

Digital Select Calling (DSC)

GRP MMSI Menu POS RPLY GRP MMSI DSC SCAN



To Enter a Group MMSI Number:

- 1. Enter the **Setup** menu and scroll to **GRP MMSI** menu.
- 2. Press the **Enter** button. A blinking cursor displays at the first digit under GRP MMSI ID ENTRY. The leading zero will be entered automatically.
- 3. Turn the **Channel** knob or press microphone **Channel Up/Down** buttons to scroll through the number list to the digit of the Group MMSI number being entered.
- 4. Press the Enter button to select the digit.
- 5. Press the **Channel Preset** buttons to move within the field.
- **6.** Repeat steps 3, 4 and 5 until all nine (9) digits of the Group MMSI number are entered.
- **7.** Press the **Enter** button when all digits are listed.
- 8. Check that the number is entered correctly.
- 9. Press the Enter button to return to the Setup menu.

Position Request Reply Type

DSC radios with GPS send the position of a vessel to another station. This is useful for rendezvous and rescue situations.

Determine if the radio should automatically respond to all Position Requests received or if it should provide a **Position Request** alert and that can be manually selected and then provide a response.

POS RPLY Menu OS RPLY



To Set the Position Request Reply Type:

- 1. Enter the **Setup** menu and scroll to **POS RPLY** menu.
- 2. Press the Enter button and observe the current setting AUTO or MANUAL.
- **3.** Move the selection arrow to change the setting.
- **4.** Press the **Enter** button to select the setting.
- 5. When the changes are complete, exit the POS RPLY menu and return to the **Setup** menu.



Digital Select Calling (DSC) Setup

LAMP ADJ CONTRAST KEY TONE TIMEOFST INDU DIR JMORFJ





Individual Directory

DSC can be used to call another vessel or station directly. This allows the user to make a call to a specific vessel that could be monitoring any channel. An alarm will sound on the receiving radio to make that station aware of your individual call. Up to 20 names and associated MMSI numbers may be stored in the radio for quick access.

To Enter or Edit Names or MMSI Numbers in the Individual Directory:

- 1. Enter the **Setup** menu and scroll to **INDV DIR** menu.
- 2. Press **Enter** to enter the individual directory.
- Name and MMSI contents of the current location shows on the display
- 4. Press Enter to start entering Name data.
- 5. Rotate the **Select** button or the microphone up/down buttons to select alpha or numeric characters.
- Press F1 or F2 function buttons to advance to the next character.
- Repeat steps 5 and 6 until the complete Name entry has been made.
- Press the Enter button to enter characters in the MMSI field.
- Repeat steps 5 and 6 until the complete MMSI entry has been made.
- 10. Press the Enter button to accept the entry.
- 11. When the changes are complete, exit the **INDV DIR** menu and return to the Setup menu.



Digital Select Calling (DSC)

Digital Select Calling (DSC) Operation

The **Send** menu displays when the **Distress** button is pressed.



NOTE

This radio follows Class-D DSC protocol with a dedicated Channel 70 receiver.

Sending Distress Calls

Sending and receiving distress calls and acknowledgements on Channel 70 can be a lifesaver for mariners.



NOTE

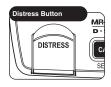
The DSC call:

- Sounds the distress alarm at all receiving stations.
- Informs receiving stations of the sender's identity (MMSI).
- Informs receiving stations of the nature of the emergency.
- Informs receiving stations of sending position when a GPS device is connected or a position is manually entered.

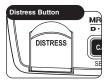
DSC operation does not provide receiving stations with information like number of persons aboard or injuries. This specific information must be communicated by voice on Channel 16 to the station that acknowledges a DSC Distress call.

To Send a DSC Distress Call:

1. From **Standby** mode, lift the spring-loaded red door on the transceiver and press the **Distress** button. The **Distress** menu displays with an arrow pointing to SEND.



Digital Select Calling (DSC) Operation













There are three (3) choices:

- Send a distress call automatically, with your position, if you are connected to a GPS. Or send the call, without your position, if not connected to a GPS.
- Include a Nature of Distress message with the distress call.
- Abort the distress call process and return to Standby mode.
- 2. Choose one of the following:

Send an Automatic Distress Call:

Press and hold the **Distress** button.

Include a Nature of Distress Message with Distress Call:

- a. Turn the Channel knob or press the microphone Channel Up/Down buttons to move the arrow to MANUAL.
- b. Press the Enter button to access the position entry screen.
- c. Turn the Channel knob or press the microphone Channel Up/Down buttons to manually select from the list of pre-programmed Nature of Distress calls — UNDESIGN, FIRE, FLOODING, MORE..., COLLISION.
- d. Press the Enter button to select the message.
- e. Press and hold the Distress button when prompted.

Abort the Distress Call Process:

If the **Distress** button is pressed by mistake or to discontinue resending an automatic distress message:

- a. Turn the Channel knob or press the microphone Channel Up/Down buttons to move the arrow to EXIT.
- **b.** Press the **Enter** button to return to **Standby** mode.



NOTE

You may also press the **ESC** (escape) key to return to the **Standby** mode.



The **Distress** alarm sounds to confirm that the message is transmitted. At the end of the transmission, the radio maintains a watch on Channel 16 and Channel 70 for an acknowledgement. Press any button to turn Off the alarm and return to **Standby** mode.

- If an acknowledgement is received, the Distress alarm sounds again and the responding party's MMSI number displays on the LCD.
- If no acknowledgement is received, the radio resends the message at approximately five (5) minute intervals until an acknowledgement is received or the Distress call is aborted.

Receiving Distress Calls

When a vessel is within range of a DSC Distress call, the radio receives the call, sounds the **Distress** alarm, and switches to Channel 16. All DSC calls that are received will sound one (1) alert alarm. See pages 35-36 for descriptions of the different alarms. Press any button to turn Off the alarm. The received call information continues to display on the LCD.

When a Distress Call is Received:

- 1. Press any button to turn Off the alarm and return to **Standby** mode on Channel 16.
- Read and write down the distress information that displays on the LCD (position data may or may not be shown); then determine whether to answer the call.
- 3. Respond, if appropriate, by pressing and holding the **Talk** button to transmit on Channel 16.
- The received information is placed into the Call Log. See page 77 for more information on viewing the Call Log.
- 5. If MMSI (Maritime Mobile Service Identify) matches a contact from the Individual Directory entry stored in your radio, the name identification displays and the alarm sounds to identify the Name of the matching MMSI member.
- **6.** Press **ESC** after viewing the display to return to normal **Standby** mode.



NOTE

The radio automatically switches to Channel 16 upon







receiving a DSC Distress call and the alarm will sound for approximately two (2) minutes. Press any button to clear the **Distress** alarm instantly.

Regarding Distress Relay Calls

This radio cannot send Distress Relay calls. Only large ships and shore stations, with specially equipped radios, can send Distress Relay calls.

Receiving Distress Relay Calls

This radio does respond to a Distress Relay call just as it responds to a Distress call.

Sending an All Ships Call

Use the DSC All Ships call for the same urgency and safety purposes as the Pan and Securite voice calls as well as sending Routine messages to all stations at once. The DSC All Ships call reaches all stations in radio range. Use the DSC All Ships call for urgent, but not life-threatening situations or to broadcast a safety warning to all vessels in the area. Use the DSC All Ships call judiciously for Routine calls.

To Send an All Ships Call:

- In Standby mode, select a channel to communicate a routine call. The radio uses Channel 16 for urgent and safety calls.
- 2. Press the Call/Setup button to enter the Call Setup menu.
- Scroll to type of call. The display shows: URGENCY, SAFETY, ROUTINE or EXIT. Select the type of call.
- **4.** Press the **Enter** button to send a message.



NOTE

The radio display requires confirmation before sending Urgency and Safety calls.









- **5.** Depending on the type of message selected, the radio automatically switches to a voice channel.
 - **a.** After Urgency and Safety calls, the radio switches to Channel 16. Once on channel, press the **Talk** button to send the Urgency or Safety voice message.
 - **b.** After a Routine call, the radio switches to the channel selected in step 1. Once on channel, press the **Talk** button to send the Routine voice message.

DSC equipped radios that receive a DSC All Ships call message are automatically switched to the channel selected by the sender to hear a voice message.

To return to **Standby** mode, without sending a message. scroll to EXIT and press the Enter button.

Receiving an All Ships Call

All Ships calls received from stations within range of the radio sound the Distress alarm and switch the radio to Channel 16.

When an All Ships Call is Heard:

- **1.** Press any button to turn Off the alarm and return to Standby mode.
- 2. Read and write down the MMSI information of the vessel. sending the call as well as the date and time of the call.
- 3. Listen to the incoming voice message on the channel the radio selects for the incoming All Ships call.

All Ships Call MMSI Directory Match MAR Ø8

10:450



Sending a Geographical Call

This radio does not send Geographical calls. Only large ships and shore stations with specially equipped radios send Geographical calls.

Receiving a Geographical Call

Geographical calls are transmitted by specially equipped radios to all stations in a particular area to alert only those stations of the call and not stations in unaffected geographical areas. When in an area to which a Geographical call is made, the radio sounds the geographical alarm and switches to the channel chosen by the transmitting station.

GEOGRAPH MMSI 123456789 MAR 08 18:45A

When a Geographical Call Sounds:

- 1. Press any button to turn Off the alarm.
- Read and write down the MMSI information of the vessel sending the call as well as the date and time of the call.
- 3. Listen to the incoming voice message on the channel the radio selects for the incoming Geographical call.
- 4. Place call information in Call Log.
- Press one (1) of the following buttons to switch from the Geographical call received to the Standby mode: Channel 16/9 button or ESC button.

Digital Select Calling (DSC) Operation

INDV DIR Menu

LAMP ADJ CONTRAST KEY TONE INDU DIR IMOREI.

Individual Directory

INDIU GROUP ALL SHIPS STANDBY CALL LOG 4MORE4

Call Type

INDIU ROUTINE URGENCY SAFETY

Menu Select



Select Name

▶CAPT RED JOHN. BILL BOB.

Individual Waiting



Send/Exit

. UNAVAILAB CAPT RED ▶SEND.

Sending an Individual Call

Use the DSC Individual call feature to request communication with one (1) exclusive station. The DSC Individual call does not alert all other stations within range.

To Send an Individual Call:

- 1. In **Standby** mode, select a channel to communicate a call.
- 2. Press the Call/Setup button to enter the Call Setup menu.
- 3. Press the Enter button to enter to the INDIV select Directory.
- 4. Scroll to Select from Routine. Urgency or Safety as the type of call to send.
- 5. Press Enter button to advance to Director or Manual selection. Scroll to select either method to send call. Press **Enter** button again.
- **6.** Turn the **Channel** knob or press the **Channel Preset** buttons to select a name to call from the directory.
- 7. Press the **Enter** button to send the message or return to Standby mode if EXIT was chosen.
 - If the radio called sends back an automatic DSC response "able to comply," the individual alarm will sound. Wait for a voice message from the called station.
 - If the radio called does not send an "able to comply" response, the radio waits eight seconds and resends the message.
 - If an "unable to comply" response or no reply is received, the radio display asks to resend the message or exit the menu.

At the **Unavailable** menu, select SEND or EXIT with the Enter button.

- If SEND is selected, the radio restarts the individual call.
- If EXIT is selected, the individual location on the **Call** menu displays.

Digital Select Calling (DSC) Operation

Caller Identified

INDIVIDUA GILLIGAN MAR Ø8 11:20A



Receiving an Individual Call

When another station makes an Individual call to the radio:

- The Individual alarm sounds.
- The caller is identified on the LCD.
- The radio switches to the channel selected by the caller.
- Call information is placed in the Call Log.

To Receive an Individual Call:

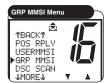
Press the **Talk** button and greet the caller.

Sending a Group Call

Sending a Group call is like sending an Individual call, but the group MMSI information is used and the resend and DSC responses do not apply. See section 4 for creating and entering a group MMSI.

To Send a Group Call:

- 1. In **Standby** mode, press the **Call/Setup** button to enter the Group call menu.
- 2. Turn the **Channel** knob or press the microphone channel **UP/DOWN** buttons to scroll to **Group**.
- 3. Press the Enter button to move to the channel select menu.
- 4. Turn the Channel knob or press the microphone channel **UP/DOWN** buttons to select a channel to communicate the call.
- **5.** Press the **Enter** button to send the message.
 - All radios switch to the channel selected in step 1. Press and hold the Talk button to send a voice message to everyone in the group.
 - Anyone in the group can transmit on the channel.









Digital Select Calling (DSC) Operation

Receiving a Group Call

When another station makes a Group call to the radio, the **Individual** alarm sounds, the caller is identified on the LCD. call information is placed in the Call Log, and the radio is switched to the channel selected by the caller, similar to an Individual call. Press any button to turn Off the alarm.



MAR 08 11:20A

To Receive a Group Call:

- **1.** Listen for the group voice message.
- 2. Press the **Talk** button and respond only if appropriate.

Sending a Position Request

Position Request mode enables a DSC radio to obtain the position (latitude and longitude) of a station that has a GPS device connected to the DSC radio at that station. In most cases, a reply will be forthcoming. If for some reason, your request is not acknowledged in five (5) minutes, the user will be prompted to Resend the request or exit the menu.

To Request the Position of Another Station:

- 1. In **Standby** mode, select a channel on which you want to communicate.
- 2. Press the **Enter** button to enter the **Call Setup** menu.
- 3. Scroll to POS ROST on the menu.
- 4. Press the Enter button to enter the POS ROST menu. This. will link you to the Individual Directory for you to make a position request to one of your prior programmed Individual Directory members.
- **5.** Scroll to the name of the station whose position you want to request.
- 6. Press the Enter button.

Your radio will send the **Position Request** and there will be one (1) of three (3) possible responses:

- You will receive the position.
- You will receive a no position data response, meaning the station you queried is not connected to a GPS device and cannot send its position.
- You will receive a no reply response, meaning the operator of that station has chosen not to reply to your reauest.

Standby Mode HIGH FEB 27 03:55PM 03352447N 11802119W









Receiving a Position



If You Receive a Position:

The requested position with the station name and MMSI will show on your screen.

Press the Enter button to return to Standby mode after you have noted the station's position.



If the MRF80 is connected properly to your Cobra chartplotter, you will see the requested position of the other vessel indicated on the display.



Receiving a Position Request

When you went through the **DSC Setup** process, you set a position request reply type. (See page 61 to change your setting.) Depending on the setting you chose, when a Position Request message is received, your radio will enter either:

- The Auto Reply mode.
- The **Manual Reply** mode.

When the Radio is in Auto Reply Mode:

A position request will sound the **Position Request** alarm and show the name of the requesting station on the LCD. Your radio will automatically respond. It will send your position, if you have a **GPS** device connected to your radio. or NO POS. DATA (no position data), if you do not have a **GPS** device connected.

Press any button to silence the alarm and exit the display.

When the Radio is in the Manual Reply Mode:

A position request message will sound the Position Request alarm and show the name of the requesting station. You can choose to:

- Reply and send your position.
- Exit without sending your position.

If You Choose to Reply with Your Position:

- 1. Turn the **Channel** knob, or press the microphone **Channel Up/Down** buttons or press the **Function (F1/F2)** button to select REPLY.
- 2. Press the Call/Setup or Enter button to send your position.
- 3. Press any button to return to **Standby** mode.

If You Choose Not to Reply:

- 1. Turn the **Channel** knob, or press the microphone **Channel Up/Down** buttons or press the **Function (F1/F2)** button to select FXIT.
- 2. Press the **Enter** button to exit and return to **Standby** mode without sending your position.





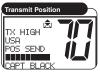


Digital Select Calling (DSC) Operation

Standby Mode SAME A EMERGENCY USA 1WLOW R ON MEM LOC 21:12









Sending a Position Send

Position Send uses your connected GPS in similar fashion to the **Position Request** function, except that you initiate the activity to let another station know where you are.

To Send a Position Send Message:

- 1. In Standby mode, select a channel on which you want to communicate.
- 2. Press the Enter button to enter the Call Setup menu.
- Turn the Channel knob, or press the microphone Channel Up/Down buttons or press the Function (F1/F2) button to scroll to POS SEND (position send).
- 4. Press the Enter button to enter the Individual Directory.
- Turn the Channel knob, or press the microphone Channel Up/Down buttons or press the Function (F1/F2) button to select the vessel/station to which you want to send your position.
- **6.** Press the **Enter** button to send your position. After your position is sent, the LCD will show **POS SEND** (position send). You will have two (2) choices.
 - Resend your position to the same station.
 - Exit from **Position Send** mode.

To Resend Your Position:

- Turn the Channel knob, or press the microphone Channel Up/Down buttons or press the Function (F1/F2) button to select SEND.
- 2. Press the **Enter** button to resend your position.

To Exit From the Position Send Mode:

- Turn the Channel knob, or press the microphone Channel Up/Down buttons or press the Function (F1/F2) button to select EXIT.
- 2. Press the **Enter** button to return to the **Call Setup** menu.

Receiving a Position Send

When another station sends you its position in **Position Send** mode, the **Individual** alarm will sound and the station's name and position will be shown on the LCD. Press any button to turn Off the alarm and return to **Standby** mode.





Standby Mode Signal

If you will be away from your radio or otherwise unable to answer calls, you can put the radio into DSC Standby mode. When in DSC Standby mode, your radio will log all calls received into its Call Log memory and respond automatically to individual calls with an UNATTENDED message. You will then be able to retrieve those calls from the **Call Log** memory.



NOTE

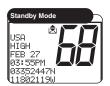
The **Call Log** memory can retain up to 20 calls. See the following section for information on Call Log.

To Enter Standby Mode:

- 1. From **Standby** mode, press the **Enter** button to enter the Call menu.
- 2. Turn the **Channel** knob, or press the microphone **Channel Up/Down** buttons or press the **Function (F1/F2)** button to select STANDBY.
- 3. Press the Enter button to enter DSC Standby mode. The radio will then remain in **DSC Standby** mode until you exit from that mode.

To Exit DSC Standby Mode:

From **DSC Standby** mode, press the **Enter** button to return the radio to Standby mode.







Digital Select Calling (DSC) Operation







Call Log

Call Waiting functions similarly to the Caller ID function on your telephone. It will capture the caller's MMSI identification number and any other data included in a DSC message.



NOTE

The **Call Log** memory can hold up to 20 messages. Once the memory becomes full, each new call will erase the oldest call information on a first-in, first-out basis.

To Review Call Log Messages Received While in DSC Standby Mode:

- From Standby mode, press the Call button to enter the Call menu.
- 2. Turn the **Channel** knob, or press the microphone **Channel Up/Down** buttons to scroll to **CALL LOG** menu.
- 3. Press the Enter button to enter the Call Log.



NOTE

The fourth line will show the type of message.

- Turn the Channel knob, or press the microphone Channel Up/Down buttons to move from message to message in the Call Log memory.
- 5. Press the Enter button to return to Standby mode.

To Clear Messages From The Call Log Memory:

- 1. From Standby mode, press the Call button to enter the Call menu.
- 2. Turn the **Channel** knob, or press the microphone **Channel Up/Down** buttons to scroll to **CALL LOG** menu.
- 3. Press the Enter button to enter the Call Log mode.
- Turn the Channel knob, or press the microphone Channel Up/Down buttons to select the message you want to delete.
- Press and hold the Memory Scan/Memory Clear button for one (1) second or more.

Repeat steps 4 through 5 to delete additional messages.

6. Press the Enter button to return to Standby mode.



Maintenance and Troubleshooting

Maintenance

Very little maintenance is required to keep your CobraMarine VHF radio in good operating condition.

- Keep the radio clean by wiping with a soft cloth and mild detergent. Rinse with fresh water. Do not use solvents or harsh or abrasive cleaners, which could damage the case or scratch the LCD screen.
- If the radio is exposed to salt water, rinse it in fresh water at least once a day to prevent buildup of salt deposits, which could interfere with button operation.

Troubleshooting

Problem	Possible Cause(s)	Solution(s)
No display on LCD when radio is turned On	Improper power connection	Ensure power connections are proper and secure
Will transmit at 1 watt, but not at 25 watts	Selected channel is limited to 1 watt	Switch to another channel
Will not transmit	Selected channel is limited to receive only	Switch to another channel
No sound from speaker	Volume level is too low or squelch level is too deep	Readjust volume and squelch
No answer to calls	Out of range of other station	Switch to high power (25 watts) or move closer
	Signal is blocked by terrain	Move until you have a "line-of-sight" to the other station
DSC distress cannot be sent	MMSI (DSC self-identification) number is not entered	Enter your MMSI number



Specifications

Specifications

Number of Channels	All U.S.A., Canadian, and International NOAA Weather Channels	
Channel Spacing	25 kHz	
Modulation	5 kHz Max.	
Input Voltage	13.8 VDC	
Current Drain: Stand-by Receive Transmit	100 mA 500 mA 5A @ High power 1A @ Low	
Temperature Range	-4°F to 140°F (-20°C to 60°C)	
Unit Dimensions	6.25" x 2.25" x 7.125" (15.9 cm x 5.7 cm x 18 cm)	
Unit Weight	2 lbs., 6.8 oz. (1100 g)	
Receiver		
Frequency Range	156.050 to 163.275 MHz	
Receiver Type	Double Conversion Super-Heterodyne	
Sensitivity: 20 dB Quieting 12 dB Sinad	0.35 uV 0.20 uV	
Adjacent Channel Selectivity	-60 dB	
Intermodulation and Rejection	-60 dB	
Spurious and Image Rejection	-60 dB	
AF Output	4 Watts @ 8 Ohms	
Transmitter		
Frequency Range: TX	156.025 to 157.425 MHz	
RF Output Power	1 and 25 Watts	
Spurious Emissions	-60 dB High -55 dB Low	
Microphone Type	Electret	
Frequency Stability	+/-10 ppm	
FM Hum and Noise	40 dB	



Warranty and Trademark

Limited 3-Year Warranty

For Products Purchased in the U.S.A.

Cobra Electronics Corporation warrants that its CobraMarine VHF radio, and the component parts thereof, will be free of defects in workmanship and materials for a period of three years from the date of first consumer purchase. This warranty may be enforced by the first consumer purchaser, provided that the product is utilized within the U.S.A.

Cobra will, without charge, repair or replace, at its option, defective radios, products or component parts upon delivery to the Cobra Factory Service department, accompanied by proof of the date of first consumer purchase, such as a duplicated copy of a sales receipt.

You must pay any initial shipping charges required to ship the product for warranty service, but the return charges will be at Cobra's expense, if the product is repaired or replaced under warranty. This warranty gives you specific legal rights, and you may also have other rights which may vary from state to state.

Exclusions: This limited warranty does not apply:

- 1. To any product damaged by accident.
- 2. In the event of misuse or abuse of the product or as a result of unauthorized alterations or repairs.
- **3.** If the serial number has been altered, defaced, or removed.
- 4. If the owner of the product resides outside the U.S.A.

All implied warranties, including warranties of merchantability and fitness for a particular purpose are limited in duration to the length of this warranty. Cobra shall not be liable for any incidental, consequential or other damages; including, without limitation, damages resulting from loss of use or cost of installation.

Some states do not allow limitations on how long an implied warranty lasts and/or do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations may not apply to you.

For Products Purchased Outside the U.S.A.

Please contact your local dealer for warranty information.

Trademark Acknowledgement

Cobra®, CobraMarine®, Nothing Comes Close to a Cobra®, and the snake design are registered trademarks of Cobra Electronics Corporation, USA.

Cobra Electronics Corporation™, CobraMarine™ and Rewind-Say-Again™ are trademarks of Cobra Electronics Corporation. USA.



Product Service

Product Service

If you have any questions about operation or installing your new CobraMarine VHF product, or if you are missing parts...

Please call Cobra first! DO NOT RETURN THIS PRODUCT TO THE STORE! See customer assistance on page A1.

If your product should require factory service, please call Cobra first before sending your radio. This will ensure the fastest turn-around time on your repair. You may be asked to send your radio to the Cobra factory. It will be necessary to furnish the following to have the product serviced and returned:

- For warranty repair include some form of proof-of-purchase, such as a copy of a sales receipt. If you send the original receipt, it cannot be returned.
- 2. Send the entire product.
- Enclose a description of what is happening with the radio. Include a typed or clearly printed name and address of where the radio is to be returned.
- Pack radio securely to prevent damage in transit. If possible, use the original packing material.
- Ship prepaid and insured by way of a traceable carrier such as United Parcel Service (UPS) or Priority Mail to avoid loss in transit to: Cobra Factory Service, Cobra Electronics Corporation, 6500 West Cortland Street, Chicago, Illinois 60707 U.S.A.
- 6. If the radio is in warranty, upon receipt of your radio it will either be repaired or exchanged depending on the model. Please allow approximately three (3) to four (4) weeks before contacting Cobra for status. If the radio is out of warranty,
 - a letter will automatically be sent informing you of the repair charge or replacement charge.

If you have any questions, please call 773-889-3087 for assistance.

Use the supplied template to mark and cut an opening in the flat surface.



Before cutting, be sure the area behind the flat surface is clear of any instruments or wires that might be damaged in the process. Use la plantilla suministrada para marcar y cortar el agujero en la superficie plana.



detrás de la superficie plana, que puedan resultar dañados durante el proceso. Antes de cortar, compruebe que no haya instrumentos o cables en el área

