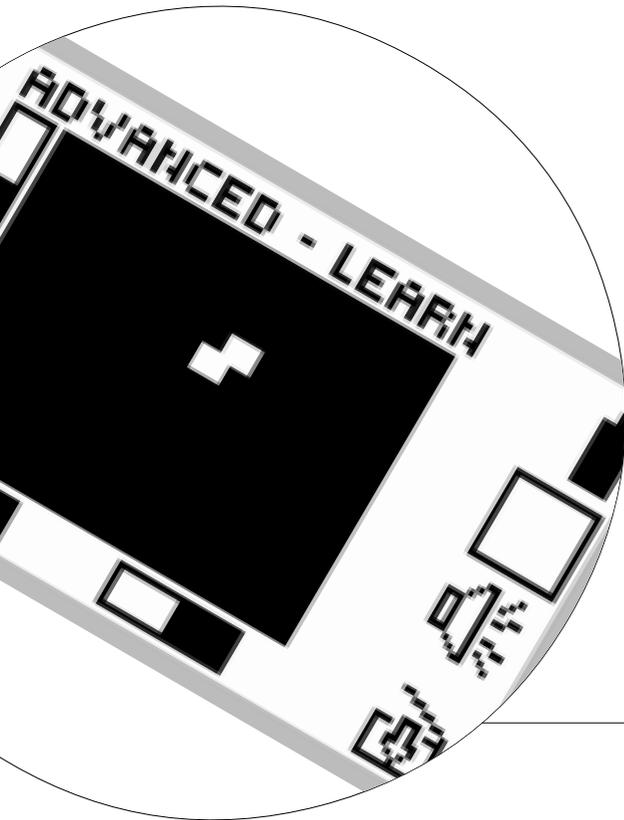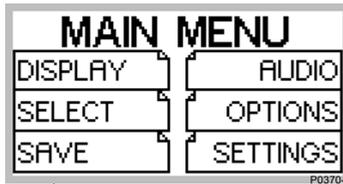# 6

Advanced Use

Once you are comfortable with basic detector use and Quickstart, it is time to investigate the more advanced features of the Explorer II.

ADVANCED MODE'S MAIN MENU

easy reference

MAIN MENU

DISPLAY   AUDIO

SELECT   OPTIONS

SAVE   SETTINGS

P0370-a

Many of Advanced Mode's operational functions are accessed through the Main Menu. This guide is intended to direct you to the appropriate pages to learn more. The descriptions below are also displayed in help function when a shift button menu option is *pressed and held*.

DISPLAY

DIGITAL   SMART

EDIT   LEARN

◀ 6   Contrast ▶

P0371-a
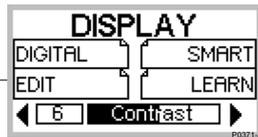
DISPLAY menu. See page 70.
Menu to select DIGITAL, SMART, LEARN or EDIT display and CONTRAST adjustment.

SELECT

Nail

▲ S1

▼ S2

P0372-a

SELECT menu. See page 79.
Menu to choose one or more pre-programmed or saved target patterns from a list.

SAVE DISCRIM

S1   S4

S2   S5

S3   S6

P0373-a

SAVE DISCRIM. See page 80.
Menu where up to 6 user-defined target patterns may be saved.

AUDIO

VOLUME

TONE

SOUNDS

P0374-a

AUDIO menu. See page 81.
Menu to manually adjust VOLUME, TONE or SOUNDS. It is also possible to access the volume settings by pressing the shift button next to the volume icon in LEARN.

OPTIONS

ADVANCED   NOISE

QUICK   RESPONSE

RECOVER

P0375-a

OPTIONS menu. See pages 82-86.
Menu to select NOISE, RESPONSE or RECOVERY options or take you back to QUICKSTART mode.

SETTINGS

LOAD   SAVE

USER A   USER A

USER B   USER B

P0376-a

SETTINGS menu. See page 87.
Menu to save or load user-preferred settings.

STARTING IN ADVANCED MODE

POWER

P0400-B

Beginning Advanced use

To enter Advanced mode from Quickstart, press the MAIN MENU shortcut button, select OPTIONS and then ADVANCED. Then press the DETECT shortcut button to display the Advanced Smartfind screen. Pressing DETECT will switch between Smartfind, Digital, Learn and Edit displays.

If you operated in Advanced mode last time you used the Explorer II, the detector will remember this. To enter the Advanced mode when first switching on, *press and quickly release* the POWER shortcut button.

Any time you want to move from Advanced mode to Quickstart just select the MAIN MENU shortcut button, OPTIONS and then select QUICK. Pressing the DETECT shortcut button will return you to Quickstart's Smartfind screen.

CAUTION **Restoring factory settings by pressing and holding the POWER button erases all current user settings. This does not affect user preferences and discrimination patterns that have been saved (see pages 80 and 87).**

Are you ready?

From this point on, it is assumed that you have familiarized yourself with the Quickstart chapter of this Manual and spent a reasonable amount of time using your Explorer II. If you have not read the Quickstart chapter, please do so before proceeding.

Advanced target preferences

The tutorials on the last few pages of Chapter 5: Quickstart provided instructions on composing your own discrimination pattern with combinations of items from the SELECT menu.

Advanced mode offers numerous options to further enhance the accuracy of your detecting. To this end, the following section deals with target options in Advanced mode's LEARN and EDIT displays before proceeding to other Menu functions.

6

ADVANCED USE

ADVANCED MODE'S DISPLAYS

easy reference

DISPLAY

| DIGITAL | SMART |
| EDIT | LEARN |

◀ 6 Contrast ▶
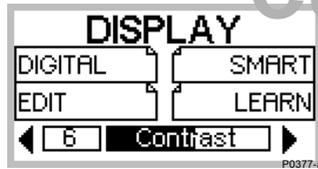
Advanced mode has four display options – SMART, DIGITAL, LEARN and EDIT. The DETECT shortcut button is used to cycle between them. Advanced mode's SMART and DIGITAL have the same screen elements and functions as those in Quickstart. For a refresher on this, turn back to pages 40-48 of Chapter 5: Quickstart.
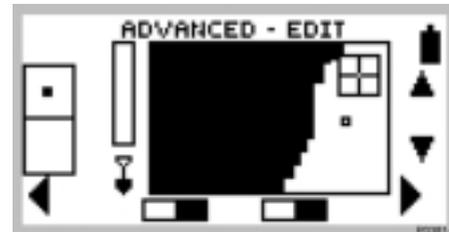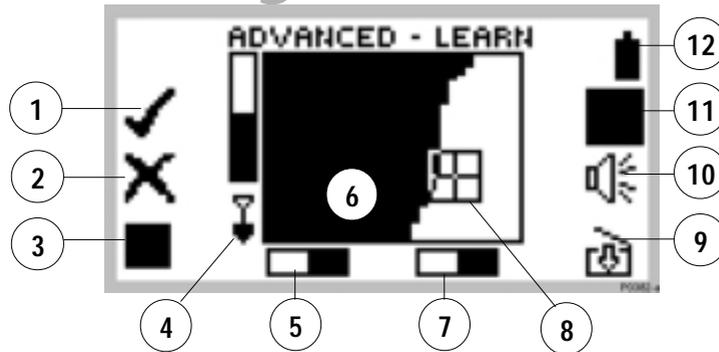
SMART DISPLAY

ADVANCED - SMART
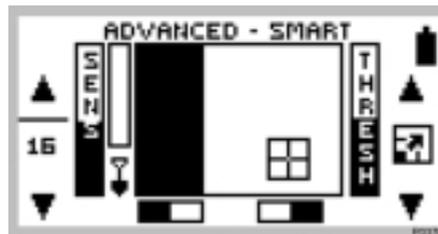
LEARN DISPLAY
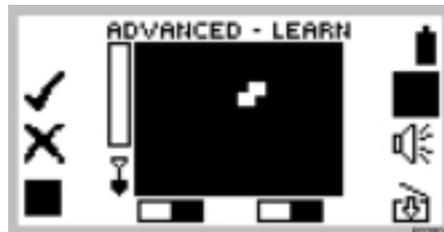
ADVANCED - LEARN

EDIT DISPLAY

ADVANCED - EDIT

ADVANCED MODE'S LEARN DISPLAY

easy reference

ADVANCED - LEARN

1 **Accept target icon**. Modifies discrimination pattern to accept a specific item – part of LEARN's target selection, see page 73-74.

2 **Reject target icon**. Modifies discrimination pattern to reject a specific item – part of LEARN's target selection, see page 73-74.

3 **Resize cursor**. This allows you to manually increase or decrease the size of the area modified on the screen by LEARN's response to a target, see page 73-74.

4 **Depth indicator**. The clear portion of the depth indicator represents the approximate distance of a target below the coil. The top of the indicator represents the position of the coil and the bottom represents 12 inches (300mm) from the coil. The bar will be clear if the target is too far from the coil or its depth cannot be accurately gauged.

5 **Iron Mask**. This shaded block indicates whether IRON MASK function is ON or OFF. See page 45.

6 **Discrimination pattern.** The black and clear areas of the screen schematically represent the current target discrimination pattern. See pages 42–43 for basic information.

7 **Pinpoint**. This shaded block indicates whether PINPOINT function is ON or OFF. See page 59.

8 **Target crosshair**. Represents the detected object's properties on a two-dimensional scale of discrimination. See page 42 for basic information.

9 **Save icon**. This shortcut icon leads to the SAVE DISCRIM menu where the current target pattern can be saved. See page 80.

10 **Volume icon**. This shortcut icon takes you to the VOLUME section of the AUDIO menu where you can adjust various volume characteristics. See page 53 for instructions.

11 **Reject All/Accept All.** Allows you to switch between clearing or filling the whole screen in preparation for accepting or rejecting learnt targets only.

12 **Battery life**. This shaded block indicates the charge remaining in the installed batteries. See page 27.

LEARNING TARGETS

Advanced mode's Learn option programs the Explorer II to recognize certain targets. The following pages show you how to instruct the detector to 'learn' a particular target and save its characteristics for later use.
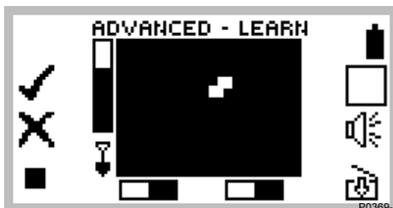

Figure 6.1   The Learn screen

Silence please!

For the Learn option to work accurately, it needs to recognize the same target characteristics with each pass of the search coil. For this reason, it is essential that you use Learn in an environment free of electromagnetic disturbance. This may mean moving away from other detectorists or powerlines.

It may be useful to perform a Noise Cancel before undergoing the procedure outlined in the following tutorial.

Introducing Learn

Figure 6.1

Sometimes during your treasure hunting you may wish to instruct the Explorer II to detect targets with very specific characteristics. It may be that you have found a particular type of coin which you would like to find more of, or you find yourself constantly unearthing the same types of junk.

Minelab has designed Learn to enable you to instruct the Explorer II to accept or reject precisely the types of targets you do or do not want.

Your new target patterns are treated in exactly the same way as those you have used from the SELECT target list. Once saved, they can be used by themselves or in combination with other discrimination patterns.

In time, you may find this one of the Explorer II's most powerful features. For instance, once you have saved target patterns of several unwanted targets you may exclude them all from your current Smartfind discrimination pattern simply by rejecting them from the SELECT target list. In a similar way, you could combine all of your desired targets into your own composite discrimination pattern.

The following tutorial will help you to make Learn a feature of your metal detecting.

NOTE **Selection of Pinpoint effectively disengages the Explorer II's Discrimination functions.**

LEARN'S TARGET SELECTION

tutorial

This tutorial shows you how to learn a target, make adjustments and save your selection.

Phase 1: Preparation for Learn

Figure 6.2 Advanced Mode's Learn display

STEP 1 (Figure 6.2) Go to the Advanced Learn display. It does not matter whether you were in Iron Mask or Discrim (shown in the adjacent figure).
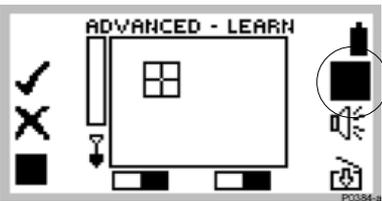
STEP 2 (Figure 6.3) Press the shift button next to Reject All/ Accept All icon to fill in the screen. The icon changes to all clear to indicate that the next time it is pressed, the Learn screen will clear. Press the button again to clear the screen and accept all targets.

Figure 6.3 Accept all clears the screen

STEP 3 While the screen is completely cleared, rest the coil and check for interference (erratic noises and random movements of the target crosshair). If you experience interference press Noise Cancel, reduce the Sensitivity, or move the detector to a different place.
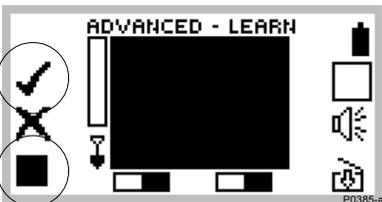
STEP 4 Check the area of ground where you would like to learn the target to make sure that there are no other targets in the ground.

STEP 5 Press the Reject All/Accept All shift button to completely fill the screen and reject all targets.

Figure 6.4 Reject all fills the screen

STEP 6 (Figure 6.4) Press the lower left hand shift button twice to change the cursor to medium size. The size of the cursor sets how 'loosely' the target is matched for each successive pass of the coil. Place the target on the ground and press the upper left shift button next to the Accept icon. The tick will begin to flash.

Now the detector is prepared to Learn targets.

6

ADVANCED USE

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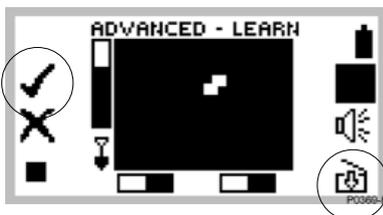# LEARN'S TARGET SELECTION

tutorial ☞

... continued

Figure 6.5 Adjusting size of learnt region

Figure 6.6 Saving the newly-edited discrimination pattern

Phase 2: Learning and Saving the target pattern

STEP 7 Wave the search coil several times above the desired target until the detector learns it by clearing an area on the screen. Learn needs to 'see' the target consistently to accept it for inclusion. If you have more than one target, repeat the procedure for each one. In Figure 6.5, two current high denomination coins have been used.

STEP 8 When you have finished learning the targets, press the shift button next to the flashing tick.

STEP 9 Press the shift button next to the Save icon to go directly to the SAVE DISCRIM menu. Press a button next to your choice of option S1–S6 (for example S1 in Figure 6.6). This will save the learnt discrimination pattern for future use.
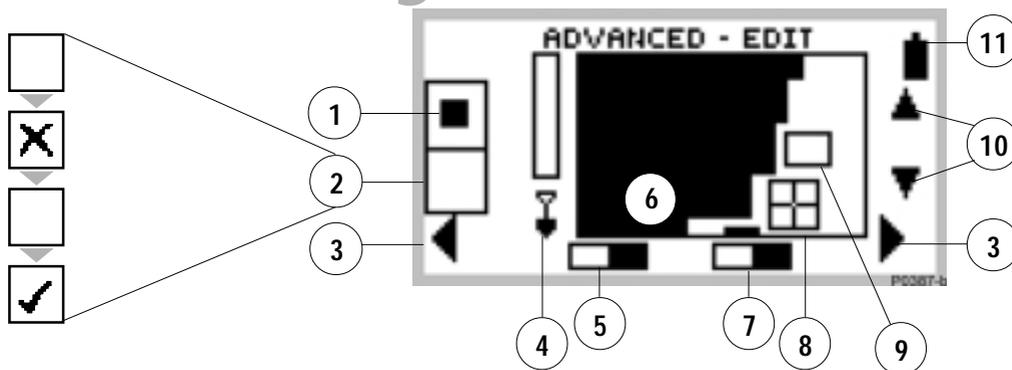
STEP 10 Press the DETECT shortcut button to return to the detect screen. SELECT DISCRIM will then use this saved pattern as the current search pattern.

NOTE **For more detail on SAVE DISCRIM, turn to page 80.**

6

ADVANCED USE

LEARN'S TARGET SELECTION

ADVANCED MODE'S EDIT DISPLAY

easy reference

ADVANCED - EDIT

(1) **Target frame size**. This allows you to select the size of the framed area you wish to accept or reject from the displayed discrimination pattern. There is a choice of three sizes. See pages 77-78.

(2) **Reject or accept framed area**. Instructs Explorer II to accept the framed area on selection of the tick icon. Selection of the cross icon will reject the framed area. This edits the current pattern. See page 78.

(3) **Horizontal navigation**. Pressing the shift button adjacent to these arrows moves the target frame to the left or right of screen.

(4) **Depth indicator**. The clear portion of the depth indicator represents the approximate distance of a target below the coil. The top of the indicator represents the position of the coil and the bottom represents 12 inches (300mm) from the coil. The bar will be clear if the target is too far from the coil or its depth cannot be accurately gauged.

(5) **Iron Mask**. This shaded block indicates whether IRON MASK function is ON or OFF. See page 45.

(6) **Discrimination pattern.** The shaded and unshaded areas of the screen schematically represent the current target discrimination characteristics. See pages 42-43 for basic information.

(7) **Pinpoint**. This shaded block indicates whether PINPOINT function is ON or OFF. See page 59.

(8) **Target Crosshair**. Represents the detected object's properties on a two-dimensional scale of discrimination. See page 42.

(9) **Target frame**. Any area of the screen enclosed by this frame may be excluded from or become part of your preferred target pattern.

(10) **Vertical navigation**. Pressing the shift buttons next to these arrows moves the target frame up or down screen.

(11) **Battery life**. This shaded block indicates the charge remaining in the installed batteries. See page 27.

6

ADVANCED USE

EDITING PATTERNS

Edit makes it possible to customize an existing discrimination pattern to match your preferred target characteristics.

Figure 6.7   Edit screen with target frame

Introducing Edit

Figure 6.7

Main Menu > Display > EDIT

As described earlier in this chapter, Advanced mode's LEARN display allows you to accept or reject a target and create your own discrimination patterns.

EDIT offers a final enhancement to these targeting features, enabling you to make manual changes to any discrimination pattern.

For example: Learn mode's target selection may not provide quite the result you wanted (even when using a different-sized cursor) Rather than start all over again, you can just 'touch up' your results. Similarly, you may find that the discrimination pattern for FOIL may need to be modified to suit your requirements.

The following tutorial outlines how to edit and then save discrimination patterns.

NOTE **Make sure Pinpoint is in OFF position before using EDIT to customize your discrimination pattern.**

6

ADVANCED USE

EDITING AND SAVING TARGET PATTERNS

tutorial ☞

This tutorial builds upon what has been covered in earlier target tutorials. The tutorial's four phases outline the steps necessary to edit and save a preselected discrimination pattern.

PHASE 1: Preparing for editing

Figure 6.8 Select option

STEP 1 Choose SELECT from the Main Menu and press the top right shift button to CLEAR the Smartfind thumbnail display.

STEP 2 (Figure 6.8) Move down the target list and accept JEWELRY and reject FOIL to establish an initial discrimination pattern.

STEP 3 Press the Main Menu shortcut button and select DISPLAY.

STEP 4 (Figure 6.9) Select EDIT to show the ADVANCED-EDIT screen. It is now possible to change the existing discrimination pattern.

Figure 6.9 Edit screen with small target frame

PHASE 2: Resizing and moving the target frame

Figure 6.10 Edit screen with target crosshair and medium target frame

STEP 5 (Figure 6.10) To change the size of the target frame, press the top left shift button to switch between Edit's three target frame sizes. (For the purposes of this tutorial, please choose the medium-sized frame).

STEP 6 To move the target frame, press the shift buttons next to the display's navigation arrows. Position the resized frame over the screen section you wish to edit (in the location approximated in Figure 6.10).

Continued next page...

6

ADVANCED USE

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EDITING AND SAVING TARGETS

... continued

tutorial

Figure 6.11 Rejecting framed target area

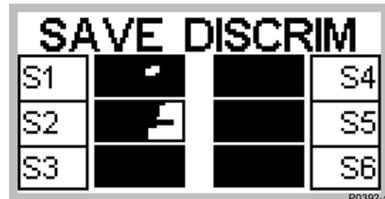**Figure 6.12** Target frame dragged to complete discrimination pattern

Figure 6.13 Saving discrimination pattern

PHASE 3: Rejecting the framed target area

STEP 7 (Figure 6.11) To *reject* the area enclosed by the target frame, press the center left shift button once. You will note that a cross appears next to the button and the area of screen within the target frame has darkened.

(Figure 6.12) It is now possible to drag the target frame to the left to increase the rejected area until it connects to the zone rejected previously.

NOTE **To accept the framed area, press the center left shift button until a tick appears next to the button. This instructs the Explorer II to clear the framed area.**

PHASE 4: Saving edited discrimination pattern

STEP 8 (Figure 6.13) To save the edited discrimination pattern, press the Main Menu shortcut button and select SAVE from the displayed menu.

STEP 9 Press the shift button corresponding to the location you want to save it (e.g. S2).

STEP 10 Now you can recall your edited discrimination pattern from the SELECT target list.

NOTE **The last saved discrimination pattern is retained in the SELECT menu as Advanced mode's current setting.**

6

ADVANCED USE

ADVANCED MODE'S SELECT MENU

In Advanced mode, the Explorer II allows you to define and save your own target patterns.

Figure 6.14 Two examples of Advanced mode's Select menu

Advanced mode's Select menu

Figure 6.14

Main Menu > SELECT

This section follows on from the Selecting Targets section of the Quickstart chapter, page 62.

Advanced mode's one distinction from Quickstart is the addition of 6 items to the SELECT target list. These six options are the memorized discrimination patterns you have selected or manually created in LEARN or EDIT. This has been described in detail in the preceding pages of this chapter and is explained further in Saving Targets on the following page.

SAVING TARGETS

Advanced mode's SAVE DISCRIM function provides a means of saving personalized discrimination patterns, it also provides a visual display of the patterns already saved.
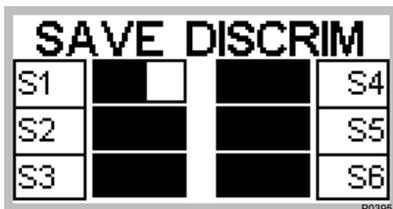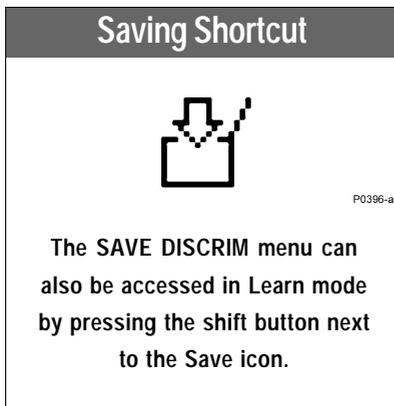

Figure 6.15. Save Discrim menu

Saving Shortcut

The SAVE DISCRIM menu can also be accessed in Learn mode by pressing the shift button next to the Save icon.

Saving targets

Figure 6.15

Main Menu > Save > SAVE DISCRIM (S1–S6)

The SAVE menu's SAVE DISCRIM options represent six potential places to store memorized target patterns. They will typically be selected when you want to save personalized discrimination patterns.

As mentioned earlier, discrimination patterns may be created in Learn's instant target selection, from one or more target options chosen from the SELECT menu, or from a discrimination pattern customized in EDIT.

To copy the current discrimination pattern into the SAVE DISCRIM menu, press the shift button next to the location where you want it to be saved. This new pattern will replace the previous content.

When you encounter the same detecting conditions again, it is possible to instruct the Explorer II to detect with the memorized setting (e.g. S1) by choosing from the SELECT target list as you would COINS or JEWELRY.

AUDIO MENU

Features accessed through the Audio menu allow you to define the audio properties of your Explorer II.

Figure 6.16 The Audio Menu

The Audio menu

Figure 6.16

Main Menu > AUDIO

Details on the Explorer II's audio response, Audio menu, settings and instructions appear in Chapter 5: Quickstart. Please refer to page 52 for information and instructions.

There is no difference in the functionality of the detector's audio between Quickstart and Advanced modes.

Volume Shortcut

It is also possible to access the volume menu from a shortcut on the **LEARN** screen. This is detailed on page 71.

6

ADVANCED USE

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OPTIONS MENU

The Main Menu's OPTIONS provide a selection of universal options and advanced settings.
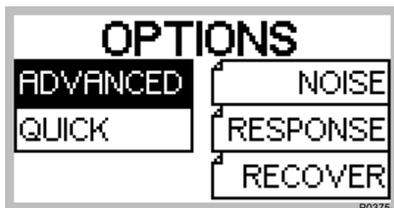

Figure 6.17 Advanced mode's Options menu

The Options menu

Figure 6.17

Main Menu > OPTIONS

Choosing OPTIONS from the Main Menu displays 5 selections. QUICK and ADVANCED switch the detector between its two detecting modes.

To move from Advanced mode to Quickstart, press the shift button next to the QUICK option. This selection will be highlighted and the Quickstart OPTIONS menu displayed. To begin detecting in Quickstart, press the DETECT shortcut button.

The three remaining selections in OPTIONS allow you to adjust the detector to suit specific detecting environments. These options are explained on the following pages.
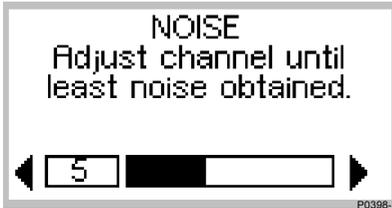
OPTIONS: NOISE

NOISE
Adjust channel until
least noise obtained.

◀ 5 ▶

P0398-a

Figure 6.18 Noise adjustment screen

Noise

Figure 6.18

Main Menu > Options > NOISE

Sometimes during detecting you may notice some interference in the form of erratic noises and movements of the target crosshair (even without movement of the detector). The NOISE option enables you to select an operating channel which does not clash with other detectors or electrical sources in the area. This feature is also good for metal detecting competitions if several Explorer IIs are working close to one another. Each detector can be set to operate on a different channel so interference between detectors is eliminated.

The factory setting for NOISE is 5.

NOTE **It may be useful to select manual sensitivity from the Smartfind or Digital screen before attempting this procedure. Sensitivity is covered in Chapter 5: Quickstart, page 49.**

To adjust channel for least noise:

STEP 1 Rest detector on the ground. Make sure the detector is not moved and the area is clear of targets.

STEP 2 Use the shift buttons next to the adjust arrows to select a channel and listen for interference (or 'noise'). Adjust the detector to a new channel and listen again. Do this with each channel in turn until you locate the channel with the least noise.

NOTE **The number associated with Noise does not denote an increase or decrease in power. It is simply a channel number which can be remembered.**

Noise Shortcut

NOISE CANCEL

P0404-a

Pressing the NOISE CANCEL shortcut button alerts the detector to automatically select the quietest operating channel. Allow 30 seconds and keep the search coil immobile and clear of targets.

6

ADVANCED USE

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OPTIONS: RESPONSE

RESPONSE
NORMAL | AUDIO 1
| AUDIO 2
| AUDIO 3

P0408-a

**Figure 6.19** Response menu

Introducing Response

Figure 6.19

Main Menu > Options > RESPONSE

The relationship between proximity of targets to one another and detector response can influence its performance. The RESPONSE option allows you to select the way the detector responds to targets and change the way targets sound upon detection. Response can affect your ability to identify certain targets in differing circumstances.

NORMAL

P0408-a

Normal
This is the factory preset of the detector in Quickstart and Advanced modes. Only Advanced mode provides alternative audio options to Normal. Normal emits a short response to targets (almost a 'beep') and is recommended for general detecting conditions. However, it should be noted that Normal has the potential to miss small targets in areas littered with objects producing a target response.

AUDIO 1

P0411-a
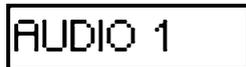
Audio 1
This setting is ideal for responding to several targets close together. Audio 1 offers an almost continuous audio response. It is recommended for the experienced user who can pick the differences in tone between various targets. This setting should be used in combination with display responses. It will help if you sweep the search coil in different directions to separate the targets. The tone can be more confusing for the beginner, but it has the potential to offer greater accuracy and depth.

```
AUDIO 2
```
P0410-a

Audio 2
This setting is similar to Audio 1, with the addition of some filtering of the audio tone response. Audio 2 reduces the variability of the pitch, offering a smoother continuous sound.

```
AUDIO 3
```
P0409-a

Audio 3
This setting is similar to Audio 2, with increased filtering of the audio tone response. This offers more consistent tone for a single target, but for multiple targets the tones will 'blend'.

NOTE **It is recommended you experiment with these settings once you are familiar with the sounds produced by the Explorer II in the Normal Response setting, then choose according to conditions and preference.**

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ADVANCED USE

OPTIONS : RESPONSE

OPTIONS: RECOVERY

P0399-a

Figure 6.20 Recovery menu

Introducing Recovery

Figure 6.20

Main Menu > Options > RECOVERY

This menu allows you to modify the way the discrimination process works. Recovery settings affect both the detector's audio and display response to target characteristics.

P0412-a

Fast

By selecting this setting, the detector will react faster to the signals received, but the discrimination may be slightly less accurate. Use Fast in areas littered with objects, where a desired target could be hiding next to unwanted objects.
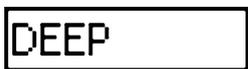
P0413-a

Deep

This setting affects only weak target signals and enhances them to allow identification of deep targets. This setting should be selected in relatively uncluttered areas where deep targets are anticipated. Strong signals are unaffected.

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ADVANCED USE

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OPTIONS: RECOVERY

SETTINGS MENU

The Settings menu provides the advanced user the opportunity to save all user preferred settings as an alternative to preprogrammed Explorer II settings.

Figure 6.21 Settings menu

Introducing the Settings menu

Figure 6.21

Main Menu > Options > SETTINGS

Once you have selected and modified the detector's operational settings (as detailed in Chapters 5 and 6) it is possible to save them to the Explorer II's memory for future detecting sessions. Advanced mode allows you to save and load two different settings (in addition to the factory presets). It may be that two people with different preferences use the detector (e.g. different volume, tone, sensitivity settings) or perhaps you divide your time between a couple of very different detecting environments (e.g. the beach and a highly-mineralized battlefield). The Explorer II's Settings feature makes it easy to save rather than going through the whole fine-tuning process again.

Saving and loading a setting

For example, to *save* your current detector settings, press the shift button next to USER A or USER B on the right side of the screen. A screen prompt will appear asking if you want to save current settings in the memory. Select YES.

You can now proceed to detect with this setting knowing it has been saved for future use in similar conditions. On the next occasion you wish to use these preferred settings you can load by choosing SETTINGS from the Options menu and pressing the shift button next to the USER A or USER B option on the left side of the screen.

6

ADVANCED USE

Get into the habit.

As mentioned earlier in this Manual, starting in factory preset discards all unsaved adjustments. To prevent this happening when you have gone to the effort of adjusting the Explorer II to suit your own needs, it is worth saving for a future detecting session.

The USER A or USER B option will save all of your preferences. This will provide you with two sets of memorized settings which you can use at any time.

A screen prompt will appear asking if you want to discard your current detector settings and load the memorized setting. Select YES (settings will load in about 5 seconds).

NOTE **A table of Explorer II functions with a range of values and factory presets is provided in Chapter 7: User Info (page 93-94). This table is designed to be used for recording your saved preferences. You may wish to make photocopies of this blank table for future changes.**

You should now be familiar with all aspects of your Explorer II detector. For helpful hints, user guides, technical details and other valuable user information (like the Glossary), refer to Chapter 7: User Info.

6

ADVANCED USE

SETTINGS MENU