R-NET OMNI
INFRA RED (IR)
CONTROL

OPERATING MANUAL

SK7976I-1
# TABLE OF CONTENTS

About this manual ................................................................................................................. 5

1 General .................................................................................................................................. 7

2 User Menu ................................................................................................................................. 8

3 IR Set Up .................................................................................................................................. 10

  3.1 Accessing the IR Set Up Menu ......................................................................................... 10

  3.2 IR Set Up Menu ................................................................................................................. 10

4 Learning an IR Code .................................................................................................................. 12

5 Enabling and Disabling IR Codes ............................................................................................ 14

6 Deleting IR Codes ..................................................................................................................... 15

7 IR Configuration Tool .............................................................................................................. 17

  7.1 Operation Initiation .......................................................................................................... 18

  7.2 The Application Window ................................................................................................. 19

  7.3 Drop Down Menus .......................................................................................................... 20

  7.3.1 File ............................................................................................................................... 20

  7.3.2 Edit ............................................................................................................................... 21

  7.3.3 Controller ...................................................................................................................... 22

  7.3.4 Help .............................................................................................................................. 23

  7.4 Toolbar ............................................................................................................................... 24

  7.5 User Menu .......................................................................................................................... 24

  7.5.1 Insert Appliance .......................................................................................................... 25

  7.5.2 Insert Command .......................................................................................................... 26

  7.5.3 Delete ............................................................................................................................ 26

  7.5.4 Rename .......................................................................................................................... 26

  7.5.5 Move Up ....................................................................................................................... 27

  7.5.6 Move Down ................................................................................................................... 27

  7.5.7 Clear IR Code .............................................................................................................. 27

8 Configuration ............................................................................................................................ 27

  8.1 Configuration of IR Control Mode ...................................................................................... 27
<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.2</td>
<td>Mode Name</td>
<td>28</td>
</tr>
<tr>
<td>8.3</td>
<td>Input</td>
<td>28</td>
</tr>
<tr>
<td>8.4</td>
<td>Output</td>
<td>28</td>
</tr>
<tr>
<td>9</td>
<td>PGDT Default Menu</td>
<td>29</td>
</tr>
</tbody>
</table>
About this manual

The Technical Manual gives a general introduction to the R-net Omni. For more detailed and/or current information refer to the Electronic Manual.

Throughout the manual icons are used to draw the reader’s attention. The icons used are:

- **Note** - A general point for best practice.
- **Caution** - A point of safety which if ignored could result in damage to the control system or the vehicle.
- **Warning** - A point of safety which if ignored could cause injury to the individual.

PG Drives Technology accepts no liability for any losses of any kind if the points are not followed.
I General

The Omni includes an IR transmitter and receiver that allows the Omni to replicate commonly used IR devices, such as remote controls for TV’s, DVD’s, Cable/Satellite or environmental controls such as automatic door openers.

Once an Omni with IR Control is connected to a R-net system, then IR Control can be from a conventional Joystick Module (or other Input Device) or from a Specialty Input Device that is connected to the Omni.
2  User Menu

IR Mode is accessed in the normal way of Mode selection, i.e. operation of the R-net system’s Mode button or command.

IR Mode will only be available if IR Codes have been stored in the Omni. There are two ways to store IR Codes in the Omni – by ‘learning’ codes from IR handsets or by programming from the PC based IR Configuration Tool, refer to sections 4 and 7 for respective details of each method.

When an IR Omni is dispatched from PGDT there are no stored IR Codes.

If IR Mode is not available and there are stored IR Codes, then refer to section 8, Configuration.

On entering IR Mode the user will be presented with a list of available IR Appliances, such as below.

When an IR Omni is dispatched from PGDT, it will contain a default menu as shown in section 9. If required, the IR Configuration tool can be used to change this default menu.
To navigate the IR Mode, using a joystick as an example of an Input Device:
Forward joystick deflections will highlight the Appliance above.
Reverse joystick deflections will highlight the Appliance above.
Left or Right joystick deflections will enter the highlighted Appliance’s sub-menu, which will contain all the IR Commands for that Appliance.
Left or Right joystick deflections will then activate the highlighted IR Command.
For each Appliance there is a list of associated IR commands. Using the TV example, Commands such as: On/Off, Channel Up, Channel Down, Volume Up and Volume Down may be displayed. When the Omni is transmitting the selected Command, it is highlighted with a red background.
3  IR Set Up

3.1  Accessing the IR Set Up Menu

There are two methods of accessing IR set up on the Omni.

- Holding the + and – keys on the Omni, launches the Settings menu.

Use the four (4) navigation keys on the front screen of the Omni. The Up/Down keys scroll up and down the menu. The Left/Right keys select the highlighted option.

- It is also possible to access IR Set Up Menu via OBP

3.2  IR Set Up Menu
On entering the IR Set Up menu, the default Appliances will appear. By selecting an Appliance, then its Commands will be shown.

If a Command is checked, this means it has a stored IR Code. If there is not a check, then there is no stored IR Code for that Command.

IR Codes can be stored or deleted as detailed in the following sections.
4 Learning an IR Code

- Enter the IR Set Up Menu.
- Select an Appliance. E.g. TV.
- The Commands for the Appliance will appear on the screen as below.

![Command Menu Image]

- Select the Command to be learnt. In this example, TV > Channel Up.

![Detailed Command List Image]
• Select Learn Code, by using the Right button while the Command is highlighted.

• Point the TV remote control at the Omni’s Receiver LED and press the On/Off button twice.

A check denotes a successful learn operation.
A cross denotes an unsuccessful learn operation, please retry.
The first time an IR Code has been learnt, then it is necessary to cycle the power to the Omni. If other IR Codes are already learnt, then this is not necessary.

5 Enabling and Disabling IR Codes

IR codes can be enabled or disabled in the IR Set Up menu. If a code is disabled it will not transmit and will not appear in the User Menu.

To disable an IR code, select the – key on the front panel of the Omni. A disabled IR codes appears with an X against the highlighted Command.

To enable an IR code, select the + key on the front panel of the Omni. An enabled code appears with a check against the highlighted Command.
6 Deleting IR Codes

To delete an IR Code for a specific command, highlight the specific command in the appliance menu and press the right button. Then select the Delete code option.

To delete all IR Codes for an Appliance select Delete All Codes within that Appliance’s sub-menu.

When deleting all learnt codes for a specific Appliance the R-net must be power cycled to actually delete the codes.
To delete all IR Codes stored in the Omni, select Delete All Codes within the IR Set Up menu.

If the Delete All Codes command is selected the R-net must be power cycled to actually delete the codes.
7 IR Configuration Tool

The IR configuration tool is a PC based application that allows the user to

- Read and Write IR menus from and to an R-net Control System
- Create IR menus.
- Change IR menus.
- Save IR menus.

Programming and diagnostics should only be conducted by healthcare professionals with in-depth knowledge of PG Drives Technology electronic Control Systems. Incorrect programming could result in an unsafe setup of a vehicle for a user. PG Drives Technology accept no liability for any losses of any kind if the programming of the Control System is altered from the factory preset values.

The IR tool will be launched via the R-net PC programmer. Select the IR short cut on the toolbar menu or select IR Configuration from the tools drop down menu.
7.1 Operation Initiation

Upon opening Program the following warning window will appear. It is important that this warning is read and understood before programming commences.

Clicking Continue opens the IR Configurator Window.

To begin using the IR Configurator one of three things must occur:

- A new file must be opened.
- An existing file must be opened.
- A file must be read from the Control System.
7.2 The Application Window

For ease of description the IR Configurator application will be separated into 3 different sections. These are:

- Drop Down Menus.
- Toolbars.
- Programming Area - User Menu and User Menu Set Up.
7.3 Drop Down Menus

7.3.1 File

This menu contains standard Windows functions – New, Open, Close, Save, Save As, Print, Print Preview and Print.

When opening a new file, this will be the standard PGDT default IR Menu, which is shown in section 9.
7.3.2 Edit

This menu contains standard Windows functions – Cut, Copy and Paste.
7.3.3 Controller

Read from Controller – Reads and displays the IR menu (.RnIR) file from the controller. The file will automatically assume a name corresponding to the serial number of the Power Module.

Write to Controller – Writes the contents of the User Menu file to the controller.
7.3.4 Help

<table>
<thead>
<tr>
<th>Help Topics –</th>
<th>This allows you to search for help text on any IR Configurator topic. [Not supported in initial release.]</th>
</tr>
</thead>
<tbody>
<tr>
<td>About R-net –</td>
<td>This presents information relating to the software version of the IR Configurator.</td>
</tr>
</tbody>
</table>
7.4 **Toolbar**

The toolbar icons are shortcuts to the most regularly used functions within the drop down menus.

7.5 **User Menu**

This area displays and defines the User Menu structure. Using the utilities Insert Appliance, Insert Command, Delete, Rename, Move Up and Move Down, the menu structure and content can be changed.

The screen below shows an example User Menu with seven Appliances: TV, Cable/Satellite, DVD1, DVD Recorder, Music, Device 1 and Device 2.

To view the Commands for each Appliance, click on the + symbol and the menu tree will expand. If a Command has an IR Code assigned to it, then the adjacent checkbox will be checked.
7.5.1 Insert Appliance.

Inserts a new Appliance in the menu or within a sub-menu. The text for the Appliance name is programmable.
7.5.2 Insert Command

Inserts a new Command in the menu or within a sub-menu. The text for the Command name is programmable.

7.5.3 Delete

Deletes the highlighted Appliance or Command from the menu structure.

7.5.4 Rename

Allows the highlighted Appliance or Command to be renamed.
7.5.5 Move Up

Moves the highlighted Appliance or Command up within the User Menu structure.

Move Up operation can also be achieved through standard windows drag and drop functions.

7.5.6 Move Down

Moves the highlighted Appliance or Command down within the User Menu structure.

Move Down operation can also be achieved through standard windows drag and drop functions.

7.5.7 Clear IR Code

To remove an IR Code from a Command in the User Menu, highlight that Command and click this button. The IR Code will be cleared and the adjacent checkbox will also clear.

8 Configuration

8.1 Configuration of IR Control Mode

PGDT factory programming configures Mode 5 to be IR Control Mode. If this programming has been overwritten, then it may be necessary to re-program as described below. You will know if re-programming is necessary if you cannot access the IR User Menu when it has learnt codes. In this instance, programming as below is recommended.

Firstly, determine which Modes are not used. In the sample screen shown below, it is Modes 5, 6 and 7, and Mode 5 is the one that has been chosen for IR Control Mode.
8.2 Mode Name

This is a 20 character text string that sets the name of the selected Mode. The sample screen below shows it as still being named Mode 5, but it could be changed to something more specific, such as IR Control.

8.3 Input

This parameter should be set Raw.

8.4 Output

This parameter should be set to IR Control.

The OEM may have factory preset set these options.
## 9 PGDT Default Menu

<table>
<thead>
<tr>
<th>TV1</th>
<th>DVD1</th>
</tr>
</thead>
<tbody>
<tr>
<td>On/Off</td>
<td>On/Off</td>
</tr>
<tr>
<td>Channel Up</td>
<td>Play</td>
</tr>
<tr>
<td>Channel Down</td>
<td>Stop</td>
</tr>
<tr>
<td>Volume Up</td>
<td>Pause</td>
</tr>
<tr>
<td>Volume Down</td>
<td>Fast Fwd</td>
</tr>
<tr>
<td>Channel Selection</td>
<td>Fast Rev</td>
</tr>
<tr>
<td>0</td>
<td>DVD Record</td>
</tr>
<tr>
<td>1</td>
<td>On/Off</td>
</tr>
<tr>
<td>2</td>
<td>Play</td>
</tr>
<tr>
<td>3</td>
<td>Stop</td>
</tr>
<tr>
<td>4</td>
<td>Pause</td>
</tr>
<tr>
<td>5</td>
<td>Fast Fwd</td>
</tr>
<tr>
<td>6</td>
<td>Fast Rev</td>
</tr>
<tr>
<td>7</td>
<td>Menu</td>
</tr>
<tr>
<td>8</td>
<td>Up</td>
</tr>
<tr>
<td>9</td>
<td>Down</td>
</tr>
<tr>
<td>Input</td>
<td>Left</td>
</tr>
<tr>
<td>Select/OK</td>
<td>Right</td>
</tr>
<tr>
<td><strong>Cable/Satellite</strong></td>
<td><strong>Select/OK</strong></td>
</tr>
<tr>
<td>On/Off</td>
<td>Record</td>
</tr>
<tr>
<td>TV Guide</td>
<td>Timer Record</td>
</tr>
<tr>
<td>Up</td>
<td>Record Mode</td>
</tr>
<tr>
<td>Down</td>
<td><strong>Music</strong></td>
</tr>
<tr>
<td>Left</td>
<td>On/Off</td>
</tr>
<tr>
<td>Right</td>
<td>Play</td>
</tr>
<tr>
<td>Select/OK</td>
<td>Stop</td>
</tr>
<tr>
<td>Information</td>
<td>Volume Up</td>
</tr>
<tr>
<td>Page Up</td>
<td>Pause</td>
</tr>
<tr>
<td>Page Down</td>
<td>Fast Fwd</td>
</tr>
<tr>
<td>Red</td>
<td>CD Changer</td>
</tr>
<tr>
<td>Green</td>
<td>AM</td>
</tr>
<tr>
<td>Yellow</td>
<td>FM</td>
</tr>
<tr>
<td>Blue</td>
<td>Search</td>
</tr>
<tr>
<td><strong>Preset</strong></td>
<td></td>
</tr>
<tr>
<td>Device 1</td>
<td>Device 2</td>
</tr>
<tr>
<td>---------</td>
<td>---------</td>
</tr>
<tr>
<td>Command 1</td>
<td>Command 1</td>
</tr>
<tr>
<td>Command 2</td>
<td>Command 2</td>
</tr>
<tr>
<td>Command 3</td>
<td>Command 3</td>
</tr>
<tr>
<td>Command 4</td>
<td>Command 4</td>
</tr>
<tr>
<td>Command 5</td>
<td>Command 5</td>
</tr>
<tr>
<td>Command 6</td>
<td>Command 6</td>
</tr>
<tr>
<td>Command 7</td>
<td>Command 7</td>
</tr>
<tr>
<td>Command 8</td>
<td></td>
</tr>
</tbody>
</table>