## PARTS LIST

Main PC board assembly, complete
Main board schematic
Power supply & harness assembly
Smart Target PC Board and Missed Dart Detector on Wood back; or Galaxy Darthead assembly
Smart Target interface cable-6 conductor phone type
Smart Target board schematic
Player card reader assembly
Coin door harness (for coin mechanisms only)
Cabinet decals
Service diagram and label (with adhesive backing)
Back Door Smart Target cover (7" x 11")
Back Door Smart Target board hole template
Switch/fuse hole template
Web (Dart Catcher)
Switch plate assembly

**Tools Required:**
1 1/4" drill bit & 9/64" drill bit
11/32" socket wrench
Utility knife
Electric drill
Wire cutters & wire crimper
Jigsaw
Phillips head screwdriver
Ruler
Flat black spray paint
Isopropyl alcohol

## ATTENTION!

**Important! Read these instructions very carefully. Only trained technicians should perform the conversion. For best results, follow instructions in the sequence they are presented. If any part of the procedure is not understood, contact Arachnid Technical Service at 1-800-435-8319.**

## OVERVIEW

This kit contains all parts necessary to convert a Series 6000, 6100, 6200, or 6300 dart game to the new GALAXY game. The conversion requires replacement of nearly every major component, including the power supply, Main PC board, target interface, and darthead (unless the darthead has already been upgraded). A set of cabinet decals to give the game the authentic GALAXY appearance also is included. These instructions apply to any 6000 Series game with 12V monitor in the lower cabinet; and Model 6300T with 110V monitor atop the upper cabinet.

If it is desired that a modem be installed, one of the following kits must be used: P/N 24614, P/N 37680, or P/N 37681 (once installed, the connection to the main board must be secured with a cable tie).

The approximate conversion time is 2 1/2 hours.

## INSTRUCTIONS

**UNPLUG THE GAME FROM THE ELECTRICAL POWER SOURCE!**

**I. MAIN COMPONENT TRAY**
1. Open the coin door and disconnect the coin door harness from the main harness.
   Open the component tray door and disconnect the ribbon cable to the darthead assembly from the Main PC board.
   Disconnect the monitor power line from the main harness.
   Disconnect the video line from the Main PC board.
   Disconnect the wires from the front panel switches. (Called the "Select" and "Enter" buttons).
   Disconnect lamp and speaker wires.
2. Remove three mounting screws and washers from the component tray bottom (two at right end, one at center front). If the game has a wood screw in the left front corner of the tray, remove it also.
3. Take the tray with the components out of the cabinet.
4. Unplug the harness from the Main PC board, and from both connectors on the power supply. Remove the harness, and discard it.
5. If the game is equipped with a Coin Credit Card (small PC board in front of the power supply), remove and discard it. Remove and discard all existing cable clips and ties from the tray.
6. Take the Main PC board out of the cabinet. **All 6000 Series Models:** The Main PC board is mounted to the inside of the component tray door with four screws, or four "snap on" mounting posts. Loosen the screws and remove the board. Or, squeeze the tab on each post with your fingers or a needle nose pliers and lift the corner of the board at the same time. Take the four lamps from the old Main PC board and put them in the new Main PC board. (These lamps signal to "Remove Darts" and "Throw Darts.") **Model 6300T:** The Main PC board is mounted to the tray with four "snap on" mounting posts. Squeeze the tab on each post with your fingers or a needle nose pliers and lift the corner of the board at the same time.
7. Mount the new Main PC board. Discard the old Main PC board.
8. Loosen the screws holding the power supply, remove it from the tray and discard it.

**II LAMP SWITCH AND FUSE**
1. If the game has a "coin credit options" sticker, cross it out with a black marker — it is no longer needed. On model 6300, this sticker is on the inside right wall of the component area; on model 6300T, it is on the inside of the component tray door.
2. Drill two 1-1/4" holes on the right side of the cabinet for the switch/fuse assembly. See Fig. 1 for dimensions; and use the paper template included in the kit to mark the locations.
3. Screw the switchplate to the inside of cabinet so the fuse and switch are showing through the holes.
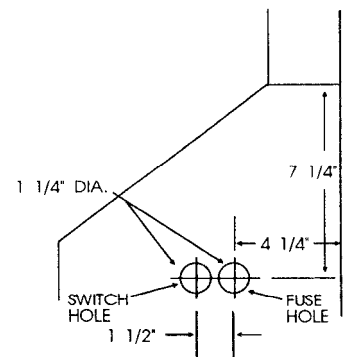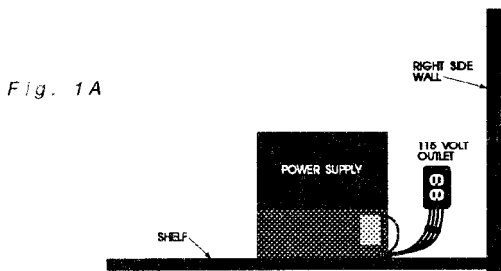
Fig. 1. Spot centers and drill two holes for the switch/fuse assembly

4. Put the component tray back in the cabinet and replace the mounting screws. **NOTE:** On the "T" models, the center mounting screw may not line up due to a longer GALAXY board. If so, extend hole in tray approx. 1/4" to the rear.

5. Mount the new power supply to the back wall of the cabinet using #6 x 3/8 screws provided. Attach ground wire to lower right screw terminal, followed by the lock washer (lock washer must be between the ring terminal and the chassis for proper ground). **Note: On some of the machines it may be necessary to cut out part of the old power supply mounting platform. Wooden platforms can be completely removed.**

6. Connect the Main PC board with the new main harness.

7. Drop the connector for the coin harness through the opening at the back of the tray.

8. Mount the 115V outlet next to the power supply with the wires downward,as shown in Fig. 1A.



*Fig. 1A*

9. Connect the leads from the main harness to the switch/fuse assembly, as shown in Fig. 1B.
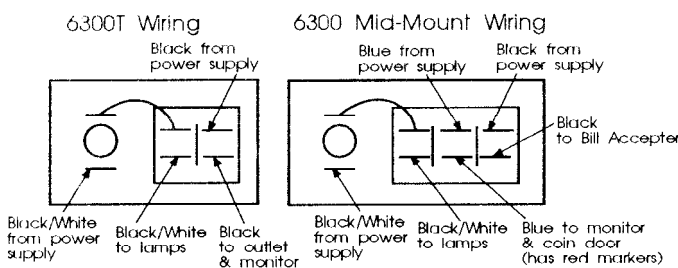


*Fig. 1B*

10. Connect the monitor power leads and the speaker wires to the main harness. Connect the video line to the Main PC board. Connect the harness to the Main PC Board.

11. After cleaning the tray with a dry cloth, secure the harness with gray cable clips and white wire ties provided. Figure 2 illustrates the general locations of the clips and ties on the tray.

## III DARTHEAD REPLACEMENT

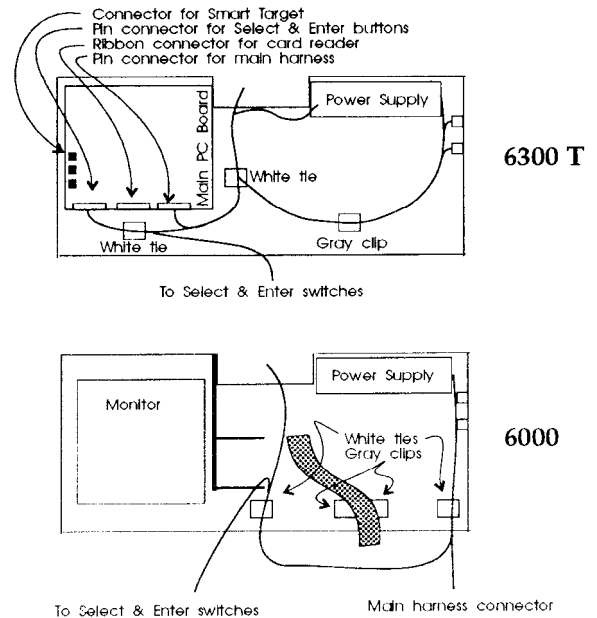1. Unlock and remove the back door from the upper cabinet.



*Fig. 2. Top drawing shows approximate placement of cable clips and wire ties for Model 6300T; bottom drawing shows placement for 6000 series.*

2. Cut a hole (5" wide x 9-1/2" high) in the center of the door. The top of the hole should be 9-3/4" from the top edge (See Figure 3). Use the paper template included in the kit. (This will provide clearance for the Smart Target board and the Missed Dart Detector on the back of the darthead assembly.)
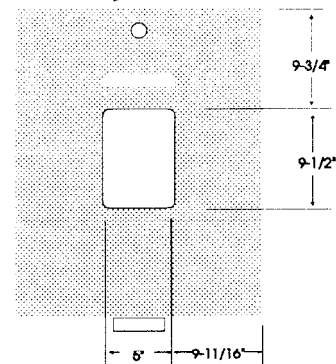


*Fig. 3. Cut opening in door for Smart Target clearance. Cover with thin panel.*

3. Place the [7" x 11"]Smart Target cover on the outside surface of the door over the hole. Secure it with four screws.

4. Remove four nuts from the back of the existing darthead assembly. Take the darthead assembly out of the cabinet. Remove the 1/4-20 studs. **If the game is equipped with a Super Spider darthead,** you need only replace the wood back (with Smart Target and Missed Dart Detector on it). Remove the two thumbnuts from the back and separate the backboard from the target. Put the new backboard on the target and replace the thumbnuts. **If the game is equipped with an older style darthead,** you must replace the entire darthead assembly. *Note: Do not put the darthead assembly back into the cabinet until after you have affixed the cabinet decals.*
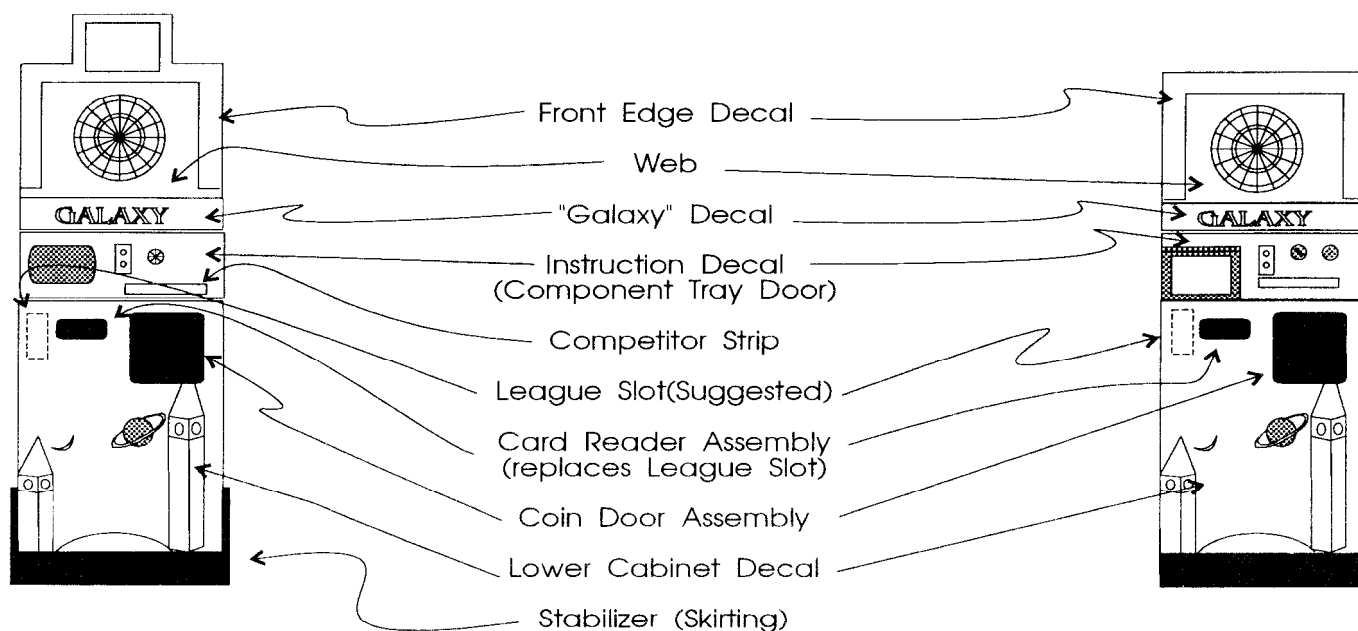
- Front Edge Decal
- Web
- "Galaxy" Decal
- Instruction Decal (Component Tray Door)
- Competitor Strip
- League Slot(Suggested)
- Card Reader Assembly (replaces League Slot)
- Coin Door Assembly
- Lower Cabinet Decal
- Stabilizer (Skirting)

*Fig. 4. Model 6300T — 110V monitor atop darthead*

*Models 6000 and 6300 — 12V monitor below darthead*

## IV CABINET DECALS

Do not attempt to remove existing decals. Place all new decals on top of existing decals (after cleaning the old decal with isopropyl alcohol).

**Upper Cabinet.**

1. Remove the "web" (dart catching surface) by removing the four Phillips-head screws (one in each of four corners). The web will need to be eased out under the bottom lamp shroud. Before applying the new decal, clean the old decal with isopropyl alcohol.

2. Peel the adhesive backing from the back of the "GALAXY" decal. Align decal with lower edge of upper cabinet and press into place.

3. Install the new "web" and secure with four screws and 1/4-20 studs. **Note:** If the speaker is blocking installation, it will be necessary to cut a notch in the upper left-hand corner of the web as shown in Figure 4A.
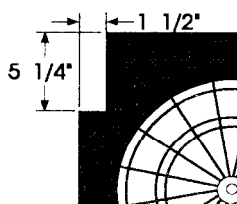


*Fig. 4A*

**Cut notch 5 1/4" x 1 1/2" as shown above**

4. Peel the adhesive backing from the Front Edge decal for the upper cabinet. Align the top corners and press the decal into position.

**Replace Darthead Assembly**

5. Put the darthead assembly in the cabinet and secure it with the old nuts. **NOTE:** Make sure the darthead fits freely. Some old webs may need to have the darthead opening scraped out.

Connect the [telephone type] cable to Smart Target board and run it down to the Main PC board. **CAUTION: Do not run the cable across the top of the Main PC board. On the model 6300, run the cable down the left side (when viewed from front) and under the door restraining strap.**

6. Remove the protective envelope from the missed dart detector, and clean the gold contacts with isopropyl alcohol and a soft cloth. These contacts should be cleaned regularly. Slide the sensitivity adjustment to the half way point (for initial setting).

7. Peel the backing off the service diagram (p/n 28226) and stick it on the inside of the back door. Replace the back door on the cabinet. (Note: On model 6300T, the diagram will also fit on the inside of the component tray door if trimmed around the strap hinge screw.)

8. If the service diagram is inside the back door as instructed in #7, peel the backing off the label "SEE INSIDE BACK DOOR FOR SERVICE DIAGRAM" and stick it in plain view in the component tray area.

**Component Tray Door**
**On 6000 and 6300 only:**

Before applying the new decal, clean the old decal with isopropyl alcohol. Peel the adhesive backing from the "Game Instructions" decal. Place the decal on top of the "Games List" over the monitor and press into position. (See Fig. 4).

**On 6300T only:**

1. Disconnect the "Select" and "Enter" switch wires. Remove the switches and the keylock from the door. Remove the competitor strip from the front of the door. Before applying the new decal, clean the old decal with isopropyl alcohol.

2. Peel adhesive backing from front decal (the decal with "Games List," see Fig. 4). Align switch and
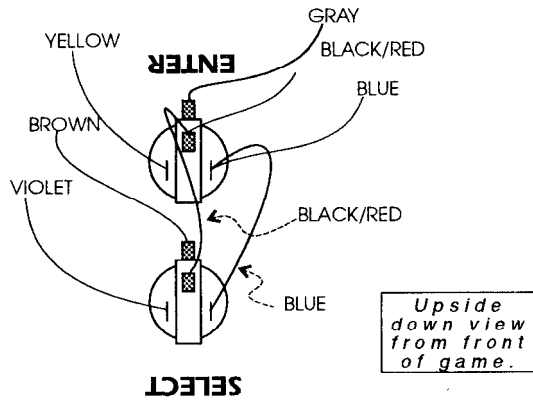
Fig. 5. Harness connections to "Select" and "Enter" switches.

keylock holes with diecuts in decal and press into position.
3. Peel adhesive backing from the new competitor strip and press into place.
4. Replace switches and keylock.
5. Re-connect the wires to the switches as shown in Fig. 5.

**Lower Cabinet**
1. Open the coin door and remove the coin box locking bar. Take the coin box out of the cabinet. Remove the carriage bolts and nuts from the coin door frame, and lift the entire door assembly out of the cabinet.
2. Remove the league envelope slot plate from the front of the cabinet. The plate is held on with four machine screws and nuts. Reach through the coin door opening to remove the nuts. The coin door harness clip is attached to the upper right screw, so this screw is longer than the other three.
2A. If you want to re-mount the league envelope slot (your option), cut a hole in the cabinet using the template provided in the kit. See Fig. 4 for suggested location.
3. **On 6300T only:** Remove the stabilizer (skirting) from the bottom of the cabinet (See Fig. 4). The stabilizer is secured to the cabinet with three screws on each side, and three on the front. Before applying the new decal, clean the old decal with isopropyl alcohol.
4. Peel adhesive backing from the new lower cabinet decal and lower extension decal.
5. Press the new decals on top of the existing decal (See Fig. 5). Replace coin door assembly. Replace stabilizer (on 6300T only).
6. Carefully cut matching holes in the decal for coin door, player card assembly, and league slot (if used). Drill the holes for the mounting screws and mount the slot.

## V. PLAYER CARD READER ASSEMBLY
1. Insert the card reader assembly into the [old] league slot opening on the front of the lower cabinet. Be sure to insert the card reader in the upright position. The arrow on the face plate should be above the slot **pointing downward.**
2. Mount the card reader assembly to the cabinet with the screws and nuts taken from the league

slot plate. Don't forget to attach the coin door harness cable clip on the upper right screw.
3. Feed the ribbon cable up through the hole near the back of the cabinet and connect it to the Main PC board. See the inservice diagram (on inside back door) for location of connector on PC board.

## VI. COIN DOOR
1. Remove the existing coin door harness and discard it.
   *Note: The new harness has push-on connectors. So, if the existing coin door harness has soldered connections, the connecting tabs must be cleaned with solder wick before installing the new harness.*
2. If the door has a slam switch (near the latch), remove and discard it. Remove the slide switch (test switch) from the upper right corner of the door and discard it. (The Galaxy Test Switch is located on the Main PC Board.) Do not put the nuts back on the screws until you attach the green wire of the new coin door harness. Using an ohmmeter, check for continuity from the green wire to the metal housings of each coin mechanism. If continuity is poor, scrape a little paint off the door from behind the bolted areas of the coin mech housings. If continuity is still poor, an additional wire may be run from the green wire to a bolt on each coin mech housing to solve the problem.
3. Put the coin door assembly in the cabinet and fasten it with the carriage bolts and nuts. Put the coin box in the cabinet and latch it.
4. Attach the new harness to the coin mechanisms and counter as shown in Fig. 6. Note the black lead is connected to the front tab of both coin mechanisms; and the violet and gray/black leads are connected to the center tabs. Nothing should be connected to the rear most tabs.
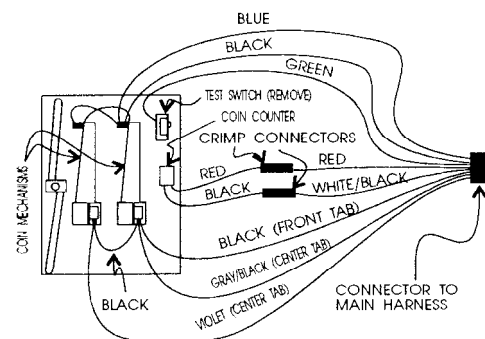5. Connect the coin door harness to the main harness.



Fig. 6. Coin door harness connections

**Conversion complete. Plug the game into an AC outlet.**

Refer to the Galaxy manual for game setup, test and operation. If there are any questions, call Arachnid, Inc. at 1-800-435-8319, and ask for Technical Service.

**Arachnid, Inc. Part Number: 37608 Rev. A**

# 6000 or 6300 to GALAXY: Target Lamp Installation Check

**WARNING:** Disconnect all power to the game ~~and remove all target lamp bulbs~~ before attempting any necessary updates.

NOTE: The target illumination lamps are *40 watts maximum!*

Please perform the checks outlined below. If the lamp reflector foil and air slot or holes are not present or properly placed, damage to the shroud decal may result.

## Proceed as follows:

1.  Remove the plastic lamp deflectors from the grooves on either side of the (3) lamps. Check to be sure that there is a silver foil piece behind each lamp, and that it is properly positioned in the corner of the shroud. It should look like Figure 1.

2.  Look at the lamp on the top of the game. There should be a long cigar-shaped opening cut out of the wood at the top of the game just behind the lamp. This opening is there to provide an escape for heat. If the opening isn't there, then holes should be drilled to take its place.
    a. Drill 6 holes as shown in Figure 2. The holes should be 1/2" in diamater, and drilled on 1" centers. They should be drilled 2 1/4" in from the front of the shroud on the top of the game.
    b. Make sure that the holes are between the lamp foil and the deflector groove, so that when the deflector is installed, the holes are inside the deflector area.
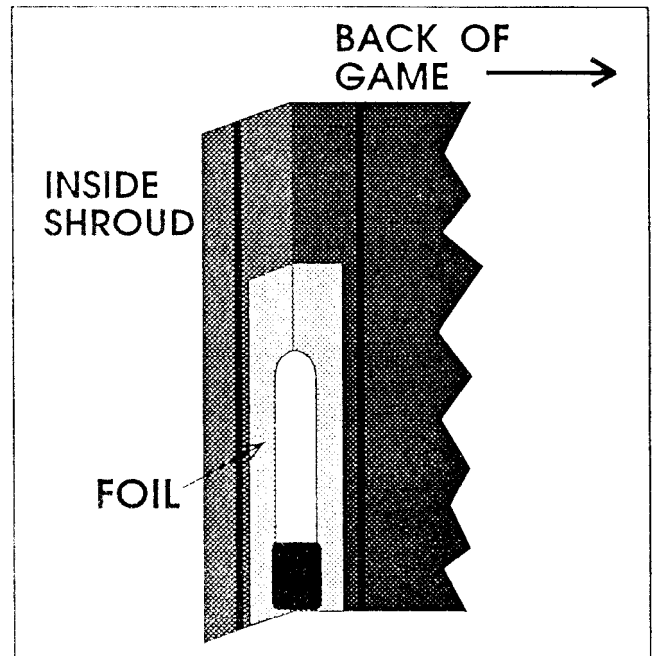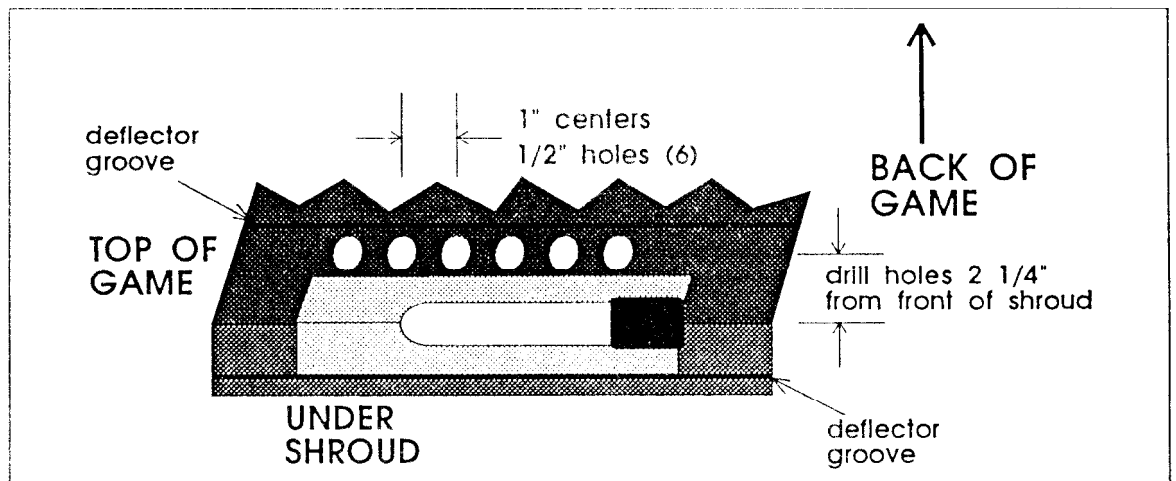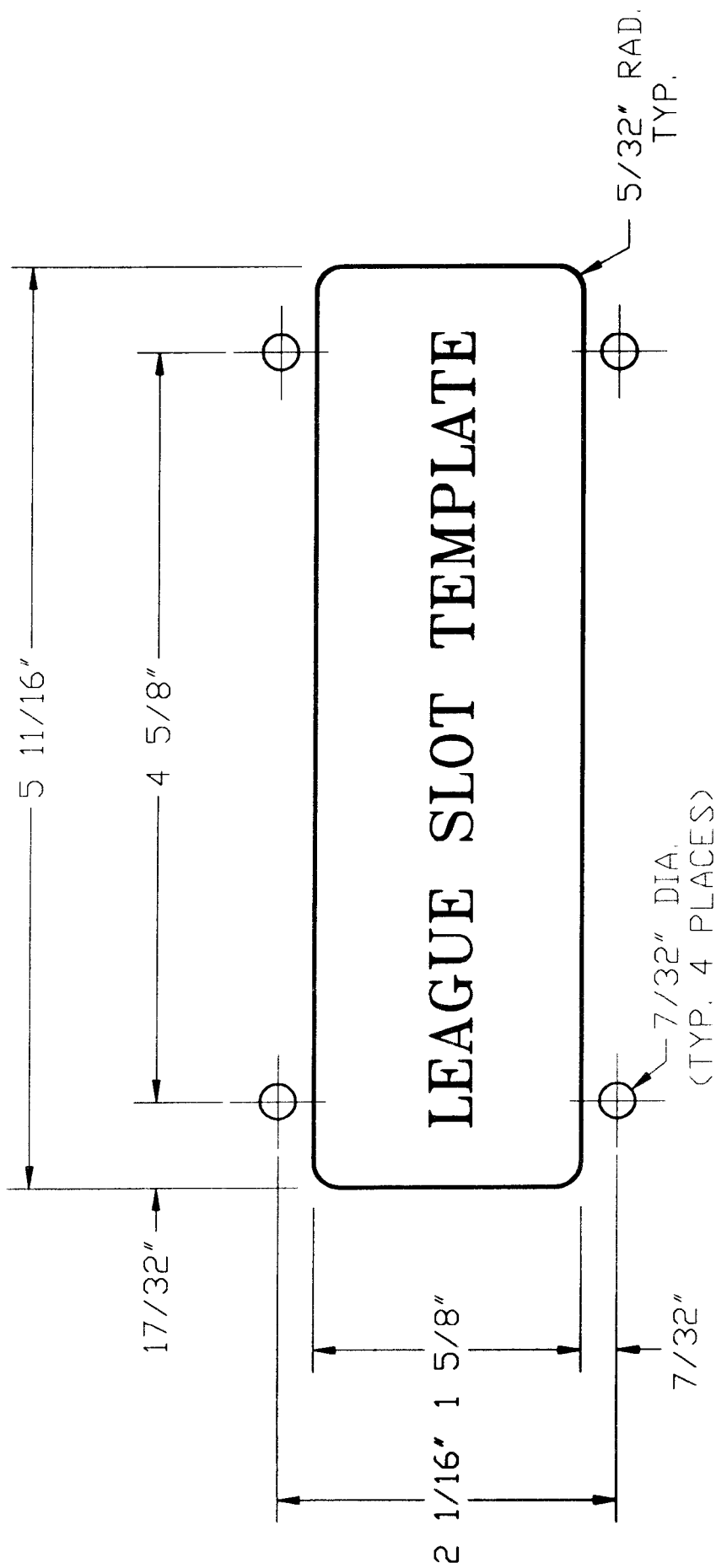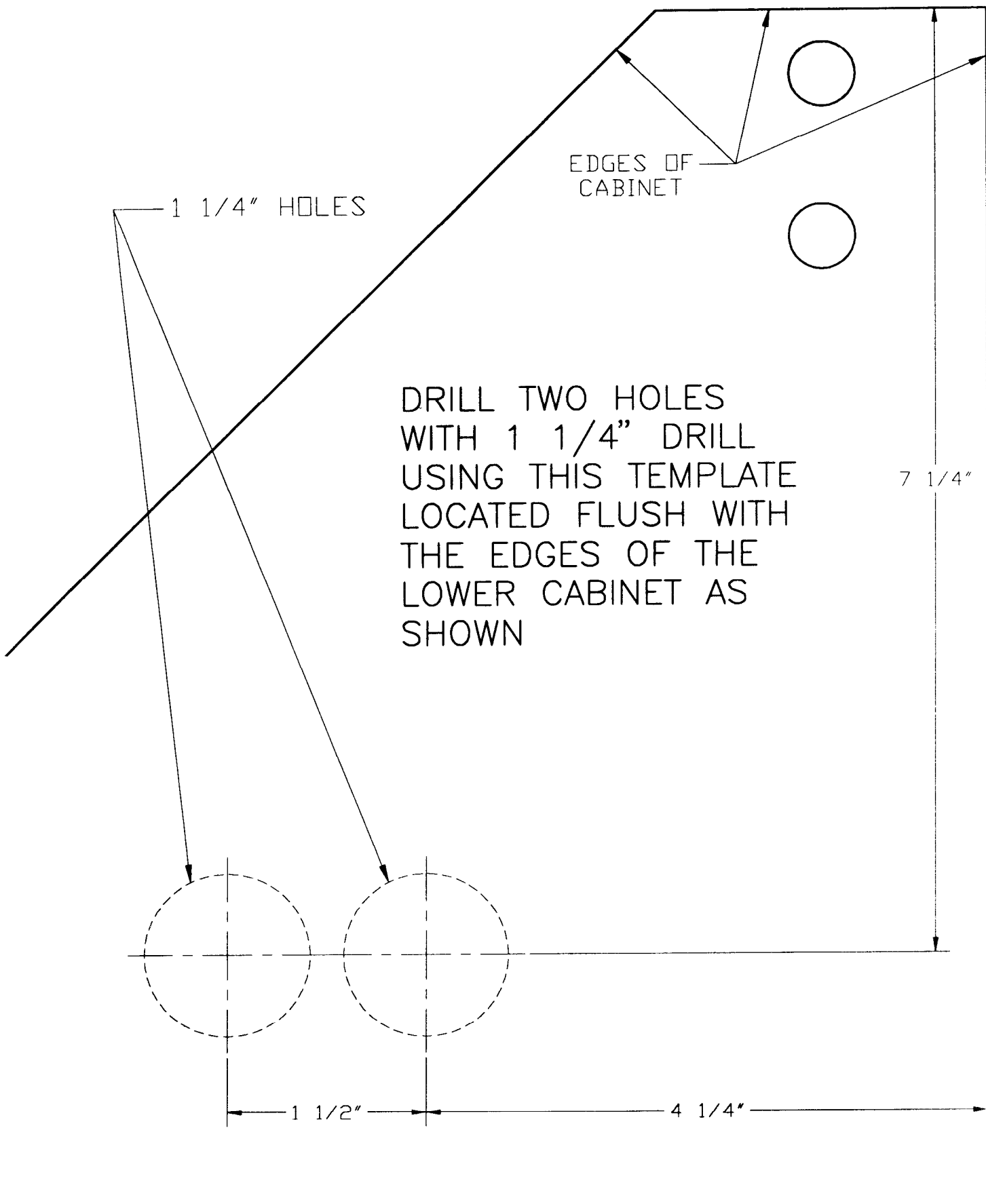


Figure 1



Figure 2

**If there are any questions, call Arachnid, Inc. at 1-800-435-8319, and ask for Technical Service.**

# LEAGUE SLOT TEMPLATE

5/32" RAD.
TYP.

5 11/16"

4 5/8"

17/32"

7/32" DIA.
(TYP. 4 PLACES)

2 1/16"  1 5/8"

7/32"

1 1/4" HOLES

EDGES OF
CABINET

DRILL TWO HOLES
WITH 1 1/4" DRILL
USING THIS TEMPLATE
LOCATED FLUSH WITH
THE EDGES OF THE
LOWER CABINET AS
SHOWN

7 1/4"

1 1/2"

4 1/4"

SWITCH PLATE OPENING
18343 REV. A

# CUT OUT OPENING USING THIS TEMPLATE LOCATED ON THE CABINET BACK DOOR AS SHOWN BELOW



CUT OUT

9 3/4"

9 1/2"

5"

12 3/16"

TI BOARD OPENING
17233 REV. A