Gladwin, Inc.
G05201
G05301

CAREFREE™

Coin Telephone
Practice

Issue 2, July 1984

1. GENERAL

1.01 This system practice provides information associated with the application and installation of the Gladwin coin telephone instruments.

1.02 All inquiries concerning the G05201 and G05301 should be directed to :

Gladwin, Inc.
Customer Service Department
Route 1, Box 370A
Oakwood, GA 30566
(404) 536-6023
TWX 810-750-4532

2. APPLICATION

2.01 G05201 and G05301 are designed to operate on any standard, loop start, metallic, single party, touch tone or rotary equipped telephone line. Application on lines equipped with subscriber carrier equipment is not recommended.

G05201 and G05301 will operate with any central office type commonly found in the USA including SXS, XY, cross bar, electronic and digital.

2.02 All restriction functions are handled by the telephone. No special central office equipment is necessary.

2.03 G05201 and G05301 are adaptable to any standard public telephone enclosure and can be used as a replacement for AE 120 (A,B), NT 400 or WE 1A1 through 1D1.

2.04 Gas tube protection is recommended for any telephone line being equipped with G05201 or G05301 instruments.

2.05 The most desirable method for identifying G05201 or G05301 is by class marking the terminal number in the TSPS data base as this can be accomplished solely with software. Various other means are available and should be investigated in conjunction with toll traffic engineering and central office equipment engineering.

The G05201 and G05301 are also programmed to identify themselves to the operator if desired. If the audio detector option is enabled, three seconds after the last digit has been dialed on either 0- or 0+ calls, the instrument begins generating a short beep tone toward the operator each second. With the transmitter disabled, the telephone will continue to generate the beep once every second until the operators console gives a 3 second acknowledgement tone burst. Upon termination of the operator acknowledgement tone, the telephone identifies itself by generating a scale of tones. After running the scale the transmitter is enabled to allow conversation. No further tones are generated by the instruments.

3. FEATURES

3.01 Mechanical

* Metal key pad suitable for outdoor application.
* Metal hookswitch with sealed contacts is impervious to environmental conditions.
* Recessed mounting prevents unauthorized removal of the instrument when installed in a Gladwin Guard Post   pedestal.
* Special access screw is hidden from sight to minimize tampering (applicable to G05201).
* Special coating provides a good-looking but durable surface effective even in outdoor environments.
* Armored handset cord and blue grommet handset with sealed transmitter and receiver caps.
* All electronics are on a single assembly to minimize repair and maintenance time.

3.02 Electrical

* Telephone line powered. No batteries, no A.C. required.
* Microprocessor controlled dial, restriction features and transmission control.
* Pizo straight line ringer.
* Secondary transient protection built into unit.

Bob 848-0885

4. INSTALLATION (APPLICABLE TO G05201) Note: We recommend that this telephone be installed by a licensed electrician or telephone installer.

4.01 Select suitable booth location.

4.02 Install backplate.

4.03 Make tip/ring connections to barrier terminal provided on the backplate.

4.04 Connect terminals from modular jumper cable to corresponding tip/ring connections on the barrier terminal mounted on backplate assembly. See reference schematic Figure 2 for details of tip/ring connection.

4.05 Provide instrument electrical ground.

4.06 Secure the housing.

4.07 Perform functional verification tests per Section 6.

5. SPECIFICATIONS (APPLICABLE TO G05201)

5.01 Physical

A. Shipping Carton:
*   Size 22" (559mm) L X 9" (229mm) W x 10" (254mm) H
*   Weight: 398 oz. (24 lbs. 14 oz.) (includes instrument)
         14 oz. (carton only)

5.02 Environment (operating/storage)

A. Temp: -40F + 140F
            -40C to +60C
B. Humditiy: 0% to 95% RH

G05201 and G05301 are suitable for outdoor environment including direct sun, rain and snow; however, some environmental protection is suggested to achieve optimum life cycle value.

5.03 Electrical Connection - Tip and Ring connection are provided via terminal block.

5.04 Loop limits: (polarity is not critical)

A.   20 ma. minimum 80 ma. maximum loop current. Central office battery between 44 and 55 volts is assumed. Voltages outside these limits will affect performance to the same extent that standard 2500 type instruments are affected.

B.   On hook impedance: Greater than 10 meg ohms DC, REN = 1.0B.

5.05 DTMF tone output meets industry standards for frequency, amplitude and twist. Each digit is transmitted for 60 ms regardless of how long the button is held depressed. Chain dialing is denied. All dialing is restricted on incoming cables to G05201 and G05301.

5.06 Transmitter mute is maintained until enough digits are transmitted to insure that call destination is legitimate.

6. OPERATION

6.01 The G05201 and G05301 are electronic coin telephones designed to provide coin service on a measured time basis.

6.02 The telephone operates on a post pay basis for local calls. Coins cannot be returned for improperly dialed calls.

6.03 The telephone has a coin rejector to return improper coins and to prohibit fraud.

6.04 The telephone will give 2 short warning beeps 15 seconds before expiration of time limit on all calls. If no additional money is deposited, the telephone will disconnect the call for 1-6 seconds causing the central office to revert back to dial tone.

6.05 The telephone is equipped with an electronic coin totalizer for coin collection verification. The coin totalizer advances 1 count for each $.05 deposit. The totalizer is non-resettable with a maximum count of 9999. The totalizer can be read remotely via a DTMF Digit Analyzer. Note: We recommend the use of a digit analyzer to program telephone or to check out the telephone which has been programmed. To obtain information concerning a digit analyzer, please, call the Customer Service Department.

A. On location read out

   1. Program switch in normal operating position.
   2. Connect tip & ring of telephone to digit analyzer.
   3. Instrument off-hook, wait for dial tone.
   4. Dial **, the telephone sends the code CD11, xxxx, where CD11 is a fixed field and represents a number between 0000 and 9999. Example: CD11 0240 = 0240 x $.05 = $12.00.

B. Remote location read out

   1. Program switch must be in normal operating position.
   2. Call 7 digit local number.
   3. Upon answer, insert base rate.
   4. Dial ** (Note - the remote location needs a digit analyzer in monitor mode placed across the distance end telephone lines). The telephone will send the code CD11 xxxx. (Refer to example 4 above).

6.06 PROGRAMMING

A. SOFTWARE PROGRAM A06512

THIS SOFTWARE PRIMARILY WILL ALLOW (COIN IN THE BOX) LOCAL MEASURED SERVICE, LONG DISTANCE MUST BE CREDIT CARD, COLLECT OR THIRD PARTY.

1. Set program switch to program position.
2. Instrument off-hook, wait for dial tone.
3. Dial *1, the telephone sends 4 short beeps to indicate code was properly entered. If incorrect the telephone will generate a busy tone. The first key entered after dialing *1 is Field 1, the next digit dialed is field 2, then 3, 4, 5 respectively.

Field No. 1   Dial 1 for 1 minute
(Base Time)   Dial 2 for 2 minutes
                      Dial 3 for 4 minutes
                      Dial 4 for 5 minutes
                      Dial 5 for 6 minutes
                      Dial 6 for 10 minutes
                      Dial 7 for infinity (no limit)

Field No. 2   Dial 1 for $.25 ....   (if equipped with a $.25 coin track)
(Base Rate)   Dial 2 for $.50

                      Dial 1 for $.10 ....   (if equipped with a $.10 coin track)
                      Dial 2 for $.20

                      Dial 1 for 1 token ....   (if equipped with token coin track)
                      Dial 2 for 2 tokens

Field No. 3   Dial "0"   if service numbers, L.D. information, outgoing WATS, 0 - and 0 + require base rate.
                      Dial "1"   if service numbers (except 911), L.D. information, outgoing WATS, 0 - and 0 + are coin free.

Field No. 4   Dial "1"   telephone sends D.P. (Rotary)
                      Dial "0"   telephone sends DTMF (touch tone)

Field No. 5   Dial "1"   to enable audio detector on 0 - and 0 + calls
                      Dial "0"   to disable audio detector on 0 - and 0 + calls

After last field selection has been programmed, the telephone responds by sending the DTMF character number followed by 5 alpha-numeric digits that identify the hardware and software. The telephone then sends 3* characters followed by 5 digits that represent the 5 field programmable selections. (To view these digits the telephone must be connected to a digit analyzer). Return the program switch to operate. The telephone is ready for use.

CALLS ALLOWED:

* 0 -, 0 + except 011, 1DDD
* 1-AC-555-1212
* 1-800-xxx-xxxx
* 1-411
* 7-digit local calls

Software Program A06512 continued. . . . .

CALLS DENIED:

* 011, 1DDD
* 1-AC-XXX-XXXX
* AC-XXX-XXXX
* 1-XXX-XXXX

A BUSY TONE IS GENERATED BY THE TELEPHONE ON ALL DISALLOWED CALLS.

VIEWING SOFTWARE OPTIONS

The identification and field selected program described can be viewed without altering the field settings.

A. Set program switch to program position.
B. Connect telephone to a digit analyzer
C. Instrument off-hook and wait for dial tone
D. Dial *9. The digit analyzer will display the identification and field selected program.

The program switch must be returned to its normal operation position to restore the telephone to public service.

B.   SOFTWARE PROGRAM A06513

THIS SOFTWARE PRIMARILY ALLOWS (COIN IN THE BOX) LOCAL MEASURED SERVICE.

1.   Set program switch to program position.
2.   Instrument off-hook, wait for dial tone
3.   Dial *1, the telephone sends 4 short beeps to indicate code was properly entered. If incorrect the telephone will generate a busy tone. The first key entered after dialing *1 is field 1, the next digit dialed is field 2, then 3, 4, 5, 6 and 7 respectively.

Field No. 1   Dial 1 for 1 minute
(Base Rate)   Dial 2 for 2 minutes
               Dial 3 for 4 minutes
               Dial 4 for 5 minutes
               Dial 5 for 6 minutes
               Dial 6 for 10 minutes
               Dial 7 for infinity (no limit)

Field No. 2   Dial 1 for $.25   (if equipped with a $.25 coin track)
               Dial 2 for $.50

               Dial 1 for $.10   (if equipped with a $.10 coin track)
               Dial 2 for $.20

Field No. 3   Dial "0"   if service numbers (except 911) L.D. information, outgoing
(See Note**)   WATS, 0 - and 0 + require base rate.
               Dial "1"   if service numbers, L.D. information, outgoing WATS, 0 - and 0+
                                            are coin free.

Field No. 4   Dial "1"   Telephone sends D.P. (Rotary)
               Dial "0"   Telephone sends D.T.M.F. (touch tone)

Field No. 5   Dial "1"   to enable the audio detector on calls to operator
(See Note **) Dial "0"   to disable detector on calls to operator

Field No. 6   Dial "1"   to allow incoming calls
               Dial "0"   to deny incoming calls

Field No. 7   Dial "1"   to select Mode 1, Local Service only
(Note ***)
               This mode restricts: 1 + all numbers
                                            411
                                            Area Code + NNX + XXXX
                                            800 + NNX + XXXX
                                            0 - or 0 +

               This mode allows: NNX + XXXX
                                            911 (coin free)

Note ***: Any time Mode 1 is selected, Field 3 must be programmed with 1.

Dial "0"   to select Mode 0

This mode restricts: 011 International DDD
                                            1 + AC + NNX + XXXX
                                            1 + NNX + XXXX
                                            AC + NNX + XXXX

This mode allows: 1 + 800 + NNX + XXXX
                                            1 + AC + 555-1212
                                            1 + 411
                                            0 - 0 +
                                            1 + 555-1212 & 555-1212

Note **: Field No. 3 and Field No. 5 ONLY function if Mode 0 in Field No. 7 is selected. However, a selection must still be made in Fields 3 and 5 even though they will be inoperable.

After the last field selection has been programmed, the telephone responds by sending the DTMF character number followed by 5 alpha-numeric digits that identify the hardware and software. The telephone then sends 3* characters followed by 7 digits that represent the 7 field programmable selections. (To view these digits the telephone must be connected to a digit analyzer). Return the program switch to operate. The telephone is ready for use.

VIEWING SOFTWARE OPTIONS

The identification and field selected program described can be viewed without altering the field settings.

A.   Set program switch to program position.
B.   Connect telephone to a digit analyzer.
C.   Instrument off-hook and wait for dial tone.
D.   Dial *9. The digit analyzer will display the identification and field selected program.

The program switch must be returned to its normal operation position to restore the telephone to public service.

C. SOFTWARE PROGRAM A06516

THIS SOFTWARE PRIMARILY ALLOWS (COIN IN THE BOX) LOCAL AND LONG DISTANCE MEASURED SERVICE, AND IS COMPATIBLE WITH OCC AND PBX SYSTEMS.

1. Set program switch to program position (push in).
2. Instrument off-hook, wait for dial tone.
3. Proceed with programming.

PROGRAMMING OPTIONS:

Dial *1, the telephone sends 4 short beeps to indicate the code was properly entered. The telephone will generate a busy tone if incorrect digit is dialed. The first key entry after dialing *1 programs Field No. 1. The next key pad entry programs Field No. 2. Subsequent key pad entries will program Fields 3 through 18 respectively. A beep is generated after every field entry.

| Field No. 1 | Dial 0 | to deny 0 + or 0 - type calls |
| (0 type calls) | Dial 1 | to allow (coin free) 0 + or 0 - calls |

Field No. 2	Dial 0	to allow 1-411 and 411 coin free
	Dial 1	to allow 1-411 and 411 for $.25
	Dial 2	to allow 1-411 and 411 for $.50

Information calls requiring a charge (option 1 or 2) require full deposit before dialing the first digit.

| Field No. 3 | Dial 0 | to deny 1 + Interstate calls |
| Interstate Calls | Dial 1 | to allow 1 + call set up (coin free) |

| Field No. 4 | Dial 0 | to deny 1 + Intrastate calls |
| Intrastate calls | Dial 1 | to allow 1 + call set up (coin free) |

| Field No. 5 | Dial 0 | to send DTMF |
| (Outpulsing) | Dial 1 | to send Dial Pulse |

| Field No. 6 | Dial 0 | to disable audio detector on calls to the operator |
| Audio Detector | Dial 1 | to enable audio detector on calls to the operator |

| Field No. 7 | Dial 1 | to charge $.50 for information calls |
| Information | Dial 2 | to charge $.75 for information calls |

Information calls are 1-555-1212, 1 - Area Code - 555-1212 and require the full deposit before dialing the first digit.

| Field No. 8 | Dial 0 | to deny local calls |
| Local Calls | Dial 1 | to allow local calls |

See Field No. 11 and No. 12 for incremental time

| Field No. 9 | Dial 0 | to deny incoming calls |
| Incoming Calls | Dial 1 | to allow incoming calls |

Field No. 10	Dial *	if telephone is not behind a PBX
PBX	Dial X*	for a 1 digit PBX access code
	Dial XX*	for a 2 digit PBX access code
	Dial XXX	for a 3 digit access code

The PBX digits will be dialed automatically when the telephone comes off hook.

NOTE: 1-800 numbers will always be allowed coin free.

Field No. 11   Dial 1   for base time of 1 minute
Local Call   Dial 2   for base time of 2 minutes
Base Time   Dial 3   for base time of 3 minutes
                      Dial 4   for base time of 5 minutes
                      Dial 5   for base time of 6 minutes
                      Dial 6   for base time of 10 minutes
                      Dial 7   for base time of 1 hour

A digit 1 through 7 must be dialed even if local calls are to be
denied as selected in Field No. 8. The base time is either $.25
or $.50 as selected in Field No. 13.

Field No. 12   Dial 1   for incremental time of 1 minute
Local call   Dial 2   for incremental time of 3 minutes
Incremental Time   Dial 3   for incremental time of 5 minutes
                      Dial 4   for incremental time of 10 minutes

The incremental time is the amount of time in minutes that the call
can be extended after the expiration of the base rate for each $.25
deposited in the telephone. This field must be programmed even
though local calls are to be denied.

Field No. 13   Dial 1   for local base rate $.25
Local Call   Dial 2   for local base rate $.50

The local base rate is the cost for the base time as programmed in Field No. 11.

Field No. 14   Dial XX iH   (State Code)
State Code   NOTE XX is a two digit State Code from Table No. 1 (attached). Select
                      the State Code next to the State Name in which the telephone will operate.
                      The telephone uses this information to distinguish Intrastate from Interstate.

Field No. 15   Dial 1   to charge $1.25 for 1st minute on Interstate Calls.
Interstate Base   Dial 2   to charge $1.50 for 1st minute on Interstate Calls
Rate/Minute   Dial 3   to charge $1.75 for 1st minute on Interstate Calls
                      Dial 4   to charge $2.00 for 1st minute on Interstate Calls
                      Dial 5   to charge $2.25 for 1st minute on Interstate Calls
                      Dial 6   to charge $2.50 for 1st minute on Interstate Calls
                      Dial 7   to charge $2.75 for 1st minute on Interstate Calls

A digit must be dialed in Field No. 5 even if Interstate calls are restricted.

Field No. 16   Dial 1   to charge $.25 per additional minute for Interstate calls
Interstate   Dial 2   to charge $.50 per additional minute for Interstate calls
Incremental Rate/   Dial 3   to charge $.75 per additional minute for Interstate calls
Minute   Dial 4   to charge $1.00 per additional minute for Interstate calls

A digit must be dialed in Field No. 16 even if Interstate calls are restricted.

Software Program 3 continued. . . .

Field No. 17	Dial 1	to charge $0.75 for the 1st minute on Intrastate Calls
Intrastate Base	Dial 2	to charge $1.00 for the 1st minute on Intrastate Calls
Rate/Minute	Dial 3	to charge $1.25 for the 1st minute on Intrastate Calls
	Dial 4	to charge $1.50 for the 1st minute on Intrastate Calls
	Dial 5	to charge $1.75 for the 1st minute on Intrastate Calls
	Dial 6	to charge $2.00 for the 1st minute on Intrastate Calls
	Dial 7	to charge $2.25 for the 1st minute on Intrastate Calls
Field No. 18	Dial 1	to charge $0.25 per additional minute for Intrastate Calls
Intrastate	Dial 2	to charge $0.50 per additional minute for Intrastate Calls
Incremental	Dial 3	to charge $0.75 per additional minute for Intrastate Calls
Rate/Minute	Dial 4	to charge $1.00 per additional minute for Intrastate Calls

After the last field selection has been programmed, the telephone responds by sending the DTMF character number followed by 5 alpha-numeric digits that identify the software package. The telephone then sends a read out of the options selected.

PROGRAMMING OCC NUMBER AND MERCHANT CODE

Follow all steps as outlined above .

Dial *2, the telephone sends 4 short beeps to indicate the code was properly entered. After the *2 do one of the following:

Dial X*	for a 1 digit OCC access code
Dial XX*	for a 2 digit OCC access code
Dial XXX*	for a 3 digit OCC access code
Dial XXXX*	for a 4 digit OCC access code
Dial XXXXX*	for a 5 digit OCC access code
Dial XXXXXX*	for a 6 digit OCC access code
Dial XXXXXXX*.	for a 7 digit OCC access code
Dial XXXXXXXX	for an 8 digit OCC access code

The telephone will return a short beep, then please dial in the Merchant Code by doing one of the following:

Dial *	if there is no merchant code
Dial X*	for a 1 digit merchant code
Dial XX*	for a 2 digit merchant code
Dial XXX*	for a 3 digit merchant code
Dial XXXX*	for a 4 digit merchant code
Dial XXXXX*	for a 5 digit merchant code
Dial XXXXXX*	for a 6 digit merchant
Dial XXXXXXX*	for a 7 digit merchant
Dial XXXXXXXX	for an 8 digit merchant code

After dialing the last digit of the merchant code, the telephone responds by sending the OCC access number to the digit monitor, followed by 3 "*" characters, followed by the merchant code.

When the telephone has been programmed to interface with an OCC, the consumer dials * and the telephone will automatically send the OCC number. After the OCC switch has answered the consumer must dial * again and the telephone will transmit the merchant   number. The consumer can then enter his area code and destination number to complete the call.   -

VIEWING SOFTWARE AND OPTIONS:

The software number and options selected can be viewed at any time without altering the option settings by doing the following:

1.   Set program switch to program position
2.   Connect to digit analyzer
3.   Instrument off-hook, wait for dial tone
4.   Dial *3. The telephone will respond by generating a sequence of digits to the digit monitor
      that represent the software number and option setting.

VIEWING OCC NUMBER AND MERCHANT CODE:

. The OCC number and merchant code can be viewed at any time without altering the code by doing the following:

1.   Repeat steps 1, 2 and 3 from "Viewing"

2.   Dial *4. The telephone will respond by sending the OCC access number followed by 3 * digits followed
      by the merchant code.

The program switch must always be returned to its normal operating position in order to restore the telephone to public service.

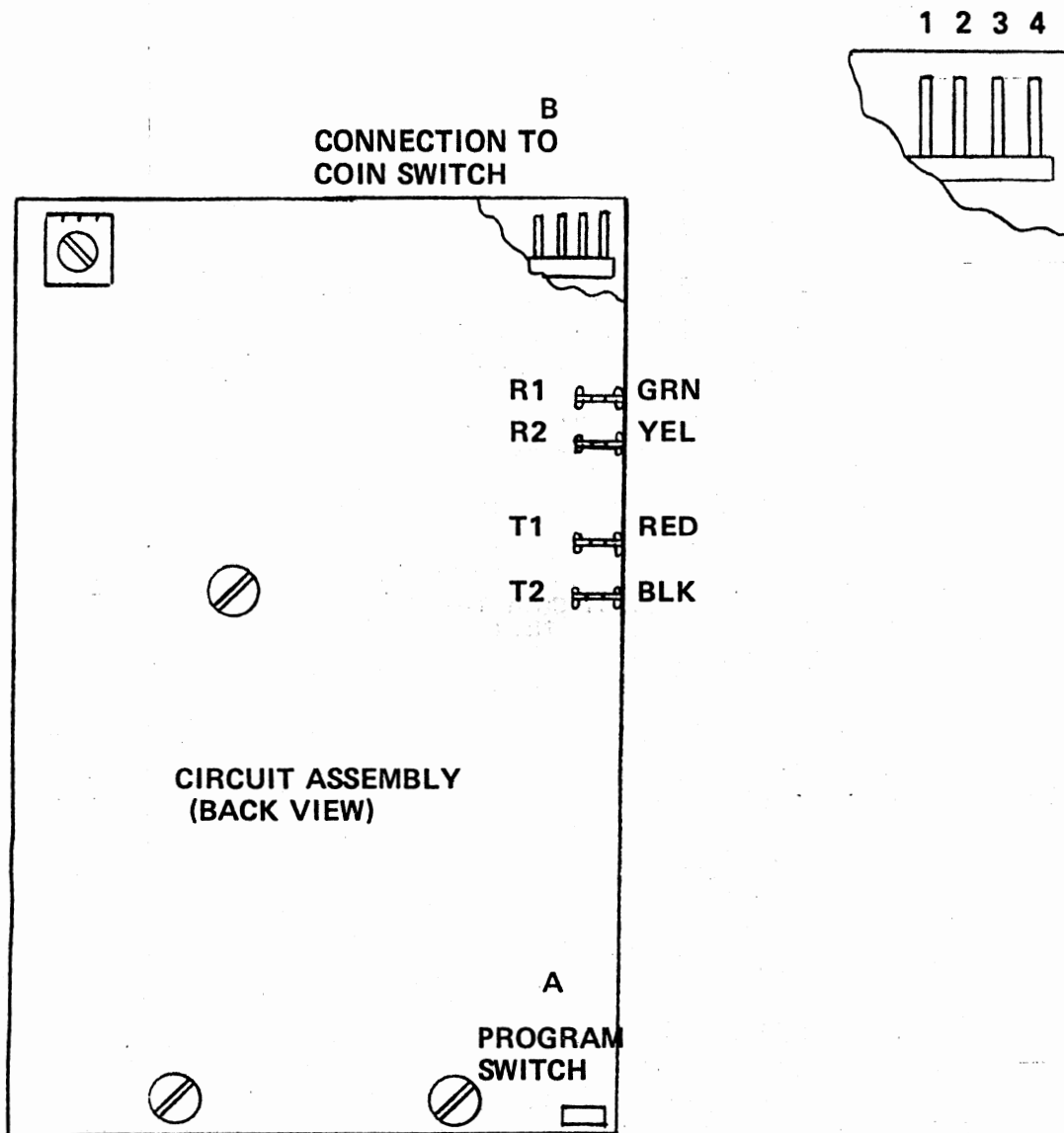6.07 Additional Call Restriction Includes:

* Dialing too soon after Off-Hook
* Dialing with the hook switch
* Hanging up the phone for less than two seconds between call attempts
* Dialing with an acoustic coupler over the transmitter

6.08 The subscriber hears a fast busy tone any time a disallowed call or dialing procedure is attempted. The subscriber must then hang up for two seconds before attempting a subsequent call.

6.09 Answering an incoming call causes the telephone to transmit a steady tone for the first 1.5 seconds in order to alert the operator.

STATE CODE TABLE
No. 1

STATE NAME	STATE CODE	STATE NAME	STATE CODE
ALABAMA	01	MONTANA	27
ALASKA	02	NEBRASKA	28
ARIZONA	03	NEVADA	29
ARKANSAS	04	NEW HAMPSHIRE	30
CALIFORNIA	05	NEW JERSEY	31
COLORADO	06	NEW MEXICO	32
CONNECTICUT	07	NEW YORK	33
DELAWARE	08	NORTH CAROLINA	34
DISTRICT OF COLUMBIA	09	NORTH DAKOTA	35
FLORIDA	10	OHIO	36
GEORGIA	11	OKLAHOMA	37
HAWAII	12	OREGON	38
IDAHO	13	PENNSYLVANIA	39
ILLINOIS	14	RHODE ISLAND	40
INDIANA	15	SOUTH CAROLINA	41
IOWA	16	SOUTH DAKOTA	42
KANSAS	17	TENNESSEE	43
KENTUCKY	18	TEXAS	44
LOUISIANA	19	UTAH	45
MAINE	20	VERMONT	46
MARYLAND	21	VIRGINIA	47
MASSACHUSETTS	22	WASHINGTON	48
MICHIGAN	23	WEST VIRGINIA	49
MINNESOTA	24	WISCONSIN	50
MISSISSIPPI	25	WYOMING	51
MISSOURI	26		

1 2 3 4

B
CONNECTION TO
COIN SWITCH

R1   GRN
R2   YEL

T1   RED
T2   BLK

CIRCUIT ASSEMBLY
(BACK VIEW)

A

PROGRAM
SWITCH

A. PROGRAM SWITCH

The program switch can be viewed through a hole in the black plastic protective cover (lower right hand corner) which surrounds the telephone electronic circuit.

The program switch can be operated with the plastic cover in place or the plastic cover can be removed for easier access. To program the telephone the switch must be in position. To operate the telephone after programming the switch must be in the out position.

B. COIN TRACK TERMINAL

Should the red and black plug from the coin track become disconnected from the telephone circuit during shipment, reconnect the plug as follows'. (Note: The plug can be placed on the terminal without regard to the colors of the wires).

1. If the telephone is equipped with a .25 cent coin track, connect to terminal position 1 and 2.
2. If the telephone is equipped to operate with a .10 cent coin track connect to terminal 2 and 3.

Gladwin, Inc.
G05201
G05301

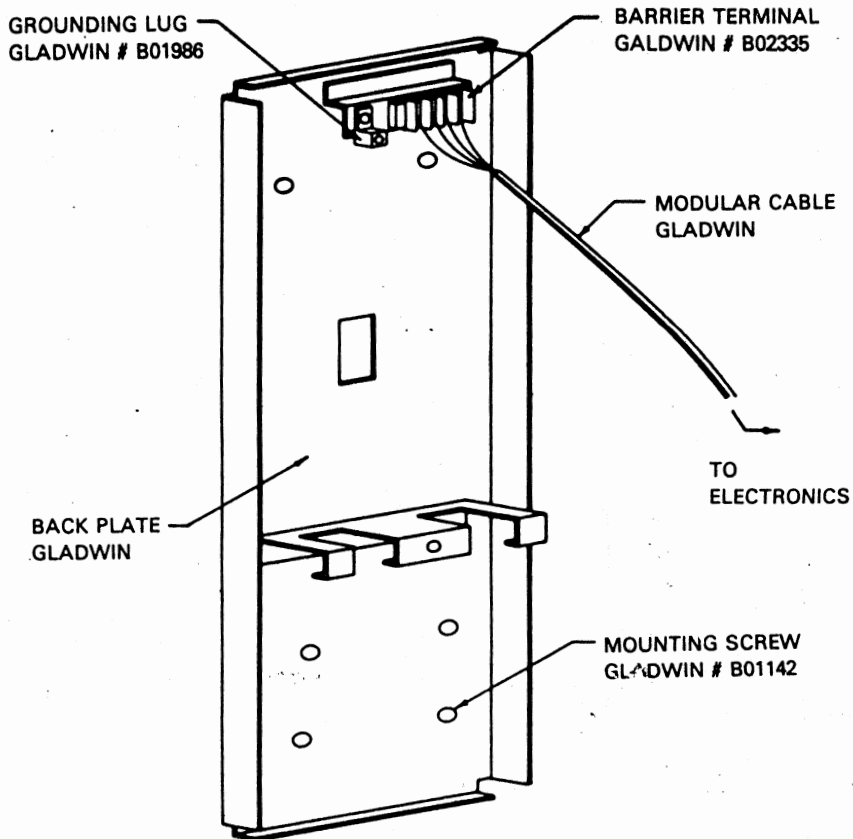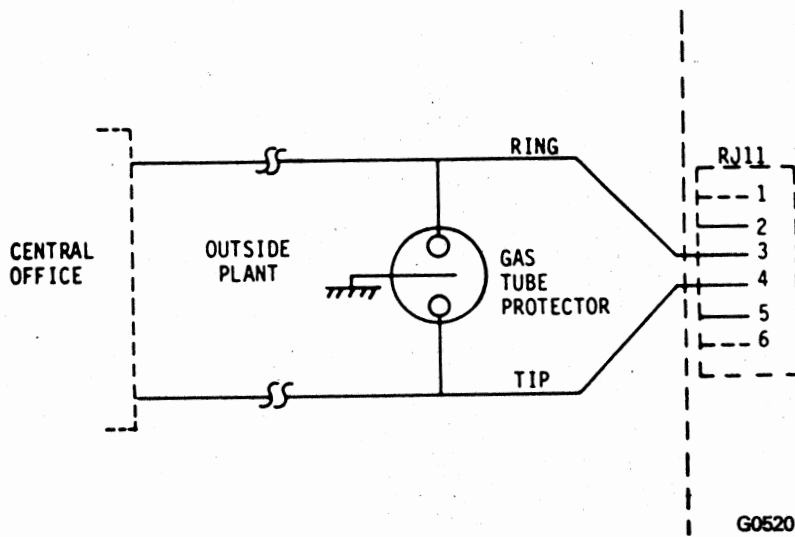**CAREFREE™**
Coin Telephone
Practice

GROUNDING LUG
GLADWIN # B01986

BARRIER TERMINAL
GALDWIN # B02335

MODULAR CABLE
GLADWIN

TO
ELECTRONICS

BACK PLATE
GLADWIN

MOUNTING SCREW
GLADWIN # B01142

FIGURE 1

CENTRAL OFFICE

OUTSIDE PLANT

RING

GAS TUBE PROTECTOR

TIP

RJ11

1
2
3
4
5
6

G05201
or
G05301

Figure 2