# **Network IR Speed Dome Camera**

# **KEDACOM**

Quick Start Guide

# I. Preface

These instructions are intended to ensure that the user can use the product correctly to avoid danger or property loss. Please read this Guide carefully before using the product, and keep it properly for future reference. If the product cannot work normally or is damaged because the user does not follow the safety instructions, we shall not assume any responsibility.

# II. Safety Instruction

## **Power Supply**

- During installing and using the device, please follow local electrical safety regulations strictly.
- Please use power supply in the safe voltage range of our product. Make sure if the power supply is correct before
  running the device.
- Please install an easy-to-use breaker during installation and wiring in case it is necessary to make an emergency break.
- Please prevent the power cord from being trampled or pressed especially the plug, socket and the connecting part led
  out from the device.
- Please connect cables of power, alarm, audio and RS-485 with the power off. Hot-line wiring is not allowed.

## Working Environment

- Please use the attached power adaptor. Using unqualified power adaptor may cause damage to the device.
- Do not focus the camera lens on strong light such as the sun or incandescent lamp; otherwise the strong light will
  cause overexposure or light leak (not camera malfunction), which may shorten camera lifetime.
- For device with laser, when it is working, never look into the laser window directly in short distance. Neither look at the laser directly nor look at the reflection of it.
- Please transport, use and store the device within defined humidity and temperature ranges.
- Do not expose it in damp, dusty, extremely hot or cold places or places with intense electromagnetic radiation or with unstable lighting.
- Keep the camera away from water or any liquid to avoid damage to internal components.
- Usually this device is installed outdoor, so please make special treatment such as water proofing, damp proofing and
  dust proofing to the connection part of it, especially that the screw at the connection part must be tightened to ensure
  general leakproofness. To avoid lightning stroke, please install an arrester.
- To avoid heat accumulation, please do not block the ventilation around the device.
- While shipping the camera, pack it in the factory packing or use materials with equivalent quality.
- When shipping, storing and installing the device, try to prevent it from damages caused by pressure, violent vibration and soaking.
- During transportation, conduct special protection over the front side of the camera to avoid friction, scratch or contamination. To keep the front side clean, do not peel off the protective film until finishing installation.

Working Environment			
Voltage	AC24V±10%, 2.5A/ Hi-PoE		
Condition	Waterproof, lightning protection, anti-interference		
Temp.	-40°C~+70°C		
Humidity	10%~95% (Relative, non-condensing)		
Altitude	-60m ~ 3000m		
Pressure	86kPa ~ 106kPa		

# **Daily Maintenance**

- Do not touch the heat component of the device directly to avoid empyrosis.
- When the lens is contaminated by dust or grease, use cotton cloth or lens clean cloth to wipe it off. When it is hard to clean, dip some lens cleanser and wipe gently and rotate outward from the middle until it is clean. Never apply any organic solvent with ethanol or benzene to clean the lens and housing.
- Do not disassemble or repair the device in any way by yourself. We shall not assume any responsibility for problems
  caused by unauthorized repair or maintenance.
- When it is necessary to replace a part, please contact your dealer in advance and replace the part with specific model
  or part of the same features. We shall not assume any responsibility for problems caused by unauthorized
  replacement.
- If the product does not work properly, please contact your dealer or the nearest service center.

## **Special Statement**

- The product appearance is subject to the actual device and picture in this Guide is for reference only.
- Every effort has been made to ensure the accuracy and validity of this Guide. Any update of this Guide caused by version upgrade is subject to change without notice.
- This Guide is made for multiple models but it will not illustrate one by one. Please refer to it according to the actual
  products you are using.
- This device can be used after being activated through IPCSearch (download it from our website: https
- //www.kedacom.com/cn/softtools/index.jhtml). During activation please fill a valid email address for finding back the password.
- To ensure the safety of device on internet, it is strongly recommended that you set a strong password which is composed of at least 2 kinds of the following, digits, case-sensitive letters or specific symbols, and whose length ranges from 8 to 16 bits. Please modify the password periodically and once every 3 months is recommended. If the device is used in highly risky environment, suggest modifying the password monthly or weekly. Please keep your user name and password safe.

- Accessing this device to the internet is at user's own risk, including but not limited to the possible network attack, hacker attack, virus infection and etc. This company will not assume any responsibility for problems of product abnormality and information disclosure caused thereof. We shall provide technical support relating to the products in time
- For the latest documents, please download at our website www.kedacom.com.

## Waterproofing

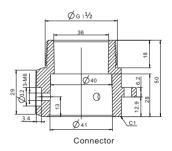
- For outdoor installation, suggest using the wall bracket whose arm has a certain upward angle.
- If user uses self-selected bracket, suggest applying those waterproof brackets with internal screw thread
  connector. If user selects brackets with external screw thread, make sure of the waterproofness of the
  connecting part between the bracket and the dome camera.
- The screw thread connector needs to be bound with thread seal tape to ensure the sealing tightness of screw thread. When mount, align with the screw thread to avoid obvious deviation or slipping.

## III. Dimensions and Wire Interfaces

## Dimensions

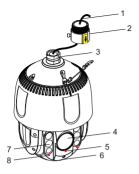


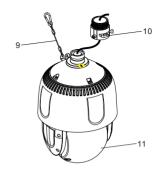




Unit: mm Weight: 4.3 kg

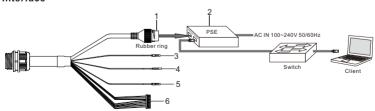
# Components





No.	Component	No.	Component	No.	Component
1	Tail Wire	5	Lens Film	9	Safety Hook
2	Connector	6	Dome Housing	10	Hanger
3	Straight Side of D	7	IR Light	11	Buckled Lid
4	Lens	8	IR Light Film		

# Wire Interface



[Note]: Power supply of the camera is either PoE or AC24V.

Table 1 Wiring Interface

No.	Port Name	Function		
1	Network port	Connect to network access device such as a switch		
2	PoE power supply	Power supply for the device		
3	Power supply (AC24V1, red)	Connect to power supply of AC 24V, regardless of positive and negative		
4	Power supply (PGND, yellow/green)	Grounding wire, connect it to reliable grounding point		
5	Power supply (AC24V2, black)	Connect to power supply of AC 24V, regardless of positive and negative		
6	User cable group	Including alarm in / out and audio in / out		

Table 2 Cable Group Interface

Interface	No.	Color	Port Name	Function		
User Cable Group  2 Purple ALARM OUT A Can be connected to: alarm light  3 Orange ALARM IN-2 Alarm input port, for inputting ala Can be connected to: smoke detection by the connected to: smoke detection by the connected to: smoke detection by the connected to: loudspeaked by the connected to: lou	1	Green	ALARM OUT B	Alarm output port, for outputting alarm signal		
	2	Purple	ALARM OUT A	Can be connected to: alarm light		
	Alarm input port, for inputting alarm signal					
	4	Blue	ALRAM IN -1	Can be connected to: smoke detector, voice-operated switch		
	5	Yellow	ALARM GND	Alarm grounding		
	6	Brown	AUDIO OUT	Audio output port, for outputting audio signal Can be connected to: loudspeaker box		
	7	Red	AUDIO IN	Audio input, inputting audio signal or intercommunication Can be connected to: sound pick-up		
	8	Black	AUDIO GND	Audio grounding		

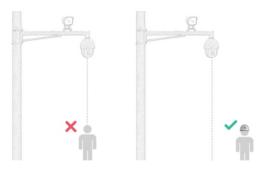
# [Note]:

- 1) ALARM OUT A and ALARM OUT B are regardless of positive and negative polarities and they form a group of alarm output.
- 2) ALARM IN-1 and ALARM IN-2 share the ALARM GND wire.
- 3) AUDIO IN and AUDIO OUT share the AUDIO GND wire.

# IV. Installation

# 1. Safety Instructions

- The thickness of the wall or ceiling should be able to bear the expansion screws.
- Make sure there is enough space for mounting the camera and its accessories.
- Make sure the wall or cross-bar can bear the weight as heavy as 8 times of the total weight of the camera and the
  accessories (net weight of the dome camera; 4.3 KG).
- On roads without height limits, the suggested installation height of the camera should be higher than 5m so as to reduce friction to the camera.
- To prevent the device from dropping, the camera must be installed with a safety hook during installation.
- During installation, no man shall be allowed to move around in 2m under the camera, and all men should wear a safety helmet.

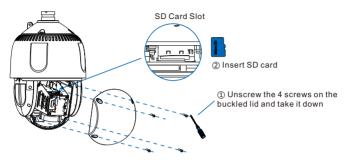


Before starting installing dome camera, please take off the air column bag and peel off the tape fixing the dome and wear the gloves

The tail wire should be treated waterproof and well protected without being exposed outside. The whole part in which the tail wire is in should be made waterproof generally and avoid soaking it in water. When installing the dome camera, make sure the connecting part between the dome camera and the bracket is treated sealed and waterproof.

## 2. Install An SD Card (optional)

Open the buckled lid on the dome housing and rotate the dome housing downward from the back of the dome camera by a certain angle. Install the Micro SD card, max supported memory 128G. The allowed tilt rotation angle range is -15°  $\sim$  90°.



[Attention] Hot swapping of the SD card is not recommended. Please format the card during use for the first time.

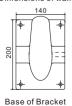
## 3. Installation Method

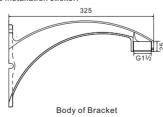
The camera supports wall bracket mount, pendent mount, corner bracket mount, pillar bracket mount and self-made bracket mount.

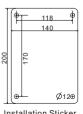
[Note]: All brackets are optional.

#### Wall Bracket Mount

Dimensions of wall bracket and the installation sticker:

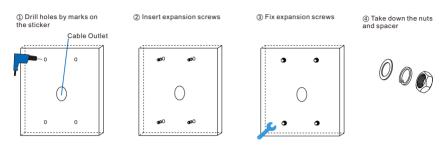




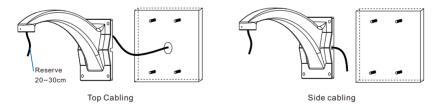


Installation Sticker
Unit: mm

- 1) Paste the installation sticker onto the wall and drill holes according to the 4 hole marks on the sticker for φ12 expansion screws (hole depth ≥70mm).
- If routing cables from the top, a cable outlet hole is needed on the wall. If routing cables from the side of the device, no need to drill a outlet hole but lead the cables through the U-shaped groove at the side of the base.
- 2) Insert the M8 expansion screws into the holes (do not screw off the nut) and take off the nuts and spacers when the expansion screws are fixed tight.

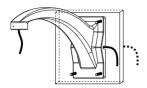


3) Determine wiring method and route cables out. If routing cables from the top, go through the outlet hole on the wall. If routing cables from the side, go through the U-shaped groove at the bracket base.

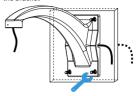


4) Fix bracket. Make the holes on the bracket go through the expansion screw bolts on the wall. Put the spacers onto the expansion screw bolts and tighten the nuts.

①Insert the expansion screw bolts into the holes on the bracket



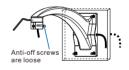
②Put the spacers onto the expansion screw bolts, tighten the nuts and fix the bracket



5) Screw the connector into the bracket connector. Bind up the adaptor with thread seal tape and screw it onto the bracket. Tighten the screws on the bracket and make sure the anti-off screws on the adaptor are loose. Hang the camera safety hook onto the hanger of the connector.



3 Tighten screws at the connection part of bracket



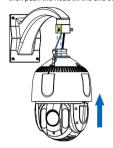
6) Take out the safety hook and hang it on the dome camera and connection part.



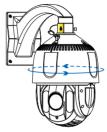
7) Connect cables according to the tags on the wire. Check and sort out the cables and bind the connecting part with insulating tape. Then pull the cables into the bracket.

8) Align the straight side of D-shaped head to the yellow sticker on the adaptor, then push the camera till the end of the adaptor and rotate in pan by 180° until the yellow sticker on the adaptor aligns to that on the connector. Tighten the 2 anti-off screws on the connector.

① Align the straight side of D-shaped head of camera to the yellow label on the connector, then push the head till the end of connector.



② Rotate camera by 180° in pan



Tighten the anti-off screws



9) After finishing installation, double check to make sure the dome housing is tight. Peel off the films on the lens and on the IR light glasses and then power on the device.

### Pendent Bracket Mount

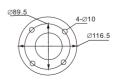
#### [Note]:

①Pendent bracket is for indoor use and usually not used outdoor. When using it outdoor due to special requirement, please make sure it meets the waterproof request. Any water penetration failure caused by poor waterproofness, this company will not be responsible for the risks caused thereof.

 ${\tt @Custom\, suspender\, for\, working\, with\, the\, pendent\, bracket\, must\, reach\, the\, waterproof\, request\, without\, water\, penetration\, or\, hydrops.}$ 

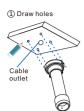
Dimensions of our pendent bracket and the installation sticker:



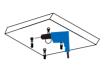


Unit: mm

1) Draw holes according to the holes at the base of pendent bracket, drill holes and insert expansion screw bolts.



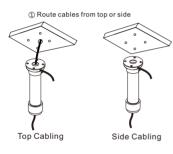




3 Fix expansion screw bolts and and take down nuts and spacers



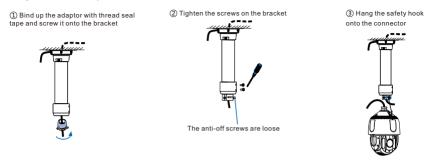
2) Route cables according to conditions at the scene, from top or side, and fix the bracket.



② Make the holes on the bracket base go through the expansion screws. Put the spacers on the expansion screws and tighten the nuts. Fix the bracket.



3) Bind up the adaptor with thread seal tape and screw it onto the bracket. Tighten the screws on the bracket. Hang the camera safety hook onto the connector.



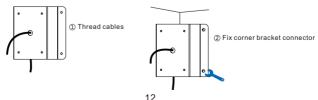
4) For the installation of dome camera and cable connection, please refer to Step 6 to 9 of Wall Bracket Mount.

## **Corner Bracket Mount**

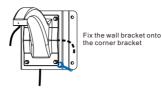
 Draw holes according to the holes at the base of the corner bracket, drill holes and insert expansion screw bolts.



Thread cables through the cable hole on the bracket if necessary (no need to thread cables when cabling from the side), tighten the screw cap and fix the bracket.



3) Fix the wall bracket onto the corner bracket;



4) For the installation of connector and the dome camera, please refer to Step 5 to 9 of Wall Bracket Mount.

## Pillar Bracket Mount

- 1) Unscrew the clamp on the pillar bracket and thread cables through the hole on the bracket if necessary (no need to thread cables when cabling from the side):
- 2) Fix the pillar bracket onto the cylinder pole, tighten the clamp and fix the bracket;



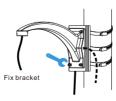




3 Fix pillar bracket connector



3) Fix the wall bracket onto the pillar bracket;



4) For the installation of connector and the dome camera, please refer to Step 5 to 9 of Wall Bracket Mount.

#### Self-Made Bracket Mount

User can install the camera with self-made bracket with at least 2 pins. This guide will take the cross-bar bracket as an example.

1) Get a welded cross-bar ready and there must be at least 2 pins mounted 10mm~13mm from the mounting port;



 Thread the cables out from the bracket and reserve enough length for connecting to the cables in the dome camera (suggest reserving 20cm~30cm);



3) Take out the safety hook and hang one end of it onto the hook of the cross-bar;



4) For the installation of dome camera, please refer to Step 6 to 9 of Wall Bracket Mount.

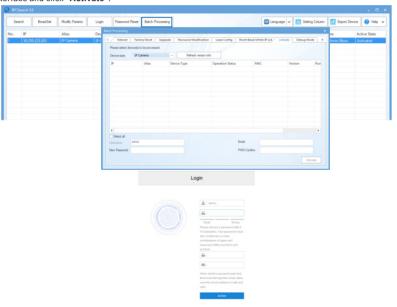
## V. Login to the Device

- 1. Minimum system configuration and environment requirements:
  - Processor: 3.3 GHz CORE®i2 series or other equivalent processors
  - RAM Memory: 4GB or above
  - Operating System: Windows XP or higherer versions
  - Browser: recommend IE kernel browsers, otherwise some functions of the web client may fail
  - DirectX: 9.0c

#### 2. Device Activation

When using the device for the first time, run IPCSearch and it will search devices in LAN automatically and display the list of device IP address, gateway and etc. If the network provides DHCP service, DHCP server will assign IP for the camera automatically.

- Batch: Select the device and click "Batch processing". In the popup interface, set admin user's password
  and the email address to find back the password. Click "Activate" and wait for rebooting.
- Individual: Select the device from IPCSearch and right click to select "Active". Fill admin user name and
  password and the e-mail address to find back the password. Click "Activate" and wait for rebooting.
- Web client: the device can also be activated through the web client. Set PC and the device in the same network segment and login to the web. User can set admin password and password reset email on the interface and click "Activate".



## 3. Modify Device IP Address

Click "Modify Params" and set the network parameters. When configuring a static IP for the camera, please check "Custom device address (Close DHCP)" and fill the Ethernet parameter. During the modification, the user name (admin) and the password set before activation should be entered. After configuration, the camera will reboot automatically.

#### 4. Login to the Device

- 1) Double click the device in IPCSearch or click "Login". Enter user name and password to login the web client.
- 2) After login, download and install the plug-in (IE Kernal browser).
- 3) Re-login to the web client and view live video directly.

[Note]: Interface of different models may differ. Please subject to the actual product. Please refer to the *Help* file for detailed explanation.

Adjust camera direction, configure camera parameters in web client until the live view meets requirement.

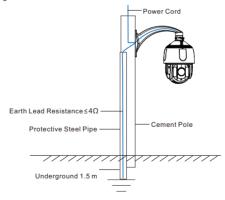


# Appendix I: Anti-static, Anti-interference, Anti-thunder, Anti-surge

- The camera should be grounded, or ESD may damage the electrical parts.
- In thunder and lightning area, camera should be grounded nearby to release the heavy energy of thunder strike so as to prevent camera from damage.
- In area with unstable voltage, camera should be grounded to release the heavy energy of electrical surge so as
  to prevent power source from burning.
- Camera anti-thunder ground lead cannot replace safety ground lead. When apply poles with imperfect earth, such as wooden pole and cement pole, camera should connect the safety ground lead to release leak current so as to ensure the safety of camera or pole.
- Camera anti-thunder ground lead must be grounded individually, other than being grounded through other electrical device nearby.

## [Cement Pole Ground]

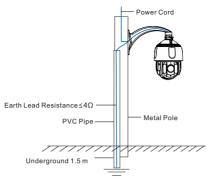
Cement pole mounting needs protective steel pipe to lead the ground wire. As the picture shows, the ground wire of high speed dome camera goes through the steel pipe and grounds. The Command Center just has to ground locally according to the norms.



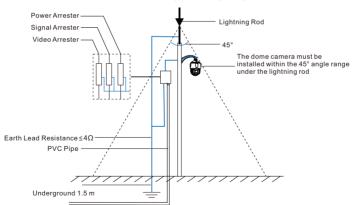
Cement Pole Grounding

# [Metal Pole Ground]

Metal pole mounting needs PVC pipe to lead the ground wire. Metal pole without lightning rod applies PVC pipe to lead ground wire. Fix the ground wire near the metal pole and ground it, as the picture shows.



Metal Pole Grounding (without lightning rod)



Metal Pole Grounding (with lightning rod)

[Attention]: If there is middleware installed, such as an optical transceiver or anti-thunder device, the middleware should be well grounded as well as the camera if the cable goes through the middleware.

# Appendix II: AC 24V Wire Diameter VS. Transmission Distance

The recommended max transmission distance when the wire diameter is certain and the AC24V voltage loss rate is less than 10%

(For AC24V powered devices, the maximum allowed voltage loss rate is 10%. All the wires in the following table are cooper wires, whose electrical resistivity is  $\rho = 0.0175\Omega^*mm^2/m$ )

Distance Diameter mm (feet)				
Power W	0.8 ( 20AWG )	1.0(18AWG)	1.25(16AWG)	2.0(12AWG)
5	122 ( 401 )	194 (636)	307 (1008)	781 (2562)
10	61 ( 201 )	97 ( 318 )	154 ( 504 )	391 (1281)
15	41 ( 134 )	65 ( 212 )	102 ( 336 )	260 (854)
20	31 ( 100 )	48 ( 159 )	77 ( 252 )	195 (641)
25	24 (80)	39 ( 127 )	61 ( 202 )	156 (512)
30	20 (67)	32 ( 106 )	51 ( 168 )	130 (427)
35	17 (57)	28 ( 91 )	44 ( 144 )	112 ( 366 )
40	15 (50)	24 ( 79 )	38 ( 126 )	98 (320)
45	14 ( 45 )	22 ( 71 )	34 ( 112 )	87 ( 285 )
50	12 ( 40 )	19 ( 64 )	31 ( 101 )	78 ( 256 )
55	11 ( 36 )	18 ( 58 )	28 ( 92 )	71 ( 233 )
60	10 (33)	16 (53)	26 ( 84 )	65 ( 214 )
65	9 (31)	15 ( 49 )	24 ( 78 )	60 ( 197 )
70	9 (29)	14 ( 45 )	22 ( 72 )	56 ( 183 )
75	8 ( 27 )	13 ( 42 )	20 (67)	52 ( 171 )
80	8 ( 25 )	12 ( 40 )	19 (63)	49 ( 160 )
85	7 (23)	11 ( 37 )	18 (59)	46 ( 151 )
90	7 (22)	11 ( 35 )	17 ( 56 )	43 ( 142 )
95	6 (21)	10 (33)	16 (53)	41 ( 135 )
100	6 (20)	10 (32)	15 ( 50 )	39 ( 128 )

[Note]: The requirements of diameter apply to single, solid and round cooper wire. The AWG value of multi-stranded wires depends on the total CSA (Cross Sectional Area) of all wires.

# Kedacom Two (2) Year Limited Hardware Warranty

#### WHAT IS COVERED BY THIS WARRANTY?

Kedacom warrants the Kedacom-branded hardware product and accessories contained in the original packaging (hereinafter referred to as "Kedacom Product") against defects in materials and workmanship when used normally in accordance with Kedacom's published guidelines for a period of TWO (2) YEARS from the date of original retail purchase in areas other than mainland China by the end-user purchaser (hereinafter referred to as "Warranty Period"). For the Kedacom Product purchased in mainland China, see the simplified Chinese version of this warranty for details. Kedacom's published guidelines include but are not limited to information contained in technical specifications, user guides, and service communications. The preceding applies unless otherwise agreed in the contract.

## WHAT IS NOT COVERED BY THIS WARRANTY?

This warranty does not apply to any non-Kedacom branded hardware products or any software, even if packaged or sold with Kedacom hardware. Manufacturers, suppliers, or publishers, other than Kedacom, may provide their own warranties to you but Kedacom, in so far as permitted by law, provides their products "AS IS". Software distributed by Kedacom with or without the Kedacom brand (including, but not limited to system software) is not covered by this warranty. Please refer to the licensing agreement accompanying the software for details of your rights with respect to its use. Kedacom does not warrant that the operation of the Kedacom Product will be uninterrupted or error-free. Kedacom is not responsible for damage arising from failures to follow instructions relating to the Kedacom Product's use.

This warranty does not apply: (a) to consumable parts, such as batteries, unless failure has occurred due to a defect in materials or workmanship; (b) to cosmetic damage, including but not limited to scratches, dents, and broken plastic on ports; (c) to damage caused by use with another product; (d) to damage caused by acts outside the control of Kedacom, including without limitation acts of God, accidents, abuse, misuse, fire, storms, earthquakes, flood, or other external cause; (e) to damage caused by exposure of the product to heat, bright light, sun, liquids, sand, or other contaminants; (f) to damage caused by operating the Kedacom Product outside Kedacom's published guidelines; (g) to damage caused by service (including upgrades and expansions) performed by anyone other than a representative of Kedacom, Kedacom employee, or authorized Kedacom agent; (h) to an Kedacom Product that has been modified to alter functionality or capability without the written permission of Kedacom; (i) to defects caused by normal wear and tear or otherwise due to the normal aging of the Kedacom Product, or (j) if any serial number has been removed or defaced from the Kedacom Product.

### YOUR RESPONSIBILITIES

If your Kedacom product is capable of storing data and other information, you should make periodic backup copies of the information contained on the storage media to protect the contents and as a precaution against possible operational failures.

Before receiving warranty service, Kedacom or its authorized agents may require that you furnish proof of purchase details, respond to questions designed to assist with diagnosing potential issues, and follow Kedacom's procedures for obtaining warranty service. Before submitting your Kedacom Product for warranty service, you should maintain a separate backup copy of the contents of its storage media, remove all personal information that you want to protect, and disable all security passwords.

During warranty service, it is possible that the contents of the Kedacom product's storage media will be lost, replaced or reformatted. In such an event, Kedacom and its authorized agents are not responsible for any loss of data or other information contained on the storage media or any other part of the Kedacom product serviced.

Following warranty service, your Kedacom Product or a replacement product will be returned to you as your Kedacom Product was configured when originally purchased, subject to applicable updates. You will be responsible for reinstalling all other data and information. Recovery and reinstallation of other data and information are not covered under this warranty.

#### WHAT WILL KEDACOM DO IF THE WARRANTY IS BREACHED?

If during the Warranty Period, you submit a valid claim to Kedacom or an authorized Kedacom agent, Kedacom will, at its option, (i) repair the Kedacom Product using new or previously used parts that are equivalent to new in performance and reliability, or (ii) exchange the Kedacom Product for a refund of your purchase price.

A Kedacom replacement part or product, including a user-installable Kedacom part that has been installed in accordance with instructions provided by Kedacom, assumes the remaining warranty of the Kedacom Product or ninety (90) days from the date of replacement or repair, whichever provides longer coverage for you. When a product or part is replaced or a refund provided, any replacement item becomes your property and the replaced or refunded item becomes Kedacom's property.

Kedacom reserves the right to refund the purchase price as its exclusive warranty remedy.

#### HOW TO OBTAIN WARRANTY SERVICE?

To seek warranty service, please contact a local authorized Kedacom agent. When contacting the agent via telephone, other charges may apply depending on your location.

## User Information

Complete the form below and keep for ready reference.

User Name:		
Address:		Postal Code:
Tel:	Mobile:	
Fax:	E-Mail:	
Product Name:	Product Model:	
Date of Purchase:		

