

VIDEX ART.280N1 USER INSTRUCTIONS

Art.280N1 Telephone Interface Unit

Description The 280 telephone interface allows a conventional telephone to be connected to a Videx door entry system. The telephone can be either tone or pulse dial. The unit also incorporates the facility to divert a door panel call to a pre-programmed telephone number.

Important installation notes:-

- 1. A maximum of two telephones can be connected to the output of the Art280.**
- 2. Only one master socket should be connected to the output of the Art280.**
- 3. Any other telecom equipment such as Sky, Red care, Faxes, modems should be connected before the Art280.**
- 4. When using the Art280N1 in divert mode the speech volume levels will be lower than when used in normal mode. This is normal and is caused by a 10dB difference from the telephone exchange.**
- 5. If the microphone volume at the door station is adjusted too high, it could prevent the DTMF tones from being used to open the door or trigger any of the other special features. The same problem could occur if there is excessive back ground noise at the door station.**
- 6. Telephone line or mains interference can cause problems for the Artr280N1 to identify DTMF tones.**

Connections to the telephone line Each telephone line coming into your home or office must be fitted with a six pin primary socket installed by the PTO (Public Telecommunication Operator). It is illegal to tamper in any way with this primary socket and you can not install it yourself. Additional connections to the primary socket must be carried out using a BT style plug (You cannot connect directly to the terminals inside). The ART280 telephone interface unit is supplied with a BT style plug. For more information, see relevant paper work supplied with extension sockets.

Using a conventional telephone it is possible to do the following :

- Make and receive outside calls. (Normal Ring)
- Receive calls from the door station. (Quick double ring)
- Open the door.
- Open the speech lines to the door.
- Place a call on hold while another call is answered.
- Activate an auxiliary output for 1 second [Aux1]. This is an open collector output. (Can be used for a number of different aux. Equipment such as opening an additional gate or door).
- Another open collector output [Aux] will activate throughout the conversation. (Can be used to switch a camera on etc.)
- Divert a call to a pre-programmed telephone number.
- Dial into the art280 from a remote telephone.

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Wiring The wiring diagram is attached to this document and must be adhered to.
Also see a number of example installations types in the back of this manual.

Terminals The terminals on the Art280 each have the following functions :-

Terminals L1 & L2 :- Telephone line input (Not used if the line cord is used).

Terminals T1 & T2 :- Connects to terminals 2 & 5 on the primary socket supplied by Videx.

Terminals 230V & 0 :- Connects to a 230V AC Mains supply.

Terminal 2 :- Receive speech from door panel.

Terminal 1 :- Transmit speech to the door panel.

Terminal 3 :- Ground.

Terminal 6 :- Call trigger.

Terminals C & NO :- Dry contact lock output.

Terminal A :- Aux. Output. Triggered automatically during a call.

Terminal A1 :- Aux. Output. Triggered by the user for a 1 second pulse.

Terminal +12 :- 12 Volts DC output.

Initialisation

NOTE : If no telephone line is required then jumper P must be fitted. The telephone line cord is now redundant and should not be used.

NOTE 2 : After each programming function the handset must be replaced.

The system is programmed from the telephone keypad. The telephone must have a [RECALL] button.

Mode 1, 2, 3 or 4 must be selected to indicate which type of telephone is to be used. Mode 4 is the most commonly used in the UK. Follow the instructions below for setting the correct mode :-

*Please note that if the Art280 is connected to a system which also uses the same DTMF numbers for other functions, mode 3 should be selected (This will disable the *7 facility to open the speech without a call).*

NOTE 3 : Before using this system the programming must be carried out as follows :-

MODE 4 (*Most common mode for the UK*).

For use with telephones incorporating '*' Button and a RECALL button (Tone dial mode only)

Pick up the telephone and press **RECALL + RECALL + 5 + 4** (A confirmation tone will be heard from the earpiece).

Mode 4 is now set.

To program the number of rings from a door station : (From 1 – 9 double rings)

Pick up the handset and press **RECALL + RECALL + 1 + n** [i.e. If n = 5, the phone

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will ring for 5 double rings]. (A confirmation tone will be heard from the earpiece for each digit pressed).

To program the door open time : (From 2 – 18 seconds)

Pick up the handset and press **RECALL + RECALL + 2 + n** (Time = 2 x n) [i.e. If n = 3, the door will open for 6 seconds]. (A confirmation tone will be heard from the earpiece for each digit pressed).

To program the door open key : (Options are '0' and '9'. Default is '0')

Pick up the handset and press **RECALL + RECALL + 3 + n** (Where n is either 0 or 9). (A confirmation tone will be heard from the earpiece for each digit pressed).

To program the divert number : (Max 24 digits).

Pick up the telephone and press **RECALL + RECALL + 6 + Telephone number** (A confirmation tone will be heard from the earpiece for each digit of the telephone number.).

To program the four digit access code : (This access code will be used only when the call is diverted).

Pick up the telephone and press **RECALL + RECALL + 4 + Four digit access code** (A confirmation tone will be heard from the earpiece for each digit of the access code.).

To program the call time during divert mode : (In divert mode when this time, times out the call will automatically clear down).

Pick up the telephone and press **RECALL + RECALL + 8 + n** (Where n = 1 to 9) [The divert call time is 30 x n. i.e. If n = 6 then 30 x 6 = 180. Divert call time = 180 seconds]. (A confirmation tone will be heard from the earpiece for each of the digits pressed)

To enable the dial in facility : (It is possible to dial into the Art280 from the telephone line. The Art280 can be programmed to take the call after a number of rings). (Default = Disabled)

Pick up the telephone and press **RECALL + RECALL + 5 + 6 + n** (Where n = 1 to 9 for number of rings before answer or 0 to disable).

MODE 3

(For telephones with flash button facility [Pulse or tone].

The functions are the same as for mode 4, except the flash button is used instead of the '*' button.

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Pick up the telephone and press **RECALL + RECALL + 5 + 3** (A confirmation tone will be heard from the earpiece).

Mode 3 is now set.

MODE 2

(For telephones with flash button facility [Pulse or tone].

The functions are the same as mode 3, except the door panel can not be switched on without a call.

Pick up the telephone and press **RECALL + RECALL + 5 + 2** (A confirmation tone will be heard from the earpiece).

Mode 2 is now set.

MODE 1

(For telephones with dial disk [Pulse mode only].

As above except the flash button is replaced with a double strike on the hook switch.

Pick up the telephone and press **RECALL + RECALL + 5 + 1** (A confirmation tone will be heard from the earpiece).

Mode 1 is now set.

Operating instructions (Mode 4 example)

To make an outside call simply pick up the handset and dial the number (No prefix required).

To receive an outside call (The phone will ring normally). Pick up the handset, you will be connected with the caller.

To receive a call from the door panel (A quick double ring will be heard from the phone). Pick up the handset, you will be connected to the door panel.

If you then wish to open the door, simply press the number '0' or '9' key, (You will hear short bleeps from the ear piece).

To talk to the door without first being called simply pick up the handset and press the '*' key followed by the '7' key. you can now talk to the door panel. If you then wish to open the door press the '0' or '9' key. (When using this feature through a PBX the correct line must be selected first).

If an outside call is received while you are talking to the door panel (Acoustic signal will be heard from the ear piece) it is possible to put the door panel on hold while you take the outside call. To do that simply press the '*' key. After the call, to switch back, simply press the '*' key again or hang up. If after hanging up, there is still a call on the system. The telephone will ring again.

If a call is received from the door panel while you are talking on an outside call (Acoustic signal from the ear piece) It is possible to put the outside call on hold while

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you take the call from the door panel. To do this simply press the '*' key. After the call, to switch back, simply press the '*' key again or hang up. If after hanging up, there is still a call on the system. The telephone will ring again.

To activate the AUX1 open collector output During a call press **6**.

To place the door panel in divert mode Pick up the handset and press **RECALL + RECALL + 5 + 5**

During divert mode the following will happen When a call is placed at the door panel, the telephone will ring quickly three times and then the call will be diverted to the pre-programmed telephone number. If the line is busy or there is no answer then the call will clear down after the divert call time has timed out.

If the call is answered, the following facilities are available (Each operation will be confirmed by a tone in the earpiece) :-

To open the door Enter the **Access code + '0' or '9'**

To activate the AUX1 open collector output Enter the **Access code + 6**

To end the call before timeout Enter the **Access code + 7** (Note : This will also switch the divert off)

To switch divert back off Pickup the handset and press **RECALL + RECALL + 5 + 4**

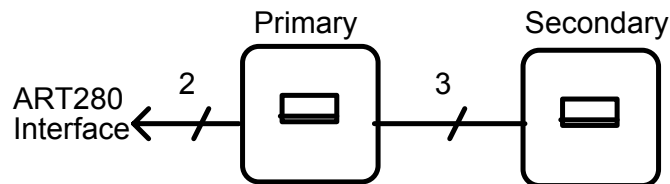
When dial in mode is active

If dial in mode is active, when a call comes from the telephone line and the call is not answered with the set number of rings, the Art280 will take the call.

When the Art280 takes the call it will then be possible to:-

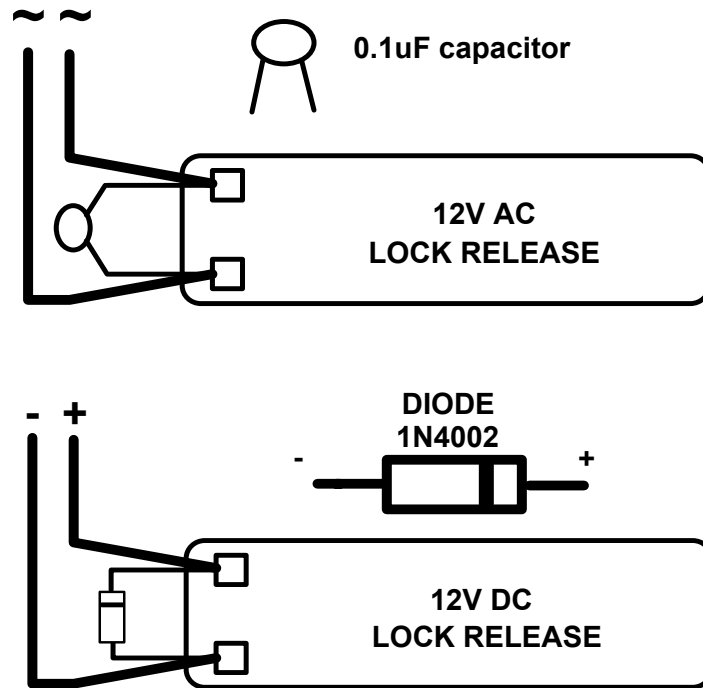
1. Open the speech to the door by entering the **Access code + 4**.
2. Open the door by entering the **access code + 0 or 9**
3. Close the speech by entering the **access code + 4**
4. Close the speech and end call by entering **Access code + 7**
5. Activate AUX1 by entering the **Access code + 6**

Connecting more than one handset Up to one additional handsets can be connected, using secondary telephone sockets as shown in the diagram below.



Lock release back EMF protection : A capacitor must be fitted across the terminals on an AC lock release and a diode must be fitted across the terminals on a DC lockrelease to suppress back EMF voltages. The diagrams below show how to connect these components to the lock releases.

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Cable size and type : When running cables for any intercom system, these cables must be installed separately from the mains cables. All multipair cables should be to CW1308 specification. (0.5mm twisted pair telephone cable). Max resistance = 10 Ohm.

Lock release wires should be doubled up. Max resistance = 3 Ohm

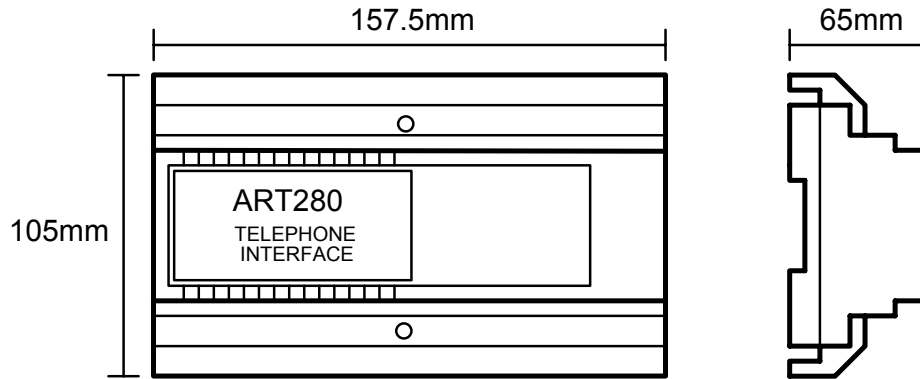
The cables sizes above can be used for distances up to 50m. On distances above 50m the cable sizes should be increased to keep the overall resistance of the cable below the RESISTANCE'S indicated above.

The total length of standard telephone wiring between the primary and each extension socket must not exceed 50M. The total length from the primary socket to the furthest secondary socket must not exceed 100M.

Dimensions The ART280 is enclosed in a standard 9 module DIN box. (157.5mm Long x 105mm wide x 65mm high).

The DIN module can either be mounted directly to the wall or onto a DIN rail.

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APPROVAL

The equipment has been approved in accordance with Council Decision 98/482/EC for pan-European single terminal connection to the public switch telephone network (PSTN). However, due to differences between the individual PSTNs provided in different countries, the approval does not, of itself, give an unconditional assurance of successful operation on every PSTN network termination point.

In the event of problems, you should contact your equipment supplier in the first instant.

Your Art.280 telephone interface is fully approved to be connected to the following circuits :-

*Public Switched Telephone Network (PSTN) - Non DDI
Private Branch Exchange (PBX)*

If the unit is to be used on any other network which is not listed above, you must first contact the vendor.

*The Art.280 telephone interface complies fully with the requirements of **TBR21** in all modes of operation.*



Specification

Supply Voltage	230V AC
Max number of telephones	2
Enclosure material	ABS Plastic

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Troubleshooting guide

In the event of problems occurring during the installation of the Art280 telephone interface please check this troubleshooting guide before calling the Videx technical help on 0191 224 3174.

Telephone does not ring but if it is picked up during a call there is speech to the door :-

Option 1 : The REN value has been exceeded. Do the test again with only one telephone connected. If it works then the REN value has been exceeded and the number of telephone on the system must be reduced.

Option 2 : A master socket has not been fitted to the output of the ART280. The telephone will not ring if this is a secondary socket or a faulty master socket. (The master socket has a large capacitor inside.)

Option 3 : The correct voltage is not coming from the Art280. (An AC voltage of approx. 30 volts should be present across T1 & T2 during the ringing cycle).

The speech lines do not open when * 7 is pressed :-

Option 1 : The Art280 has not been programmed to mode 4. To do this, pick up the handset and press RECALL twice followed by 5 and then followed by 4. Hang up the telephone. The Art280 is now programmed to mode 4.

Option 2 : The telephone you are using does not support DTMF dialing.

The door does not open when '0' or '9' is pressed :-

Option 1 : The Art280 has not been programmed to mode 4. To do this, pick up the handset and press RECALL twice followed by 5 and then followed by 4. Hang up the telephone. The Art280 is now programmed to mode 4.

Option 2 : The telephone you are using does not support DTMF dialing.

Option 3 : The lock is not wired correctly to the Art280. The Art280 has a dry contact relay output across C & NO. These two terminals short together when the door open is activated.

The Art280 does not activate at all when called :-

Option 1 : Check the mains supply is connected to the Art280 and is correct.

Option 2 : Check the mains fuse inside the Art280.

Option 3 : Use a meter to check it is getting a signal across terminals 3 and 6 when a call is placed. The voltage across these two terminals should be 12V AC or DC. (Without this voltage the Art280 will not trigger).

There is no dial tone when the handset is lifted :-

Option 1 : Check there is a line tone before the Art280 by moving the telephone to the line input.

Option 2 : Check the line cord is connected to the incoming master socket and that the cord is not faulty.

Option 3 : Check the new master socket fitted across terminals T1 & T2 of the Art280N has the wires connected to terminals 2 and 5.

Option 4 : Check the telephone being used is working correctly.

Option 5 : Check jumper P is not fitted.

A telephone line is not being used. when a call is made the call can only be answered during a ring :-

Option 1 : Jumper P has not been fitted. This must be fitted if a telephone line is not being used.

No speech from the door panel to the telephone :-

Option 1 : Check terminal 2 from the door panel to the Art280. When there are no calls on the system a voltage of 8V DC should be present across 2 and negative.

Option 2 : If possible, test the door panel speech with a Videx telephone.

No speech from the telephone to the door panel :-

Option 1 : Check terminal 1 from the door panel to the Art280. When there are no calls on the system a voltage of 8V DC should be present across 1 and negative.

Option 2 : If possible, test the door panel speech with a Videx telephone.

