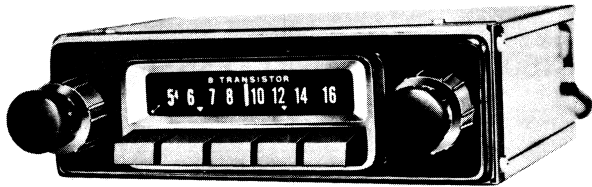


# OWNER'S MANUAL

## MODEL 828

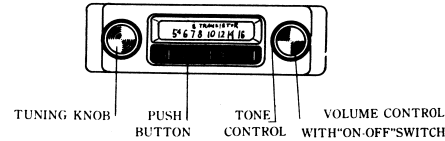
### SOLID STATE CAR RADIO



#### TECHNICAL DATA

CIRCUIT :	8 Transistors 2 Diodes Superheterodyne with O.T.L. output stage.
FREQUENCY RANGE :	535-1605 Kc.
INTERMEDIATE FREQUENCY :	455 Kc.
SENSITIVITY :	25 DB Max. (500 mW. Output)
SELECTIVITY :	20 DB Min. $\pm 10$ Kc.
IMAGE REJECTION :	45 DB Min.
OUTPUT POWER :	2 Watts Min.
LOUDSPEAKER :	5"
FUSE :	1 Ampere
POWER SOURCE :	12 Volts DC Positive or Negative ground
POWER CONSUMPTION :	Approx. 0.5 Ampere Max.
DIMENSIONS :	6 $\frac{3}{4}$ " x 5 $\frac{3}{4}$ " x 2 $\frac{1}{4}$ "
TRANSISTORS COMPLEMENT :	2SA472 RF Amplifier 2SA472 Frequency Converter 2SA53 x 2 IF Amplifiers 2SB54 Audio Pre-amplifier 2SB56 Driver 2SB415 x 2 Power Output (Push-Pull)
DIODES COMPLEMENT :	1N60 Detector 1N60 AGC.

### OPERATING INSTRUCTION



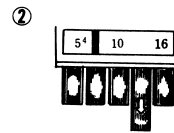
The right hand knob of the 828 radio is the on/off and volume control.

- (a) For on or off control push in right hand inner knob.  
(b) For volume control, turn right knob either clockwise or counterclockwise.

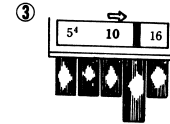
The left hand knob is your tuning control knob. Turn to desired station, set exactly on the station. Poor tone quality will result from improper tuning. Tone can be adjusted by turning the tone control outer knob.

### PUSH BUTTON TUNING ADJUSTMENT

- ① Select desired button to be pre-set.

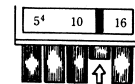


Pull button out towards you about  $\frac{1}{8}$ " past the extended limit of the other buttons.



Turn the left tuning knob to the desired station and tune in critically to the center of the station.

④



Push button in again, deep until a clicking sound is heard. This sets the push-button on station.

#### NOTICE

- Be sure to use Fuse #1A as replacement Fuse.
- Be sure to push right hand knob to off position when radio is not in use.
- Adjust your antenna to proper height for best reception.

### ALIGNMENT-PROCEDURES

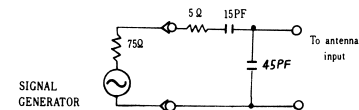
#### IF STAGES ALIGNMENT

- a) Turn the set on.  
b) Turn the volume control to maximum.  
c) Connect AM signal generator to antenna input.  
d) Connect AC-VTVM across speaker's terminals.  
e) Turn tuning knob clockwise until the pointer reaches the end of the scale.  
f) Adjust IF coils for maximum reading on the VTVM.

NOTE: AFTER INSTALLATION IN A CAR THE ANTENNA TRIMMER CT1 SHOULD BE READJUSTED FOR BEST COUPLING TO THE CAR ANTENNA.

- a) Tune radio to a weak station around 1400kc  
b) Adjust antenna trimmer for maximum output.

#### DUMMY ANT DIAGRAM

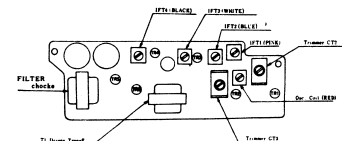


#### RF STAGES ALIGNMENT

- a) Connect AM signal generator through dummy antenna (see diagram) to antenna input jack.  
b) Connect AC-VTVM across speaker's terminals.  
c) Adjust for maximum reading on the VTVM.

STEP	SIGNAL GENERATOR 400% 30% MODULATION	DIAL POINTER TUNE TO ABOVE 1600kc	ADJUST
①	520kc	GANG FULLY CLOSED	Osc. COIL
②	1650kc	GANG FULLY OPEN	CT 3
③			Repeat steps ② and ③
④	1400kc	1400kc	CT2 and CT1

#### PRINTED CIRCUIT BOARD COMPONENTS LOCATION (TOP VIEW)



# SCHEMATIC DIAGRAM

Tr<sub>1</sub>2SA472 Tr<sub>2</sub>2SA472 Tr<sub>3</sub>2SA53 Tr<sub>4</sub>2SA53 D<sub>1</sub>D<sub>2</sub>1N60 Tr<sub>5</sub>2SB54 Tr<sub>6</sub>2SB56 Tr<sub>7</sub>Tr<sub>8</sub>2SB415

