

## PRODUCT NOTES

THE ELECTRONIC SECRETARY HAS FOUR DISTINCT SIMPLE CATEGORIES:

- I - INSTALLATION
- II - OPERATION
- III - MAINTENANCE
- IV - RETURN ON INVESTMENT

WITH THESE FOUR BASIC FEATURES IN MIND WE WILL TAKE THEM ONE AT A TIME AND ELABORATE SOMEWHAT ON ALL OF THEM.

INSTALLATION: TO INSTALL AN ELECTRONIC SECRETARY IT IS MERELY NECESSARY TO BRIDGE THE SUBSCRIBER'S LINE TO THE CONNECTOR BLOCK ON THE REAR OF THE ELECTRONIC SECRETARY AND PLUG THE 115-VOLT AC OUTLET CORD FROM THE ELECTRONIC SECRETARY INTO A 115-VOLT AC OUTLET.

THE ELECTRONIC SECRETARY NEED NOT BE PLACED IN THE IMMEDIATE VICINITY OF THE TELEPHONE INSTRUMENT, BUT CAN BE PLACED WHEREVER A TELEPHONE LINE IS AVAILABLE.

THE ELECTRONIC SECRETARY CAN IN NO WAY INTERFERE WITH THE NORMAL USE OF THE TELEPHONE SERVICE, SINCE MERELY BRIDGING THE TELEPHONE LINE IS SIMILAR TO INSTALLING AN EXTENSION TELEPHONE.

FURTHER, THE SUBSCRIBER'S INSTRUMENT CAN BE USED WHETHER THE ELECTRONIC SECRETARY IS TURNED ON OR OFF. IN OTHER WORDS, THE SUBSCRIBER CAN CALL OUT OR RECEIVE PHONE CALLS AT HIS DISCRETION.

OPERATION: TO PLACE AN ELECTRONIC SECRETARY INTO OPERATION, TURN THE "ON-OFF" VOLUME CONTROL SWITCH IN A CLOCKWISE DIRECTION UNTIL THE NEON INDICATOR ON THE SAME CONTROL PANEL GLOWS. THEN PLACE THE TOGGLE SWITCH AT THE RIGHT-HAND SIDE OF THE CONTROL PANEL TO THE CENTER, OR "AUTOMATIC" POSITION.

NOW PLACE A SPOOL OF RECORDING WIRE ON THE SMALL SPINDLE OF THE WIRE RECORDING MECHANISM. PULL OUT THE PLASTIC LEADER FROM THE RECORDING WIRE SPOOL, LEAD IT PAST THE WIRE RECORDER HEAD AND WRAP IT SLOWLY AROUND THE CHanneLED GROOVE IN THE LARGE BLACK TAKE-UP DRUM. NOW, MAKING CERTAIN THAT THE SMALL RE-SET BUTTON ON THE TOP OF THE WIRE RECORDER IS DEPRESSED, PLACE THE TOGGLE SWITCH IN THE "PLAY" POSITION AND RUN ABOUT ONE MINUTE OF WIRE ONTO THE TAKE-UP DRUM. THIS AMOUNT OF WIRE CAN BE MEASURED BY OBSERVING THE "SECOND" INDICATOR ON THE INNER DIAL OF THE ELAPSED TIME INDICATOR WHICH IS LOCATED ON THE LEFT-HAND SIDE OF THE FRONT SCREEN.

NOW THE OPERATOR CAN ZERO THE DIALS OF THE ELAPSED TIME INDICATOR BY TURNING BOTH OF THEM TO THE 0-0 POSITION. THIS PROCEDURE FOR ZEROING SHOULD NOT BE FOLLOWED THEREAFTER AS THE ELAPSED TIME INDICATOR WILL ZERO ITSELF AFTER TAKING CALLS WHEN THE TOGGLE SWITCH IS PLACED IN THE "REWIND" POSITION.

NOW PLACE AN ELECTRONIC SECRETARY 6 1/2" RECORD DISC ON THE RECORD PLAYER TURNTABLE. BE CERTAIN THAT THE PROTECTIVE CARDBOARD CYLINDER IS REMOVED FROM THE TONE ARM, OR IN SOME CASES THE METAL GUARD FROM THE

UNDERSIDE OF THE CARTRIDGE. NOW REVOLVE THE CENTER POST OF THE RECORD PLAYER UNTIL THE TONE ARM POSITIONS ITSELF ON THE RECORD AND STARTS A CYCLE. THEN PUSH THE REJECT LEVER WHICH WILL AUTOMATICALLY RE-POSITION THE TONE ARM TO THE CORRECT STARTING POSITION AND TERMINATE THE TRIAL CYCLE. THIS PROCEDURE WOULD BE INSURANCE AGAINST THE RECORD PLAYER BEING VIBRATED OR JARRED INTO A CYCLE DURING SHIPMENT OR HANDLING.

UPON A SUBSCRIBER'S RETURN TO HIS OFFICE, THE INDICATOR WILL THEN REVEAL THE APPROXIMATE AMOUNT OF RECORDING TIME USED IN HIS ABSENCE. THIS TOTAL TIME DIVIDED BY THE LENGTH OF RECORDING TIME ALLOTTED FOR A SINGLE CALL WILL GIVE HIM THE NUMBER OF CALLS RECORDED.

TO TRANSCRIBE - FIRST PLACE THE TOGGLE SWITCH TO THE LEFT, OR "REWIND" POSITION. THE INDICATOR WILL START FORWARD AND THEN WITHIN A SECOND OR TWO, REVERSE. LEAVE THE SWITCH IN A "REWIND" POSITION UNTIL THE DIAL INDICATOR RETURNS TO 0-0. THEN PLACE THE TOGGLE SWITCH TO THE EXTREME RIGHT OF "PLAYBACK" POSITION. THIS WILL THEN ALLOW THE WIRE ON WHICH THE RECORDINGS HAVE JUST BEEN MADE TO RUN THROUGH THE HEAD IN A FORWARD DIRECTION, THUS PLAYING BACK THE CALLS. THE VOLUME CONTROL CAN BE SET TO A LEVEL AGREEABLE TO THE EAR.

MESSAGES CAN BE REPEATED BY PLACING THE SWITCH IN "REWIND" POSITION, GOING BACK ON THE INDICATOR TO THE POINT WHERE REPETITION IS FOUND NECESSARY, THEN AGAIN PLACING THE TOGGLE SWITCH IN THE "PLAY" POSITION.

AFTER ALL CALLS HAVE BEEN TRANSCRIBED, REWIND THE WIRE UNTIL THE INDICATOR IS AGAIN AT THE 0-0 POSITION. THE MACHINE IS THEN READY FOR ANOTHER PERIOD OF AUTOMATIC OPERATION. THIS WILL ENABLE THE SUBSCRIBER TO HAVE THE MAXIMUM CAPACITY OF HIS ELECTRONIC SECRETARY FOR ANY ABSENCE.

IF BY ACCIDENT THE WIRE SHOULD BREAK, IT IS ONLY NECESSARY TO TIE A SQUARE KNOT IN THE WIRE AND TRIM THE ENDS. THIS SPLICE WILL NOT INTERFERE IN ANY WAY WITH THE OPERATION OF THE ELECTRONIC SECRETARY. SINCE THE MAGNETIC WIRE IS A PERMANENT RECORDING MEDIUM, IT CAN BE USED INDEFINITELY AND WITH MODERATE CARE WILL LAST FOR YEARS.

THE ELECTRONIC SECRETARY BY UTILIZING PROFESSIONALLY CUT ANSWERING DISCS HAS SEVERAL DISTINCT ADVANTAGES. THE PROFESSIONAL VOICE CAN CONVEY THE SUBSCRIBER'S MESSAGE IN A PLEASING AND CONVINCING MANNER, RESULTING IN A HIGHER PERCENTAGE OF CALLS SUCCESSFULLY RECORDED. SINCE AN EFFECTIVE OUTGOING MESSAGE IS SO ESSENTIAL TO THE SUCCESSFUL OPERATION OF THE MACHINE, THE OPERATING TELEPHONE COMPANY, BY SUPERVISING THE CUTTING OF THE DISC, HAS CONTROL OVER THE MAJOR CONDITIONS AFFECTING THE PROPER USE OF THE MACHINE. FURTHERMORE, THE POSSIBILITY OF CONFUSION RESULTING FROM A SUBSCRIBER PLACING HIS OWN VOICE ON THE OUTGOING MESSAGE RECORD IS ELIMINATED.

THE OUTGOING MESSAGE CAN BE VARIED IN ANY PROPORTION UP TO AN OVER-ALL TIME LAPSE OF 2 1/2 TO 3 MINUTES. IN OTHER WORDS, ON ONE SIDE OF A RECORD THERE COULD BE 10 SECONDS OF OUTGOING MESSAGE, PLUS 2- SECONDS FOR THE CALLING PARTY TO LEAVE THEIR MESSAGE, AND THEN 5 SECONDS OF "THANK YOU" OR SIGN-OFF MESSAGE. THIS SLIDE WOULD THEN HAVE A TOTAL OF 35 SECONDS. THE OTHER SIDE OF THE RECORD MIGHT POSSIBLY HAVE 30 SECONDS OF OUTGOING, 60 SECONDS OF RECORD TIME AND THEN 15 SECONDS OF "THANK YOU" AND FURTHER INSTRUCTIONS, DEPENDING UPON WHAT THE SUBSCRIBER WANTS ON THE MESSAGE, FOR AN OVER-ALL TIME OF 105 SECONDS.

THIS SAME SUBSCRIBER MAY WISH TO HAVE A COUPLE OF OTHER SCRIPTS, AND ONE SIDE OF THE SECOND RECORD COULD POSSIBLY GO FOR AN OVER-ALL TIME CYCLE OF 2 1/2 MINUTES, OR AGAIN HE MAY POSSIBLY WANT TO GIVE AN OUTGOING MESSAGE AT SOME TIME AND NOT RECEIVE AN INCOMING CALL AND HIS TIME CYCLE WOULD ONLY BE APPROXIMATELY 10 SECONDS.

THESE EXAMPLES HAVE BEEN GIVEN TO SHOW THE VERSATILITY OF THE ELECTRONIC SECRETARY IN ITS BEING ABLE TO ALTER THE TIME CYCLE WITH REFERENCE TO OUTGOING, INCOMING AND SIGN-OFF MESSAGES IN ANY PROPORTIONS THAT ARE DESIRED. THIS IS ACCOMPLISHED BY THE ELECTRONIC SECRETARY'S UNIQUE OR TIMING ARRANGEMENT.

THERE ARE NO CAMS OR OTHER ADJUSTMENTS NECESSARY TO CHANGE THESE CYCLES. ALL THAT IS NECESSARY IS FOR THE SUBSCRIBER TO PLACE WHICHEVER ANSWERING DISC HE WANTS TO UTILIZE ONTO THE TURNTABLE OF THE RECORD PLAYER, USING THE LARGE CENTER POST AS A GUIDE.

IT IS ALSO WELL TO REMEMBER THAT THE ELECTRONIC SECRETARY WILL OPERATE ON ANY TELEPHONE LINE THAT IS FULLY SELECTIVE. IN OTHER WORDS, IT WILL OPERATE ON A STRAIGHT 1-PARTY LINE, A 2-PARTY SELECTIVE RING OR ON A 1-PARTY HARMONIC RING. IT WILL ALSO OPERATE ON MULTI-PARTY HARMONIC RINGING WITH THE ADDITION OF A HARMONIC ADAPTER UNIT. THE ELECTRONIC SECRETARY WILL NEVER INTERFERE WITH THE NORMAL OPERATION OF THE TELEPHONE. THEREFORE THE SUBSCRIBER HAS AT HIS FINGER TIPS NOT ONLY THE NORMAL USE OF HIS PHONE SERVICE, PLUS THE AUTOMATIC ANSWERING AND RECORDING FEATURE OF THE ELECTRONIC SECRETARY, BUT HE CAN ALSO CUT IN ON ANY CALL THE ELECTRONIC SECRETARY IS TAKING, OR MONITOR THAT CALL IF HE SO DESIRES. AN EXAMPLE OF THIS MONITORING FEATURE MIGHT OCCUR IN THIS MANNER: SUPPOSING THAT A MAN IS IN HIS OFFICE AT 8 O'CLOCK AT NIGHT AND A PHONE CALL COMES IN. IF IT IS A NORMAL BUSINESS, HE WILL JUST LET THE ELECTRONIC SECRETARY HANDLE THE CALL AS IF NO ONE WERE THERE. BUT, IF IT WERE HIS WIFE REQUESTING TO KNOW WHAT TIME HE EXPECTED TO BE THROUGH THAT EVENING, HE COULD CUT IN AND SAY TO HER WHATEVER TIME HE EXPECTED TO BE THROUGH, OR ANSWER ANY OTHER EMERGENCY TYPE OF CALL HE WISHED TO. BY MERELY PUSHING THE REJECT BUTTON ON THE ELECTRONIC SECRETARY HE COULD CONTINUE TO TALK ON THAT PARTICULAR CALL FOR AS LONG AS HE WISHED BECAUSE THE ELECTRONIC SECRETARY IS NO LONGER IN OPERATION.

MAINTENANCE: HERE AGAIN THE ENGINEERS AND DEVELOPERS OF THE ELECTRONIC SECRETARY HAVE KEPT SIMPLICITY AND EASE OF SERVICE UPPERMOST IN THEIR MINDS. FOR EXAMPLE, THERE ARE NO PARTS OR CONTACTS HIDDEN BEHIND ANOTHER PART SO THAT THEY ARE UNWIELDY TO GET AT. THE HOUSING CAN BE REMOVED BY MERELY UNSCREWING TWO SCREWS, TIP THE COVER BACK AND SLIDE IT OFF THE LOOSE PIN HINGES. THE BOTTOM OF THE CHASSIS CAN BE REMOVED BY MERELY REMOVING THREE SCREWS AND SLIPPING IT OFF. WITH THESE TWO ITEMS REMOVED, ALL MOVING AND ELECTRICAL AND ELECTRONIC PARTS ARE READILY ACCESSIBLE TO THE MAINTENANCE MAN. FURTHER, EVERY MAJOR PART IS CODED WITH PRINTED TAPE. FOR EXAMPLE, THE OUTGOING VOLUME CONTROL FOR THE LEVEL OF THE OUTGOING MESSAGE IS CODED WITH THIS PRINTED TAPE "P-2". P-2 IN THE SERVICE MANUAL EXPLAINS THE ACTION OF THIS VOLUME CONTROL AND ALSO DE-CODES IT. (FOR QUICK REFERENCE, THIS IS ILLUSTRATED ON PAGES 14 AND 15 OF THE SERVICE MANUAL.)

THE SERVICE MANUAL: THE SERVICE MANUAL MADE MENTION OF HAS ALSO BEEN LAID OUT FOR THE CONVENIENCE OF THE MAINTENANCE MAN. THE FIRST TYPEWRITTEN SECTIONS OF THIS MANUAL CONTAIN BASIC OPERATIONS AND A GENERAL OVER-ALL PICTURE OF JUST WHAT HAPPENS DURING THE CYCLES OF THE ELECTRONIC SECRETARY.

THE NEXT SECTION CONTAINS A GROUP OF SCHEMATIC DRAWINGS OF WHICH THE FIRST ONE IS THE BASIC, OR COMPLETE SCHEMATIC, AND THE DRAWINGS FOLLOWING ARE INDIVIDUAL BREAKDOWNS OF PARTICULAR SECTIONS.

THE LAST DRAWING IN THIS SECTION IS A COMPLETE ELECTRICAL SEQUENCE DRAWING WHICH WILL ENABLE YOU TO FOLLOW THE 115-VOLT AC PATH THROUGH THE VARIOUS RELAYS AND SWITCHES.

CHAPTER II OF THIS SERVICE MANUAL GIVES A COMPLETE DESCRIPTION OF THE BASIC COMPONENTS, SUCH AS THE RECORD PLAYER, OR PRIMARY TIMER, THE CR TIMER, SAFETY TIMER, ETC. CHAPTER VII AND VIII CONTAIN COMPLETE BREAKDOWNS ON THE RECORD CHANGER AND WIRE RECORDER MECHANISMS. FROM THE ABOVE IT IS EASY TO SEE THE EASE WITH WHICH THE ELECTRONIC SECRETARY CAN BE SERVICED, AND THE SPEED WITH WHICH THE MAINTAINANCE MAN CAN PIN-POINT ANY PARTICULAR SOURCE OF TROUBLE.

RETURN ON INVESTMENT: THE ELECTRONIC SECRETARY ENABLES AN OPERATING TELEPHONE COMPANY TO REALIZE 40% OR BETTER ON ITS INVESTMENT. THIS OF COURSE IS IMPORTANT TO POINT OUT TO THE MANAGEMENT OF ANY OPERATING TELEPHONE COMPANY.

### SUMMARY

WE HAVE ATTEMPTED TO COVER THE FOUR PRINCIPAL FEATURES OF THE ELECTRONIC SECRETARY IN SOME DETAIL BUT YET THERE ARE MANY OTHER OUTSTANDING FEATURES WHICH WILL BE DISCOVERED BY GAINING EXPERIENCE WITH THIS UNIT. FOR EXAMPLE:

1. THE DISTINCT ADVANTAGE OF AN ELAPSED TIME INDICATOR TO ENABLE A SUBSCRIBER TO TELL TO THE VERY SECOND HOW MANY RECORDED MESSAGES HE HAS.
2. THE ADVANTAGE OF A MANUAL PLAYBACK VOLUME CONTROL TO CONTROL THE PLAYBACK LEVEL.
3. THE ADVANTAGE OF BEING ABLE TO PLACE THE MACHINE ANYWHERE, NOT TAKING UP A SUBSCRIBER'S VALUABLE DESK AREA.
4. NO REPLACEMENT OF RECORDING MEDIUM. IT CAN BE USED OVER AND OVER AGAIN.
5. THE FACT THAT THE ELECTRONIC SECRETARY DOES NOT IN ANY WAY INTERFERE WITH NORMAL OPERATION OF THE PHONE. THIS PARTICULAR FEATURE IS ENLARGED UPON BECAUSE OF THE SAFETY TIMER WHICH, IF THERE IS ANY MALFUNCTIONING WHATEVER, WILL TAKE OVER AND DISABLE THE ELECTRONIC SECRETARY BUT STILL LEAVE THE NORMAL TELEPHONE SERVICE INTACT.
6. THE UNIQUE CR TIMER CIRCUIT WHICH ENABLES LENGTHS OF MESSAGES TO BE CHANGED WITHOUT ANY ADJUSTMENTS, REPLACEMENTS, CAMS, ETC. THE CAPACITY OF UP TO 240 CALLS IN ANY ONE ABSENCE IS FOUND ONLY IN THE ELECTRONIC SECRETARY.
7. THERE IS A MINIMUM OF MECHANICAL AND ELECTRICAL MOVING PARTS, THUS GIVING A MAXIMUM OF WEAR OVER A LONG PERIOD OF TIME.

IN ADDITION TO THE ADVANTAGES DESCRIBED ABOVE, THE ELECTRONIC SECRETARY CAN ALSO BE PROVIDED WITH THESE THREE OPTIONAL ADDITIONAL FEATURES:

1. HEADPHONE JACK WIRED IN TO ENABLE RECORDED MESSAGES TO BE HEARD OVER HEADPHONES INSTEAD OF THROUGH THE LOUDSPEAKER.
2. MESSAGE ERASURE SWITCH WHICH PERMITS ERASING ANY RECORDED MESSAGES WITHOUT THE NECESSITY OF RE-RECORDING OVER THE SAME SPACE ON THE WIRE.
3. AUTOMATIC STOP SWITCH WHICH PREVENTS REWINDING ON WIRE SPOOL BEYOND DESIRED POINT.