

PAKISTAN AERONAUTICAL COMPLEX, KAMRA MIRAGE REBUILD FACTORY

TENDER NOTICE NO MRF/16-17/12 DATED 01 MARCH, 2017.

1. Mirage Rebuild Factor, Pakistan Aeronautical Complex Board Kamra invites sealed bids from the Original manufacturer / authorized distributors / suppliers / contractor registered with Income Tax and Sales Tax Department and PACB registered for supply of following miscellaneous items on F.O.R Basis. Details of requirements is as follows:-

“NVGS, Metal Detector Hand Set, Guard Post Bullet Proof, Walk Through Gate Metal Detector, Binoculars, Under Vehicle Surveillance System With LCD Monitor And One Camera With Fish Eye Lens (With Out Ramp), RFID Biometric Devices, Turco 5948, Vacuum Furnace L/R, Racks Storage Steel 6X8X3.5FT, Vertical Lathe With Accys L/R, Rack Storage Steel 8X8X3.5 FT, Sealing Compound, Welding Wire, Filler Wire DIA 1 MM TO 1.2 MM, Gasket, Oil Filter RGB T/Stand, Oil Filter RGB T/Stand, Split AC 4 Ton, Auto Fire System L/R, Adapter Lifting Turb Rotor, DTI, Split Type Reversible Air Conditioner 02 Tons, Storage Cabinet, Electronic Dial Test Indicator, Comp Sealant, Rubber Mat, Test Rig Machine L/R, Mercer Precision Dial Guage Range 0-50MM, Auto Fire Fighting System L/R, Compressor Holding Fixture, Turbine Holding Fixture, Fan Holding Fixture, Alloy Flow Arrester, Shoe Brush Cleaner, Racks As Per Drawing”.

2. List of items can also be downloaded from PPRA website www.ppra.org.pk and as well as PACB website www.pac.org.pk free of cost or can be collected from DTE of Log (LP Section) MRF PAC Kamra Distt Attock from 02-03-2017 during working hours (except holidays).

3. The quotations, prepared in accordance with the instruction in the Tender List, must reach at Mirage Rebuild Factory PACB Kamra **before 15-03-2017 at 1000 Hrs. Quotations will be opened on the same day at 1100 Hrs.** The advertisement is also available on PPRA website at www.ppra.org.pk and as well as PACB website www.pac.org.pk

Please contact **Tele # 051-9099-4414 / 4417 or Fax No 057-9317412** for any other information.

**DIRECTOR LOGISTICS
MRF PACB KAMRA
DISTT ATTOCK**



**LIST OF OPEN TENDER NO MRF/16-17/12
DATED 01-03-2017 OPENING DATE 15-03-2017**

SNO	PART NO	NOUN	QTY	U/I	Specification
1	22G/NIV-L-32	NVGS	1	EA	GENERATION:WPT, MAGNIFICATION:1X, RESOLUTION:60-74 LP/MM, FOV:40 °, TOTAL DARKNESS IR SYSTEM:YES, LENS SYSTEM:F/1.2,26 MM, PROSHEILD LENS COATING:YES, DIOPTRER ADJUSTMENT:-6 TO +2, AUTIOMATIC BRIGHTNESS CONTROL:YES, BRIGHT LIGHT CUT OUT: YES, INFRARED ILLUMINATOR:BUILT-IN, IR INDICATOR:YES, LOW BATTERY INDICATOR:YES, POWER SUPPLY:1 X 3V (CR123A), BATTERY LIFE:60 HOURS, ENVIRONMENTAL RATING: WATER RESISTANT, OPERATIONAL TEMPERATURE:-40 °F TO 122 °F/-40 °C TO 50 °C, STORAGE TEMPERATURE: -58 °F TO 158 °F/-50 °C TO 70 °C, DIMENSION:160MM X 150MM X 75 MM, WEIGHT:1.1 LBS , WEIGHT (KG):0.5 KG, equivalent or higher
2	5Q/NIV-L-17C	Metal Detector Hand Set	1	EA	operating temperature:-35 °f(-37 °c) to 158 °f (70 °c), humidty:95 %, Audio frequency: 2 khz Warble, Tuning: automatic , indicators: speaker, led Alert lights, Green : power on, Amber: Battery Low, Red: ALARAM condition, Controls: Power switch (Audio /off/Silent), interference elemination mimentry switch, Battery: single 9 v battery provides up to 100 hours of normal operation., optional NiMH rechargeable battery up to 45 hours on a single charge, equivalent or higher
3	22F/NIV-L-78	Guard Post Bullet Proof	1	EA	Dimension: Length 06 feet, width: 06 feet, Heigh:7.0 feet, Protection level: 7.62 mm Nato (b-6 level), Protection against hand grenade: full, common feature: Field of view: all round glass firing post, Maximum weight:2000 kg, Firing ports: 05 to 07 , Rifle rack provided for: rifle g-3,smg,mp5a2 and mg1a3, airing: ventilation, seating: 02, siren:01, cooling unit: capacity 01 ton (reversable), telephone socket: 01, revolving light:01, search light: 01
4	6350/pk-000-1270	Walk Through Gate Metal Detector	2	EA	specification is available at the end of this tender
5	14c/niv-l-27a	Binoculars	2	EA	very high quality military grade, dimension: 9" x 9"x 4" , magnification: 60x 50, filed of view: 122m/1000m, multi coated lens for glare and uv protection, aluminum and rubber body, focus adjuster, bright and clear case , neck strap, lens cover and cleaning cloth, night prism feature absorbs light for easier viewing at night
6	UVSS	Under Vehicle Surveillance System With Lcd Monitor And One Camera With Fish Eye Lens (With Out Ramp)	1	EA	low profile flush mount with easy installation, motion activated advanced intelligent hd color cameras, smart led for dayt/night operation, inspect commercial / passanger vehicles upto 30mph, 40-ton axle capacity, searchable datgabase with 300,000+ images, foreign objective detection, ruggedized



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					housing & lenses, debris removal system, heater and thermostat, lpr recognition, face recognition, intelligent video analytics, type: permanent in ground, environmental: ip67 sealed / submersible, load rating: 40ton per axle, design: aluminium block drive over surface mount cameras, cameras: intelligent color progressive line rapid scan ccd imaging , resolution high definition (5000x2048 pixels), environmental: ip67 , coverage: full front to back (passanger or commercial, operating temp: -30 °F to 140 °f, power: 500w,90-240vac, dimension: 47.2" x 13.8" x 11.8", lighting:smart led, mtbe: 100,000 hours, environmenal: ip67, input:2-channel induction coil, output:1 channel switch type 21 vdc, communication; rs485/ethernet, control unit:pc-based rackmount, storage :2 tb hard drive, storage capacity: 300,000+ records, cpu: intel i7 six core processor, ram: 8 gb ddr3, operating temp:14 °f to 122 °f power: 110/2220v, ports: (2)usb 2.0, network dual: lan ,1 gbps, compliance: usgcb/disa/fips 140-2, cable management: 15 m integrated power /data, cable type:22-awg utp/sheilded, connectors:1-1/4" mil spec, functionality:, monitor: single / multi configuration, record: motion activated with pre/post, record speed: real time video, layout: single /dual/quad view, video controls: forward /ff/pause/playback/rewind/frame advance, plate recognition: front rear anpr with white/black list, database; sql/ query/lpr/face/date/time/location, detection;automated foreign object/automated comparison, ification: audible/visible alarm, option: magnetic field detection ,dust removal air system, thermostat control ,intelligent video analytics, warranty: 02 year all hardware/software
7	22f/niv-l-75	RFID Biometric Devices	1	EA	spec available at the end of this tender
8	P-1117	TURCO 5948	As Reqd	LTR	APPEARANCE: CLEAR BLUE LIQUID WITH ORANGE SMELL , DENSITY: 1.006 TO 1.026, PH:11.4 TO 12.2, ALKALINE PRODUCT, MSDS AND OEM CERTIFICATE REQUIRED
9	6.0VP-4066/48MHV	Vacuum Furnace L/R	1	EA	Repair of Vacuum Furnace. Scope of work "Power controller system not working".
10	9640PK2930001	Racks Storage Steel 6X8X3.5FT	AS Reqd	EA	SIZE 6X8X3.5FT, SAMPLE PHOTOGRAPH IS ATTACHED AT THE END OF THIS TENDER
11	TMF-125	Vertical Lathe With Accys L/R	1	EA	Z. AXIS ENCODER AND ENCODER CARD U/S, REQUIRED TO BE REPLACED WITH SAME CONFIGURATION, ONE YEAR WARRANTY OF NEWLY INSTALLED ITEMS. MACHINE IS REQUIRED TO BE SERVICEABLE.
12	9640PK2930002	Rack Storage Steel 8X8X3.5 FT	6	EA	Size 8X8X3.5 FT, SAMPLE PHOTOGRAPH IS AVAILABLE IN LP.
13	V-622	Sealing Compound	2	KT	KIT A: V-622 PART A: SPECS FOR KIT A: PHYSICAL APPEARANCE: BLACK PASTE LIKE SOLID, ODOR: ODORLESS, PH:NOT



					APPLICABLE, SPECIFIC GRAVITY:0.76 AT 25 C (77), WATER SOLUBILITY: INSOLUBLE, MELTING POINT RANGE:NOT AVAILABLE, BOILING POINT RANGE:232 C (450 F) AT 760mmHg, VAPOR PRESSURE: 2mmHg AT 25 C (77 F), VAPOR DENSITY: NOT AVAILABLE, KIT B: V-622 B, PHYSICAL APPEARANCE:AMBER VISCOUS LIQUID, ODOR: SLIGHT ODOR, PH: NOT APPLICABLE, SPECIFIC GRAVITY: 0.98 AT 25 C (77 F), WATER SOLUBILITY: SLOWLY HYDROLYSES, MELTING POINT RANGE: NOT AVAILABLE, BOILING POINT RANGE: 160 C (320F) AT 760 mmHg, VAPOR PRESSURE: 100 mmHg AT 50 C (122 F)., SHELF LIFE SHOULD BE 75 % MINIMUM AT THE TIME OF DELIVERY. Also mention the weight of Kit in tech & comm quote.
14	H1CR19N19TI	Welding Wire	16	KG	REQUIRED FOR TIG WELDING, 1.00 MM TO 1.50MM DIAMETER
15	AMS5824	Filler Wire DIA 1 MM TO 1.2 MM	10	LBS	DIA 1 MM TO 1.2 MM
16	6800470	Gasket	20	EA	Gasket Shipping Container are required for Renovation of T-56 Engine Reduction Gear Box Container.
17	SAF28-G-12-PV	Oil Filter RGB T/STAND	1	EA	Filter, Fluid, 1Spin ON, 3/4" NPT. 10 Micron with Viton Seals rated 20 GPM at 200 PSIG. Used for T-56 Reduction Gearbox Test Stand.
18	KF3-1K3-V-P-D	Oil Filter RGB T/STAND	1	EA	Filter, Fluid, 100 GPM, 300 PSI Canister Element Type, 3 Micron with Viton Seals. Used for T-56 Reduction Gearbox Test Stand.
19	AFS50BR	SPLIT AC 4 TON	10	EA	ELECTRIC SHOCK PROTECTION CLASS: TYPE I , RATED VOLT: 380V3N ~, RATED FREQUENCY: 50 HZ, COOLING CAPACITY: 50000 BTU/H, HEATING CAPACITY: 50000BTU/H, INDOOR DISCHARGE AIR FLOW: ≥1860M ³ /H, RATED POWER INPUT: 8700W, RATED CURRENT INPUT: 21.0A, ADDITIONAL ELECTRIC HEAT POWER INPUT: 2500W, ADDITIONAL ELECTRIC HEATER CURRENT INPUT:11.40A, INDOOR/OUTDOOR NOISE: 50 ~ 57/65DB (A). Installation and Conesaling of shop also included.
20	145	Auto Fire System L/R	1	EA	COMPLETE REPAIR / SERVICING OF SAID SYSTEM, CYLINDER QTY 12 RETEST AS PER COMPRESSED GAS RULES, REFILING OF CO ² IN QTY 12 CYLINDER OF 40KG EACH, REPLACEMENT OF QTY 12 FLOOD VALVES
21	6799619	Adapter Lifting Turb Rotor	1	EA	PART NO 6799619. SAMPLE PIC IS AVAILABLE AT L.P STAFF
22	IDS-188	DTI	1	EA	Made USA, Company Mahr Federal, Range 0.0001"-0.08", Accuracy 0.0001", Backside Slot Mounting, Dial Size 2.75"
23	21bb/niv-l-196A	Split Type Reversible Air Conditioner 02 Tons	As Reqd	EA	Voltage 220V / 50 Hz, Type Reversible split type Air Conditioners. Current 10-12 Amp (approx). Electric Accessories as per place of installation. (a) Electric wire 7/29 for installation, (b) Circuit Breaker (AMP) (C) 01 Heat measuring instrument (d) Dip Tray. Connection and pipes As per place of installation.



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					Installation Subject Acs will be installed by the vendor. Warranty Compressor complete 05 years and unit 01 year. Acceptance Acceptance will be confirmed as per quality standard. Publication Operation and technical manual with each unit. Accessories Remote control with each unit + Heat load calculation measuring operates.
24	21B/305	Storage Cabinet	As Reqd	EA	STEEL SIZE 4ft L x 5ft H x 1.6 ft Deep with small Drows and 03 large Draws. (diagram is available with LP section)
25	01830001TESAIP65	Electronic Dial Test Indicator	1	EA	LENGTH OF MEASURING INSERT: L=12.5MM L=36.5 MM, MEASURING RANGE; 0.8MM/0.003" 0.5MM/0.02", RESOLUTION: 10.001MM/0.00005" 0.001MM / 00005", ACCURACY Fe :10 µM/.0004" 10PM/0.0004", TOTAL ACCURACY Fges: 13 µM / 0.0005" 13 µM/0005", REPEATABILITY Fw:1 µM/0.00004" 1 µM/0001", HYSTERSIS Fu: 3 µM/0.0001" 3 µM/.0001" . OEM Tesa or equivalent
26	56F-NS	Comp Sealant	As Reqd	Lbs	Nickel Powder Pwa1324 (Metco 56F-NS). With TDS / MSDS etc.
27	21B/305	Storage Cabinet	3	EA	SIZE 6FT H X 6FT W X 2FT DEEP,12 DRAWERSFILLING CABINET MATERIAL CRC E.G GRADE 1 IMPORTED,THICKNES .8MM TO 2MM . DRAWER RUNNING ON DOUBLE BALL BEARING SYSTEM . ALL DRAWER HAVE BUILT IN HANDLE AND CARE FRAME.DRAWERS HAVE CRADLE FOR HANGING CRAFT POCKET.SAFETY LOCKS MACHNASIM WHICH ALLOW ONE DRAWER TO OPEN AT ONE TIME . CABINET FITTED WITH CYLINDER LOCK AND KEYS IN DUPLICATE .TOP TWO CABINET ARE EQUALLY DIVIDED IN 12 PARTITION.((SAMPLE PHOTOGRAPH IS AVAILABLE WITH L.P SECTION)
28	32C/598L	Rubber Mat	1200	KG	THICKNESS: 5MM, COLOR: BLACK
29	RSP-9551	Test Rig Machine L/R	1	EA	ELECTRIC MOTOR (NEW) 4KW 3 PHASE ,440 VOLT 50 HZ ,1500 RPM, SMALL EXHAUST FAN 110V 50 HZ, REQUIRED OIL PRESSURE FOR SERVO OPERATION OF MAIN FEU NOT MAINTAINED
30	712COMPAC	Mercer Precision Dial Guage RANGE 0-50MM	1	EA	RANGE (0-25MM), ±0.01 ACCURACY
31	NSL-CA-01	Auto Fire Fighting System L/R	1	EA	COMPLETE REPAIR / SERVICING OF SAID SYSTEM CYLINDER QTY 24 RETEST AS PER COMPRESSED GAS RULES REFILING OF CO2 IN QTY 24 CYLINDER REPLACEMENT OF QTY 24 FLOOD VALVES
32	3075-1612	Compressor Holding Fixture	3	EA	Size : Dia 22" Height 6.0"
33	3076-1613	Compressor Holding Fixture	3	EA	size : Dia 24.0" Height 4.0"
34	3077-1614	Turbine Holding Fixture	3	EA	size : Dia 20.0" Height 4.0"
35	3078-1615	Fan Holding Fixture	2	EA	size : Dia 26.0" Height 9.0"



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36	VAC-HYD-PINK-STOPOFF	Alloy Flow Arrester	5	LT	NICROBRAZE GREEN/WHITE STOP-OFF VAC-HYD PINK STOP-OFF, LIKELY MANUFACTURER : NICHROBRAZ & Nicrocoat Products-Wall Colmony, Corporation , Detroit MI OR EQUIVALENT, 2.CM PRODUCTS -COAST METAL ,INC,LITTLE FERRY,NJ OR EQUIVALENT, 3.ACRYLOID-ROHM & HOSS , PHILDELPHIA,PA OR EQUIVALENT, 4.KRYLON PRODUCTS-KRYLON CORPORATION , NORRISTOWN ,PA OR EQUIVALENT, 5.VAC HYD PRODUCTS-VAC HYD-PROCESSING CORPORATION , DETROIT MI OR EQUIVALENT
37	100FJ	Shoe Brush Cleaner	1	EA	MODEL SOLAMAT 100 OR EQUIVALENT, DIMENSION : 460X600X110MM(WXDXH) WEIGHT 60 KG, CONECTION VALUES:230 V(110 VOILT OPTIONAL), POWER: 180 WATT,750RPM
38	21B/NIV-429	Racks As Per Drawing	4	EA	Frame Aluminum, Sheet Aluminum, Sliding glass plastic wheel, Size L=9 FT, H= 6FT, W=3FT Height from wheel to shelf 6 Inches, (a) 03 sliding glass with aluminum frame (Height 45 inch, Length 3FT, Thickness 5mm), (b) 03 sliding glass with aluminum frame (Height 27 inch, Length 3FT, Thickness 5mm), (c) 06 sliding lock. (d) 04 high quality plastic wheel with lock. (e) Aluminum frame. (f) Aluminum sheet separator (thickness 3mm). Diagram available in LP section.

TERMS & CONDITIONS:-

- (i) GST may be indicated separately. The envelopes must be marked with "Item's name and Commercial / Technical offer". Literature / brochures of equipment must be attached with technical offer.
- (ii) Quotations must be submitted in two copies for single line item i.e. one copy with technical details without price and one copy as commercial offer in one envelopes (no quotation will be accepted if it contains more than 01 item in a single quotation)
- (iii) Validity period should not be less than 90 days.
- (iv) Complete technical specifications, MSDS, OEM & Conformance Certificate, Calibration certificate, Fitness report where applicable are required. Sample of chemicals may be asked for test.
- (v) Quotation received after due date / time will not be entertained. The CFA reserves the right to accept / reject the part or whole tender.
- (vii) Quantity can be increased / decreased at the time of order as per our requirement.

Directorate of Logistics MRF, PAC Kamra
Contact No. 051-90994294 & 4414, Fax No. 057-9317412



Spec required for Walk Through Gate Metal Detector

Dimensions:

Archway inside- 30 Inches Wide 80 Inches High 20 Inches Deep
Overall outside- 35 Inches Wide 87 Inches High 20 Inches Deep

Regulatory Standards:

The Intelliscan Thirty Three-Zone is certified by the U.S. Federal Aviation Administration, and meets or exceeds all requirements of the National Institute of Law Enforcement and Criminal Justice (N.I.L.E.C.J.) standard 0601.00 security levels 1-5.

Electronics and Electromagnetic:

The Intelliscan Thirty Three-Zone is processor based and features true multiple-zone performance. The archway passage consists of two separate zones. It combines unique multiple independent sensors with high speed digital processing. A built in display panel provides instant visual identification of the exact location of a suspected weapon, or weapons, in the archway area.

Detection Programs.

The Intelliscan Thirty Three-Zone has 20 detection programs. They have been designed for both weapon screening and asset protection applications. The weapon screening applications are designed for various threat levels and provide good detection of ferrous and non-ferrous metals.

Header Assembly, Control Panel and Display

The Control Panel at the front of the Header Assembly contains an on/off Key switch, a built in Alarm Display Panel, an L.C.D. Display Panel that shows system operating parameters, and Keypad for operating parameter data entry. The built in Alarm Display Panel depicts the area within the archway opening. It has an L.E.D. alarm showing the detection zones. A twelve-segment bargraph display shows an object's signal strength in real-time. Also included are red Alarm events L.E.D. a green Ready L.E.D. and yellow Wait L.E.D. all electronics are housed in the Header Assembly.

System Throughput:

The Intelliscan Thirty Three-Zone accommodates a wide range of walk-through transit speeds. Rapid automatic reset maximizes the system throughput rate to over fifty passes per minute. It's speed range provides consistent detection over a wide range of object transit speeds.

Interference immunity:

The Intelliscan Thirty Three-Zone advanced design provides excellent interference rejection. Outside interference from sources such as computers, fluorescent lights, etc., have minimal impact, enabling the unit to operate in environments that render many units inoperable.

Uniform Detection:

The field of detection is uniform from top-to-bottom with no hot spots or dead spots. In situations where large amounts of steel re-bar exist in a support floor and cause a drop in detection at ankle height; adjusting the sensitivity of the floor level zone can compensate the loss. Normal operation can be achieved even when excessive amounts of metals are present. The sensitivity of the six horizontal zones can be adjusted independently. They allow uniform detection to be maintained in all regions of the detector. Horizontal Axis Gain Control compensates for detection losses caused by external metal in walls or furniture. It adjusts the sensitivity horizontally across each zone.

Multiple Operating Frequencies:

The Intelliscan Thirty Three-Zone provides nine user selectable operation frequencies allowing simultaneous operation of multiple units without interconnecting slaving cables.

Memory:

The Intelliscan Thirty Three-Zone utilizes an embedded microprocessor. Whenever adjustments are made to the operating parameters they are automatically retained in memory. When the detector is powered down the previously entered operating parameters are retained in memory.



System Security:
Intelliscan Thirty Three-Zone is pass-code protected and has a locking key switch that connects the AC power. A six digit pass code must be entered before operating parameters can be changed.

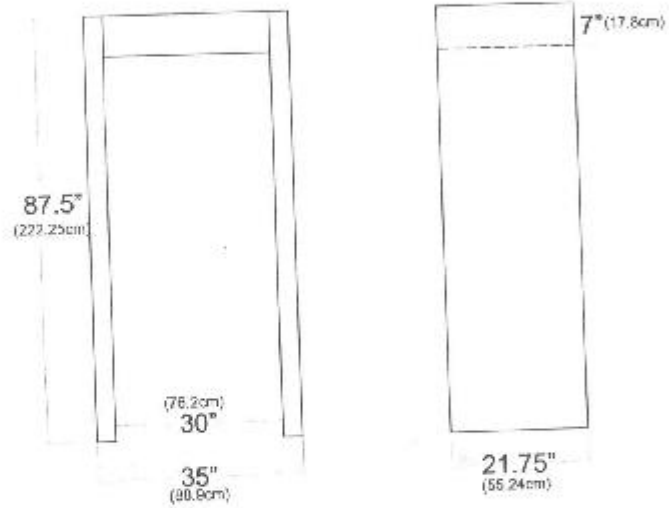
Construction:
The Intelliscan Thirty Three-Zone is coated in a durable resistant Formica finish. The Side Panels and Header Assembly are sturdily constructed for stability and durability.

System Diagnostics:
The Intelliscan Thirty Three-Zone has self-diagnostics test routines. When the unit is powered up it automatically self-test and calibrates itself to the surrounding environment. Periodic calibration is not needed.

Electrical:
The Intelliscan Thirty Three-Zone's Universal Power Supply operates off voltages in the range 115-230VAC / 47 to 63Hz.

Operating Environment:
Indoor operation from 0C to +55C. Humidity to 95% non-condensing

Weight:
140lbs (63.6 Kg)



Warranty:

A two year limited warranty.

Weight: 140lb. (63.6kg.)



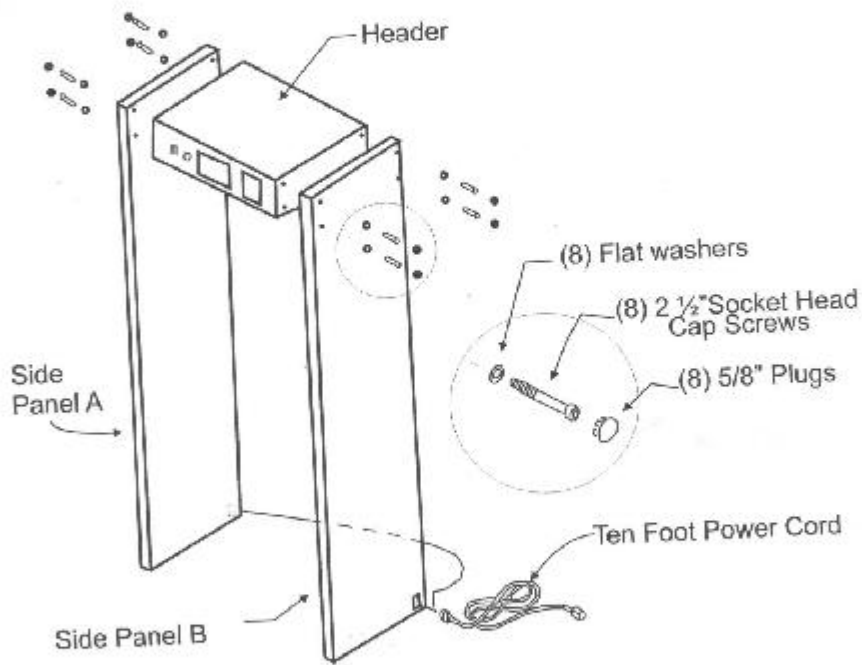
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Parts List:

1. Header (Electronics enclosure)
2. Side Panel A
3. Side Panel B
4. (8) Flat Washers
5. (8) 2^{1/2}" Socket Head
6. (8) 5/8" Plugs
7. Ten Foot Power Cord

Parts Diagram:



SPEC FOR RFID BIOMETRIC DEVICES

TECHNICAL SPECIFICATIONS OF RFID BIOMETRIC DEVICES

S.No	Specification	
1	CPU	32bit ARM9 and Dual 8bit Microprocessor
2	Finger Print Module Program Memory	128KByte ROM
3	Finger Print Data Memory	128KByte / 256KByte / 512KByte Flash Memory
4	Controller Program Memory	64KByte Flash Memory
5	Fingerprint User	1,000 / 2,000 / 4,000 Fingerprint Users
6	Fingerprint Templates Size	800 Bytes for 2 Fingerprint Templates
7	Event Buffer	26,000 Event Buffers
8	Read Range	Up to 4 inch (10cm)
9	Type	Passive
10	Reading Time	30ms
11	Verification / Identification Time	Less than 1sec / Less than 2sec.
12	Power / Current	DC 12V / Max.300mA
13	External Reader Port	1ea (34bitWiegand 4 / 8bit Burst for PIN) for Anti-Pass-Back
14	Communication	RS232 / RS422 / RS485 (Max 32ch) TCP/IP (External LAN Converter Required)
15	Baud Rate	9,600bps (Default) / 4,800bps, 19,200bps and 38,400bps (Selectable)
16	Input port	4ea (Exit Button, Door Sensor, Aux# 1, Aux#2)
17	Output Port	2ea (FORM-C Relay Output (COM, NO, NC) /DC12V-18V, Rating Max 2A) 2ea (TTL Output / DC5V, Rating Max 20mA)
18	LCD	Character LCD (2 Lines x 16 Char) / 65.6mm x 13.8mm (2.62" x 0.55") Screen
19	Keypad	16 Key Numeric Keypad with Back Lighting
20	LED Indicator	3 Array LED Indicators (Red, Green and Yellow)
21	Beeper	Piezo Buzzer
Operating Temperature		
21	Finger module	-15° to +40°C (+5° to +104°F)
22	LCD	0° to +50°C (+32° to +122°F)
23	Controller Operating	15° to +70°C (+5° to +158°F)
24	RF Reader	-35° to + 65°C (-31° to +149°F)
25	Operating Humidity	10% to 90% relative humidity non-condensing
26	Color / Material	Dark Pearl Gray / Polycarbonate
27	Dimension (W x H x T)	6.36" x 5.28" x 1.9" (161.5mm x 134mm x 48.5mm)
28	Weight	547g (1.21lbs)
29	Certification	UL, FCC, CE, MIC



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Fingerprint Module Specification		
30	Resolution	500dpi
31	Capture Image Size	356 X 292 pixels
32	Extraction Image Size	248 X 292 pixels
33	Sensing Area	12.7mm X 14.9mm
34	Scanner	High Quality Optical Sensor
35	FAR(False Acceptance Ratio)	0.001%
36	FRR(False Reject Ratio)	0.1%
37	ESD(Electro Static Discharge)	15KV
38	Verification Time	Less than 1sec.
39	Identification Time	Less than 2 sec.

OR

Equivalent / latest specification available in the market



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