

541-0001011

ULTRASONIC TRANSDUCERS

400ET180/400ER180



THIS ENCLOSED TYPE TRANSDUCER CAN BE USED FOR OUTDOOR INSTALLATION OR IN A DUSTY ATMOSPHERE. IT IS NOT RECOMMENDED TO BE USED UNDER WATER

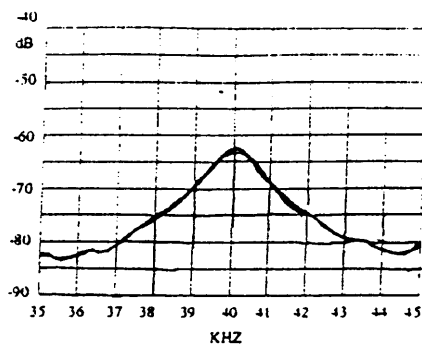
APPLICATIONS

REMOTE CONTROL DEVICES
PROXIMITY SENSORS
ENERGY SAVING EQUIPMENT
INTRUSION ALARMS
AUTODOORS
LEVEL CONTROLS

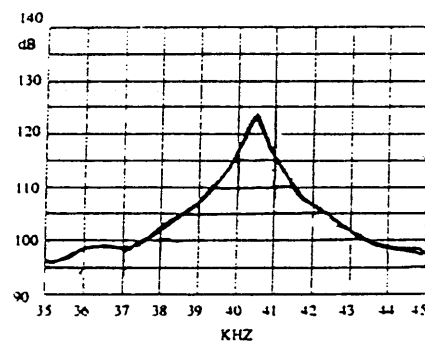
SPECIFICATION

	400ET180	400ER180
TRANSMITTING SENSITIVITY	118dB	-
RECEIVING SENSITIVITY	-	(-) 68dB
RESONANT FREQUENCY	40kHz +/- 1	
DIRECTIONAL ANGLE	30°C approx	
MAX INPUT VOLTAGE	20V rms	-
CAPACITANCE pF	3000 +/- 20%	
TEMPERATURE RANGE	-20°C TO + 60°C	

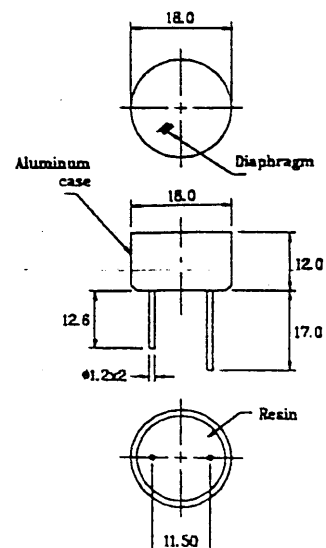
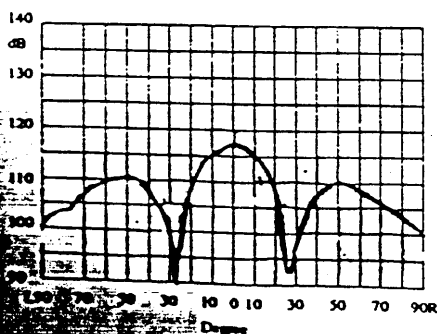
RECEIVER SENSITIVITY



TRANSMITTER SOUND PRESSURE LEVEL



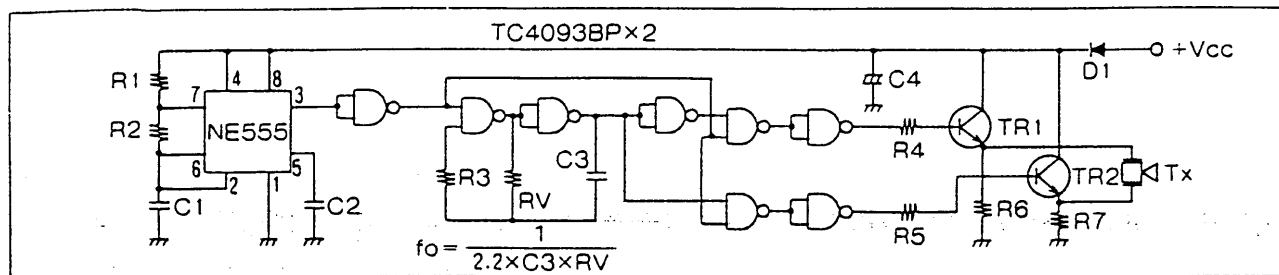
DIRECTIVITY



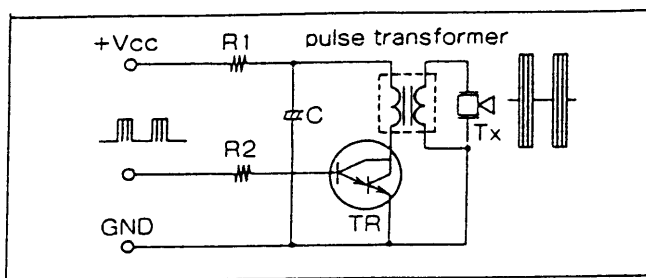
APPLICATION CIRCUITS

1)
THE FOLLOWING CIRCUITS SHOW HOW THE
TRANSDUCERS MAY BE USED IN REMOTE CONTROL
APPLICATION. EITHER OF THE TRANSMITTER CIRCUITS
MAY BE USED WITH THE RECEIVER. THE FREQUENCY OF
OSCILLATION IS ADJUSTED BY MEANS OF VR1 FOR
MAXIMUM SENSITIVITY. THE CMOS CIRCUIT ALLOWS
DIRECT INTERFACING WITH LOGIC CIRCUITRY. IN THE
RECEIVER VR2 IS ADJUSTED FOR MAXIMUM SENSITIVITY.
NOTE: THE RELAY ENERGISES WHEN A SIGNAL IS
RECEIVED FROM THE TRANSMITTER.

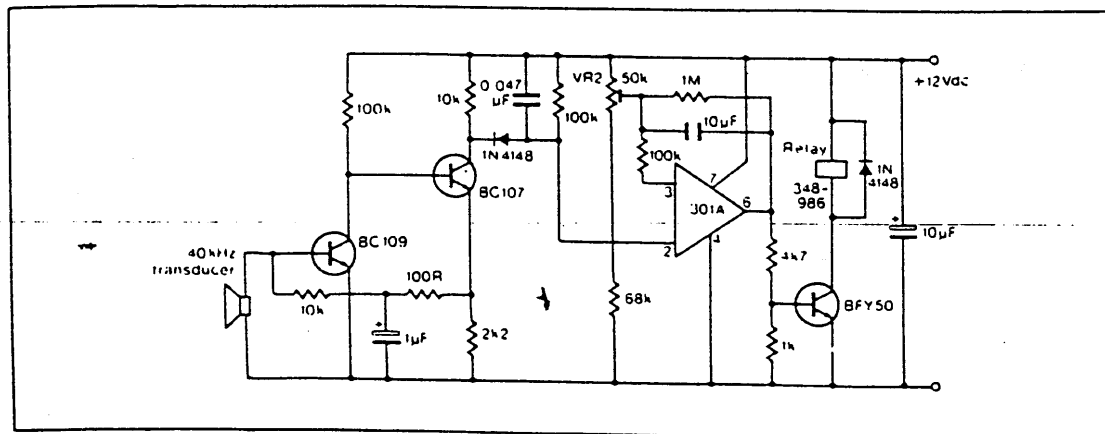
2) PULSE WAVE TRANSMIT



3) VOLTAGE MULTIPLIER CIRCUIT



4) RECEIVER CIRCUIT



5) CONTINUOUS WAVE TRANSMITTER/RECEIVER CIRCUIT

