

Desktop
Telephony
from  **BLACK BOX**



Combo Headset

HS117A

**FEDERAL COMMUNICATIONS COMMISSION
AND
INDUSTRY CANADA
RADIO FREQUENCY INTERFERENCE STATEMENTS**

This equipment generates, uses, and can radiate radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio communication. It has been tested and found to comply with the limits for a Class A computing device in accordance with the specifications in Subpart J of Part 15 of FCC rules, which are designed to provide reasonable protection against such interference when the equipment is operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference, in which case the user at his own expense will be required to take whatever measures may be necessary to correct the interference.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This digital apparatus does not exceed the Class A limits for radio noise emission from digital apparatus set out in the Radio Interference Regulation of Industry Canada.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de classe A prescrites dans le Règlement sur le brouillage radioélectrique publié par Industrie Canada.

FCC REQUIREMENTS FOR TELEPHONE-LINE EQUIPMENT

1. The Federal Communications Commission (FCC) has established rules which permit this device to be directly connected to the telephone network with standardized jacks. This equipment should not be used on party lines or coin lines.
2. If this device is malfunctioning, it may also be causing harm to the telephone network; this device should be disconnected until the source of the problem can be determined and until the repair has been made. If this is not done, the telephone company may temporarily disconnect service.
3. If you have problems with your telephone equipment after installing this device, disconnect this device from the line to see if it is causing the problem. If it is, contact your supplier or an authorized agent.
4. The telephone company may make changes in its technical operations and procedures. If any such changes affect the compatibility or use of this device, the telephone company is required to give adequate notice of the changes.
5. If the telephone company requests information on what equipment is connected to their lines, inform them of:
 - a. The telephone number that this unit is connected to.
 - b. The ringer equivalence number.
 - c. The USOC jack required: RJ-11C.
 - d. The FCC registration number.

Items (b) and (d) can be found on the unit's FCC label. The ringer equivalence number (REN) is used to determine how many devices can be connected to your telephone line. In most areas, the sum of the RENs of all devices on any one line should not exceed five (5.0). If too many devices are attached, they may not ring properly.

6. In the event of an equipment malfunction, all repairs should be performed by your supplier or an authorized agent. It is the responsibility of users requiring service to report the need for service to the supplier or to an authorized agent.

CERTIFICATION NOTICE FOR EQUIPMENT USED IN CANADA

The Canadian Department of Communications label identifies certified equipment. This certification means that the equipment meets certain telecommunications-network protective, operation, and safety requirements. The Department does not guarantee the equipment will operate to the user's satisfaction.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. In some cases, the company's inside wiring associated with a single-line individual service may be extended by means of a certified connector assembly (extension cord). The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment should be made by an authorized Canadian maintenance facility—in this case, your supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

Users should ensure for their own protection that the electrical ground connections of the power utility, telephone lines, and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.

CAUTION:

Users should not attempt to make such connections themselves, but should contact the appropriate electric inspection authority, or electrician, as appropriate.

The LOAD NUMBER (LN) assigned to each terminal device denotes the percentage of the total load to be connected to a telephone loop which is used by the device, to prevent overloading. The termination on a loop may consist of any combination of devices, subject only to the requirement that the total of the load numbers of all the devices does not exceed 100.

NORMAS OFICIALES MEXICANAS (NOM) ELECTRICAL SAFETY STATEMENT

INSTRUCCIONES DE SEGURIDAD

1. Todas las instrucciones de seguridad y operación deberán ser leídas antes de que el aparato eléctrico sea operado.
2. Las instrucciones de seguridad y operación deberán ser guardadas para referencia futura.
3. Todas las advertencias en el aparato eléctrico y en sus instrucciones de operación deben ser respetadas.
4. Todas las instrucciones de operación y uso deben ser seguidas.
5. El aparato eléctrico no deberá ser usado cerca del agua—por ejemplo, cerca de la tina de baño, lavabo, sótano mojado o cerca de una alberca, etc..
6. El aparato eléctrico debe ser usado únicamente con carritos o pedestales que sean recomendados por el fabricante.

7. El aparato eléctrico debe ser montado a la pared o al techo sólo como sea recomendado por el fabricante.
8. Servicio—El usuario no debe intentar dar servicio al equipo eléctrico más allá a lo descrito en las instrucciones de operación. Todo otro servicio deberá ser referido a personal de servicio calificado.
9. El aparato eléctrico debe ser situado de tal manera que su posición no interfiera su uso. La colocación del aparato eléctrico sobre una cama, sofá, alfombra o superficie similar puede bloquea la ventilación, no se debe colocar en libreros o gabinetes que impidan el flujo de aire por los orificios de ventilación.
10. El equipo eléctrico deber ser situado fuera del alcance de fuentes de calor como radiadores, registros de calor, estufas u otros aparatos (incluyendo amplificadores) que producen calor.
11. El aparato eléctrico deberá ser conectado a una fuente de poder sólo del tipo descrito en el instructivo de operación, o como se indique en el aparato.
12. Precaución debe ser tomada de tal manera que la tierra física y la polarización del equipo no sea eliminada.
13. Los cables de la fuente de poder deben ser guiados de tal manera que no sean pisados ni pellizcados por objetos colocados sobre o contra ellos, poniendo particular atención a los contactos y receptáculos donde salen del aparato.
14. El equipo eléctrico debe ser limpiado únicamente de acuerdo a las recomendaciones del fabricante.
15. En caso de existir, una antena externa deberá ser localizada lejos de las líneas de energía.
16. El cable de corriente deberá ser desconectado del cuando el equipo no sea usado por un largo periodo de tiempo.

17. Cuidado debe ser tomado de tal manera que objetos líquidos no sean derramados sobre la cubierta u orificios de ventilación.
18. Servicio por personal calificado deberá ser provisto cuando:
 - A: El cable de poder o el contacto ha sido dañado; u
 - B: Objetos han caído o líquido ha sido derramado dentro del aparato; o
 - C: El aparato ha sido expuesto a la lluvia; o
 - D: El aparato parece no operar normalmente o muestra un cambio en su desempeño; o
 - E: El aparato ha sido tirado o su cubierta ha sido dañada.

TRADEMARKS USED IN THIS MANUAL

UL® is a registered trademark of Underwriters Laboratories, Inc.

Any other trademarks mentioned in this manual are acknowledged to be the property of the trademark owners.

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1. Specifications

Receive:

Speaker—Dynamic

Input Impedance—300 ohms

Frequency Response—300 to 3000 Hz

Automatic Gain Control (AGC)—30 dB

Volume Control Range—
24 dB in 3 dB increments

Maximum Output—114 dB

Transmit:

Microphone—Noise-canceling electret

Frequency Response—300 to 3000 ohms

Distortion—Less than 5%

Current Consumption—10 to 120 mA

Operating Voltage—3 V

General:

Compliance—UL® 1459, FCC Part 68

Operating Temperature—32 to 122°F (0 to 50°C)

Polarity—Non-polar

Dielectric Withstand Voltage—7 kv

Mute—Push on/off switch, 50 dB minimum

Battery—Lithium 3 V CR3032 or DL CR2032

Battery Life—600 hours (CR3032), 200 hours (CR2032)

Weight—2.4 oz. (68 g)

2. Introduction

2.1 Description

The Combo Headset with built-in amplifier and headset/handset switch features:

- Universal telephone interface for compatibility with most domestically available phone systems.
- Flexible, non-kink microphone boom.
- Voice-shaping technology for clear conversations.
- Click-stop headband for comfort.

2.2 Components

- A. Adjustable Headband
- B. Stabilizer Cushion

C. Receiver Housing

1. Volume Control
2. Mute Button
3. Ear Cushion Mounted on Earplate

D. Flexible Microphone Boom

E. Microphone with Foam Cover

F. Battery

G. Battery Adapter

H. Quick Disconnect Coil Cord

I. Clothing Clip

J. Wall Hook

K. Headset/Handset Switch

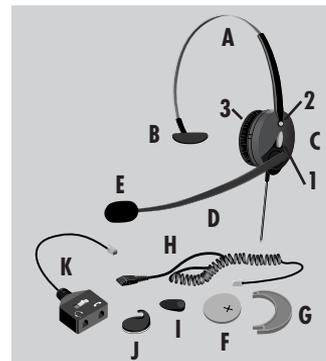


Figure 2-1. Components.

3. Installation

3.1 Connecting to Your Telephone

1. First, connect the headset cord to the Quick Disconnect coil cord (Figure 3-1).

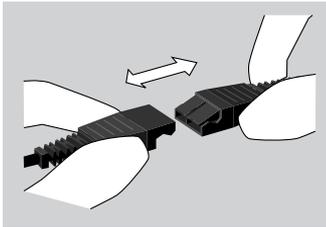


Figure 3-1. Connecting the Headset Cord to the Quick Disconnect.

2. If your telephone has a socket for a headset connection, insert the modular plug at the end of the headset cord into the headset port on the telephone. If your telephone does not have a

port for a headset connection, disconnect the handset cord from the telephone. Insert the modular plug at the end of the headset cord into the handset port. (Figure 3-2).

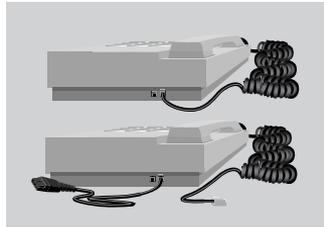


Figure 3-2. Inserting the Modular Plug.

3. If you have purchased the optional headset/handset switch, install by following these steps (Figure 3-3):
 - a. Connect the headset to the headset port on the switch.
 - b. Connect the cord from the

handset to the handset port on the switch.

- c. Connect the handset port on your telephone to the telephone port on the switch with the modular cord provided with the switch.
- d. Select the headset or handset mode as needed.



Figure 3-3. Installing the Headset/Handset Switch.

WARNING

The headset contains its own built-in amplifier circuit. Do not connect the headset to any headset amplifier. The headset

is equipped with a quick disconnect for convenience only.

3.2 Inserting the Battery

1. The battery chamber is located on the side of the receiver. To open the battery chamber, use your fingernail to pull the small flap up (Figure 3-4).

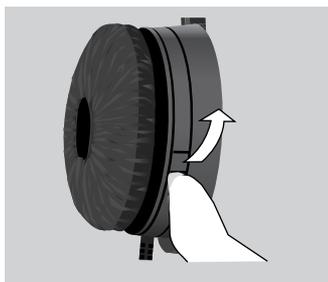


Figure 3-4. Opening the Battery Chamber.

2. When the flap is open, remove the chamber from the headset (Figure 3-5).

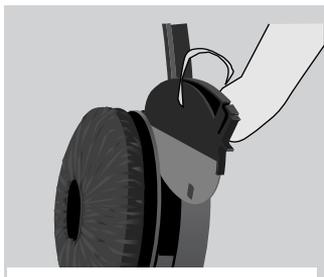


Figure 3-5. Removing the Chamber from the Headset.

3. Insert the battery in the chamber with plus (+) side of battery facing the plus (+) side of chamber (Figure 3-6).

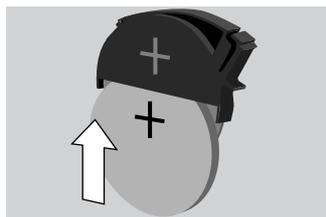


Figure 3-6. Inserting the Battery into the Chamber.

4. Put the battery chamber back into the headset (Figure 3-7). When it is time to replace the battery, a warning signal will sound in your headset every 10 seconds.

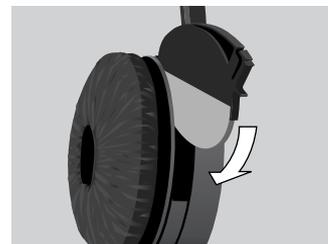


Figure 3-7. Putting the Battery Chamber Back into the Headset.

5. The headset ships with high-capacity batteries. A smaller battery can also be used. Call Technical Support for details. If using the alternate battery type, insert the enclosed blue battery adapter into the battery chamber (Figure 3-8).

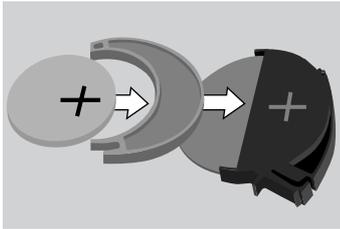


Figure 3-8. Inserting the Battery Adapter into the Battery Chamber.

NOTE

Battery life varies with usage. The typical life of the 3032 battery is 600 hours. The typical life of the 2032 battery is 200 hours.

3.3 Setup

IMPORTANT

You must complete the following two steps before operation. You only need to follow these steps once for your phone. If, however, you use a different phone, you will need to repeat these steps.

3.3.1 STEP 1: ADJUSTING TO YOUR TELEPHONE

1. To set up the headset to your telephone, you need to adjust the termination switch. To do so, remove the earplate and ear cushion from the receiver by turning the earplate 45° counter-clockwise. The telephone termination switch, marked A – G, is now visible (Figure 3-9).

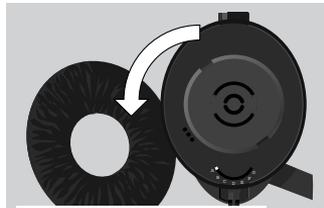


Figure 3-9. Telephone Termination Switch.

2. Press and hold the mute button on the outside of the receiver for 3 seconds. After

3 seconds you will hear a signal indicating the headset is now in setup mode (Figure 3-10).

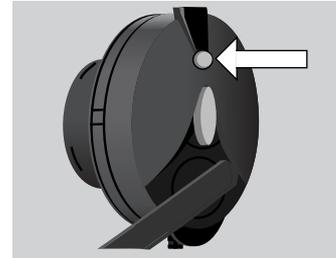


Figure 3-10. Pressing the Mute Button.

3. Put the headset receiver to your ear. Lift the handset from the telephone and listen for a dial tone in your headset.
4. If you hear a dial tone, blow into the microphone. If you can hear the sound of your blowing, the setting is correct.

- If there is no dial tone or you cannot hear the sound of your blowing, move the switch through positions A-G until you can hear a dial tone and the sound of your blowing. Most phones will use Position A (Figure 3-11).

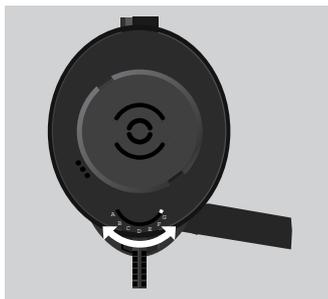


Figure 3-11. Position A.

- Press the mute button on the outside of the receiver to exit the headset set-up mode. (If you forget, the headset will automatically exit the setup mode after 10

seconds.) A signal will indicate that you are exiting setup mode. If the headset exits setup mode before you have found the correct setting, you need to enter setup mode again as described (Figure 3-10).



Figure 3-12. Replacing the Earplate and Ear Cushion.

- Put the earplate back in place by mounting it at a 45° angle to the right. Then press the earplate down and turn it clockwise (Figure 3-12).

3.3.2 STEP 2: ADJUSTING THE MICROPHONE SOUND LEVEL

The microphone sound level must be set according to your model of telephone for the party on the other end to hear you clearly. This typically only needs to be adjusted once during set-up.

- Put on the headset. Call someone and ask for help adjusting the sound level of your microphone.
- Press and hold mute button for 3 seconds to enter set-up mode. You will hear a signal when the headset is in the setup mode (Figure 3-13).

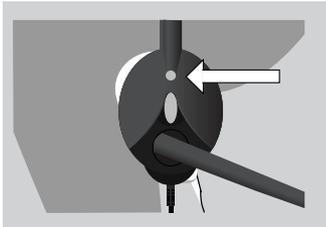


Figure 3-13. Pressing the Mute Button.

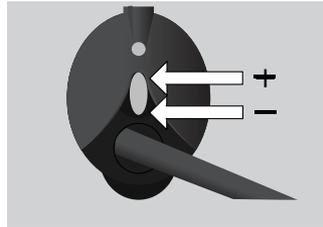


Figure 3-14. Adjusting the Microphone Volume.

3. Increase or decrease microphone volume by pressing the upper (+) or lower (-) part of the oval volume control button until the other person hears you clearly. You will hear a signal each time you adjust the volume. When you reach the maximum and minimum sound levels, you will also hear a signal (Figure 3-14).
4. Press the mute button again to exit the setup mode. If you forget, the headset will automatically exit the setup mode after 10 seconds (Figure 3-13).

4. Using the Headset

After you have completed Steps 1 and 2 described in Sections 3.3.1 and 3.3.2, you are now ready to use your headset.

4.1 Answering and Making Calls

1. To answer or make a call, put on the headset, remove the handset from its cradle, and press the mute or the volume button.
2. To end a call, replace the handset in its cradle.

IMPORTANT: ACTIVATING THE BATTERY FROM POWER-SAVE MODE

1. To save battery power, your headset is designed to reduce power consumption when the headset is not in use. If your headset has gone for 3 minutes without use, it will automatically go

from full power or “active” mode to “stand-by” mode. It will stay in stand-by mode for 30 minutes. If the unit is not reactivated within the 30 minute period, it will automatically drop to “sleep” mode (a further power reduction from the stand-by mode)

2. A dial tone or sound on the telephone line will automatically reactivate from stand-by mode. To manually reactivate from stand-by mode, or to reactivate from the sleep mode, press the mute or volume buttons (Figure 4-1).

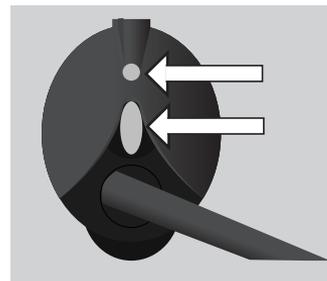


Figure 4-1. Mute and Volume Buttons.

4.2 Adjusting the Receive Volume

1. To turn the headset sound volume up or down, press the upper (+) or lower (-) part of the oval volume control button until you find the desired level. When you reach the maximum or minimum sound level, you will hear a signal (Figure 4-2).

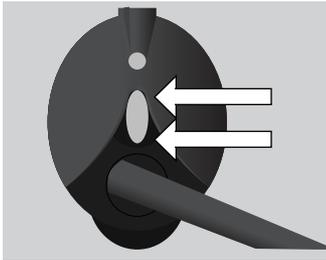


Figure 4-2. Adjusting the Sound Volume.

4.3 Muting the Microphone

1. To talk without the other party hearing you, press the mute button on the outside of the receiver. When the microphone is muted, you will hear a signal every 3 seconds. When the mute function is on, you can still hear the other party.

4.4 AVS (Advanced Voice Shaping)

1. AVS enhances sound when calls are difficult to hear because of background noise. With AVS, you optimize the sound of the other person's voice. To activate, simultaneously press on the upper and lower part of the volume button. You will hear a signal when AVS is activated and deactivated. To cancel the setting, just press the volume button again in the same manner (Figure 4-2).

4.5 Adjusting for Your Comfort

1. You can wear the headset on your right or left ear, whichever side you prefer. To switch sides, simply rotate the microphone boom below the headband.

NOTE

Do not force the boom over the top of the headset (Figure 4-3).

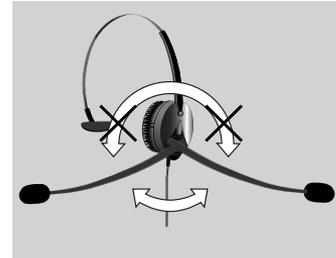


Figure 4-3. Rotating the Microphone Boom.

2. Adjust the length of the headband so the headset rests comfortably on your head (Figure 4-4). The stabilizer cushion should be placed just above the ear on the side of your head opposite the speaker.



Figure 4-4. Adjusting the Length of the Headband.

3. Adjust the flexible microphone boom so the microphone is positioned approximately 1/2" (12 mm) from your mouth (Figure 4-5).



Figure 4-5. Adjusting the Microphone Boom.

4. To relieve the weight of the cord, attach the clip to your shirt or jacket (Figure 4-6).

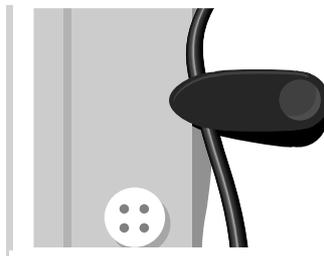


Figure 4-6. Clothing Clip.

5. The Quick Disconnect allows you to be mobile without removing your headset. Disconnecting at the Quick Disconnect during a telephone call puts your call on hold and allows you to move away from the phone. When you reconnect, you are back to your call (Figure 4-7).

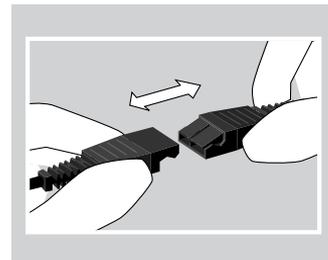


Figure 4-7. Reconnecting the Quick Disconnect.

6. To clean or change the microphone cushion, just pull it off gently.
7. To change or clean the ear cushion, first remove the earplate and ear cushion by turning the earplate 45° counter-clockwise. Once removed, the ear cushion can be taken off the earplate (Figure 4-8).

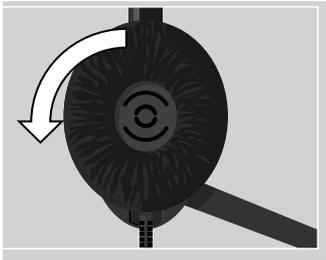


Figure 4-8. Removing the Ear Cushion.

5. Troubleshooting

5.1 Problems and Solutions

The headset beeps every 10 seconds:

- Replace the battery.

People have a hard time hearing me:

- Adjust the microphone positioning (refer to Section 4.5, number 3).
- Increase the microphone sound level (refer to Section 3.3.2).

The noise-canceling does not seem to be working:

- Adjust the microphone positioning (refer to Section 4.5, number 3).

The headset seems to turn off during a conversation:

- The headset has a feature

that turns down the receive sound when no one is speaking. The headset automatically turns on when someone begins to speak.

I cannot hear the other person:

- Adjust the receive volume (refer to Section 4.2).

The headset won't seem to wake up:

- On some quiet phone systems, the headset may not exit stand-by mode automatically. Press the volume button to wake up the headset. (refer to Section 4.1).

If you are still having trouble, please call Black Box Technical Support at 724-746-5500.

5.2 Calling Black Box

If you determine that your Combo Headset is malfunctioning, do not attempt to alter or repair the unit. It contains no user-serviceable parts. Contact Black Box at 724-746-5500.

Before you do, make a record of the history of the problem. We will be able to provide more efficient and accurate assistance if you have a complete description, including:

- the nature and duration of the problem.
- when the problem occurs.
- the components involved in the problem.
- any particular application that, when used, appears to create the problem or make it worse.

5.3 Shipping and Packaging

If you need to transport or ship your Combo Headset:

- Package it carefully. We recommend that you use the original container.
- If you are shipping the Combo Headset for repair, make sure you include everything that came in the original package. Before you ship, contact Black Box to get a Return Materials Authorization (RMA) number.

5.4 Cautionary Notes to Computer Users

When using any headset with a computer, take care in dry or low-humidity environments to protect the user from electrostatic discharge from the monitor

(CRT). Computer monitors can induce a substantial electrostatic charge when turned on or off, or when there is a power failure, and the resulting electrostatic discharge can be passed through the headset to ground.

A user in close proximity to or touching the computer may feel a common “shock” sensation, similar to touching a doorknob after walking across a carpet, causing no harm to the user. This discharge is entirely due to the computer monitor; the headset is merely the shortest path to ground.

To minimize the possibility of electrostatic discharge through the headset, you can:

- Use a grounded screen in front of the monitor.

- Use static-dissipative wrist straps.
- Increase the relative humidity in the room to 60% or more.
- Install static-dissipative carpets or floor coverings (anti-static sprays can be helpful).
- Remove the headset before turning the computer on or off.

Headsets in this user guide meet all OSHA, UL, FCC and CSA standards.



CUSTOMER SUPPORT INFORMATION

Order **toll-free** in the U.S.: Call **877-877-BBOX** (outside U.S. call **724-746-5500**)

FREE technical support 24 hours a day, 7 days a week: Call **724-746-5500** or fax **724-746-0746**

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