

**SERVICE MANUAL**

**FOR**

**MODEL MHD-341-D**

**MAGNETIC HOOKSWITCH DESK**  
**TELEPHONE**

**EQUIPPED WITH ATD-11 AUTOMATIC DIALER**



**Serving the Telephone Industry Since 1930**

**Communication Equipment  
& Engineering Company**

**1580 NW 65<sup>th</sup> Avenue  
Plantation, FL 33313**

**Voice: 954-587-5430**

**Fax: 954-587-5440**

# IMPORTANT INFORMATION FOR CUSTOMER

Please fill in before you continue.

The following information is necessary when calling CEECO for assistance.

|                    |                 |
|--------------------|-----------------|
| MODEL NUMBER       | MODEL MHD-341-D |
| SERIAL NUMBER      |                 |
| DATE MANUFACTURED  |                 |
| LOCATION INSTALLED |                 |

For us to better serve you, please have this information available when calling for technical support.

## CEECO

*Communication Equipment & Engineering Company*

1580 NW 65<sup>th</sup> Avenue  
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(954) 587-5430 Voice  
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## 1.0 INTRODUCTION

The practices in this manual provide installation and maintenance information for the CEECO Model MHD-341-D Magnetic Hookswitch Desk Telephone.

The information in this manual is subject to change without notification.

For information not included in this manual, please call or write:

### **CEECO**

Customer Service  
1580 NW 65th Avenue  
Plantation, FL 33313

(954) 587-5430  
(954) 587-5440 FAX

## 2.0 GENERAL

The CEECO Model MHD-341-D Magnetic Hookswitch Desk Telephone is equipped with a magnetically operated hookswitch. The MHD-341-D is designed for special applications where a telephone must be sturdy and attractive, and automatically dial a single number. It is equipped with an ATD-11 automatic tone dialer that will dial a single number of up to eleven (11) digits. When the handset is lifted, the telephone will automatically dial the pre-programmed number. The automatic dialing feature is activated by hookswitch closure. The telephone is not necessarily designed for incoming calls, but can receive them. If a call is received, the telephone will still automatically dial the programmed number when the handset is lifted. This will have no bearing on the phone call, however, other than to briefly hear the digits dial out.

### 3.0 PROGRAMMING

**NOTE:** It is recommended that you ground yourself to prevent ESD damage to the PCB(s). This can be done through the use of an electrostatic bracelet or other such device. In the absence of any such device, it might suffice to simply touch a conduit or other grounded pipe or object to dissipate any built up static electricity.

- 3.1 **Please refer to the diagram on the next page for mini-jumper location and positioning.** Programming is accomplished by position plastic hardware mini-jumpers in the proper positions for the desired calling pattern. The mini-jumpers are designed to bridge pairs of copper pins to activate the desired dialing pattern.
- 3.2 Locate the ATD-11 Automatic Dialer.
- 3.3 If the number to be programmed is a (1+) call, position the J1 mini-jumper on the "1+" position, bridging the left and center copper pins. This will cause the digit "1" to be dialed in front of the other programmed digits. If the number to be programmed is a local call, position the J1 mini-jumper on the "B" position, bridging the center and right copper pins.
- 3.4 If a 3 digit area code is to be dialed, the J3 mini-jumper **must** be set to the "11" position, bridging the center and left copper pins. If the number being dialed does not require the area code, position the J3 mini-jumper on the "8" position, bridging the center and right copper pins.
- 3.5 Set each mini-jumper on the A-K matrix board to correspond to the digits of the number to be dialed. Beginning with column "A" at the top, position the plastic mini-jumper to bridge the pair of copper pins which correspond to the desired digit (1-0). Proceed in the same manner, from left to right, until all desired digits are programmed. Do not skip any columns, as the digits **must** be represented in an unbroken string. Any unused mini-jumpers **must** be removed from the board to ensure proper dialing. Do not discard the unused jumpers, as they may be needed for future use. It is recommended that they be taped or otherwise secured somewhere nearby, within the device.
- 3.6 Be sure each mini-jumper is properly positioned to make good contact and dial the intended number.

**PROGRAMMING DIAGRAM:**

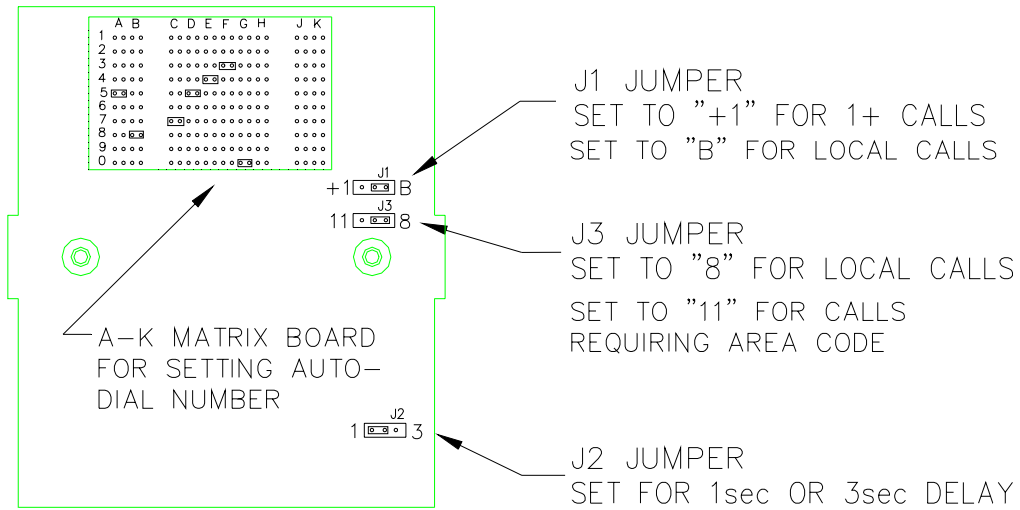


ILLUSTRATION DEPICTS SETTINGS WHICH WILL AUTO DIAL THE LOCAL NUMBER 587-5430 WITH A NORMAL 1 SEC. DIAL TONE DELAY.

NOTE: UNUSED JUMPERS MUST BE REMOVED FROM BOARD. RETAIN THEM FOR FUTURE USE.

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ATD-11 PCB  
AUTOMATIC TONE DIALER

## **PROGRAMMING CONTINUED...**

- 3.7** In most installations, the J2 mini-jumper will remain in the “1” position, bridging the center and left copper pins. If dial tone delivery is delayed by more than one second; however, then J2 will have to be set in the “3” position. A simple test would be as follows: with the telephone line cord connected to the intended telephone line, temporarily remove the J2 mini-jumper. As accurately as possible, measure the time delay between the moment the handset is lifted and the moment the phone receives dial tone. Try it several times. If this time is consistently 1 second or less, position the J2 jumper on the "1" position. Otherwise position the J2 jumper on the "3" position to set the delay before dialing to 3 to 4 seconds.
- 3.8** Programming is now complete and the telephone is ready for installation. It is highly recommended to read section 6.0 at this point and pre-test the phone, prior to actual installation.

## **4.0 RECOMMENDED TOOLS AND TEST EQUIPMENT**

Volt/Ohm Meter

1/4" Nut Driver

Flat Blade Screw Driver

Security Tool, CEECO Part Number 301-037 (sold separately)

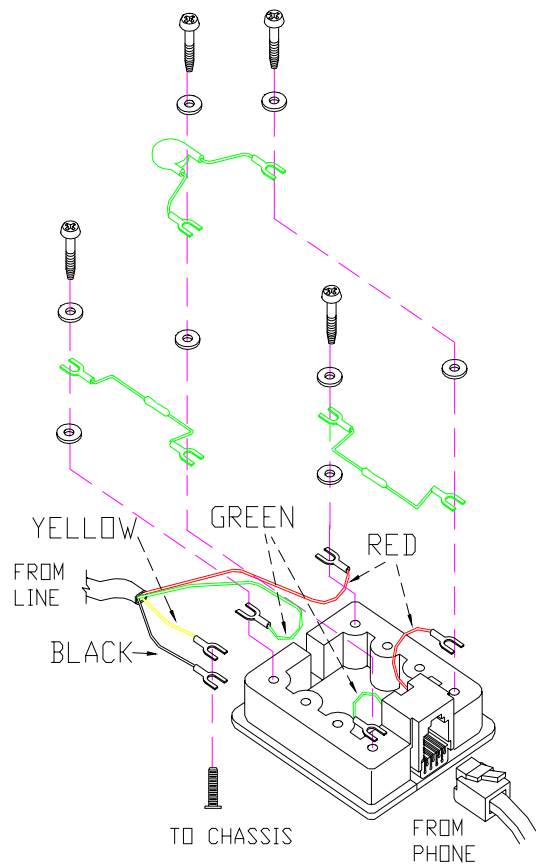
## 5.0 INSTALLATION NOTES AND ASSEMBLY INSTRUCTIONS

- 5.1 Using a 301-037 security tool (sold separately), loosen (do not remove) the locking screw on the rear of the phone. The security tool is for a standard 5/32" button head screw, generally used on the framework of the phone booths.
- 5.2 Separate the cover assembly from the backplate assembly by pulling the bottom forward and lifting up. The backplate assembly is designed rest on any flat surface.
- 5.3 Run the inside station wire into the enclosure and terminate on the RJ11C terminal block inside. As depicted on the following page. The CEECO provided terminal block (jack) **must** be used, as it contains required over-voltage protection circuitry.
- 5.4 The use of a gas tube station protector is recommended. The station ground should not exceed 50 ohms.
- 5.5 Plug the modular line cord from the cover assembly into the RJ11C terminal block.
- 5.6 Dress the line cable away from the locking screw and install the cover assembly by placing the two tabs into the two corresponding slots and pushing forward until the housing slips into place for the security screw.
- 5.7 Secure the cover assembly by tightening the security screw on the rear of the case.

### \*\*\*\*\*WARNING\*\*\*\*\*

- A. **Never install telephone wiring during a lightning storm.**
- B. **Never install telephone jacks in wet locations unless the jack is specifically designed for wet locations.**
- C. **Never touch uninsulated telephone wires or terminals unless the telephone line has been disconnected at the network interface.**
- D. **Use caution when installing or modifying telephone lines.**

## 5.8 OVER-VOLTAGE PROTECTION DIAGRAM



## 6.0 TESTING

- 6.1 With the phone connected to a working telephone line, lift the handset. Dial tone should be heard and the pre-programmed number should automatically dial out.
- 6.2 The microphone is muted while the phone is dialing. Normal phone operation should follow when the call is answered.
- 6.3 When the call is complete, hang up the phone.
- 6.4 Place a call to the phone.
- 6.5 The phone should ring indicating the incoming call. Answer the phone, tones will be heard as the phone briefly dials out the pre-programmed number, and normal phone operation should follow.
- 6.6 Hang up the phone. It is ready for use. If any problems were experienced, please refer back to section 3.0 and otherwise to section 10.2.

## 7.0 SPECIFICATIONS

|                            |  |
|----------------------------|--|
| INPUT POWER:               | C.O. Line Powered  |
| LOOP CURRENT:              | 23mA min to 80mA max   |
| IMPEDANCE:                 | 600 ohms   |
| SIGNALING:                 | DTMF, 70ms tone, 50ms spacing                                |
| HEARING AID<br>COMPATIBLE: | Meets EIA standards  |
| ENVIRONMENTAL:             | Temperature 0°C to 50°C<br>Humidity 20%-90% non-condensating |
| PROGRAMMING:               | Via Hardware Matrix Switch                                   |
| TELEPHONE COVER:           | Brushed 16 ga. Stainless Steel                               |
| MEMORY RETENTION:          | Hardware   |
| WEIGHT:                    | Approximately 5 lb.  |
| RINGER EQUIVALENCY:        | 0.4A   |
| FCC REGISTRATION:          | BW-88T7-13716-TE-T   |
| UL LISTED NO.:             | 60F5   |
| TYPE JACK:                 | RJ11C  |

## 8.0 PARTS LIST

| <u>PART NUMBER</u> | <u>DESCRIPTION</u>                             |
|--------------------|--|
| 11013              | Stainless Steel Housing with backplate.        |
| 350-169            | ATD-11 Automatic Tone Dial                     |
| 12027              | Network.                                       |
| 6017               | Reed Switch.                                   |
| 14010              | Modular Cord.                                  |
| 9023               | 1/4" -20-3/4" Security Screw.                  |
| 9005               | Grommet.                                       |
| 14014              | Modular Jack.                                  |
| 9020               | Security Tool.                                 |
| 8011               | 29" Armored Cord Handset<br>with Switch Plate. |
| 14018              | Magnetic Assembly.                             |
| 12017              | Ringer.  |

## **9.0 FCC NOTICE**

### **9.1 FCC REGISTRATION AND REPAIR INFORMATION**

Your new telephone has been registered with the Federal Communication Commission (FCC) in accordance with Part 68 of its rules. The FCC requires that you be advised of certain requirements involving the use of this telephone.

### **9.2 CONNECTION AND USE WITH THE NATIONWIDE TELEPHONE NETWORK**

The FCC requires that you connect this telephone to the Nationwide Telephone Network through a registered jack provided by the Telephone Company in your area. This jack is a modular outlet, which you can order from your local telephone company.

### **9.3 NOTIFICATION TO THE TELEPHONE COMPANY**

Before connecting this telephone, the FCC requires that you notify your local telephone company business office. The number is in the front of your phone book.

Tell them:

The "line" to which you will connect the telephone (that is, your phone number), the telephone's FCC registration number and ringer equivalence number. These numbers are listed in section 7.0

The FCC further requires that you notify your local telephone company when permanently disconnecting this telephone.

## **10.0 REPAIR AND RETURN INFORMATION**

### **10.1 WARRANTY REPAIR**

Any device returned requiring warranty service; repair or credit must be accompanied with a "Return Material Authorization" (RMA) FORM. It must include: return shipping instructions, original purchase order number and special marking instruction. A description of the trouble observed must be attached to the defective unit. This information must be inside the shipping container.

### **10.2 DIRECT ALL INQUIRES TO:**

#### **CEECO**

Repair Department  
1580 NW 65th Avenue  
Plantation, FL. 33313  
(305) 587-5430  
(305) 587-5440 (FAX)

### **10.3 NON-WARRANTY REPAIR:**

CEECO will repair equipment out of warranty for a set charge plus parts. The customer must pay the shipping costs for both directions.

### **10.4 RETURN FOR CREDIT:**

Material may be returned for credit only with prior approval. Material authorized for return is subject to a 15% restocking charge based on the manufacturer's list price. Return Material Authorization must be requested no later than 60 days after original shipment.

## 11.0 WARRANTY POLICY

### 11.1 GENERAL

CEECO products are guaranteed to be free of defects in material and workmanship for a period of 365 days from the date of original purchase. CEECO's obligation under this warranty is limited to repair or replacement of any part found to be defective by CEECO. Under no circumstances shall CEECO be liable for loss, damage, cost of repair or consequential damages of any kind, which have been caused by neglect, abuse, acts of GOD, or improper operation of equipment.

### 11.2 PRINTED CIRCUIT BOARDS

Printed circuit boards should not be field repaired. If a unit is found to be faulty, replace it with another unit and return the faulty unit to CEECO for repair. Modifications by anyone other than CEECO will void the warranty.

