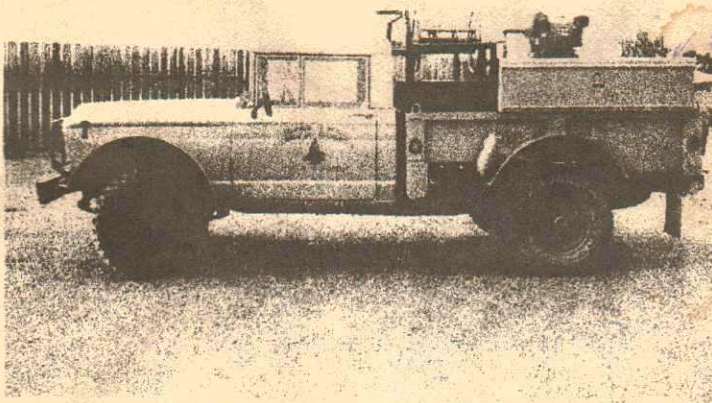
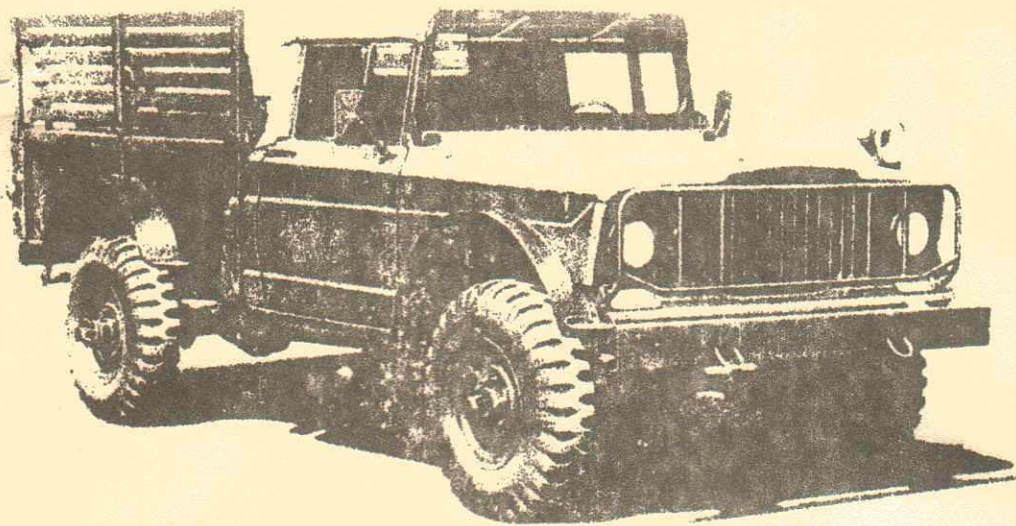


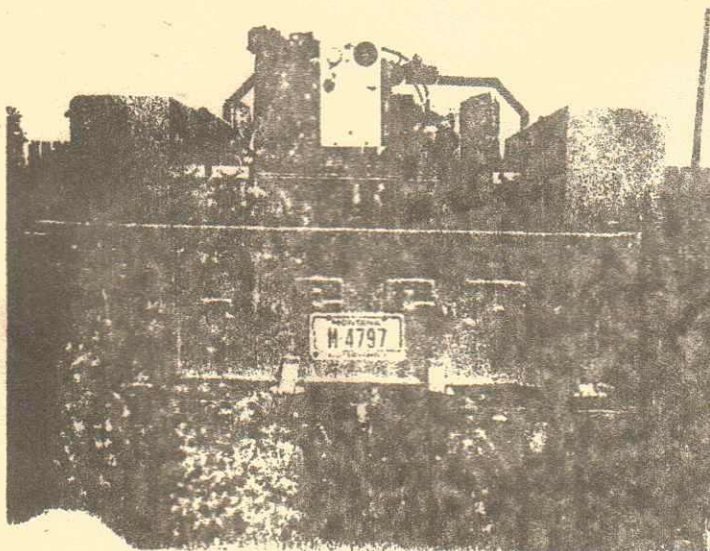
MONTANA STATE
DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION
DIVISION OF FORESTRY
2705 SPURGIN ROAD
MISSOULA, MONTANA 59801



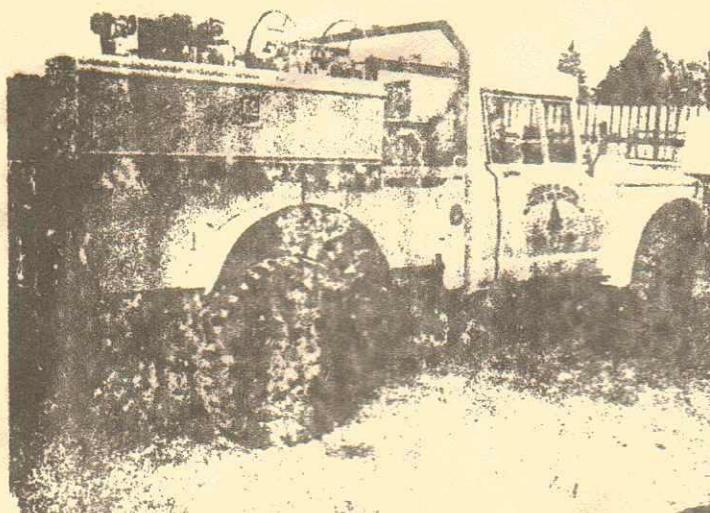
M715 ARMY 1½ TON 4 x 4 CARGO TRUCK CONVERTED TO
A 200 GALLON WILDLAND TRUCK AT THE MAURICE
CUSICK EQUIPMENT DEVELOPMENT CENTER



M715, 4 x 4,
ARMY 1½ TON
CARGO TRUCK



CONVERTED M715 WITH
200 GALLON SLIPON UNIT
(REAR VIEW)



CONVERTED M715 WITH
200 GALLON SLIPON UNIT
(SIDE VIEW)

OPERATION OF M715

STARTING & DRIVING

Start and drive this vehicle the same as any conventional standard transmission vehicle. Use same precautions as with any four wheel drive unit.

OPERATING ON UNUSUAL TERRAIN

Use tire chains on snow or ice covered terrain or in deep mud.

Lower tire pressure to 15psi to travel over sand, ice, mud or snow if tire chains are not available. Restore to correct recommended tire pressure after emergency.

FRONT MOUNTED WINCH

The front mounted winch has a 7,500 pound rated line pull at a minimum line speed of 15 feet per minute. The 150 foot wire rope is continuous with no splices and measures 7/16 inch in diameter. The rope is provided with a clevis assembly and has an end chain measuring four feet in length.

The winch can be engaged or disengaged from the front bumper. The direction of rotation and speed are controlled from the cab.

Before operating, place the winch clutch shifter handle (located on the winch) in the engaged position. Then operate the shift lever in the cab according to the instruction plate. The shift lever is on the floor to the right of the driver's seat.

M715 INFORMATION

DISCLAIMER

The use of trade, firm, or corporation names is for the information and convenience of the user. Such use does not constitute an official evaluation, conclusion, recommendation, endorsement, or approval of any product or service to the exclusion of others which may be suitable. The Montana Department of Natural Resources and Conservation assumes no responsibility for the interpretation or use of this information.

OPERATING PRECAUTIONS

While driving, occasionally observe the temperature gauge, oil pressure gauge, and battery-generator indicator. Correct abnormal conditions promptly or equipment damage may result.

Tow the vehicle forward, for purposes other than starting, only with the transmission in neutral and the transfer case in 2 wheel drive.

Never attempt to shift to a lower transmission gear with the vehicle traveling at a high rate of speed.

Never attempt to shift from 4-wheel drive high range to 4-wheel drive low range with the vehicle moving more than 5 miles per hour.

After driving in sand, mud or water up to the hubs, clean the brakedrums as soon as possible to prevent any abrasive material that may have entered from wearing the brake linings.

Do not travel diagonally across a hill unless absolutely necessary. The danger lies in losing traction and slipping sideways, with the possibility of tipping.

Whenever the air is noticeably dusty, have the air cleaner serviced daily.

Use extreme care in removing the radiator pressure cap when engine coolant is hot or boiling as serious burns may result. If necessary to add coolant while engine is overheated, idle engine and add coolant slowly.

Polarity of the alternator and batteries must match up, as well as any booster battery or battery charger attached to the vehicle battery. Polarity must match positive to positive and negative to negative, or alternator diodes and wiring may be burned out.

Do not allow flame or sparks near the vent openings of batteries or the batteries may explode. Do not allow battery acid to spill or splatter on the skin or eyes as bodily injury may result.

DO NOT operate vehicle at maximum speed over rough terrain.

DO NOT coast (clutch disengaged) downhill.

DO NOT ride engaged clutch.

DO NOT "rev" engine and "slip" clutch to gain power.

Operate with tires correctly inflated.

Keep vehicle under control at all times.

Stop completely before shifting into reverse.

Shift to lower gear before starting down hill or steep inclines.

Inspect and service vehicle regularly.

MAINTENANCE

Lubrication--Regular application of high-grade lubricants when operating your vehicle is of vital importance because of the diversified type of service it performs. The amount of trouble free service you will receive will be in proportion to the care given.

Engine Lubrication--The engine is lubricated through a full pressure lubrication system. A progressing tooth gear pump circulates the oil. The oil is drawn to the circulating system through a fixed intake screen.

The quantity of oil in the crankcase is measured by a bayonet-type oil level indicator located on the left side of the engine. The oil filler cap is located at the top-left front of the engine. Maintain the engine level between the "Add oil" and "Full" marks on the indicator. Don't add oil when the level is above the "add 1 qt." mark. Drain and refill every 6,000 miles or semi-annually.

Chasis Lubrication--All chasis lubricating points have standard grease fittings and should be lubricated every 1,000 miles.

Spring Shackles and Pivot Bolts--Rear spring shackles and spring pivot bolts are provided with lubrication fittings.

Oil Filter--Replace the oil filter at the end of the first 500 miles, and each 6,000 miles thereafter.

Remove the oil filter by turning counter clockwise. Wipe the gasket area of the base clean. To install a new filter, lightly coat gasket area with engine oil, screw on the filter unit until gasket contacts the engine, and then turn one-half turn more. Hand tighten only; do not use tools.

Start engine. Accelerate engine slightly and check oil pressure gauge to be sure normal oil pressure is indicated. Check the filter area for leaks.

Air Cleaner--Care of the air cleaner is extremely vital to the engine. The dry type air cleaner is a plastic treated fiber type. Dust particles in the air entering the air cleaner are deposited on the pleated paper. This accumulated dust can choke off the air supply to the carburetor if the element is not cleaned at regular intervals. To service the unit, first remove the element by unsnapping the three retaining clips from the top cover. Then tap the element to remove accumulated dust. Reinstall the unit. Replace the element as required. When the dust is not noticeable in the air, service air cleaner each 1,000 miles. Whenever the air is noticeably dusty (for example, when the vehicle is driven over dirt roads or cross country) service the air cleaner daily.

Ignitor--Every 6,000 miles or semi-annually, remove ignitor. Remove plug under nameplate and withdraw felt wick. Soak wick in engine oil. Fill plug opening with grease. Insert wick, remove excess grease and install plug. Wipe breaker cam lightly with grease. Apply 1 or 2 drops engine oil to breaker arm pivot pin, operate arm once or twice and remove excess oil. Install ignitor.

Steering Gear--Check the lubricant level in the steering gear housing every 1,000 miles to be sure that the lubricant is at the filler plug opening level. Add lubricant as required. Replace filler plug.

Propeller Shafts--The propeller shaft universal joints and slip joints are equipped with lubrication fittings. Lubricate U-joints every 1,000 miles until lubricant is visible coming out of the four bearing seals.

Front Axle Steering Knuckles--The front axle steering knuckles are enclosed in housings which are filled with lubricant. Check each 1,000 miles to be sure the housings are filled to plug level. Each 12,000 miles the axle shaft and universal joints should be removed and thoroughly cleaned and the housings filled with fresh lubricant.

Wheel Bearings--The wheel bearings should be removed, thoroughly cleaned, checked and repacked every 12,000 miles.

Brake Master Cylinder--Check the fluid level in the brake master cylinder every 1,000 miles. Clean the top of the filler cap and housing areas. Replenish the brake fluid to a level of $\frac{1}{2}$ " below the top of the fill hole. Use hydraulic brake fluid with non-petroleum base only. Replace and tighten filler cap.

Transmission--Check the oil level every 1,000 miles by removing the fill plug located on the right side of the transmission housing. Lubricant should be level with fill hole. Add lubricant as required and replace fill plug. Drain and refill every 12,000 miles. Do not overfill, but allow excess oil to drain out.

Transfer Case--Check the oil level every 1,000 miles by removing the fill plug located on the left side of the transfer case. Lubricant should be level with the filler plug openings. Add lubricant as required and replace filler plug. Drain and fill each 12,000 miles.

Differentials--Check the level in the differential housings every 1,000 miles. Lubricant should be level with the filler plug openings. Add lubricant as required and replace filler plug. Drain and fill each 12,000 miles.

Body--At each 6,000 miles use a greaseless lubricant sparingly on the door lock striker plates. At each 12,000 miles lubricate the following: door and window weatherstrips; door latch rotors; door; tailgate; and hood hinge pivots.

Fuel Filter--The in-line fuel filter is designed to filter out harmful particles which may cause fuel stoppage in the fuel line or carburetor. The filter should be replaced each 12,000 miles or annually. The screen in the filler neck should also be cleaned.

Springs--The vehicle springs should not be lubricated. At assembly the leaves are coated with a long-lasting special lubricant designed to last the life of the springs. Spraying the usual mixture of oil and kerosene has a tendency to wash this lubricant from between the leaves, making it necessary to re-lubricate often to eliminate squeaking.

Water Pump & Clutch--The water pump and clutch release bearings are pre-lubricated for life when manufactured and cannot be relubricated.

Starting Motor--The starting motor bearings are lubricated at assembly to last between normal rebuild periods.

Alternator--The alternator bearings, lubricated at assembly, require no further lubrication.

Shock Absorbers--Hydraulic direct action shock absorbers are permanently sealed and require no periodic lubrication service. Shock absorber mounting bushings are not to be lubricated.

TABULATED DATA ON THE M715

	<u>W/O Winch</u>	<u>W/Winch</u>
<u>CURB WEIGHT, FULLY EQUIPPED,</u> <u>LESS PAYLOAD & CREW:</u>		
Front Axle	2800 lbs.	3300 lbs.
Rear Axle	2700 lbs.	2700 lbs.
Total	5500 lbs.	6000 lbs.
<u>PAYLOAD:</u>		
Cross country limited	2500 lbs.	2500 lbs.
Highway	3000 lbs.	3000 lbs.
<u>GROSS WEIGHT, FULLY EQUIPPED,</u> <u>PLUS PAYLOAD & CREW:</u>		
Front Axle	3000 lbs.	3500 lbs.
Rear Axle	5400 lbs.	5400 lbs.
Total	8400 lbs.	8900 lbs.
<u>TOWED LOAD ALLOWANCE:</u>		
Cross country	2840 lbs.	2840 lbs.
Highway	3590 lbs.	3590 lbs.
<u>SHIPPING DIMENSIONS:</u>		
Cubic feet	606	640
Square feet	124	130
<u>LENGTH</u>	209 3/4"	220 3/4"
<u>WIDTH</u>	85 in.	85 in.
<u>HEIGHT:</u>		
Overall height	95 in.	95 in.
Lowest Operable	59 in.	59 in.
<u>CENTER OF GRAVITY (At curb weight):</u>		
Above ground	31 in.	31 in.
Rear of centerline of front axle	60.7 in.	56.6 in.
<u>PERFORMANCE AT GROSS WEIGHT WITHOUT</u> <u>TOWED LOAD:</u>		
Maximum speed	60 mph	60 mph
Maximum grade	60 %	60 %
Cruising range	225 miles	225 miles
<u>GROSS WEIGHT WITH TOWED LOAD:</u>		
Maximum speed	60 mph	60 mph
Maximum grade	58 %	58 %
Cruising range	225 miles	225 miles

ENGINE SPECIFICATIONS

Type	Overhead Camshaft
Number of cylinders	6
Bore	3.344"
Stroke	4.375
Piston displacement	230 cu.in.
Bore spacing (Center to center)	3.876"
Firing order	1-5-3-6-2-4
Compression ratio	7.50:1
Compression pressure	135 to 145 psi
Horsepower (SAE)	26.77
Horsepower (Max brk)	132.5 @ 4,000 rpm
Torque (Maximum at 2,000)	
Idle speed	600 to 650 rpm
Oil capacity (Including filter)	6 quarts

TRANSMISSION

Type	Manual
Speeds	Four forward, one reverse
Synchromesh	2,3 & 4 gears

Ratios

First gear	6.398:1
Second gear	3.092:1
Third gear	1.686:1
Fourth gear	1.00:1
Reverse gear	7.820:1
Lubricant capacity	6.5 pints

TRANSFER

Ranges	High-Low
--------	----------

Ratios

High	1:1
Low	1.96:1
Lubricant capacity	4.5 pints

DIFFERENTIALS (FRONT)

Type	Full-floating hypoid gears
Ratio	5.87:1
Lubricant capacity	6 pints

DIFFERENTIALS (REAR)

Type	Full-floating hypoid gears
Ratio	5.87:1
Lubricant capacity	6.5 pints

ELECTRICAL SYSTEM

Voltage	24 volts
Current	60 amperes

Battery

Quantity	Two (2)
Hour rating	45 ampere-hour
Voltage	24 volts (two 12 volt in series)
Terminal ground	Negative

FUEL SYSTEM

Capacity	28 gallons
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COOLING SYSTEM

Capacity	12 quarts (with heater)
Normal operating temperature	190 degrees F
Normal operating pressure	13 PSI

STEERING SYSTEM

Type	Mechanical
Steering ratio	24:1
Turning radius	27.5

SUSPENSION

Front and rear	Semi-elliptical springs
----------------	-------------------------

BRAKES

Type	Hydraulic, internal expanding
Parking brake	Mechanical; external ON prop shaft

FORDING DEPTH

Without kit	30 in.
With kit	60 in.

ARTICULATION

Angle of approach
Angle of departure

45 degrees; with winch 33 degrees
25 degrees

TIRE

Type

Nylon cord, Non-directional
MS (Mud & Snow)

Size

9:00 x 16,8 ply

Pressure

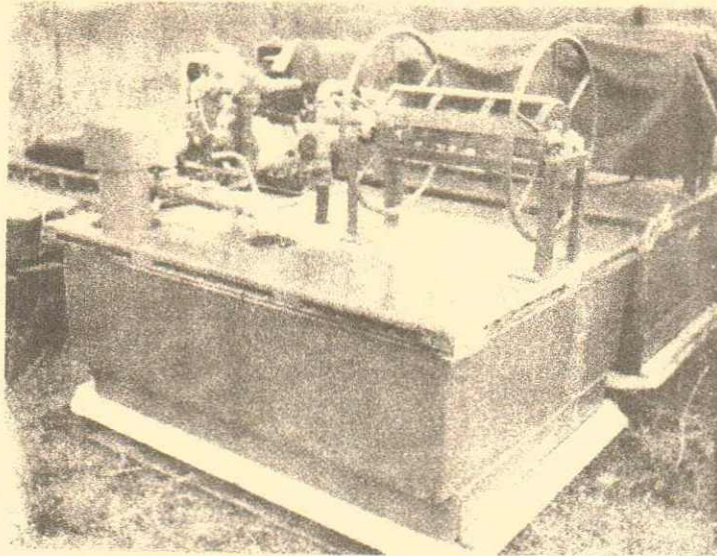
Front

25 PSI

Rear

35 PSI

COUNTY 200 GALLON WGC-4SP SLIPON TANKER



Quantity	Price Each	Description	Total
1 ea.	30.90	Applicator, Mop-up 48" 1-piece	30.90
1 ea.	6.90	Reducer Adapter, 1½" NST to 1" NST	6.90
8 ea.	.63	Batteries, Flashlight Size "D"	5.04
1 ea.	5.00	Bucket, Collapsible nylon	5.00
2 ea.	9.95	Canteens, 2 qt.	19.90
1 ea.	53.70	Can, 5 gal. safety w/spout	53.70
1 ea.	17.10	Extinguisher, 2½# Fire	17.10
1 ea.	22.00	First Aid Kit, Vehicle	22.00
2 ea.	12.45	Flashlight headsets	24.90
2 rolls	1.25	Flagging, Red & White Striped	2.50
2 ea.	2.35	Files, 10" Flat	4.70
2 ea.	2.10/dz	Gaskets, 2" Suction hose	.35
2 ea.	1.45/dz	Gaskets, 1½" R.L. hose	.24
2 ea.	1.10/dz	Gaskets, 1" Booster hose	.18
200 ft.	174.00	Hose, 1½" NST R.L.	348.00
200 ft.	294.00	Hose, 1" NST Booster	588.00

Quantity	Price Each	Description	Total
24 ft.	58.90	Hose, 2" NPSH Suction (3-8' lengths)	176.70
2 ea.	8.60	Hats, Safety	17.20
1 ea.	34.17	Jack, 3-ton hydraulic w/handle	34.17
1 ea.	82.65	Nozzle, "Forester" fog, 1" NST	82.65
2 ea.	27.00	Pulaskis	54.00
1 ea.	73.00	Pump, Backpack rigid	73.00
1 ea.	1,930.00	Pump, WGC-4SP, 4 stage centrifugal	1,930.00
1 ea.		Pump tool kit, WGC-4SP to include the following items:	
		1 ea. Grease gun, Pump	
		1 ea. Grease, Pump (1# can)	
		1 ea. Screwdriver, 4"	
		2 ea. Wrenches, Spanner 1½"	
		1 ea. Starter rope	
		1 ea. Wrench, Crescent 6"	
		1 ea. Wrench, Crescent 10"	
		1 ea. Wrench, Sparkplug	
		1 ea. Hammer, Ball pein	
		1 ea. Oil can	
		1 ea. Pliers, 8" slip-joint	
		1 ea. Funnel, 1 pt. metal	
		1 ea. Tool Box, Metal	
		1 ea. Gauge, Feeler	
		1 ea. Sparkplug (spare)	
1 ea.	260.50	Reel, Hose	260.50
1 ea.	14.17	Reflector & Flag Warning Kit	14.17
2 ea.	17.99	Shovels, Firefighting	35.98
1 ea.	34.60	Strainer, 2" NPSH Suction footvalve	34.60
1 ea.	12.35	Tip, Applicator 3GPM	12.35
1 ea.	440.00	Tank, 200 gal. fiberglass	440.00
1 ea.	32.63	Wrench, Vehicle lug	32.63
TOTAL			4,327.36

MANUALS & FORMS

1 ea.	Accident Report Form, Vehicle
1 ea.	Operators Manual, WGC-4SP Pump
1 ea.	Service Manual, WGC-4SP Pump
1 ea.	Vehicle Inventory & Maintenance Card

This price does not include fittings and plumbing listed on next page. The approximate cost of these parts is \$300.00

Quantity

Description

2 ea.	Elbows, 90° straight 2" IPT
1 ea.	Nipples, 2 x 6" IPT
4 ea.	Elbow, 90° straight 3/4" IPT
4 ea.	Nipples, 3/4 x 1 3/8" IPT closed
4 ea.	Elbow, 45° straight 3/4" IPT
4 ea.	Nipples, 1 x 1 1/2" IPT closed
1 ea.	Tees, straight 2" IPT
5 ea.	Nipples, 2 x 2" IPT closed
3 ea.	Tees, straight 1" IPT
2 ea.	Valves, Ball 3/4" IPT
1 ea.	Nipples, 2 x 3" IPT
2 ea.	Valves, Ball 1" IPT
1 ea.	Nipple, 2 x 4" IPT
2 ea.	Valve, Ball 2" IPT
1 ea.	Pipe, Galvanized 1 1/2" IPT
1 ea.	Reducer, Pipe 1" x 3/4" IPT
1 ea.	Pipe, Galvanized 3/4" IPT x 20'
2 ea.	Cap, Pipe 3/4" IPT
1 ea.	Valve, Globe, bronze disk 1" IPT
1 ea.	Hose, High Pressure 1" x 40" Y916
4 ea.	Fitting, High Pressure 1" IPT BN1616-MB
2 ea.	Fitting, High Pressure 1" IPT 60-SA-1616 (Swivel Adapter)
1 ea.	Hose, Radiator 2 3/8" x 2 1/2"
1 ea.	Hose, Radiator 1 3/8" x 8"
1 ea.	Tubing, Copper 1/2" x 2'
1 ea.	Hour Meter w/damper (Hobbs Model)
1 ea.	Tubing, Copper 3/8" x 2'
1 ea.	Valve, Ball 1 1/2" IPT
1 ea.	Cap, Galvanized malleable-iron 1 1/2" IPT
1 ea.	Valve, Heavy duty 1/2" O.D. IPT
4 ea.	Elbows, Male, tube-male PT 3/8 x 1/4"
1 ea.	Plug, Male 1/4" IPT
1 ea.	Switch, Toggle, Heavy duty
1 ea.	Lamp, Control Panel (IHC)
1 ea.	Panel, Control, 3/16" aluminum

Galvanized carriage bolts, nuts and washers in following sizes with STD Coarse thread:

3/8" x 1 1/2" cap screw	3/8" x 2 3/4" cap screw	5/16 x 1 1/2" cap screw
3/8" x 2 1/2" cap screw	3/8" x 2" cap screw	5/16 x 2" cap screw
1/4" x 1 1/2" cap screw		

Nuts and washers for: 3/8", 5/16" and 1/4"

GENERAL INSTRUCTIONS FOR DEVELOPMENT OF M-715

1. Install 2 Group 24 batteries. Negative ground on 1st battery. Jumper wire between 2 batteries from positive to negative post to make 24 volts. Hot lead to positive on 2nd battery.
2. Clean, inspect & repack all wheel bearings. Replace bearings & seals as needed. Rear wheel seal #27600 (CR): Front wheel seal #28181 (CR).
3. Check brake linings, hoses & brake lines for wear, deterioration or kinks. Repair or replace as needed. For better brakes, replace wheel cylinders with #F9344 (Wagner) & F9345 (Wagner). If you prefer, a Hydrovac unit #174550B can be installed instead of changing wheel cylinders. If you use old cylinders, be sure to overhaul them.
4. Replace ignition switch. Use switch #UCL1 (P&D) for 24 volt.
5. Check points & condenser. Replace if needed.
6. Remove old spark plugs & replace with L12Y Champion. Replace spark plug wires with 7mm plug wire cable. Do not use any clips or other metal holders in end of plug wire in cap. (See instructions for changing plug wires)
7. Change oil & filter (PH8A or equal).
8. Check transmission, transfer case & front & rear differentials for grease leaks. Repair as needed.
9. Drain grease from transmission, transfer case & front & rear differentials. Replace with #90 gear lube.
10. Remove valve cover & check valve lash. Install new valve cover gasket. Intake .008C ; Exhaust .008C.
11. Clean & inspect air cleaner. Replace oil in cleaner or replace air cleaner cartridge as needed.
12. Modify front turn signal lites (paint lens yellow).
13. Install #984S (Whitaker) trailer plug connection & wire according to diagram. Remove all wires to existing trailer plug.
14. Replace rear tail lites. Install 3-VR10 (P&D) voltage reducers to each circuit & use 12 volt bulbs.
15. Remove Blackout Lite from hood & fill holes.
16. Sand & paint vehicle. (We will furnish paint)
17. Paint canvas top with fire retardant canvas paint & preservative.

18. Modify grill guard (If desired)
19. Install roll bar to top of box behind cab.
20. Be sure to insulate all wire going through metal parts.
21. Tape all wire ends which have been cut to insure they don't short.
22. Timing is set at 5° B.T.D.C.
23. Points are set .020 plus or minus .002.
24. Spark plug gap is .030.
25. Valve setting is Intake - .008C and Exhaust - .008C.
26. Wheel bearing inside nuts should be tightened just snug so the wheel has a slight drag, then backed off 1/4 turn. Install lock. Install outside nut and tighten securely. Bend lock to secure nut in place.
27. Install mud flaps

TO CHANGE DISTRIBUTOR WIRES

1. Identify wires and mark on metal cap so they can be installed in same order and place.
2. Remove present wires completely.
3. Replace military spark plugs with Champion L12Y or equivalent.
4. Cut ends from old military wire leaving approximately 2-3" of old cable above nut.
5. Remove inside rubber insulation.
6. Cut 7 mm plug wire to length desired. Route all plug wires around fuel pumps and along side of valve cover so they don't touch exhaust manifold. You will have to make a holder for the wires to the last four spark plugs.
7. Insert new plug wires through end of old military plug wire.
8. Using 3/8" flexible gas hose, grind outside of line to fit in distributor cap hole. Push as far down as it will go. Cut off slightly above distributor cap (metal part). Push 7mm wire through this. Push plug wire and rubber insulator into cap as far as possible. Install old cut off wire and nut into cap and tighten to hold wire in place. You should also tape the cut off end to new plug wire.
9. Install silicon rubber plug cover on wire.
10. Using straight plug terminal, install on new plug wire. Push on to spark plug and cover with silicon rubber plug cover.
11. Do the same to other 5 wires, making sure they are seated in distributor cap.
12. Do not use any metal ends or bare wire more than 1/16" on end in distributor cap. This is a must as cap will arc and short out if metal ends are used.
13. There is no modification necessary to the coil wire if used on 24 volt.

TO USE 12 VOLT EQUIPMENT ON 24 VOLT SYSTEM

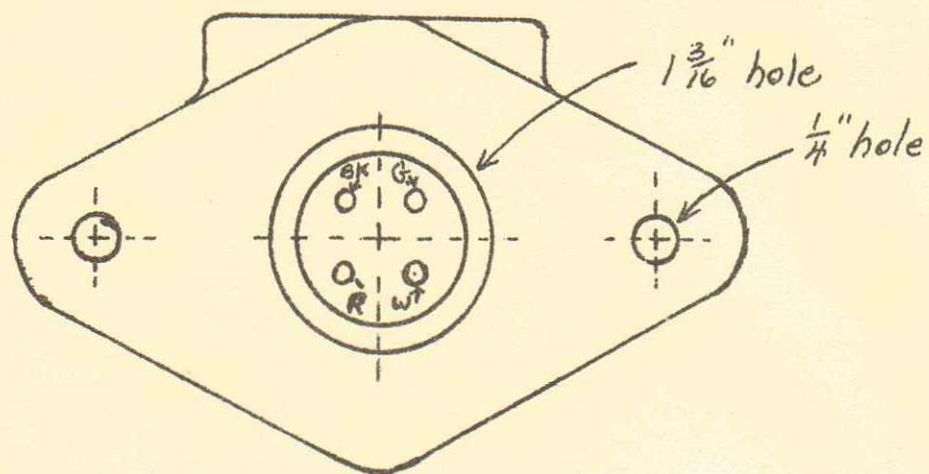
1. To use 2 way radio, if radio is to be grounded to chassis, you must take a hot lead from the jumper cable between the 2 batteries and hook it to the hot lead on the radio. Be sure to use a fuse. It doesn't matter which end of the jumper cable you come from as it will still only be 12 Volt. If 2 way radio is used very much, the battery that the ground wire is hooked to should be recharged as soon as possible. If this can't be done, change position of the 2 batteries so you will draw from the fully charged battery.
2. If you wish to use the other battery for another 12 Volt circuit, it is possible to do so but whatever it is used on cannot be grounded in any way to the chassis. This circuit would be OK to use for starting the WGC-4 pump engine. If you do this, you must run two battery cables to the pump engine. One cable comes from the center jumper cable between the two batteries. This should be hooked to the ground side of pump motor. The second lead must come from the positive side of the 2 main leads. This cable should be hooked to the live side of the starter solenoid on pump motor.
3. If you do not plan to install a 12 Volt 2 way radio in the vehicle, the lead for the pump starter motor can be taken from either end of the jumper cable between the 2 batteries. This lead must be run to the pump starter solenoid. The pump engine can then be grounded to the chassis.

PARTS TO INSTALL DOOR LOCK

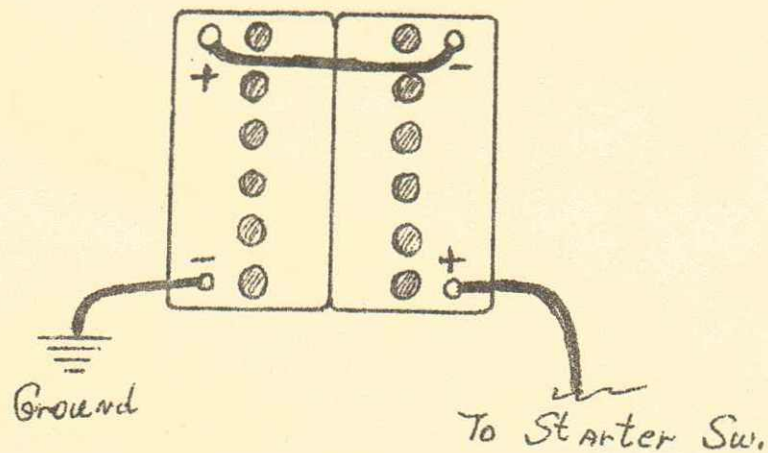
1 - 8123289	Cylinder and key	\$ 5.00
1 - 957291	clip	.15
1 - 987269	clip	.22
1 - 959690	Bushing	.06
1 - 957295,	Rod	.98
2 - 972848	Grommet (\$.11 each)	.22
1 - 970657	Knob	.62
1 - 977739	Left door lock	13.27

To lock Right door, a bolt type lock can be used on the inside or a piece can be made by taking a pattern from the new lock and riveting it to the Right lock. The rod, grommet, knob and bushing can be used on Right door lock if this is done. Also the door lock can be replaced on that side. The cylinder and key lock for the left side will have to be coded to fit a Jeep key.

Wiring Diagram For Trailer Lite Plug
using Whitaker 9845 Receptacle.



G - Ground
R - Tail Lites
W - Left Turn & Stop
BK - Right Turn & Stop.



Battery Installation For 24 Volt.

Be sure Batteries are Fastened securely in carrier.

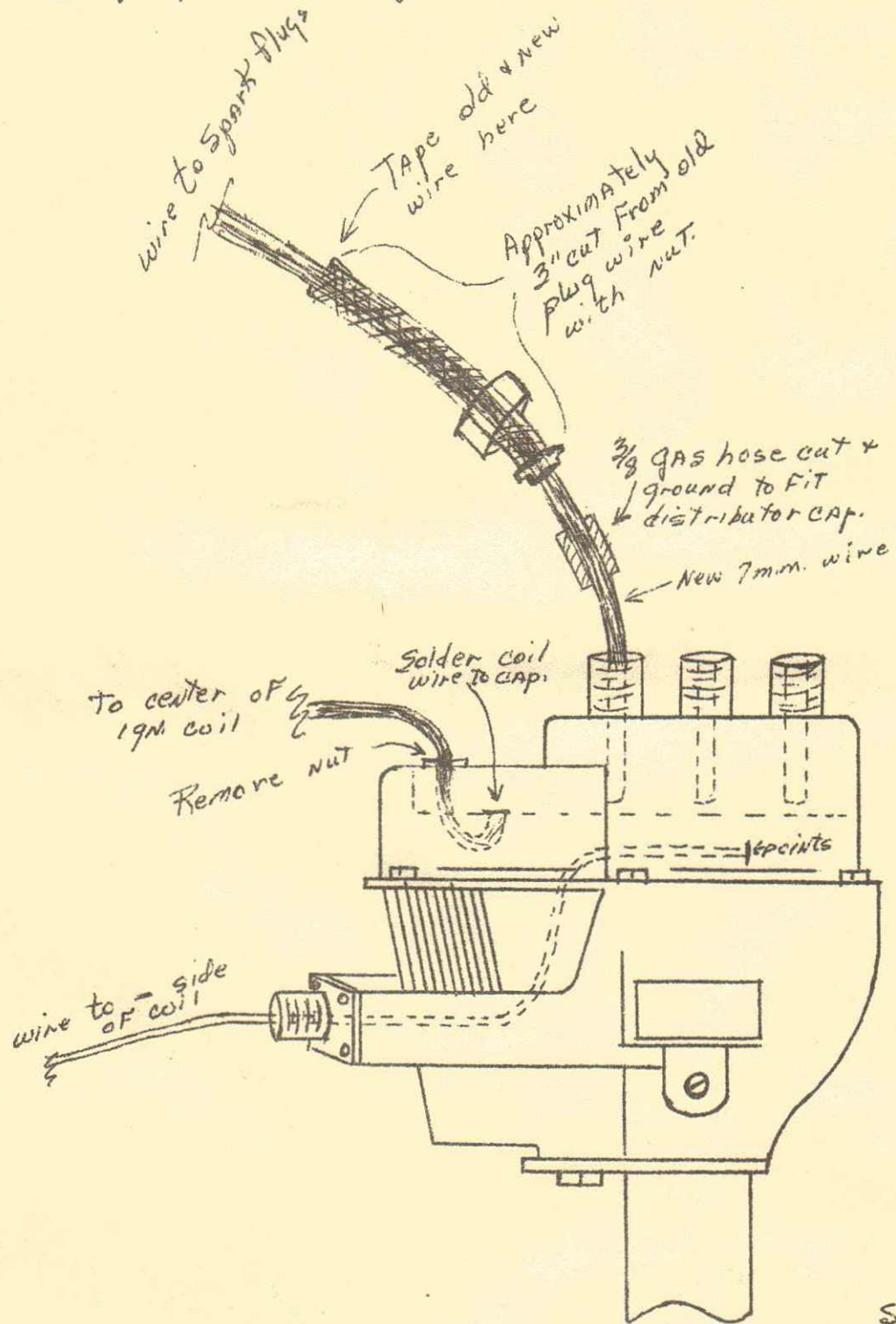
WIRE DESIGNATION

# 3	Negative Alt. ground circuit
4	Battery feed to non switched devices
5	alternator output to battery
6	Starter switch to starter motor
7	Battery ground
11	Ignition switch feed
12	Ignition switch to distributor
15	Main lite switch feed
16	Lite switch to dimmer switch
17	Dimmer switch to upper beam
18	Dimmer switch to lower beam
19	Lite switch to blackout driving lamp
20	Lite switch to blackout marker lamp
21	Lite switch to service tail lamp
22	Lite switch to service stop lamp
23	Lite switch to blackout stop lamp
24	Lite switch to blackout tail lamp
25	Horn switch to horn
25A	Horn feed
27	Instrument feed
28	Fuel indicator to sending unit.
33	Water temperature indicator to sending unit
36	Oil pressure indicator to sending unit
40	Instrument lite circuit
68	Battery interconnecting cable
75	Stop switch: to lite switch and stop lite
82	Battery feed to foot starter switch
91	Headlite to ground
460	Turn indicator, Right front service
461	Turn indicator, Left front service
22-460	Turn indicator, Right rear service
22-461	Turn indicator, Left rear service
491	Parking lites to lite switch
468	Ignition switch to alternator

WIRES IN BOX ON FIREWALL

E -	Right Rear turn and stop
K -	Right Front turn
L -	Left Rear turn and stop
J -	Left Front turn

Changing M715 Distributor to 12 Volt.
 Changing Plug wires to civilian use.
 IF M715 is used w/ 28 Volt system, use diagram
 to modify plug wires only.



S. Ring

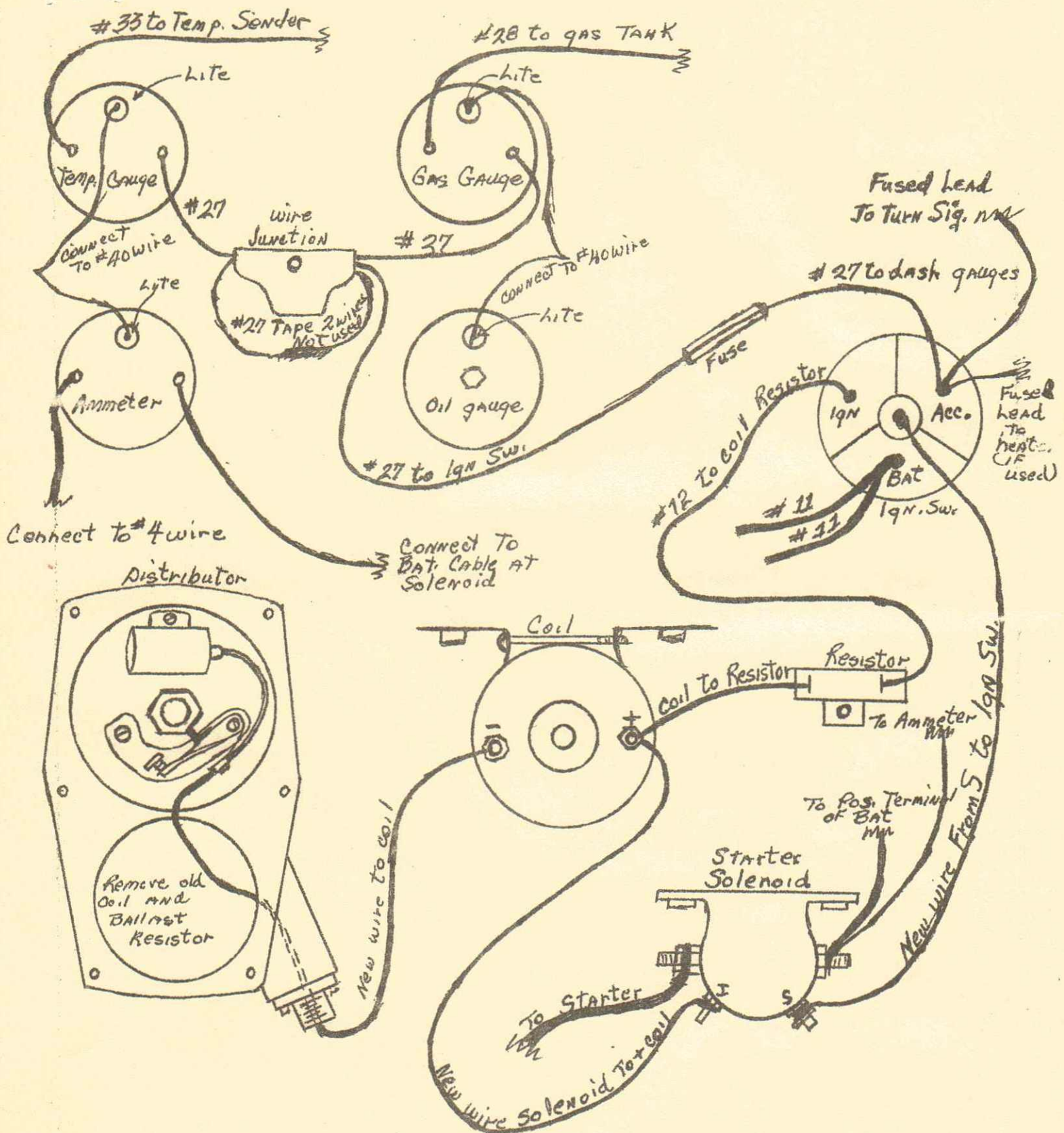
Distributor lead to points maybe cut & soldered or
 a new wire installed From coil to points.
 Insulate High tension lead Through top of cap.
 Do not use any metal ends on plug wires in cap.
 A drop of solder on end of wire is O.K. but nothing else.

PARTS LIST TO CONVERT TO 12 VOLT

1.	1 - 44-4031 Rebuilt starter (Armco)	\$ 34.29
2.	2 - 6014 Eveready headlite bulbs	5.40
3.	2 - LS-6235 Adaptors to install headlite bulbs (Signal Stat)	2.10
4.	1 - 7092 Rebuilt alternator (Armco)	38.60
5.	1 - VR-163 Regulator (P&D)	16.29
6.	1 - RU-1 Ignition resistor (P&D)	1.97
7.	1 - SW139 Starter solenoid (P&D)	3.20
8.	1 - 82114 Temperature gauge (Stewart Warner)	14.39
9.	1 - D362AH Temperature sender (Stewart Warner)	4.06
10.	1 - 366FF Oil pressure installation kit (Stewart Warner)	2.38
11.	1 - 391C Gas tank sending unit (Stewart Warner)	8.75
12.	1 - 82111 Gas tank gauge dash unit (Stewart Warner)	14.39
13.	1 - D352AW Oil pressure gauge (Stewart Warner)	5.71
14.	1 - UCL10 Ignition switch (P&D)	4.00
15.	2 - 502 Tail lites (Signal Stat)	20.38
16.	2 - 1073 E.R. Bulbs for front turn signals	
17.	2 - 67 E.R. Bulbs for front park lites	
18.	3 - 1893 E.R. Bulbs for dash lites	
19.	1 - 900 Turn signal switch (Signal Stat)	20.27
20.	1 - 9183 Fuse Breaker (P&D) (used for head lites)	1.61
21.	1 - 984S Trailer plug (Whitaker)	3.73
22.	UC4X Ignition coil (P&D)	10.83
23.	Wire and ends as needed	
24.	1 - #7-3 Motorola 2 groove pulley (Motorola)	5.18
25.	1 - BK1 Coil mounting bracket (P&D)	.63
TOTAL		<u>\$218.16</u>

If original foot starter switch is used, ignition switch #UCL1 (P&D) may be used and starter solenoid #SW139 (P&D) is not needed. However, when this is done, the ignition system starts on reduced voltage and does not start as well in colder weather.

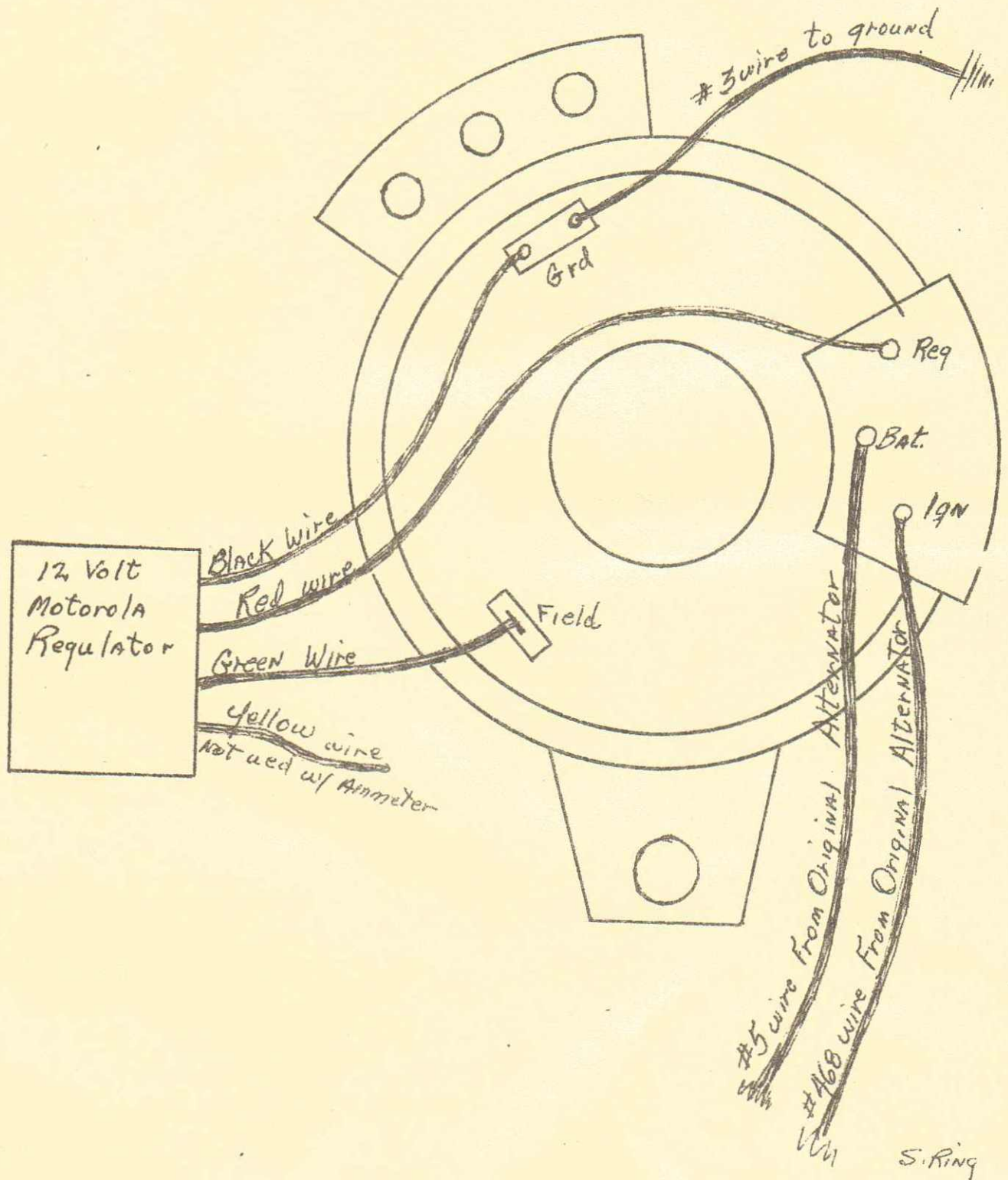
Wiring Diagram for Converting M715 to 12 Volt



Solder & Tape All connections and Wire Ends
 Use 10 gauge Wire For Ammeter Connections
 Use 4 gauge Wire For Starter Cables
 Use 14 gauge Wire For Lights, Turn signals, etc.

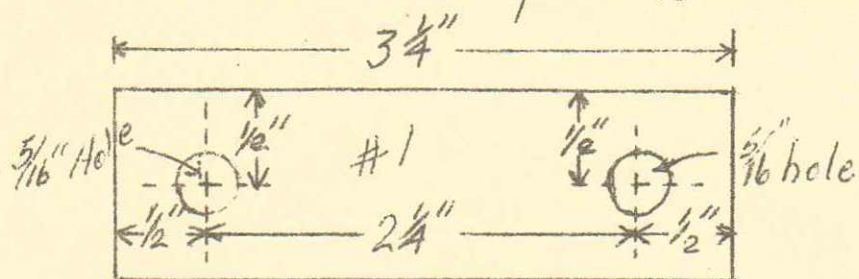
S. Ring

Wiring Diagram For 12 Volt Motorola Alt.

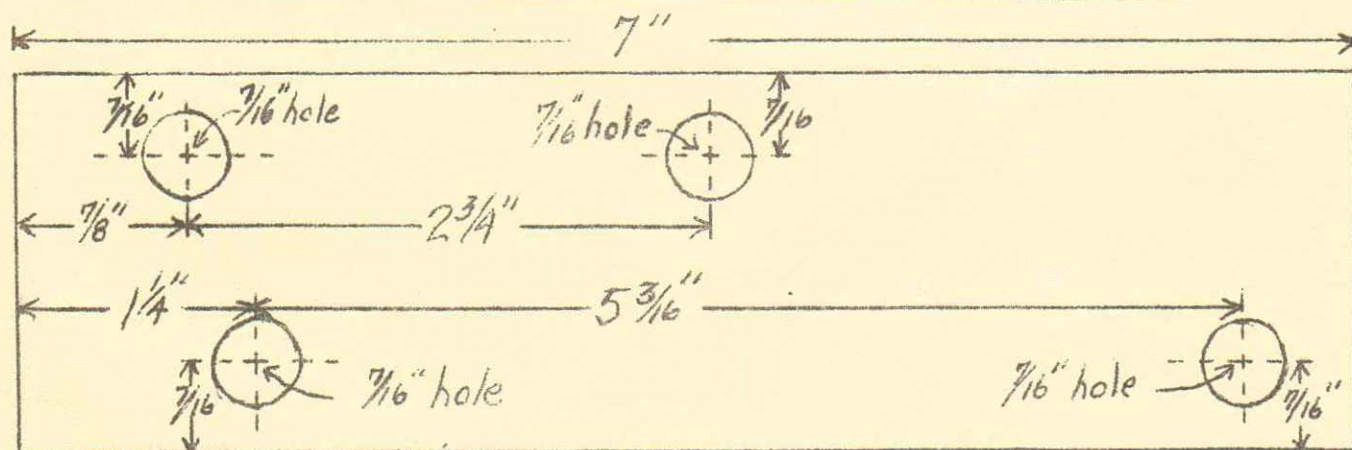
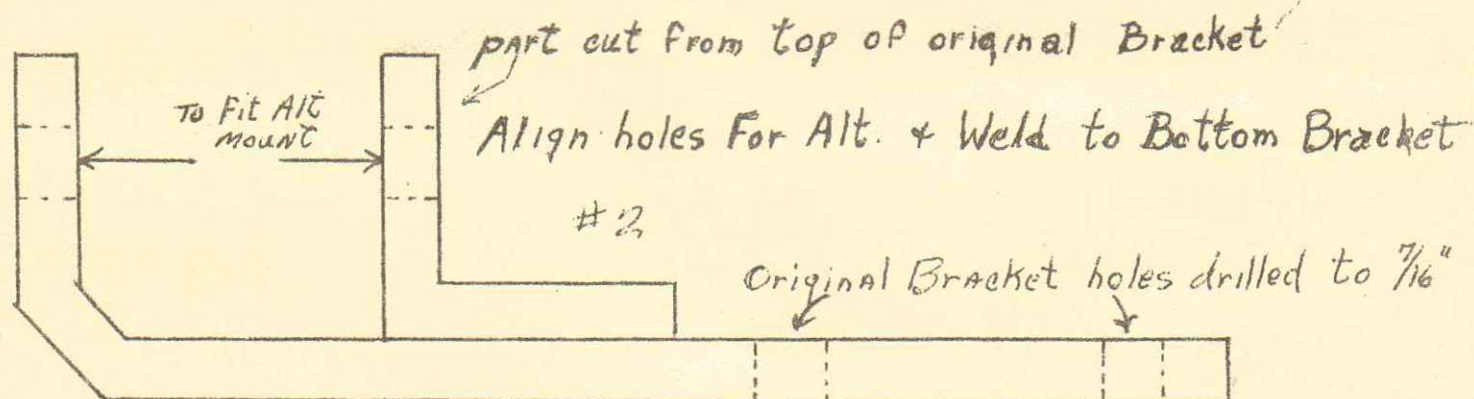
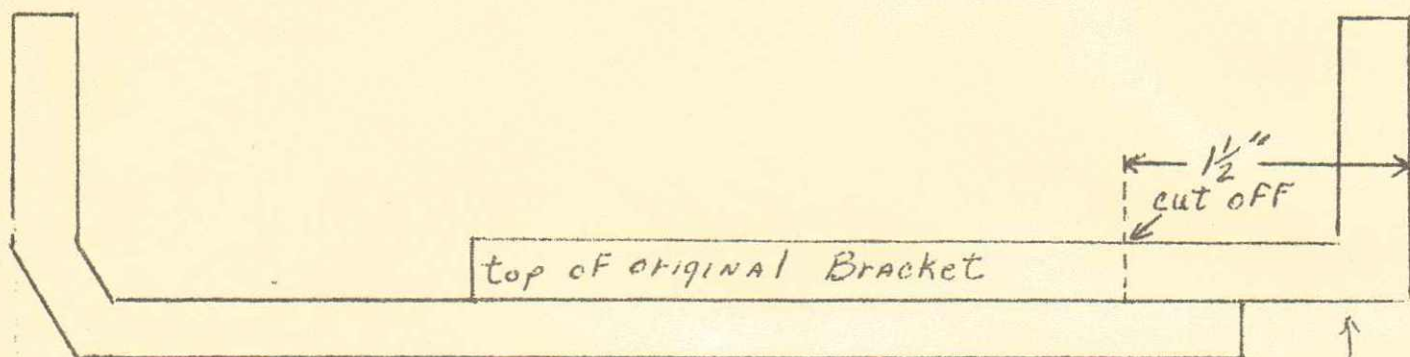


Other makes and models may be used but would have different wiring hookups.

Alternator Adapter Brackets



Belt Tension Adjustment Adapter



Using Lower holes, Bolt Adapter to block, using $\frac{1}{4}"$ Spacers between Adapter and Block. Bolt bracket #2 to top holes. Install Alternator and Align pulleys.

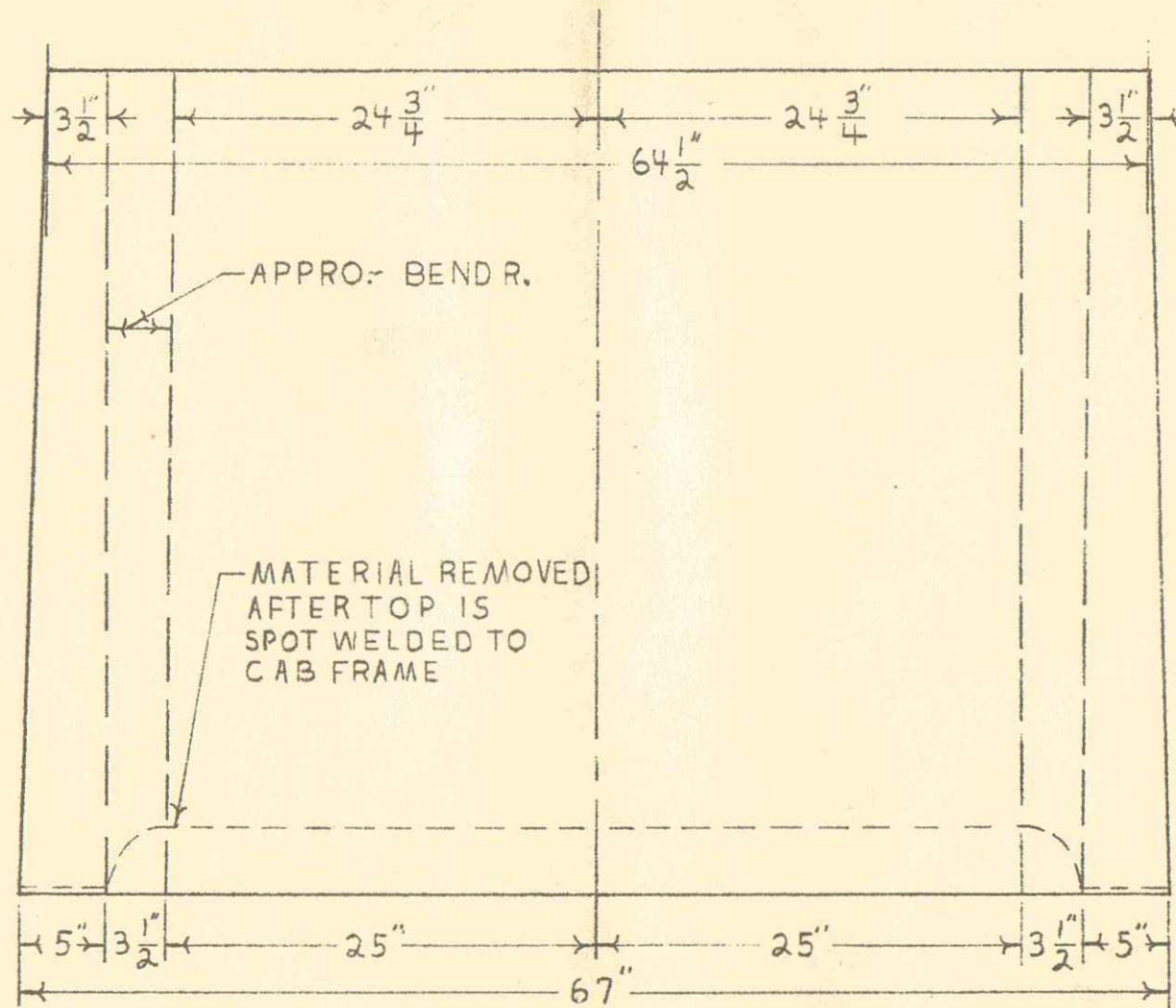
S. Ring

PARTS FOR M 715 JEEP

PART NUMBER	DESCRIPTION	SOURCE	COST
942597	Throttle Cable	Jeep	9.45
930322	Horn Switch	Jeep	1.40
947973	Horn Flange	Jeep	3.35
999881	Horn Button	Jeep	3.55
DVN1H	Thermostat	Dole	2.81
502	Tail Lights	Signal Stat	14.20
984 S	Trailer Light Socket	Whitaker	3.91
234	Master Cyl. Kit	N.A.P.A.	4.44
27600	Rear Axle Seals	C. R.	4.60
28175	Front Wheel Seals	C. R.	3.49
382 A	Inner Wheel Race	Timken	3.51
387 A	Inner Wheel Bearing	Timken	5.95
18720	Outer Wheel Race	Timken	3.01
18790	Outer Wheel Bearing	Timken	5.83
VS 26587	Valve Cover Gasket	Victor	2.27
W 553 R	Plug Wire Set	Whitaker	9.76
F 9344	Wheel Cylinder	Wagner	10.67
F 9345	Wheel Cylinder	Wagner	10.67
AUC 130	Condensor	P & D	2.04
XAU-19-23 V	Points	P & D	2.09
2909259	Axle Nut Locks	Dodge	1.16
MS 3844 BS	Head Gasket Set	Victor	10.03
R 2647-1	Carburator Repair Kit	Holley	
977739	Left Door Lock	Jeep	14.65
8123289	Door Cyl. & Key	Jeep	6.50
957291	Door Clip	Jeep	.15
987269	Door Clip	Jeep	.25
959690	Lock Rod Bushing	Jeep	.08
957295	Door Lock Rod	Jeep	1.05
972848	Door Grommet	Jeep	.08

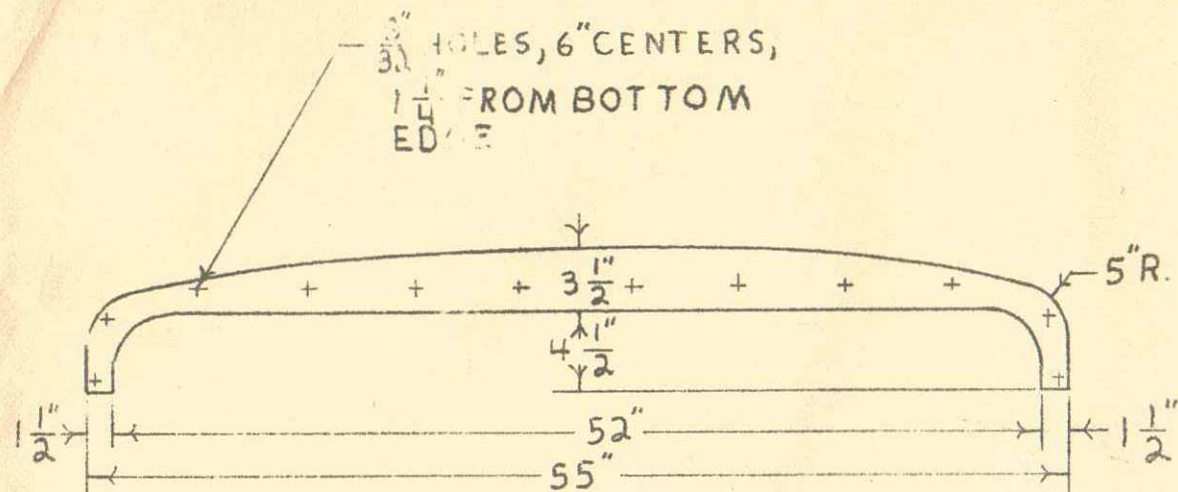
PART NUMBER	DESCRIPTION	SOURCE	COST
970657	Knob	Jeep	.70
689793	Wiper Driver	Jeep	.44
663369	Wiper Nut	Jeep	.46
N 1104	Throw out Bearing	Borg Warner	6.45
930684	Flywheel Ring Gear	Jeep	7.00
2 C 834	Piston Rings	Hastings	35.95
R 2314	Clutch Disc	Rayloc	20.74
CB 730	Rod Bearings (3)	Monmouth	2.27 ea
CB 729	Rod Bearings (3)	Monmouth	2.27 ea
MS 661 G	Main Bearing Set	Monmouth	11.75
9 - 497	Timing Chain	N A P A	25.29
V 1665	Intake Valves	Sealed Power	2.91
VS 1	Valve Stem Seals	Perfect Circle	9.01 Set
201554	Universal Joint	Wesco	7.95
3682387	Wheel Lug Bolts	Chevrolet	.75

PROTECTION CAB M715



TOP PANEL LAYOUT

NOTE:
ALL DIMENSIONS ARE
APPROX; MATERIAL SHOULD
BE CUT TO ALLOW FOR
DEVIATION WHEN BENDING

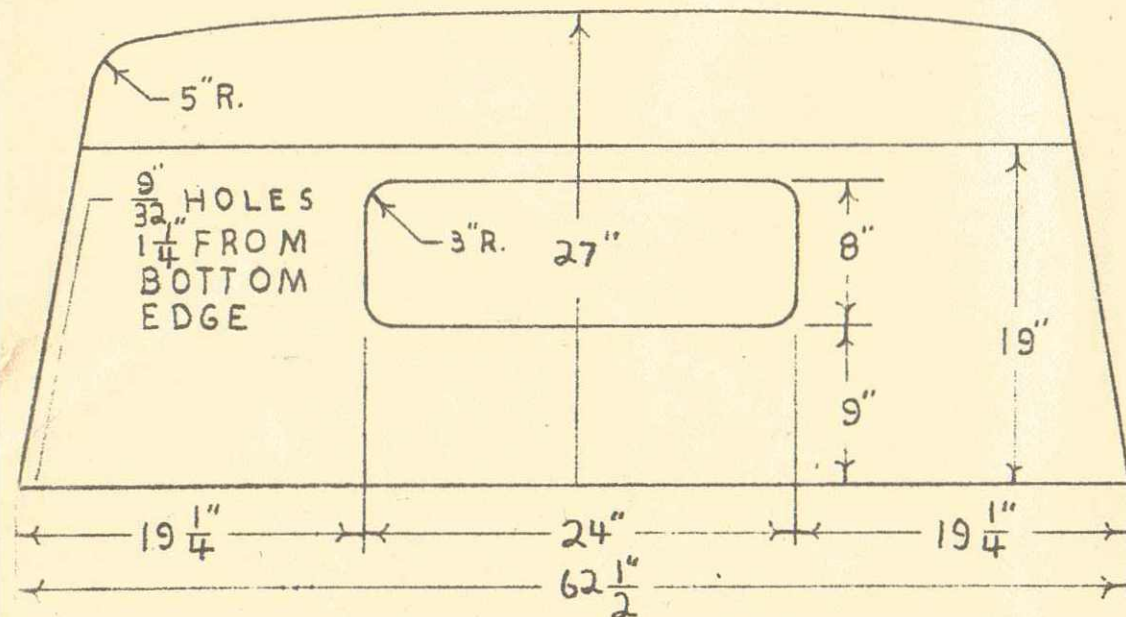


WINDSHIELD STRIP

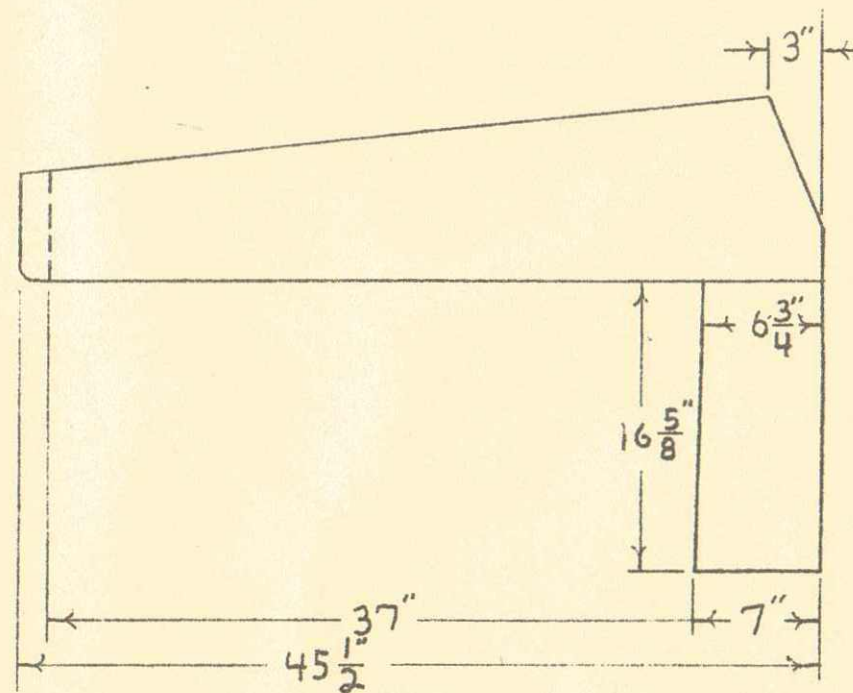
PROTECTION CAB M715
 ALL WELDED CONSTRUCTION
 14 GAUGE SHEET STEEL

NOTE :

DIMENSIONS MAY VARY
 ON EACH UNIT



REAR VIEW



SIDE VIEW

M715 JEEP ROLL BAR

MATERIAL:

2"X2"X $\frac{1}{4}$ " SQUARE TUBING

2 $\frac{1}{2}$ "X2 $\frac{1}{2}$ "X $\frac{1}{4}$ " ANGLE

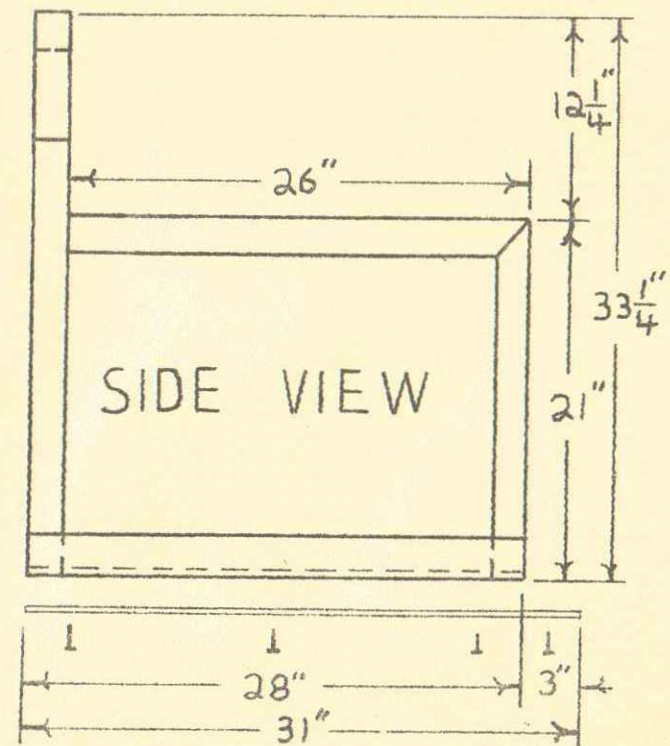
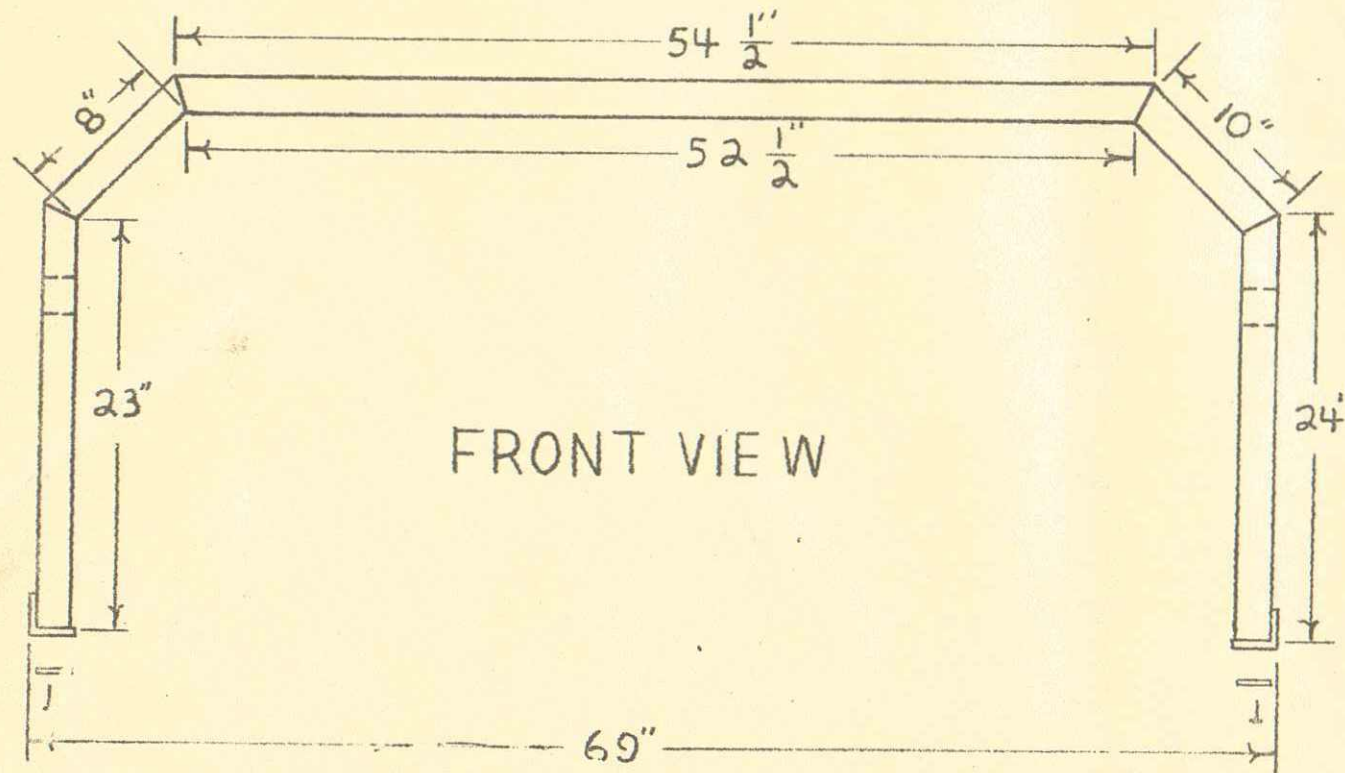
2"X $\frac{1}{4}$ " FLAT STOCK

ANGLE FRONT:

ANGLE CUT 22 $\frac{1}{2}$ °; 119" REQUIRED ON FRONT OF ROLLBAR

ANGLE SIDE:

ANGLE CUT 45°; 45" REQUIRED ON EACH SIDE OF ROLLBAR



M715 JEEP ROLL BAR

