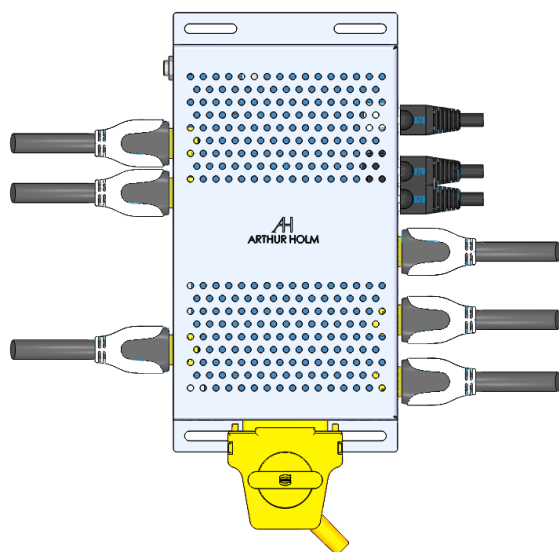




User Guide



DynamicShare Stand Alone

AHDSSA

HDMI signal distribution and selection system

Technology Serving Desing

Danish craftsmanship
Mediterranean soul


ARTHUR HOLM

TABLE OF CONTENTS

EC REGULATIONS AND SECURITY	6
SAFETY INSTRUCTIONS	6
SYSTEM DESCRIPTION	8
INPUT CONNECTORS	10
AHDSSA	12
AHNET PROTOCOL	17
AHNET WEB API COMMANDS	18
NETWORKI CONFIGURATION	20
SHARE START UP	21
INFORMATION ON DISPOSAL	22
WARRANTY TERMS AND CONDITIONS	23

WELCOME

Thank you for purchasing an ARTHUR HOLM product.

Our product range has been designed to create the perfect meeting room, where the equipment is a part of the interior design as well as an essential communication tool.

Please, read this installation and operating instructions carefully and keep them in a safe place for future reference.

We remain at your entire disposal if you have any suggestions that would help us improve our products.

Henrik Holm
General Manager

ABOUT US

The Company

Arthur Holm has its origins in the Danish furniture designer Jorgen Alex Jensen, who was active during the sixties and the seventies. His design inspiration and his concept of ergonomics have been continued by his family, the design force behind Arthur Holm product range. The result of combining Scandinavian design tradition with Mediterranean creativity, flexibility and emotion is a wide product range built on more than 20 years of craftsmanship.

Arthur Holm offers a professional product range where tomorrow's technology is shaped into valued materials with design flexibility and customisation, specially created to enhance communication and collaboration in reception, conference and meeting areas.

The art of customisation

Arthur Holm offers a range of ingenious products whose designs are based on quality materials and the latest technology. Products which endow meeting and conference rooms with silent, ergonomic, innovative and aesthetic solutions that integrate into the furniture, hang from the walls as works of art or are used as interactive points of information.

The world of Arthur Holm

Arthur Holm offers a selection of unique, elegant, versatile, flexible and ergonomic products that are being used in meeting and conference rooms, reception areas, auditoriums and public zones of leading companies throughout the world.

The numbers speak for themselves! We currently own 27 product patents, have presence in over 45 countries with products and solutions in more than 20,000 installations.

It will be our pleasure to work with you, designing your unique environment. Our broadcast electronic engineers will provide the latest technology while our design team will offer you the most exclusive appearance.

Our team puts its heart, passion and pride in all our designs.

EC REGULATIONS AND SECURITY



ATTENTION: Do not disassemble or modify the device in any way. This symbol warns of the presence of dangerous un-insulated voltages inside some of the components, of sufficient magnitude to expose people to risk of electronic shock.



This symbol draws attention to important use and maintenance instructions in the manual that accompanies the unit.



This symbol indicates that the equipment conforms to the norms established by the European Community.

SAFETY INSTRUCTIONS

Plugs

- Do not dismantle any part of the device power connector.
- Disconnect the power plug from the AC outlet when the device is not going to be used for an indefinite period of time.

Power and extensions cords

- Use the appropriate power cord with the correct plug type.
- Do not overload wall outlets or power cords.
- Make sure the total ampere passed through a extension cord does not exceed the maximum allowed by the cable used.
- Do not place anything on the power cord.
- Do not locate this product where a person may walk or trip over the cord.

SAFETY INSTRUCTIONS



Wiring connected to hazardous voltage requires installation by qualified personnel or the use of ready-made flexible cables.



For your security, your equipment must be connected to an electrical outlet with grounding connection protection.

Since the plug is used to disconnect the device, the operating electrical outlet must be in an easily accessible place.

Environment

- Install the equipment on an elevated, flat surface.
- Install the equipment in a ventilated area.
- Avoid exposing the equipment to:
 - Rain or water
 - Excessive heat, cold or humidity
 - Area exposed to direct sunlight
 - Dirty areas
 - Equipment generating strong magnetic fields
- Avoid placing open containers of liquid, near the equipment.
- Keep a minimum distance of 30 mm in order to have good ventilation.
- Never place above the device any sources of flames such as lighted candles, etc.
- If you are using the device in extreme weather conditions and/or tropical climates, the equipment should be installed in a room which ensures a reasonable level of temperature and humidity.
- To prevent damage, the equipment must be firmly anchored to the surface, as shown in the installation instructions.

SYSTEM DESCRIPTION

Applications

Wired share system that allows to select between 3 different HDMI inputs and to distribute the selected input to the rest of the devices connected in a daisy chain topology. The HDMI signal can be shared on up to 20 monitors in Full HD resolution. DynamicShare Stand Alone is a highly reliable, secure and straightforward solution. It allows meeting participants to connect their device direct to the share system and share different video sources among each other with an optimal quality (no latency) and without the need to install any software, or having technical knowledge or require any assistance.

The signal is distributed via HDMI cables providing the highest security. The meeting or conference table can stand alone, without the inconvenience of either messy cabling or the need to use external devices. The AHDDSA allows an easy connection of other devices to the system such as large screens, projectors, videowalls or matrixes.

Features

- Plug and play solution.
- Software free.
- High security.
- No video compression (no latency).
- 3/ HDMI Inputs, 1/HDMI Output.
- Dedicated ports for Loop In and Loop Out.
- HDCP compliant.
- Low power consumption.
- Ethernet external control.
- Digital audio Output.
- Easy cabling and installation.
- Allows the daisy chain of up to 20 devices (Full HD).
- Short installation time.

SYSTEM DESCRIPTION

Box Contents

Before the installation of your device please check the contents of the shipping box, it must contain the following items:

- AHDDSA
- Power cord
- User Manual
- Power supply 100-240Vac, 50-60Hz. Output 12V

Important Note: This device can only work with the power supply included in the shipping box. This power supply can not be replaced by any other rather than the original one.

INPUT CONNECTORS



LOOP OUT: Connect a HDMI cable to the next HDMI LOOP IN AHDSSA device, in order to create a daisy chain loop installation.

LOOP IN: Connect a HDMI cable from the previous HDMI LOOP OUT AH SHARE device, in order to create a daisy chain loop installation.

HDMI-IN-1 input signal.

AHnet RJ45 out: Use this connector to control other RS422 AHnet external devices.

AHnet RJ45 in: Use this connector ONLY on the MASTER unit. Send AHnet commands only on the MASTER monitor, and the master unit will send the commands using the HDMI loop installation, to the other units or devices.

Ethernet: AH SHARE system configuration and service. Send AHnet commands only to the MASTER unit.

INPUT CONNECTORS



12 DC: Power supply input connector.

HDMI-IN-2 input signal.

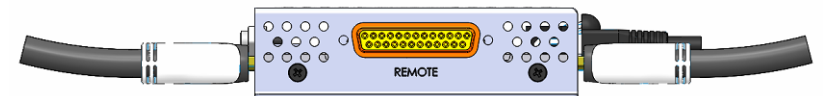
HDMI-IN-3 input signal.

HDMI-OUT: Signal output. Connect a HDMI cable to the monitor.

SPDIF: Audio embedded output.



Maximum length of the HDMI cable: 2 meters.

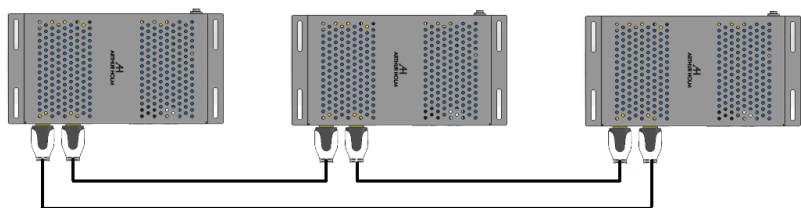


REMOTE: Connect the external control buttons to control the signal. HDMI selection.

AHDSSA

DynamicShare is equivalent to multiple HDMI selectors connected to multiple cascade HDMI distribution amplifiers in a daisy chain topology, allowing the user to display local sources privately, without affecting the other users in the loop. Control is embedded into the HDMI signal and is carried along with the video signal.

AH SHARE HDMI loop connection

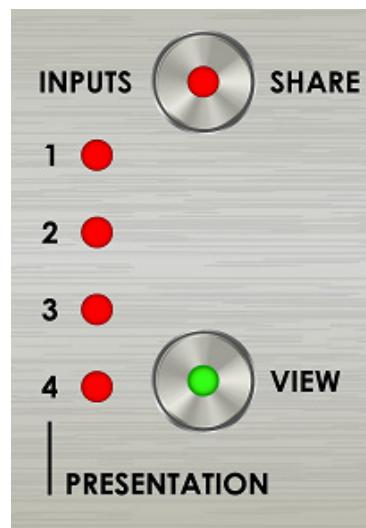


Maximum HDMI cable length: 2 meters.

The HDMI loop daisy chain connection allows sharing a local signal to all monitors. Two buttons on the external control button box, control the image to display on the monitor screen.

Each device has three local HDMI input signals. A fourth HDMI input signal (LOOP IN) is used to receive the active shared signal, connecting the AH SHARE installation as showed on the previous picture.

AHDSSA



VIEW push button: Press this button to select the local HDMI-1, HDMI-2, HDMI-3, or loop shared input source. Four LEDs indicate the HDMI local signal displayed on the monitor:

- LED1: HDMI1 input signal selected
- LED2: HDMI2 input signal selected
- LED3: HDMI3 input signal selected
- LED4: LOOP IN input signal selected. The monitor shows the shared signal on the system.

NOTE: With the VIEW button, you can only select the input when a valid signal is present on the HDMI input.

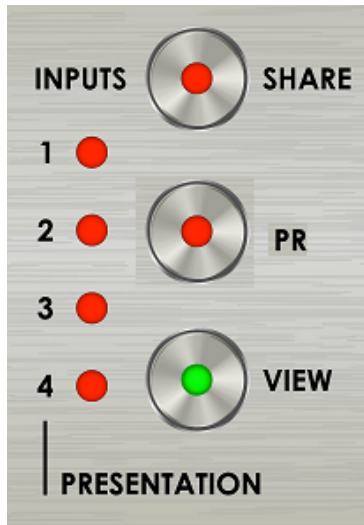
Share push button: Press this button to share the local signal. The red LED indicates that the AH SHARE sends the local image to the HDMI loop, and all the monitors display this signal. Pressing this button again, the red LED goes off and the monitors display the local signal on screen.

Permanent press the VIEW button during 5 seconds to activate the private mode (green LED light is on). In private mode, the monitor always display the local signal source selected, even if a monitor activates the share option.

On the MASTER unit, it is possible to have control buttons with PRIORITY Share control function.

AHDSSA

On the MASTER unit, it is possible to have control buttons with PRIORITY Share control function.



VIEW push button: Press this button to select the local HDMI-1, HDMI-2, HDMI-3, or loop shared input source. Four LEDs indicate the HDMI local signal displayed on the monitor:

- LED1: HDMI1 input signal selected
- LED2: HDMI2 input signal selected
- LED3: HDMI3 input signal selected
- LED4: LOOP IN input signal selected. The monitor shows the shared signal on the system.

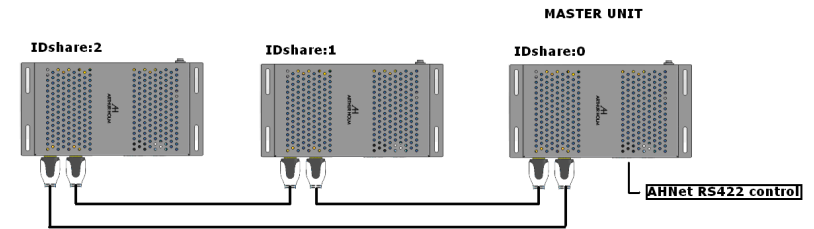
NOTE: With the VIEW button, you can only select the input when a valid signal is present on the HDMI input.

Share push button: Press this button to share the local signal. The red LED indicates that the AH SHARE sends the local image to the HDMI loop, and all the monitors display this signal. Pressing this button again, the red LED goes off and the monitors display the local signal on screen.

Priority Button: Central button. Pressing this button when sharing a signal, it will block the LOOP system and all the units show the signal shared from this unit. The system is blocked and all the units will not be able to work on the system, viewing the signal shared from this unit. On the rest of the units, the SHARE red light flashes indicating that the system is blocked from the priority president function.

AHDSSA

Use RS422 AHnet RJ45 input signal on the MASTER monitor to send AHnet commands to control the units. The MASTER unit assigns an identification number to remote control each unit:



AHDSSA

RS422 commands

Communication	RS422
Connection	RJ45
Wiring	CAT-5

Speed and configuration

Baud Rate	38400
Data Bits	8
Parity	NONE
Stop Bits	1

Wiring Diagram

1. Data TX +
2. Data TX -
3. Data RX +
4. NC
5. NC
6. Data RX -
7. NC
8. NC



RJ-45

Connection

PINS 1 & 2: The units respond
PINS 3 & 6: The units receive instructions

The MASTER unit assigns a RS422 identification address for the rest of the units (IDshare).

AHNET PROTOCOL

AHnet protocol

Using 5 bytes communication:

BYTE 0	START BYTE
BYTE 1	ADDRESS BYTE
BYTE 2	COMMAND BYTE
BYTE 3	VALUE 1
BYTE 4	VALUE 2

AHnet DynamicShare commands

COMMAND	DESCRIPTION	RESPONSE
FA XX 05 00 00	VIEW LOOP IN	FB XX 05 00 00
FA XX 05 01 00	VIEW HDMI1	FB XX 05 01 00
FA XX 05 02 00	VIEW HDMI2	FB XX 05 02 00
FA XX 05 03 00	VIEW HDMI3	FB XX 05 03 00
FA XX 05 0B 00	SHARE HDMI1	FB XX 05 0B 00
FA XX 05 0C 00	SHARE HDMI2	FB XX 05 0C 00
FA XX 05 0D 00	SHARE HDMI3	FB XX 05 0D 00

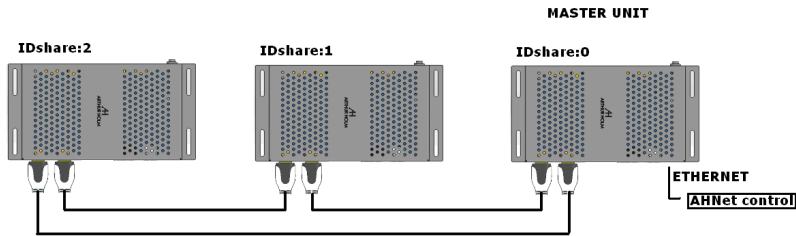
XX Device identification

Example:

Instruction Share local signal HDMI2 on device 2
FA 02 05 0C 00

AHNET WEB API COMMANDS

It is possible to send AHnet control commands using the network connection on the MASTER unit. Use ETHERNET connector on the MASTER unit to send HTML AHnet commands to control the monitors.



IP factory stand alone device
192.168.0.125

Command structure:
`http://<MasterIP>/ahnet/cmd/<AHNet command>`

AHnet protocol

Using 5 bytes communication:

BYTE 0	START BYTE
BYTE 1	ADDRESS BYTE
BYTE 2	COMMAND BYTE
BYTE 3	VALUE 1
BYTE 4	VALUE 2

AHNET WEB API COMMANDS

AHnet DynamicShare commands

COMMAND	DESCRIPTION	RESPONSE
FA XX 05 00 00	VIEW LOOP IN	FB XX 05 00 00
FA XX 05 01 00	VIEW HDMI1	FB XX 05 01 00
FA XX 05 02 00	VIEW HDMI2	FB XX 05 02 00
FA XX 05 03 00	VIEW HDMI3	FB XX 05 03 00
FA XX 05 0B 00	SHARE HDMI1	FB XX 05 0B 00
FA XX 05 0C 00	SHARE HDMI2	FB XX 05 0C 00
FA XX 05 0D 00	SHARE HDMI3	FB XX 05 0D 00

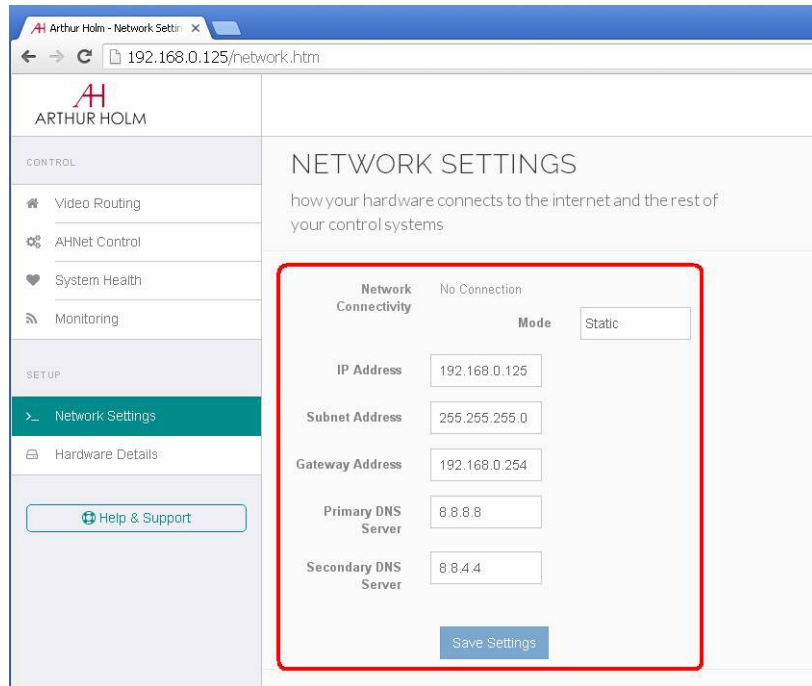
Example:
Instruction Share signal HDMI1 on device 1
`http://192.168.0.125/ahnet/cmd/FA/01/05/0B/00`

NETWORK CONFIGURATION

The factory IP address is 192.168.0.125.

You can change the IP address, using the set-up web page.

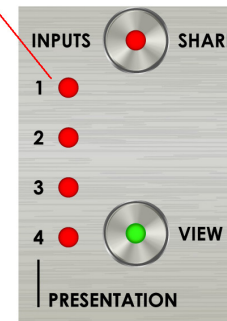
1. Connect the unit to your network (ETHERNET connector).
2. Type the IP address device on a web browser.
3. Choose *Network Setting* to set-up the network.



Click on *Save Settings* when you finish the network settings set-up.

SHARE START UP

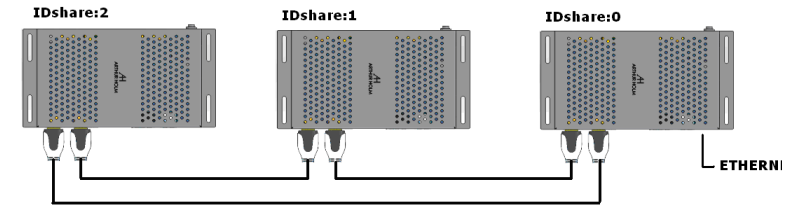
LEDs FLASHING



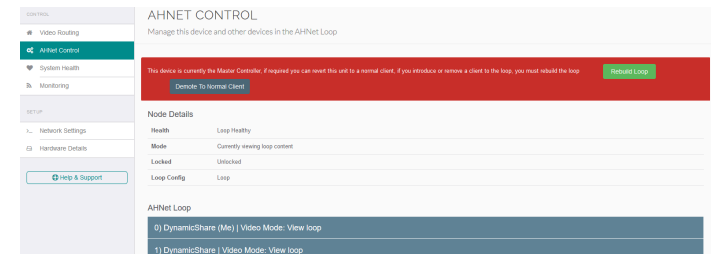
Every time that the share system starts up on the MASTER unit, check the HDMI loop. It takes about 3 minutes to complete this process. During this process, check the loop on the MASTER unit and assign the AHnet number of each unit.

When the MASTER unit is checking the loop, the LEDs indicators of all units are flashing.

If after 3 minutes of starting up the system the LED loop indicators on the MASTER unit are still flashing or are off, then there is a faulty connection on HDMI loop. Check the HDMI connections on the monitor units, specially on monitors where the LED indicators are not flashing.



The first time, connect the MASTER unit to your NETWORK, and connect to the MASTER using a WEB BROWSER. Factory IP address is 192.168.0.125. Go to AHnet control, and click on REBUILD LOOP. All the units should appear on the device list.



INFORMATION ON DISPOSAL FOR USERS OF WASTE ELECTRICAL & ELECTRONIC EQUIPMENT



This symbol on the products and/or accompanying documents means that used electrical and electronic products should not be mixed with general household waste.

For proper treatment, recovery and recycling, please take these products to the designated collection points, where they will be accepted on a free of charge basis. Alternatively in some countries, you may be able to return your products to your local retailer upon the purchase of an equivalent new product.

Disposing of this product correctly will help save valuable resources and prevent any potential negative effects on human health and the environment, which could otherwise arise from inappropriate waste handling. Please contact your local authority for further details of your nearest designated collection point.

Penalties may be applicable for incorrect disposal of this waste, in accordance with national legislation.

For business users in the European Union

If you wish to discard electrical and electronic equipment, please contact your dealer or supplier for further information.

Information on disposal in countries outside the European Union

This symbol is only valid in the European Union. If you wish to discard this product, please contact your local authorities or dealer and ask for the correct method of disposal.

WARRANTY TERMS AND CONDITIONS

Albiral Display Solutions warrants this product against manufacturing defects and workmanship for a period of two (2) years from the date of purchase, subject to the conditions below.

1. LCD panel, inverter, controller, electrical, electronic boards, accessories and power supply are warranted against manufacturing defects and workmanship for a period of two (2) years from the date of purchase.
2. Labour costs: Albiral Display Solutions covers the labour costs to replace any defective parts during the validity of this warranty.
3. Transport costs:
 - 3.1. In the case that a manufacturing defect occurs within 90 days after the purchase date, both freight and insurance costs will be paid by Albiral Display Solutions.

Although Albiral Display Solutions S.L. pays for freight and insurance costs, Albiral Displays Solutions will not be responsible for any damages caused by the transportation of the goods if the customer does not inform in writing when receiving the goods.

- 3.2. After 90 days of the purchase date, the beneficiary of the warranty will pay both freight and insurance costs.

Albiral Display Solutions S.L. will not be responsible for any damages caused by transportation, when this one is paid by the customer.

4. This warranty does not cover the labour costs of handling, diagnose, removal, replacement, reinstall and/or program any product.
5. This warranty does not apply if the fault has been caused by misuse, improper handling, electrical or mechanical abuse, abnormal operation conditions, non-authorized modifications, and inadequate transportation or as a result of atmospheric phenomena.

WARRANTY TERMS AND CONDITIONS

6. The warranty is not valid if people other than authorised Service Centre have handled the product and if the product has been manipulated or warranty seals are removed or manipulated.
7. The beneficiary of the warranty will have to return the device with the original packaging to warranty there are no damages during transportation.
8. The warranty is not valid if the beneficiary of the warranty does not include a RMA form and a copy of the purchasing invoice.

Please note that laws vary from country to country, and the same provisions of this warranty may not apply to you.

If you have any doubts concerning the terms of this warranty, please contact:

business@albiral.com
+34 938 502 376

Copyright ©
Dec. 2019. All rights reserved

Albiral Display Solutions SL.

Registered trademarks: Albiral, Arthur Holm, Pixtron Broadcast



ARTHUR HOLM

**Albiral
Display
Solutions**

Fàtima 25, Sant Hipòlit de Voltregà
08512 Barcelona – Spain
tel: +34 93 850 23 76 / 23 83
fax: +34 93 850 25 50 / 23 72
web: www.arthurholm.com
e-mail: marketing@arthurholm.com

Patents

MU17180ES00	P27178RUPC
MU17301ES00	P27178USPC
MU17322ES00	P27284DEEP
MU17413ES00	P27284EPPC
MU17445ES00	P27284ESEP
MU17854ES00	P27284GBEP
MU17868DEPC	P27284RUPC
MU17868RUPC	P27284USPC
P24821DEEP	P27715ESEP
P24821ESEP	P28089DEEP
P24821GBEP	P28089ESEP
P24821USPC	P28089ITEP
P27178DEEP	P28089USPC
P27178EPDV01	P28090EP00
P27178EPPC	P31160ESES
P27178ESEP	P31160PCES