Hydraulic Pilots

Pilots for HRC⁷⁰ & HTi⁷⁰ heat pumps





ORIUM Pilot Ref. 753005

Premium+ Pilot Ref. **753020**

> DS170D Pilot Ref. 753030

> > **Z1 Pilot** Ref. **753041**

Z2 Pilot Ref. **753045**

Hybride Gas Pilot Ref. 753061



Manual ref: 1898024 Edition nº: 24.16

* Concerns HTi⁷⁰ 6 et 8 single-phase and HTi⁷⁰ 8 three-phase models, only for Premium+ and DS170D Pilot

To take full advantage of your product, leave the installation and set-up of the appliance to a qualified professional, and ensure with them that the warranty form is properly filled out and returned to our customer service to activate the manufacturer's warranty.

We also recommend that you note the essential identification information (given on the rating plate) in the space provided below. This information is useful in the case of communicating with your installer, or our customer service.

We hope that the information contained in this document will allow you to take complete advantage of all the functionalities your appliance provides for years to come.

Ensure that this manual is kept in an accessible place in proximity to the appliance to ensure that all potential users have access and to facilitate use of the appliance.

Identification information for your product:
<u>Pilot</u>
Model:
Serial number:
Associated Heat Pump
Model:
Serial number:
Date of installation:
Installer:

.

TABLE OF CONTENTS

1 - INTRODUCTION
1.1 - Certification «Origine France Garantie»
1.2 - Control panel and functions3
1.3 - Display
2 - SWITCHING ON 4
3 - STANDBY MODE (HYDRAULIC PROTECTION)4
4 - LOCKING THE KEYPAD 4
5 - SETTING THE TEMPERATURES 4
6 - HOLIDAY MODE5
7 - TEMPORARY COMFORT MODE 5
8 - PROGRAMMING OF COMFORT MODE 5
8.1 - Creating or modifying a program6
8.2 - Selecting a pre-existing program / copying a progam6
9 - MENU
9 - MENU
9 - MENU
9 - MENU79.1 - Permanent override79.2 - Activation of BOOST mode79.3 - SILENCE + mode activation89.4 - Display of consumption89.5 - Setting the date and time89.6 - Language selection89.7 - Activation of beeping sound89.8 - Activation of automatic locking of the keypad89.9 - Setting the display brightness9
9 - MENU
9 - MENU79.1 - Permanent override79.2 - Activation of BOOST mode79.3 - SILENCE + mode activation89.4 - Display of consumption89.5 - Setting the date and time89.6 - Language selection89.7 - Activation of beeping sound89.8 - Activation of automatic locking of the keypad89.9 - Setting the display brightness99.10 - SUMMER/WINTER modes99.11 - Cooling mode activation9
9 - MENU
9 - MENU79.1 - Permanent override79.2 - Activation of BOOST mode79.3 - SILENCE + mode activation89.4 - Display of consumption89.5 - Setting the date and time89.6 - Language selection89.7 - Activation of beeping sound89.8 - Activation of automatic locking of the keypad89.9 - Setting the display brightness99.10 - SUMMER/WINTER modes99.11 - Cooling mode activation99.11 - USB stick910 - OPERATING INFORMATION10

END OF LIFE OF THE APPLIANCE......11

1 - INTRODUCTION

The Hydraulic Pilot ensures the heating and - depending on the model - the production of domestic hot water and the cooling for the household.

It consists of a hydraulic pilot associated with a high temperature heat pump with an integrated - depending on the model - electrical back-up or a connection to an existing boiler.

The pilot is capable of providing heating water up to 70°C for preexisting circuits even on the coldest days of the year.

The operation of your pilot is automatically adapts itself to the heating capacity necessary for different uses.

It is possible to optimise this operation using range control accessories:

- ambient temperature sensor: allows the pilot to know the precise temperature it needs to reach to heat the room.
- exterior sensor: allows the pilot to anticipate the needs of the household based on exterior temperature variations.

The Hydraulic Pilot comes integrated with numerous possibilities of control to adapt the installation to your needs, including:

- the memorisation of programming for several levels of heating, «Comfort», «Eco» and «Frost protection»
- the weekly programming of these levels with scheduled ranges which can be programmed for each day of the week individually.
- the changeover between «Summer» and «Winter» modes, which allows to stop the heating independently from the production of domestic hot water.
- the programming of «Holiday» periods allows for hydraulic protection in the case of prolonged absences and automatic reactivation upon your return.
- the activation of «Temporary Comfort» periods for the overriding of programmed intervals due to unplanned or one-time presence in the household.

The Hydraulic Pilot offers numerous functions and programming possibilities which are only accessible through the installer and expert menus and which are not described in this manual.

Contact you installer for instructions on how to program these functions to adapt the operation of your pilot to your household and to your usage.



- ...

Your pilot and heat pump must be maintained by a qualified professional.

1.1 - Certification «Origine France Garantie»

The «**Origine France Garantie**» certification applies only to $HTi^{70} 6$ and 8 single-phase and $HTi^{70} 8$ three-phase models in combination with some pilot.

	Premium ⁺ Pilot	DS170D Pilot
HTi ⁷⁰ 6 single-phase	Ref. 155006	Ref. 155004
HTi ⁷⁰ 8 single-phase	Ref. 155016	Ref. 155014
HTi ⁷⁰ 8 three-phase	Ref. 155056	Ref. 155054

1.2 - Control panel and functions



Primary functions (short press)	and secondary (long press)
- menu access - back / cancel	locking / unlocking of the keypad
ංග් - on/off	standby mode
programming the set temperatures	e scheduled programming of comfort mode
- increase programming - scroll up	activation of Temporary Comfort mode
⊖ - confirm - display pressure or T°	O repair error / display current state of operations
- decrease programming - scroll down	activation of Holiday mode



Symbols for operation / current state of operation

44 4	defrosting in progress	۲	circulator working
*	fan working	Ļ	domestic hot water function activated (flashing if in use)
8	compressor working		heating function activated (flashing if in use)
4	electrical back-up working	Ļ	navigation of installer or expert menus
۸	boiler working	¢.	locking the keypad

2 9 character message

8 Comfort level in progress

Ð	Programming active	Ņ.	Comfort mode)	Eco mode
*	Frost protection mode	Ô	Holiday mode		
-					

Day of the week (1=Monday ; 2= Tuesday...)

5 Display zone: time / temperatures / pressure / settings

2 - SWITCHING ON

Before swtiching on the appliance, ensure that the pilot and the heat pump are supplied with both electricity and water.

One press of switches on the pilot.

The pilot shows the standard display which indicates the temperature or pressure of the circuit (choice of display of pressure / temperature by pressing on \bigcirc :



Note:

After not using the keypad for several minutes, the backlighting of the screen turns off, but the information remains on the screen for consultation.

3 - STANDBY MODE (HYDRAULIC PROTECTION)

A long press on the 🛛 🕁 🛲 button puts the pilot in standby mode:

- Heating and production of domestic hot water are stopped. The set temperatures (see § «Setting the temperatures») are no longer taken into account.
- Hydraulic protection (monitoring of the temperature and frost protection are maintained for the water in the pipes).

Display in standby mode:





To ensure hydraulic protection of the appliance, NEVER disconnect the pilot or the associated heat pump from the power supply, especially during winter, other than for technical intervention.

4 - LOCKING THE KEYPAD

Locking the keypad allows a protection against accidental switching off of the appliance, or against accidental changes of the settings.

Locking can be activated and deactivated by long pressing (= 1).

To unlock, press for 3 seconds (until the display shows «UNLOCKED.»).

When the keypad is locked, the **b** symbol appears on the display.

5 - SETTING THE TEMPERATURES

gives access to setting the temperatures for: Pressing on domestic hot water (if a tank is connected), ambient temperature (if there is an ambient temperature sensor connected), and heating water.

Repeated pressing of scrolls through the different possible settings.

Note:

The settings associated with the ambient temperature are only accessible if a room sensor is connected to the appliance.



6 - HOLIDAY MODE

«HOLIDAY» mode enables putting the appliance, and the installation as a whole, in standby mode while maintaining the frost protection function (heating water maintained at 11°C).



Programming is done using the <u>hand</u> buttons. *«HOLIDAY»* mode is effective as soon as the length of time for it to be active is confirmed.

During «HOLIDAY» mode, the main display shows:



F-111

പ്പ

It is possible to interrupt or change the programmed duration while \ll HOLDAY» mode is active by re-entering settings (long press on \checkmark).

A set duration of 0 days will result in the cancellation of «HDLIDAY» mode. Selection of 0 day is done by selecting «ND».



It is possible to put the installation in comfort mode for a limited time (guests or presence in the household outside of usual schedules).



Temporary comfort mode can be programmed to last from 1 to 72 hours.

Programming is done by pressing

and 🗸 buttons.

Once duration of time is confirmed, the pilot switches to temporary comfort mode while no longer taking into account the scheduled programming.



Exiting this override is automatic at the end of the programmed time period.

It is possible to interrupt or change the duration programmed duration while «*TEMPORARY COMFORT*» mode is active by re-entering settings (long press on \checkmark).

A set duration of 0 hours will result in the cancellation of «TEMPORARY COMFORT» mode.

8 - PROGRAMMING OF COMFORT MODE

Scheduled programming allows the pilot to automatically adapt the comfort level for each circuit based on the time.



simultaneous programming of heating and domestic hot water

2) Choice of day (each day of the week can be individually programmed):



Consultation of existing programming for the chosen day and circuit. Navigation between the different scheduled intervals is done by pressing and pressing allows to exit consultation.



4) During consultation, it is possible to change or replace the existing programming by pressing A choice between modifying and selecting will appear on the display:



8.1 - Creating or modifying a program

Note: when using heat pumps, it is preferable not to significantly lower the temperature during programming.

Scheduled programming is done by choosing alternately, the end time of each time interval, and the level of comfort which applies for the chosen interval.

Example: programming for Monday

- Eco until 6h30
- Comfort from 6h30 to 9h45
- Frost Protection from 9h45 to 18h30
- Eco from 18h30 to midnight





The message «OK + day» indicates that the new program has been successfully taken into account.

Note :

In cooling mode, setting an *ECD* or *FRDST PRDT*. range has no effect on the room setpoint or the water temperature setpoint.

8.2 - Selecting a pre-existing program / copying a progam

This option allows you to choose from 4 pre-existing programs:

<u>Program 1</u>: Permanent

- Comfort from 0h to midnight

COPY PR1

COPY PR2

COPY PR3

<u>Program 2</u>: Day

- Eco until 6h
- Comfort from 6h to 22h
- Eco from 22h to midnight

Program 3: Day and night

- Eco until 6h
 - Comfort from 6h to 10h
 - Eco from 10h to 18h
 - Comfort from 18h to 22h
 - Eco de 22h to midnight

Program 4: Night

- Comfort until 9h
- Eco from 9h to 18h
- Comfort from 18h to
- midnight

You can also choose from the programs already saved for other days of the week:



COPY PR4

9 - MENU

Access the user menu by pressing \blacksquare The user menu gives access to the following options:

OVERRIDE	Permanent override : choice of permanent operation at a chosen level (comfort, eco, frost protection) outside of scheduled programming.
BOOST NO	Boost : allows to activate all of the heating elements (if they are authorised to operate) to speed up heating time to reach the set temperature.
СОТГ. DHW	: Only available on the Hybrid Gas Pilot. Allows to increase the production of hot water with the help of the boiler.
SILENCE + NO	Silence +: (Only available for HTi ⁷⁰ heat pumps) Reduces noise by reducing the compressor and fan speed.
ENERGY	<u>Consumption</u> : consultation of the energy consumption meters for heating and domestic hot water.
DAY HOUR	Date and time: setting the time (used for scheduled programming of comfort mode).
LANGUAGE	Display language : change the language of the menus and messages displayed
BEEP	Beep : allows to activate the beeping sound associated with pressing the buttons (access for visually-impaired people)
LOCK	Locking the keypad: activation of automatic locking of the keypad
BRIGHTNES.	Display brightness: set the brightness of the display
WINTER MODE	Summer/Winter shoice: for the production of domestic hot water and/ or heating
US3	USB settings : menu for the transfer of operating history data to a USB stick.

COOL ING

Cooling mode: activates the cooling mode (for relevant products).

9.1 - Permanent override

It is possible to override the comfort level programmed.

This override is permanent. It only ends when the «OVERRIDE» setting is set to «NO». The pilot will then return to the comfort level set in the scheduled programming.

To activate or deactivate an override, enter the «OVERRIDE» menu by pressing \bigcirc , and use \land and \lor to select an option from the following choices:

Cancels any override in progress. OVERRIDE The scheduled programming determines the comfort level. Θ NΠ OVERRIDE Permanently in Comfort mode. ¢ ConF OVERRIDE Permanently in ECO mode.) ECO

Confirm the selection by pressing \bigcirc

Note: For pilots equipped with a room sensor, this function is accessible directly on the sensor itself.

9.2 - Activation of BOOST mode

BOOST mode temporarily forces the heat pump and the back-up to operate (if the latter is authorised to operate) to accelerate the heating time of the heating cycle.

BOOST mode is automatically deactivated once the set temperature is reached in the heating circuit.

BOOST YES

BOOST made can be activated through the user menu, by pressing (\bigcirc) to enter the menu and confirming activation.

9.3 - SILENCE + mode activation

The SILENCE + mode is a logical way to reduce the noise level by acting on the speed of the compressor and the fan. This mode is only available on HTi70 models.

The SILENCE + mode can be set via a time schedule. This schedule ends when "SILENCE +" is set to "NO".





The adjustment is done using the keys and , validate

the choice with the key \boxdot

<u>Remarque</u>: This mode slightly reduces the heat output of the heat pump. After activation, this mode will be active daily during the pre-set time slot.

9.4 - Display of consumption

The accumulated consumption of heating or hot water can be consulted in the menu (\square):



These values are merely estimations of the consumption. These counters respond to the requirements of the thermal regulation in effect. They cannot be used for the billing of energy consumption.

9.5 - Setting the date and time

Each step of the date and time set-up is done using \frown and \checkmark and \checkmark and using \bigcirc to confirm the chosen value and go on to the next field:



9.6 - Language selection

The languages available are referred to on the display by their abbreviation:

- Fr: French - EnG: English I ANGLIAGE - dE: German - it: Italian EnG - ESP: Spanish - POL: polonais

9.7 - Activation of beeping sound

BEEP NO When this option is activated («YES» is selected), a «beep» accompanies each press of the buttons on the keypad.

9.8 - Activation of automatic locking of the keypad

LOCK Ruto

When this option is activated («AUTO» is selected), the keypad locks automatically after 4 minutes of not being used.

Note:

Whether or not automatic locking is activated, it is always possible to lock and unlock the keypad manually by long pressing ______.

9.9 - Setting the display brightness

BRIGHTNES. 60

This option allows to adjust the brightness of the display screen.

Ð

<u>Note</u>:

After a period of time with no manipulation of the control panel, the pilot turns off the display's backlighting until the next use.

9.10 - SUMMER/WINTER modes

The selection of *SUMMER/WINTER* mode is done by pressing

Switching from one season to another is done using _____ and

- \sim
- SUMMER: The production of domestic hot water is activated. The heating circuits are in frost protection mode.

• WINTER: Heating circuits and domestic hot water circuits are activated.

Note:

The pilot can ensure the automatic changeover from one mode to another based on the temperatures observed (automatic if set-up is carried out).

The pilot has a slight delay before switching modes. This delay can be adjusted by your installer.

The automatic changeover can be activated by your installer.

9.11 - Cooling mode activation

The cooling mode lowers the temperature in the room. However, there is no guarantee that the set point will be reached, to prevent condensation forming on the surface of the emitters.

To activate or deactivate the cooling mode, enter the *«CDDL ING»* menu by pressing the button 2 and select *«YES»* or *«ND»* using the \checkmark and \checkmark (The *«SUMM ER»* mode must be set

to activate the cooling mode).

The cooling mode can also be activated with a room thermostat, allowing heating/cooling to be switched by dry contact.

Once cooling mode has been activated, «COOL ING» appears on the display and flashes when the circuit is in demand.

If the installation is equipped with a ambient temperature sensor: the room setpoint is set either directly on the ambient temperature sensor, or in the setpoint adjustment menu accessible by pressing the button for the *«CDDL ING 1»* screen. Use the for and

✓ buttons to set the desired setpoint and press the button
➔ to confirm.

If the system is equipped with a room thermostat: the room setpoint is set directly on the room thermostat.

<u>Note</u> :

If there is no room control connected, regulation is based solely on the water temperature, according to the water law setting.

Refer to the cooling kit manual (**Ref. 754602**) for safety instructions, installation and settings in cooling mode.

9.11 - USB stick

Inserting a USB stick into the front panel of the product allows you to extract the operating history of the pilot and of the heat pump.

Instructions on extracting files via USB stick:

- 1) Take the USB stick provided with the driver.
- 2) Insert the USB stick into the USB port (on the front panel)
- 3) As soon as the USB stick is recognized*, the file transfer will begin. This can take several minutes (depending on the amount of operating history to transfer).
- 4) When the transfer is completed there will be a sound signal and the message *«REMDVE USB STICK»* will appear.

Remove the USB stick, but be sure not to remove it before this message is displayed.

5) A file named «C8_historique» will be generated onto the USB stick. It contains the recent operating history of the pilot and the heat pump.

* If the USB stick is not recognized, disconnect and reconnect the electrical supply to the appliance and try again.

10 - OPERATING INFORMATION

Certain operating information is accessible by long pressing on the $\textcircled{\textbf{D}}$ button (= $\textcircled{\textbf{D}}$).

Scrolling is done by pressing \land and \checkmark buttons.

AMBIENCE 20.6

The screens accessible from this menu are described in the table below. Each screen is described by the text displayed (AMBIENCE in the example to the left).

AMBIENCE	(if ambient temperature is controlled by a sensor) temperature measured by the ambient temperature sensor
THERMOSTA	(if ambient temperature is controlled by a thermostat) state of thermostat (0 = no request; 1= request in progress)
T-WATER	temperature of the domestic hot water accumulated in the tank
OUTSIDE	temperature measured by the exterior sensor (if connected to the pilot)
3LU-VALVE	position of the 3-way valve (ECS = domestic hot water position ; CH = heating position)
Hygr Ostat**	Hygrostat contact status
0/1 ECO	state of O/I ECO contact (off-peak hours / peak hours)
Heat Curve	calculated set temperature for heating water (and primary domestic water)
T-PILOTE	temperature at pilot outlet (towards circuits)
VERSION	pilot software version number
Heat Pump	access to heat pump information listed below (access by pressing 🕑)
FLOLU SENSO.	temperature at heat pump outlet
RET SENSO.	temperature at heat pump inlet (= returning from circuits)
T-AIR	air temperature measured by the heat pump
t-evapor	temperature of refrigerant fluid evaporation
T-COMP1	temperature of compressor (compressor n°1 for multi- compressor heat pumps)
T-COMP2	temperature of compressor n°2 (for multi-compressor heat pumps)
Т-СОМРЭ	temperature of compressor n°3 (for multi-compressor heat pumps)
T-COND	temperature of refrigerant fluid condensation
VERSION	heat pump software version number

• Press \blacksquare to return to the main display.

* In case the installation has more than one PAC, the information for each PAC is listed in corresponding submenus (PRC 1, PRC2, PRC3).

** Appears only on certain models of hydraulic pilot.

11 - ERRORS AND ALERTS

In case of error, press 🕤 to stop the sound signal.

IMPORTANT:

If the appliance is malfunctioning, a professional technician should be contacted.

<u>Automatic removal of error</u>: when the problem which caused the error is resolved, the error will automatically disappear from the display.

<u>Manual removal of error</u>: resolve the problem which caused the error and press \bigcirc to remove the error from the display.

			Domoural of
Display	Type of error	Consequences	error
AIR HP	Air temperature sensor defect	heat pump stopped	automatic after repair
CIRC. POWER	Ciculator pump power cable defect	complete stop	manual
AMBI ENCE	Ambience sensor defect	heating circuit stopped	automatic after repair
BLOC. CIRC	Circulator pump blocked	complete stop	manual
BUS	BUS	complete stop	automatic after repair
AMB BUS	Anbience BUS defect	heating circuit stopped	automatic after repair
evap senso	Evaporator fluid pressure sensor defect	heat pump stopped	automatic after repair
PRES. SENSO.	Pressure sensor defect	complete stop	automatic after repair
BOILER ERR	Boiler in defect	complete stop	automatic after repair
invr. comm.	Inverter communication defect	heat pump stopped	manual
CP CTRL	Loss of control of inverter	heat pump stopped	manual
CP ELEC	Inverter electrical problem	heat pump stopped	manual
CP MECA	Inverter mechanical problem	heat pump stopped	manual
CP THERM	Inverter thermal problem	heat pump stopped	manual
CP1 OVRHT. ERR	Compressor 1 multiple overheatings	heat pump stopped	manual
CP2 OVRHT. ERR	Compressor 2 multiple overheatings	heat pump stopped	manual
FLOW 1	No flow rate	heat pump stopped	manual
FLOW	No flow rate	heat pump stopped	manual
LOW FLOW DIAG	Insufficient flow rate	information	manual

Display	Type of error	Consequences	Removal of error
REV. FLOW	Reversal of flow rate	heat pump stopped	manual
FREQ. DEFRO.	Defrosting too often defect	heat pump stopped	manual
Long Defro. Diag	Defrosting cycle too long	information	manual
Long Defro.	Defrosting cycle too long error	heat pump stopped	manual
Maintenan. Exchanger"	Maintenance needed on heat exchanger	information	manual
OFF PEAK	Signals off-peak hours	operating in peak hours	manual
CLOCK	Clock	Permanently operating in ECO mode	replace circuit board
INV T1/T2	Compressor sensors reversed	heat pump stopped	manual
SOFTWARE	Software update needed	complete stop	automatic after repair
HP MEMORY	HP memory card	heat pump stopped	automatic after repair
MEMORY	Pilot memory card	complete stop	automatic after repair
MODB US	Protection of external control by MODBUS	Circuits operating in Frost Protection mode	manual or automatic after 24h
HP NUMBER	Number of HPs connected error	information	settings
HP OUTPUT.	Overheating at heat pump outlet	heat pump stopped	automatic
HP OUTPUT ERR	Multiple overheatings at heat pump outlet	heat pump stopped	manual
CP1 POWER	Compressor 1 power supply defect	heat pump stopped	manual
CP2 POWER	Compressor 2 power supply defect	heat pump stopped	manual
evap. senso.	Defrosting sensor problem	heat pump stopped	manual
ext senso.	Exterior sensor placement error	information	manual
PRESSURE	Lack of water pressure	complete stop	add pressure
CP1 RAMP	Compressor 1 start- up	HP restarted (anti short-cycle)	automatic
CP2 RAMP	Compressor 2 start- up	HP restarted (anti short-cycle)	automatic
REPR OG / PILOTE / HP	Reprogramming error	information	automatic after repair
CUTO. LPRE	Low pressure error	heat pump stopped	automatic
CUTO. LPRE ERR	Low pressure error	heat pump stopped	manual

Display	Type of error	Consequences	Removal of error
CUTO. HPRE 1	High pressure 1 cutoff	heat pump stopped	manual
CUTO, HPRE2	High pressure 2 cutoff	heat pump stopped	manual
t cylind	Tank sensor out of place	DHW circuit stopped	manual
CP1 SENSO.	Compressor 1 error	heat pump stopped	automatic after repair
CP2 SENSO.	Compressor 2 error	heat pump stopped	automatic after repair
T-WATER	Water temperature sensor error	DHW circuit stopped	automatic after repair
FLOW SENO.	Flow rate sensor error	heat pump stopped	automatic after repair
T-PI LOTE	TsEAU error	back-up stopped	automatic after repair
t-PI Lote DIAG	Overheating at pilot outlet	back-up stopped	automatic
T-PI LOTE ERR	Multiple overheating at pilot outlet	back-up stopped	manual
RET. SENSO.	TePAC error	heat pump stopped	automatic after repair

END OF LIFE OF THE APPLIANCE



Our products are designed and manufactured using components made of recyclable materials.

The appliance must never, in any case, be disposed of with household waste, or in a dump.

The dismantling and recycling of the appliances must be taken charge of by a qualified professional and in compliance with all local and national standards in effect.

Oi∩tuis

www.intuis.fr

Industrial and development site Rue de la République CS 40029 80210 Feuquières-en-Vimeu

Customer service

+33 (0)9 78 45 10 26 service-consommateur@intuis.fr service-client@intuis.fr