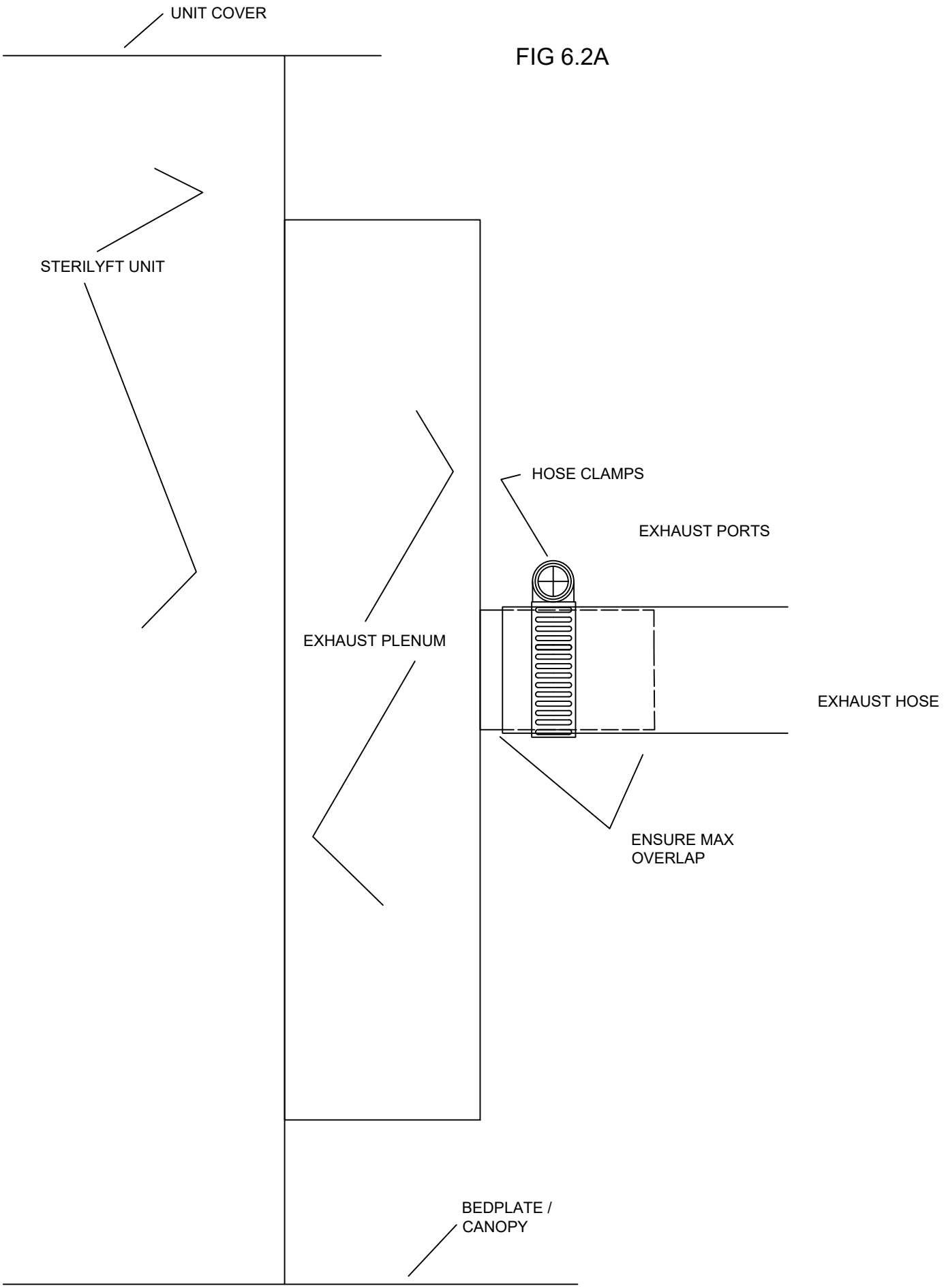
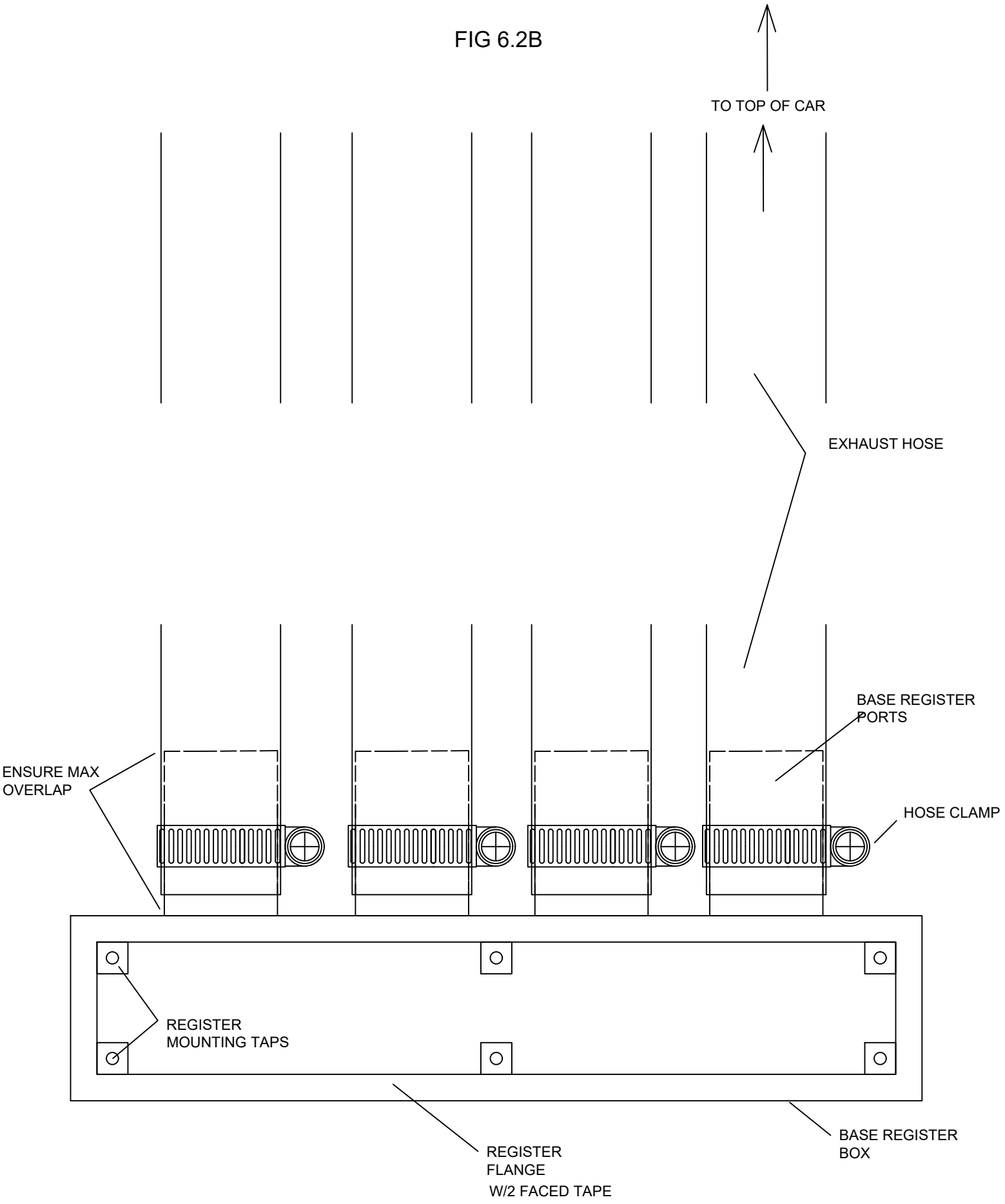

UNIT COVER
STERILYFT UNIT
HOSE CLAMPS
EXHAUST PORTS
EXHAUST PLENUM
EXHAUST HOSE
ENSURE MAX
OVERLAP
BEDPLATE /
CANOPY

FIG 6.2B


TO TOP OF CAR
EXHAUST HOSE
BASE REGISTER PORTS
ENSURE MAX OVERLAP
HOSE CLAMP
REGISTER MOUNTING TAPS
REGISTER FLANGE W/2 FACED TAPE
BASE REGISTER BOX

STEP 7: INSTALL REGISTERS

With one person on top of car and one person in car, maneuver register box to close proximity of register hole in cab base. From inside car, reach through the register hole to grip the register box. Peel away the protective coating to expose the two faced tape on the register box, align to hole in cab base and pull to temporarily attach in place. (SEE FIG 7.1)

Using decorative metal register cover, align fastener holes in cover to threaded mounting points in register box. Tighten included hardware with screw driver to attach register grill and seal register box to car shell wall. (SEE FIG 7.2)

FIG 7.1

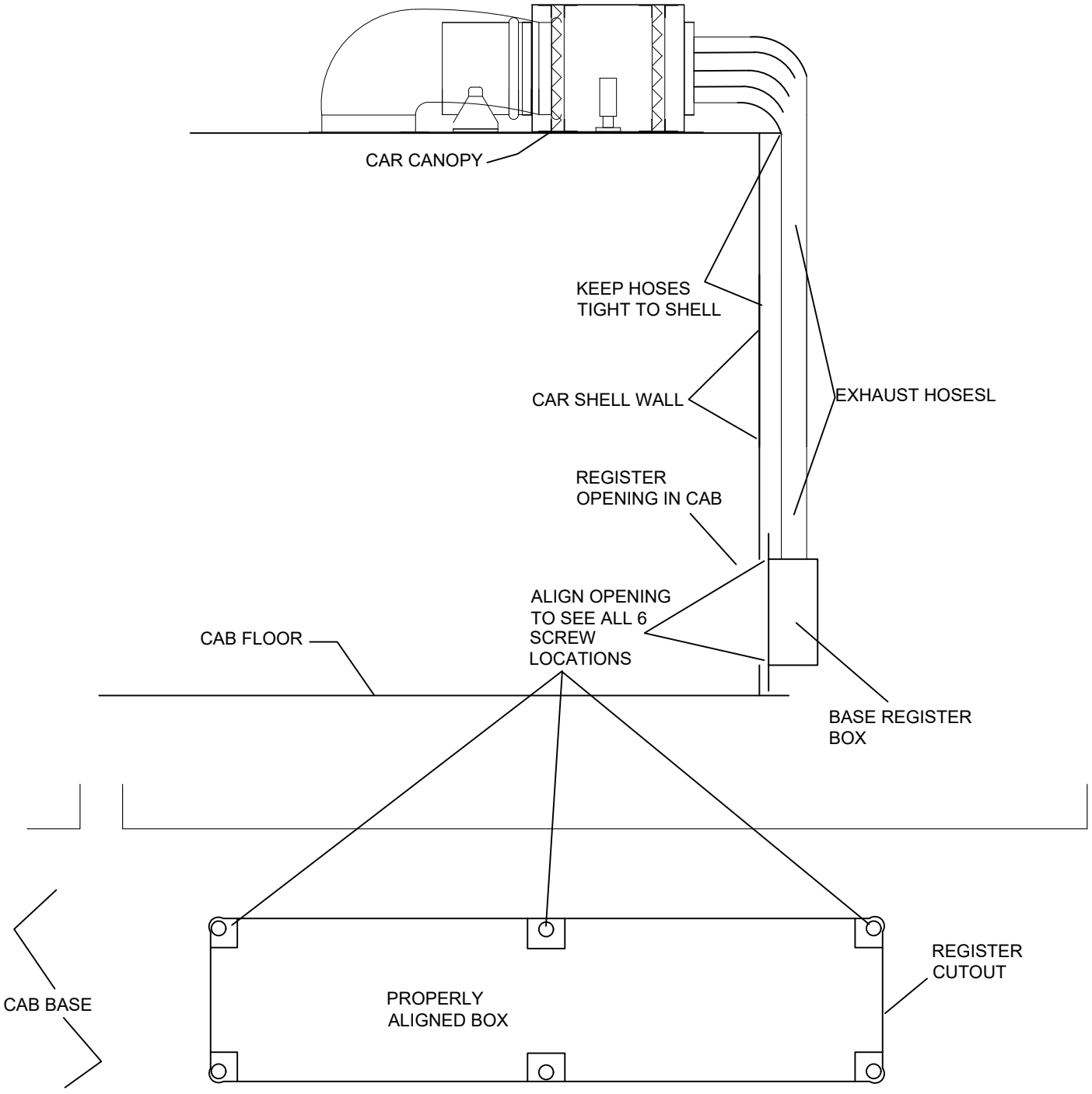
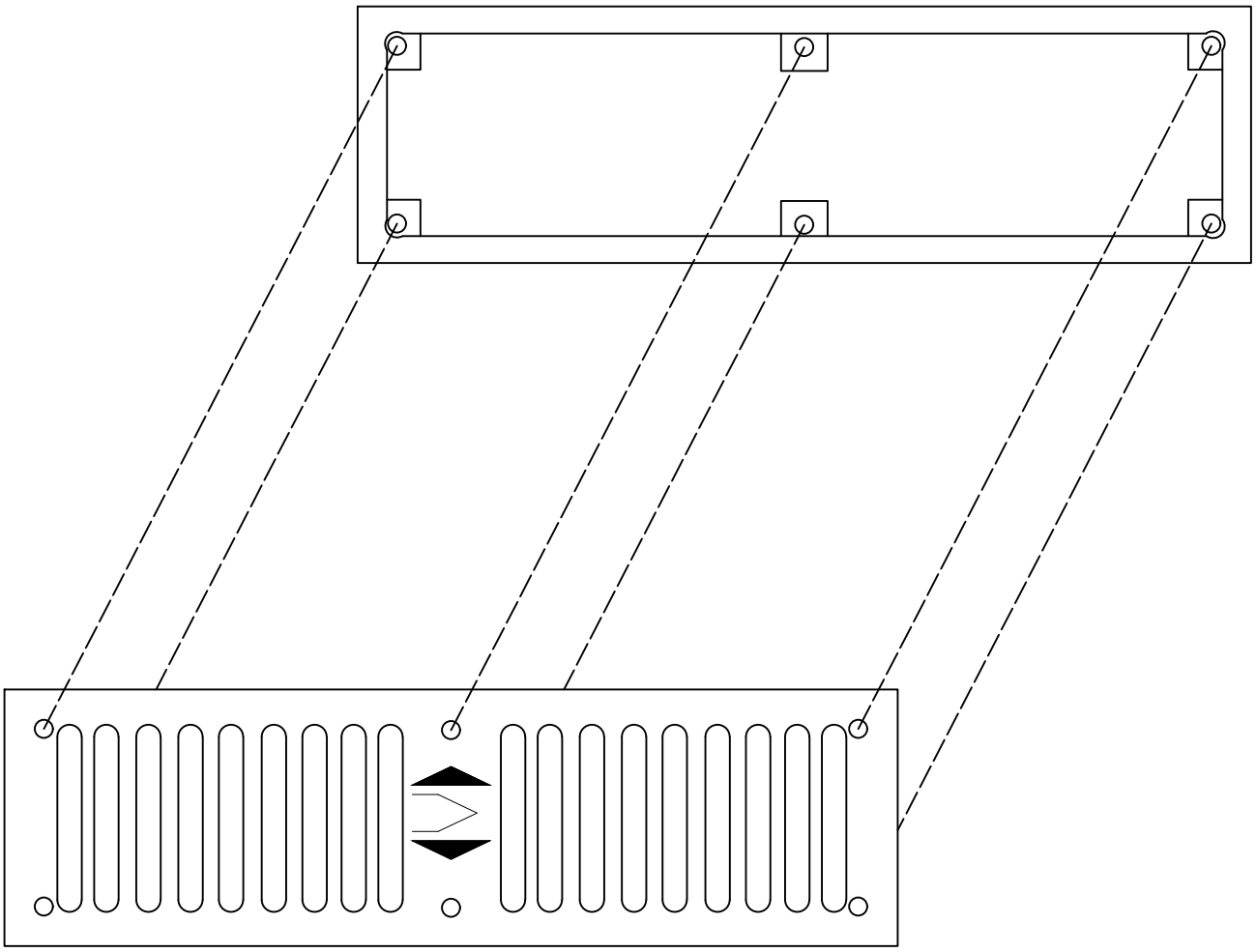


FIG 7.2

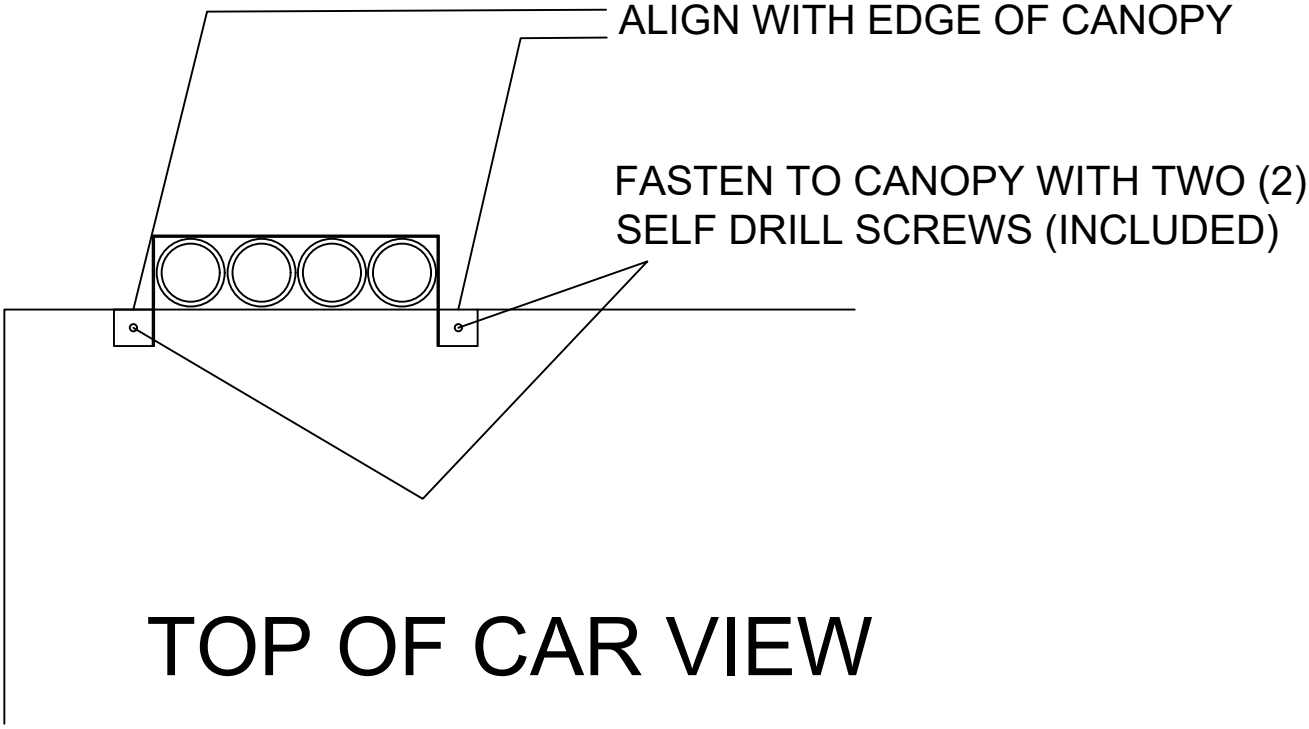


STEP 8: SYSTEM COMPLETION

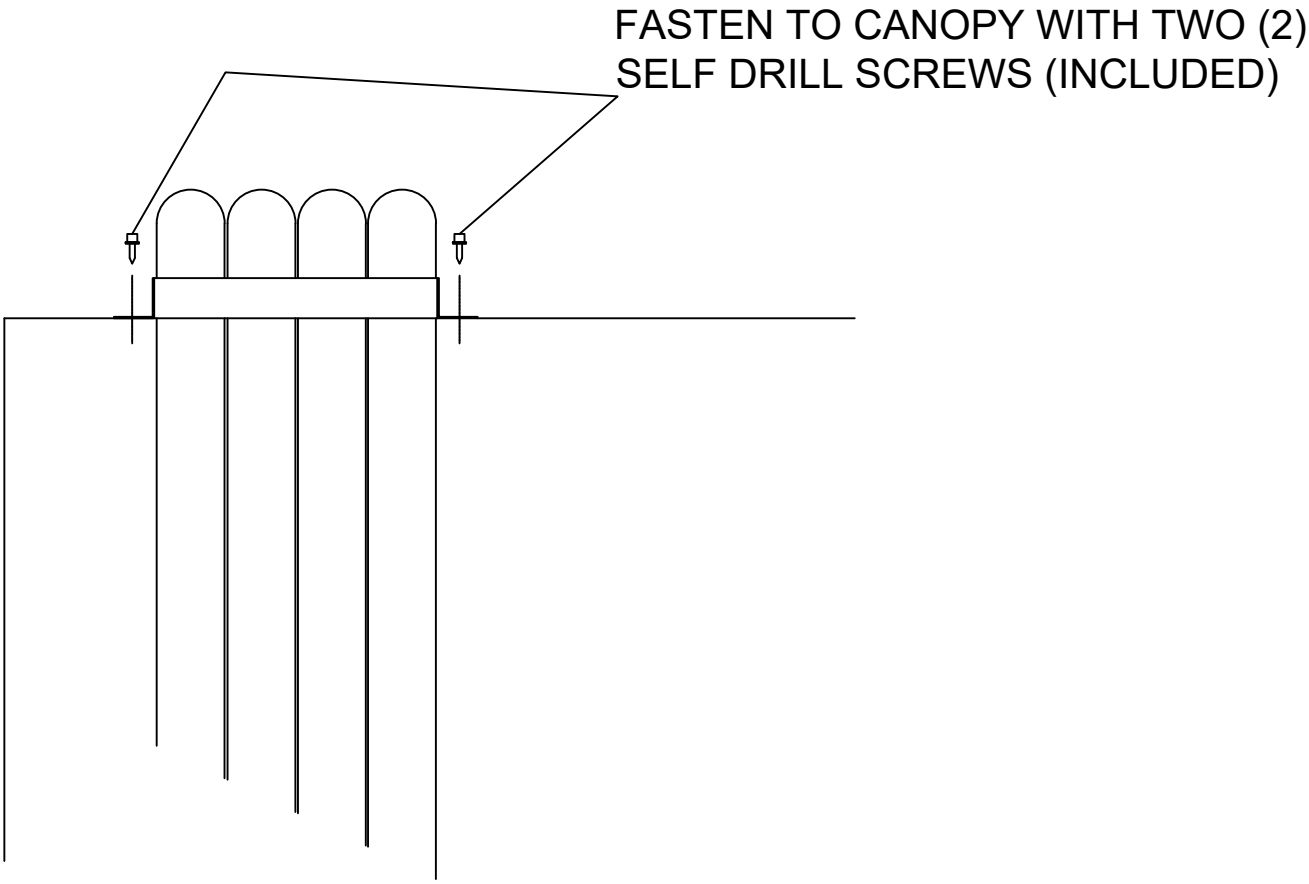
With all components now connected and installed properly, go over all connections to ensure fittings, fasteners and seals are tight. Should any seals in duct work appear to be loose or not properly sealed, readjustment may be done at this time or, application of duct tape to help hold seal together.

Make minor adjustments as needed to duct placement and power cord placement to take care in ensuring all runs are both safely in place and tucked away to prevent future tripping hazards or hazard during operation of the elevator. Sterilyft has included several straps and tie downs to utilize to help secure duct work and wiring in place and should be used at this point. We strongly suggest the tucking of power cable underneath car canopy flanges or ribs to ensure that the power cord does not create a trip hazard or become accidentally disconnected. (SEE FIG 8.1)

Once all system components have been checked for proper installation and all system components checked to be secure, please take some time to properly clean the work areas of all residual dirt, debris and waste to leave the installation safe, clean and professional.



TOP OF CAR VIEW



SIDE OF CAR VIEW