SERVICE MANUAL

DATSUN 280Z
MODEL S30 SERIES

NISSAN

NISSAN MOTOR CO., LTD.
TOKYO, JAPAN

SECTION SE

SERVICE EQUIPMENT

SERVICE EQUIPMENT ..... SE- 2

SERVICE EQUIPMENT

GENERAL DESCRIPTION

GENERAL SPECIFICATIONS

Special Tools play very important role in the maintenance of cars. These are essential to the safe, accurate and speedy servicing.

The working times listed in the column under FLAT RATE TIME in FLAT RATE SCHEDULE are based on the use of Special Tools. The identification code of maintenance tools is made up of 2 alphabetical letters and 8-digital figures.

The heading two letters roughly classify tools or equipment as:

ST00000000: Special Tool
KV00000000: Special Tool
EM00000000: Engine Overhauling Machine
GG00000000: General Gauge
HT00000000: Hand Tool

CLASSIFICATION OF SPECIAL TOOLS

	Classification	
	Important	General
I. Inspection and minor repairs	1	4
II. General disassembly and assembly	2	5
III. Special disassembly and assembly	3	6

A. Important
- a. Exclusive with no alternative
- b. Parts likely will be damaged if repaired without special tool.
- c. Gauges

B. General
To facilitate servicing

I. Inspection and minor repairs
- a. Inspection and maintenance
- b. Unit replacement
- c. Minor unit disassembly

II. General disassembly and assembly
General disassembly such as engine, transmission and differential

III. Special disassembly and assembly
- a. Disassembly of exclusive parts such as automatic transmission and electrical accessories
- b. Special work such as boring and welding
- c. Work very rarely required.

SPECIAL TOOL SETS (See attached tool list)

The special tool sets are classified into two major categories:

SET '77 S30 NA KV00101800

The set '77 S30 NA KV00101800 is available for new and other dealers who must go through initial preparation.

SET 3N71B KV00101000

This set is designed for use on the 3N71B automatic transmission. It consists of the same service tools as those previously available separately.

TOOL LIST

1. ENGINE

No.	Tool Number	Tool Name	Newly added	Class	Reference
	ENGINE				
	ST19320000	Oil filter wrench		1	All
	ST05340001	Engine attachment		5	L28
	ST0501S000 ST05011000 ST05012000	Engine stand assembly Engine stand Base		5	All
	ST16540000	Puller crank pulley		2	L28
	ST17420001	Chain stopper		2	All L-Series
	ST10120000	Cylinder head bolt wrench		2	All L-Series
	KV101041S0 KV10104110 ST16512001 ST16701001	Crankshaft main bearing cap puller Crankshaft main bearing puller Adapter (For L-Series) Adapter		2	All L-Series
	ST13030001	Piston pin press stand		2	All L-Series
	ST12070000	Valve lifter		5	All
	KV101039S0 ST11081000 ST11032000 ST11320000	Valve guide reamer set Reamer [12.2 mm (0.480 in) dia.] Reamer [8.0 mm (0.315 in) dia.] Drift		3	All
	ST11650001	Cutter set valve seat		3	All L-Series
	ST16610001	Pilot bushing puller		3	All L-Series
	ST15310000	Crankshaft rear oil seal drift		2	All L-Series
	EM03470000	Piston ring compressor		2	All
	ST10640001	Pivot adjuster		1	All L-Series
	ST20660000	Clutch aligning bar		2	S30

Mark X: Available

2. CHASSIS AND BODY TOOL

No.	Tool Number	Tool Name	Set '77 S30 NA	Newly added	Class	Reference
1.	CLUTCH					
	ST20050100	Distance piece	X		4	B210, 610, 710, S30, 620
	ST20050010	Base plate	X		4	B210, 610, 710, S30, 620
	ST20050051	Set bolt	X		4	B210, 610, 710, S30, 620
	ST20660000	Clutch aligning bar	X		2	610, 710, S30, 620
	ST20050240	Diaphragm adjust wrench	X		4	B210, 610, 710, S30, 620
	ST16610001	Pilot bushing puller	X		4	610, 710, S30, 620
	GG94310000	Flare nut torque wrench	X		2	All
2.	MANUAL TRANSMISSION					
	ST23540000	Fork rod pin punch	X		2	All
	ST22360002	Bearing drift	X		2	F4W71B, FS5W71B, FS5W63A
	ST23800000	Transmission adapter	X		2	F4W71B, FS5W71B, F4W63L
	ST23810001	Setting plate adapter	X		2	F4W71B, FS5W71B
	ST22520000	Wrench [38 mm (1.50 in)]	X		2	F4W71B, FS5W71B, FS5W63A
	ST23860000	Counter gear drift	X		2	F4W71B, FS5W71B
	KV31100400	Transmission press stand	X		2	F4W71B, FS5W71B
	ST30031000	Bearing puller			2	All except F4W60A
	KV32101330	Bearing puller	X	X	2	FS5W71B

Mark X: Available

No.	Tool Number	Tool Name	Set '77 S30 NA	Newly added	Class	Reference
3	DIFFERENTIAL CARRIER					
	KV38100800	Gear carrier attachment	X		5	R160, R180, R200
	KV31100300	Solid punch	X		2	All except H150
	ST30611000	Drive pinion outer race drift bar	X		2	All
	ST30701000	Drive pinion outer race drift adapter	X		2	Front: H150, H165B, R160, R180 Rear: H150
	ST30613000	Drive pinion outer race drift adapter	X		2	Front: H190, R200 Rear: H165B, R160
	ST30621000	Drive pinion outer race drift adapter	X		2	Rear: H190, R180, R200 Side: R160, R180
	ST3090S000 ST30031000 ST30901000	Drive pinion rear bearing inner race puller set Puller Base	X		2	H190, R180, R200
	ST3127S000 GG91030000 HT62940000 HT62900000	Preload gauge Torque wrench Socket adapter Socket adapter	X		2	All
	ST31530000	Drive pinion flange wrench	X		2	All
	ST3306S001 ST33051001 ST33061000	Diff. side bearing puller set Body Adapter	X		2	R160, R180, R200, H190
	ST33290001	Puller	X		5	R180, R160
	ST3185S000 ST31851000 ST31852000 ST31211000 ST31212000 ST31214000	Drive pinion setting gauge assembly Spacer Stopper Height gauge Dummy shaft Collar	X	X	2	R180

Mark X: Available

No.	Tool Number	Tool Name	Set '77 S30 NA	Newly added	Class	Reference
	KV381001S0 KV38100110 KV38100120 KV38100130 KV38100140	Drive pinion setting gauge set Dummy shaft Height gauge Collar Stopper	X		2	R200
	ST33270000	Gear carrier oil seal drift	X		2	R180, R160
	KV38100200	Gear carrier side oil seal drift	X		2	R200
	ST3323?000	Diff. side bearing drift	X		2	R180, H190, R160
	KV38100300	Diff. side bearing drift	X		2	R200
	ST30650001	Pilot bearing drift	X		2	R180, R160
	KV38100401	Pilot bearing drift	X		2	R200
	ST30720000	Gear carrier front oil seal drift	X		2	R180, R160
	KV38100500	Gear carrier front oil seal drift	X		2	R200
	KV38100600	Side bearing spacer drift	X		2	R200
	ST33720000	Gear carrier side retainer guide	X		5	R180, R160
	ST32501000	Master gauge	X		2	All
	KV38101900	Master gauge	X		2	R180, H190, R160
	KV38102000	Master gauge	X		2	R200
	HT72400000	Slide hammer	X		5	R200
4.	FRONT AXLE AND SUSPENSION					
	ST36710000 ST36710010 ST36710020	Transverse link bushing replacer Drift Support base	X		3	S30
	ST35300000	Front wheel bearing drift	X		3	S30, 610, 710, B210
	ST3565S001 ST35651001 ST35652000	Coil spring compressor set Coil spring compressor Clamp	X		2	F10, B210, 610, 710, S30

Mark X: Available

No.	Tool Number	Tool Name	Set '77 S30 NA	Newly added	Class	Reference
	KV40100800	Gland packing wrench	X		2	S30
	ST35540000	Gland packing guide	X		2	S30
	HT72520000	Ball joint remover	X		2	All
5.	REAR AXLE AND SUSPENSION					
	ST38800000	Transverse link bushing replacer	X		3	S30
	ST33260000	Diff. mounting member insulator drift set	X		2	S30
	ST36230000	Sliding hammer	X		2	All
	KV40101000	Rear axle stand	X		5	All
	ST37780000	Rear axle shaft outer bearing drift	X		5	S30
6.	BRAKE					
	GG94310000	Flare nut torque wrench			2	All
	ST08080000	Master-Vac wrench	X		2	All
	ST08090000	Master-Vac oil seal retainer drift	X		2	For 228.6 mm (9 in) Master-Vac
	ST08060000	Master-Vac oil seal retainer drift	X		2	For 190.5 mm (7.5 in) Master-Vac
7.	STEERING					
	ST27180001	Steering wheel puller	X		2	All
	HT72520000	Ball joint remover			2	All
8.	BODY					
	ST08720000	Door hinge wrench	X		2	610, S30

Mark X: Available

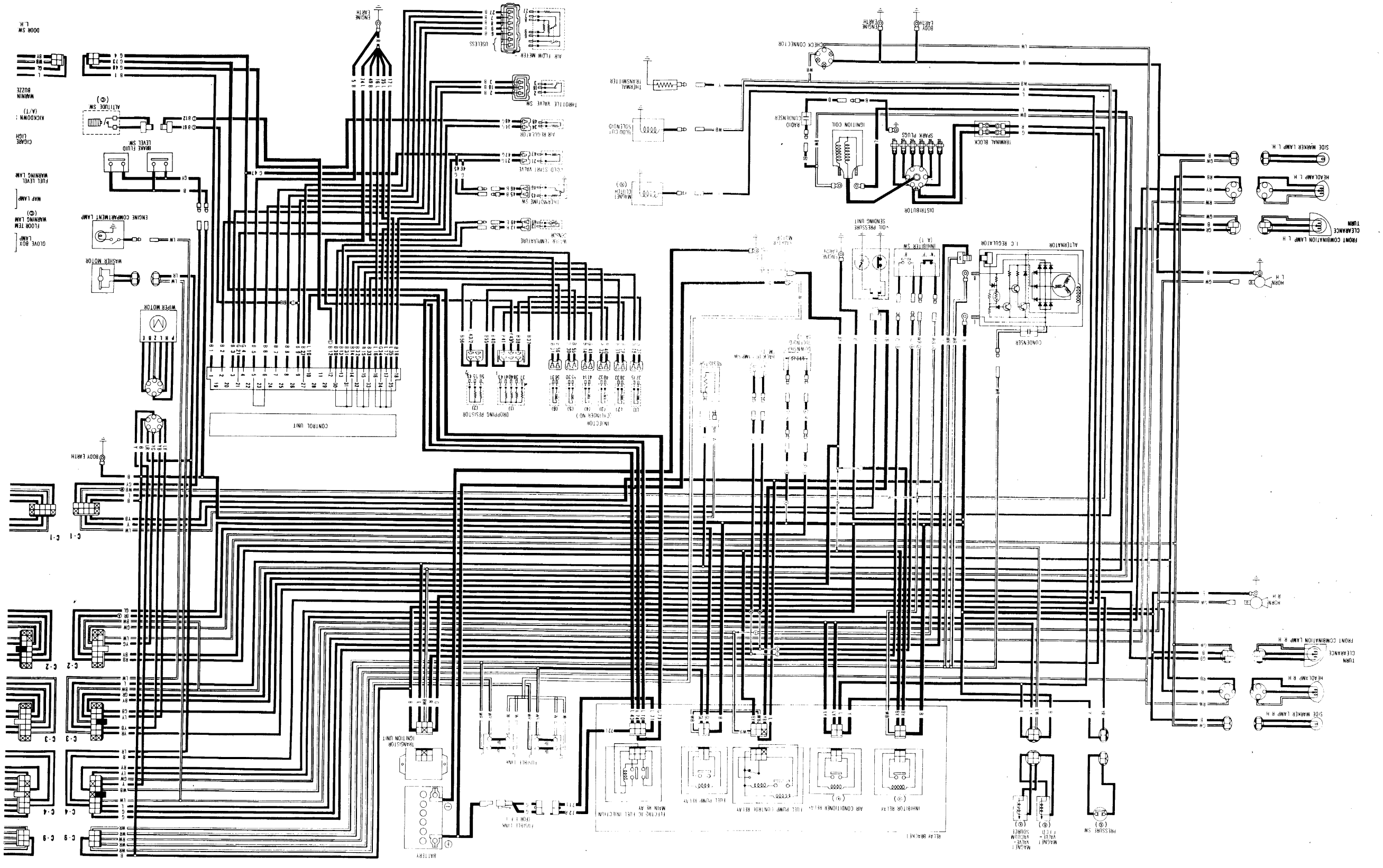
3. AUTOMATIC TRANSMISSION TOOL

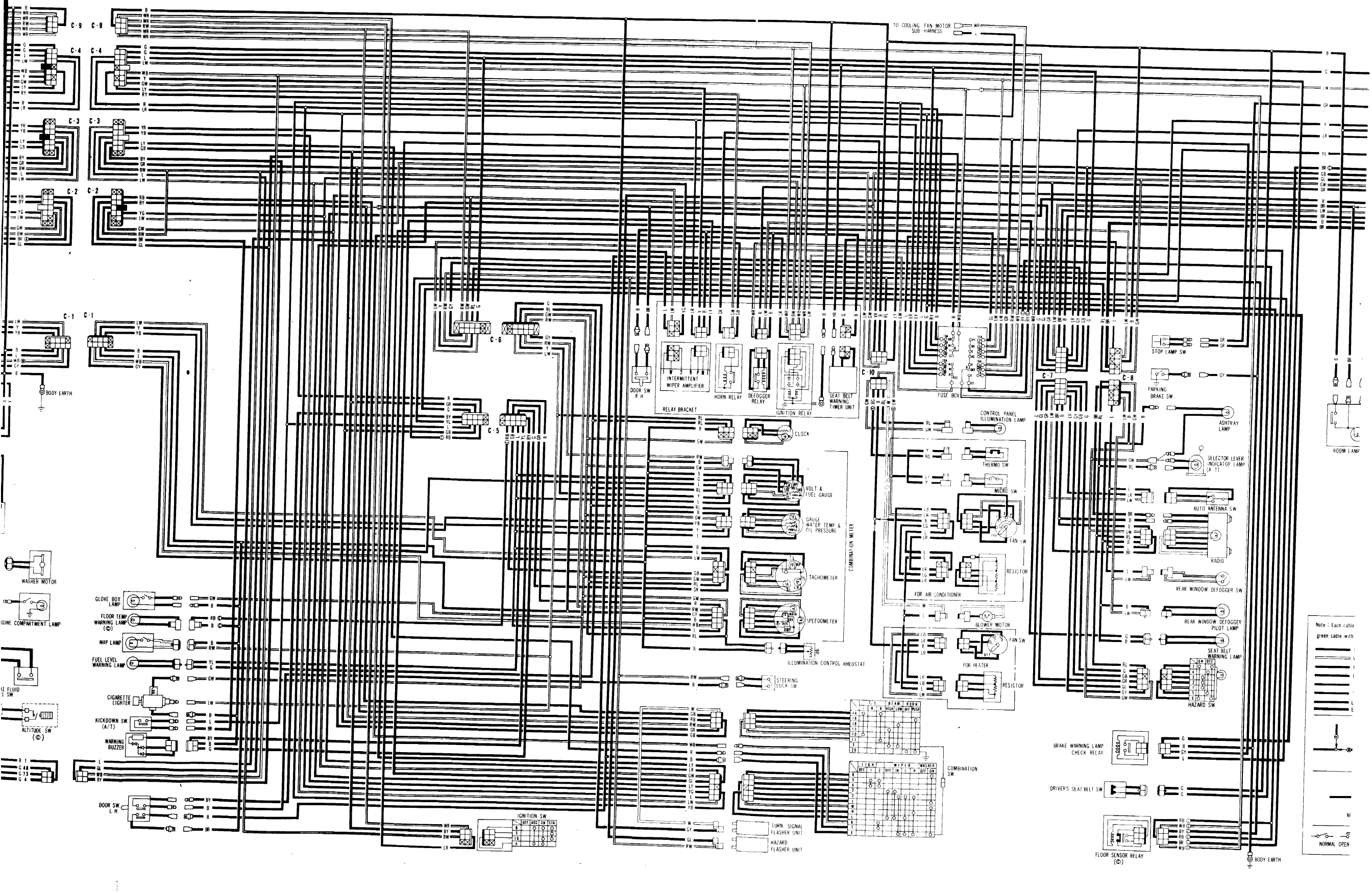
No.	Tool Number	Tool Name	Set 3N71B KV00101000	Newly added	Class	Remarks
	ST07870000	Transmission case stand	X		3	B210, 610, 710, S30, 620
	ST2505S001	Oil pressure gauge	X		1	B210, 610, 710, S30, 620
	ST25160000	Torque driver	X		3	B210, 610, 710, S30, 620
	ST25320001	Snap ring remover	X		3	B210, 610, 710, S30, 620
	ST25420001	Clutch spring compressor	X		3	B210, 610, 710, S30, 620
	ST25490000	Socket extension	X		3	B210, 610, 710, S30, 620
	ST25570001	Hex-head extension	X		3	B210, 610, 710, S30, 620
	ST25580000	Oil pump assembling gauge	X		3	B210, 610, 710, S30, 620
	ST25850000	Sliding hammers	X		3	B210, 610, 710, S30, 620
	GG93010000	Torque wrench	X		3	B210, 610, 710, S30, 620
	HT61000800	Hexagon wrench	X		3	B210, 610, 710, S30, 620
	HT62350000	Spinner handle	X		6	B210, 610, 710, S30, 620
	HT69860000	Snap ring remover	X		3	B210, 610, 710, S30, 620

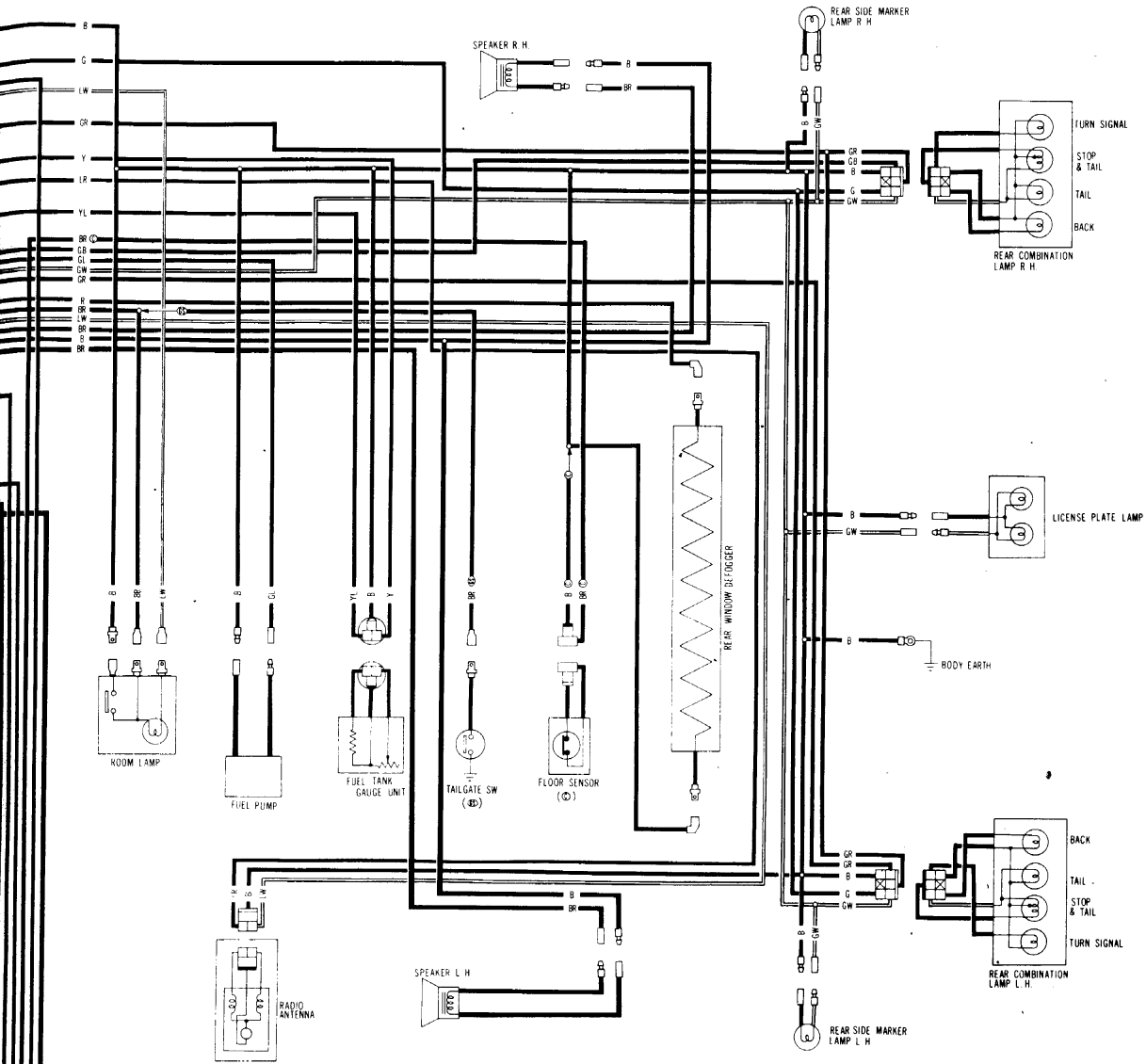
Mark X:. Available

4. AIR CONDITIONER TOOL

No.	Tool Number	Tool Name	Newly added	Class	Remarks
	KV99412302	Clutch hub wrench		3	610, 710, S30
	KV99412305	Hub nut socket		3	610, 710, S30
	KV99412306	Clutch hub puller		3	610, 710, S30
	KV99412310	Lock nut socket		3	610, 710, S30
	KV99412312	Puller pilot		3	610, 710, S30
	KV99412313	Puller adapter		3	610, 710, S30
	KV99412315	Cylinder head remover		3	610, 710, S30
	KV99412321	Shaft seal remover and installer		3	610, 710, S30
	KV99412322	Shaft seal pilot		3	610, 710, S30
	KV99412324	Allen socket		3	610, 710, S30
	KV99412327	Silencer piece installer		3	610, 710, S30
	KV99412328	O-ring installer		3	610, 710, S30
	KV99412329	Shaft handle socket		3	610, 710, S30
	KV99412330	Allen socket		3	610, 710, S30


CONTROL UNIT
DISTRIBUTOR
IGNITION COIL
SPARK PLUGS
TERMINAL BLOCK
CONDENSER
ALTERNATOR
I.C REGULATOR
INHIBITOR SW
OIL PRESSURE SENDING UNIT
ENGINE EARTH
BODY EARTH
CHECK CONNECTOR
THERMAL TRANSMITTER
MAGNET CLUTCH
RADIO CONDENSER
INJECTION
(CYLINDER NO.)
DROPPING RESISTOR
AIR FLOW METER
THROTTLE VALVE SW
AIR REGULATOR
COLD START VALVE
THERMO TIME SW
WATER TEMPERATURE SENSOR
ENGINE COMPARTMENT LAMP
WASHER MOTOR
WIPER MOTOR
BRAKE FLUID LEVEL SW
ALTITUDE SW
DOOR SW
FUSIBLE LINK
TRANSISTOR IGNITION UNIT
BATTERY
ELECTRIC FUEL INJECTION MAIN RELAY
FUEL PUMP RELAY
FUEL PUMP CONTROL RELAY
AIR CONDITIONER RELAY
INHIBITOR RELAY
RELAY BRACKET
MAGNET VALVE - CANISTER SOLENOID
MAGNET VALVE - EGR
PRESSURE SW
HORN
FRONT COMBINATION LAMP L.H
SIDE MARKER LAMP L.H
HEADLAMP L.H
TURN CLEARANCE
FRONT COMBINATION LAMP R.H
HEADLAMP R.H
SIDE MARKER LAMP R.H
HORN R.H
C-1
C-2
C-3
C-4
C-9


C-9
C-4
C-3
C-2
C-1
C-6
C-5
C-10
C-7
C-8
BODY EARTH
WASHER MOTOR
ENGINE COMPARTMENT LAMP
ALTITUDE SW.
GLOVE BOX LAMP
FLOOR TEMP WARNING LAMP
MAP LAMP
FUEL LEVEL WARNING LAMP
CIGARETTE LIGHTER
KICKDOWN SW. (A/T)
WARNING BUZZER
DOOR SW. L.H
IGNITION SW.
DOOR SW. R.H
INTERMITTENT WIPER AMPLIFIER
HORN RELAY
DEFOGGER RELAY
IGNITION RELAY
SEAT BELT WARNING TIMER UNIT
RELAY BRACKET
CLOCK
VOLT & FUEL GAUGE
GAUGE WATER TEMP & OIL PRESSURE
TACHOMETER
SPEEDOMETER
COMBINATION METER
ILLUMINATION CONTROL RHEOSTAT
STEERING LOCK SW.
TURN SIGNAL FLASHER UNIT
HAZARD FLASHER UNIT
COMBINATION SW.
TO COOLING FAN MOTOR SUB-HARNESS
FUSE BOX
THERMO SW.
MICRO SW.
FAN SW.
RESISTOR
FOR AIR CONDITIONER
BLOWER MOTOR
FAN SW.
FOR HEATER
RESISTOR
STOP LAMP SW.
PARKING BRAKE SW.
CONTROL PANEL ILLUMINATION LAMP
ASHTRAY LAMP
SELECTOR LEVER INDICATOR LAMP (A/T)
AUTO ANTENNA SW.
RADIO
REAR WINDOW DEFOGGER SW.
REAR WINDOW DEFOGGER PILOT LAMP
SEAT BELT WARNING LAMP
HAZARD SW.
ROOM LAMP
BRAKE WARNING LAMP CHECK RELAY
DRIVER'S SEAT BELT SW.
FLOOR SENSOR RELAY
BODY EARTH
Note : Each cable
green cable with
NORMAL OPEN



Note : Each cable is colored based on following colors. Two tone colored cables such as GW and BR, mean green cable with a white stripe and black cable with a white stripe, respectively.

B	BLACK
W	WHITE
R	RED
G	GREEN
L	BLUE
Y	YELLOW
LG	LIGHT GREEN
Br	BROWN

CONNECTION

NO CONNECTION

NORMAL OPEN

NORMAL CLOSE

Ⓐ FOR AUTOMATIC TRANSMISSION MODELS
Ⓜ FOR MANUAL TRANSMISSION MODELS
Ⓒ FOR CALIFORNIA MODELS
⑮ FOR 2 + 2 SEATER MODELS
Ⓔ FOR AIR CONDITIONER

SWITCH AND RELAY POSITIONS
1 IGNITION SWITCH IN OFF
2 LIGHTING SWITCH, WIPER SWITCH IN OFF
3 DRIVER'S SEAT BELT UNOCCUPIED
4 DOORS CLOSED
5 TRANSMISSION IN NEUTRAL (AUTOMATIC TRANSMISSION SELECTOR LEVEL IN PARKING)
6 HAND BRAKE PULLED

The right is reserved to make changes in the wiring diagram at any time without prior notice.

