

Description

The present invention relates to an improved entrance telephone system of the type utilizing the public subscriber telephone network for signalling, communication and door opening control purposes.

Such installations are previously known, e.g. US, A, 3 947 641, in which patent it is disclosed to discriminate subscriber numbers dialled from a conventional telephone set, for example located adjacent to a locked entrance door, thus facilitating establishment of a specific and reciprocal communication between entrance/tenant, and it is further possible for the "entrance set" to receive and interpret a signal generated by the "reply set" as a specific opening command transmitted over the communication circuit established by means of telephone number discrimination. There are various types of installations utilizing this basic principle, for example installations marketed under the trade mark "Telecode" in Sweden, and installation marketed under the trade mark "Entraguard" in the United States of America, which serve as proof of functionality and usability for these types of installations. Since the established communication originates from the entrance telephone set, having a number filter (hereinafter referred to as number discriminator) which includes the called telephone number and also initiating the call, the called tenant can, when lifting the hand set (B-reply), be informed of the fact that the call originates from the entrance telephone set, while the visitor, who originated the call, may not be made aware of the reply, which makes it possible for the tenant to secretly decide whether or not speech communication should be established with the visitor. In the above mentioned and previously known systems, this is accomplished in such a way, that the entrance set, after having obtained confirmation of B-reply, transmits an identification signal via the public telephone network. This signal is common for all entrance sets, but becomes specific for each calling entrance set. The parts with which a visitor can communicate, i.e. number selecting device and communication unit for speech communication, and any video communication unit, are disconnected when number selection at the entrance has been completed and accepted, and it is the number discriminator, in practical design arranged as a central processor, to which the aforementioned communication units, as well as the telephone network and the entrance lock, can be regarded as peripherally connected, and which provides the actual number selecting procedure to the central office and monitors the network for B-reply indication within predetermined calling time period (approximately 0,5 minute). When and if B-reply is indicated, transmission of an ID-signal

(identification signal) commences to the telephone network (the replying tenant), and a time logic circuit is also connected, which during a time period of approximately 5 seconds monitors any change on the telephone network. Provided that no such change is indicated, the units facilitating communication for a visitor are connected to the already established circuit via the public telephone network, and the visitor is made aware that a reply has been made, and can verbally communicate with the tenant and request unlocking of the entrance door. An entrance call, which can also be utilized for door opening purposes, has thus been established. However, should a change in the telephone network be indicated during the previously mentioned surveillance period (replaced hand set = inverted B-reply), said units are not connected, and the circuit established via the public telephone network is disconnected, without the visitor obtaining any knowledge of the fact that a reply has taken place. The visitor is given the impression, that the tenant has not replied. The tenant has thus a possibility, during the time period when the ID-signal is sounded, to secretly make desired decision whether or not an entrance call should be answered, by deciding between holding the hand set lifted, or by replacing the hand set on the telephone set.

To obtain the above function, it must be possible for the number discriminator to automatically indicate circuit status with regard to B-reply and replaced hand set, i.e. the public telephone network used must be able to provide and transmit such information. However, this is the case substantially only in the countries already mentioned with regard to existing installations, i.e. Sweden and the United States of America, whereas a change of polarity takes place in Sweden for B-reply and replaced hand set, while in the United States of America other methods may be used for these functions, e.g. variations of voltage. Such changes can be detected by the number discriminator, but in other countries, for example Norway, France and the Federal Republic of Germany, there are no such detectable signals. As a result, the above mentioned concept can only be used in countries where it is already being used, but in other countries, the called party can not secretly decide whether or not an entrance call should be switched through, and such calls are thus forced on the called party, which is a disadvantage both with regard to privacy and security.

The object of the present invention is to disclose a signalling method and an entrance telephone installation facilitating total control for the called party, also with regard to public telephone networks in which B-reply and replaced hand set are not indicated automatically. Such a concept will

obviously also operate with regard to line status indicating telephone networks such as the Swedish and U.S. telephone networks, i.e. one solution only can be universally used for all automatic public telephone networks, only adapted to prescribed galvanic and technical specifications for the specific telephone network used.

The present invention relates to a signalling method for an entrance telephone installation arranged to be connected to a public telephone network, said installation including a number discriminator with line access and dialling possibility, addressable from an entrance telephone set for connecting a circuit to specific reply sets, which reply sets are arranged to facilitate signalling via the switched through circuit in the telephone network to facilitate door lock opening, and it is mainly characterised in that a specific ID-signal is sent to the telephone network during a first time period after completed switching operation to a specific reply set during a first predetermined period of time, and that the telephone network is being monitored simultaneously with regard to digits entered from the reply set and transmitted via the telephone network as a pulsed signal, multi frequency signal or optical signal, non-entering of digits at the reply set during said first time period resulting in disconnection of the established circuit, whereas detection of one or a number of predetermined digits entered from the reply set during the first time period being interpreted as specific commands, which result in specific actions, as establishment of video and/or speech communication with the entrance set, blocking action preventing repeated calls during a specific time period, immediate disconnection, or alarm transmission from the entrance set, and that the first time period is followed by a second time period, provided that a predetermined digit entering operation is performed during the first time period, during which video and/or speech communication can be performed between the reply set and the entrance set, and that digits dialled from the reply set during said second time period are detected and interpreted as specific commands, which with regard to resulting function for one or a number of signals result in a different resulting function in relation to corresponding signal(s) during the first time period.

The invention also relates to an entrance telephone installation as disclosed in claim 3 and related subclaims.

Examples of embodiments according to the present invention are more fully described below, and an example of a previously known entrance telephone installation, to which described embodiments can be applied, is shown in U.S. Patent No. 3 947 641.

According to the present invention, the number

discriminator is arranged not to be influenced or to monitor for automatic indications for line status from the telephone network, but instead sense and be influenced by active signals from the called tenant, and these signals are used also for other purposes than only, as previously, entrance door opening control. Communication between entrance set/reply set is by the initial number discrimination still performed completely specific, and the established communication circuit facilitates specific responses to other signals than a predetermined opening command, particularly since the communication unit accessible by a visitor are disconnected when a command signal is received. The signals can be of various types, provided that their meaning and interpretation have been previously decided. In existing installations today, an opening command consists of a digit selected and entered at the reply set, e.g. the digit "5", which is transmitted as a pulsed signal or a multi frequency signal. In view of the developments made in the speech synthesise field, it is also possible to interpret verbal messages, which are transformed into specific functions. However, also in the future, selection of a digit at the reply set, transmitted as pulses, or as more commonly as a multi frequency signal, will probably be most advantageous, and such a method will for illustrative purposes be used when describing embodiments of the invention.

According to the present invention, an approved address sequency to a tenant from a visitor results in that the number discriminator dials corresponding telephone number to the main exchange. As previously mentioned, B-reply can in many public telephone networks not be indicated, due to the insufficiency of the network. In order to overcome this situation, a completed dialling sequency resulting in the establishment of a call, and without awaiting B-reply, results in transmission of an ID-signal to the telephone network, which ID-signal may comprise of a tone signal, a verbal message or similar. Said signal is transmitted during a first phase (phase A = the calling phase) for a predetermined time period, e.g. 0,5 minute. During this phase, all communication units accessible by the visitor are disconnected, and at the same time the number discriminator monitors the telephone network as follows:-

a) If no event is indicated on the line circuit during the stipulated period of time, the connection to the telephone network is interrupted or disconnected. A situation type "no response" has been established, which in a suitable manner is communicated to the visitor at the entrance. It should be noted, that for the telephone networks already discussed, B-reply (lifted hand set) does not result in any automatically indicated event on the network circuit. In B-reply

indicating telephone networks, it is possible, if desired, to add the period of time elapsed of phase A before a B-reply is indicated to the remaining period of phase A, i.e. that a time period corresponding to the total time period for phase A is counted down from the moment when B-reply is indicated. If the called party does not take any action, or replaces the hand set, the number discriminator interprets this as "no reply", and the visitor, whose communication units are disconnected, receives the same information after expiration of phase A, when the connection established via the public telephone network also is disconnected. The entrance set is thereafter in its inactive phase, and ready for new addressing operations.

b) If B-reply is obtained during the time period described as phase A, the called party can choose to accept the call. During this time period, the called party can transmit a specific command, for example by entering the digit "5" at the reply set, from which same is transmitted as a pulsed or a multi frequency signal. This signal is transmitted via the established telephone circuit to the number discriminator, and when same is detected, the visitor's communication units are connected to the telephone line, the ID-signal is interrupted, and a phase (the communication phase = phase B) can commence. Also this phase is preferably time restricted, e.g. in the range 0,5 minute, and during this period speech communication and door opening can be performed. By giving the same or other specific command, e.g. the digit "9", during the communication phase, the entrance-door lock is opened and the connection disconnected.

The above basic example indicates how previously known types of entrance telephone installations connected to public telephone networks also can be used when the telephone network lacks automatic indication of so called B-reply, and how the same type of installation also can be connected to a public telephone network having automatic indication of B-reply.

Also other facilities are offered, for example use of further specific commands. Since the number discriminator during the entire time period denominated phase A monitors the network for specific commands, a called party may thus by entering for example the digit "0" during this initial phase to block the number discriminator against repeated calls during a certain period of time, e.g. 15 - 30 minutes. Such a possibility is often desirable when harassed by repeated calls from unauthorized persons, and results in that addressing operations of this specific telephone number are not switched through, and that only "no reply" is in-

dicated at the entrance during this time period.

This function can be further modified, e.g. by completing the aforementioned command within a short period of time, e.g. 1 - 2 seconds, with a further entered digit, e.g. "3". If no such further command is received, the basic function described above is performed. Entering such a further and additional digit can be used to indicate how many hours, or parts thereof, as the specific reply set shall be blocked against incoming calls from the entrance set.

Obviously can also other commands with other meaning be sent from the reply set during the time period denominated phase A, and result in various types of response, and as an example can be mentioned that the entrance set can be connected to transmit an alarm signal by such an additional command.

When phase B commences, i.e. when the called party as previously described enters the digit "5" to facilitate speech communication with the entrance set, specific signals can also be transmitted from the reply set to the entrance set, a fact previously used only for door opening purposes. Correspondingly to what has previously been described, alternative commands can also be given during phase B, resulting in various types of response, and since a new phase has commenced, different from the previous phase A, also the signals used during phase A can be utilized, but with a completely different response. The digits previously mentioned with regard to phase B, i.e. "5" or "9", can thus during phase B be utilized to accomplish door opening, whereas the digits previously mentioned with reference to phase A can be given new functions. During the time period of phase B, replaced hand set may for example result in disconnection of the established call after expiration of the time period referred to as phase B, without door opening taking place, and the entrance set is thereafter immediately ready to accept addressing. If, for example, the digit "0" is entered during said time period, immediate disconnection of the call can be performed, without a door opening operation, and the entrance set may also be blocked for addressing the last dialled number during a shorter period of time, e.g. 2 minutes. Use of the digit "3", or other digit, including digits used for commands during phase A, can give other type of response, e.g. a further extended blocking period, alarm transmission from the entrance set, or other type of action.

The entrance set is advantageously addressed by means of a key pad, e.g. having 12 keys, by means of which a code lock function in a previously known way may be integrated, facilitating door opening by programming of a specific lock code. The "cross-symbol key" can for example be

arranged continuously addressable to the number discriminator during the various phases of communication for the entrance set, and when addressed in this fashion, arranged to immediately interpretate following code entered, e.g. opening code, and if correctly received, open the entrance lock, and thereafter return to the previously existing call situation. This facilitates a possibility for a tenant to get access, even during the time when a visitor is in the process of making a call or is communicating with a tenant in the building.

It has previously been indicated, that signals from the reply set are transmitted as pulsed or multi frequency signals. Signalling may also be performed in other fashions, e.g. via fibreoptical cables, and with signal types adapted for such cables. Such cables are today becoming more frequently used for telecommunication purposes, and the present invention can obviously also be used in conjunction with such networks.

The method in which the number discriminator performs surveillance, sensing and identification of signals from the reply set, and performs actions associated with received commands, can today be solved in a number of different ways, and with use of commercially available components, and in detail described embodiments are thus not believed necessary. Sensing of pulsed signals may in its simplest form be performed using conventional relay techniques, but also counters, such as integrated circuits, may be utilized. Sensing of signals of multi frequency type is performed in a previously known way using filtering circuits, and the signals obtained can thereafter in a known fashion be arranged to control predetermined functions.

The device according to the present invention thus facilitates access to functions in public telephone networks without B-reply indication, which previously have been unobtainable in entrance telephone installations connected to such telephone networks, and also possibility to obtain further functions than what has previously been considered as possible, both with regard to telephone networks without as with automatic B-reply indication. An important advantage is also the fact that one and only type of installation can be used in conjunction with all types of existing telephone networks, only modified to meet specific connection and signalling specifications for each network.

As a further modification of the device according to the present invention can also be mentioned the possibility to adapt same to the tenant, e.g. a company, desiring a simple and rapid possibility for a visitor to enter. These types of tenants often have their own local telephone exchange, which can be connected directly to the number discriminator. As a result, such a tenant can be given

specific and individual treatment when called, e.g. the call can be preceded by a specific ID-signal, indicating an entrance call, immediately followed by possibility of communication between the calling party and the called party. Door opening can thereafter be performed from the reply set in previously described fashion. Hereby receives a visitor substantially immediate possibility of speech communication after having made a call, which can be most desirous for companies. It should also be mentioned, that one installation only obviously can serve more than one entrance door, i.e. a number of entrance telephone sets can be connected to be served by one number discriminator, and this common equipment can thus serve for communication and door opening purposes for a number of entrances.

Claims

1. A signalling method for an entrance telephone installation arranged to be connected to a public telephone network, said installation including a number discriminator with line access and dialling possibility, addressable from an entrance telephone set for connecting a circuit to specific reply sets, which reply sets are arranged to facilitate signalling via the switched through circuit in the telephone network to facilitate door lock opening, characterised in that a specific ID-signal is sent to the telephone network during a first time period after completed switching operation to a specific reply set during a first predetermined period of time, and that the telephone network is being monitored simultaneously with regard to digits entered from the reply set and transmitted via the telephone network as a pulsed signal, multi frequency signal or optical signal, non-entering of digits at the reply set during said first time period resulting in disconnection of the established circuit, whereas detection of one or a number of predetermined digits entered from the reply set during the first time period being interpreted as specific commands, which result in specific actions, as establishment of video and/or speech communication with the entrance set, blocking action preventing repeated calls during a specific time period, immediate disconnection, or alarm transmission from the entrance set, and that the first time period is followed by a second time period, provided that a predetermined digit entering operation is performed during the first time period, during which video and/or speech communication can be performed between the reply set and the entrance set, and that digits dialled from the reply set during said second

arranged continuously addressable to the number discriminator during the various phases of communication for the entrance set, and when addressed in this fashion, arranged to immediately interpretate following code entered, e.g. opening code, and if correctly received, open the entrance lock, and thereafter return to the previously existing call situation. This facilitates a possibility for a tenant to get access, even during the time when a visitor is in the process of making a call or is communicating with a tenant in the building.

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time period are detected and interpreted as specific commands, which, with regard to the resulting function for one or a number of signals, result in a different resulting function in relation to corresponding signal during the first time period.

2. A signalling method according to claim 1, characterised in, that selection of time period for blocking and preventing repeated calls to a called reply set is performed by means of at least two subsequently following digits dialled at the reply set, performed within a predetermined period of time calculated from a first dialled digit, the digit dialled subsequently to a first digit being used to transfer information with regard to selected blocking period.

An entrance telephone installation arranged to be connected to a public telephone network, said installation including a number discriminator with line access and dialling possibility, addressable from an entrance telephone set for connecting a circuit to specific reply sets, which reply sets are arranged to facilitate signalling via the switched through circuit in the telephone network to facilitate door lock opening, characterised in that the entrance telephone installation comprises means for performing signalling between the entrance telephone set and the reply sets according to the signalling method of claims 1 or 2, that the entrance set is arranged with a key pad for number selection as well as programming of entrance lock code for entrance lock opening, and that one included addressable button when addressed is arranged to give priority to subsequently following programmed keys which correspond to a specific lock opening code, and after having received a complete and correct code sequence cause lock opening, thereafter returning to the previously existing communication situation.

4. An entrance telephone installation according to claim 3, characterised in, that one or a number of the subscribers which can be called from the entrance set are directly connected for communication without utilizing the public telephone network, and that number selection with respect to such a reply set results in connection of a direct circuit to the reply set.

5. An entrance telephone installation according to claim 4, characterised in, that connection of a directly connected reply set is preceded by an ID-signal, indicating an entrance call, transmitted during a short and predetermined time

period.

Revendications

1. Procédé de signalisation pour une installation téléphonique d'accès connectée à un réseau téléphonique public, ladite installation comprenant un discriminateur de numéros avec un accès de lignes et des possibilités de numérotation, pouvant être adressé à partir d'un ensemble d'un combiné téléphonique d'accès en vue de connecter un circuit à des combinés spécifiques de réponse, lesdits combinés spécifiques de réponse étant arrangés pour faciliter la signalisation à travers le circuit commuté du réseau public pour faciliter l'ouverture du verrouillage de porte, caractérisé en ce que, un signal spécifique ID est envoyé au réseau téléphonique pendant une première période de temps après l'opération de numérotation à un combiné répondeur spécifique durant la première période de temps et en ce que le réseau téléphonique est commandé simultanément par les numéros entrés à partir du répondeur et transmis à travers le réseau téléphonique en tant que signal pulsé, signal à multi-fréquences ou signal optique, la non-introduction de numéros dans le répondeur pendant ladite première période de temps se traduisant par la coupure du circuit établi, alors que la détection d'un ou de plusieurs numéros prédéterminés introduits à partir du répondeur durant la première période de temps est interprétée en tant que commande spécifique qui se traduit par des actions spécifiques tels que l'établissement d'une communication vidéo et /ou audio avec le combiné d'accès, une action de blocage évitant des appels répétés durant une période spécifique de temps, la déconnexion immédiate, ou la transmission d'une alarme à partir du combiné d'accès et en ce que la première période de temps est suivie par une seconde période de temps si une opération d'entrée de numéros est effectuée durant la première période de temps durant laquelle une communication audio vidéo et/ou audio peut être établie entre le répondeur et le combiné d'accès et en ce que les numéros composés à partir du répondeur durant ladite seconde période sont détectés et interprétés comme des commandes spécifiques lesquels, par rapport à la fonction résultante pour un ou plusieurs signaux se traduisant dans une fonction résultante différente en relation avec le signal correspondant durant la première période de temps.
2. Procédé de signalisation selon la revendication 1, caractérisé en ce que la sélection de période



de temps pour bloquer et interdire différents appels sur un combiné répondeur est effectuée au moyen d'au moins deux numéros successifs composés sur le répondeur, avec une période temps prédéterminée, calculée à partir d'un premier numéro composé, le numéro composé suivant le premier numéro étant utilisé pour transférer l'information par rapport à la période de blocage sélectionnée.

3. Installation téléphonique d'accès connectée au réseau public téléphonique, ladite installation comprenant un discriminateur de numéros avec un accès de ligne et un clavier, adressable à partir de l'installation d'accès pour connecter un circuit à des combinés répondeurs spécifiques, lesquels ensembles répondeurs étant prévus pour faciliter la signalisation à travers le circuit commuté dans le réseau téléphonique pour faciliter l'ouverture de la porte, caractérisée en ce que le combiné téléphonique d'accès comprend des moyens pour effectuer une signalisation entre un téléphonique d'accès et les combinés répondeurs selon le procédé de signalisation des revendications 1 ou 2, le combiné d'entrée comprenant un clavier pour une sélection de numéros et un code de verrouillage d'entrée programmable pour ouvrir la porte et en ce que celui-ci inclut un bouton d'adressage qui lorsqu'il est actionné donne la priorité à des touches suivantes programmées qui correspondent au code spécifique d'ouverture de la porte et après avoir reçu une séquence complète et correcte de code provoque l'ouverture de la porte et retourne ensuite à la situation de communication d'origine.

4. Une installation de téléphone d'accès selon la revendication 3, caractérisée en ce que, un ou plusieurs abonnés peuvent être appelés à partir du combiné d'accès et sont directement connectés pour une communication sans utiliser le réseau public de téléphone et en ce que la sélection du numéro par rapport audit dispositif répondeur se traduit par une connexion directe du circuit avec le combiné répondeur.

5. Installation téléphonique d'accès selon la revendication 4, caractérisée en ce que la connexion directe d'un répondeur est précédée par un signal ID indiquant un appel d'entrée transmis durant une période de temps courte et prédéterminée.

Patentansprüche

1. Signalisierungsverfahren für eine Eingangstele-

fonanlage, die mit einem öffentlichen Telefonnetz verbindbar ist, wobei die Anlage einen Zifferndiskriminator mit Netzzugang und Wahlmöglichkeit aufweist, der von einem Eingangstelefonatz zum Verbinden eines Schaltkreises mit spezifischen Antwortsätzen anwählbar ist, welche Antwortsätze zur Vereinfachung der Signalgabe durch durchgeschaltete Schaltkreise im Telefonnetz vorgesehen sind, um die Öffnung der Türverriegelung zu erleichtern, dadurch gekennzeichnet, daß ein spezifisches ID-Signal bzw. Kennsignal zum Telefonnetz während einer ersten Zeitspanne nach Vollendung des Schaltvorganges zu einem spezifischen Antwortsatz während einer ersten vorbestimmten Zeitspanne gesendet wird, und daß das Telefonnetz gleichzeitig im Hinblick auf Ziffern überwacht wird, die vom Antwortsatz einlaufen und über das Telefonnetz als ein gepulstes Signal, ein Multifrequenzsignal oder optisches Signal übertragen werden, wobei ein Nicht-Eintritt von Ziffern am Antwortsatz während der ersten Zeitspanne zu einer Unterbrechung des eingerichteten Schaltkreises führt, während die Erfassung von einem oder einer Mehrzahl von vorbestimmten Ziffern, die vom Antwortsatz während der ersten Zeitspanne eintreten, als bestimmte Befehle interpretiert werden, welche zu bestimmten Aktionen führen, wie das Einrichten von Video- und/oder Sprechverbindungen mit dem Eingangssatz, einer Unterbrechungsaktion, die wiederholte Rufe während einer bestimmten Zeitspanne verhindert, eine sofortige Unterbrechung oder eine Alarmübertragung vom Eingangssatz, und daß die erste Zeitspanne von einer zweiten Zeitspanne gefolgt wird, vorausgesetzt daß eine vorbestimmte Zifferneintrittsoperation während der ersten Zeitspanne durchgeführt wird, während welcher eine Video-und/oder Sprechverbindung zwischen dem Antwortsatz und dem Eingangssatz durchgeführt werden kann, und daß Ziffern, die vom Antwortsatz während der zweiten Zeitspanne gewählt wurden, erfaßt und als spezifische Befehle interpretiert wurden, welche bezüglich der sich ergebenden Funktion für eine oder eine Anzahl von Signalen zu einer anderen resultierenden Funktion bezüglich korrespondierender Signale der ersten Zeitspanne führen.

2. Signalisierungsverfahren nach Anspruch 1, dadurch gekennzeichnet, daß die Auswahl der Zeitspanne zum Blockieren und Verhindern wiederholter Rufe einem angewählten Antwortsatz mittels wenigstens zweier aufeinanderfolgender Ziffern durchgeführt wird, die am Antwortsatz gewählt werden, was innerhalb einer vorbe-



stimmten Zeitspanne durchgeführt wird, die von einer ersten gewählten Ziffer bzw. einem Digit berechnet wird, wobei das Digit, das darauffolgend als erste Ziffer gewählt wird, dazu benutzt wird, Information bezüglich der gewählten Blockierungsspanne zu übertragen.

3. Eingangstelefonanlage, die mit einem öffentlichen Telefonnetz verbindbar ist und einen Zifferndiskriminator mit Netzzugang und Wählmöglichkeit aufweist, der von einem Eingangstelefonatsatz zum Verbinden eines Schaltkreises mit spezifischen Antwortsätzen anwählbar ist, welche Antwortsätze dazu vorgesehen sind, eine Signalisierung über durchgeschaltete Schaltkreise im Telefonnetz zu erleichtern, um die Öffnung einer Türverriegelung zu erleichtern, dadurch gekennzeichnet, daß die Eingangstelefonanlage eine Einrichtung zum Ausführen der Signalisierung zwischen dem Eingangstelefonatsatz und den Antwortsätzen gemäß dem Signalisierungsverfahren der Ansprüche 1 oder 2 aufweist, daß der Eingangssatz mit einer Tastatur zur Ziffernwahl sowie zur Programmierung des Eingangsverriegelungs-codes zur Öffnung der Eingangsverriegelung versehen ist, und daß ein adressierbarer Schalter vorgesehen ist, der bei Anwahl darauffolgenden programmierten Tasten Priorität verschafft, welche einem speziellen Verriegelungs/Öffnungscode entsprechen, und daß nach Erhalt einer vollständigen und korrekten Codesequenz die Öffnung der Verriegelung verursacht wird, wobei danach zur zuvor existierenden Verbindungssituation zurückgekehrt wird.

Eingangstelefonanlage, nach Anspruch 3, dadurch gekennzeichnet, daß einer oder eine Anzahl von Teilnehmern, welche vom Eingangssatz angerufen werden können, direkt zur Kommunikation verbunden werden, wobei das öffentliche Telefonnetz benutzt wird, und daß die Ziffernwahl bezüglich eines derartigen Antwortsatzes zu einer Verbindung eines direkten Schaltkreises zum Antwortsatz führt.

5. Eingangstelefonanlage nach Anspruch 4, dadurch gekennzeichnet, daß der Verbindung eines direkt verbundenen Antwortsatzes ein Kennsignal vorangeht, das einen Eingangs-anruf anzeigt, das während einer kurzen und vorbestimmten Zeitspanne übertragen wird.

